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The Role of Talent Management and Absorptive Capacity in Company Performance: An empirical study focused on the case of the Netherlands

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ABSTRACT

The purpose of this study is to explore the relation between talent management activities of firms in the Netherlands, in particular the attraction, development, and retention of talented and highly capable individuals, and absorptive capacity, referring to their potential towards the acquisition, assimilation, transformation, and exploitation of externally generated knowledge, and moreover, how these two concepts relate to their performance both collectively and individually. Following the rise of the knowledge economy in conjunction with growing economic pressures, both talent management and absorptive capacity have been recognized for their role in respectively utilizing the strategic potential of the firm's workforce and knowledge stocks so as to create competitive advantages. In order to empirically validate this notion and thus provide a deeper understanding of both constructs, which are still theoretically underdeveloped, the study applied a quantitative method with data collected via an online survey directed at HR professionals in both small and large-scale firms located in the Netherlands. The study draws upon the underlying mechanisms by which talent management and absorptive capacity relate to both each other and to improved firm performance. The findings reveal that Dutch firms committed towards the adoption of more sophisticated talent management routines, especially talent development and retention, not only performed above their industry average, but also exerted higher absorptive capacity. In the latter context, knowledge assimilation and exploitation were positively related to higher performance. Despite the direct implications of talent management, part of its effect on firm performance was proven to be mediated through absorptive capacity. Another key finding concerns the scope of talent management and shows that the inclusion of all employees in talent programs corresponds to increases in performance and absorptive capacity. Similar observations were made in view of R&D-intensive firms, where increased knowledge dependencies led to the development of more advanced talent management tactics and higher levels of absorptive capacity. Additionally, the processes to manage and, in particular, retain talent, were more developed in large multinational firms, which likewise had a higher capability to transform and exploit external knowledge than their small, local counterparts. The research recommends further studies to build upon the results and limitations of this thesis, including the investigation of both constructs in small and medium-sized firms, on the basis of different understandings of talent, as well as other national contexts.

Key words: *Talent management, talent attraction, talent development, talent retention, knowledge management, absorptive capacity, knowledge acquisition, knowledge assimilation, knowledge transformation, knowledge exploitation*

LIST OF CONTENTS

LIST OF ABBREVIATIONS

AC	Absorptive Capacity
EU	European Union
HC	Human Capital
HR	Human Resources
HRM	Human Resource Management
MNC	Multinational Corporation
PAC	Potential Absorptive Capacity
RAC	Realized Absorptive Capacity
SME	Small and Medium-Sized Enterprise
TA	Talent Attraction
TD	Talent Development
TM	Talent Management
TR	Talent Retention

LIST OF FIGURES

LIST OF TABLES

1 INTRODUCTION

Ever since the phrase 'War for Talent' made headlines in the late 90s, the notion and perception of talent management (hereinafter referred to as TM) had changed radically, as firms worldwide have realized that in order to withstand growing economic pressures, they require the best talent. Environmental dynamism and hardening competition are placing greater demands on companies (Cassol et al., 2016, p. 3) that find it exceedingly difficult to differentiate themselves from rivals and defend their competitive position (Fosfuri & Tribó, 2008, p. 173). The fall in manufacturing coupled with the continued growth of services (Urquhart, 1984, p. 15), rapid advances in science and technology (Aydoğdu, 2011, p. 121), the increasing integration of economies predominately through trade and labor streams (Niebuhr & Stiller, 2004, p. 5), and the emergence of new modes of employment and social policy regulation (Keune & Serrano, 2014, p. 1) brought fundamental changes to the way in which businesses operate, innovate, and serve the current and longer term interests of their stakeholders (Schuler, 2015, p. 47). In fact, the number of organizations, whose economic value is defined mainly by their intangible assets rose significantly, while at the same time the value share associated with their tangible assets has diminished (Sullivan, 2000, p. 328). With that said, Apelian (2009, p. 14) purports that human capital (hereinafter referred to as HC) simultaneously represents the greatest potential intangible asset as well as potential liability that firms assume when going about their business (Igbalajobi, 2015, p. 3). HC denotes the combined intelligence, skills, and expertise of individuals giving the firm not only its distinctive character, but also the creative thrust and economic strength, ensuring its future survival (Hossain & Roy, 2016, p. 1021). An important step towards a more robust business foundation has therefore been the development of HC through specific sets of practices (Latukha, 2018, p. 70), namely because organizational viability and competitive advantage are both preconditioned upon the presence of a highly capable workforce (Wang et al., 2011, p. 101). In line with the resource-based view, however, it is not the possession of well-endowed resources that warrants sustained competitive advantage, but the degree to which firms mobilize these resources and align them dynamically with opportunities arising from their external environment (Liao et al., 2009, p. 263).

TM is thus widely regarded as a key element in developing firms' human resources (hereinafter referred to as HR) and utilizing them to the fullest extent (Swailes, 2013, p. 32). The challenge of maximizing competitiveness through the HC engine has arguably become even more pressing in the recessionary climate upon the global financial crisis followed by economic downturn and intense corporate restructuring (Beechler & Woodward, 2009, p. 273; Collings & Mellahi, 2009, p. 305). Moreover, the demands for highly skilled individuals in the workplace, in particular for key positions, have since skyrocketed and led to fierce competition for the best talents available

(Wandia, 2011, p. 2). The ability to sustain a steady supply of critical human talent has therefore become a key challenge among firms (Hewitt, 2008, p. 1) regardless of size, country, or industry (Iyria, 2013, p. 285; Rabbi et al., 2015, p. 208). While some perceive the 'War for Talent' as an obstacle to overcome, others recognize it as an opportunity for sustained competitive advantage (Artyukh, 2016, p. 7). Collins (2001, p. 47) asserts that the firm's ability to achieve operational excellence and execute its strategy is directly proportional to the depth and quality of the 'talent' that it accommodates (Sareen & Mishra, 2016, p. 66). Despite remaining ambiguities, talent is broadly described as the sum of individuals' inborn aptitudes, cognitive and behavioral modes, and the knowledge and expertise accumulated over time (Gallardo-Gallardo et al., 2013, p. 292; Borisova et al., 2017, p. 33). Therefore, talented employees serve as repositories of the requisite capabilities which, if sufficiently nurtured (Veluchamy et al., 2016, p. 564) and recognized as a distinctive source of competitive advantage (Whelan & Carcary, 2011, p. 676), enable the firm's development and future success (Vnoučková, 2016, p. 701). TM refers to the systematic process for improving the caliber, availability, and utilization of those who are able to disproportionately impact organizational success, either through their immediate contributions or, in the long-term, by their willingness and potential to grow (Cappelli, 2008a, p. 4; Mangusho et al., 2015, p. 191; Mukweyi, 2016, p. 1). It comprises an integrated set of managerial practices and HR functions designed to manage the capabilities and supply of HR to meet the demand for talent throughout the organization and in line with its strategic objectives (Rathod, 2014, p. 55). More specifically, TM encompasses the 'employee lifecycle' from when they are hired to when they leave through coordinated actions, such as the recruitment and onboarding of new hires, career and succession planning (Little, 2010, p. 45; Thunnissen, 2016, p. 58), compensation and rewards, performance reviews, as well as training and education (Artyukh, 2016, p. 7). In sum, these measures increase organizational productivity by attracting, developing, and retaining HC equipped with the skills and aptitude required to meet the firm's current and future business needs (Rathod, 2014, p. 55).

However, Selivanovskikh and Latukha (2017, p. 625) point out that the quality and implications of TM on organizational outcomes are a function of the unique sets of knowledge embedded in the workforce, whereby the firm's ability to organize such knowledge is indicative of its ability to face modern economic conditions and operate with success thereunder (Dishon & Yabs, 2017, p. 102). In extending this thought, García-Morales et al. (2008, p. 299) describe the organization as a system based on knowledge or, more precisely, a system based on the circulation of internal knowledge flows as well as new information acquired from other units of the firm or beyond its boundaries (Nonaka & Takeuchi, 1995, p. 171) which, if sustained through learning mechanisms and transformational processes (Manshadi et al., 2014, p. 13; Engelman, 2017, p. 480), facilitate

the creation of new knowledge and hence competitive advantage (Thornton, 2008, p. 13; Daspit, 2012, p. 1). This draws on the argument of Grant (1996, p. 119) that in today's business climate firms' knowledge combined with their ability to derive exclusive and unique variants therefrom are of strategic importance (Halawi et al., 2005, p. 76), because competitive advantages rooted in firm-specific, idiosyncratic, and highly integrated knowledge are scarce (Andreu, 2008, p. 1) and hard to imitate (Barney, 1991, p. 107). Given, however, that no single company can exist as an 'island' and will at some point require knowledge resources that are not within its reach, but possessed or controlled by customers, suppliers, competitors, or public institutions (Freel, 2003, p. 752; Knoben & Oerlemans, 2010, p. 167), the relevance of external knowledge, especially in view of innovation, has gained in prominence (Owen-Smith & Powell, 2004, p. 7). Even though previous studies have confirmed the positive role of TM (Mellahi & Collings, 2010, p. 143) and how it contributes to performance improvements (Ashok, 2012, p. 202) and the firm's long-term survival (Heinen & O'Neill, 2004, p. 81), the focus on TM per se may, however, be insufficient, as it does not directly address the intricacies of gathering, transferring, and applying knowledge from external sources (Latukha et al., 2016, p. 4; Liao et al., 2007, p. 2) for competitive purposes.

In this connection, the notion of absorptive capacity (hereinafter referred to as AC) becomes of greater interest. It was Cohen and Levinthal (1990, p. 128) who first defined the concept of AC, referring to it as the firm's ability to recognize the value of new, external information, assimilate it, and apply it to commercial ends. Since then, researchers have examined the AC phenomenon in innovation (Tsai, 2001, p. 996), knowledge transfer across firms (Szulanski, 1996, p. 28), and business performance (Lane et al., 2001, p. 1140). In general, it was concluded that the effective management (Grant, 1996, p. 111; Spender, 1996, p. 54) of internal knowledge stocks and flows is a prerequisite for value creation in organizations (Latukha et al., 2016, p. 4). In discussing a more procedural perspective on AC, Zahra and George (2002, p. 189) conclude that the effective distribution and integration of knowledge are critical for developing this capacity (Engelman et al., 2017, p. 475), thus highlighting the importance of internal resources yet again. According to Bosch et al. (2003, p. 3), key antecedents influencing the firm's AC are prior-related knowledge (Cohen & Levinthal, 1990, p. 130), including individuals' basic skills and learning experiences, as well as organizational mechanisms, such as the structure of communication and combinative capabilities to collect, disseminate, and apply valuable information (Jansen et al., 2005, p. 4).

To conclude, both TM and knowledge absorption have become critical methods that allow firms to meet the demands and face the inherent challenges of the modern 'knowledge economy' and 'information society' (Bhatt, 2007, p. 14; Urbancová & Vnoučková, 2015, p. 106), in which HC and knowledge-based assets represent key ingredients for staying sufficiently competitive.

1.1 Research Problem

The scientific problem to be solved within the scope of this study is the poorly identified relation between the concepts of TM and AC (Latukha et al., 2016, p. 4) and providing further insights into how they relate to overall performance both collectively and individually (Joyce & Slocum, 2012, p. 192). Since the TM phenomenon is yet in its infancy as a field of study (Tansley, 2011, p. 273), research exploring the interplay of TM and performance increases is somewhat lacking and the question as to whether deciding upon the right strategy generates the desired impact on performance has yet to be definitively answered (Bethke-Langenegger et al., 2011, p. 526). Even though few would dispute the positive effects of TM on the firm's success, little is known about whether the effect size is dependent upon or mediated by the firm's ability to effectively manage internal and external knowledge flows. While both concepts have received growing attention by academics and practitioners, few attempts have been made to explore the conceptual relationship between firms' investments in developing their HC (Jackson & Schuler, 1990, p. 233) and their potential towards recognizing, acquiring, disseminating, and exploiting knowledge from beyond their boundaries (Lenart, 2014, p. 95). The present study therefore contributes to the building of a broader understanding of how TM and AC interact and, more specifically, how different sets of TM practices respectively affect different stages in the process of knowledge absorption and utilization (Selivanovskikh & Latukha, 2017, p. 624). Although the literature on AC has grown richer over time, involving the analyses of diverse organizational phenomena (Fosfuri & Tribó, 2008, p. 174), only recently have some attempts been made to delve deeper into the process that relates external knowledge flows to increased performance. If AC is as crucial for performance improvements as suggested by previous findings, it will be of immense practical importance to properly understand how it behaves and what specific elements of the TM process determine its composition and how. Moreover, prior research has largely emphasized competitive advantage associated with higher levels of AC, but rarely addressed the resources needed for its development. This requires further empirical research and theory building on the concept of AC in view of the firm's resources, of which HC is arguably the most important, strategically speaking.

Although both TM and AC have previously been studied in country-specific contexts, including, for example, Russia (Pitinov, 2016, p. 62) and Brazil (Artyukh, 2016, p. 9), Ireland (Koscianska, 2013, p. 80), and Finland (Ruotsalainen, 2016, p. 32), very little is known about the Netherlands. However, if compared to other members of the European Union (hereinafter referred to as EU), the Dutch economy has consistently outperformed many of its European counterparts in a series of economic disciplines, including employment, job creation, and education, just to name a few (Boselie et al., 2000, p. 14). What is more, the Dutch labor market and employers have been the

beneficiaries of global integration and skilled-biased technological changes over recent decades, causing labor to move up the value chain and grow in terms of productivity (Gerritsen & Høj, 2013, p. 6). Besides the obvious benefits pertaining to greater social and economic welfare, these trends have radically changed the competitive landscape, and with it the strategic importance of the capability to effectively manage HC and internal and external knowledge flows. By focusing specifically on firms located in the Netherlands, this study not only contributes country-specific insights into the development of TM and AC, but broadens the existing body of research in view of developed and highly competitive settings. While, admittedly, TM (Tarique & Schuler, 2010, p. 123) and AC (Minbaeva et al., 2003, p. 587) have been examined at length in the context of large multinational corporations (hereinafter referred to as MNCs), decisive evidence regarding small and medium-sized enterprises (hereinafter referred to as SMEs) and organizations that are confined at the regional or domestic level remains hard to find. The fact that MNCs and smaller firms differ vastly in terms of their organizational structure, management approach, and resource availability gives reason to suggest that the nature and character of TM and AC will likewise be different. In making a clear distinction with regard to organizational type, this study seeks to fill existing literature gaps and establish an empirical foundation for continued exploration.

Furthermore, it is widely argued that AC is of utmost relevance for firms in knowledge-intensive sectors (Jakšić, 2013, p. 255), which differ from other industries in the sense that firms are forced to constantly search for new knowledge (Peltoniemi, 2007, p. 82), while the rate of product and process innovation is considerably higher (Tödtling et al., 2004, p. 3). However, the implications of such sectoral specificities on firms' ability to absorb and use external knowledge are relatively underexplored. Similarly, little is known about whether firms in knowledge-intensive settings make different use of TM, not least because talented individuals are repositories of the requisite knowledge, without which a firm's long-term survival is hardly feasible within such an industry. With the continued growth of today's knowledge economy, it is important to understand the role of both TM and AC and, more crucially, how they manifest themselves under these conditions.

Despite the benefits arising from the capacity to absorb and use external knowledge, it is argued that different managerial techniques and organizational capabilities have differential effects on AC components and the firm's ability to innovate and stay competitive. In this context, however, it remains to be determined whether or not different approaches to managing talent lead likewise to different knowledge and hence performance-related outcomes. Perhaps the most controversial topic in the TM domain concerns its scope and, more precisely, whether it should be 'inclusive' and directed at all members of the firm (Buttiens & Hondeghem, 2012a, p. 4) or only at a select group of workers and thereby remain an 'exclusive' construct (Thunnissen, 2016, p. 59). While

there is little debate about the economic effects of TM from a generic perspective, there remains a dearth of studies distinguishing between 'inclusive' and 'exclusive' TM regarding the practical implications for performance, let alone the development of AC, with greater research emphasis needing to be placed on ethical issues, including employees' well-being, perceived fairness, and workforce cohesion (O'Connor & Crowley-Henry, 2017, p. 1). Not for nothing have these issues moved up the agenda of Dutch businesses and law makers (Meyers, 2016, p. 6). In addressing the underlying question, not only does the study shed light upon the ongoing debate, but provide an opportunity for firms to perhaps rethink their own understanding of 'talent' and thereby better anticipate the potential outcomes of decisions relating thereto (Thunnissen, 2015, p. 11).

1.2 Way of Investigation

In order to arrive at new, meaningful insights and therewith fill existing literature gaps and solve the study's self-proclaimed goals, it follows a quantitative research methodology. With that said, empirical data was collected through an online questionnaire directed at experienced workers in the Netherlands, whose daily activities were associated with either human resource management (hereinafter referred to as HRM), staffing and training, TM specifically, or payroll and benefits. However, the starting point is an in-depth review of existing literature. Section 2 will therefore lay the conceptual groundwork by discussing previous findings and the theories behind both TM and AC in greater detail and from various perspectives, and furthermore sets out the hypotheses to be tested in the subsequent analysis. Section 3 provides an overview of the main empirical specifications as well as an explanation of how data was collected, and what instruments were used for the purpose of analyzing it. Section 4.1 then continues by describing the data set before outlining the statistical tests and corresponding results upon analysis, which made use of a wide variety of descriptive and inferential statistics. In Section 4.2 the practical meaning behind them and the extent to which they not only reflect but question previous findings will be discussed in more depth. Finally, Section 5 provides a few concluding remarks by summarizing the study's main contributions, points towards its inherent limitations, and highlights the need and direction of future research.

2 LITERATURE REVIEW

2.1 Talent Management in the Contemporary Literature

Since the emergence of the knowledge economy in the late 1980s, personnel managers, whose credibility and role within organizations had often been undermined, have shifted their rhetoric and evolved from a mere administrative function to nowadays making their mark at the strategy table (Chuai et al., 2008, p. 3). The HR domain has since carried a variety of labels, including personnel management, HRM, and lately TM, of which the latter has received special attention among researchers (Al Ariss et al., 2014, p. 173). With that said, the TM phenomena is yet in its infancy as a field of study and, while practitioners have long been recognizing its fundamental value, the academic community has been slow in narrowing the theoretical and practice gaps (Tansley, 2011, p. 273). In fact, there is still a disturbing lack of clarity regarding the definition, scope, and overall goals of TM (Bethke-Langenegger et al., 2011, p. 6). For example, Rothwell (2010, p. 6) defines TM as a deliberate and systematic effort to ensure leadership continuity in key positions and encourage individual advancement. According to Pascal (2004, p. ix), TM focuses on managing the supply, demand, and flow of talent through the HC engine. Then again, Jackson and Schuler (1990, p. 235) propose that TM ensures that the right people are in the right place at the right time. While each of the above definitions is premised on managing employees, their apparent similarity seemingly obscures the fact that the first definition designates a process, the second one a decision, and the third one an outcome (Lewis & Heckman, 2006, p. 140). The underlying assumption is that, regardless of competitive and economic conditions, HC and thus talented and highly capable workers are imperative for success (Garavan, 2012, p. 2428), albeit underscored by different perspectives or philosophies (Morley et at., 2015, p. 3). For Collings and Mellahi (2009), the most useful way of laying out various TM philosophies is to consider the focus of attention that each engenders (Sparrow & Heba, 2015, p. 250). Having said that, the academic literature points to four generic approaches (Collings, 2014, p. 303), each of which respectively describes TM as a categorization of people, the interaction of core HRM practices, the creation of internal talent pools, and the identification of key positions. Sparrow and Heba (2015, p. 251), however, assert that these TM approaches are presented as competing views to, and alternative conceptualizations and definitions of TM, and better or worse ways of doing it.

The first approach, also known as people approach, takes a generic view on talent, focusing on managing talented individuals irrespective of organizational boundaries and roles. Exceptional performers and high potentials are seen as an unqualified good and a resource to be managed in terms of hard results, regardless of where they are positioned within the firm and, in some cases, the firm's specific needs (Lewis & Heckman, 2006, p. 141). Hence, Sparrow et al. (2011, p. 5)

recognize TM as involving the systematic attraction, identification, development, retention, and deployment of those individuals who have a positive immediate or long-term impact on business performance. The literature in this tradition recommends that firms should fill each position with high potentials and performers, similar to top-grading, whereby the company proactively singles out and employs the most talented people available, while sensitively yet rigorously redeploying those of lesser capability and performance (Smart & Smart, 1997, p. 107). Despite the theoretical influence of this approach, Collings and Mellahi (2009, p. 306) note that if TM focuses on both high and low performers simultaneously, one can hardly distinguish TM from traditional HRM.

While the people approach argues that the differentiator for high performing firms is their belief in the relevance of individual talent, the practice approach stresses the need for deploying a set of well-developed HRM procedures (Sparrow & Heba, 2015, p. 252). In line with this view, TM is conceived as being a compilation of HRM practices or special functions, such as recruitment, candidate selection, career planning, succession management, and rewards (Heinen & O'Neill, 2004, p. 68). In other words, TM can be understood as a meaningful set of activities that revolve around the identification, recruitment, and selection of key talent from the external labor market, attracting outside talent to the firm, identifying internal talent, facilitating the movement thereof across functions and units, developing employees, and minimizing attrition through continuous engagement and retention (Vaiman et al., 2015, p. 281; Tarique & Schuler, 2012). Some authors make the case that TM means doing what HRM has always done, albeit doing it faster and, more crucially, across the entire firm rather than within a single department. Olsen (2000, p. 24) adds that traditional department-oriented staffing and recruitment activities need to be converted into an organization-wide talent attraction and retention effort. In that sense, TM may not necessarily represent an entirely new concept, but rather a ‘rebranding’ of already existing HRM disciplines, or in other words, an ‘old wine in a new bottle’ (Chuai, 2008, p. 5). The practical contributions of this approach are thus limited beyond the strategic HR literature, in the sense that most of its proponents merely substitute the term HRM with TM (Collings & Mellahi, 2009, p. 5).

The third approach, referred to as the strategic pools approach, stresses the importance of talent pools, and defines TM as a set of practices designed to sustain a continuous supply of talent into jobs throughout the organization (Kesler, 2002, p. 20). Although studies in this tradition include typical HR practices, such as recruitment and selection, TM in this regard is seen as being similar to succession planning, of which core activities focus on identifying high potential individuals, managing their progression through positions, identifying requisite competencies, and investing in the development thereof (Jackson & Schuler, 1990, p. 233). Schweyer (2004, p. 20) adds that the first step towards successful TM is to obtain a good understanding of the internal workforce.

Similarly, Cappelli (2008b) defines TM as the process through which companies anticipate and meet their HC needs (Sparrow & Heba, 2015). Hence, this approach is underwritten by both HC theory, by arguing that the costs associated with talent development and retention are to be seen as an investment on the firm's behalf, and expectancy theory, by claiming that individuals make choices about the investments they make in themselves and only self-invest if they perceive to be more important to their organization (Sparrow & Heba, 2015, p. 253). Collings and Mellahi (2009, p. 306) therefore suggest that studies in this tradition, despite adopting a relatively narrow vision, provide at least some degree of differentiation as to what TM is vis-à-vis HRM.

The position approach, however, places emphasis on managing strategically important positions (Huselid et al., 2006, p. 2; Sparrow et al., 2011, p. 9). Following this interpretation, Collings and Mellahi (2009, pp. 307) describe that TM encompasses the systematic identification of jobs that differentially contribute to the firm's success, the creation of talent pools of high potentials and exceptional performers by whom these jobs are to be filled, and the building of a differentiated HR architecture that supports filling these positions with competent incumbents (Rastgoo, 2016, p. 654; Khoreva et al., 2017, p. 19). The locus of differentiation in terms of fit is therefore the job, and not the individual worker per se (Collings & Mellahi, 2009, p. 307). These key positions or 'A positions' have the potential to differentially impact competitive advantage and, as a result, play a disproportionate role in firms' capability to execute certain parts of their strategy (Huselid et al., 2006). 'B positions', on the other hand, may still be strategic in nature, although the skills needed for them are more ordinary, while 'C positions' serve basic functions and are considered non-core or outsourced (Sparrow & Heba, 2015, p. 252). Focusing on strategic jobs is therefore an effort to consider both the supply and demand side of HC, whereby the value of employees' skills within the firm is not merely a supply side phenomenon, but a function of how and where they are deployed (Becker & Huselid, 2006, p. 904). According to this logic, TM is said to focus on top performers and high potentials in crucial positions, rather than the workforce as a whole, as has been previously noted (Collings & Mellahi, 2009, p. 308). In addition, this view on talent also highlights the importance of using HR tactics that fit the unique organizational context and facilitate the strategic deployment of internal talent, which reflect the theoretical implications inferred from the strategic HRM literature.

2.1.1 Differentiating Talent Management from Human Resource Management

The fact that TM is still widely perceived as a mere rebranding of HRM provoked a degree of critique as to the extent to which TM represents anything more than a new definition for existing practices (Skuza et al., 2016, p. 334). Moreover, the many apparent similarities led to skepticism

about there being a substantive difference between TM and conventional HRM (Chuai, 2008, p. 137). Firstly, both HRM and TM practices are manifested in the process of matching available HR to functions inside the firm or placing the right people into the right positions, thus allowing for an economically viable contribution to success (Huselid, 1995, p. 636). Secondly, HRM and TM seem to focus on the same functional areas (Stefko & Sojka, 2014, p. 349). As an example, Cascio (1998, p. 2) describes HRM as the attraction, selection, development, retention, and use of HR in order to achieve both individual and organizational goals. In its broadest sense, TM can be understood as the identification, deployment, development, engagement, and retention of talent, although the term is often used more narrowly, referring to short-term and long-term sourcing of top executives and future leaders (Warren, 2006, p. 26). It was the conceptualization of TM as a collection of core HR functions that, to a notable degree, fueled the debate on whether TM is indeed a novel and inherently different concept (Chuai et al., 2010, p. 10).

HRM, by definition, involves all employees, premised upon the notion that people are not a cost to be managed, but rather an asset to be developed. TM takes a narrower view by focusing on a category of people who by the firm are deemed talented, such as high potentials and performers, and is therefore seen as being only one constituent of HRM, albeit with a notable impact on the latter (Tarique & Schuler, 2010). In that sense, TM could be understood as a scientific discipline that falls under the umbrella term HRM, of which it covers only a specific niche (Meyers et al., 2013, p. 318). TM practices are aimed at creating talent pools, both internal and external to the firm, that feed particular job classifications by projecting employee needs and focusing on their individual skills, competencies, and behaviors (Chuai et al., 2008). In that sense, TM has no concern for organizational boundaries, nor is it restricted to specific positions within, but focuses on sourcing, developing, and rewarding those, who are seen as contributing the most to current and future business needs (Stefko & Sojka, 2014). This line of argument also reflects some of the concepts from marketing theory, including employer brand and workforce segmentation in the context of attracting and retaining key employees (Chuai et al., 2010, p. 14). While HRM reflects egalitarianism and therefore refrains from a differential allocation of firm resources, TM is more likely to endorse segmentation, whereby the workforce represents a portfolio of human assets that are distinguished based on their competencies and potential (Berger & Berger, 2004). As a result of this practical form of labor economics, potentially high costs of recruiting, hiring, and developing HR are mitigated, because employees are managed on an individual basis and, most importantly, in a way that is congruent with organizational needs (Chuai et al., 2008, p. 9). While conventional HRM concerns itself with separate functional activities, such as recruitment, training, development, and assessment, its focus is not per se on individuals, but on the execution

of those functions. The managerial approach of HR systems is premised upon developing these competences inside the firm which, in the case of fast-evolving industries, would render it more vulnerable, as certain capabilities eventually become obsolete (Ashok, 2012, p. 44). In contrast, TM recognizes 'people' as its main priority, while corresponding actions are no longer seen as being isolated and divided, but as interlinked, tightly coupled with each other, and focused solely on talent (Chuai et al., 2008, p. 12). These functions may include planning, staffing, appraising, compensating, and training, while contrasting the transactional and broader nature of the HRM philosophy (Tarique & Schuler, 2010). TM may therefore be understood as an integrated set of HR functions designed to improve the organization's productivity through a systematic process of attracting, developing, motivating, and sustaining those individuals, who are of great strategic value to the firm (Stefko & Sojka, 2014). In short: TM contributes to a continuous flow of talent throughout the firm by integrating the previously isolated functions of recruitment and employer branding, development, as well as, workforce planning and retention, and by redeploying them into one seamless process or indeed system of integrated processes (Chuai et al., 2008, p. 13).

2.1.2 Talent: Innate or Acquired?

Considering the high level of interest in the concept of TM in recent years, it seems paradoxical that there has been strikingly little theory development (Collings & Mellahi, 2009, p. 26; Dries, 2013, p. 272). Even worse, people are rarely precise about what they mean by the term 'talent' in the work context (Howe et al., 1998, p. 399), although a concise definition of talent is critical for robust TM initiated across the firm (Tansley, 2011, p. 266). Zhang and Bright (2012, p. 148) point out that HR professionals need to understand and be clear on who they regard as talented, as the identification of valuable talent would otherwise be at risk (Schäfer, 2014, p. 5). In order to advance the study on TM and dissolve its conceptual ambiguities (Meyers et al., 2013, p. 305; Meyers, 2015, p. 25), one must therefore look beyond the conceptual boundaries and, in fact, view talent from different theoretical perspectives, each of which, in turn, has different practical implications for the application and effectiveness of TM systems (Dries, 2013, p. 275).

That being said, there are a few theoretical tensions in the literature, one of which addresses the question concerning the extent to which talent can be acquired, or in other words, whether talent is more a function of innate factors or learning opportunities (Dai & Coleman, 2005, p 254). According to the 'innate' perspective, talent is taken to exist in certain people from birth and a requisite condition for reaching exceptional performance (Tansley, 2011, p. 267; Meyers et al., 2013, p. 309;). Talent thus refers to the totality of inherent characteristics, physical capabilities, and mental aptitudes, that is indicative of individual levels of achievement (Aljanabi & Kumar,

2013, p. 116; Borisova et al., 2017, p. 33; Vinkhuyzen et al., 2009, p. 380). In that sense, talent may be synonymous with giftedness, or the possession and use of untrained and spontaneously expressed natural abilities, which lead to outstanding results (Dries, 2013, p. 277; Meyers et al., 2013, p. 307). As giftedness is arguably a rare feature, the 'innate' perspective infers that talent is necessarily unequally distributed, so that only the minor part of a population has it, while the majority does not (Snell et al., 1996, p. 65). Accordingly, Zhang and Bright (2012) suggest that talent accounts for no more than 15 percent of the workforce, and that talented people are usually grouped together, such as senior-leadership, mid-level employees with leadership potential, and technical experts. This rare occurrence of talent in the workplace would also imply that learning opportunities only play a minor role in the formation of talent (Tansley, 2011, p. 270). Moreover, evidence from social biology research indicates that heritability of intelligence, which is proven to be a requisite component of talent, ranges from 75 to 80 percent, implying that talent is equally dependent on genetically transmitted structures (Vinkhuyzen et al., 2012, p. 187). This fits the narrative of the 'innate' philosophy stating that, regardless of training and development, talented individuals tend to learn new skills relating to their talent domain at a faster rate than their non-talented peers, whose learning capacities are naturally limited (Meyers et al., 2013, p. 310). The 'innate' perspective thus recommends focusing on the identification, assessment, and selection of the best candidates (Dries, 2013, p. 279). Amid growing talent scarcity, this means rigorously searching, recruiting, and selecting highly sought-after profiles and, in addition, creating durable ties between the firm and such individuals (Cappelli, 2008b; Meyers et al., 2013, p. 314).

The 'acquired' perspective, by contrast, argues that deliberate practice, referring to strategic and focused activities towards improving components of performance, is the single most significant determinant of talent (Kulasegaram et al., 2013, p. 980; Meyers et al., 2013, p. 310). Talent is thus defined as the outstanding mastery of systematically developed competences in at least one field of human endeavor to a degree that places the individual and its achievements in the upper percentile of its learning peers (Gagné, 2008, p. 222). In that sense, talent designates competency as a natural consequence of learning experiences and is measured in the difference that an individual can make in a given field of activity (Tansley, 2011, p. 269). In fact, the amount of time that individuals engage in deliberate practice is argued to be monotonically related to their performance (Meyers et al., 2013, p. 311). In discussing the leadership potential of high executives, McCall (1993, p. 2) state that learning from experiences is critical for obtaining the necessary competences that qualify future leaders. People with greater potential are thus habitually trained nowadays for more advanced positions or long-term future performance (Meyers et al., 2013, p. 311). Yost and Change (2009, p. 443) add that every employee could exhibit high performance,

if firms realize their potential by teaching them how to develop themselves and finding positions in which their unique combination of strengths allows them to perform well. If talent is indeed procurable, so that more, if not all, employees could become talented, TM systems should divert attention away from selection and recruitment efforts, and focus more on developing, educating, and training employees, in order to expand their skills, knowledge, and abilities (Meyers, 2015, p. 46). Career management programs must be configured so as to accelerate the development of potential managers, and include job rotations, skills training, and on-the-job coaching (Dries & Pepermans, 2007a, p. 99). The key difference between TM under the assumption of talent being 'innate' as compared to being 'acquired' is the greater inclusiveness by the latter (Meyers et al., 2013, p. 315). Tansley (2011, p. 273) thus advocates for a more balanced view on talent as both a product of innate ability and deliberate practice, and gives greater importance to organizational context. In this regard, talent can be understood and defined from different views, each of which entails differential outcomes on TM interventions. However, as talent definitions underlie many externalities, such as business type and strategy, competitive environment (Ingham, 2006), and the nature of work in which talent is embedded, Serrat (2010, p. 5) posits that firms necessarily gain more value when deriving their own talent definition to better meet their particular business needs and furthermore the exogenous and endogenous circumstances under which they operate.

2.1.3 Inclusive and Exclusive Talent Management

While there is relatively little disagreement about the economic effects of TM systems in terms of organizational viability and success (Meyers, 2016, p. 2), there is no definitive answer to the question as to whether effective TM should focus on all workers or only a minor percentage of the workforce (Thunnissen, 2016, p. 59). The latter reflects an exclusive TM approach that takes a relatively narrow view on talent, and only considers employees with the capability to make a significant difference to the firm's current and future performance (Chuai et al., 2010, p. 16). Advocates for this view claim that it would be downright impossible for every individual within the firm to be considered a talent and managed as such, because talented individuals should be distinguished from others on the basis of their current and past performance, potential, and skills (Zhang & Bright, 2012, p. 148). Moreover, Boudreau and Ramstad (2005) suggest factoring in also commitment and motivation when identifying talent and developing pools thereof. Hence, the exclusive, or elite, approach encompasses only a small cadre of employees who demonstrate superior achievements and great potential, fulfill strategically important roles, if necessary, and are considered as being able to generate exponentially more value for their firm than the average employee (Schäfer, 2014, p. 5; Ashok, 2012, p. 54; Buttiens & Hondeghem, 2012b, p. 3).

The latter credential reflects the 'pareto principle', according to which 20% of the workforce is expected to contribute 80% to the organization's value (Branham, 2005; Artyukh, 2016, p. 11). As a consequence, firms often allocate the lion share of the HR budget to such individuals, who would then receive more development and promotion opportunities, higher salaries, and better fringe benefits (Meyers, 2016, p. 2). Drawing on HC theory, firms develop resources internally only when investments in employee skills are justifiable in terms of future productivity (Lepak & Snell, 1999, p. 34). Academics therefore argue that high performers, in return for career investments made by their employer and based on the norm of reciprocity, are expected to feel an obligation to reimburse the firm and apply their skills in service thereof (Forrier et al., 2014, p. 570; Höglund, 2012, p. 126). However, the exclusive approach may be divided in two different views as to how talent is being understood. First, talent is not position-related nor title-related, but measured by potential, performance, and competence (Zhang & Bright, 2012, p. 148; Chuai et al., 2010, p. 17). Walker (2002, p. 12) suggests that a firm, on the basis of these three variables, can invest scarce resources in the most promising talents, thereby supporting those who are key to its performance (Denner, 2013, p. 8), but it should not do so at the expense or neglect of other employees. The second view on exclusive talent corroborates a position-related understanding, whereby the right people in key positions are considered talents. This is tightly coupled with the identification of pivotal positions inside the firm (Zhang & Bright, 2012, p. 149). Due to constraints on financial and managerial resources, the attraction and retention of exceptional talent becomes, however, more difficult, making it unlikely for all jobs to be filled with top performers. For this reason, firms ought to place the best candidates in strategically important positions, fill support positions with good performers, and remove non-performing jobs and individuals, that fail to add value (Huselid et al., 2006, p. 1; Chuai et al., 2010, p. 18). Both the exclusive people approach, and the exclusive position approach reflect the principle of workforce differentiation and emphasize differential investments in different employee groups based on their potential to enhance company productivity and their strategic importance, respectively (Meyers, 2016, p. 2).

In contrast to the two exclusive approaches, which differentiate employees in terms of relevance and ability (Swailes et al., 2014, p. 534; Buttiens & Hondeghem, 2012b, p. 10), inclusive TM acknowledges that every employee possesses certain talents (Chuai et al., 2010, p. 19). Inclusive TM is therefore grounded in the assumption that in an ideal organization, everyone has valuable qualities or talents, which can be productively applied (Meyers, 2016, p. 4). Swailes et al. (2014, p. 534) observe that inclusive TM seeks to place people in positions that provide the best fit and opportunity for them to use their individual talents and realize their full potential. Accordingly, firms tend to invest in a broad variety of different talents and subject most, if not all, employees

to talent initiatives. By some writers considered to be a competitive necessity (Chuai et al., 2010, p. 19), inclusive TM has attracted attention, as a heightened focus on the talents and individual strengths of all employees has been shown to positively impact not only work performance, but employees' well-being and engagement (Buckingham & Vosburgh, 2001, p. 17; Denner, 2013, p. 8). In fact, evidence from positive psychology research indicates that interventions aimed at stimulating the identification, development, and application of personal strengths produce short-term spikes in positive emotions, which, in turn, sustain longer term increases in psychological capital, referring to an employee's work-related well-being (Meyers, 2015, p. 134). Even though strong opinions are held on both inclusive and exclusive TM, it remains unclear which understanding of talent provides the most accurate representation of how the phenomena of TM plays out in the field (Dries et al., 2014, p. 16), as there are advantages to be gained from both. On the one hand, inclusive TM fosters employee well-being, learning, and performance throughout the whole workforce by giving all employees the opportunity to unlock their full potential (Meyers, 2016, p. 7). Amid increasing talent scarcity, firms may be in better competitive shape, if their workforce is cohesive and more inclusive. Exclusive TM, on the other hand, is argued to boost return on investment in terms of profit and productivity by increasing achievement motivation of key employees, who are critical for organizational success and rare to find on the labor market (Dries et al., 2014, p. 17). Exclusive TM may therefore be an excellent fit for companies with a highly competitive culture, which have no difficulties in attracting qualified and highly talented employees from the external labor market (Meyers, 2016, p. 7).

2.1.4 Talent Management in the Global Context

Amid the war for talent the notion prevails that firms, in order to withstand economic pressures, require the very best talent. Due to fading geographic-based economic barriers and the removal of legal and regulatory hurdles to global integration, the competition for talent has exacerbated (Beechler & Woodward, 2009), making it exceedingly difficult to manage people in a way as to gain competitive advantage (Tarique & Schuler, 2010, p. 123). Therefore, the challenge of maximizing competitiveness through human assets became even more prominent in the recessionary climate upon the global financial crisis. The attitude towards the importance of effective people management shifted, with talent being regarded as a scarce yet strategically crucial commodity, such that firms need to be systematic in managing their workforce in order to have any hopes of securing their market position. Furthermore, there is a wide array of exogenous and endogenous factors, that affected the quantity, quality, and characteristics of talent and, in turn, necessitated a wider adoption of TM in the global context. As a consequence of increased longevity, sharply

declining birthrates, and a disproportionately sized post-war baby boom generation, there has been a drastic shift in the age distribution in the general population and therefore the labor pool supply (Beechler & Woodward, 2009, p. 275). The internationalization of labor and professions coupled with more conducive immigration policies and increasing willingness of individuals to relocate outside their home country have facilitated an increase in job and people mobility across geographic and cultural boundaries (Baruch et al., 2007, p. 99). This means that nowadays HR managers are increasingly concerned with having to manage vastly dissimilar work populations, markets, cultures, and modes of employment (Beechler & Woodward, 2009). These factors have shaped an unpredictable, highly complex, and diverse global environment, in which the capacity to attract, develop, motivate, and keep critical talent has emerged as one of the most vicious and conspicuous universal strategy issue (Saraswathy & Balakrishnan, 2017, p. 408).

This is particularly true in the context of MNCs which, in light of increased global integration, expend continuous efforts to standardize talent recruitment and development by applying certain best practices (Aarnio & Kimber, 2016, p. 6) in order to secure their market position and ensure consistency in HR practices across foreign subsidiaries (Stahl et al., 2007, p. 9). Evidence shows, however, that 'localizing' TM systems in line with firm-specific circumstances adds more value than simply following pre-existing norms (Orr et al., 2014, p. 6). This is a reflection of the notion that TM is less a matter of 'best practice' and more a matter of 'best fit' that needs to be closely aligned with, among others, the organization's needs, management capabilities, and HR policies (Garrow & Hirsh, 2009; Thunnissen, 2016, p. 59). Hence, MNCs remain competitive not solely by designing and employing global best practices, but by aligning the components of their TM systems with the unique requirements of the domestic labor market so as to that attract and build diverse local talent (Horvat, 2009, p. 14). In this context, Edwards (2004, p. 389) asserts that the capacity to adapt and transmit employment practices across national borders is a potential source of efficiency gains by MNCs in comparison with non-MNCs. This in turn gives reason to believe that TM interventions increase in scope and complexity with the level of the firm's involvement in international business activities (Horvat, 2009, p. 15).

2.2 Talent Management in Business Practice

In discussing global TM systems, Stahl et al. (2007, p. 10) divide the most salient practices into three different categories, of which the first one encompasses recruiting, staffing, and succession planning; the second entails training and development, and the third one refers to retention management. Similarly, Tarique and Schuler (2010, p. 127) identify three sets of international HRM activities as being the hallmark for global TM systems. Here, the first set is comprised of actions

to attract and hire talent through careful selection, recruitment, and employer branding, and may be summarized as talent attraction (hereinafter referred to as TA). The second set involves such activities as to develop and extend employees' knowledge and skills through training, education, and sufficient opportunities for personal growth and advancements. This is generally understood as talent development (hereinafter referred to as TD). Finally, the third set involves practices to retain talented employees through appropriate motivation and continuous engagement and, more so in the context of MNCs, repatriation. In sum, these activities may be labelled talent retention (hereinafter referred to as TR). In the following sections, TA, TD, and TR are explored in greater detail and with reference to current, practical examples from organizations in the Netherlands.

2.2.1 Talent Attraction in the Context of the Netherlands

It was the propagation of skills shortages and, as a result, the growing difficulty for organizations worldwide to attract and acquire the right talent (Tarique & Schuler, 2012, p. 12), that promoted a wider adoption and acceptance of TM as a new managerial term (Chuai et al., 2008, p. 11). In the Netherlands, however, the scarcity of talent appears to be comparatively low, given that only 14% of Dutch firms report difficulties in filling job vacancies, which is well below the European average of 35% (OECD, 2017a, p. 218). The scarcity of skilled labor poses recruiting difficulties especially for SMEs, of which more than one third in the EU consider this to be a major concern. However, the Netherlands is among the countries where this problem is least wide-spread, with fewer than 25% of Dutch SMEs struggling to recruit skilled employees (Farvaque & Voss, 2009, p. 16). However, skills shortage in the Netherlands is industry-specific and the sectors in which talent recruitment is most challenging include manufacturing, where mechanical and electronic engineers are high in demand, information technology (hereinafter referred to as IT), where the number of software developers and systems analysts is scarce, professional services, healthcare and, to a lesser extent, education (European Commission, 2014, p. 56; OECD, 2017a, p. 219). These shortages lead to bottlenecks in occupation, since the growing demand for skills is simply not matched by the available supply, meaning that firms hoping to secure their competitive edge rely increasingly upon their ability to attract and recruit highly skilled and qualified individuals.

Talent recruitment usually follows a talent pool strategy, whereby the firm identifies and recruits the best talents and then places them into pivotal roles, rather than recruiting specific people for specific jobs (Tarique & Schuler, 2010, p. 127; Stahl et al., 2012, p. 10; Rabbi et al., 2015, p. 210). Talent pooling essentially means recruiting ahead of the curve, which contradicts demand-led recruitment, as the firm strives to meet current and future competency needs, while attending to select employees' career needs and growth (Sharma & Bhatnagar, 2009). It is not unusual for

companies to create different talent pools i.e., senior executives, technical specialists, and early career high potentials who then follow different career paths and development strategies (Stahl et al. (2007, p. 14). Creating a talent pool entails the proactive identification of incumbents with the right credentials to fill pivotal positions that may become available, thereby ensuring a solid slate of candidates for critical roles (Seopa et al., 2015, p. 719). For example, ABN AMRO, the third-largest Bank in the Netherlands, introduced a talent identification program to make female candidates more visible for middle and top management positions (ABN AMRO, 2017, p. 40). Furthermore, ING, a global financial institution catering to clients in 40 countries, has a program in place named 'ING International Talent Programme' that gives a select group of high potential graduates the opportunity to pass through a special career track, of which there are six to choose from: Wholesale or Retail Banking, Finance, Risk Management, HR, and IT (ING, 2017, p. 48). An increasing number of employees are nowadays concerned with improving their marketability and employability in the external labor market and thus tend to not limit their career progression to their current employer (Arthur & Rousseau, 1996, p. 3). 56% of Dutch employees admitted having searched for information about education, training, and career options, and whether their qualifications would be recognized elsewhere in the job market; a ratio which happens to be the second highest in the EU (OECD, 2017a, p. 230).

Needless to say, that the search for new talent is not limited to inside the firm, but extends to the external market (Ballesteros & Immaculada, 2010, p. 24), although the contest between internal and external candidates tends to be biased toward the former not only to forego undesirable costs associated with recruitment fees and new hire training, but also to maintain work incentive for the promotion of internal staff (Chan, 2006, p. 181; Blatter et al., 2016, p. 241). Such favoritism for current employees implies that senior management and executive positions in particular tend to be filled internally more often than not, and that workers from the outside are recruited only if they exhibit a significant margin of superiority over internal applicants (Chan, 2006, p. 169). For example, Royal Philips, a Dutch Health Tech firm, broadened its in-house talent acquisition capabilities, thereby filling around 69% of executive vacancies by internal candidates, with 60% of the remaining external hires coming from other healthcare providers and IT firms, which led to a reduction of €3 million in agency costs (Philips, 2017, p. 20). In AkzoNobel, a producer of chemicals, paints, and coatings, active in over 80 countries, 61% of promotions at the executive level were internal (AkzoNobel, 2017, p. 229). Furthermore, internal sourcing has been reported to result in a slightly higher job survival rate than recruiting from external sources (Moser, 2005, p. 189), and typically occurs in the form of referrals, rehires, in-house notices, job postings, and internships (Sardar & Talat, 2015, p. 16). However, with the pool of talent gradually drying up,

opening up the competition to external candidates not only provides a rich source for absorbing new skills and knowledge (Chan, 2006, p. 169), but also simplifies compliance with reservation policy and avoids scope for resentment and jealousies (Aswathappa, 2007, p. 147). Well-known examples of external recruitment sources include job advertisement, online recruitment through the firm's website as well as internet job portals, a process widely referred to as e-recruitment (Caims, 2015, p. 29; Sardar & Talat, 2015, p. 18), executive search firms also known as head hunters, job agencies (Moser, 2005, p. 191), and campus recruitment through job fairs or career days (Horvat, 2009, p. 10). For example, KPN, a Dutch landline and mobile telecommunication firm, initiated, as part of its recruitment campaign in 2016, a tour around Dutch universities and college campuses to recruit new young talents (KPN, 2017, p. 59). Regardless of whether the firm wants to 'attract' or 'extract' new talent, capturing the best and the brightest necessitates a highly selective hiring process (Caims, 2015, p. 33; Stahl et al., 2007, p. 14). The expertise and skills, that the firm scouts for in its applicant pool, therefore need to be carefully considered and congruent with the specific job requirements and the firm's market approach (Pfeffer & Veiga, 1999, p. 41). As an example, Royal BAM Group, a construction firm with operating subsidiaries in five European markets, has recently taken all job and candidate profiles under review in their search for the best fitting talent (BAM, 2017, p. 66). In order, however, to select the best potential candidates and thereby minimize the pool of applicants (Sardar & Talat, 2015, p. 32), Dutch organizations use a wide range of instruments and techniques, including assessment centers for applicants to participate in exercises and, in doing so, demonstrate their skills in each of the job dimensions (Phillips & Oswald, 1987, p. 103), standardized aptitude tests, structured interviews, and group discussions to assess candidates' leadership potential, social behaviors, problem-solving skills, (Sardar & Talat, 2015, p. 34), and their suitability for a specific position (Stahl et al., 2007, p. 16), 360-degree feedback, and performance reviews (Liu & Person, 2014, p. 155; Lei & Zhang, 2016). Although technical competencies remain a key factor in recruitment decisions (Gangani et al., 2006, p. 134), Dutch firms tend to assess applicants increasingly on the basis of organizational fit, giving reason to assume that formal qualifications are not necessarily the best predicators of future performance and retention (Stahl et al., 2007). For example, Dutch insurer and asset management firm, NN Group, proclaims choosing new candidates, if there is a cultural fit and if potential new hires fully embrace the firm's core values (NN, 2017, p. 19).

However, firms must also assess, if not re-evaluate, their own offerings to already existing talent and potential new hires, and what they expect in return (Horvat, 2009, p. 10). Successful firms focus heavily on having a compelling employment value proposition: one that clearly voices the benefits of working for the organization compared to others, and usually contains elements such

as differentiation, credibility, and sustainability (Joyce, 2010, p. 132). Following keen research efforts focused on identifying the benefits of working at ING with insight from external surveys held in twelve different markets, the bank introduced a new global employee value proposition that not only articulates the qualities ING looks for in its people and what it offers, but provides a consistent reference point for the bank's employer brand positioning (ING, 2017, p. 47). The latter aspect is particularly important amid fierce competition for talent, forcing firms to sharpen their self-marketing potential towards recruits to position themselves as an 'employer of choice' (Stahl et al., 2007, p. 11). The contest between companies to attract and retain talent takes place in a world where technology advancements and global integration facilitate a widespread change in employment patterns (Berthon et al., 2005, p. 152). As a result, conventional tactics of luring talents via attractive salary packages and fringe benefits are not entirely able to attract the best talent in today's HR climate (Magbool et al., 2006, p. 540). Firms have realized that, in order to stay competitive as an employer, comparable marketing and branding practices otherwise used to market products or services must also be applied to recruiting and retention programs (Berger & Berger, 2004, p. 42). Employer branding thus plays a key role in attracting new talent (Sokro, 2012, p. 165), retaining high potentials (Sengupta et al., 2015, p. 307), and sustaining a healthy talent pool (Biswas & Suar, 2016, p. 57). Employer branding designates the totality of efforts to market the firm's employment offerings to existing and future staff and to promote, both inside and outside the organization, a clear view of what makes it different and desirable as a workplace (Jiang & Iles, 2015, p. 98; Kucherov & Zavyalova, 2012, p. 87). According to Backhaus and Tikoo (2004, p. 502), employer branding is the process of building an identifiable and unique employer identity that helps differentiate the firm from rival firms. Berthon et al. (2005, p. 154) add that a strong employer brand allows the firm to reduce acquisition costs and even offer lower salaries for comparable positions than firms with weaker employer brands. In order to raise the awareness and attractiveness of Royal Philips as a top employer, the company launched a digital campaign in 2016 called 'Quality Gene' resulting in a 35% increase in applications and furthermore a 39% growth in Q&R hires from strategically targeted competitors (Philips, 2017, p. 20).

According to Groves (2007) the development of a TM strategy follows three steps: the first step is the identification of talent; the second step is the implementation of developmental activities; and the third step is staffing and workforce planning. The goal of the latter is to have an optimal level of talent positioning, or balance between organizational needs and individual qualifications (Horvat, 2009, p. 10), or in other words, to have the right talent in the right place (Hills, 2009; Tarique & Schuler, 2012, p. 22). This requires assessing the gap between internal and external staff availabilities and business needs, both in terms of headcount and competencies, to perform

tasks inside the firm over the course of time (Doumic et al., 2017, p. 217). Research in this area focuses increasingly on the skills type needed in various locations, using attrition and retirement data of the current workforce in conjunction with the firm's business plans (Tarique & Schuler, 2012). Thus, many firms increasingly establish more integrative links between business and HR planning, in which organizational effectiveness is facilitated, in part at least, by an HR executive who interacts and exchanges information with senior management (Halim & Zeki, 2012, p. 339). Although just 41% of Dutch firms, as compared to 57% across the EU, have the head of the HR function serve on the board of directors, the extent to which the personnel function is integrated into strategic planning is significantly higher, with 85% of businesses in the Netherlands having either a written or unwritten HR strategy in place (Dietz et al., 2004, p. 83).

2.2.2 Talent Development in the Context of the Netherlands

A mere focus on acquiring talent from the external labor market is unlikely to prove successful in the long term (Garavan et al., 2012, p. 5), which is why firms have recognized the competitive value of investing in and adopting a variety of development practices for harnessing the learning potential of existing employees (Panda & Sahoo, 2015, p. 16) and developing their job-specific knowledge and skills (Lepak & Snell, 1999). This is especially true for the Netherlands, where 78% of employees had received financial support from their employer to participate in education and training (OECD, 2017a, p. 92). Just to put that in perspective, a comparative study on Dutch MNCs indicated that large firms in the Netherlands invest almost twice as much in developing their employees' skills as compared to their counterparts from the US and UK (Deloitte, 2015, p. 21). However, Dutch employers are seemingly less likely to invest in low-skilled workers and those whose jobs are less demanding in terms of the skills required and work pressure (OECD, 2017a, p. 100). This is reminiscent of the principle of workforce differentiation, advocating for differential investments in different employee groups based on their potential contribution to the firm's success (Meyers, 2016, p. 2). In fact, not all individuals benefit equally from development opportunities (Caligiuri, 2006), highlighting the need for the firm to first identify those with the requisite characteristics and offer them appropriate training and development thereafter (Tarique & Schuler, 2010, p. 128). However, the returns to firm-provided training depend on a number of factors, amongst which is firm size, indicating that small and large firms differ immensely in their training and development scope (Kok, 2000, p. 3). Evidence shows that employees of large firms in the Netherlands are vastly more likely to be provided career advancement opportunities and participate in on-the-job training than employees working for SMEs (OECD, 2017a, p. 93). For example, ABN AMRO with approximately 22,700 employees worldwide, invested upwards

of €54 million in training and education in 2016 alone (ABN AMRO, 2017, p. 38). In that same year, ING which has around 14,500 employees in the Netherlands and 52,700 worldwide, spent €70 million on training and development (ING, 2017, p. 48). Royal BAM Group, a construction firm with a total workforce of 20,300 and multiple subsidiaries across Central Europe, allocated as much as €13.6 million in that domain (BAM, 2017, p. 2). Finally, NN Group, a multinational Dutch insurance and asset management firm with around 12,000 people, spent €13.7 million on education and training interventions (NN, 2017, p. 55). In view of these differences in budgetary allocation, it is not surprising that organizations differ likewise in their usage and application of development practices, which can range from single events, such as workshops, group seminars, self-directed learning, webinars, and instructor-led training, through to extended program, such as mentoring and coaching, job rotations, and cross-functional assignments (Birdi, 2005, p. 108; Brooks & Nafukho, 2006, p. 118; Tarique & Schuler, 2012, p. 27). In an attempt to encourage self-learning, Royal DSM, a global science-based firm active in health, nutrition, and materials, implemented a digital learning platform called 'Bright Learning' with more than 2,150 learning modules, most of which had been designed in cooperation with leading international business schools and global training providers (DSM, 2017, p. 46). Royal Philips, for example, invested in broadening the scope of 'Philips University', which is an organization-wide digital learning platform, where in 2016 more than 1,900 new courses were made available and 1.2 million hours were spent on training (Philips, 2017, p. 193). Tarique and Schuler (2012, p. 27) further advocate for broadening the use of non-conventional development experiences, including subject matter experts (Romans et al., 2006, p. 34) and remote training solutions (Mulin & Reen, 2010, p. 11). In conjunction with firm's 'Code of Conduct' learning program, AkzoNobel held multiple workshops during which compliance experts and legal advisors had provided face-to-face training on competition law and other related subjects to hundreds of employees (AkzoNobel, 2017, p. 117).

Beyond that, firms can either develop their training capabilities internally, and therewith retain greater control over training design and content, or outsource parts of their training function for the purpose of cost reduction and, especially in the case of smaller firms, due to a lack of internal capability (Galanaki et al., 2008, p. 2335). For example, Sint Jacob, a regional healthcare firm specialized in long-term care with around 800 employees, commissioned STOC, a private training provider in the healthcare sector, to develop a work-based training program, which combines dual-learning with individual coaching and enable staff to better deal with the rising demand for complex care (OECD, 2017a, p. 101). Achmea, an insurance firm and provider of a wide range of financial services, reported spending around 2.7% of the Dutch wage bill on external training (Achmea, 2017, p. 41). However, a different approach was taken by AkzoNobel, which trained

167 internal trainers as part of a new people management training program entitled ‘Leadership Essentials’ aimed at training and developing around 2,000 managers in the first year upon rollout and better reflecting the changing role of managers (AkzoNobel, 2017, p. 229). In 2016, VDL Groep, which is a Dutch manufacturing firm, put in place a one-year internal training program for toolmakers and had the initial batch of students complete the company’s in-house vocational training program to qualify as plastic operators (VDL, 2017, p. 38).

However, many firms still lack a wider adoption of such training and development interventions (Tarique & Schuler, 2012, p. 27), which is due, among others, to ‘silo thinking’ or the tendency of managers to put the interests of their own unit before those of the company as a whole. In this context, open job posting systems have been argued to provide an effective way to break down internal silos by identifying available talent and facilitating the internal movement thereof (Stahl et al., 2007, p. 16). Furthermore, performance appraisals and management reviews have become a general heading for a wide variety of activities that firms use to assess and motivate employees, provide feedback on what is expected of them with regard to performance (Whelan & Carcary, 2011, p. 677) as well as develop and enhance their competencies (Fletcher, 2001, p. 473). In the Netherlands, more than 80% of firms reportedly resort to performance appraisal for all kinds of employees (Dietz et al., 2004, p. 83). In discussing the firm characteristics associated with the use of performance reviews within Dutch firms, Jirjahn and Poutsma (2011, p. 24) observe that performance appraisal is used often under circumstances that facilitate trust and cooperation and when employees’ work is subject to a notable degree of multitasking. For example, Rabo Real Estate Group, a unit of Rabobank, has in place a system entitled ‘Performance & Competence Management’ which seeks to foster regular discussions between and clarify mutual expectations of managers and employees who, as part of the annual PCM process, have numerous meetings each year, including a target-setting meeting, a progress interview, and an evaluation interview (Rabobank, 2017, p. 115). Similarly, ING held nearly 300 workshops as part of implementing a new management practice under the label ‘Step Up Performance Management’ that is to replace a backward-looking review process with real-time improvement and promote informal coffee-corner conversations to provide instant feedback, and sessions for validating an employee’s mid-year review and year-end evaluation in management team discussions (ING, 2017, p. 48).

It is worth noting, however, that employees join an organization not solely to serve its corporate goals, but also to meet and satisfy their own ambitions. Individual career development programs therefore represent a key element in the strategic development of talent (Panda & Sahoo, 2015). In fact, Royal DSM had assessed as many as 8,000 of its employees, some even more than once, in terms of their long-term performance and learning agility in order to assess and identify their

existing strengths, whereupon a specialized development plan had been implemented in order to prepare the workforce for the company's future challenges (DSM, 2017, p. 45). With a deepening thirst for good leadership in today's globalized world (Canals, 2014, p. 487), firms commit more resources towards the development of executives for global leadership roles and responsibilities (Tarique & Schuler, 2010, p. 127). As the lack of effective leaders is one of the main constraints in a firm's future growth (Canals, 2014, p. 499), leadership development programs, particularly in MNCs, are of great strategic importance. According to Groves (2007), leadership development refers to planned and systematic actions towards improving the quality of leadership. Key elements that lead to a successful leadership experience include, for example, changing mindsets and adopting a global focus (Amagoh, 2009, p. 990), the implementation of learning systems consisting of formal training and learning, an evaluation system to monitor effectiveness, and actions to reward success and improve deficiencies (Leskiw & Singh, 2007, p. 446). Efficient measures towards maximizing internal leadership talent encompass on-the-job activities focused on 'learning by doing', competency-specific training, and project assignments (Leskiw & Singh, 2007, p. 446; Giber et al., 2009, p. 14). Amagoh (2009, p. 991) adds that the success of any leadership program depends on the ability of the firm to encourage its participants to reflect on learning experiences to ease the transfer of knowledge and skills in work contexts. Thus, leadership development denotes a continuous process rather than a series of episodes and must be consistently reviewed and scrutinized to ensure its relevance (Giber et al., 2009, p. 19).

For this reason, leadership programs can hardly function within a vacuum and need to be closely aligned and tightly linked with the firm's culture and strategic objectives (Canals, 2014, p. 500). For example, ING initiated the 'Think Forward Leadership Programme' that was made available to more than 6,800 managers in 2017 and had been specifically designed to nurture the type of leadership behaviors that are necessary for achieving the firm's strategy (ING, 2017, p. 47). In addition, PostNL, a postal service provider with 46,000 employees and operations largely in the Benelux, has in place a development program called 'Mastering Your Leadership Programme', which is directed at professionals with at least ten years of experience in order to stimulate their entrepreneurship and ability to interpret the firm's strategy directly into their own business setting (PostNL, 2017, p. 187). In the context of leadership development, Horvat (2009, p. 9) argues that firms will increasingly cooperate with universities, colleges, and other education facilities. For example, FrieslandCampina, a large Dutch dairy cooperative, entered into a partnership with Ashridge Business School to co-create a fast-track leadership program for those selected from the firm's talent pool, who over a period between 9 to 18 months would experience a wide range of workplace development opportunities and benefit from continuous learning and deep-rooted

individual growth (Montague et al., 2014, p. 10). Having said that, companies that excel in TM make great efforts to facilitate the involvement of senior leaders and the active participation of line managers (Stahl et al., 2007, p. 14; Tarique & Schuler, 2010, p. 128). As a result, most senior managers recognize leadership development and talent recruitment as one of their top priorities, while line managers are often held accountable for the development their employees (Horvat, 2009, p. 9; Stahl et al., 2007, p. 7). In fact, the share of training led by line managers assisted by HR in Dutch firms rose from 35% in 1991 to 56% in 2000 while, in the same period, the sole responsibility of the HR function decreased from 13% to 7% (Dietz et al., 2004, p. 83).

2.2.3 Talent Retention in the Context of the Netherlands

Following broad macroeconomic trends, employees have become much less reliant upon career progression within a single firm (Seopa et al., 2015, p. 717) and instead take great responsibility for managing their own development and preparing themselves for future careers and job changes (Garavan et al., 2012, p. 9; Seopa et al., 2015, p. 718). While the OECD average share of people changing jobs annually is 8%, in the Netherlands the share is 9% (Perkins & Shortland, 2006, p. 41). The Netherlands also reports a lower share of employees who have never changed employers, with only 16% as compared to the EU25 average of 24% and lower than average job duration of around seven years (OECD, 2010, p. 111). Higher labor mobility and the inherently greater loss of valuable knowledge that employees take with them upon their departure emerged as a key concern among Dutch employers (Lysova et al., 2014, p. 31; Tlaiss et al., 2017, p. 429).

As a result, they need to employ the necessary procedures and resources not only to attract and develop talented individuals, but to encourage them to remain associated with the firm (Salman et al., 2016, p. 186; Saraswathy & Balakrishnan, 2017, p. 425). Failure to do so leads to higher employee turnover and has taken a significant financial toll (Allen et al., 2010), due to the direct costs linked with the loss of investments in hiring and training new employees, and the indirect setbacks concerning the loss of organizational memory and knowledge (Hughes & Rog, 2008; Tlaiss et al., 2017, p. 429). Research in this domain may be categorized into activities related to reducing repatriate turnover (Tarique & Schuler, 2010, p. 128), and retaining employees through systematic and continuous engagement (Tarique & Schuler, 2012, p. 28). However, the firm can only prevent knowledge attrition and erosion of intellectual capital, if managers understand why the employee becomes disengaged in the first place and as a result chooses to leave (Mathimaran & Kumar, 2017, p. 17). Firms must therefore measure and monitor the success of their retention and engagement strategy with their workers. As an example, Royal Philips devises the so called ‘Employee Engagement Index’ as a reference point for employees’ overall engagement, which

combines the perceptions and attitudes relating to employee satisfaction and commitment, which is computed on a quarterly basis from data obtained from company-wide surveys (Philips, 2017, p. 192). Royal DSM uses a similar practice that involves the questioning of their 15,000 workers through online surveys comprising four components, namely commitment, pride, advocacy, and satisfaction, thereby helping senior leaders and line managers better understand what is working well, and where the firm needs to further improve (DSM, 2017, p. 44). In fact, Steel et al. (2002, p. 155) finds that the areas for greatest dissatisfaction for high performers are insufficient training and promotion opportunities, and therefore suggests that a focused strategic response to this retention problem can take the form of in-house training and career counseling. In a similar way, Tarique and Schuler (2012, p. 29) conclude that if employees obtain a deeper understanding of their career path and perceive the firm as being more appreciative of their personal development, their commitment, satisfaction, and engagement will likely increase. Bossche et al. (2012, p. 82) add that learning throughout one's career, similar to 'lifelong learning', is a convenient way for individuals to maintain their skills and knowledge at the required level, whereupon they will be able to adapt more readily to the ever-changing demands of today's work climate. KPN initiated a program called 'Future of Work', which combines efforts of HR and senior leaders in voicing the future trends with a definitive impact on the firm's core business and is intended to safeguard employees' future employability by making them aware of how crucial their own development is and supporting them through existing programs, such as the 'KPN Academy' and job-related training (KPN, 2017, p. 59). Hence, TD not only sharpens employees' skills, but minimizes their intentions to search for employment elsewhere (Saraswathy & Balakrishnan, 2017, p. 417).

The extent to which employees are satisfied with their job and willing to stay in the company is nevertheless also a function of the compensation packages and reward systems that the firm has to offer (Osibanjo et al., 2014, p. 66). This may be particularly true for highly skilled individuals, who are aware of their strategic value and therefore tend to ask for or at least expect better labor conditions that cover their personal needs and career aspirations (Chew, 2004, p. 54). However, the capacity of compensation systems to influence employees' attitudes is not only based on the monetary pay offered, but also on complementary benefits (Vidal-Salazar, 2016, p. 488). Dutch companies nowadays routinely offer compensation packages, including both cash benefits in the form of base salary, performance-oriented remuneration, overtime pay, bonuses, profit sharing, stock options, paid leave, and travel allowances, as well as non-cash benefits, such as insurance and retirement plans (Chepchumba & Kimutai, 2017, p. 491). The share of companies from the Netherlands using performance-related pay for managerial staff had thus risen from 20% in 1991 to above 48% by the year 2000 (Dietz et al., 2004, p. 83). Evidently, KPN's pay policy stipulates

that target payment aims at 30-40% in base salary, and 60-70% in variable pay for maintaining a strong alignment with the firm's annual financial performance objectives and long-term value creation (KPN, 2017, p. 81). Furthermore, NXP, a Dutch semiconductor manufacturer, initiated a broad-based, long-term retention program called 'Long Term Incentive Plans' which provides share-based compensation to eligible employees and non-employee directors and, as of 2016, included around three million authorized shares equivalent of $316 million (NXP, 2017, p. 155).

However, today's turbulent environment and the heterogeneity of employees' aspirations and demands render the design of an optimal and effective benefits system difficult (Vidal-Salazar, 2016, p. 488). While the relevance of monetary reward in attracting and retaining high potentials and performers is evident, firms also acknowledge that financial incentives cannot substitute for an exciting job, long-term career planning, the recognition from senior managers (Stahl et al., 2007, p. 18), growth opportunities, and increased flexibility (Horvat, 2009, p. 11). This reflects social psychology research, showing that senior managers typically hold an extrinsic incentives bias and tend to overestimate how much individuals value extrinsic task features and, as a result, overlook the importance of feedback, neglect opportunities to make jobs more fulfilling and interesting, or underestimate employees' desires to participate in decision-making (Heath, 1999, p. 58). However, more and more firms cherish employee participation in decision-making, thus giving them a 'voice' in the decisions that affect them in the workplace as a necessary condition for job satisfaction and commitment (Scott-Ladd & Marshall, 2004, p. 646). In the Netherlands, employee involvement, particularly co-determination, in corporate decision-making is relatively high, following the mandatory provision for firms with at least 50 employees to install a Works Council, with which management must consult on a range of issues (USA International Business Publications, 2007, p. 246), including decisions on large investments, the expansion or reduction of business activities, or social arrangements, including payment systems, health and safety, as well as rules on hiring, firing, and promotion (van den Berg et al., 2009, p. 3).

Participation extends numerous levels of influence in corporate decision-making and company policies, ranging from formally established consultative committees (Scully et al., 1995, p. 277), works councils, and trade unions (Blanpain et al., 2011, p. 284), through to the development of good relations with managers or supervisors at an informal level (Scott-Ladd & Marshall, 2004, p. 647). In regard to the latter, Allen et al. (2010) argue that firms where employees maintain healthy relationships with their co-workers and immediate supervisors were found to be better at retaining talent than those with strained relationships. As an example, Nuon Energy, a Dutch utility company providing electricity, gas, and heat in the Netherlands, Belgium, and the UK, operates an internal forum entitled 'Speakers' Corner', in which senior managers and employees

come together on a regular basis to discuss information on present events (Nuon, 2014, p. 12). By tying managers and employees together through constant interaction, the firm systematically aligns its interests with those of its employees, who are more likely therefore to act in ways that are consistent with corporate objectives (Masson et al., 2008, p. 56). In other words, individuals who are engaged with their workplace are thus more satisfied, hold a positive attitude towards their employer, and have fewer intentions to leave the organization (Lockwood, 2007, p. 9).

In light of the wider adoption of technology in the workplace (Mušura et al., 2013, p. 43), the constant need and push for around-the-clock working hours (Kroon, 2012, p. 3), and the greater prevalence of dual-earner families, balancing between work and private commitments (Adisa et al., 2017, p. 455) has become an increasingly difficult task (Stahl et al., 2007, p. 20). The greater importance of work life balance and employee flexibility (Cegarra-Leiva et al., 2012, p. 92) has given rise to new legislative proposals (Tak et al., 2014, p. 23), including the Flexible Working Act, allowing employees in the Netherlands to request more flexibility in their working hours and place of work (Fagan & Vermeylen, 2017, p. 14). In addition to statutory work life balance schemes, the earliest of which was introduced in the early 1990s, firms in the Netherlands have adopted an increasing range of formal and informal work life measures as a necessary condition for employee engagement and job satisfaction (Stahl et al., 2007, p. 20; Arenofsky, 2017, p. 19). They include leave entitlements, childcare support, and flexible working arrangements, such as telework, a compressed work week, and reduced working hours (Dulk et al., 2014, p. 155) from 40 to 36 hours (Tak et al., 2014, p. 27). 44% of employees are granted flexible start and finishing times (38% in EU27) and 49% (42% in EU27) fluctuate in terms of their daily hours (Eurofound, 2012, p. 16). In fact, the share of large-scale companies with more than 500 employees providing childcare arrangements rose from 34% in 1992 to 98% in late 2004 (Dulk & Peper, 2007, p. 54).

Additional work life measures involve activities for determining correct staffing levels to avoid that workers are being overloaded, and provide, if possible, health and well-being opportunities, whether it be access to a gym and time to exercise (Deery, 2008, p. 804). In addition to increased flexibility at work, firms need to ensure their employees' health, personal safety, and well-being, and sustain a work environment that provides suitable physical and mental conditions for them, which, if insufficient or not all present, might lead to higher levels of work-related stress, mental fatigue, anxiety, and therefore dissatisfaction, productivity loss, and absenteeism (Salman et al., 2016, p. 186). The implementation of health and safety standards in the form of occupational health programs and training (Imna & Hassan, 2015, p. 59) as well as measures to mitigate the imbalances between job demands and resources, which more than 25% of Dutch employers have not sufficiently taken (Wiezer et al., 2013, p. 150), is imperative for the reduction of employee

turnover. For example, Royal Philips dedicated its resources not only towards traditional process and equipment safety improvements, but put in place a program called 'Behavior Based Safety' based on internal best practices and aimed at promoting a rigorous shift in how health and safety in the workplace are conceived and acted upon (Philips, 2017, p. 193). In general, Dutch firms are adopting a rich variety of retention and engagement practices, ranging from appropriate pay and rewards, to activities focused on providing sufficient opportunities for personal growth and development, the involvement in decision-making, and the creation of flexible and safe working conditions (Rathi & Lee, 2015, p. 466).

In view of MNCs, a particular challenge is associated with the return of expatriates from foreign assignments (Tarique & Schuler, 2012, p. 29). However, many firms fail to adequately capitalize on their investments in their HC, with around 50% of the repatriates leaving the company within the first two years of returning to their home country (Kraimer et al., 2009, p. 28). This is a key strategic issue (Lazarova & Cerdin, 2007, p. 404), as repatriates gain valuable knowledge about the complexities of global operations, the characteristics of foreign markets, the differences in customer preferences (Downes & Thomas, 1999), and thereby facilitate the transfer of valuable, economic knowledge from subsidiaries to headquarters, and vice versa (Lazarova & Tarique, 2005, p. 361). Losing these key knowledge holders with their expatriate experience is not only costly, but indirectly leads to giving advantage to competitors, by whom repatriates as valuable human assets are likely to be acquired (Lazarova & Caligiuri, 2001, p. 390). Repatriate turnover has been associated with loss of status and autonomy, sluggish career advancement and lack of career counseling, being placed in non-challenging positions, and lack of management support (Kraimer et al., 2009, p. 31; Lazarova & Tarique, 2005, p. 366; Lazarova & Caligiuri, 2001). Adler (1981, p. 352) finds on multiple occasions, that expatriates thought that the timing of their return was based more on the completion of their foreign project, rather than on the parent firm's need for them to fill a specific domestic position, which has been invariably accentuated as the topmost professional concern among repatriates (Lazarova & Tarique, 2005). As a result, MNCs adopt various repatriation practices to keep internationally proficient employees (Tarique & Schuler, 2012, p. 29) and capitalize on the vast experience and expertise that resides within them upon return (Knocke & Schuster, 2017, p. 276). Lazarova and Caligiuri (2001, p. 393) outlined a number of support practices, that were perceived to be crucial for repatriates, including predeparture briefings on what to expect when abroad, career planning sessions, financial counselling, and continued communication between themselves and the home base, and visible signs that the firm values the experience which they gain. Howe-Walsh and Torka (2017, p. 67) add relocation benefits, repatriation allowances, proper education, and redeployment once the assignment has

been terminated. All in all, MNCs seeking to widen their global footprint, for which repatriates are key enablers, need to cultivate a corporate culture and structure, that fully support them prior, during, and after their assignments, value the significance of international knowledge (Lazarova & Caligiuri, 2001, p. 398), and facilitate the dissemination thereof (Oddou et al., 2013, p. 263).

2.3 Conceptualizing Absorptive Capacity

Amid strong economic pressures, disruptive innovations, and lastly, a raging 'War for Talent' firms must consistently learn from and adapt to their surroundings to maintain their competitive position. Barney (1991, p. 101) explained that firms obtain and sustain competitive advantages through their idiosyncratic resource combination, enabling them to conceive of and implement strategies to minimize threats and to exploit opportunities in their environment. In line with the resource-based view, firms are not made of economic transactions, but are firm-specific bundles of resources, processes, and routines (Madhok, 1996, p. 578; Osterloh et al., 2002, p. 64), which their ability to attain competitive advantage is dependent upon. This notion emerged in the mid-1980s from work published by Wernerfelt (1984, p. 171) and Prahalad and Hamel (1990, p. 5). The literature in this tradition recognizes knowledge as the most crucial organizational resource, strategically speaking, that a firm can manage (Leiva et al., 2017, p. 672; Dishon & Yabs, 2017, p. 102) in order to gain competitive advantage (Rebolledo et al., 2009, p. 52). Lane and Lubatkin (1998, p. 462) point out that a firm's knowledge comprises both easily articulable knowledge as well as tacit knowledge, the latter of which is more difficult to define due to its interconnections with other aspects of the firm, including its processes and social context (Ahmed, 2016, p. 89).

Hence, the tacit nature of knowledge enables firms to create internal routines and processes that are rare, imperfectly tradeable, costly to imitate by others, and hence a key source of sustainable competitive advantage (Barney, 1991, p. 102; Daspit, 2012, p. 2). Upon the seminal contribution by Hedlund (1986) and Ghoshal and Bartlett (1990) who conceptualized an MNC as a differentiated network of smaller units, each of which creates and shares knowledge with other interrelated parts of the firm, empirical research was aimed particularly at elucidating how knowledge in firms is created, shared, and used (Nonaka, 1994, p. 14). The effective management of internal knowledge stocks and flows was shown to facilitate value creation (Latukha et al., 2016, p. 4), with competitive advantage depending the capacity to create (Spender, 1996, p. 54) and transfer valuable knowledge (Grant, 1996, p. 111). However, firms have gradually abandoned the idea that knowledge creation is predominately an internal process (Gans & Stern, 2003, p. 343), with the boundaries between firms' knowledge internal stocks and external sources becoming blurred in many industries (Escribano et al., 2009, p. 96). Beyond that, the strategic value of the firm's

capabilities naturally is said to erode with the emergence of substitutes (Lane & Lubatkin, 1998, p. 462), forcing it to adapt its existing capabilities or develop new ones from prior knowledge (Leonard-Barton, 1992, p. 112). Many firms, due to a lack of resources and expertise, cannot, however, depend on their own capabilities in order to do so (Meissara, 2017, p. 3), and instead turn to other available, mostly external, sources of knowledge in an effort to develop capabilities more divergent from their existing ones. The strategic importance of external knowledge is further exemplified by the fact that a major share of innovation is accounted for by imitations rather than inventions (March & Simon, 1958, p. 188; Murovec & Prodan, 2008, p. 45). In other words, firms gain new knowledge not necessarily from in-house R&D, but from extra-industry parties, such as buyers, competitors, suppliers (Indarti, 2010, p. 15), the government, and university labs (Cohen & Levinthal, 1990, p. 141), and involuntary external knowledge flows. The latter arises when part of the knowledge created by one organization spills over its boundaries into the public domain and is subsequently borrowed and potentially exploited by another (Escribano et al., 2009, p. 97). Nelson (1959, p. 302) and Arrow (1962) were first in discussing this notion, and classified knowledge as having features of a durable public good. With that said, Rosenberg (1982, p. 198) considers external knowledge sources to be indispensable for innovation capacity, which in capitalist economies is widely regarded as a central feature of competition (Zander & Kogut, 1995, p. 76). However, a firm cannot simply rely on outside sources of knowledge, as mere the exposure to it is not enough to be able to sufficiently internalize it (Escribano et al., 2009, p. 97). For an organization to even attempt to imitate technologies generated elsewhere, it requires complementary skills and expertise for translating innovation results into enhanced productivity (Mason et al., 2017, p. 4; Lenart, 2014, p. 89). For example, a firm producing plastic toys will find it less problematic to acquire and internalize technologies relevant in keyboard manufacturing than firms which never worked with plastics (Ricken & Malcotsis, 2011, p. 38).

With that said, Cohen and Levinthal (1989, p. 569) introduced the concept of a firm's absorptive capacity and referred to it as the firm's ability to identify, assimilate, and exploit knowledge from external sources. AC succinctly captures the steps involved in interorganizational learning (Lane & Lubatkin, 1998, p. 462). Cohen and Levinthal (1990, p. 128; 1994, p. 227) added that the capacity to exploit external knowledge comprises a set of closely related abilities to identify the technological and commercial potential of knowledge in a particular domain, and assimilate it, and apply it for profit generation. AC is especially important for firms in knowledge-intensive industries, where rapid technology changes force them to constantly search for new knowledge (Peltoniemi, 2007, p. 85), react to shortened development cycles, and predict the nature of future technological advances more accurately (Jakšić et al., 2013, p. 255). Deeds (2001, p. 31) says

that AC does not only stimulate organizational learning, but helps organizations act on scientific discoveries and technical activities outside their boundaries (Da Silva & Davis, 2011, p. 360). The role of AC in innovation (Tsai, 2001, p. 996), corporate performance (Lane et al., 2001, p. 1139), intra-firm knowledge transfer (Szulanski, 1996, p. 27), and inter-organizational learning (Lane & Lubatkin, 1998, p. 461) has therefore received increasing attention. However, the study of AC remains relatively difficult due to the ambiguity and diversity concerning its definitions, antecedents, and organizational outcomes, stressing the need for more clarity about the domain and operationalization thereof (Joglekar et al., 1997; Zahra & George, 2002, p. 185).

The concept had originated in the field of macroeconomics, where it represented the ability of an economy to absorb and capitalize on external information and resources (Adler, 1965, p. 36; Murovec & Prodan, 2008, p. 44). Cohen and Levinthal (1989) later adjusted the AC concept to the level of the organization. Its application is not, however, limited to merely one specific level of study, but rather it extends from the individual level (Minbaeva et al., 2017), to the intra-firm or unit level (Szulanski, 1996), to the organizational or firm level (Cohen & Levinthal, 1990), to the interorganizational level (Lane & Lubatkin, 1998), and to the country-level (Keller, 1996). In discussing the importance of multilevel cornerstones of organizational constructs, Coleman (1990) observed that higher-level, or macro-level, capabilities and routines typically draw upon interactions of actors at lower levels, or micro-levels. Cohen and Levinthal (1990, p. 131) apply Coleman's rationale, arguing that a firm's AC is dependent on the mechanisms and interactions between and within sub-units and individuals, and thereby underscore the multi-dimensionality of the AC concept (Bosch et al., 2003, p. 6; Minbaeva et al., 2017, p. 2), which builds up from individual members' AC through different unit levels in the organization (Murtic, 2016, p. 28) and eventually converges to organizational AC. In other words, the AC of the organization as a whole is rooted in individual members (Cohen & Levinthal, 1990, p. 129), whose prior related knowledge and experience, which their individual AC, in turn, depends on, are key determinants for higher-level AC (Murtic, 2016, p. 29). As a result, Lane et al. (2006, p. 838) regard the firm's investments in developing its employees' AC as having a positive impact on organizational AC.

Therefore, omitting the role of individuals in theorizing firm-level AC would be ontologically incorrect, as organizational capabilities are, for the most part, a reflection of representations, beliefs, and information held by single individuals (Foss, 2006, p. 8). This is consistent with the knowledge-based view (Osterloh et al., 2002, p. 64) and suggests that individuals are the primary actors in knowledge creation and transfer, and act as key repositories of knowledge embedded within the firm (Minbaeva et al., 2003, p. 5). The unique and valuable ways in which knowledge is combined and applied, is what facilitates its translation into competitive advantage. However,

this uniqueness arises from personal knowledge and the mental modes of individuals within the firm, who scan the knowledge environment, bring external knowledge into the firm, and exploit it in products, processes, and services (Lane et al., 2006, p. 854). Foss (2007, p. 43) shows that individuals' efforts constitute important building blocks of firm-level AC, whereby knowledge creation and sharing at the organizational level cannot be reached in lieu of a starting point in individuals (Tian & Soo, 2014, p. 3). That being said, firm-level AC is not the simple sum of its employees' AC, but depends on the external and internal structures of the firm used for steering information and technology flows (Cohen & Levinthal, 1990, p. 131; Ricken & Malcotsis, 2011, p. 38). In order to build firm-level AC, individuals' specialized knowledge must be integrated with that of others through communicational and coordination structures (Murtic, 2016, p. 29), facilitating social interactions within and across divisions, departments, and teams (Bosch et al., 2003, p. 12). This diverts attention to the role of gate-keepers, who serve as boundary spanners between sub-units at the intra-firm level, or as interfaces between the firm and the environment (Cohen & Levinthal, 1990, p. 132). More specifically, they create a language that can be understood by different units and parties involved and thereby reduce communication gaps and mismatches between the providers and users of knowledge (Indarti, 2010, p. 24). What is more, the development of AC at the intra-organizational level is also dependent on the structure, size, and management of the sub-units and, not least, on the level of cooperation between them (Murtic, 2016, p. 29). All in all, organizational structures and mechanisms are thus indicative of the speed and direction of the aggregation of individuals' AC to firm-level AC. While some organizational structures and modes draw employees' AC directly into firm-level AC, others facilitate the same transition through intermediaries, such as units, divisions, and task forces (Murtic, 2016, p. 29).

2.3.1 What Determines Absorptive Capacity?

The application of the AC construct in various fields and at various levels of analysis eventually led to the identification of a whole array of factors that are said to enable firms to develop and sustain their AC (Schmidt, 2009, p. 3). However, Zahra and George (2002, p. 199) criticized the extant literature for applying measures, such as R&D intensity, number of scientists working in firms' R&D departments, and patent portfolio, as they are rudimentary and thus fail to capture the richness of the concept. Murtic (2016, p. 20) notes that it would be erroneous to think of AC as a unidimensional capability that could be adequately measured with such simplistic proxies. Hence, the routines and processes by which firms recognize and use external knowledge (Zahra & George, 2002, p. 199) and the role of individuals throughout this process (Mahnke et al., 2004, p. 5) require more attention. In other words, firms attempting to manage the development

of their AC must understand the mechanisms and factors that help organizational and unit level AC arise from individuals' AC (Murtic, 2016, p. 33). In their work, Cohen and Levinthal (1990, p. 136) expand the AC construct and deem it path-dependent and domain-specific for the reason that past experience and prior related knowledge impact the use of knowledge, and with it, AC at both the individual and organizational level (Stuart & Podolny, 1996, p. 22). This implies that AC is cumulative in nature (Schmidt, 2009, p. 5), because the way in which an individual or an institution learns is usually by drawing on what it learned in the past (Cohen & Levinthal, 1994, p. 229). Research on memory development indicates that accumulated prior related knowledge enhances both the ability to put new knowledge into memory and to recall and use it (Cohen & Levinthal, 1990, p. 129). Learning performance is therefore greatest when the object of learning, in this case the new knowledge to be assimilated, relates to what is already known (Lane et al., 2006, p. 838). A pharmaceutical company, for example, will be less capable of recognizing and exploiting the latest advances in genetic engineering, if it lacks expertise in molecular chemistry. The absence of 'relatedness' in knowledge will therefore result in unclear innovation outcomes (Jakšić et al., 2013, p. 257), which is consistent with the findings of Audretsch and Keilbach (2008, p. 1698), arguing that the inherent uncertainty of transforming new economic knowledge into viable new products or technologies soars with the degree to which the ideas are incrementally different from the existing knowledge base. AC develops cumulatively also in the sense that building it makes its accumulation in later periods more efficient (Cohen & Levinthal, 1994, p. 229). In other words, through learning and continued innovation, both of which are facilitated and enhanced by the presence of AC, the company adds new knowledge to and thereby expands its prior knowledge base, which, in turn, improves its overall level of AC (Murtic, 2016, p. 18).

AC increases also the speed of innovation, as many innovations draw primarily on the existing knowledge base (Lane et al., 2006, p. 849). Having developed some expertise in a given field already not only improves the firm's ability to identify what extra information will be useful in exploiting new technological developments (Cohen & Levinthal, 1994, p. 229), but also allows for more accurate prediction about the nature and commercial potential of future technological advances (Lane et al., 2006, p. 838). Evidently, firm-level AC depends in no small part on the firm's existing stock of accumulated knowledge (Boynton et al., 1994, p. 300; Bosch et al., 2003, p. 6), the content of which is typically accrued through in-house learning efforts (Giuliani & Bell, 2005, p. 49), embedded within products and services (Escribano et al., 2009, p. 96), and embodied in employees' expertise and skills (Leonard-Barton, 1992, p. 113). This gives reason to assume that a firm's investments in their employees' individual AC will positively impact the overall AC of the organization (Lane et al., 2006, p. 838). With that said, the AC of individuals

depends, however, on their cognitive predisposition, characteristics, behaviors, and educational backgrounds, which happen to predefine their ability to learn and apply new knowledge (Murtic, 2016, p. 29). In this context, Cohen and Levinthal (1990, p. 130) build on evidence from research on individual level cognition and behavior and regard 'ability' as a key component for individual AC. In that sense, lack of ability implies that cognitive structures necessary to perform more complex tasks are either non-existent or inaccessible (MacInnis & Jaworski, 1989, p. 7). Alba and Hutchinson (1987, p. 419) add that cognitive limitations would increase someone's tendency to discount or simply ignore crucial information in the decision-making process, which supports the assumption that deficiencies in ability constrain an individual's capacity to process information and hence absorb knowledge (Minbaeva et al., 2017, p. 8). Lack of ability can result from poor education, limited intelligence, or lack of experience. The latter affects ability in the sense that people usually have a greater capacity of understanding in areas where they have gained prior experience that enables them to learn new knowledge by linking it with what they know already (Cohen & Levinthal, 1990, p. 130; Argote et al., 2003, p. 575). The same principle goes for problem-solving, whereby in scenarios where the problem is familiar, experience leads to the direct retrieval of prior solutions, and in scenarios where the problem is new, expertise in turn enables the individual to conceive of and evaluate potential solutions (Alba & Hutchinson, 1987, p. 427). A person's ability to assimilate and use knowledge is also expected to increase with the level and quality of education and training which they receive (Schmidt, 2009, p. 3; Indarti, 2010, p. 23). In this context, Rothwell and Dodgson (1991, p. 130) point out that SMEs usually lack time as well as resources to identify and use important external sources of scientific and technological expertise and therefore need well-educated and highly trained engineers and technicians to access knowledge beyond their boundaries.

However, an individual's ability is not in itself sufficient for determining AC, as it requires the presence of motivation or intensity of effort (Minbaeva et al., 2017, p. 9). Few would question the assertion that if individuals had the requisite ability to engage in learning, yet their motivation for doing so was low or absent, they would nonetheless fail to absorb knowledge (Baldwin et al., 1991, p. 52). Evidence from industrial and organizational psychology shows that the effect of motivation on performance depends on the level of ability, whereas the relation of ability to performance depends in turn on individual motivation (Vroom, 1964, p. 203; Minbaeva et al., 2003, p. 592). Thus, the role of motivation is widely perceived as having a positive influence on knowledge-related outcomes (Argote & Ingram, 2000, p. 162; Minbaeva et al., 2017, p. 9). In discussing internal stickiness or impediments to intra-firm knowledge transfer, Szulanski (1996, p. 37) deems motivational factors and knowledge-related barriers as their main cause. The latter

concerns the tacit, context-specific, and ambiguous nature of knowledge (Minbaeva et al., 2003, p. 592). The former concerns the motivation of a knowledge sender or recipient to devote time and resources to transfer or accept new knowledge, respectively (Szulanski, 1996, p. 31).

In the context of knowledge transfer in MNCs, Minbaeva et al. (2003, p. 593) find that motivated employees render their subsidiary more attractive as an exchange partner to other units and thus more capable of acquiring and exploiting the knowledge it received (Mahnke et al., 2004, p 5). The motivation literature distinguishes between intrinsic and extrinsic motivation. The former arises when employees engage in work mainly for its own sake, as the job itself is fulfilling or in a way satisfying (Amabile et al., 1994, p. 950). Intrinsic motivation is induced by individuals' commitment to their work (Deci, 1975, p. 23; Osterloh et al., 2002, p. 64), and directed to self-set goals (Loewenstein, 1999, p. 337) or obligations of personal and social norms (March, 1999, p. 377). Intrinsically motivated employees tend to select work assignments that allow them to expand their expertise (Amabile et al., 1994, p. 951) and, in doing so, derive skills from other domains or apply great effort to acquiring requisite skills in the target domain (Amabile, 1997, p. 44; Minbaeva et al., 2017, p. 10). Extrinsic motivation, by contrast, occurs when people satisfy their needs indirectly via financial rewards (Osterloh et al., 2002, p. 64), recognition, or the dictates of others (Amabile et al., 1994, p. 950). Thus, extrinsically motivated coordination aims to link employees' financial motives with the firm's goals. Those who are more susceptible to extrinsic motivators are more willing to participate in knowledge transfer, if they perceive a link between knowledge sharing behaviors and physical rewards (Cabrera et al., 2006, p. 251; Minbaeva et al., 2017, p. 9). Hence, the nature of motivation in knowledge sharing can be economic relating to rewards and recognition; social-psychological relating to reciprocal relationships and self-determination; or sociological relating to fairness and affiliation (Bock et al., 2005, p. 91).

Although an individuals' ability and motivation play a vital role in knowledge creation and use, Minbaeva et al. (2017, p. 9) argue that their respective effect on employee and hence firm-level AC increases when intertwined with opportunity. Put simply, effective knowledge management necessitates providing individuals with an opportunity to create, retain, and leverage knowledge (Argote et al., 2003, p. 575). In fact, Minbaeva et al. (2017, p. 11) claim that knowledge transfer only occurs when a relationship, or at least some form of interaction, exists between knowledge sender and receiver. This corroborates the argument of Easterby-Smith et al. (2008, p. 678), that interactions between employees not only foster knowledge transfer and a mutual understanding between them, but also present an opportunity for them to learn from each other. Social integration, either formally by using coordinators or informally through social networks, reduces the structural, relational, and cognitive barriers, that otherwise hinder the distribution and eventual

exploitation and integration of knowledge (Zahra & George, 2002, p. 194). Social integration mechanisms thus create broad, tacitly understood rules for coordinating economic actions inside the firm (Camerer & Vepsalainen, 1988, p. 115), install common codes of communication and coordinated search processes (Teece et al., 1997, p. 520), and build on two common features, namely socialization tactics and connectedness (Jansen et al. 2005, p. 12). The former is used to foster shared socialization experiences among organizational members and strong interpersonal relations between them as well as provide newcomers with access to key sources of information, and ways to practice information-seeking behaviors (Ashforth & Saks, 1996, p. 175). The latter, which in this context delineates the number and extent of relationships between the members of a network (Fennell & Warnecke, 1988), acts as a governance mechanism and enables knowledge exchange (Jansen et al. 2005, p. 12) in the sense that the more closely employees from different units are directly connected, the more likely they will be to build trust and cooperation (Maroulis & Gomez, 2008, p. 1903), share information, and respond to it in a concerted fashion (Jaworski & Kohli, 1993, p. 56). The establishment of effective and satisfying work relationships between employees, and rich communication between them (Chao et a., 1994, p. 731) enable and support the comprehension of background knowledge and strong social norms and beliefs (Jansen et al., 2005, p. 13), and are of particular effectiveness in activities, which require a high cognitive level (Vega-Jurado et al., 2008, p. 7), such as combining and integrating new and existent knowledge.

In order, however, to facilitate the commonality and exchange of knowledge across disciplinary and hierarchical boundaries (Teece et al., 1997), the role of coordination mechanisms, such as cross-functional interfaces, participation in decision-making, and job rotation, in creating a conducive knowledge context must not be ignored (Jansen et al., 2005, p. 6). Job rotation, meaning the lateral transfer of workers between jobs, can make knowledge absorption more effective by promoting the complementarity of experiences within the firm (Vega-Jurado et al., 2008, p. 8). Moreover, Hage and Aiken (1967, p. 510) find that the participation of subordinates in decision-making promotes the interplay between various perspectives and hence a rich internal network of diverse knowledge. Cross-functional interfaces, including liaison personnel and task forces, support lateral forms of communication and, more importantly, deepen knowledge flows across functional boundaries and lines of authority (Jansen et al., 2005, p. 6). Another organizational parameter said to influence knowledge transfer between individuals are system capabilities and, more precisely, formalization and routinization, which help configure behaviors through formal explicit rules prior to their execution and therefore provide a memory for handling routine tasks (Jansen et al., 2005, p. 9). Having said that, there are, however, two opposing views with regard to the effect of formalization, designating the extent to which rules and procedures govern

knowledge utilization practices. On the one hand, formalized structures reduce employees' flexibility and creative input, and therefore hinder knowledge exploitation, insofar as this is a highly cognitive dimension where rigid structures represent a serious impediment (Vega-Jurado et al., 2008, p. 7). On the other hand, formalization might assist with the retrieval of prior knowledge (Lyles & Schwenk, 1992, p. 164) and facilitate organizational memory of best practices which makes knowledge more efficient to exploit and easier to apply (Lin & Germain, 2003, p. 1133; Jansen et al., 2005, p. 10). Furthermore, routinization or the interlocking, reciprocally-triggered sequences of skillful actions (Cohen & Bacdayan, 1994, p. 554) can lead to automatic patterns of behavior and, in doing so, provide efficient structures for collective actions and reduce efforts expended on decision-making (Jansen et al., 2005, p. 11). The importance of such mechanisms clearly indicates that a firm's AC is not, however, the mere sum of employees' AC, but depends on the ability of the organization as a whole to stimulate as well as organize knowledge creation, and its transfer among individuals, and across departments and functions (Schmidt, 2009, p. 3).

2.3.2 Dimensions of Absorptive Capacity

By building on the three-dimensional concept presented by Cohen and Levinthal (1990), Zahra and George (2002, p. 186) define AC as a dynamic capability embedded in the processes and routines by which firms acquire, assimilate, transform, and, exploit external knowledge (Murtic, 2016, p. 18). For the reason that the exploitation of external knowledge requires the conversion of its content (Flatten et al., 2011, p. 98) into a usable form, Zahra and George (2002, p. 186) broadened the concept by including a fourth dimension: transformation capability. According to the authors, the now four dimensions, that together make up the firm's AC, can be delineated into potential and realized elements (Zahra & George, 2002, p. 190; Camison et al., 2009, p. 42) confined at individual and collective levels, respectively (Ojo & Raman, 2017, p. 27). Potential absorptive capacity (hereinafter referred to as PAC) captures the actions to identify, acquire, and assimilate new external knowledge (Jansen et al., 2005, p. 4), through which firms consistently renew and develop their knowledge base (Zahra & George, 2002, p. 190). As a result, PAC gives firms more strategic flexibility and freedom to adapt and evolve in fast-changing environments (Gluch et al., 2009, p. 453). In contrast, realized absorptive capacity (hereinafter referred to as RAC) relates to transformation and exploitation capacities (Latukha et al., 2016, p. 5), reflecting firms' abilities to derive new insights from combining existing with newly acquired knowledge, and incorporate transformed knowledge into their processes. In discussing AC as a multi-level concept, Sun and Anderson (2010, p. 142) conclude that acquisition mainly spans the individual level, while assimilation and transformation are confined to the group level, and exploitation to

the organizational level (Murtic, 2016, p. 30). It is worth noting, however, that PAC and RAC take separate but complementary roles in the flow of knowledge from its original source to being applied by the company (Jakšić et al., 2013, p. 256), whereby each component fulfills a requisite but insufficient condition for value creation and higher performance (Ahimbisibwen et al., 2016, p. 141). On the one hand, the firm can hardy exploit knowledge, that is has not yet acquired, but on the other hand, the firm may lack the ability to subsequently transform and exploit knowledge for profit creation upon its acquisition and assimilation (Zahra & George, 2002, p. 191), so that high PAC does not necessarily imply greater performance (Zerwas, 2014, p. 33). Heterogeneous levels of AC therefore translate into differences in the benefits from otherwise similar external knowledge stocks (Escribano et al., 2009, p. 98), whereby firms exposed to the same amount of external knowledge might not derive equal benefits, due to the differences in their capability to capture and exploit said knowledge (Giuliani & Bell, 2005, p. 50).

Organizations that focus largely on the acquisition and assimilation of new external knowledge are able to continuously renew their knowledge base, but in turn face higher costs of acquisition without the benefits of exploitation (Jansen et al., 2005, p. 3). A dominant focus on knowledge transformation and exploitation, however, can lead to short term benefits, but also increases the firm's risk of falling into a competence trap (Ahuja & Lampert, 2001, p. 526) and being slow to respond to environmental changes (Jansen et al., 2005, p. 4). In that sense, PAC defines firms' receptiveness to external knowledge (Zahra & George, 2002, p. 189), while RAC reflects their efficiency in leveraging absorbed knowledge (Fosfuri & Tribó, 2008, p. 175). In this connection, Cohen and Levinthal (1990, p. 131) point out that a firm's AC depends not only on its direct interface with the external environment, but equally on the transfers of knowledge across and within functions and units (Chauvet, 2014, p. 120). With that said, there is, however, a trade-off between inward-looking AC or the firm's propensity to process absorbed knowledge through interactions inside teams and subunits (McAdam et al., 2010, p. 234), and outward-looking AC or the deliberate focus on acquiring and assimilating knowledge through interactions between subsidiaries, or between the firm and the external knowledge environment (Cohen & Levinthal, 1990). In fact, Yin and Er-Ming (2013, p. 1824) purport that, by placing inherently conflicting resource and organizational demands on the firm, these two dynamics result in tension, and they add that firms benefit more by devoting limited resources towards the development of a focal capability, rather than spreading their resources across both capabilities.

This highlights the need to distinguish between the capabilities that respectively comprise PAC and RAC (Zerwas, 2014, p. 34) and, more crucially, evaluate their unique contributions towards performance-related outcomes (Zahra & George, 2002, p. 191).

Acquisition is defined as the capability of identifying, valuing, and gathering knowledge from outside sources that is important for the firm's operations (Zahra & George, 2002, p. 189; Noblet et al., 2011, p. 369). The acquisition of knowledge beyond the firm's borders mainly spans the individual and group levels (Sun & Anderson, 2010, p. 143), and depends on the collective prior knowledge of its individuals (Addorisio, 2014, p. 3), influencing the locus and efficiency of the search for new knowledge (Cohen & Levinthal, 1990, p. 128). Evidently, the greater the breadth of employees' prior knowledge, the greater is their ability to explore new external knowledge (Lane et al., 2006, p. 838; Sun & Anderson, 2010, p. 143). Jansen et al. (2005, p. 8) add that the breadth of knowledge can be expanded through job rotations, as the lateral transfer of employees between jobs reinforces diversity of backgrounds and problem-solving skills. In addition to prior knowledge of employees, acquisition capabilities also depend on the firm's knowledge exposure in its environment (Zahra & George, 2002, p. 191), which is in line with Cohen and Levinthal (1990, p. 142), arguing that the scope of technological opportunities varies with the amount and value of the externally available knowledge (Lane et al., 2006, p. 836). This indicates that firms must develop external relationships and networks in order to access outside knowledge and find sources for knowledge variety for creating and combining new technologies (Ferreras-Méndez et al., 2015, p. 2). Cohen and Levinthal (1990, p. 132) add that the number of individuals who interact with the external environment is of equal importance in identifying external knowledge.

For this reason, the level of involvement in R&D collaborations and market-based transactions is positively associated with the propensity to acquire valuable knowledge (Fosfuri and Tribó, 2008, p. 185). Hamel (1991, p. 84) states that the acquisition of new, specialized knowledge can also act as a motivator for establishing inter-organizational collaboration. In addition, Andersén (2015, p. 77) argues that cross-functional teams and organizational openness further improve the knowledge identification and acquisition. In this context, Laursen and Salter (2006 p. 134) reported that the openness of external search processes underlies both the breadth and depth of external search. While the former refers to the number of external sources and search channels used by the firm for improving its knowledge base, the latter refers to how deeply it draws from different external sources to drive productivity (Ferreras-Méndez et al. 2015, p. 2). Having said, that, the quality of acquisition capabilities also depends on the intensity and speed at which firms identify and seize knowledge (Zahra & George, 2002, p. 189). In fact, the greater the effort in acquiring external knowledge, the more rapidly the firm will develop requisite capabilities (Kim, 1997, p. 87). There are, however, limits to achieving this speed (Zahra & George, 2002, p. 189) as learning cycles cannot easily be shortened and some of the firm's resources necessary for absorbing innovative knowledge directly from the market cannot be assembled quickly enough

within the organization (Prandelli et al., 2008, p. 11). Consequently, companies ought to tap into additional knowledge sources and establish ad hoc innovation sourcing channels to sustain the pace of innovation (Linder et al., 2003, p. 44). According to Rocha (1997, p. 21), increasing the effectiveness of importing new external knowledge requires the firm to develop multiple areas of expertise, since the type of acquired knowledge and its similarity to existing knowledge (Hurtado-Ayala & Gonzalez-Campo, 2015, p. 27) are key factors in acquiring outside knowledge.

When new knowledge has been acquired, the next step is to assimilate it through routines and processes (Szulanski, 1996, p. 28; Andersén, 2015, p. 78) allowing the firm to analyze, process, and interpret its content (Zahra & George, 2002, p. 189), as well as infer relevant consequences (Baškarada & Koronios, 2018, p. 96). This requires, however, that the firm's prior knowledge is similar to that of the knowledge source, which the new knowledge originated from (Cohen & Levinthal, 1990, p. 128). In discussing interorganizational learning, Lane and Lubatkin (1998, p. 465) suggest that if one firm, being the receiving unit, attempts to learn some of the valuable knowledge developed by another, the prospects of internalizing that knowledge grow with the level of similarity between their respective knowledge-processing systems. Nooteboom et al. (2007, p. 1017) add hat firms must share certain cognitive structures established through shared fundamental categories of perception, interpretation, and evaluation, which, if too indifferent, will complicate the understanding and assimilation of new knowledge. Knowledge assimilation is thus determined by firm-specific knowledge (Cohen & Levinthal, 1990, p. 132) and the ways in which it is processed (Lane & Lubatkin, 1998, p. 464). This might justify the notion of local search, or the tendency of a firm to search for solutions mainly in the neighborhood of its current expertise (Rosenkopf & Nerkar, 2001, p. 288), and overlook ideas that fall beyond its area of established competencies, as they represent different heuristics and are consequently more difficult to understand (Zahra & George, 2002, p. 189). In the context of novel and radical knowledge, assimilation capabilities are usually confined to the group level, as within culturally distinct subunits, and at best insulated from strong underlying organizational beliefs and assumptions, that could hinder the articulation of new connections and possibilities (Sun & Anderson, 2010, p. 143). Knowledge assimilation underlies the socio-psychological learning process of interpretation, whereby unit members use rich metaphorical language and social interactions to create a shared group level understanding and develop individual cognitive maps about various domains, that allow them to differently interpret the same stimulus (Crossan et al., 1999, p. 528). For this interpretive process to happen in a way that it reconciles diverging interpretations to create valuable new learning and move beyond the individual to be embedded in the workgroup, dialogue is critical and requires collegial and managerial support at the group

level (Sun & Anderson, 2010, p. 144). Furthermore, cross-functional interfaces can foster lateral communication, which deepens knowledge flows across functional boundaries, and contributes to a unit's ability to overcome differences, interpret issues (Jansen et al., 2005, p. 8), and develop mutual understanding and agreement about new external knowledge (Daft & Lengel, 1986, p. 561). The density of linkages between individuals, both formal and informal, can motivate group members to be of assistance to each other, and encourage two-way interactions that enhance the prospects of interpreting and understanding of new knowledge (Jansen et al., 2005, p. 25). Hage and Aiken (1967, p. 510) add that the participation of subordinates in decision-making facilitates internal networks of diversified knowledge and thus the assimilation of new external knowledge (Jansen et al., 2005, p. 7). Evidently, the level of quality of the ability to assimilate new external knowledge is subject to both individuals' cognitive abilities and motivations (Andersén, 2015, p. 79), and the capabilities and mechanisms that the organization as whole has developed.

Knowledge transformation occurs when the shared understanding achieved at the group level is converged to the organizational level (Sun & Anderson, 2010, p. 144). It is dependent upon the firm's ability to develop and refine such routines that facilitate the transference and combination of prior related knowledge with newly acquired and assimilated knowledge (Zahra & George, 2002, p. 190). This learning process is upheld by adding or deleting knowledge, and by reinterpreting existing knowledge (Noblet et al., 2011, p. 369) and require the ability to round up a set of knowledge that was previously segmented and disjointed, or combine components thereof in new ways (Jelenic, 2011, p. 37). It is a process that enables a new shared understanding to evolve within the firm, particularly in relation to the new external knowledge (Sun & Anderson, 2010, p. 144), thus leading to new insights, the recognition of opportunities, and changes in the way the firm views itself and its competitive landscape (Zahra & George, 2002, p. 190; Gluch et al., 2009, p. 453). However, the firm cannot transform externally acquired knowledge, unless it has the requisite combinative capabilities to combine knowledge from both internal and external sources and gain new knowledge in the course thereof (Andersén, 2015, p. 80). Achieving a shared understanding requires continuous conversation and interaction, as well as joint and coordinated action taking (Crossan et al., 1999, p. 525). The former relies on shared practice that is accomplished through, for example, sand-pit experimentation as a means for testing the knowledge without significant disruptions, discovering pitfalls early, minimizing failures in the wider implementation (Sun & Anderson, 2010, p. 144), and moving from superficial knowledge to deep understanding (Hübner, 2002, p. 8). In discussing the likelihood of encouraging local actors to transform new knowledge in the local context and, in doing so, convert individual AC to organizational AC, Hortho et al. (2012, p. 384) points towards social integration mechanisms.

More specifically, social integration facilitates interpersonal relationships and the congruence of values and beliefs, which supports bisociation between unit members and the combination of newly acquired and existing knowledge (Jansen et al., 2005, p. 13). The process of bisociation in which firms recognize and combine two self-consistent but incompatible sets of information (Koestler, 1966, p. 35) to arrive at a new organizational schema (Zahra & George, 2002, p. 190), requires the retainment of useful routines and practices (Sun & Anderson, 2010, p. 145). Jansen et al. (2005, p. 11) note that routinization promotes joint action by establishing automatic patterns of organizational behavior, and thereby helps members of the firm, who preplan the handling of their tasks, transform external knowledge into existent sets of tasks. Further to that, the degree to which rules, processes, and communications are formalized (Jansen et al., 2005, p. 10) is also a decisive factor in the retrieval of knowledge that has already been internalized (Lyles & Schwenk, 1992, p. 164), and increases the likelihood of unit members identifying opportunities for knowledge to be transformed (Zollo & Winter, 2002, p. 342).

Knowledge exploitation as an organizational learning capability is based on the routines through which firms redefine, extend, and leverage their existing competencies or develop new ones by incorporating acquired and transformed knowledge into their operations (Zahra & George, 2002, p. 190; Sun & Anderson, 2010, p. 145). What this process requires is the retrieval of knowledge which had already been created and internalized for use (Lyles & Schwenk, 1992, p. 164). This step can be regarded as achieving the firm's goals and satisfying its needs (Hurtado-Ayala & Gonzalez-Campo, 2015, p. 28). The outcomes of systematic exploitation are typically measured in tangible outputs (Andersén, 2015, p. 81), including new products, systems, and knowledge, or new organizational forms (Zahra & George, 2002, p. 190). The application new knowledge to tangible operations is, however, a complex task requiring an understanding of the complexity of the utilization and leveraging process (Andersén, 2015, p. 81). According to Sun and Anderson (2010, p. 145), this learning capability is induced by the process of institutionalization whereby new learning is captured into patterns of interactions through institutionalized systems and processes at the organizational level which provide a context for continuous interactions, guide individual behaviors even upon the departure of the people who were initially involved in the learning, and facilitates the continuous exploitation and refinement of acquired knowledge. Beyond that, the extent to which rules and procedures are formalized and documented, also influences knowledge utilization (Jansen et al., 2005, p. 10). In the context of strategic planning, formalized processes systemize information collection and dissemination, and thus facilitate the identification and a company-wide memory of strategic issues and best practices and thereby a more efficient use of knowledge (Lin & Germain, 2003, p. 1133). Exploitation capabilities are

most evident in new ventures harnessing knowledge from the external players, and in which knowledge is used for adapting existing competencies or developing new ones (Zahra & George, 2002, p. 190). However, changes of that kind often demand substantial organizational resources, especially when they radically alter the firm's business model, so that management needs to ensure coordinated deployment of limited resources where they have the most significant impact (Kim & Mauborgne, 2005, p. 161; Sun & Anderson, 2010, p. 145).

2.4 Linking Talent Management with Absorptive Capacity

Since the firm's AC consists of a mosaic of individuals' AC and the interactions between them (Murtic, 2016, p. 33), which correspond to the firm's structures and routines to facilitate learning and internal knowledge transfer (Indarti, 2010, p. 25), there is reason to assume that knowledge-based outcomes and HRM are interwoven (Schmidt, 2009, p. 6). There are at least two mediating variables to be considered when deriving the link between HRM and knowledge transfer; firstly, knowledge recipients' ability and willingness to absorb knowledge and, secondly, the environment in which knowledge is generated, shared, and applied (Minbaeva, 2005, p. 129). The most widely recognized impediment to knowledge transfer, however, is insufficient AC of knowledge receivers. In that sense, AC comprises, on the one hand, prior related knowledge in the form of skills and experiences, that are either possessed by a single individual or collective in nature and engendered through individuals' combined actions (Mason et al., 2017, p. 4), which the capacity of the firm to identify, interpret, and comprehend external knowledge is heavily dependent upon (Zahra & George, 2002, p. 191; Monteiro et al., 2008, p. 95). On the other hand, AC presupposes individuals' motivation, meaning the intensity with which they transfer and receive knowledge, which determines the firm's ability to use external knowledge for profit generation (Mahnke et al., 2004, p. 5). As both individuals' ability and willingness to acquire and exploit knowledge must be present to optimally facilitate AC (Minbaeva et al., 2017, p. 7), the use of HR practices, especially those which enhance knowledge receivers' skills and motivation, as well as the firm's learning environment, are thought to have a positive impact on knowledge transfer and thus AC (Minbaeva, 2005, p. 126), although via individual level mechanisms (Latukha et al., 2016, p. 8).

In other words, HRM can potentially inspire learning initiatives, encourage employees to renew their existing knowledge base, and enable the firm to manage knowledge stocks more effectively (Blackman & Kennedy, 2008, p. 9) by improving the caliber of firm-specific HC (Huselid, 1995, p. 637; Selivanovskikh & Latukha, 2017, p. 627). Thus, TM corresponds to managing the firm's HR as the embodiment of its knowledge capital insofar as to sustain a competitive advantage (Vance & Vaiman, 2008, p. 1). Since the development of firms' AC necessitates investments in

developing and enhancing their members' AC (Cohen & Levinthal, 1990, p. 131), firms seeking to elevate their AC will have to expand, among others, the processes and routines through which they attract, develop, and retain high-quality HC (Minbaeva, 2005, p. 130), including employees endowed with important tacit knowledge, capable of sourcing and transferring new knowledge, and equipped with the motivation for and satisfaction in doing so (Engelman et al., 2015, p. 3).

Therefore, TM practices can lead to better knowledge-related outcomes through the engagement and retention of personnel, building their expertise into organizational routines through learning processes, and establishing mechanisms for distributing the benefits that arise from creating and using new knowledge (Kamoche & Mueller, 1998, p. 1036). Furthermore, TM can facilitate the strategic management of talent flows and ensure that individuals with the requisite knowledge and skills are aligned with the right jobs according to organizational objectives (Ahmed, 2016, p. 90), and are placed into pivotal positions (Stahl et al., 2012, p. 10) where they fill knowledge gaps. TM systems, resulting in a large pool of qualified applicants, coupled with strict selection regimes thus directly impact the quality and type of knowledge, that new employees bring into the firm (Huselid, 1995, p. 637) and expand its existing knowledge base with. Besides hiring for applicants' specific knowledge, however, good TM should be predicated upon hiring for social capital, that is available and activated through interactions between individuals and their social networks (Engelman et al., 2015, p. 3) which, if brought into the firm in a collective manner, contribute to enhanced opportunities for importing knowledge from outside the organization and creating new knowledge therewith (Lengnick-Hall & Andrade, 2008, p. 42).

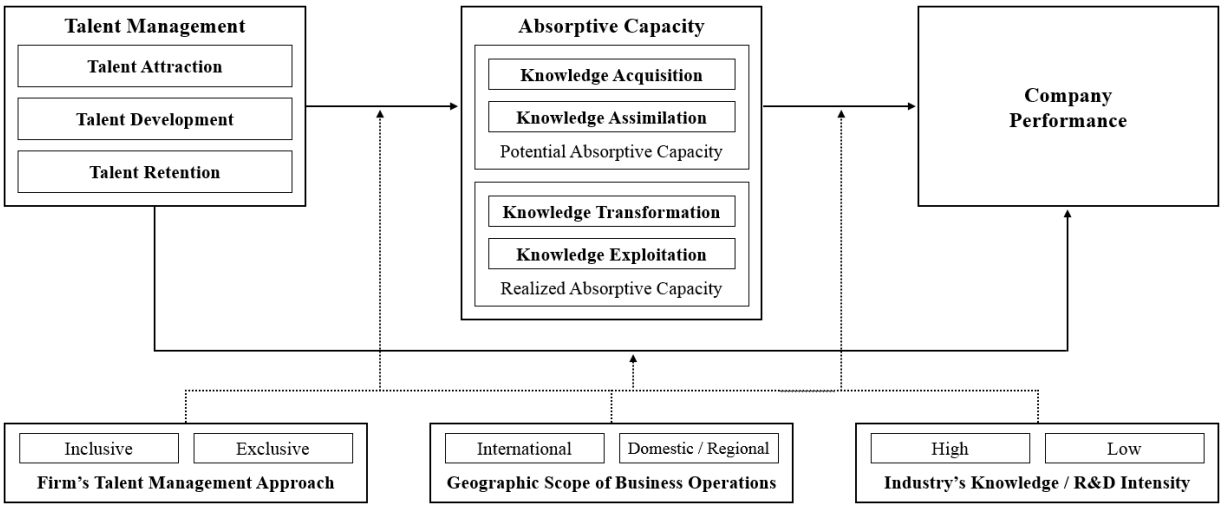
In light of tensions between individual career goals and organizational constraints, and the fact that many knowledge workers tend to learn in an informal, self-directed manner, and not always in line with the firm's needs (Ahmed, 2016, p. 92), there can be a delay between identifying and bridging critical competency gaps (Capuano et al., 2008, p. 58). Empirical data has demonstrated that in business reality more than 70% of learning activities occur in a non-formal or informal setting (Clardy, 2018, p. 2). Hence, TM can assist with the identification of employees' existing competences (Ahmed, 2016, p. 92) and fill potential knowledge gaps using appropriate training and education measures, including basic skills training, on-the-job experience, and one-on-one coaching (Huselid, 1995, p. 637). In addition, succession planning aligns the existing and future talent supply with the firm's strategic aspirations (Johnson et al., 2006; Stewart & Harte, 2010; Prius, 2011, p. 207). Moreover, TR generates tight links between the firm and crucial knowledge holders, whose departure impedes internal knowledge flows (Whelan & Carcary, 2011, p. 682) and translates into a loss of valuable tacit knowledge. This is avoided by giving these individuals the flexibility and resources to experiment with new ideas (Birkinshaw & Sheehan, 2002, p. 78)

and codify their tacit knowledge by writing working papers or through networking to be able to further disseminate it (Ahmed, 2016, p. 92). Repatriation comforts expatriates, who in their roles as boundary-spanners enable the integration of international knowledge and, more precisely, the transfer of knowledge from the parent organization overseas, and the import of knowledge that is to be exploited by the repatriating units (Whelan & Carcary, 2011, p. 680). In a nutshell, TM can facilitate an organizational context that nurtures, if not quickens, knowledge absorption and application (Whelan & Carcary, 2011, p. 678) and reduces the structural barriers, that otherwise hinder knowledge sharing and transfer across different parts of the firm (Ahmed, 2016, p. 92).

2.5 Theoretical Framework

Taking into account the research problem that is to be solved and prior literature, the conceptual model below was derived. It forms the basis for the empirical analysis and graphically represents the hypotheses and sub-hypotheses that need to be validated. The model illustrates how the three main constructs are supposedly connected, whilst subjected to a set of contextual factors, namely firms' understanding of talent, their operational scope, and knowledge intensity of their industry.

Figure 1: Conceptual Model



Considering the practical implications of TM, the author proposes that its presence has a positive effect on firm performance. In addition, practices aimed at attracting, developing, and retaining talent are expected to have an influence of similar nature, resulting in the following hypotheses:

H1: Talent management exerts an overall positive influence over company performance

- *H1a: Talent attraction is positively related to company performance*
- *H1b: Talent development is positively related to company performance*
- *H1c: Talent retention is positively related to company performance*

With knowledge being widely conceived as a key resource for sustaining competitive advantage, AC and thus the acquisition, assimilation, transformation, and exploitation of outside knowledge are expected to positively affect the firm's performance, resulting in the following hypotheses:

H2: Absorptive capacity exerts an overall positive influence over company performance

- *H2a: Knowledge acquisition is positively related to company performance*
- *H2b: Knowledge assimilation is positively related to company performance*
- *H2c: Knowledge transformation is positively related to company performance*
- *H2d: Knowledge exploitation is positively related to company performance*

As firm-level AC is a function of individuals' AC, grounded in their knowledge and capabilities, having an integrated set of routines to improve the quality and utilization of the latter is expected to have a positive influence over the former, resulting in the following hypotheses:

H3: Talent management exerts an overall positive influence over absorptive capacity

- *H3a: Talent attraction is positively related to absorptive capacity*
- *H3b: Talent development is positively related to absorptive capacity*
- *H3c: Talent retention is positively related to absorptive capacity*

As TM contributes to an organizational context more conducive to learning, knowledge creation and transfer, part of its effect on performance might be implicit in nature through AC, and thus:

H4: Absorptive capacity mediates the relation between talent management and performance

Taking into account that workforce differentiation, which exclusive TM is predicated upon, has been repeatedly linked with highly competitive settings, the following hypothesis is proposed:

H5: Exclusive as compared to inclusive talent management corresponds to more sophisticated practices to manage talent, higher levels of absorptive capacity, and greater performance

Due to differences in organizational structures and resources, MNCs are expected to outperform SMEs and nationally operating firms both in terms of TM and AC, leading to below hypothesis:

H6: MNCs use more sophisticated talent management practices and have an increased capacity to acquire, assimilate, transform, and exploit new, external knowledge than non-MNCs

As knowledge-intensive organizations are more reliant upon the scope and quality of knowledge embedded in their workforce as well as the level of AC, the following hypothesis is proposed:

H7: Firms in knowledge-intensive sectors use more sophisticated talent management practices and demonstrate higher levels of AC than firms within sectors of lesser knowledge intensity

3 RESEARCH DESIGN AND METHODOLOGY

3.1 Research Method and Design

The research design chosen for conducting this study is quantitative in nature and thus involves the collection of numeric data, whereby the information is quantified and subjected to statistical treatment (Creswell, 2003, p. 153) to explore the relationships between firms' efforts expended to manage human talent, their ability to absorb and apply new external knowledge to commercial ends, and business performance. In fact, this quantitative research was conducted in response to relational questions on the variables of the observed phenomenon with the intention to validate and test their relationships in a systematic way of investigation (Leedy & Ormrod, 2001, p. 102) in order to confirm or reject the hypotheses (Williams, 2007, p. 66) derived from existing theory. In doing so, this study follows deductive reasoning, whereby theoretical assumptions are formed to then be subjected to empirical testing (Bryman & Bell, 2003, pp. 11-12). Deduction does not depend on observation or experience, but is a matter of logic that involves the collection of data to falsify or verify already existing theories (Koscianska, 2013, p. 42). Therefore, empirical data was obtained from individuals answering questions administered through a web-based questionnaire. The quantitative design used in this study thus falls under the broad header of descriptive research aimed at exploring the correlations between multiple phenomena by means of survey research. For this purpose, primary data was collected at one point of time, over a period of two months, and sampled form a target population of respondents in the form of a cross-sectional survey to discover relative incidence, distribution, and interrelations (Williams, 2007, p. 67) as opposed to estimating changes in the observed phenomenon over time (Desrosiers et al., 1998, p. 362). In fact, surveys represent widely popular quantitative research instruments, that enable the collection of standardized data due to uniformity in the responses, thus facilitating an easier data comparison (Mathiyazhagan & Nandan, 2010, p. 42; Saunders et al., 2012, pp. 176-177). The questionnaire used in this study was adopted from a pilot study exploring the same concepts, although in terms of emerging-market firms (Artyukh, 2016, pp. 63), and was modified to better fit the research requirements. In fact, most items from the pilot questionnaire were reverse-coded grounded in the notion that firms from emerging-markets have less sophisticated TM routines.

The survey would first provide participants with a short explanation about the intended research and what the results would be used for. The first part collected information about the respondents themselves and their organization, including its sector, scope of operations, workforce size, and core competences. The latter included five items measuring the commitment of the firm towards innovative technologies or *Innovation*, products and services of superior *Quality*, solutions that are characterized by user-friendliness and *Simplicity*, products and services with great value for

money or *Low Cost*, and having a recognized *Brand*. The second part included three subsections, each of which inquired about the degree to which the firm attracts, develops, and retains skilled and highly talented employees. The items were derived in part from the previous study (Artyukh, 2016, pp. 65), but also incorporated additional insights from recent publications. Regarding the dimensions of AC, the third part comprised four subsections, each of which focused respectively on the extent to which firms acquire, assimilate, transform, and exploit new external knowledge for commercial purposes. The majority of the items were adopted from the original study with some adjustments made in reference to recent studies. The fourth and last part asked participants to evaluate their firm's performance over the past three years compared to their industry average along five parameters, namely market share growth, sales growth, profitability, employee turnover, and net promotor score. While the pilot survey had 121 questions, the one administered in this study was limited to 56 items. Moreover, only the opening question concerning respondents' current position was open-ended, while all remaining questions were closed-ended, thus limiting participants to a set of fixed alternatives (Reja et al, 2003, p. 161). Closed-ended questions are frequently used in quantitative studies (Pangrikar, 2016, p. 59). By asking respondents to choose from a set of fixed alternatives (Long, 1992, p. 192), the response that most closely represents their viewpoint, closed-ended questions are easy and quick to answer and thus more convenient for individuals with little time to spare and, moreover, permit the inclusion of more variables in the study (Siniscalco & Auriat, 2005, p. 23). There are nonetheless drawbacks in the sense that respondents may not be able to give their 'real' answer, as they are restricted by the researcher's assumptions about the participants' answers reflected in the choices given.

The vast majority of items were measured using a 7-point Likert scale, prompting respondents to indicate their level of agreement or disagreement with a declarative statement on a continuum ranging from 1 or 'strongly disagree' to 7 or 'strongly agree' (Rasinger, 2008, p. 66). Given that some participants will naturally hold a neutral position on some of the issues in question, an odd number of categories in the scale was chosen. A 7-point Likert scale represents a balanced scale with an equal number of positive and negative categories (Pangrikar, 2016, p. 60). Considering the high proficiency of English as a second language in the Netherlands, ranking first in Europe (EF Education, 2018), no issue was seen in administering and distributing the survey in English. Prior to execution, however, the questionnaire had been subjected to qualitative testing to reduce deficits in content and sequence, clear ambiguities in wording (Wang, 2010, p. 30), and establish whether the instrument measures what it is meant for (Mathiyazhagan & Nandan, 2010, p. 41). Besides enriching the design of the questionnaire, pre-testing ensures the reliability and validity of the measures used for data collection (Kibui, 2015, p. 59) and avoid misinterpretations of

questions, that would lead to measurement errors (Wang, 2010, p. 30). Ten individuals, who had a profile similar to that of the members within the target population, but were excluded from the survey thereafter, were asked to fill in and assess the questionnaire item by item. Following their qualitative feedback, a few adjustments were subsequently made. Moreover, pre-testing allowed the researcher to measure the average response time (around eight minutes), which respondents were informed about in advance to ensure that participation was to their utmost convenience.

3.2 Sampling and Data Collection

For the purpose of collecting a sufficient amount of primary data, a structured questionnaire was administered in a web-based format. Upon critical review of numerous online survey tools, the researcher proceeded with a 3-month paid plan in SurveyMonkey. The tool offered a wide range of technical options for data collection, its subsequent extraction, and customization of the user-interface to create a positive survey experience (SurveyMonkey, 2018). Once initiated, data was drawn from a cross-industrial sample of HR professionals working in both SMEs and large firms in the Netherlands, even though neither the respondents nor their organization had to be of Dutch origin. The target population was comprised of individuals with at least two years of experience whose professional tasks would correspond to HRM, TM, hiring and staffing, or compensation and payroll, thus ensuring that respondents provide rich, dense, and focused information on the subjects under investigation (Cleary et al., 2014, p. 473). The survey was, by definition, a sample survey that gathered data from only a fraction of the units of a target population and therefore offered a simple and economical way to obtain information of sufficient quality for the research needs (Statistics Canada, 2003, p. 19). As HR professionals serve as representatives to the external labor market, their contact details are often made public, which simplified the search for appropriate survey participants. In the end, 822 individuals from 61 different firms, who met the criteria, were contacted by phone and email. Individuals who could be reached by phone were initially asked whether they would be willing to participate and only upon their consent received a computer-generated link to access the survey in a follow-up email, while all other contacts had obtained the link without prior notification through an invitation email followed shortly after by a reminder. Furthermore, confidentiality was accentuated, and all participants were promised a copy of the findings upon their request. Additional support was provided by the author's former Dutch colleagues, who shared the link with their peers, thereby extending the target population beyond the initial scope. Regarding the snowball or chain sampling approach, accurate estimates about the response rate could not be made. However, 226 questionnaires were returned, 185 of which were completed in such a way as to render them viable in the further course of the study.

Table 1: Demographic Characteristics of Respondents

Job Title	N	Job Title	N	Job Title	N	Job Title	N
Campus Recruiter	4	Head of TA	3	HR Director	3	Recruitment Officer	16
Corporate Recruiter	57	HR Analyst	3	HR Manager	18	TA Consultant	11
Employer Brand Specialist	2	HR Assistant	6	HR Specialist	6	TA Program Manager	8
Head of HRM	4	HR Consultant	9	IT Recruiter	7	Talent Manager	11
Head of Recruitment	1	HR Coordinator	8	Payroll Specialist	3	Talent Sourcer	5

Duration of Employment at Firm			Number of Full-Time Employees			Scope of Operations		
less than 2 years	83	45%	less than 100	4	2%	regional	9	5%
from 2 to 5 years	49	27%	100 to 1,000	11	6%	domestic	27	15%
from 5 to 10 years	30	16%	1,000 to 10,000	53	29%	international	149	80%
more than 10 years	23	12%	more than 10,000	117	63%			

Industry	N	Industry	N	Industry	N	Industry	N
Financial Services	18	Diversified	1	Insurance	10	Semiconductors	3
Chemicals	8	Electric Equipment	5	Manufacturing	15	Telecommunication	2
Civil Engineering	14	Food & Beverages	5	Media	3	Transportation	15
Commercial Services	6	Healthcare	34	Oil & Gas	3	Utilities	4
Consumer Products	4	Information Tech.	20	Pharmaceuticals	1	Other	14

The demographic characteristics of the participants and organizations are shown in Table 1. As most firms use specific terminology in describing job titles and positions, the opening question provoked vastly dissimilar answers. In order, therefore, to provide a clear picture of participants' professional activity, their responses were compared, rephrased, and accordingly grouped into twenty different categories. It is worth noting that corporate recruiters accounted for a significant proportion of the pool of target respondents, who in their roles as representatives to the external labor market were easy to contact, and thus accounted for 31% of the responses. The author is, however, convinced that the variety in job roles and managerial levels hints the rich knowledge embedded in the data. The respondents occupied positions in more than 20 different industries, which merely adds to the richness of the information. They also varied in their duration of employment, with almost half the them having worked at their company for less than two years. It seems as though most respondents were from MNCs, as 149 or 80% reported their employer to have a global footprint, while only 15% and 5% were restricted at the domestic and regional level, respectively. These results are consistent with workforce size, as 63% of participants were part of an organizations with more than 10,000 employees. Evidently, firms with global business operations require foreign subsidiaries to execute them and thus hire more workers worldwide.

3.3 Instruments of Data Analysis

In order to gain meaningful and valid results from the information obtained, data was processed and analyzed through combined use of SPSS Statistics, R Studio, and Microsoft Excel. The data was categorized and summarized, and reduced to an intelligible and interpretable form by which the constructs of TM, AC, and company performance could be studied and appropriately tested

(Mathiyazhagan & Nandan, 2010, p. 37). In order to determine whether the selected items were reliable and measured the same construct, Cronbach's alpha (α) was examined using SPSS. This coefficient provides an estimate for internal consistency of a scale and is expressed as a number between 1 and 0 (Tavakol, 2011, p. 53), whereby 0.60 presents the lowest acceptable threshold and values larger than 0.70 are desirable. The items used to measure company performance were tested first and revealed a coefficient of 0.856, implying high reliability (Salvucci et al., 1997, 115). TM contained three variables in reference to the three sets of practices it comprises: TA, TD, and TR. The former comprised seven items measuring efforts expended to attract and hire talent, albeit with moderate reliability (α = .676). Yet, reliability could not have been improved, even if either one of the items had been deleted, so that the scale was adopted as is. TD included six items tapping into the extent to which firms develop and expand their employees' skills and competencies. With α = .824, the scale was confirmed to be reliable. TR contained seven items measuring efforts expended to retain skilled employees. The seven-item scale was deemed reliable (α = .824). AC was constructed in turn from four variables referring to acquisition, assimilation, transformation, and exploitation (Zahra & George, 2002, p. 190). Five items measured the intensity and direction of firms' efforts to identify and acquire new knowledge from external sources (Zahra & George, 2002, p. 189; Noblet et al., 2011, p. 369). The scale obtained a coefficient of .842, underpinning its reliability. Assimilation measured the ability to analyze, interpret, and understand new external knowledge. The five-item scale was found reliable (α = .846). Next, knowledge transformation or the extent to which firms facilitate recognizing opportunities of externally acquired knowledge for existing operations (Jansen et al., 2005, p. 16) was measured across six items, forming a reliable scale (α = .875). Finally, exploitation used four items to gauge firms' ability to develop their competencies by incorporating newly acquired and transformed knowledge into their processes (Zahra & George, 2002, p. 190; Sun & Anderson, 2010, p. 145). The scale's reliability was acceptable (α =.796) but could be improved upon eliminating the first item. All four items were retained, however, as the minor increase in reliability to .840 did not justify reducing the construct to three items only.

Since the configuration and development of TM systems and higher levels of AC, respectively, depend upon a wide array of factors, such as the way in which the firm chooses to position itself strategically or the role that knowledge-related assets play within its industry (Peltoniemi, 2007, p. 85), another three variables were introduced, namely differentiation strategy, cost leadership, and knowledge intensity. Differentiation strategy set out to measure the degree to which the firm differentiates itself from competition. It was expressed through the mean values upon combining *Quality*, *Innovation*, *Brand*, and *Simplicity*, all of which were seen to be requisite characteristics,

setting the firm apart from competitors. The four-item scale was moderately reliable (α = .660). Cost leadership was the simple expression of *Low Cost*. Knowledge intensity, on the other hand, combined all five core competences, albeit with *Low Cost* being reverse-coded. This is grounded in the idea that firms aspiring to become cost leaders in their domain, invest less in R&D as their success is significantly less dependent upon their ability to generate new knowledge. In contrast, firms seeking to differentiate themselves typically live off their R&D investments, which enable them either to reposition their product lines or develop proprietary technologies. Moreover, they require refined knowledge management systems for coping with the vast amounts of information inherent in their processes. Similarly, the supply of high-quality products and services requires specialized knowledge in product design, engineering, and manufacturing. The establishment of a reputable brand is hardly done without special knowledge in marketing. Although not obvious at first glance, even the provision of user-friendly solutions requires profound knowledge about consumer needs and behaviors, and hence extensive market research and logical action (Duman, 2018, p. 214). The five-item scale was deemed marginally reliable (α = .620) and hence adopted.

To test for construct independence and determine whether the established dimensionality of the observed variables would fit a new sample of that same population, confirmatory factor analysis (hereinafter referred to as CFA) was performed on TM and AC using R Studio. The aim was to confirm the relationship among the observed variables as well as the underlying latent constructs linking them, whereby each item was allowed only to load on the factor which it was a proposed indicator for. Considering previous studies, proposing a categorization of TM into three separate groups of activities (Tarique & Schuler, 2010, p. 127), a three-factor model was built and tested using lavaan version 0.5-23. Missing data was subjected to full information maximum likelihood (FIML) and latent factors were standardized (std.lv = TRUE), with the mean and variance fixed at 0 and 1, respectively. This is referred to as factor variance identification approach and allows free estimation of all factor loadings. The three-factor model appeared to fit the data moderately well: chi-square/degrees of freedom ratio (χ^2/df) of 2.169; goodness-of-fit index (GFI) of .966 and adjusted goodness-of-fit index (AGFI) of .953; non-normed fit index (NNFI) of .838; known also as Tucker-Lewis Index (TLI); comparative fit index (CFI) of .857; and root-mean-square error of approximation (RMSEA) of .080, estimated as between .068 and .090 at 90 percent confidence interval (see Appendix 1). The loadings were as proposed and significant ($p < .01$), providing clear evidence for convergent validity. As the model allowed for covariances among the three latent factors, a reduced or 'nested' model was introduced, in which the latent variables were assumed to be uncorrelated with no covariances among them. Nested models are two models that are identical, except that one of them constrains some of the parameters, known as the

null model, while the other, known as the alternative model, does not. In order, however, to test for differences in nested models as part of CFA, chi-square difference tests are frequently used. The test was performed using the ANOVA function and revealed that the alternative model, that allowed covariances among the three factors, provided a significantly better fit to the data than the null model, which treated the latent variables as independent. The ANOVA demonstrated a chi-square difference [$\Delta\chi^2$ (3) = 320.49, $p < .01$]. Next, it was reviewed, if the three-factor model would fare better than a single-factor model merging the three latent factors into one. As the only difference lied in the correlations between the latent variables, which in the single-factor model was set to 1, both models were, by definition, nested and allowed for direct comparisons. The hypothesis that the three constructs of TA, TD, and TR converged on a common factor was, however, rejected [$\Delta\chi^2$ (3) = 16.949, $p < .01$]. In sum, the indicators revealed significant positive factor loadings with standardized coefficients between .345 and .79 (see Appendix 2), while the three latent factors indicated significant positive correlations (see Appendix 3). The CFA results thus corroborate prior work, advocating for the grouping of TM practices into three distinct sets.

Testing for construct independence of AC, which had been previously recognized as comprising four different yet interrelated components, namely acquisition, assimilation, transformation, and exploitation (Zahra & George, 2002, p. 190), was conducted in the same fashion. For this reason, a four-factor model, with missing data being estimated in FIML and standardized latent factors, was constructed to be subjected to CFA. The results revealed that the model provided a moderate but not excellent fit to the data: $\chi^2/df = 2.873$; GFI = .961; AGFI = .945; TLI = .832; CFI = .855; and RMSEA = .101, [.09; .111] at 90 percent confidence interval (see Appendix 4). In fact, the item loadings significant ($p < .01$), which meant convergent validity. Next, the four-factor model was compared to a 'nested' two-factor model, combining the indicators referring to acquisition and assimilation and those referring to transformation and exploitation to form PAC and RAC, respectively. However, the two-factor model resulted in a lower fit to the data, meaning that the hypothesis of the four underlying constructs converging on two factors had to be unambiguously rejected [$\Delta\chi^2$ (5) = 167.09, $p < .01$]. In addition, a single-factor model was built, which combined the four latent factors to a single one. However, the chi-square difference revealed that the four-factor model fit the data significantly better, thus rejecting the hypothesis of the four underlying constructs converging on one common factor [$\Delta\chi^2$ (6) = 255.81, $p < .01$]. Conclusively, the four dimensions of AC are not only theoretically, but also empirically distinguishable (Jansen et al., 2005, p. 17). Besides, the indicators had significantly positive factor loadings with standardized coefficients ranging from .596 to .853 (see Appendix 5), while the latent variables would exhibit significant positive correlations ranging from .655 to .768 (see Appendix 6).

Upon confirming reliability and construct validity, the variables embedded in the data were then subjected to statistical analysis, whereby descriptive statistics were used initially to gain a broad understanding of the sample based on which inferences were made back to the population using inferential statistics in a following step (Isotalo, 2006, p. 6; Jones, 2010, p. 39). That being said, the former is used to simply describe the basic features of the sample (Weinberg & Abramowitz, 2002, p. 231; Vogt et al., 2014, p. 207) and summarize the data collected in a way so as to render it as easy as possible to understand and digest (Dewberry, 2004, p. 3) and study how a particular variable is distributed (Taylor, 2005, p. 139). This study applies both univariate and multivariate descriptive statistics, including frequency distributions, measures of central tendency to find the most common variates in the sample (Madrigal, 1995, p. 31), measures of variability to describe the amount of deviation from the central tendency (Landy & Conte, 2010, p. 68), and measures of correlation to assess the degree to which two or more variables covary (Houser, 2015, p. 33). Descriptive statistics merely describe the sample and are in no way connected to understanding and generalizing back to the population (Houser, 2015, p. 31). In order, however, to validate the hypotheses formulated in Section 2.5 and to draw conclusions about whether or not the observed phenomena reveal systematic associations that will likely be true in a larger population and not only reflect 'noise' or 'error' (Pelham, 2013, p. 33), inferential statistics are required for making rational decisions about the reality of the observed phenomena. Inferential statistics are closely related to the logic of hypothesis testing and help determine if the observed characteristics are sufficiently deviant from the null hypothesis (H_0), that there is no difference in the mean values on a variable for two or more groups or else, that there is no relationship between two or more variables, to an extent that would justify rejecting H_0 in favor of an alternative claim.

Parametric inferential tests are used with variables that are measured at the interval or ratio level and are normally distributed in the population (Fitzgerald & Fitzgerald, 2014, p. 221). The latter constitutes one of four basic assumptions for inferential testing and argues that the scores of the sample must not differ significantly from a normal curve (Houser, 2015, p. 35). Linearity, as a second assumption, concerns the extent to which two variables are linearly correlated (Houser, 2015, p. 36). The third assumption, concerning independence, stipulates that each score must be independent of every other score. Finally, the fourth assumption covers homogeneity of variance and relates to the extent to which the variances of groups are homogenous (Houser, 2015, p. 35). As part of the parametric inferential testing that was performed to be sure whether to confirm or reject the hypotheses proposed prior to data collection and analysis, the above assumptions were systematically tested. Linear regression analyses were conducted to make predictions about the dependent or outcome variable in terms of their covariance with each of the predictor variables

(Mathiyazhagan & Nandan, 2010, p. 38). If, within a set of variables, one or more linear relations exist it is said that these variables are multicollinear (Neelman, 1973, p. 10). If multicollinearity is present in a regression model, however, the obtained coefficient values might not accurately reflect the relative importance of each predictor (Watson & Teelucksingh, 2002, p. 41). In order, therefore, to detect multicollinearity among the predictors in a regression model, Tolerance and Variance Inflation Factors (VIFs) are most commonly used. The former indicates the percentage of variance in the predictor that cannot be accounted for by other predictors. Multicollinearity exists for a particular variable, if its tolerance value is .01 or below (Meyers et al., 2006, p. 212). The VIF is the reciprocal of the tolerance, whereby high values reflect an increase in the variance of the estimated coefficients due to the existence of correlation among predictors, over variances obtained when the predictors were orthogonal (Murray et at., 2012, p. 161). The general rule of thumb is that VIFs above 4 need further investigation, while VIFs above 10 are a sign of serious multicollinearity in desperate need for correction. In addition to regression analysis, analysis of variances (ANOVA) will be used, as it provides a flexible methodology for testing differences between group means (Bray & Maxwell, 1985, p. 5). In essence, ANOVA is a helpful statistical technique for determining whether or not the values of a dependent variable differ significantly between two or more levels of an independent variables (Harland, 2011, p. 134). By comparison, multivariate analysis of variance (MANOVA) is a mere generalization of ANOVA, that allows the researcher to analyze more than one dependent variable (Bray & Maxwell, 1985, p. 5).

The key to understanding how groups are compared is subject to the notion of dummy variables, whose value indicate the membership in one of two or more categories. As a result, four dummy-coded, binary variables with values of 1 or 0 were created to indicate, respectively, the presence or absence of some categorical effect. The variable of differentiation strategy was split into two groups, with scores equal to and above 5.75 (Median) coded 1, thus indicating an above average ambition by the firm to differentiate itself from rivals. Scores below 5.75 were coded 0, implying the opposite. Cost leadership was processed similarly, whereby scores equal to and above 5 were coded 1, while all other values were coded 0 to respectively signal the presence and absence of the firm's ambition to constantly lower its costs to remain competitive. In order to compare for differences in the observed variables based on the firm's operational scope, the corresponding input was converted as follows: answers labelled 'international' were coded 1 and answers equal to 'regional' or 'domestic' were coded 0 in order to respectively simulate the firm's engagement in and disconnection from global activities. To determine whether the concepts also differ based on the firm's TM focus, the corresponding answers equal to 'all employees' being the equivalent of 'inclusive' TM were coded 1, while the answers, that implied 'exclusive' TM, were coded 0.

4 EMPIRICAL FINDINGS AND DISCUSSIONS

4.1 Empirical Data Analysis

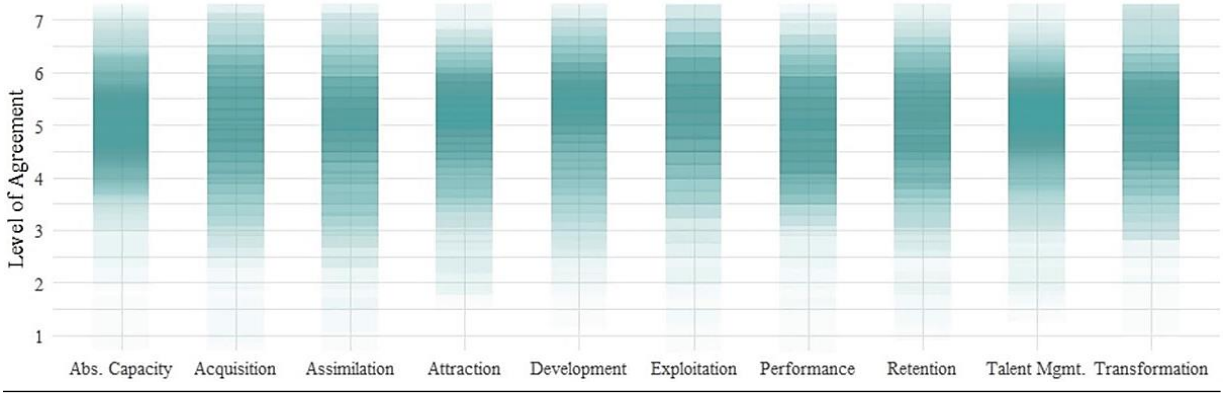
In this chapter, the empirical findings obtained from the data are presented. A common first step in data analysis involves descriptive statistics of the observed variables. This includes frequency distributions, measures of central tendencies, and measures of variability. The items referring to core strengths were first reviewed by means of histogram to gain a deeper understanding of the strategic priorities of the companies included in the sample (see Appendix 7). Accordingly, most participants strongly agreed that their firm focused on providing products and services of higher quality ($M = 6.25$) with little variation in their responses ($SD = .78$). A similar response pattern was demonstrated in view of innovation ($M = 5.95$; $SD = 1.09$) and corporate brand ($M = 5.66$; $SD = 1.48$). The question regarding low cost obtained mixed responses, in the sense that it was not as universally agreed on ($M = 4.47$), with seemingly more dispersed responses ($SD = 1.64$). The item covering the extent to which firms provided easy and user-friendly solutions to their clients was similarly dispersed, albeit with a seemingly higher tendency toward agreement than disagreement ($M = 5.01$; $SD = 1.45$). TM, AC, and firm performance were scrutinized next.

Table 2: Summary of Descriptive Statistics

Variable	M	Median	Mode	SD	Variance	min	max	N
Talent Management	4.99	5.11	5.37	.85	.73	1.79	6.95	185
Talent Attraction	4.96	5.14	5.43	.90	.82	2.00	7.00	185
Talent Development	5.08	5.33	5.50	.97	.94	1.67	7.00	185
Talent Retention	4.92	5.00	5.43	.98	.96	1.43	7.00	185
Absorptive Capacity	4.99	5.03	5.25	.86	.73	1.25	7.00	185
Acquisition	4.96	5.00	6.00	1.05	1.10	1.20	7.00	185
Assimilation	4.85	5.00	5.40	1.04	1.09	1.20	7.00	185
Transformation	5.01	5.00	5.50	.94	.88	1.60	7.00	185
Exploitation	5.14	5.25	5.00	1.03	1.06	1.00	7.00	185
Firm Performance	4.88	5.00	5.40	.92	.84	1.20	7.00	185

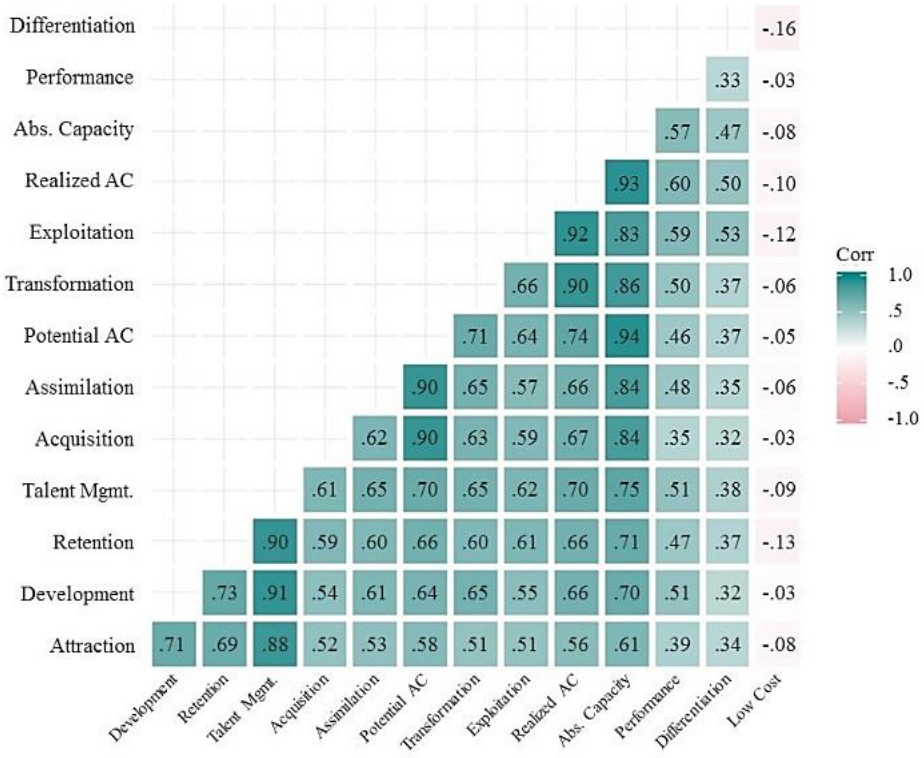
Table 2 shows the descriptive measures for each variable. Overall, TM scored high in the sense that participants largely agreed with the statements corresponding thereto. In fact, TD ($M = 5.08$; $SD = .97$) obtained higher scores than TA ($M = 4.96$; $SD = .90$) and TR ($M = 4.92$; $SD = .98$). Similar tendencies were discovered with regard to knowledge absorption. It is worth mentioning that knowledge acquisition and assimilation, comprising PAC, obtained somewhat lower scores than the dimensions of transformation and exploitation, making up RAC. A graphic illustration of the frequency distribution for TM activities, AC, and firm performance is shown in Figure 2, where the color intensity on each level reflects the frequency of scores. With this in mind, most scores were situated seemingly close to 5, suggesting that the observed constructs of TM, AC, and performance were in fact highly pronounced among the firms included in the sample.

Figure 2: Jitter Plots of TM, AC, and Performance



Despite being useful in summarizing the data in a meaningful way, descriptive statistics provide little indication as to how strong the relations among the constructs truly are. Thus, the correlations among the variables were evaluated using SPSS and R Studio to obtain an initial overview of the strength and direction of the effects among them (Rizova, 2014, p. 20). In this context, the most often cited coefficient is Pearson's *r*. As a measure of the strength and direction of the linear relationship between two variables, it is defined as the covariance of the variables divided by the product of their standard deviations. Figure 3 shows strong positive correlations among the main variables of interest. The three groups of TM practices are positively correlated with one another, suggesting that firms with a dedicated TM strategy rarely focus on one aspect, but make combined efforts to attract, develop, and subsequently retain talented individuals.

Figure 3: Correlogram - Main Constructs of Interest



The dimensions of AC were likewise positively related among each another, which is consistent with extant literature, arguing that AC dimensions, albeit marking different stages of the process of knowledge absorption, are closely linked and tightly coupled. Furthermore, TM and AC were positively related (r = .75; p < .01), suggesting that efforts to attract (r = .61; p < .01), develop (r = .70; p < .01), and retain (r = .71; p < .01) talented workers positively impacts firms' capacity to absorb and apply new external knowledge. More importantly, both TM (r = .51; p < .01) and AC (r = .57; p < .01) were positively related to performance, which is consistent with evidence obtained from previous studies. Interestingly, firms that pursue cost leadership not only exhibit lower levels of AC (r = -.08; p < .01) but also have fewer intentions to make use of TM practices (r = -.09; p < .01). Organizational efforts to differentiate oneself from rival firms, were positively linked to TM (r =.38; p < .01) and AC (r = .47; p < .01). This seems logical as firms that pursue differentiation strategy conventionally make larger investments in R&D, are more dependent on creating new economic knowledge, and ultimately require more highly skilled personnel.

Table 3: Regression Analysis between TM Practices and Performance

Regression	Model 1a		Model 2a		Model 3a		Model 4a		Model 5a		Model 6a	
Ind. Variable	**Performance**		**Market Share**		**Sales Growth**		**Profitability**		**Emp. Turnover**		**Net Pr. Score**	
Attraction	-.007	*-.007*	-.101	*-.085*	-.061	*-.049*	.050	*.037*	-.047	*-.035*	.123	*.100*
Development	.311***	*.329*	.273***	*.245*	.457***	*.394*	.092	*.073*	.314**	*.254*	.417***	*.365*
Retention	.140*	*.149*	.178*	*.161*	.031	*.027*	.335***	*.266*	.142*	*.116*	.012	*.011*
Differentiation	.292**	*.158*	.276*	*.127*	.256	*.113*	.226	*.091*	.283	*.117*	.418***	*.188*
Low Cost	.060	*.033*	-.085	*-.039*	.044	*.019*	.071	*.029*	.167	*.070*	.105	*.047*
Global Ops.	.334**	*.144*	.170	*.062*	.354*	*.125*	.399*	*.128*	.524**	*.173*	.222	*.080*
Inclusive TM	.212*	*.115*	.288*	*.133*	.390**	*.172*	.379**	*.153*	.080	*.033*	-.077	*-.035*
Constant	2.093***		3.001***		2.238***		1.947***		1.672***		1.609***	
Adjusted R^2	.311		.176		.250		.199		.146		.234	
F	12.868		6.600		9.762		7.533		5.510		9.043	
Sig.	.000		.000		.000		.000		.000		.000	

* p < 0.1 ** p < 0.05 *** p < 0.01; *Standardized Coefficients Beta*

Multiple regression analyses were performed in order to determine the strength of the relation between TM practices and firm performance and hence validate *Hypothesis 1*. For this purpose, various regression models, each of which had predicted different performance-related outcomes, were formulated. Before testing the relationship between company performance and the specific sets of practices to attract, develop, and retain talented individuals, the effect of TM on company performance was initially tested in a generic sense, while controlling for differentiation and low-cost strategy, inclusive TM, and global operations. The model described was statistically significant [$F_{7,177}$ = 17.03; p < .01] with an adjusted R^2 = .303, suggesting that 30% of the observed variance in performance was explained by the model. In fact, the adjusted R^2 corrects the R^2 value for both sample size and number of terms in the regression model (Haarland, 1989, p. 77) and thus provides a corrected measure of the overall exploratory power of the model in question.

TM was statistically significant (β = .422; p < .01) and by far the largest factor in the regression equation, thus underlining the constructs highly positive effect on performance. In the context of multiple regression, rather than interpreting the meaning of the regression equation, one may be interested in the unique contribution of each independent variable to predicting the dependent variable (Marcoulides & Hershberger, 2012, p. 96). Therefore, the regression coefficients, either standardized (β) or unstandardized (b) become of interest, although the latter is less useful if the units used for measuring each variable are indifferent or abstract in meaning (Boyle & Schmier-bach, 2015, p. 406). Using standardized coefficients converts all variables to a common unit of measurement, that is the standard deviation (Lewis-Beck et al., 2004, p. 1069), making it easy to conclude which predictor exerts the strongest influence over the dependent variable.

In order to determine the set of TM practices contributing the most to performance, the following regression models distinguished between TA, TD, and TR (see Table 3). The model of particular interest is *Model 1* predicting overall performance. Being statistically significant [$F_{7,177}$ = 12.87; p < .01], approximately 31% of the observed variance in firm performance (adjusted R^2 = .311) was explained by its predictors, of which TD showed the largest beta weight (β = .329; p < .01), suggesting that it made the greatest contribution, with all other predictors held constant. If, say, TD was to increase by one unit in standard deviation, performance would increase by .329 units. Furthermore, TR (β = .149, p < .10) was significant too, but to a lesser extent, while surprisingly, TA (β = -.007) had no significance nor standardized effect on firm performance. Conclusively, TD was greatest in terms of relative importance (56.82%), greatly exceeding TR (11.65%) and TA (.03%). Similar tendencies were observed in *Model 2* and *5*, predicting market share growth and employee turnover, respectively. Concerning *Model 1*, differentiation (β = .158; p < 0.05), inclusive TM (β = .115; p < 0.10), and global operations (β = .144; p < 0.05) obtained significant results too, which shall be explored in more detail hereinafter. Multicollinearity was not deemed an issue, with VIFs below 2.77 and tolerance values above .36 (see Appendix 8), hinting stable coefficients that would not significantly vary from one sample to the next (Allen, 1997, p. 176).

Having identified that TD and, to a lesser extent, TR made significant contributions to corporate performance, the researcher felt the need to further examine the intricacies of the causal relation between them. For this reason, regression models, controlling for cost leadership, differentiation strategy, global operations, and TM approach and using solely the items from TD and TR, were devised to respectively pinpoint the specific development and retention practices that drive firm performance. The model with TD practices as predictors was found to be statistically significant [$F_{10,173}$ = 10.15; p < .01], explaining precisely 33% of the total variation in business performance (see Appendix 9). Interestingly, the engagement of line managers in development interventions

(β = .232, p < .01), job rotations (β = .139, p < .05) and continuous investments in education and development programs (β = .274, p < .01) all had a significant effect on corporate performance. The regression model involving TR practices as predictors was likewise statistically significant [$F_{11,172}$ = 8.364; p < .01], accounting for 31% of the variance in the dependent variable. Hereby, the firm's commitment to manage a diverse workforce (β = .160, p < .10) and ensure employees' work-life-balance (β = .150, p < .05) and continuous engagement (β = .259, p < .01) were found to be statistically significant predictors in company performance (see Appendix 10).

In the following, it was tested, by means of MANOVA, if there were significant differences in the linear combination of performance indicators based on the extent to which firms make TM an operational priority. Considering the previous regression results, it was suggested that firms which regard TM as a priority are, as a result, more successful. In order to provide clarification, the continuous variable on TM was turned into a three-level categorical variable with cut points based on equal percentiles. The levels were assigned as follows: scores below 4.71 marked 'low priority', scores ranging from 4.71 to 5.38 denoted 'moderate priority', and scores above 5.38 represented 'high priority'. This approach assumed that higher consent to the items on TM was a mere reflection of higher levels of priority assigned to them in practice. In view of MANOVA, the assumption sufficient sample size was met, as the quantity for any one level of the independent variable (low = 59; moderate = 66; high = 60) was greater than the number of levels on the independent variable (3) multiplied by the number of predictors (5). By assuming multivariate normality, MANOVA is inherently more sensitive to outliers, meaning a peculiar combination of scores on two or more variables (Warren, 2011, p. 5). A powerful technique for identifying multivariate outliers, however, is Mahalanobis distance *MD* or the distance of each observation from the mean of the remaining cases that can be evaluated for each case using the chi-square distribution with a very conservative probability estimate (e.g. p <.01) for a case considered to be an outlier (Fidell & Tabachnik, 2003, p. 130). By conducting linear regression analysis using SPSS, *MD* for each case was saved in a new variable, of which the largest value was equal to 24.72 and thereby exceeded the maximum allowable critical χ^2 (df = 5) of 20.52, indicating the presence of multivariate outliers. Upon eliminating each score with *MD* greater than the critical threshold (low = 58; moderate = 64; high = 60) and re-running the linear regression analysis, the newly obtained maximum value of *MD* was equal to 20.51 and therefore within the limits of the allowable value, suggesting that the assumption of no multivariate outliers was satisfied.

Moreover, there needs to be a linear relationship between each pair of dependent variables across each level of the independent variable. If the variables were not linearly related, the power of the test would otherwise be compromised. Linearity is commonly tested by plotting a scatterplot

matrix for each group of dependent variables. The scatter plots (see Appendix 11) show elliptical patterns stretching from the bottom right to the top left, suggesting that each pair of dependent variables across each level of the independent variable was, for the most part, linearly related, thus meeting the assumption of linearity. Another assumption concerns multivariate normality. Although it cannot be tested directly in SPSS, normality for each dependent variable per group of the independent variable is instead used as 'best guess' approach to examine if any deviation from linearity is systematic or due to sampling variation (Ruppert, 2004, p. 66). Among several normality tests, the Shapiro-Wilk test has become somewhat standard (Sen & Srivastava, 1990, p. 105). It employs the null hypothesis principle to determine if a sample of observations came from a normally distributed population (Santos-Fernández, 2012, p. 94). Although Shapiro-Wilk tests for univariate instead of multivariate normality, the former is a requisite condition of the latter. Here, the Shapiro-Wilk tests were significant ($p < .01$) with p-values less than $\alpha = .05$ (see Appendix 12), so that the null hypothesis was rejected, suggesting that the dependent variables were non-normally distributed. Next, the assumption concerning multicollinearity was tested. On the one hand, high correlations among the variables ($r > .90$) make their unique contribution questionable. Despite no firm cut off rule, researchers have seemingly settled for .80 and above (Loewen & Plonsky, 2016, p. 119). On the other hand, if their correlation is weak ($r < .30$), it is generally recommended to conduct separate ANOVA tests instead. However, the predictors were moderately correlated with coefficients ranging from .391 ($p < .01$) to .752 ($p < .01$), so that the assumption of multicollinearity was not violated (see Appendix 13).

Table 4: Descriptive Statistics - Performance by Priority assigned to TM

Dep. Variable	Ind. Var.	N	M	SD	Dep. Var.	Ind. Var.	N	M	SD
Market Share Growth	Poor	58	4.69	1.063	Employee Turnover	Poor	58	4.12	1.125
	Moderate	64	5.22	1.133		Moderate	64	4.48	1.195
	High	60	5.52	.854		High	60	4.75	1.188
	Total	182	5.15	1.075		Total	182	4.46	1.192
Sales Growth	Poor	58	4.55	1.172	Net Promoter Score	Poor	58	4.28	.970
	Moderate	64	5.05	1.061		Moderate	64	5.09	1.080
	High	60	5.47	.999		High	60	5.15	.936
	Total	182	5.03	1.134		Total	182	4.85	1.069
Profitability	Poor	58	4.53	1.341					
	Moderate	64	4.97	1.083					
	High	60	5.43	1.079					
	Total	182	4.98	1.219					

The MANOVA was performed upon testing all requisite assumptions. The descriptive statistics are provided in Table 4. Taking a closer look at the group means for each variable demonstrates their gradual increase with each level of the independent variable. In other words, performance was expected to improve with the level of priority given to TM. As part of MANOVA testing,

the assumption of homogeneity of covariances across the groups using $p < .01$ as a criterion was reviewed using Box's test of Equality of Covariance Matrices. There were no significant differences among the covariance matrices [$F = 39.25$; $p = .158$], thus giving no reason to reject the null hypothesis that the covariance matrices are equal. Even though this renders Wilk's Lambda Λ appropriate to test whether there are statistically significant differences between the means of identified groups of subjects on a combination of dependent variables (Crichton, 2000, p. 381), Pillai's Trace $V^{(s)}$ being more robust to departures from assumptions is used instead due to concerns regarding normality. Pillai's Trace was significant [$V^{(s)} = .198$, $F = 3.858$, $p < .01$], indicating that there were statistically significant differences among the levels of priority assigned to TM on a linear combination of market share growth, sales growth, profitability, employee turnover, and net promoter score. In addition, partial eta squared η_p^2 as a measure of effect size indicated that around 10% of multivariate variances of the dependent variables was accounted for by the group factor, that is the level of priority attributed to TM.

Table 5: Tests Between-Subjects Effects - Performance by Priority assigned to TM

Ind. Var.	Dependent Variable	Mean Sq.	F	Sig.	Partial Eta^2	Observed Power
Level of Priority Talent Mgmt.	Market Share Growth	10.330	9.818	.000	.099	.982
	Sales Growth	12.363	10.632	.000	.106	.989
	Profitability	11.924	8.708	.000	.089	.968
	Employee Turnover	5.879	4.289	.015	.046	.742
	Net Promoter Score	14.160	14.186	.000	.137	.999

Levene's Test of Equality of Error Variances, testing the assumption that the variances of each dependent variable are equal across groups was not significant (market share growth, $p = .150$; sales growth, $p = .361$; profitability, $p = .069$; employee turnover, $p = .459$; net promoter score, $p = .959$), suggesting that the obtained differences in sample variance occurred based on random sampling. Against the background of significant MANOVA, the univariate ANOVA results, as shown in Table 5, were under review. The results suggested that scores on market share growth ($p < .01$), sales growth ($p < .01$), profitability ($p < .01$), staff turnover ($p < .05$), and net promoter score ($p < .01$) were significantly different across the three levels of priority attributed to TM. For example, 11% and 14% of the variance in sales growth ($\eta_p^2 = .106$) and net promoter score ($\eta_p^2 = .137$) were respectively explained by level of priority. Since the dependent variables were statistically significant and there were three levels on the independent variable, post hoc multiple comparisons were required to identify which pairs of means were significantly different. Having maintained the assumption of homogeneity of variance-covariance, suggesting relatively equal group sizes, Tukey HSD post hoc method was used (see Appendix 14). Post hoc testing pointed out significant pairwise differences in market share growth among firms giving little priority to TM practices and those making it their top priority, as suggested by a significant mean difference

equal to.83 ($p < .01$). Similarly, firms that prioritized TM were found to be more profitable than firms that did not ($\Delta M = 90$; $p < .01$). While there were significant differences across low and high levels of priority, the differences in the scores among moderate and high, and respectively, moderate and low priority, may have been insufficient to render the mean difference statistically significant. The findings were nevertheless consistent with the regression results and, moreover, with existing literature, arguing that a heightened focus on TM facilitates performance gains.

The analytical focus was then shifted toward the link between the capacity to acquire, assimilate, transform, and exploit new external knowledge, and firm performance to test *Hypothesis 2*. For this reason, regression analyses and MANOVA were used to quantify the direction and strength of the relationship between them. The decisive regression models are summarized in Table 6.

Table 6: Regression Analysis between AC Dimensions and Performance

Regression	Model 1d		Model 2d		Model 3d		Model 4d		Model 5d		Model 6d	
Ind. Variable	**Performance**		**Market Share**		**Sales Growth**		**Profitability**		**Emp. Turnover**		**Net Pr. Score**	
Acquisition	-.098	*-.111*	.036	*.035*	-.111	*-.103*	-.185*	*-157*	-.184*	*-.160*	-.045	*-.043*
Assimilation	.162**	*.184*	.098	*.094*	.192**	*.178*	.168	*.142*	.171	*.149*	.179*	*.169*
Transformation	.115	*.118*	-.062	*-.053*	.049	*.041*	.066	*.050*	.283**	*.220*	.241**	*.203*
Exploitation	.376***	*.422*	.459***	*.437*	.476***	*.435*	.553***	*.461*	.139	*.119*	.254***	*.236*
Differentiation	.116	*.063*	.081	*.037*	.025	*.011*	.025	*.010*	.197	*.082*	.253	*.113*
Low Cost	.107	*.058*	-.018	*-.008*	.125	*.056*	.098	*.040*	.180	*.075*	.148	*.067*
Global Ops.	.241*	*.104*	.068	*.025*	.221	*.078*	.280	*.090*	.504**	*.167*	.131	*.047*
Inclusive TM	.201*	*.109*	.298**	*.137*	.393***	*.174*	.300*	*.121*	.072	*.030*	-.058	*-.026*
Constant	1.663***		2.209***		1.523***		1.472***		1.744***		1.368***	
Adjusted R^2	.395		.275		.340		.292		.141		.253	
F	16.025		9.741		12.870		10.460		4.774		8.795	
Sig.	.000		.000		.000		.000		.000		.000	

* p < 0.1 ** p < 0.05 *** p < 0.01; *Standardized Coefficients Beta*

Here, the model of particular analytical interest is *Model 1d* predicting firm performance. It was found statistically significant [$F_{8,176} = 16.025$; $p < .01$] and accounted for roughly 40% of the observed variance in performance (adjusted $R^2 = .395$), thus indicating a moderate goodness-of-fit. Moreover, the largest beta weight was obtained for exploitation ($\beta = .376$; $p < .01$), demonstrating it made the greatest contribution to performance, assuming all other dependent variables are held constant. In fact, the disproportionate influence of exploitation was also present in the remaining regression models, notwithstanding *Model 5d*. Moreover, assimilation likewise contributed to performance, albeit to a lesser extent ($\beta = .162$; $p < .01$). Interestingly, however, neither acquisition nor transformation were statistically significant, with relative importance indices of 4.6% and 5.2%, respectively. In contrast, exploitation and assimilation showed relative importance of 67% and 13%, respectively. Neither differentiation nor low cost strategy were significant, which seemingly contradicts the previous findings according to which the former impacted firm performance. Nevertheless, inclusive TM ($\beta = .201$; $p < 0.10$) and

international operations (β = .241; p < 0.10) made, however, positive contributions to firm performance. Finally, none of the regression models shown were in violation of multicollinearity, with VIFs below 2.45 and tolerance values above .408 (see Appendix 15). Subsequently, it was tested to what extent PAC and RAC would affect performance. Hereby, the former had replaced acquisition and assimilation, whereas the latter did so for transformation and exploitation. The resulting model was significant [F = 1.651; p < .01], accounting for as much as 37.4% of the variation in performance. Similarly, MNC (β = .105; p < .10) and inclusive TM (β = .124; p < .05) had a significant influence, unlike differentiation strategy and cost leadership. Interestingly, however, PAC exerted no significant effect on performance, while the capacity to internally transform and commercially apply new external knowledge obtained a significant beta weight (β = .503; p < .01). In other words, the efficiency with which the firm leverages absorbed knowledge (Fosfuri & Tribó, 2008, p. 175) was far more important in terms of its performance than the level of receptiveness to external knowledge (Zahra & George, 2002, p. 189).

Having determined that PAC and, in particular, exploitation capabilities had a notable effect on business success, it was then tested using MANOVA whether there were significant differences on a linear combination of performance metrices based on the level of AC. Taking into account existing theory and prior results, high levels of AC were assumed to correspond to higher group means in performance measures. To simulate variations in absorption capacity, AC was turned into a three-level categorical factor, with the levels as follows: scores below 4.69 denoted 'low', scores from 4.688 to 5.39 meant 'moderate', and scores above 5.38 represented 'high' levels of AC. As the scope of dependent variables did not change, the assumptions of multicollinearity, multivariate outliers, and normality required no further testing. The pairs of dependent variables were linearly related with respect to 'low' and 'moderate' levels of AC but seemingly deviated from linearity by assuming curvilinear patterns within the 'high' group (see Appendix 16).

Table 7: Descriptive Statistics - Performance by Level of AC

Dep. Variable	Ind. Var.	N	M	SD	Dep. Var.	Ind. Var.	N	M	SD
Market Share Growth	Poor	59	4.58	.986	**Employee Turnover**	Poor	59	4.00	1.099
	Moderate	64	5.06	1.006		Moderate	64	4.55	1.181
	High	59	5.81	.861		High	59	4.81	1.167
	Total	182	5.15	1.075		Total	182	4.46	1.192
Sales Growth	Poor	59	4.36	1.110	**Net Promoter Score**	Poor	59	4.27	1.080
	Moderate	64	5.06	.941		Moderate	64	4.98	1.016
	High	59	5.66	.976		High	59	5.29	.852
	Total	182	5.03	1.134		Total	182	4.85	1.069
Profitability	Poor	59	4.37	1.202					
	Moderate	64	4.94	1.125					
	High	59	5.64	.996					
	Total	182	4.98	1.219					

With all requisite assumptions tested, MANOVA was conducted. A closer look at the descriptive statistics in Table 7 unveils noticeable differences in the means between each level of AC. The assumption that the covariance matrices of the dependent variables were equal across the levels of the independent variable was met [$F = 41.596$; $p = .116$]. Moreover, Pillai's Trace was significant [$V^{(s)} = .297$; $F = 6.131$; $p < .01$], proving that there were significant differences among the levels of AC on a linear combination of the performance metrices. In fact, partial eta squared η_p^2 showed that 15% of multivariate variances in performance-related outcomes was accounted for by the level of AC ($\eta_p^2 = .148$). At last, the variance of each dependent variable was found to be equal across the three groups (market share growth, $p = .471$; profitability, $p = .650$; sales growth, $p = .397$; employee turnover, $p = .213$; net promoter score, $p = .626$).

Table 8: Tests Between-Subjects Effects - Performance by Level of AC

Ind. Var.	Dependent Variable	Mean Sq.	F	Sig.	Partial Eta^2	Observed Power
Level of Absorptive Capacity	Market Share Growth	22.944	25.180	.000	.220	1.000
	Sales Growth	25.701	24.701	.000	.216	1.000
	Profitability	23.939	19.383	.000	.178	1.000
	Employee Turnover	10.170	7.687	.001	.079	.946
	Net Promoter Score	16.124	16.516	.000	.156	1.000

The univariate ANOVA results shown in Table 8 rendered each dependent variable statistically significant ($p < .001$). For example, 22% of total variation in market share growth ($\eta_p^2 = .220$) and sales growth ($\eta_p^2 = .216$) were explained by the level of AC. The post hoc multiple comparisons using Tukey HSD method revealed furthermore that the pairwise differences in means for market share growth, sales growth, and profitability were statistically significant across the three levels of AC (see Appendix 17). For example, the scores on sales growth among firms with high AC levels exceeded those of firms with moderate and low levels, resulting in significant mean differences of .60 ($p < .01$) and 1.31 ($p < .01$), respectively.

Next, the analytical focus was shifted towards *Hypothesis 3* and the relationship between firms' TM and their capacity to acquire, assimilate, transform, and exploit economic knowledge from external sources. In doing so, both regression analyses and MANOVA were employed. The first regression model thus used TM to predict AC, while in addition controlling for differentiation strategy, cost leadership, global operations, and inclusive TM. Said model was statistically significant [$F_{7,177} = 38.219$; $p < .01$], representing a high goodness of fit with adjusted $R^2 = .586$. Both TR ($\beta = .357$; $p < .01$) and TD ($\beta = .324$; $p < .01$) were identified as significant contributors, while, in contrast, TA had no effect at all. Amongst the control variables, differentiation strategy ($\beta = .130$; $p < .05$) was likewise significant, giving reason to believe that firms from knowledge-intensive environments have inherently higher levels of AC. Besides that, the model provided

no evidence of multicollinearity (Appendix 8). Having tested the influence of TM on the firm's overall capacity to absorb and commercially use outside knowledge, it became of interest to the researcher to further explore how the effect of the former played out in terms of the underlying dimension of the latter. The statistical results are displayed in Table 9. Interestingly, TD and TR remained statistically significant in predicting the respective dimensions of AC, whereby efforts to retain talented individuals strongly contributed to acquisition ($\beta = .348$; $p < .01$), exploitation ($\beta = .342$; $p < .01$), and PAC ($\beta = .351$; $p < .01$). Then again, transformation ($\beta = .427$; $p < .01$) was most significantly influenced by measures to develop employees' skills and competencies.

Table 9: Regression Analysis between TM Practices and AC Dimensions

Regression	Model 1e		Model 2e		Model 3e		Model 4e		Model 5e		Model 6e	
Ind. Variable	**Acquisition**		**Assimilation**		**Transformation**		**Exploitation**		**Potential AC**		**Realized AC**	
Attraction	.159	*.138*	.100	*.086*	.001	*.000*	.102	*.089*	.129	*.125*	.051	*.052*
Development	.216**	*.201*	.323***	*.300*	.411***	*.427*	.191*	*.180*	.270***	*.279*	.301***	*.327*
Retention	.373***	*.348*	.302***	*.283*	.216***	*.226*	.360***	*.342*	.338***	*.351*	.288***	*.314*
Differentiation	.122	*.058*	.173	*.083*	.210*	*.112*	.389***	*.188*	.148	*.078*	.299***	*.166*
Low Cost	-.054	*-.026*	-.064	*-.031*	-.031	*-.016*	-.085	*-.042*	-.059	*-.032*	-.058	*-.032*
Global Ops.	-.016	*-.006*	-.102	*-.039*	.153	*.065*	.295**	*.114*	-.059	*-.025*	.224*	*.099*
Inclusive TM	-.140	*-.066*	.192	*.091*	.148	*.079*	.058	*.028*	.026	*.014*	.103	*.057*
Constant	1.267***		1.168***		1.571***		1.461***		1.217***		1.516***	
Adjusted R^2	.369		.428		.457		.439		.490		.535	
F	16.348		20.684		23.148		21.549		26.287		31.200	
Sig.	.000		.000		.000		.000		.000		.000	

* p < 0.1 ** p < 0.05 *** p < 0.01; *Standardized Coefficients Beta*

Having determined that both TD and TR had a notable influence on AC and components thereof, it was subsequently tested what specific development and retention practices were of particular importance toward the capacity to absorb and utilize new external knowledge. The model using TD practices as predictors while controlling for differentiation strategy, cost leadership, global operations, and inclusive TM, was statistically significant [$F_{10,173} = 22.04$; $p < .01$] and explained nearly 54% of the observed variance in AC (see Appendix 18). Concerning the strength of the individual predictors, ongoing investments in training and development ($\beta = .331$, $p < .01$), involving line managers in development interventions ($\beta = .194$, $p < .01$), job rotations ($\beta = .161$, $p < .01$), and coaching and mentoring programs ($\beta = .152$, $p < .05$) had a significant influence on firm-level AC. Interestingly, these predictors, apart from the latter, likewise had a significant effect on the firm's performance. That being said, the model with TR practices as predictors was of equal statistical significance [$F_{11,172} = 8.364$; $p < .01$] and had similar exploratory power, with adjusted $R^2 = .531$ (see Appendix 19). Firm-level AC was, however, mostly and significantly influenced by initiatives to support expatriates during their assignments ($\beta = .213$, $p < .01$), grant talented employees greater responsibility in decision-making ($\beta = .202$, $p < .01$), recognize their contributions also through non-monetary rewards ($\beta = .177$, $p < .01$), and manage diversity in

the workplace (β = .154, p < .05). This leads to the conclusion that the scope of TR practices influencing firms' performance and impacting upon their level of AC were mostly dissimilar.

Next, it was tested whether the extent to which firms acquire, assimilate, transform, and exploit new external knowledge differed significantly based on the level of priority that they assigned to TM as a corporate practice. MANOVA was devised and subject to the same three-level categorical variable as in the previous multivariate test. Needless to say, the assumption of sufficient sample size was met. By using a different set of dependent variables, however, outliers needed to be eliminated first using *MD* (low = 57; moderate = 66; high = 59) to meet the assumption (max. *MD* = 16.13; *df* = 3; critical χ^2 = 16.27). The scatterplots demonstrated no deviations from linearity among the pairs of dependent variables across the groups (see Appendix 20). Concerning normality, Shapiro-Wilk was found to be not significant in view of acquisition (p = .124), assimilation (p = .053), and transformation (p = .063). However, exploitation was found to have violated the assumption of normality (see Appendix 21). The dependent variables were mutually and moderately correlated, rendering multicollinearity unproblematic (see Appendix 22).

Table 10: Descriptive Statistics - AC by Priority assigned to TM

Dep. Variable	Ind. Var.	N	M	SD	Dep. Var.	Ind. Var.	N	M	SD
Acquisition	Poor	58	4.37	.836	**Transformation**	Poor	58	4.43	.867
	Moderate	64	5.07	.801		Moderate	64	5.03	.672
	High	60	5.57	.877		High	60	5.63	.781
	Total	182	5.01	.963		Total	182	5.04	.905
Assimilation	Poor	58	4.29	.973	**Exploitation**	Poor	58	4.61	1.025
	Moderate	64	4.90	.836		Moderate	64	5.14	.793
	High	60	5.49	.757		High	60	5.75	.745
	Total	182	4.50	.980		Total	182	5.17	.970

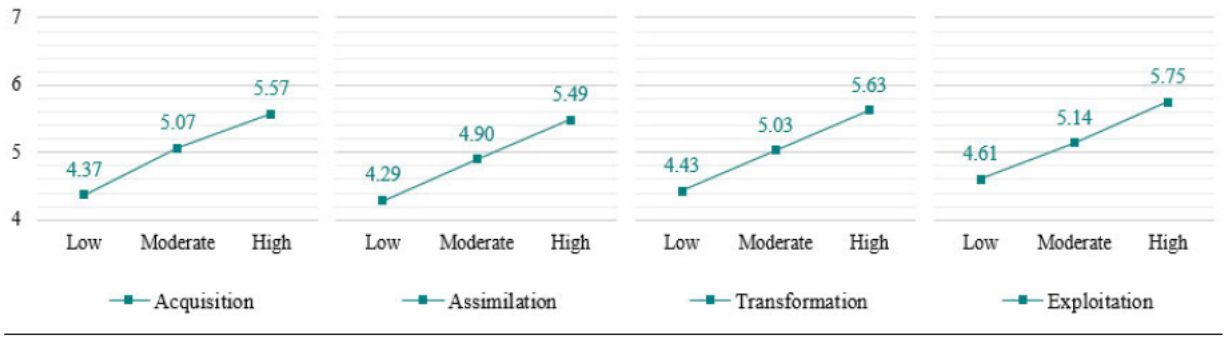
The descriptive statistics of the MANOVA, as shown in Table 10, had demonstrated notable differences in the sample means across the three levels on the independent variable. It seems as though the greater the priority that TM receives, the higher is the level of the organization's AC. The Box's M test revealed no significant differences among the covariances matrices across the levels of the independent variable [F = 37.07; p = .106]. Having maintained most of the critical assumptions, Wilk's Lambda was used to test the significance of overall group differences. The test indicated significant differences between the levels of priority with which TM is practiced across the four elements of AC [Λ = .634; F = 11.261; p < .01]. Taking into account partial eta squared, approximately 20% of the multivariate variance in the AC dimensions were due to the group factor (η_p^2 = .204). Furthermore, Levene's Test confirmed that the variances across groups were equal only for acquisition (p = .788), transformation (p = .087), and exploitation (p = .650), not, however, for knowledge assimilation (p = .039).

Table 11: Tests Between-Subjects Effects - AC by Priority assigned to TM

Ind. Var.	Depend. Var.	Mean Sq.	F	Sig.	Partial Eta²	Observed Power
Level of Priority Talent Mgmt.	Acquisition	21.113	30.124	.000	.252	1.000
	Assimilation	21.037	28.619	.000	.242	1.000
	Transformation	20.702	34.700	.000	.279	1.000
	Exploitation	19.180	26.022	.000	.225	1.000

The univariate ANOVA test results (Table 11) indicated furthermore that the scores on each AC dimension differed significantly across the levels of priority with which TM is viewed by the firm. In fact, 28% and 23% of the variance in firms' ability to transform externally acquired knowledge and exploit it for profit generation were respectively accounted for by the level of priority in TM. The post hoc tests using Tukey HSD then revealed that the pair-wise differences in group means on acquisition, assimilation, transformation, and exploitation were significant at the level of .01 across all three levels on the independent variable (see Appendix 23).

Figure 4: Mean Comparison - AC by Priority assigned to TM



Here, Figure 3 illustrates the distributions of means on each dimension, which gradually increase per higher level of priority assigned to TM. Due to lacking evidence about the impact of TM on firms' ability to absorb knowledge and apply it to commercial ends, these findings are somewhat novel but reflect existing theories, suggesting that TM facilitates an organizational context that boosts the creation of new knowledge (Whelan & Carcary, 2011, p. 678) and its transfer within and across units (Ahmed, 2016, p. 92), which in turn are key determinants of firm-level AC.

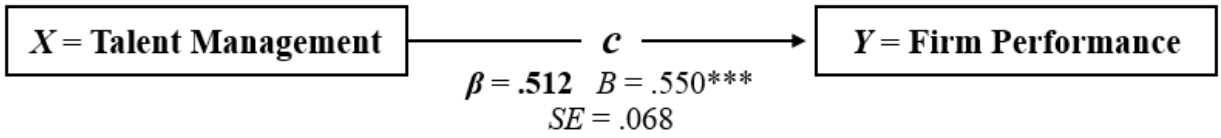
Taking into account that TM is positively related to AC, which is likewise positively related to the performance, there is reason to suggest that AC exerts a mediating effect on the relationship between TM processes and the latter. In order, therefore, to validate *Hypothesis 4*, the researcher opted for path analysis, involving the use of structural equation models (SEM) with standardized regression coefficients to demonstrate the relative effect of each variable on others in the model (Allen, 1997, p. 157). That being said, the simplest possible form of path analysis is mediation analysis (Pelham, 2013, p. 341), of which the simplest model involves an independent variable, *X*, a mediator, *M*, and a dependent variable, *Y* (MacKinnon et al., 2012, p. 314), where *M* is in a

causal sequence in that *X* causes *M* which in turn causes *Y*. Concerning the analysis, TM shall represent *X* with firm performance being *Y* and AC being the mediator, *M*. This single-mediator model ($X \rightarrow M \rightarrow Y$) is subsequently expressed through Equations 1 to 3:

(1) $Y = i_1 + c\,X + e_1$, (2) $Y = i_2 + c'X + b\,M + e_2$, (3) $M = i_3 + a\,X + e_3$,

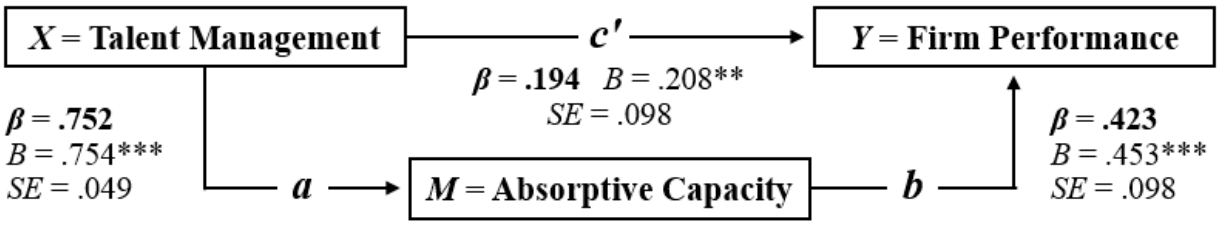
where the coefficients i_1, i_2, and i_3 are intercepts in each equation, and e_1, e_2, and e_3 are residuals. Here, the coefficient *c* reflects the total effect that *X* exerts on *Y*. This is illustrated in Figure 4, which in addition provides the estimated path coefficients obtained through regression analysis.

Figure 5: Path Analysis - Total Effect *X* → *Y*



In Figure 5, the coefficient *c*' represents the direct effect of *X* on *Y* not being intervened by *M*. Beyond that, *b* denotes the relationship between *M* and *Y* whilst controlling for *X*, and *a* reflects the relationship between *M* and *X*. Therefore, Equations 2 and 3 reflect how the total effect of *X* on *Y* is essentially separated into a direct effect relating *X* to *Y* as well as a mediated effect where *X* has an indirect effect on *Y* through *M* (MacKinnon et al., 2012, p. 315).

Figure 6: Path Analysis - Direct and Indirect Effect: *X* → *M* → *Y*



In other words, the indirect effect reflects the portion of the relationship between *X* and *Y* that is mediated by *M*. A common approach for establishing mediation involves four statistical tests or causal steps of analyses (Figueredo et al., 2013, p. 4) conducted herein using regression analysis (see Appendix 24). First, *X* as in TM was significantly related to *Y* that is performance ($c = .512$; $p < .01$) as shown in Figure 4. Second, *X* was likewise significantly related to the hypothesized mediator, that is AC ($a = .752$; $p < .01$). Third, *M* was significantly related to *Y* while controlling for *X* ($b = .423$; $p < .01$). Finally, the relation between *X* and *Y* was proven to be weaker when *M* was added to the model ($c' = .194$; $p < .05$). Given, however, that the direct effect of *X* on *Y* when controlling for *M* remained significant at $p = .05$, there was evidence of partial rather than

full mediation (MacKinnon et al., 2007, p. 602), meaning that the relationship between TM and performance was not entirely associated with AC. If a path, which connects an independent and a dependent variable, entails other variables and arrows, the overall strength of the path is estimated by multiplying the coefficients for each leg of the path (Warner, 2013, p. 652). Therefore, the indirect effect in the single-mediator model is formed by the product of the estimated path coefficients *a* and *b*, resulting in an unstandardized indirect effect of .342 and a standardized indirect effect of .318. This approach is also known as the product of coefficients method, where the indirect effect reflects the extent to which *X* alters the mediator *M* and the extent to which *M* changes *Y* (MacKinnon et al., 2007, p. 599). In this regard, mediation analysis was conducted in R Studio using bootstrapping and 95% confidence intervals for the indirect effect, resulting in an average causal mediation effect (ACME = .3416; $p < .001$), estimated as between .208 and .50 in effect size units. The summary function also revealed the average direct effect (ADE = .2082; $p = .01$), estimated as [.0646, .39] and the total effect of .5498 ($p < .001$), estimated as [.4324, .67], thus confirming the results obtained from the causal steps analyses. In order to test for significance of mediation, Sobel test (Sobel, 1982, p. 290), testing the hypothesis of no difference between the total and direct effect was conducted, using the multivariate delta method (Chen & Hung, 2016, p. 39) to provide the approximate estimate of the *SE* of the *a b* product:

$$(4)\quad SE_{ab} \approx \sqrt{(a^2\sigma_b^2 + b^2\sigma_a^2)}$$

where *a* and *b* are the raw unstandardized regression coefficients (*B*) denoting the effect of *X* on *M* and the effect of *M* on *Y*, respectively, and where σ_a and σ_b are the standard error of the *a* and *b* regression coefficient (MacKinnon et al., 2012, p. 314). Using the standard error as divisor, the following *z* ratio for Sobel's test was computed in order to test H_0: $a\,b = 0$:

$$(5)\quad z = \frac{a\,b}{SE_{ab}}$$

The product of *a b* or the indirect effect is judged to be statistically significant if *z* is above 1.96 or below -1.96. With that said, the *z* ratio obtained in this test was equal to 4.427, with $p < .001$, two-tailed, suggesting that the indirect effect of TM on firm performance mediated by AC was statistically significant. Sobel's test is appropriate only for large sample sizes and is widely used in the context of the causal steps approach (Warner, 2013, p. 657). An alternative standard error used for estimating the significance of mediation (Nath & Pradhan, 2012, p. 168) is provided by Aroian's second-order solution (Aroian, 1944/1947, p. 265) and Goodman's unbiased solution (Goodman, 1960, p. 708). Both tests comprising the Sobel evaluations are computed in a similar

manner but differ such that the Aroian test adds the expression ($\sigma_a^2\ \sigma_b^2$) to the other terms under the square root sign in the denominater, while for Goodman's test it is subtracted (Meyers et al., 2013, p. 387). With that said, both tests proved that the indirect effect was statistically significant (Aroian's $z = 4.419$; $p < .001$, two-tailed; Goodman's $z = 4.436$; $p < .001$, two-tailed). Having identified a significant mediated effect ($p < .001$, two-tailed), it was interesting then to disclose what proportion of the total effect of TM on performance was due to mediation as follows:

$$(6)\quad 1 - \frac{c\prime}{c} = \frac{a\,b}{(a\,b + c\prime)}$$

The results indicated that approximately 62% of the total effect was due to mediation or, in other words, AC accounted for almost two-thirds of the relation between TM and firm performance. This was verified in R Studio, resulting in a proportion mediated = .6213 ($p < .001$), estimated as [.3884, .88], and concluded that the firm's ability to acquire, assimilate, transform, and exploit new external knowledge mediates in part the relation between its TM practices and performance. It is worth mentioning that similar results were obtained with the dummy variables added to the regression models, as the mediated proportion was calculated at 61% (see Appendix 25).

Table 12: Summary ANOVA - TM Practices based on TM Approach

Depend. Var.	Group	M	ΔM	ANOVA	Mean Sq.	F	Sig.	Levene's Test	
Talent Mgmt.	Exclusive	4.754	*-.522*	Between Groups	12.444	18.730	.000	F	1.378
	Inclusive	5.276		Within Groups	.664			Sig.	.242
Attraction	Exclusive	4.765	*-.435*	Between Groups	8.661	11.160	.001	F	.283
	Inclusive	5.200		Within Groups	.776			Sig.	.596
Development	Exclusive	4.774	*-.679*	Between Groups	21.077	25.252	.000	F	3.648
	Inclusive	5.453		Within Groups	.835			Sig.	.058
Retention	Exclusive	4.724	*-.452*	Between Groups	9.362	10.254	.002	F	1.320
	Inclusive	5.176		Within Groups	.909			Sig.	.252

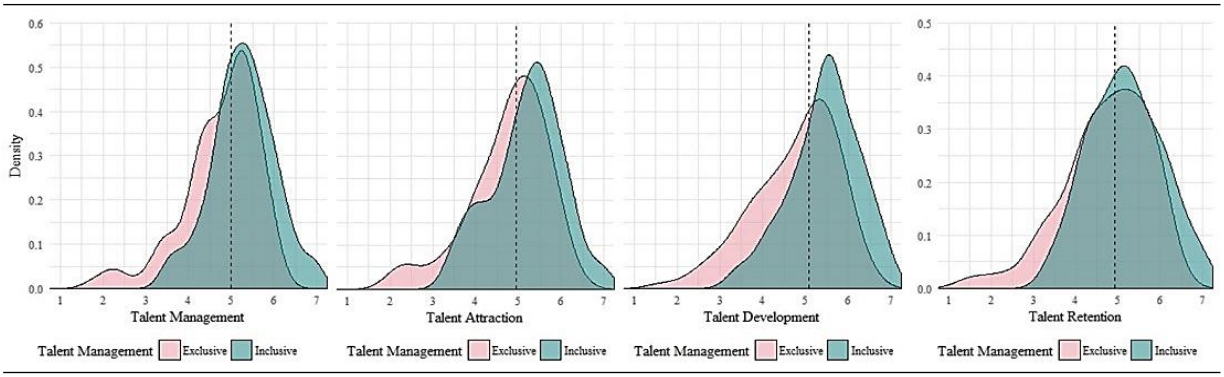
Upon identifying the strength and direction of the interactions between TM, AC and company performance, the subsequent part of the analysis resorted on one-way ANOVA in order to verify *Hypothesis 5* and explain whether TM routines, dimensions of AC, and firm performance would differ in terms of the firm's approach to managing or rather understanding talent. The distinction was made between inclusive and exclusive TM. First, TM was subjected to empirical testing, in which TM approach served as a two-level categorical variable. As the observations were random and independent samples from the population, the assumption of independence was sufficiently met. That being said, normality was violated, with Shapiro-Wilk being significant and therefore below the a priori alpha of .001 for TM ($W = .957$; $p < .001$), TA ($W = .964$; $p < .001$), and TD ($W = .966$; $p < .001$), whereas TR ($W = .976$; $p = .002$) was normally distributed. This suggested that Levene's test be used to see whether the assumption of homogeneity of variances had been satisfied, as that it is widely deemed more robust to departures from normality.

The results, as shown in Table 12, suggest that the variances differed across the two groups on the independent variable ($p > \alpha = .001$). With that said, each ANOVA proved significant at .05, leading to reject the null hypotheses and conclude that the group means on TA [$F_{1,183} = 11.16$; $p = .001$], TD [$F_{1,183} = 25.252$; $p < .001$], TR [$F_{1,183} = 10.254$; $p = .002$], and TM [$F_{1,183} = 12.444$; $p < .001$] differed significantly based on TM approach. In fact, the tendency to develop talented individuals was seemingly higher among firms with an inclusive TM approach ($M = 5.45$; $SD = .81$) than firms taking an exclusive approach ($M = 4.77$; $SD = .99$). However, as these differences may have little to no practical significance with larger samples, effect size measures help quantify the magnitude of the observed difference among populations (Olejnik & Algina, 2003, p. 434). Being the least biased estimator of the true population value of strength of association, omega-squared (ω^2) was used to measure the proportion of the total variance in the predictors associated to the levels of the independent variable (Yigit & Mendes, 2017, p. 4).

$$(7)\ \omega^2 = \frac{SS_{effect} - df_{effect}\ MS_{error}}{SS_{total} + MS_{error}}$$

where SS_{total} is the total sum of squares, SS_{effect} is the sum of squares of effect, df_{effect} is the degree of freedom of effect, and MS_{error} is the mean square error. Rule of thumb for ω^2 suggests that the threshold for a small, medium, and large effect are equal to .01, .06, and .14, respectively (Miksza & Elpus, 2018, p. 117). The calculations indicated that 12% and 9% of total variance in TD ($\omega^2 = .116$) and TM ($\omega^2 = .087$) was due to the difference in the group factor, resulting in a medium effect. However, TA ($\omega^2 = .052$) and TR ($\omega^2 = .048$) merely resulted in a small effect.

Figure 7: Density Plots - Differential Effect of TM Approach on TM



In order to graphically demonstrate the significant effects, density plots were created (Figure 6). Density plots may be thought of as plots of smoothed histograms visualizing the distribution of scores over a continuous interval, with peaks showing where they are concentrated. The notable shift of the 'inclusive' curve to the right, particularly in view of TD, indicates higher average scores and thus confirms the ANOVA test results, that the sample means for TD ($\Delta M = .679$), TR ($\Delta M = .452$), and TM ($\Delta M = .522$) must be significantly different across the two groups.

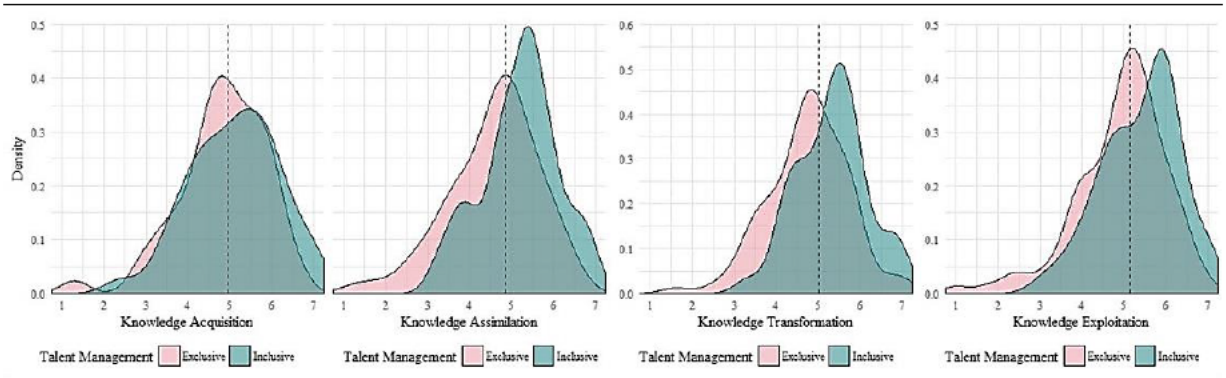
Next, it was tested whether there were significant differences among the pairs of sample means on the dimensions of AC. While the assumption of independence was met, univariate normality was partially rejected upon testing Shapiro-Wilk with $\alpha = .001$ (acquisition: $W = .976$; $p = .003$; assimilation: $W = .975$; $p = .002$; transformation: $W = .982$; $p = .019$; AC: $W = .973$; $p < .001$; exploitation: $W = .958$; $p < .001$). According to Levene's test, the comparison groups on behalf of each dependent variable were equal, as shown in Table 13, thereby confirming the assumption of homogeneity of variances.

Table 13: Summary ANOVA - AC Dimensions based on TM Approach

Depend. Var.	Group	M	ΔM	ANOVA	Mean Sq.	F	Sig.	Levene's Test	
Abs. Capacity	Exclusive	4.776	*-.485*	Between Groups	10.720	15.810	.000	F	.116
	Inclusive	5.261		Within Groups	.678			Sig.	.733
Acquisition	Exclusive	4.836	*-.273*	Between Groups	3.393	3.134	.078	F	.428
	Inclusive	5.109		Within Groups	1.083			Sig.	.514
Assimilation	Exclusive	4.574	*-.628*	Between Groups	18.015	18.045	.000	F	1.443
	Inclusive	5.202		Within Groups	.998			Sig.	.231
Transform.	Exclusive	4.764	*-.566*	Between Groups	14.621	18.254	.000	F	.626
	Inclusive	5.330		Within Groups	.801			Sig.	.430
Exploitation	Exclusive	4.930	*-.472*	Between Groups	10.207	10.109	.002	F	.197
	Inclusive	5.402		Within Groups	1.010			Sig.	.658

The ANOVA ($\alpha = .05$) was not significant for acquisition ($p = .078$), but resulted in significant effects of TM approach on assimilation [$F_{1,183} = 18.05$; $p < .001$], transformation [$F_{1,183} = 18.25$; $p < .001$], exploitation [$F_{1,183} = 10.11$; $p = .002$], and AC [$F_{1,183} = 15.81$; $p < .001$]. Firms taking an inclusive TM approach ($M = 5.20$; $SD = .91$), for example, had a notably higher assimilation capacity than firms with an exclusive TM approach ($M = 4.57$; $SD = 1.06$). Similarly, the ability to exploit new external knowledge for profit generation was higher among firms considering all employees talented ($M = 5.40$; $SD = .92$) than among firms which did not ($M = 4.92$; $SD = 1.07$). The effect size measures concluded a medium effect, where respectively 8%, 9%, and 7% of the total variation in assimilation ($\omega^2 = .084$), transformation ($\omega^2 = .085$), and AC ($\omega^2 = .074$) were associated with having a differential approach to manage talent.

Figure 8: Density Plots - Differential Effect of TM Approach on AC Dimensions



The significant effects were also shown by the density plots in Figure 6. The 'inclusive' curve, most notably in the case of assimilation, transformation, and exploitation appear to have visibly shifted to the right, indicating that the obtained scores which they are based on are greater such that the differences in group means were statistically significant.

Next, it was tested whether or not the group means on performance were significantly different. Needless to say, that the assumption of independence was met. With $\alpha = .001$, firm performance ($W = .977$; $p = .004$) met the assumption of normality, unlike sales growth ($W = .912$; $p < .001$), market share growth ($W = .919$; $p < .001$), profitability ($W = .919$; $p < .001$), employee turnover ($W = .931$; $p < .001$), and net promoter score ($W = .909$; $p < .001$). With that said, the assumption of homogeneity was met for this sample, as shown by the results for Levene's test in Table 14.

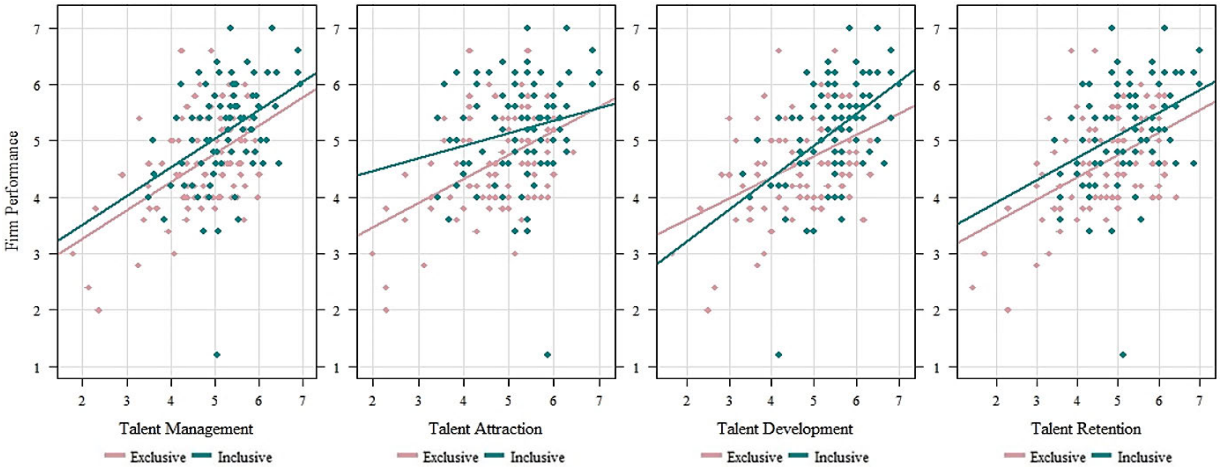
Table 14: Summary ANOVA - Performance based on TM Approach

Depend. Var.	Group	M	ΔM	ANOVA	Mean Sq.	F	Sig.	Levene's Test	
Firm Performance	Exclusive	4.645	*-.531*	Between Groups	12.870	16.58	.000	F	.106
	Inclusive	5.176		Within Groups	.776			Sig.	.745
Market Share Growth	Exclusive	4.883	*-.568*	Between Groups	14.715	13.40	.000	F	.536
	Inclusive	5.451		Within Groups	1.098			Sig.	.465
Sales Growth	Exclusive	4.709	*-.730*	Between Groups	24.348	21.273	.000	F	.052
	Inclusive	5.439		Within Groups	1.145			Sig.	.821
Profitability	Exclusive	4.680	*-.649*	Between Groups	19.268	13.532	.000	F	.284
	Inclusive	5.329		Within Groups	1.424			Sig.	.595
Employee Turnover	Exclusive	4.272	*-.374*	Between Groups	6.403	4.522	.035	F	1.068
	Inclusive	4.646		Within Groups	1.416			Sig.	.303
Net Promoter Score	Exclusive	4.680	*-.332*	Between Groups	5.050	4.174	.043	F	.184
	Inclusive	5.012		Within Groups	1.210			Sig.	.669

The respective ANOVA tests ($\alpha = .05$) demonstrated significant effects of TM approach on firm performance [$F_{1,183} = 16.58$; $p < .001$], market share growth [$F_{1,183} = 13.4$; $p < .001$], profitability [$F_{1,183} = 13.532$; $p < .001$], sales growth [$F_{1,183} = 21.273$; $p < .001$], staff turnover [$F_{1,183} = 4.522$; $p = .035$], and net promoter score [$F_{1,183} = 4.17$; $p = .043$]. Based on a comparison of the group means displayed, one could argue that organizations with an inclusive TM approach ($M = 5.18$; $SD = .92$) reported consistently and significantly higher performance levels than companies with an exclusive approach ($M = 4.65$; $SD = .99$). Roughly 8% of the variance in performance was accounted for by TM approach, indicating an effect of moderate proportions, similar to that of market share growth ($\omega^2 = .063$), profitability ($\omega^2 = .063$), and sales growth ($\omega^2 = .099$).

Against the backdrop that TM practices correspond positively to performance, scatter plots were created in R Studio to visualize the association among them (Gerber & Finn, 2005, p. 64). The scores, however, were split based on TM approach, resulting in two distinct sets of data points, one for inclusive TM and one for exclusive TM, which, if subjected to linear regression analysis, produced two distinct regression lines, differing both in slope and their intercept with the y-axis.

Figure 9: Scatter Plots - Differential Effect of TM Approach on Performance



Analysis of covariance (ANCOVA) was subsequently used to compare the two regression lines shown in Figure 8 by testing the effect of TM approach as a categorical factor on performance, being the dependent variable, while controlling for TM efforts, as continuous covariable. In this regard, TM approach splits the relation between firms' TM and business performance into two linear equations, one for exclusive TM and one for inclusive TM. The comparison of regression lines necessitates the examination of the interaction of the categorical factor with the continuous variable which, if significantly different from zero, implies that the effect of the covariate on the dependent variable depends on the level of the categorical factor.

The ANCOVA was devised in R Studio to investigate the interaction between TM approach and efforts to attract, develop, and retain talent. Despite the significant effect of TM [$F_{1,181}$ = 65.84; p < .001] and TM approach [$F_{1,181}$ = 4.866; p = .029], the test found no significant interaction between the former and the latter (p = .944), suggesting that the slopes of the equation relating TM to firm performance had not differed across inclusive and exclusive TM. In order to test for significant differences in the intercept with the y-axis, a more parsimonious model without the interaction term between the independent variable and covariate was fitted. The model indicated a significant effect of TM approach on performance [$F_{1,181}$ = 4.89; p = .028], but no reduction in terms of model fit [F = .005; p = .945], suggesting that the interaction between TM approach and practices was truly insignificant. Subsequently, the regression equations were produced, indicating that inclusive TM (b = .509; p < .001) and exclusive TM (b = .498; p <.001) were seemingly parallel, while the former intercepted the y-axis at a higher point (a = 2.492; p < .001) than the latter (a = 2.276; p < .001). These results reflected the outer left scatterplot in Figure 7 and suggested that, even though corporate performance depends in a similar manner on inclusive and exclusive TM, hence the parallel slope lines, both approaches differed however, in terms of magnitude, such that inclusive TM led to inherently better performance outcomes.

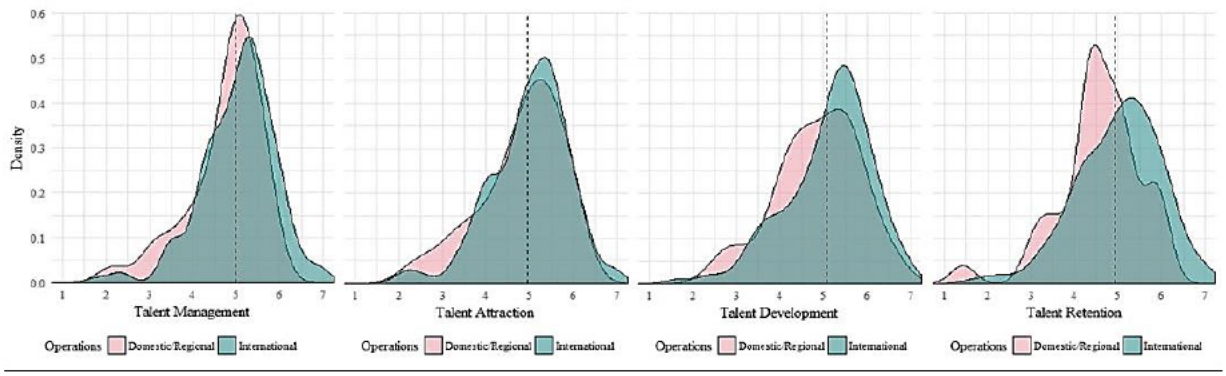
The analysis subsequently focused on *Hypothesis 6* and hence whether the extent to which firms manage talent and absorb externally available knowledge differed with the degree to which they had been involved in global business operations. This was to provide an answer to the question about whether or not MNCs exert higher levels of AC and adopt a wider and more sophisticated scope of TM routines. The latter was first subjected to empirical testing using ANOVA, whereby 'operational scope' as previously termed 'MNC' represented a two-level group factor. With that said, the assumption of normality and independence had been already tested, whereby the former was partially rejected. Levene's test, the results of which are summarized in Table 15, indicated no violation of the assumption of homogeneity of variance, so that ANOVA was proceeded.

Table 15: Summary ANOVA - TM based on Operational Scope

Depend. Var.	Group	M	ΔM	ANOVA	Mean Sq.	F	Sig.	Levene's Test	
Talent Mgmt.	Dom./Reg.	4.743	*-.301*	Between Groups	2.599	3.618	.059	F	.117
	Global	5.004		Within Groups	.718			Sig.	.733
Attraction	Dom./Reg.	4.805	*-.190*	Between Groups	1.045	1.278	.259	F	.219
	Global	4.995		Within Groups	.818			Sig.	.644
Development	Dom./Reg.	4.857	*-.271*	Between Groups	2.126	2.267	.133	F	.049
	Global	5.128		Within Groups	.938			Sig.	.825
Retention	Dom./Reg.	4.572	*-.438*	Between Groups	5.553	5.970	.016	F	.328
	Global	5.010		Within Groups	.930			Sig.	.586

The test results, subject to alpha level of .05, confirmed a significant effect of operational scope on TR [$F_{1,183} = 5.97$; $p = .016$] only. TA ($p = .259$), TD ($p = .133$), and TM as a whole ($p = .059$) were found to be nonsignificant. Conclusively, firms operating globally expend seemingly more efforts to retain and engage highly skilled employees ($M = 5.01$; $SD = .97$) than companies based solely at the regional or domestic level ($M = 4.57$; $SD = .95$). However, the effect was considered small with $\omega^2 = .026$. The density plots in Figure 9 showed that nevertheless the 'international' curve of TR shifted to the right, peaking at a higher level, unlike in the case of TA, TD, and TM.

Figure 10: Density Plots - Differential Effect of Operational Scope on TM



The same test procedure was subsequently applied to AC and the underlying dimensions thereof. Having met the assumption of independence, univariate normality was partially rejected, due to

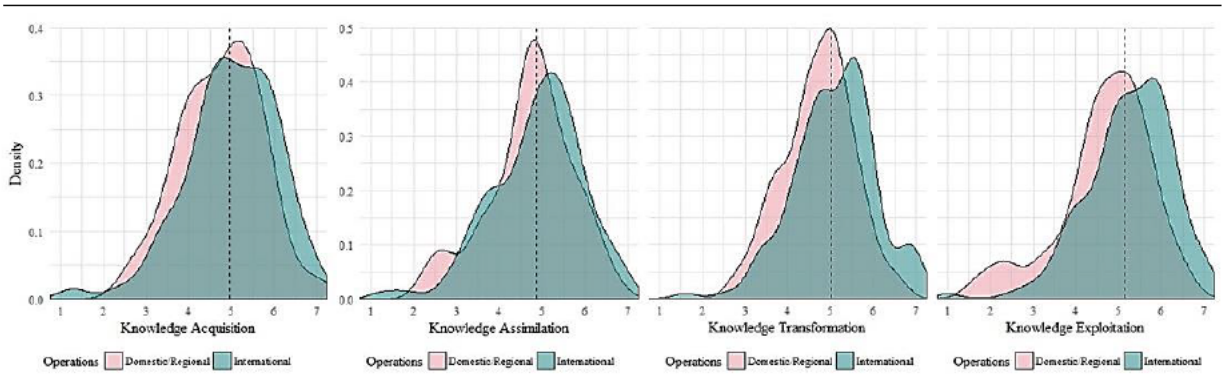
violations relating to exploitation ($W = .958$; $p < .001$) and AC ($W = .973$; $p < .001$). Levene's test confirmed that all comparison groups had indeed the same variance, as shown in Table 16. The results tests ($\alpha = .05$) revealed that the means on AC [$F_{1,183} = 4.72$; $p = .031$], transformation [$F_{1,183} = 4.90$; $p = .028$], and exploitation [$F_{1,183} = 9.271$; $p = .003$] differed significantly across the two groups on operational scope. In other words, RAC of globally operating firms and those which were confined at the regional or domestic level appeared to be widely dissimilar, whilst their levels of PAC showed little to no variation. Evidently, global businesses had a significantly greater capacity to exploit externally acquired knowledge ($M = 5.25$; $SD = .99$) than their locally or regionally based counterparts ($M = 4.68$; $SD = 1.08$), as shown in Table 16.

Table 16: Summary ANOVA - AC based on Operational Scope

Depend. Var.	Group	M	ΔM	ANOVA	Mean Sq.	F	Sig.	Levene's Test	
Abs. Capacity	Dom./Reg.	4.716	*-.342*	Between Groups	3.389	4.720	.031	F	.275
	Global	5.058		Within Groups	.718			Sig.	.601
Acquisition	Dom./Reg.	4.750	*-.257*	Between Groups	1.911	1.752	.187	F	.369
	Global	5.007		Within Groups	1.091			Sig.	.544
Assimilation	Dom./Reg.	4.722	*-.162*	Between Groups	.761	.696	.405	F	.516
	Global	4.884		Within Groups	1.093			Sig.	.473
Transform.	Dom./Reg.	4.708	*-.381*	Between Groups	4.192	4.901	.028	F	.946
	Global	5.089		Within Groups	.858			Sig.	.332
Exploitation	Dom./Reg.	4.681	*-.569*	Between Groups	9.042	9.271	.003	F	.081
	Global	5.250		Within Groups	1.014			Sig.	.777

The scatter plots were a mere reflection of the above, showing that with regard to transformation and exploitation the 'international' curve shifted to the right vis-à-vis the 'domestic/regional' curve. That being said, the effect sizes were deemed small, with only 2% of the variation in AC and transformation, and 4% of that relating to exploitation were associated with the group factor.

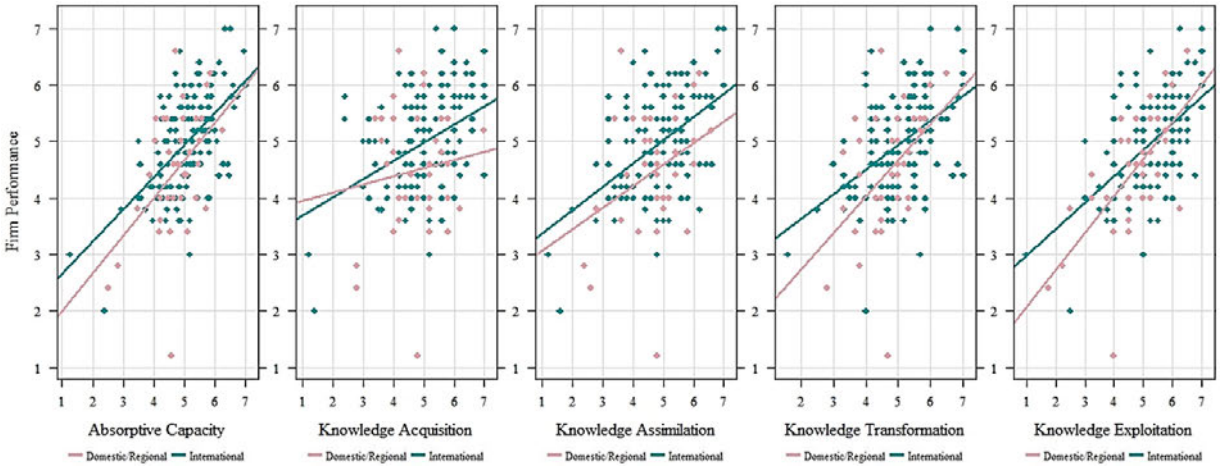
Figure 11: Density Plots - Differential Effect of Operational Scope on AC



Having determined that AC and, in particular, RAC differed significantly in terms of operational scope, and bearing in mind that firm performance was positively impacted by AC, scatter plots were created in order to give a graphical illustration of their relationship, as shown in Figure 11. Hereby, the sample scores were split into two sets of data points, one for international operations

and one for domestic or regional operations, which led to two distinct regression lines, following linear regression analysis. These were then subjected to ANCOVA in order to give an in-depth comparison thereof and ultimately test the effect of firms' scope of operations on their business performance, while controlling for AC. The ANCOVA model demonstrated a significant effect of AC [$F_{1,181}$ = 88.43; p < .001] and operational scope [$F_{1,181}$ = 4.043; p = .046], however, no significant interaction between them (p = .576), suggesting that the slopes of the equation relating the AC to firm performance were statistically indifferent.

Figure 12: Scatter Plots - Differential Effect of Operational Scope on Performance



In order to discover significant differences in the intercept with the y-axis, however, the model had to be reconstructed, yet without the interaction term. The resulting model found a significant effect of operational scope on performance [$F_{1,182}$ = 4.058; p = .045], but was not compromised in terms of model fit [F = .314; p = .576], concluding that the interaction between knowledge absorption capabilities and operational scope was truly insignificant. The regression equations were subsequently computed and demonstrated that international operations (b = .572; p < .001) and regional or domestic operations (b = .669; p <.001) differed marginally in terms of slope, even though the former had a significantly greater intercept with the y-axis (a = 2.083; p < .001) than the latter (a = 1.330; p < .001). These results were consistent with the outer left scatterplot in Figure 11, and suggested that, while performance depends in a similar way on the capacity to absorb and utilize external knowledge, firms involved in global operations were able to leverage their AC so as to achieve higher levels in their overall performance.

Finally, the analysis focused on *Hypothesis 7* and whether or not organizations characterized by broad investments in R&D and highly knowledge-intensive processes, indicating their strategic orientation, adopt more sophisticated TM procedures and indicate higher levels of AC than their counterparts less reliant upon knowledge and R&D-related activities. In order to run a sufficient

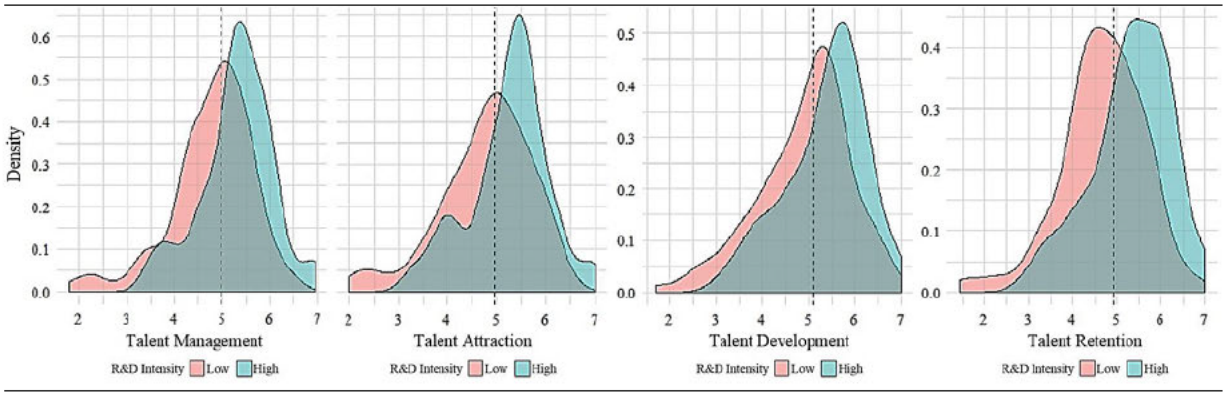
comparison between the group means, a two-level categorical or binary variable labelled 'R&D intensity' and based solely on the industrial sector was derived. The classification was congruent with Laursen and Foss' (2003, p. 261) depiction of science-based firms which, according to the authors, are found in chemical and electronic sectors, source new technologies through internal R&D and production engineering, and readily use universities and suppliers as external sources of innovation (Vinding, 2000, p. 14). With this in mind, the following responses were coded 1: chemicals, pharmaceuticals, electrical equipment, semiconductors, information technology, and healthcare; while responses stating otherwise were coded 0. First subjected to one-way ANOVA was TM which, despite satisfying the assumption of independence, partially violated normality. Levene's test, as displayed in Table 17, confirmed the assumption of homogeneity of variance.

Table 17: Summary ANOVA - TM Practices based on R&D Intensity

Dep. Variable	Group	M	ΔM	ANOVA	Mean Sq.	F	Sig.	Levene's Test	
Talent Mgmt.	Low R&D	4.782	*-.529*	Between Groups	12.137	18.22	.000	F	.828
	High R&D	5.311		Within Groups	.666			Sig.	.364
Attraction	Low R&D	4.784	*-.453*	Between Groups	9.014	11.64	.001	F	1.587
	High R&D	5.237		Within Groups	.774			Sig.	.209
Development	Low R&D	4.895	*-.469*	Between Groups	9.608	10.71	.001	F	1.256
	High R&D	5.364		Within Groups	164.15			Sig.	.264
Retention	Low R&D	4.672	*-.663*	Between Groups	18.953	22.12	.000	F	.131
	High R&D	5.335		Within Groups	.857			Sig.	.719

ANOVA testing ($\alpha = .05$) indicated a significant effect of R&D intensity on TA [$F_{1,183} = 11.64$; $p = .001$], TD [$F_{1,183} = 10.71$; $p = .001$], TR [$F_{1,183} = 22.12$; $p < .001$], and TM [$F_{1,183} = 18.22$; $p < .001$]. Differences in the group means were evident, as high R&D intensity corresponded to more extensive TM practices ($M = 5.31$; $SD = .74$) compared to low R&D intensity ($M = 4.78$; $SD = .85$). The effect size measures reported a small effect relating to TA ($\omega^2 = .054$) and TD ($\omega^2 = .049$), but a moderate effect in the context of TR ($\omega^2 = .103$), and TM ($\omega^2 = .085$).

Figure 13: Density Plots - Differential Effect of R&D Intensity on TM



The density plots in Figure 12 merely confirm the ANOVA results by showing a clear right shift of the 'high' curves as a sign of differentially distributed scores and dissimilar group means.

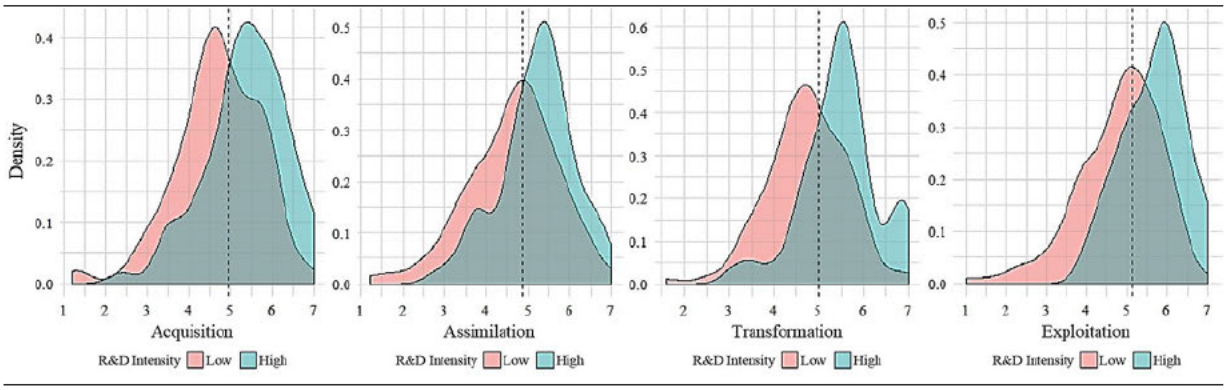
Next, ANOVA was performed with respect to AC. While the assumption of normality was partly rejected, the assumption of independence held. Levene's test, conducted prior to each ANOVA, found that the assumption of homogeneity of variance was met (Table 18). The ANOVA tests ($\alpha = .05$) proved highly significant, implying that the group means on acquisition [$F_{1,183} = 18.82$; $p < .001$], assimilation [$F_{1,183} = 14.52$; $p = .001$], transformation [$F_{1,183} = 23.24$; $p < .001$], and exploitation [$F_{1,183} = 35.25$; $p < .001$], and ultimately AC [$F_{1,183} = 35.02$; $p < .001$] had differed significantly between low and high R&D intensity.

Table 18: Summary ANOVA - AC Dimensions based on R&D Intensity

Dep. Variable	Group	M	ΔM	ANOVA	Mean Sq.	F	Sig.	Levene's Test	
Abs. Capacity	Low R&D	4.721	*-.704*	Between Groups	21.648	35.02	.000	F	.179
	High R&D	5.425		Within Groups	.618			Sig.	.673
Acquisition	Low R&D	4.705	*-.656*	Between Groups	18.788	18.82	.000	F	.193
	High R&D	5.361		Within Groups	.999			Sig.	.661
Assimilation	Low R&D	4.629	*-.582*	Between Groups	14.755	14.52	.001	F	2.313
	High R&D	5.211		Within Groups	1.016			Sig.	.129
Transform.	Low R&D	4.734	*-.729*	Between Groups	23.236	30.83	.000	F	.582
	High R&D	5.463		Within Groups	.754			Sig.	.447
Exploitation	Low R&D	4.814	*-.848*	Between Groups	31.490	35.25	.000	F	3.088
	High R&D	5.662		Within Groups	.893			Sig.	.081

R&D intensive firms proved to have a higher capacity to absorb knowledge from their external environment and utilize it ($M = 5.43$; $SD = .73$) than firms with low R&D intensity ($M = 4.72$; $SD = .81$). Interestingly, however, the effect sizes varied notably across PAC and RAC. In fact, both acquisition ($\omega^2 = .087$) and assimilation ($\omega^2 = .068$) were exposed to a moderate effect. By contrast, about 14% and 16% of the total variance of transformation ($\omega^2 = .139$) and exploitation ($\omega^2 = .156$) were explained by the difference in R&D intensity, thus representing, by definition, a large statistical effect, while, in addition, AC likewise rendered a sizable effect ($\omega^2 = .155$).

Figure 14: Density Plots - Differential Effect of R&D Intensity on AC



The density plots visually confirm the statistical results by revealing notable differences in terms of height and allocation among the 'low' and 'high' curves, particularly in view of knowledge transformation and exploitation, which in turn comprise RAC.

Against the background that levels of TM and AC differed between low and high R&D intensity, it was tested next whether the extent to which firms manage human talent and absorb knowledge varied across the level of knowledge intensity associated with their environment and operations. The underlying reasoning is that firms with a greater dependency on knowledge creation were expected to not only employ a wider scope of TM practices but exhibit higher levels of AC. For the purpose of verification, MANOVA was performed and subjected to a three-level categorical variable denoting knowledge dependency by combining the items of innovation, quality, brand, simplicity, and low cost, with the latter being reverse coded. The resulting variable was then cut based on equal percentiles, with scores below 5.0 as 'low', scores from 5.0 to 5.80 as 'moderate', and scores above 5.80 as 'high' knowledge dependency, respectively. Prior to MANOVA, multivariate outliers were eliminated by means of *MD* (low = 54; medium = 62; high = 67), to meet the assumption (max. *MD* = 13.31; *df* = 3; critical χ^2 = 16.27). The scatter plots furthermore confirmed the linear relationship among the two independent variables (see Appendix 26). The Shapiro-Wilk test found that AC (W = .990; p = .204), unlike TM (W = .968; p < .001), was normally distributed (see Appendix 27). Given a correlation coefficient = .548 (p < .001), there were no concerns regarding multicollinearity.

Table 19: Descriptive Statistics - TM and AC by Knowledge Intensity

Dep. Variable	Ind. Var.	N	M	SD	Dep. Variable	Ind. Var.	N	M	SD
Talent Management Practices	Low	54	4.579	.775	**Absorptive Capacity**	Low	54	4.613	.795
	Moderate	62	5.126	.691		Moderate	62	5.257	.693
	High	67	5.257	.826		High	67	5.313	.809
	Total	183	5.012	.815		Total	183	5.009	.814

The descriptive statistics of the MANOVA are displayed in Table 19. It appears as if the means of TM and AC increase with the level of knowledge dependency, suggesting that firms from knowledge-intensive environments manage talent more rigorously and absorb new knowledge more extensively. Box's test concluded furthermore that the observed covariance matrices were equal across the three levels on the independent variable (F = 7.400; p = .296).

Table 20: Tests Between-Subjects Effects - TM and AC by Knowledge Intensity

Ind. Var.	Dep. Variable	Mean Sq.	F	Sig.	Partial Eta^2	Observed Power
Knowledge Intensity	Talent Management	7.481	12.712	.000	.124	1.000
	Absorptive Capacity	7.353	12.490	.000	.122	1.000

Due to concerns about normality, the significance of the overall group differences was tested using Pillai's Trace. The test was significant [$V^{(s)}$ = .153, F = 7.466, p < .01], thereby indicating significant differences across the levels of knowledge dependency on a linear combination of TM and AC. Around 8% of the total variance of the dependent variables resulted from the group

factor (η_p^2 = .077). With that said, the results for Levene's Test of Equality of Error Variances were not significant, suggesting that the variances TM (p = .748) and AC (p = .719) were equal across low, moderate, and high knowledge dependency. Following the significant results of the MANOVA, the univariate ANOVA output was presented in Table 20. The results revealed that TM practices (p < .01) and organizational AC (p < .01) differed significantly across the three levels of knowledge dependency associated with the firm's business processes and environment. Respectively 12% of the total variance in TM (η_p^2 = .124) and AC (η_p^2 = .122) were accounted for by knowledge dependency. Post hoc testing using Tukey HSD method showed that the pair-wise differences in means on TM and AC were statistically significant across low and medium, and respectively low and high levels of knowledge dependency, however, not between medium and high knowledge dependency (see Appendix 28). Hence, the capacity to absorb and utilize externally obtained knowledge of firms in knowledge-intensive environments exceeded that of firms depending less on new knowledge creation by .701 (p < .01) in terms of mean difference. The extent to which the former managed talented individuals more productively was also greater than that of the latter, resulting in a mean difference of .678 (p < .01).

4.2 Discussion of Main Findings

This section aims to make sense of and bring order and meaning to the empirical results (Marshall & Rossman, 1999, p. 150) in order to characterize the role of TM and AC of firms in the Netherlands in the context of their corporate performance. Prior to discussing the results in more detail, it is worth mentioning, however, that CFA provided evidence of the multidimensional nature of both TM and AC. The three-factor model on TM fit the data moderately well and thus confirmed that the construct is best measured through a combination of three underlying latent factors: TA, TD, and TR (Tarique & Schuler, 2010, p. 127). In the context of AC, the four-factor model was satisfactory, suggesting that AC ought to be tested via four different, but interrelated dimensions, if one seeks to capture its conceptual richness. Knowledge acquisition, assimilation, transformation, and exploitation are therefore not only theoretically (Todorova & Durisin, 2007, p. 775), but also empirically distinguishable (Zahra & George, 2002, p. 186; Jansen et al., 2005, p. 17). Conclusively, the study at hand calls into question both the conventional division of AC into two sub-elements as well as the idea of AC being a unified concept (Chauvet, 2014, p. 19).

In general, the study corroborates existing theory and empirical research (Artyukh, 2016, p. 50; Selivanovskikh & Latukha, 2017, p. 630), demonstrating that TM systems of firms based in the Netherlands contribute to their economic performance in an overall positive manner. This highlights the strategic importance of TM and its role in differentiating the firm (Ashton & Morton,

2005, p. 28), once it becomes an integral element thereof and a core competency at that. Amid fierce competition and increasing economic pressures, HC and intellectual capital represent key differentiators, thereby making TM not just an option, but a strategic necessity. MANOVA gave conclusive proof that firms, recognizing TM as a top priority, outperformed those which did not. Firms doing a better job in managing talent deliver more promising results for their shareholders (Heinen & O'Neill, 2004, p. 67) and were considered more likely to continue doing so. In short, *Hypothesis 1* is confirmed, in that TM is positively related to increased company performance.

Contrary to previous findings, however, TA was insignificant in terms of organizational success. This is expected to be the result of seemingly low talent scarcity in the Netherlands, where skills shortages reportedly have less impact on firms' ability to source suitable candidates. Recent data finds that merely 9% of Dutch employers encounter recruiting difficulties associated with talent shortages (ManpowerGroup, 2013, p. 4). With that in mind, *Hypothesis 1a* was unambiguously rejected. That is not to say, however, that firms in the Netherlands do not compete for talent they require. In fact, the skills demanded in the Dutch labor market shifted away from routine manual tasks toward abstract and non-routine tasks, resulting in a higher concentration of employment opportunities in high and medium-skilled occupations, for which the demand is said to outgrow supply by 2025 (OECD, 2017a, p. 223). Whether these trends and the challenges they bear upon the Dutch talent landscape bring new meaning to the role of TA has yet to be determined.

Developing talent, however, had a positive effect on overall performance and, more specifically, market share and sales growth, employee turnover, and net promoter score. It highlights the vital role of TD in rendering the firm's foundation more resistant by not only developing employees, but by helping them achieve their individual career goals (Panda & Sahoo, 2015, p. 15). Those included in development schemes perceive the company as being more committed towards their future advancement, which boosts their willingness to embrace demands for higher productivity, work toward the firm's strategic objectives, and identify more closely with their functional role (Cole, 2016, p. 26). The study concludes that organizations in the Netherlands undertake various development interventions for qualitative and accelerated development of their members and, in doing so, update their knowledge, skills, and abilities and thus prepare them for future challenges. Development initiatives endow workers with the needed skills to better perform on the job and transition between them, particularly in an era of constant technology changes (OECD, 2017b, p. 110). Horvat (2009, p. 45) finds that among the practices commonly associated with TM, training and development received the greatest attention in the Netherlands. On average, 76% of Dutch workers reported that they received training from their employer (OECD, 2017b, p. 47). Moreover, the study finds ongoing investments in development to have the greatest effect

on performance, which is consistent with data from ManpowerGroup (2014, p. 11), showing that more than half of Dutch business leaders and HR professionals had voiced their ambition to broaden development programs in scope within a year's time, and about one third hinted a significant increase in spending on personnel training and education. In light of growing competition for talent, firms are forced to invest more rigorously in talent activation to not only meet their immediate resourcing needs, but also secure a sustainable pipeline of future leaders. Firms in the Netherlands recognize that inadequate investments in TD can compromise their ability to function properly and deliver, and ultimately result in failure to achieve projected revenues, loss of customers, and falling behind global competitors (Yapp, 2009, p. 5). In order to sustain a climate conducive to development, greater emphasis must be placed on the role of supervisors and line managers, whose influence on performance-related outcomes proved significant. That being said, job rotations are likewise significant, as was suggested by evidence from Germany's banking sector, showing that workers having been rotated between jobs exhibit thereafter higher levels of productivity compared to their non-rotating peers in comparable positions (Kampkötter et al., 2016, p. 2). In addition, it has been hypothesized that the rotation of jobs might encourage employees to associate more closely with, and advocate for their organization's vision and goas (Wagner et al., 2017, p. 488). The empirical findings confirm the above and reflect the observed pattern that 62% of Dutch employees engage in rotational jobs (Dekker, 2012, p. 72). Therefore, the results approve of *Hypothesis 1b*, implying that a proper emphasis on employee development and training exerts a highly positive effect on the firm's overall success.

The fact that TR had a positive effect on business success not only highlights the importance of internal organizational practices to prevent talented individuals from departing the firm, but also reflects the current global trend of employees' ever-growing bargaining power (Latukha, 2018, p. 83). The drop in the significance level is believed to be attributed to higher degrees of social protection concerning particularly older and experienced high-skilled workers with permanent contracts, that increase with tenure and, in turn, give fewer incentives for changing employment (Gerritsen & Høj, 2013, p. 8-9). A comparison of retention rates across selected OECD countries confirms long average job-tenures and relatively high levels of job stability up to age 50 for both Dutch men and women (OECD, 2005, p. 52). Despite the comparatively low job-to-job mobility across the Dutch labor market, employers have realized nonetheless that losing key knowledge workers invariably means incurring a financial burden in the form of costs inherent in recruiting and training replacements (Chan, 2006, p. 181) and workflow disruptions following the loss of intellectual capital (Lysova et al., 2014, p. 31). Among the most widely cited reasons for leaving are differing expectations, lack of balance between private and professional life, and insufficient

feedback, and losing trust in supervisors (Urbancová & Vnoučková, 2015, p. 127). As suggested by the empirical results, practices aimed at improving employees' engagement and commitment and forming closer ties between them and their organization are key in retention. That is because engaged individuals have a sense of loyalty towards their firm, investing themselves not only in their role, but in the company as a whole (Robertson-Smith & Markwick, 2009, p. 5). Regarding productivity, high levels of engagement render workers more likely to take initiative and pursue learning objectives (Sonnentag, 2003, p. 525) and more willing to work harder and 'go the extra mile' (Lockwood, 2007, p. 3). A key driver for employee engagement and therefore productivity corresponds to the physical work environment and work-life balance of organizational members, which the research confirmed. This may serve as an explanation as to why Dutch organizations are often heralded for creating flexible working arrangements, allowing employees, in particular parents and others with care responsibilities, to better integrate work and personal life (Vinkenburg et al., 2015, p. 137). What is more, diversity initiatives as part of firms' retention practices likewise contributed towards the firm's functioning and performance. Although Linnehan and Konrad (1999, p. 410) did not specifically mention TM, as it played no significant role in the research domain at the time, they advocated the structuring of HR systems in a way as to remove structural barriers and preferential selection mechanisms that arbitrarily favor privileged groups and aggravate destructive intergroup conflicts that might occur in diverse workforces. This study adds to the notion that talent and diversity management are strategic imperatives and of growing importance in the work place of Dutch organizations, where diversity has emerged as a central concern within and beyond the TM domain (Groeneveld, 2009, p. 3) following an exceedingly globalized labor supply (Oxford Economics, 2014, p. 1). In short: *Hypothesis 1c* is confirmed.

The study recognizes furthermore the vital role of firms' capacity to absorb external knowledge and apply it to commercial ends and therefore adds to the notion that firms exposed to the same amount of external knowledge might not derive equal benefits, due to the heterogeneity in their ability to capture and exploit it (Giuliani & Bell, 2005, p. 50; Escribano et al., 2009, p. 98). The results confirmed that organizations in the Netherlands endowed with higher levels of AC were seemingly better equipped to identify the presence of knowledge spillovers within their external environment (Escribano et al., 2009, p. 104) and extract greater benefits therefrom (Tsai, 2001, p. 997). The empirical findings confirm the positive effect of AC on firm performance and hence *Hypothesis 2*, suggesting that the firm's AC represents a key resource for competitive advantage, and perhaps even more so in today's knowledge economy (Fosfuri & Tribó, 2008, p. 174). Upon distinguishing between potential and realized AC, the findings render the efficiency with which firms leverage absorbed knowledge, and hence their RAC, far more significant for their success

than their receptiveness to external knowledge, and hence their PAC. This means that companies in the Netherlands, despite superior levels of PAC, might not necessarily see their performance increase. Just as Zahra and George (2002, p. 191) suggested, it is RAC that facilitates improved performance via transformation and exploitation of newly acquired knowledge by embedding it into firms' processes and improving the effectiveness thereof (Soo et al., 2012, p. 7). The results make it clear that knowledge itself is not sufficient and furthermore highlight the need for any firm to develop and invest in the tools required to exploit and appropriate knowledge embedded in new structures and capabilities (Lee & Wu, 2010, p. 124). Surprisingly, acquisition indicated no significant effect on company performance. In line with the notion that acquisition capacities are based on the stock of knowledge already owned and grounded in individuals' collective prior knowledge (Leonard-Barton, 1992, p. 113), employees' cognitive skills, behavioral modes, and educational backgrounds, which predefine their learning capacities (Murtic, 2016, p. 29), could provide clarity. The Netherlands has a well-educated working population, of which a relatively large share has participated in higher education, while vocational education provided by universities of applied sciences has broadened continually in scope and quality (OECD, 2014, p. 19). Greater accessibility to tertiary education and vocational training endows Dutch workers with a balanced portfolio of cognitive, social, and technical competences (OECD, 2017a, p. 55). This gives reason to argue that firms in the Netherlands, as compared to their counterparts from other markets with fewer equity in educational and skills achievement, possess inherently higher acquisition capacities, meaning that any further improvements thereof have little to no influence over performance-related outcomes

For the Netherlands, Batterink (2009, p. 144) reported a trend that has seen, especially since the turn of the century, an increasing share of innovating firms pursue an open innovation strategy predicated upon entering strategic alliances with other businesses, actors from within the supply chain, and research institutes. In addition, the Dutch government, due to concerns over emerging labor market needs and economic pressures, introduced a new form of industrial policy labelled 'Top Sectors' that places public resources in private sectors and promotes the co-ordination and integration of activities within and across these areas by businesses, government, and knowledge institutions (OECD, 2014, p. 12). Tighter inter-organizational links help facilitate the acquisition and transfer of information (Baškarada & Krooni's, 2018, p. 96) by reducing cognitive distances (de Jong & Freel, 2010, p. 51) and creating knowledge synergies between the entities involved (Batterink, 2009, p. 147). The wider adoption of information and communication technology in the workplace has arguably shaped an external knowledge environment significantly more conducive to gathering and sharing vast amounts of information. In studying the effects of localized

knowledge externalities across the Netherlands, Raspe (2009, p. 13) demonstrates that, for organizations, being located in a region rich in knowledge resources is more conducive to firm performance than being located in an area less endowed with knowledge resources. It is therefore argued that a higher degree of cognitive and physical access to external knowledge, which inherently simplifies, if not quickens, the acquisition thereof, has undermined the significance and necessity of deliberate actions and routines through which new information are to be acquired. Following this logic in the context of emerging markets, where institutional, technological, and cognitive barriers still exist (Vajjhala & Vucetic, 2013, p. 92), it makes all the more sense that firms' acquisition capabilities were repeatedly found to be highly significant regarding performance improvements (Artyukh, 2016, p. 44; Cuervo-Cazurra & Rui, 2017, p. 728). Yet another possible explanation builds upon the argument of Grant and Baden-Fuller (2004, p. 65), that knowledge accessing as opposed to acquisition is the main motivational force behind knowledge-based alliances, and that firms, instead of continually broadening and renewing their knowledge base as they acquire knowledge through their partners, tend to focus on a core set of competences or service skills (Quinn, 1992, p. 373) and engage in collaborative efforts to access complementary capabilities. In this connection, Inkpen (1998, p. 72) finds that in some alliances partners seek to acquire alliance knowledge more aggressively, while in others, they take a more passive approach towards knowledge acquisition. *Hypothesis 2a* is disconfirmed, as the effect of acquisition capabilities on the performance of Dutch firms was insignificant.

On the contrary, however, assimilation is positively related to performance, thus supporting the argument that in the process of transferring information, the mere acceptance thereof is hardly sufficient for the bodies involved to obtain new knowledge, unless they understand and explain the accepted knowledge in reference to their own base (Han & Erming, 2012, p. 33). This means that knowledge assimilation depends in large part on individuals' ability to make sense of new external knowledge that is potentially distant from theirs and understand how it corresponds to that already contained in the firm's existing knowledge base (Lefkowitz & Lesser, 1988, p. 215). Baškarada and Koronios (2018, p. 97) view assimilation as being more akin to solving mysteries than puzzles, as the latter becomes easier to solve as more information becomes available, while the former is contingent on future interactions, which are hard to anticipate. Given the increasing complexity of knowledge and information driven forward by technology, scholarship, and mass communication (Aslesen, 2008, p. 217) and greater uncertainties in the economic, political, and social domain, it is nothing but logical that without the ability to fully understand the information gained from highly-complex, technology-based knowledge environments, as is the Netherlands, firms have little chance of sustaining a competitive advantage. Knowledge assimilation renders

an organization capable of closing the gap between the knowledge internally available (Jelenic, 2011, p. 37) and the knowledge needed in decision-making about market changes, technological developments, and client requests in order to capitalize on the opportunities resulting therefrom. Moreover, Krstić and Petrović (2011, p. 282) note that knowledge assimilation assists managers not merely in unravelling the external determinants and relevance of newly acquired knowledge, but also in developing their judgment of perceived opportunities in reaction to an ever-changing environment (Zhou et al., 2007, p. 24). Research, however, has illustrated that, due to inherent obstacles of organizational and cultural nature, knowledge transference and assimilation are by no means an easy task (Kostova, 1999, p. 308). The literature on organizational learning points out two measures for lowering these barriers, one being social capital forming a bridge between the external source of knowledge and recipient thereof, and the other one being communication capability for leveraging knowledge receivers' AC (Han & Erming, 2012, p. 33). In this regard, Flatten et al. (2011, p. 98) view knowledge assimilation as an internal process, largely based on knowledge sharing and transfer through informal contacts and personnel exchanges. The results obtained are consistent with this notion by showing that organizational tactics, such as involving other departments in problem-solving, sharing information in periodic cross-departmental meetings, and allowing individuals from different units to socialize through informal settings, as key determinants for knowledge assimilation, exert a significant and positive effect on performance-related outcome. In light of this, *Hypothesis 2b* was confirmed with great certainty.

Surprisingly, the study finds transformation or rather the internalization of newly acquired and assimilated knowledge to be insignificant in terms of its effect on overall business performance. Transformation denotes the organizational capability to develop and refine the routines by which existing knowledge is combined with new information (Zahra & George, 2002, p. 190) in a way as to suit the firm's idiosyncratic needs (Reilly & Scott, 2010, p. 11). It is therefore argued that firms in the Netherlands already have in place well-disposed knowledge management structures (Jelenic, 2011, p. 42) by which existing knowledge capabilities are improved and new ones are conceived and realized. In fact, survey data shows that firms in the Netherlands tend to perform better than their European counterparts in creating and maintaining the organizational conditions needed for the distribution, conversion, and continuous application of knowledge through open and supportive management styles, teamwork, and opportunities for learning and experimenting (OECD, 2017a, p. 101). Following a dyadic student-teacher typology, Lane and Lubatkin (1998, p. 464) furthermore argue that firms by building upon their prior experience and proven abilities are in a better position to readily internalize knowledge consumed externally and adapt it based on their own needs. Dierickx and Cool (1989, p. 1508) add that firms with an already rich stock

of R&D know-how are inherently better equipped to achieve further breakthroughs and expand their existing knowledge stock than firms with low initial levels of know-how. As a consequence of the government-sponsored 'Top Sectors' approach, many focal areas and businesses therein have amassed specialized technology and market knowledge and are increasingly seen applying their knowledge in extra-industry settings and combining it with the knowledge specializations of other sectors (Ministry of Economic Affairs, 2016, p. 5), which renders them inherently more capable of linking newly gained information to their knowledge base (Chih et al., 2016, p. 107).

Yet another reason for the insignificant effect of transformation on firm performance may lie in the nature of Dutch innovation policy, that focuses on new technology and research rather than process innovation or implementation of existing technologies, resulting in lacking valorization and insufficient use of existing stocks of knowledge (Klitou et al., 2017, p. 6). At last, the results might also draw upon the relation between assimilation and transformation capability, and more specifically, that the efficiency with which knowledge is transformed is a function of knowledge assimilation (Swan et al., 1999, p. 262), whereby transformation is viewed not as a consequence, but as a complementary procedure to assimilation (Krstić & Petrović, 2011, p. 277). This points out yet again the significance of assimilation capabilities and may simultaneously diminish that of knowledge transformation. *Hypothesis 2c* was therefore disconfirmed, given the insignificant effect of transformation on performance-related outcomes in the Netherlands.

The study also finds that exploitation, the processes through which newly absorbed capabilities are leveraged (Reilly & Scott, 2010, p. 11), made the largest contribution to firm performance. As an organizational ability, knowledge exploitation is based on the routines by which the firm refines and leverages its existing competences and develops new ones by incorporating newly acquired and transformed knowledge into its operations (Zahra & George, 2002, p. 190; Han & Erming, 2012, p. 33). The findings confirm that exploitation, of which outcomes encompass the persistent creation of new products, services, systems, processes, and new organizational forms (Spender, 1996, p. 54), are indicative of performance improvements and therefore competitive advantage. The significance of exploitation is justified furthermore by the continuous adaptation of the firm to changes within its environment by efficiently utilizing all intangible resources and capabilities at the firm's disposal (Bolisani & Bratianu, 2018, p. 152). In line with the resource-based view, the study considers the link between competitive advantages and success as a logical consequence from the exploitation of firm-specific resources (Hildesheim, 2011, p. 26), the most important of which is arguably the combined explicit and tacit knowledge embedded in the firm. The empirical results support *Hypothesis 2d* and thus confirm prior assumptions, that knowledge exploitation capacities relate positively to the firm's performance in the Netherlands.

The relationship between firms' TM practices and level of AC was confirmed as being positive, supporting the notion that the capacity to absorb and commercially use knowledge from external sources is a function of the firm's collective structural and human capital (Engelman et al., 2015, p. 485), with greater emphasis on the latter. That is because individuals' ability to learn, broaden their knowledge, and sharpen their job-specific skills, in which TM play a key role, is indicative of their firm's overall learning improvement, of which it forms a basic building block (Marcus & Shoham, 2014, p. 360). In other words, the interactions of and between actors at the individual level are what higher level capabilities and routines are based upon (Coleman, 1990). This study purports that TM relates to firms' AC not necessarily in a direct manner, but via individual-level mechanisms by stimulating employees' cognitive and motivational characteristics, professional competences, and behaviors in such a way as to facilitate knowledge creation and transfer across units within the organization and beyond its boundaries. Therefore, a proper emphasis on hiring, developing, and retaining key individuals with the requisite capabilities is not merely a requisite condition, but a catalyst for knowledge creation and transfer as well as improving knowledge-related outcomes at the level of the organization. Furthermore, the results highlight the common underpinnings of TM and knowledge management (Wang-Cowham, 2012, p. 10) and infer that the fusion between them holds vital implications for firms' competitiveness since the successful creation, transfer, and exploitation of knowledge depend on the effective management of HC as the embodiment of critical knowledge (Whelan et al., 2010, p. 492). As a result, firms that count TM to their highest priorities are far more capable of acquiring, assimilating, transforming, and exploiting knowledge from their environment. Thus, *Hypothesis 3* is confirmed.

While TM in its entirety was positively associated with firm-level AC, the sets of TM practices, however, differed in terms of their contributions towards AC. The regression analysis finds that TA shares no significant relation with overall AC nor any of the underlying dimensions thereof. This contradicts previous studies, arguing that TA plays a vital role in identifying key talent and placing them in critical positions where they fill potential knowledge gaps (Ahmed, 2016, p. 91) and broaden the firm's knowledge base with the skills and experience which they bring into the firm (Huselid, 1995, p. 637). One possible explanation may build on the findings of Groysberg et al. (2004, p. 4) who observed plunges in firms' performance and market value upon attracting a talented employee, which according to the authors is grounded in the fact, that a mere 30% of performance emanates from individuals' abilities, while 70% stem from resources and qualities specific to the firm and by which these abilities are developed, such as leadership development, skills training, and IT. In fact, Pfeffer and Sutton (2006) go as far as to claim that 'system' unlike 'individual' capabilities are often more critical in organizational outcomes, and the effectiveness

of attracting talent is hence determined by the environment, resources, and infrastructure that facilitate workflow at the firm (Tamzini et al., 2017, p. 77). In this connection, Minbaeva and Collings (2013, p. 1768) add that performance levels of high-potentials are not a mere function of individual capabilities, but rely on a broad range of factors and resources, some of which are clearly firm-specific. The study hence rejects *Hypothesis 3a* in concluding that, while the attraction of high-skilled employees potentially upgrades the firm's existing stock of knowledge, it is the integration of their collective knowledge, skills, and abilities into organizational routines through learning and advancement opportunities, job-specific training, and continual motivation and engagement that fosters knowledge creation and dissemination in a true and lasting manner. The relation between development interventions and levels of AC is confirmed as being positive. One can therefore conclude that continual investments in developing knowledge recipients' AC through extensive use of training initiatives, performance appraisals, and merit-based rewards stimulate knowledge transfer among individual members and therefore the development of AC at the level of the firm (Mangareva et al., 2003, p. 589). More specifically, the results indicate a positive influence of developmental practices on each dimension in the process of knowledge absorption, with assimilation and transformation being influenced the most. Selivanovskikh and Latukha (2017, p. 630) retrieved similar results in studying TM in view of the BRIC economies, showing that the need for and implications of developing a high-quality workforce are not country-specific, but universal in nature. Upgrading the knowledge and capabilities that employees apply in their daily work will render them more capable of recognizing new, valuable knowledge and overcoming the cognitive threshold of understanding how it relates to their line of work and knowledge foundation. In addition, the individual is encouraged to rethink the systematic nature of existing products and services (Jansen et al., 2005, p. 7) and revisit the ways in which their elements are integrated together, thus combining sets of new and existing knowledge and accumulating new architectural competences (Henderson & Cockburn, 1994, p. 66) in the process.

Besides continuous investments in development programs, coaching and mentoring were positively related to building high levels of AC. Whereas mentoring focuses on a person's behaviors and attitudes, coaching concerns the development of an individual under the pretext of work performance (Mavuso, 2007, p. 69). Therefore, the nature of mentoring involves an experienced individual willing to impart their know-how and tacit knowledge to an inexperienced colleague, who thereupon improves on their own capabilities (Bell, 2002, p. 4) and furthermore learns the conventions of the organizational life (McShane & van Glinow, 2000, p. 30). Peterson and Hicks (1996, p. 14) regard coaching as the systematic process of supplying individuals with the tools, knowledge, and opportunities to develop themselves and ultimately become more effective. In

line with the empirical results and previous studies, the author concludes that both concepts are imperative for facilitating knowledge flows throughout the entire firm, converting explicit into tacit knowledge, and firmly embedding it into organizational processes and routines. In addition, the role of line managers in development interventions had statistical significance. This reflects MacNeil's (2003, p. 303) argument that, due to flatter structures in organizations, line managers moved toward the interface between the strategic intentions of senior leadership and the level of implementation, and should therefore be regarded as key facilitators in capturing and sharing valuable tacit knowledge. The empirical results furthermore show that job rotation was crucially important in the development of AC. Besides motivation purposes through enhancing the scope of one's work and enriching the content thereof, job rotations encompass not only the learning on the part of the individual through the acquisition of new competencies and by becoming more versatile, but also learning on the part of the firm about an individual's capabilities and strengths, and how to facilitate the development thereof (Wagner et al., 2017, p. 488). Rotating employees, who each possess distinct and varied knowledge, is thought to augment their unit's capacity for making novel linkages and associations, which in turn facilitates acquisition and assimilation of new external knowledge (Jansen et al., 2005, p. 8-9). Job rotations implicitly allow for greater social integration and connectedness between workers from otherwise disconnected parts of the firm. This gives reason to assume that, besides improving employees' managerial and technical skills (Druckman et al., 1997, p. 112), job rotation is critical for integrating different knowledge sources and organizing the interaction between them. Conclusively, *Hypothesis 3b* is confirmed, in that development interventions contribute to the organization's AC in a positive manner.

The relationship between practices to retain talented individuals and firm-level AC was positive, thereby highlighting the importance of engaging key knowledge holders, whose departure from the firm would not only impair internal knowledge flows, but result in the loss of valuable tacit knowledge (Whelan & Carcary, 2011, p. 682). Urbancová and Vnoučková (2015, p. 128) argue that individuals, who become disengaged with the firm and depart it as a result thereof, are less willing to share their knowledge and know-how with successors, thereby disrupting knowledge continuity. The significance of retaining talent becomes particularly clear when considering the path-dependent and cumulative nature of AC, whereby the efficiency with which firms acquire and exploit knowledge from their environment is a function of prior knowledge and experience (Cohen & Levinthal, 1990, p. 136; Stuart & Podolny, 1996, p. 22). A deteriorating stock of knowledge as a logical consequence of 'brain drain' adversely influences the firm's AC and thus long-term survival (Lane et al., 2006, p. 833). However, besides preventing key individuals from leaving the firm, they need to be given the flexibility and resources to codify their tacit

knowledge and experiment with new ideas and placed in positions where they can readily share their knowledge and link up with other firm members (Birkinshaw & Sheehan, 2002, p. 78). Taking into account the argument of Minbaeva et al. (2017, p. 7) that individuals' AC is defined as a byproduct of ability, motivation, and use of opportunity afforded to them by their company, the results give reason to think that TR facilitates each of these components. In fact, the authors (2017, p. 24) find that ability and intrinsic motivation are prerequisites for enabling knowledge acquisition and application by individuals. Reflective of the above findings, this study confirms the significance of non-financial rewards and corroborates prior research, suggesting that purely extrinsic rewards may not have the desired effects on attitudes towards knowledge creation and sharing (Todorova & Mills, 2014, p. 5). An important incentive for knowledge sharing behaviors is a sense of achievement and recognition, grounded in the notion that employees wish for their organization to be appreciative of the work they contribute (Šajeva, 2014, p. 132). In line with the principle of reciprocity, individuals may be more inclined to share knowledge, if they have reason to expect valuable information from peers in return. With that said, the empirical findings mirror the general movement of non-financial rewards becoming significantly more important, due to changes in the way work is done, the types of employees entering today's workplace, and growing implications of cultural nature (Thompson, 2013, p. 87). In the context of the latter, the results furthermore show that the firm's ability to effectively manage a diverse workforce adds to the development of its AC. In studying the Brazilian food sector, Padilha et al. (2016, p. 118) make similar observations, as they find that the presence of workers with different educational and cultural backgrounds renders the assimilation of new knowledge more efficient, in particular if work is organized within groups. A proper emphasis on diversity management enables greater knowledge synergies between individuals with differentiated perspectives and hence facilitates the improvement on creativity, learning and problem-solving through human dialogue and cross fertilization of knowledge sources (Lauring & Jonasson, 2004, p. 6). This gives reason to think that diversity management is imperative not only for the retention of key individuals and hence the knowledge within them, but also for assimilating it.

In addition, Hage and Aiken (1967, p. 510) find that having subordinates participate in decision-making facilitates internal networks of diversified knowledge and consequently the assimilation of new external knowledge (Jansen et al., 2005, p. 7). Giving workers greater responsibility and involving them in decision-making processes is therefore empirically proven to contribute to the firm's overall level of AC. The study furthermore points out the significance of concrete actions to support expatriates, who in their roles as boundary-spanners, play a critical role in developing social capital, transferring knowledge from the parent organization to overseas, and importing

knowledge that is destined for exploitation purposes by the repatriating unit (Whelan & Carcary, 2011, p. 680). Coming back to the argument of Minbaeva et al. (2017, p. 7), therefore, retention practices that involve the management of diverse cultural and knowledge backgrounds, granting key knowledge workers greater flexibility and autonomy in decision-making, and continuously supporting individuals, who are relocated on assignments abroad, can well be summarized under the collective term of 'opportunity', in comprising the sets of routines through which knowledge creation and transfer are enhanced in an orderly fashion (Argote et al., 2003, p. 575). All in all, the evidence provided is overwhelmingly clear and hence confirms *Hypothesis 3c*, whereby the formation of closer ties between knowledgeable and skilled employees and the firm contributes positively not only to building AC of the former, but more importantly also the latter.

Despite the large body of research detailing the relation between TM systems and organizational outcomes, the role of AC and its effects in this regard have been mostly neglected. This research therefore sheds light on the insights that firms can leverage externally sourced knowledge as a mechanism for improving their overall performance and thus competitiveness. The outcomes of the present study illustrate that both TM and AC exert a significant influence over performance-related outcomes. Beyond that, the results show that AC serves as a partial mediator in the nexus between firms' TM systems and performance, underlining the ability of the former to facilitate business success through knowledge absorption. In studying the effects of personnel training on performance of Spanish firms with 50 or more workers, Hernández-Perlines et al. (2016, p. 13) make similar observations, as they find that training leads to higher performance if AC, and in particular knowledge exploitation, is recognized in the process. That is because TM mechanisms increase the uniqueness of firm-specific knowledge, which is positively and significantly linked with innovation and productivity gains (Lopez-Cabrales et al., 2009, p. 496). TM strengthens the firm's knowledge base and hence AC by reconfiguring individuals' knowledge and the ways in which it is embedded into organizational routines and activated thereupon. This suggests that, besides directly and positively influencing the way employees physically perform in their jobs, the presence of an effective TM systems also implicitly leads to more favorable conditions under which the firm reaps greater economic benefits from absorbing and utilizing relevant knowledge from the environment. In short, *Hypothesis 4* is confirmed, in that AC partly mediates the total effect of the firm's TM practices and routines on its commercial and innovation performance.

A larger share of firms still has an exclusive TM system in place, that involves singling out and championing just a few high potentials and making varied investments in different groups of the workforce. One reason for this might be that decision-makers still struggle with the philosophy and practicalities underlying inclusive TM, such that normative and exclusive forms dominate

for the mere reason that they are easier to conceive and implement (Swailes et al., 2014, p. 529). In addition, while the motivation behind inclusive TM has mostly been social responsibility and corporate reputation, exclusive TM is often associated with economic growth (Ardichvilli, 2011, p. 371). This study thus hypothesized that exclusive TM vis-à-vis inclusive TM leads to higher levels of AC and firm success. Interestingly, however, the opposite was observed. The analyses of variances reveal significant differences in the levels of AC and performance-related outcomes between exclusive and inclusive TM systems, although in favor of the latter.

This may be due to the fact that spending a large share of resources on a small group of workers has adverse effects on the organization's culture and therefore compromises the loyalty of those omitted from talent programs. In fact, Cole (2016, p. 27) notes that due to the inherent workforce differentiation in exclusive TM approach, employees outside the talent pool are prone to feeling stigmatized, perceive their managers as having lower expectations of them relative to their peers from the talent group, and feel as though fewer opportunities are afforded to them to advance in their careers. This will adversely affect teamwork, while at the same time provoking negative attitudes and feelings of resentment towards others and severely damaging workplace harmony. The study at hand thus corroborates the findings of O'Connor and Crowley-Henry (2017, p. 10), who purport that the ethical issues associated with exclusive TM lead to an absence of perceived justice and organizational fairness, and ultimately to negative micro- and meso-level outcomes, including disengagement and increased employee turnover.

Conversely, inclusive TM seeks to empower the entire workforce with the same educational and training exercises to bring out the very best in all employee and allow them to tap into their full potential at work (Meyers, 2016, p. 4). While the exclusive approach sees talent as a rare feature only few people have (Tansley, 2011, p. 267), inclusive TM is grounded in the assumption that everyone has valuable competences and qualities which can be productively applied when given the proper focus and development. In fact, Swailes et al. (2014, p. 16) state that rather than being something that is relative to others, talent must be treated as an absolute feature of individuals and as something that necessitates identification and nurturing. Inclusive TM therefore involves also the continuous evaluation and assignment of individuals into positions, that provide the best fit and opportunity for them to put their talent to good use. Due to closer alignment between the goals of the individual and those of the organization, employees' well-being and commitment to their work are expected to soar as a result thereof (Quinlan et al., 2012, p. 1145). In addition, a deliberate focus on and promotion of personal strengths is argued to disproportionately benefit organizational learning based on the notion that individuals learn more quickly when playing to their strengths (Peterson & Seligman, 2004; Meyers, 2016, p. 5). This idea is of crucial relevance

for companies from knowledge-intensive industries, in which the understanding and continuous learning of new technological knowledge are key ingredient in building competitive advantages. With that said, *Hypothesis 5* is unambiguously rejected, as neither AC nor performance-related outcomes were higher in firms, taking an exclusive TM approach, as compared to those adopting inclusive system. What is more, these results give reason to assume that firms in the Netherlands steadily subscribe to a more inclusive understanding of talent and are thus seen making greater investments in a broad variety of distinct talents and efforts for managing them. The increasing recognition that each individual possesses valuable talents may explain the fact that training and development programs were highly influential in building AC and reaching success. With talent being increasingly perceived as something that can be 'acquired' through deliberate practice, it appears to be logical that training and development gained in significance in the Dutch business context. The 'innate' perspective, however, advocated for an increased focus on talent selection and attraction (Dries, 2013, p. 279) which, as previously noted, exerted no effect on AC nor firm performance. In general, the outcomes reflect the observed shift towards greater inclusion in the Netherlands, following labor market regulations, rapid business changes, and new job types and career modes (Egerová et al., 2015, p. 109; Meyers, 2016, p. 6), which have forced organizations to extract the most from 'all' of their existing talent stocks.

To date the conceptual research on TM in view of SMEs remains scarce (Indarti, 2010, p. 27), thus emphasizing the need for continued theoretical and empirical development in regard to the unique challenges and TM activities in the specific context of small firms. Much of the previous literature, however, subscribes to the notion that large global enterprises in comparison to firms based at the regional or domestic level differ both in their overall approach to TM and practices adopted (Krishnan & Scullion, 2017, p. 433). In line with prior evidence, MNCs compared to small 'periphery' firms are more likely to use sophisticated staffing (Terpstra & Rozell, 1993, p. 44), offer extensive career opportunities and extrinsic rewards (Wallace & Kay, 2009, p. 474), adopt more formalized performance reviews, and make higher investments in development and training (Kok & Uhlander, 2004, p. 275). In addition, the inherent need among MNCs to adapt and transfer employment practices across national borders is frequently cited as a reason for having more developed internal labor markets and TM systems (Edwards, 2004, p. 389). However, the empirical results paint a slightly different picture. Despite the significant differences in TM and TR, it seems as though local SMEs and large MNCs in the Netherlands did not differ substantially in how they attract and develop talent. One explanation may be growing concerns among the owners of smaller firms regarding the staffing and training of high potential individuals having to perform multiple roles at various stages of organizational growth (Heneman et

al., 2000, p. 11), urging them to attract and develop a quality workforce more rigorously. Beyond that, small firms function in a less formal and more flexible manner than MNCs (Chaston, 1997, p. 829), such that talent can be dealt with on a case-by-case and more ad hoc basis. In studying the patterns of TM in the context of organizational size, Baublyte (2010, p. 35) considers this to be advantageous over large firms, where overly formalized TM processes can result in rigidities. Higher flexibility and informality are also the reason for many SMEs to adopt a more inclusive approach to TM and focus on all or at least most employees as compared to MNCs in which a more elitist approach still prevails (Festing et al., 2013, p. 1872). Furthermore, sectoral training funds play a key role in the financing system for adult skills development in the Netherlands. They are financed by a levy on payroll (van der Meer & van der Meijden, 2013, p. 2) and aspire to facilitate continuous investments in skills development and, most importantly, support SMEs in financing their training interventions by acting as a conduit for firms' training spending at the sectoral level (OECD, 2017a, p. 208). Their benefits are manifold, as they help attract new talent to a sector, build new training programs, sponsored either directly by the fund or in cooperation with other training providers, and minimize the sunk costs of training (OECD, 2017a, p. 208), which is particularly beneficial for smaller firms. The differences in TM demonstrate, however, that, when it comes to implementing sophisticated TM systems, local SMEs are still lacking the resources and knowledge prevalent in their larger, better-established global counterparts (Chung & D'Annunzio-Green, 2018, p. 104). Consequently, the allocation of scarce resources is often diverted away from the TM domain and shifted towards other functional areas, such as finance and marketing (Stokes, et al., 2016, p. 2311). The differences in retention could be explained by extended career path across multiple organizational levels and a higher number of opportunities for personal growth and promotion which prevent key individuals from departing the company.

While the scores on AC as well as knowledge transformation and exploitation were found to be significantly higher in MNCs compared to local SMEs, this was not, however, the case regarding acquisition and assimilation capabilities. The results therefore contradict prior work, proposing that acquisition and assimilation tend to increase with international expansion, penetration, and integration (Onwuzuligbo, 2017, p. 52). In fact, Mason et al. (2017, p. 43) deem the development of PAC as being a function of the firm's openness to foreign trade and investment. In addition, by operating through geographically dispersed subsidiaries and tapping into foreign labor markets, MNCs naturally hire a great deal of international knowledge workers and hence extend the scope of scientific and technological domains in which they are knowledgeable (Wu & Shanley, 2009, p. 476). The more diverse the organization's knowledge base, the better are its prospects of broadening the locus of search for new knowledge as well as enabling the absorption thereof

(Mohamad & Maizeray, 2017, p. 7), and linking newly acquired information to what is already known (Cohen & Levinthal, 1990, p. 131). With that said, multinational firms should hence be inherently better equipped to acquire and assimilate knowledge from beyond their boundaries. One explanation for the divergent results could be the more participative and less bureaucratic and hierarchical structure of SMEs in the Netherlands, allowing them to acquire and internalize new information and disseminate it across the entire organization more efficiently (Indarti, 2010, p. 28). In studying the outcomes of corporate restructuring on AC, Bergh and Lim (2008, p. 612) posit that small firms, characterized by structural and operational simplicity, enhance acquisition capabilities by fostering knowledge transfer through informal social networking and promoting employees' openness towards new external stimuli more vigorously (Ndiege et al., 2012, p. 6).

Another explanation builds on Crescenzi and Gagliardi's (2018, p. 792) argument, according to which firms located in local labor markets exposed to high inflows of knowledgeable individuals are inherently more innovative via the absorption of knowledge. In this context, the Netherlands has become a forerunner in migration policy development towards the attraction and integration of high skilled workers and prospective students from both within and outside the EU (Rilla et al., 2018, p. 33). Consequently, the number of high skilled migrants working in the Netherlands, of which the vast majority originates from India, the US, China and Turkey, has gradually risen from 2005 onwards (Berkhout et al., 2015, p. 15). These conditions provide non-MNCs, whose search for talent is by definition confined to the domestic labor market, with improved structural opportunities to take in foreign knowledge workers and thus diversify their existing knowledge base in such a way as to achieve higher levels of PAC. Furthermore, the Netherlands has evolved into an 'ecosystem' characterized by open innovation and widely accessible network structures. Evidently, 46% of surveyed firms in the Netherlands, especially those in the field of information and communication technology, agriculture and food, and in the public sector (PwC, 2016, p. 9) reported collaborating with universities and university of applied sciences. Besides that, several institutions, including the Technical University of Eindhoven and the Netherlands Organization for Applied Scientific Research, began operating their own service units to share the results from academic polymer research with polymer-processing SMEs and hence facilitate their absorption of valuable knowledge through consultancy services and special training (OECD, 2004, p. 21).

In today's increasingly knowledge-driven market environment, in which product lifecycles have shortened and competitive pressures have aggravated, networking and collaborative actions are gaining in significance, particularly among SMEs, which often draw on their client and supplier networks and partnerships in their attempts to capture new knowledge and narrow existing gaps thereof (van de Vrande et al., 2008, p. 37; van Hemert & Iske, 2015, p. 322). Given, however,

that firm-level AC is not simply the sum of individuals' AC, but a function of how well the firm can aggregate its employees' AC through the use of combinative capabilities (Lee & Wu, 2010, p. 123), which tend to become more sophisticated with firm size and resource availability, these capabilities may explain the heterogeneous levels in AC, the ability to transform knowledge and exploit it thereafter. Put differently, the structural configuration of SMEs as well as the resources at their disposal, or rather lack thereof, are believed to be the main reason for decreased AC and less systematic approaches towards it (Ndiege et al., 2012, p. 6). Daghfous (2004, p. 21) purports that size matters in the sense that larger firms with sufficient R&D resources are more innovative than their smaller counterparts, that are usually limited in their capabilities (Indarti, 2010, p. 24).

Consequently, a large share of R&D activities in the Netherlands is dominated by only a handful of large multinationals (Berends-Ballast, 2010, p. 3). The ones considered to be most innovative are therefore the 'big names', such as Royal Philips, ASML, and DSM, all of which have strong R&D units going back a long way (PwC, 2016, p. 10). In fact, these players can reach economies of scale, apply their patents, and launch prototypes with greater ease which, combined with their increased financial firepower, gives them an edge over smaller operators in leveraging external knowledge into tangible results, new capabilities, and innovative products and services. Besides increased R&D expenditures, however, it is not unusual for MNCs and larger firms to also adopt more sophisticated knowledge management systems, which often encompass specific rules and procedures, handbooks and instruction cards, advanced IT systems and infrastructures, intranets, and databases with greater storage capacities (van de Wal, 2013, p. 22). In practice, these system capabilities lay the foundations for collective action and higher internal connectedness, facilitate trust and enable cooperation between different units of the firm, and reduce the efforts expended on decision-making and implementation (Cohen & Bacdayan, 1994, p. 554; Jansen et al., 2005, p. 11). Not only does this enhance the efficiency of knowledge throughout the firm, but renders it capable of transforming and exploiting new, external knowledge in a coordinated and efficient manner (Zahra & George, 2002, p. 194). Local SMEs with much fewer of these capacities may therefore not be able to develop equally high levels of RAC as compared with their multinational counterparts. Thus, *Hypothesis 6* is accepted in part, because the scope of routines to attract and develop talent as well as the level of PAC had been indifferent between MNCs and non-MNCs.

The empirical results confirm that high R&D firms, whose business model and success is firmly grounded in their capability to leverage knowledge-based assets into highly innovative products and services (Nonaka, 1994, p. 14; Whelan et al., 2010, p. 486), expend greater efforts to attract, develop, and retain highly skilled and knowledgeable workers than firms engaged in fewer R&D activities. This falls in line with the notion that in knowledge-intensive industries, human assets

are, more than ever before, central to formulating and executing strategies to minimize economic threats and exploit commercial opportunities in the external environment (Barney (1991, p. 101; Wilkins, 2012, p. 4). Furthermore, the results infer that the shift towards a knowledge economy, giving rise to new structures and constantly changing demands and challenges in the workplace (Brown et al., 2003, p. 108; Urbancová & Vnoučková, 2015, p. 106), places greater importance on effectively managing and flexibly deploying key knowledge workers so as to maximize their contributions towards the firm's innovation capabilities (Whelan et al., 2010, p. 497).

As presumed, high R&D firms exposed to more knowledge-intensive settings were empirically proven to demonstrate higher capacities to acquire, assimilate, transform, and exploit knowledge from beyond their boundaries. This corroborates the argument of Abreu et al. (2006, p. 7), who explain that the differences in organizational AC are, among other determinants, due to sectoral and technological specificities surrounding the firm (Schmidt, 2009, p. 5). This falls in line with the notion that in knowledge-intensive regimes, characterized by rapid developments in leading technologies and notably shorter product lifecycles, research breakthroughs are often so broadly distributed that no single firm has all the internal capabilities needed for innovating successfully (Powell et al., 1996, p. 117). Moreover, the findings underline the strategic relevance of external knowledge sources, particularly in the context of firms from industries, including chemicals and pharmaceuticals, semiconductor and electrical equipment, IT, and healthcare technology, where production and consumption patterns are constantly evolving. Such firms will inadvertently find their competitive advantage quickly eroded, if they rely solely on the resources and capabilities internally available. Hence, the obtained differences are an empirical expression of the strategic necessity of AC, especially within turbulent knowledge-intensive industries, where a large share of relevant knowledge usually resides outside firms' boundaries (Escribano et al., 2009, p. 104).

This gives reason to also think that low-tech firms depend less on and derive fewer benefit from the acquisition, transfer, and exploitation of external knowledge (Latukha et al., 2017, p. 1593). Fabrizio (2009, p. 257) observed similar patterns and revealed that biotech and pharmaceutical firms, that invest heavily in their internal basic research and frequently engage in collaborations with university scientists, were able to derive additional search benefits. Finally, the result draw on the idea of AC being path-dependent and cumulative (Fosfuri & Tribó, 2008, p. 185), thereby confirming that firms previously involved in R&D-related activities are likely to accumulate AC at a considerably faster rate going forward. Therefore, *Hypothesis 7* is confirmed, proposing that Dutch firms in knowledge-intensive and R&D-driven fields use more sophisticated practices to attract, develop, and retain valuable talent and, in addition, possess a higher capacity to acquire, assimilate, transform, and exploit externally available knowledge for competitive purposes.

5 CONCLUSIONS

5.1 Summary

In this study, the strength and direction of the relationship between the firm's deliberate efforts to attract, develop, and retain talented and high-skilled workers, collectively known as TM, and its potential towards the acquisition, assimilation, transformation, and exploitation of knowledge from external sources, otherwise referred to as AC, were addressed and empirically validated in conjunction with performance-related outcomes. Amid growing economic pressures and rapidly changing and technology-driven markets, which have made it exceedingly difficult for firms to differentiate themselves, let alone stay competitive in the long term, both TM and AC are widely acknowledged as the key to building a more robust corporate foundation, thus enabling the firm to improve upon its performance and withstand competition. Taking into account resource-based theory and the redistribution of economic value from tangible to intangible assets within today's business climate, knowledge and such individuals who possess sufficient amounts thereof, often labelled as 'talents' and considered hard to find, have emerged as important strategic assets, that must be organized and managed as such. This is particularly true for the Netherlands, where the competitive landscape is predicated upon and ultimately exacerbated by an increasingly open and globalized economy, top-level physical and technological infrastructure, and well-educated, multicultural, and highly productive workforce.

The results obtained throughout the course of this study were partly complementary to and hence corroborated existing theories and were partly novel in the sense that no exploratory efforts had previously been made in this domain. The first valuable piece of information retrieved from this research confirms prior assumptions and goes on to show that the combined efforts in companies of the Netherlands made towards attracting, developing, and retaining highly talented and skilled employees exert a strong, positive influence over their performance. However, when considered individually, practices aimed at attracting and hiring this type of individuals had been indifferent in terms of their effect on performance, which is due to relatively low 'talent scarcity' and higher labor productivity in general. That being said, efforts made to continuously develop and improve employees' skills and knowledge through training and educational measures and lucrative career advancement opportunities contributed positively to performance increases. Similarly, practices and routines aimed at developing stronger ties between talented workers and the company in the form of continued engagement and commitment, and motivational incentives related positively to overall performance. Due to the dynamic nature of competition that firms in the Netherlands are facing nowadays, they are strongly advised to up the pace of developing and retaining talent. In the context of AC and the practical implications thereof, the study reveals that whether or not

firms are capable of acquiring knowledge from external sources had no effect on their propensity to perform any better. With information being more easily accessible and widely shared through new methods of interaction as well as more collaborative forms of production and consumption facilitated by the rise of today's sharing economy, it appears as if the potential to succeed therein is less dependent on the recognition and acquisition of new knowledge, and more a function of the ability to understand its content and relate it to what is already known. Evidently, knowledge assimilation was found to be positively related to improved performance of Dutch companies.

Conversely, the ability to develop and refine the routines by which new and existing knowledge are combined, otherwise termed knowledge transformation, had no influence over performance, which is explained in the fact that these capabilities have already reached mature levels in most Dutch firms, thereby rendering further improvements thereof less significant for their success. Knowledge exploitation, on the other hand, made a positive contribution to firm success and the largest at that, which goes on to show the relevance of using external knowledge and integrating it into new products, services, and processes in the context of anticipated performance increases. In addition, the study sheds light on the disproportionate impact of RAC upon the firm's success, whereby its tendency to leverage externally available knowledge far outweighs its receptiveness towards it in terms of importance for sustaining competitive advantage. This also highlights the significant role of internal processes and routines through which knowledge is disseminated and applied upon acquisition and assimilation. In general, however, AC has been identified as being a catalyst for performance-related outcomes and improvements thereof within Dutch companies.

Concerning the link between TM and AC, the study reveals an overall positive influence of the former over the latter, which highlights the implications of leveraging HC on knowledge-related outcomes at the firm-level. On an individual basis, however, the attraction of talented and highly capable individuals had no effect on higher levels of AC. This gives reason to conclude that the mere possession of employees equipped with the requisite skills and knowledge is not sufficient for enhanced knowledge creation and distribution, which in turn requires the integration of their collective competencies into organizational processes and routines through learning and training paired with both intrinsic and extrinsic incentives for encouraging knowledge sharing behaviors. Continued investments in the development of individuals' AC through the use of mentoring and coaching, job rotations, and revisiting the role of line managers in developmental interventions not only improve the knowledge and capabilities that employees make use of in their daily work, but are necessary steps towards greater social integration and connectedness of key knowledge holders and hence knowledge transfer between them. In addition, retention practices were found to also be positively related to higher AC, which is grounded in the idea that the motivation and

continued engagement of key knowledge workers spare the firm the loss of valuable knowledge and, associated therewith, disruptions to internal knowledge flows. Effective retention schemes promote the type of conditions under which employees are more likely to voluntarily engage in learning, share newly learned knowledge with other members of the organization and, above all, apply it in their daily work in a way that is congruent with the firm's needs and goals. Therefore, firms in the Netherlands with a deliberate focus on TM are inherently better equipped to absorb and utilize externally available knowledge for commercial and ultimately competitive purposes.

Moreover, the study elaborates on how firm-level AC affects the extent to which TM influences its performance, namely as a partial mediator. This is proof that, besides enabling individuals to execute tasks more efficiently and at a faster rate, TM stimulates an organizational context where knowledge absorption and subsequent use are reinforced through individual-level mechanisms, which in turn contribute to positive knowledge-related outcomes at the level of the organization. It suggests that organizations in the Netherlands, when designing their TM initiatives, must take into account the nature and underlying processes of how knowledge is created and shared at the individual level and aggregated and adapted at the group and organizational level.

In the context of configuring TM systems, the study concludes that, contrary to popular opinion, adopting an 'inclusive' rather than an 'exclusive' understanding of talent and thereby harvesting the full potential of every employee, regardless of their position or economic contribution to the firm, leads to significantly better outcomes both in terms of AC and organizational performance. This is firmly grounded in the conviction that individuals excluded from the talent pool and thus implicitly deprived of organizational resources and attention, are more likely to harbor negative feelings towards the firm, which can easily result in greater distrust, lack of team spirit, and pose barriers to knowledge creation and transfer in particular. Firms in the Netherlands are therefore advised to regard each of their employees as a repository of unique competencies for whom they need to find the right role, if not to say, career path that allows them to optimally deploy and tap into their personal strengths for the greater benefit of the organization.

In addition, the study explored whether the characteristics of TM practices and AC components would differ based on the firm's operational scope, thus distinguishing between MNCs and firms confined solely at the regional or domestic level and naturally smaller in size. Despite noticeable differences in TM as a whole and retention practices, whereby Dutch MNCs had adopted more sophisticated and formalized actions, mainly due to their abundance of organizational resources, the ways in which talented individuals were attracted and developed were, however, indifferent. This is due to increasing economic pressures under which smaller firms in the Netherlands find themselves today and are forced to put together a competitive workforce to avoid falling behind

global players; a process aided by public intervention and their inherently more flexible and less rigid structure. The latter aspect in conjunction with more conducive labor market conditions in the Netherlands may explain why SMEs and nationally based companies, despite lacking access to the global talent market, were indifferent from their larger counterparts in terms of acquisition and assimilation capabilities. Dutch MNCs did, however, exceed smaller firms in their capacity to transform externally acquired knowledge and exploit it for commercial purposes, due to more comprehensive system and innovation capabilities by which acquired knowledge is aggregated.

Finally, the study reveals that Dutch firms whose operations are heavily reliant upon knowledge, urging them to make greater investments in R&D-related activities, also expend more resources on attracting, developing, and retaining highly capable individuals in order to quench their thirst for knowledge and stay ahead of their competitors. In contrast, firms whose business model was less dependent upon the creation and management of knowledge flows were shown as adopting TM schemes of a relatively simple and less sophisticated nature. In addition, knowledge-driven businesses were found to be better equipped and thus able to acquire, assimilate, transform, and exploit knowledge from beyond their boundaries. The cumulative nature of AC therefore holds true for the Netherlands, where prior investments in R&D and the buildup of crucial knowledge stocks enable firms to accumulate and utilize new knowledge more efficiently going forward.

5.2 Critical Acclaim

The present study must, however, be interpreted by recognizing its inherent limitations. That is to say empirical data was collected using a cross-sectional and one-time survey research method and hence is limited in the power of identifying time-lagged or dynamic feedback relationships (Zhang, 2009, p. 283). Although this methodology proved useful in narrowing some of the gaps in previous literature, further longitudinal research should be conducted in an attempt to validate the casual claims and generalize the empirical results reported herein. Furthermore, the findings within this study have originated from a medium-sized sample, thus allowing for generalization to only a certain degree. In order, therefore, to determine whether or not the reported associations between TM and AC in relation to the Netherlands are representative, further investigatory work aimed at larger sample sizes and a wider variety of organizations in different sectors is required, in particular given the fact that both AC and TM as well as the underlying processes connecting them are still at an exploratory stage. Although the Netherlands is in many ways similar to other Western European economies, the findings are country-specific and must be interpreted as such and should under no circumstances be used to make inferences about other national and cultural contexts. Future research should be predicated upon comparing different markets and therewith

create a more nuanced understanding of how TM routines and AC vary across national borders, which should be of particular interest for large multinational firms. Another important limitation is grounded in the fact that firm performance was viewed from a generic perspective rather than distinguishing between innovative and financial performance, which TM routines and the ability to absorb and use knowledge could have a measurably different effect upon. Another limitation concerns the method of sampling and, more precisely, snowball sampling, whereby respondents invited additional participants from among their acquaintances, which could have inadvertently led to sample bias and rendered it questionable whether or not the sample was in fact an accurate representation of the target population (Rizova, 2014, p. 30). Finally, differences in TM routines, levels of AC, and performance-related outcomes in relation to the firm's understanding of talent, geographic scope of activity, and knowledge dependency, each of which would deserve its own detailed analysis, were addressed and validated by taking a more simplistic or 'black and white' approach. The results should thus be treated with caution until substantiated by further research.

5.3 Outlook

The study has opened the door for continuous research on the relationship between TM practices and dimensions of AC as well as their individual and collective contribution to the performance development of businesses in today's increasingly knowledge-driven economy. A possible step forward from this study could involve the use of qualitative methods in the form of standardized open-ended interviews in order to delve deeper into the subject matter and collect more sensitive information. Since the present study is based on and, at the same time, limited by the perspective of individuals solely active in the HR domain, subsequent studies must incorporate the views of employees from other core functions of the firms, the execution of which will most likely depend on the quality of the firm's workforce and knowledge stock. This should not be restricted to the Netherlands, but focus upon other national settings, thereby allowing for comparisons between them. Findings of such kind would be of great help in answering one of the main questions asked by multinational firms; namely the extent to which TM processes and routines require adaptation to the local culture and labor market conditions. Another important strand of research that must be expanded upon concerns the idiosyncrasies of TM and knowledge-related processes in SMEs, not least because small businesses are the backbone of most economies. In order to broaden the definition of talent and TM not just theoretically, but also in business practice, further research should address the dichotomy between 'inclusive' and 'exclusive' talent and thereby investigate the respective antecedents and practical implications, particularly in view of knowledge-related processes, that each approach entails.

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7 APPENDIX

Appendix 1: Fit Indexes - Confirmatory Factor Analysis Talent Management

Indexes	3 Factor	3 Factor*	1 Factor	General Rule for Acceptable Fit
Chi Square (χ^2)	362.326	682.819	379.275	Ratio of $\chi 2$ to $df \leq 2$ or 3,
Degrees of Freedom (*df*)	167	170	170	
p value (Chi-Square)	.000	.000	.000	
Normed Fit Index (NFI)	.768	.586	.757	≥ .95 for acceptance
Comparative Fit Index (CFI)	.857	.625	.847	≥ .95 for acceptance
Incremental Fit Index (IFI)	.860	.631	.849	≥ .95 for acceptance
Tucker-Lewis Index (TLI)	.838	.581	.829	≥ .95 can be 0 > TLI > 1 for accept.
Number of Free Parameters	63	60	60	
Akaika (AIC)	11,953.863	12,268.388	11,964.845	Smaller the better; good for model
Bayesian (BIC)	12,156.778	12,461.609	12,158.066	comparison, not a single model
R. M. Sq. Err. of Approx. (RMSEA)	.080	.128	.082	< .06 to .08 with confidence interval
90 Percent CI Interval (lower/upper)	.068/.090	.118/.138	.071/.093	
p value RMSEA < = 0.05	.000	.000	.000	
Std. Root Mean Sq. Res. (SRMR)	.058	.261	.060	≤ .08
Root Mean Sq. Residual (RMR)	.124	.531	.129	Smaller, the better; 0 = perfect fit
Goodness-of-Fit Index (GFI)	.966	.969	.964	≥ .95 Not generally recommended
Adjusted GFI (AGFI)	.953	.958	.952	≥ .95 Perform. poor for simulation

** nested model (orthogonal: latent variables treated as independent)*

Appendix 2: Latent Factor Loadings - Three-Factor Model Talent Management

Latent Factor	Indicator	B	SE	Z	Beta	Sig.
Attraction	Atr1	.807	.101	7.974	.566	***
Attraction	Atr2	.743	.149	4.980	.379	***
Attraction	Atr3	.510	.113	4.510	.345	***
Attraction	Atr4	.888	.110	8.080	.570	***
Attraction	Atr5	.634	.109	5.828	.436	***
Attraction	Atr6	.693	.100	6.952	.504	***
Attraction	Atr7	.839	.104	8.032	.589	***
Development	Dvp1	.767	.073	10.513	.703	***
Development	Dvp2	.842	.082	10.306	.695	***
Development	Dvp3	1.077	.101	10.705	.714	***
Development	Dvp4	.818	.104	7.852	.559	***
Development	Dvp5	.808	.099	8.136	.574	***
Development	Dvp6	.992	.080	12.413	.790	***
Retention	Ret1	.884	.089	9.965	.679	***
Retention	Ret2	.989	.087	11.377	.745	***
Retention	Ret3	.651	.108	6.023	.445	***
Retention	Ret4	.886	.108	8.225	.581	***
Retention	Ret5	.831	.102	8.113	.581	***
Retention	Ret6	1.052	.095	11.078	.734	***
Retention	Ret7	.837	.089	9.402	.648	***

*Sign. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1*

Appendix 3: Latent Factor Correlations - Three-Factor Model Talent Management

Factor 1	Factor 2	Correlation	Sig.
Attraction	Development	.959	***
Attraction	Retention	.954	***
Development	Retention	.899	***

*Sign. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1*

Appendix 4: Fit Indexes - Confirmatory Factor Analysis Absorptive Capacity

Indexes	4 Factor	2 Factor	1 Factor	General Rule for Acceptable Fit
Chi Square (χ^2)	471.162	638.255	726.968	Ratio of $\chi 2$ to $df \leq 2$ or 3,
Degrees of Freedom (*df*)	164	169	170	
p value (Chi-Square)	.000	.000	.000	
Normed Fit Index (NFI)	.796	.723	.685	≥ .95 for acceptance
Comparative Fit Index (CFI)	.855	.778	.737	≥ .95 for acceptance
Incremental Fit Index (IFI)	.857	.780	.739	≥ .95 for acceptance
Tucker-Lewis Index (TLI)	.832	.751	.706	≥ .95 can be 0 > TLI > 1 for accept.
Number of Free Parameters	66	61	60	
Akaika (AIC)	10,509.025	10,666.117	10,752.831	Smaller the better; good for model comparison, not a single model
Bayesian (BIC)	10,721.568	10,862.559	10,946.052	
R. M. Sq. Err. of Approx. (RMSEA)	.101	.123	.133	< .06 to .08 with confidence interval
90 Percent CI Interval (lower/upper)	.090/.111	.112/.133	.123/.143	
p value RMSEA < = 0.05	.000	.000	.000	
Std. Root Mean Sq. Res. (SRMR)	.064	.070	.076	≤ .08
Root Mean Sq. Residual (RMR)	.101	.119	.131	Smaller, the better; 0 = perfect fit
Goodness-of-Fit Index (GFI)	.961	.940	.933	≥ .95 Not generally recommended
Adjusted GFI (AGFI)	.945	.918	.909	≥ .95 Perform. poor for simulation

Appendix 5: Latent Factor Loadings - Four-Factor Model Absorptive Capacity

Latent Factor	Indicator	B	SE	Z	Beta	Sig.
Acquisition	Acq1	.863	.102	8.450	.596	***
Acquisition	Acq2	.941	.099	9.477	.654	***
Acquisition	Acq3	1.057	.089	11.911	.775	***
Acquisition	Acq4	.919	.083	11.113	.740	***
Acquisition	Acq5	.978	.074	13.142	.828	***
Assimilation	Asm1	.754	.076	9.903	.686	***
Assimilation	Asm2	.839	.084	10.026	.687	***
Assimilation	Asm3	.993	.101	9.850	.673	***
Assimilation	Asm4	1.145	.084	13.689	.853	***
Assimilation	Asm5	1.072	.096	11.215	.743	***
Transformation	Tra1	.724	.071	10.149	.715	***
Transformation	Tra2	.856	.070	12.240	.792	***
Transformation	Tra3	.835	.076	10.983	.727	***
Transformation	Tra4	.928	.076	12.245	.787	***
Transformation	Tra5	.983	.086	11.465	.751	***
Transformation	Tra6	.923	.084	10.952	.724	***
Exploitation	Exp1	.519	.087	5.976	.754	***
Exploitation	Exp2	.967	.085	11.399	.760	***
Exploitation	Exp3	1.156	.095	12.213	.796	***
Exploitation	Exp4	1.100	.084	13.024	.833	***

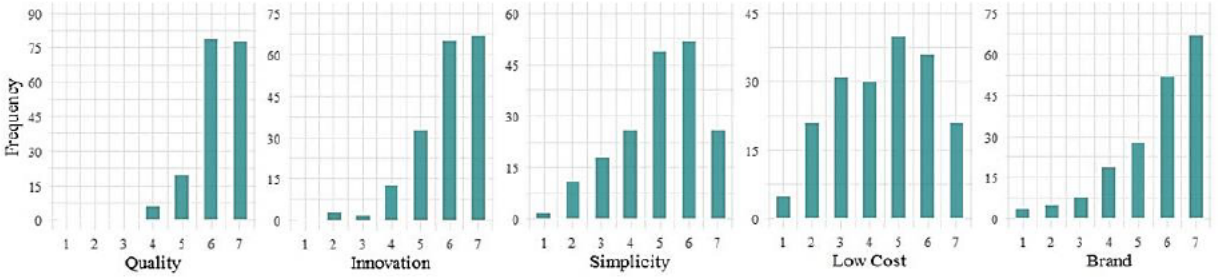
*Sign. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1*

Appendix 6: Latent Factor Correlations - Four-Factor Model Absorptive Capacity

Factor 1	Factor 2	Correlation	Sig.
Acquisition	Assimilation	.747	***
Acquisition	Transformation	.742	***
Acquisition	Exploitation	.676	***
Assimilation	Transformation	.768	***
Assimilation	Exploitation	.655	***
Transformation	Exploitation	.730	***

*Sign. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1*

Appendix 7: Histograms of Core Competencies



Appendix 8: Multicollinearity Statistics - Multiple Regression (Model 1-6a)

Predictor	Attraction	Development	Retention	Diff. Strategy	Low Cost	Global	Incl. TM.
VIF	2.30	2.77	2.57	1.22	1.21	1.06	1.17
Tolerance	.436	.361	.390	.820	.828	.944	.858

Appendix 9: Regression Analysis of Talent Development and Performance

Regression	Model 1b		Model 2b		Model 3b		Model 4b		Model 5b		Model 6b	
Independent Variable	**Performance**		**Market Share**		**Sales Growth**		**Profitability**		**Emp. Turn.**		**Net Pr. Score**	
Senior Leader Support	-.079	*-.095*	-.211**	*-.214*	-.079	*-.077*	-.080	*-.071*	.035	*.032*	-.064	*-.063*
Line Mgr. Engagement	.177***	*.232*	.181**	*.201*	.236***	*.251*	.211**	*.205*	.059	*.059*	.201**	*.217*
Coaching & Mentoring	.019	*.032*	-.006	*-.008*	.027	*.036*	-.003	*-.004*	.004	*.005*	.077	*.104*
Job Rotations	.087**	*.139*	.124**	*.168*	.109*	*.142*	.029	*.035*	.102	*.124*	.071	*.094*
Performance Appraisals	-.011	*-.017*	-.045	*-.058*	-.020	*-.025*	-.064	*-.073*	.094	*.111*	-.021	*-.027*
Continuous Investments	.199***	*.274*	.261***	*.305*	.152*	*.171*	.256***	*.262*	.110	*.117*	.217***	*.246*
Differentiation Strategy	.348***	*.188*	.344**	*.158*	.289*	*.127*	.328*	*.132*	.290	*.121*	.488***	*.219*
Low Cost Strategy	.030	*.016*	-.113	*-.052*	.021	*.010*	.024	*.010*	.144	*.060*	.075	*.034*
Global Operations	.342**	*.148*	.172	*.063*	.342*	*.121*	.472**	*.152*	.500**	*.166*	.226	*.081*
Inclusive Talent Mgmt.	.168	*.091*	.223	*.102*	.335**	*.148*	.317*	*.128*	.079	*.033*	-.113	*-.051*
Constant	2.399***		3.377***		2.398***		2.500***		1.715***		2.009	
Adjusted R^2	.333		.232		.267		.189		.138		.253	
F	10.150		6.526		7.661		5.264		3.949		7.204	
Sig.	.000		.000		.000		.000		.000		.000	

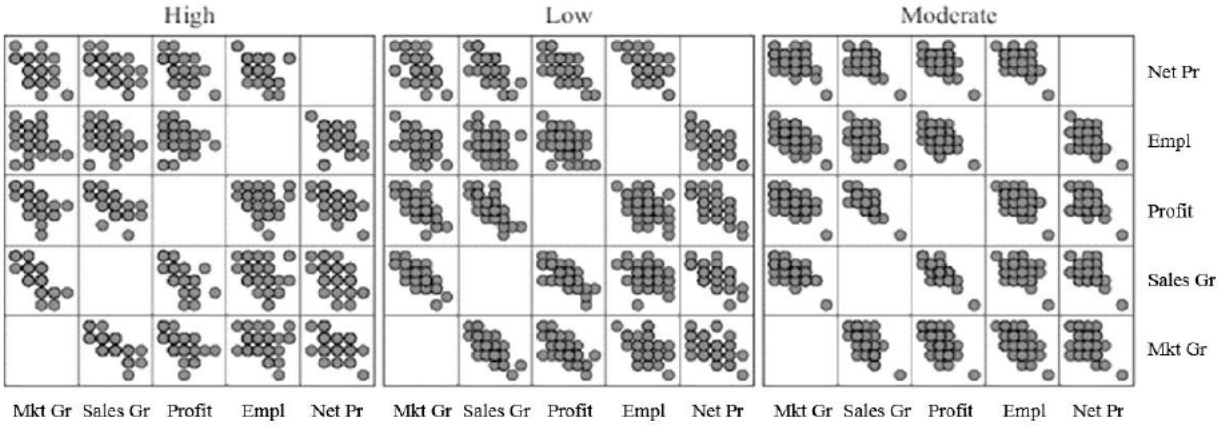
*$p < 0.1$ **$p < 0.05$ ***$p < 0.01$; Standardized Coefficients Beta

Appendix 10: Regression Analysis of Talent Retention and Performance

Regression	Model 1c		Model 2c		Model 3c		Model 4c		Model 5c		Model 6c	
Independent Variable	**Performance**		**Market Share**		**Sales Growth**		**Profitability**		**Emp. Turn.**		**Net Pr. Score**	
Senior Leader Support	.007	*.010*	-.045	*-.054*	-.010	*-.009*	-.085	*-.091*	.125	*.137*	.048	
Diverse Workforce	.110*	*.160*	.124*	*.153*	.113*	*.134*	.207**	*.225*	.014	*.016*	.090	
Work-Life Balance	.094**	*.150*	.088*	*.118*	.157***	*.205*	.125**	*.149*	.037	*.046*	.063	
Expatriate Support	.078	*.130*	.056	*.079*	.026	*.035*	.125*	*.156*	.084	*.107*	.098	
Non-monetary Rewards	.031	*.049*	.108	*.144*	.076	*.097*	.012	*.014*	-.079	*-.094*	.037	
Employee Engagement	.165***	*.259*	.112*	*.150*	.243***	*.311*	.249***	*.292*	.133	*.160*	.085	
Autonomy & Freedom	.026	*.037*	-.001	*-.001*	-.036	*-.042*	-.004	*-.004*	.098	*.105*	.073	
Differentiation Strategy	.364***	*.197*	.338**	*.156*	.372**	*.165*	.350**	*.142*	.311*	*.129*	.446***	
Low Cost Strategy	.105	*.057*	-.050	*-.024*	.107	*.047*	.141	*.057*	.196	*.082*	.131	
Global Operations	.214	*.093*	.073	*.027*	.229	*.080*	.193	*.063*	.468**	*.155*	.107	
Inclusive Talent Mgmt.	.258**	*.140*	.324**	*.149*	.459***	*.203*	.315*	*.128*	.134	*.056*	.056	
Constant	2.861***		3.596***		3.293***		2.693***		2.058***		2.664***	
Adjusted R^2	.307		.174		.259		.259		.136		.157	
F	8.364		4.502		6.819		6.747		3.623		4.100	
Sig.	.000		.000		.000		.000		.000		.000	

*$p < 0.1$ **$p < 0.05$ ***$p < 0.01$; Standardized Coefficients Beta

Appendix 11: Scatter Plots: Performance by Priority assigned to Talent Management



Appendix 12: Test of Normality - Performance by Priority assigned to Talent Mgmt.

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Market Share Growth	.176	182	.000	.918	182	.000
Sales Growth	.177	182	.000	.913	182	.000
Profitability	.166	182	.000	.919	182	.000
Employee Turnover	.176	182	.000	.930	182	.000
Net Promoter Score	.182	182	.000	.911	182	.000

a. Lilliefors Significance Correction

Appendix 13: Correlation Analysis - Performance Metrices

		Market Share	Sales Growth	Profit.	Emp. Turnover	Net Pr. Score
Market Share	Pearson Correlation	1	.749**	.664**	.421**	.529**.
	Sig. (2-tailed)		.000	.000	.000	.000
Sales Growth	Pearson Correlation	.749**	1	.752**	.391**	.596**
	Sig. (2-tailed)	.000		.000	.000	.000
Profit-ability	Pearson Correlation	.664**	.752**	1	.408**	.625**
	Sig. (2-tailed)	.000	.000		.000	.000
Employee Turnover	Pearson Correlation	.421**	.391**	.408**	1	.513**
	Sig. (2-tailed)	.000	.000	.000		.000
Net Pr. Score	Pearson Correlation	.529**	.596**	.625**	.513**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

* * Correlation is significant at the 0.01 level (2-tailed)

Appendix 14: Post Hoc Multiple Comparisons - Priority assigned Talent Management

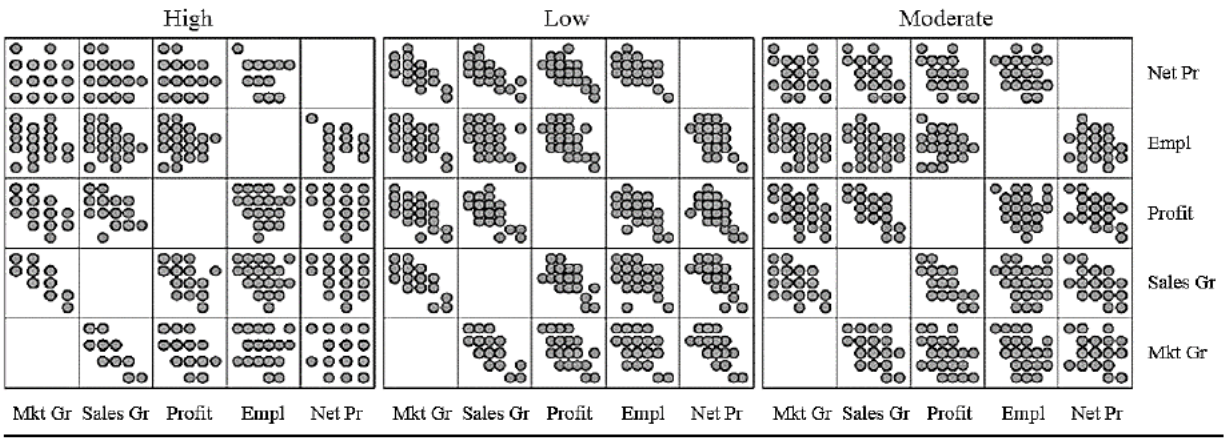
Dependent Variable	(I) TM Level	(J) TM Level	Mean Diff. (I-J)	Std. Error	Sig.
Market Share Growth	Low	Moderate	-.53*	.186	.014
		High	-.83*	.189	.000
	Moderate	Low	.53*	.186	.014
		High	-.30	.184	.241
	High	Low	.83*	.189	.000
		Moderate	.30	.184	.241
Sales Growth	Low	Moderate	-.50*	.195	.032
		High	-.91*	.199	.000
	Moderate	Low	.50*	.195	.032
		High	-.42	.194	.080
	High	Low	.91*	.199	.000
		Moderate	.42	.194	.080
Profitability	Low	Moderate	-.43	.212	.104
		High	-.90*	.215	.000
	Moderate	Low	.43	.212	.104
		High	-.46	.210	.072
	High	Low	.90*	.215	.000
		Moderate	.46	.210	.072
Employee Turnover	Low	Moderate	-.36	.212	.203
		High	-.63*	.216	.011
	Moderate	Low	.36	.212	.203
		High	-.27	.210	.418
	High	Low	.63*	.216	.011
		Moderate	.27	.210	.418
Net Promoter Score	Low	Moderate	-.82*	.181	.000
		High	-.87*	.184	.000
	Moderate	Low	.82*	.181	.000
		High	-.06	.180	.947
	High	Low	.87*	.184	.000
		Moderate	.06	.180	.947

* The mean difference is significant at the .05 level

Appendix 15: Multicollinearity Statistics - Multiple Regression (Model 1-6d)

Predictor	Acq.	Asm.	Tra.	Exp.	Diff. Str.	Low Cost	Global Ops.	Incl. TM
VIF	2.05	2.11	2.45	2.15	1.28	1.20	1.09	1.16
Tolerance	.488	.474	.408	.464	.779	.833	.920	.861

Appendix 16: Scatter Plots: Performance by Level of AC



Appendix 17: Post Hoc Multiple Comparisons - Level of Absorptive Capacity

Dependent Variable	(I) AC Level	(J) AC Level	Mean Diff. (I-J)	Std. Error	Sig.
Market Share Growth	Low	Moderate	-.49*	.172	.015
		High	-1.24*	.176	.000
	Moderate	Low	.49*	.172	.015
		High	-.75*	.172	.000
	High	Low	1.24*	.176	.000
		Moderate	.75*	.172	.000
Sales Growth	Low	Moderate	-.71*	.182	.000
		High	-1.31*	.186	.000
	Moderate	Low	.71*	.182	.000
		High	-.60*	.182	.004
	High	Low	1.31*	.186	.000
		Moderate	.60*	.182	.004
Profitability	Low	Moderate	-.56*	.201	.015
		High	-1.27*	.205	.000
	Moderate	Low	.56*	.201	.015
		High	-.71*	.201	.002
	High	Low	1.27*	.205	.000
		Moderate	.71*	.201	.002
Employee Turnover	Low	Moderate	-.55*	.208	.025
		High	-.81*	.212	.000
	Moderate	Low	.55*	.208	.025
		High	-.27	.208	.406
	High	Low	.81*	.212	.000
		Moderate	.27	.208	.406
Net Promoter Score	Low	Moderate	-.71*	.178	.000
		High	-1.02*	.182	.000
	Moderate	Low	.71*	.178	.000
		High	-.30	.178	.207
	High	Low	1.02*	.182	.000
		Moderate	.30	.178	.207

* The mean difference is significant at the .05 level

Appendix 18: Regression Analysis of Talent Development and Absorptive Capacity

Regression	Model 1f		Model 2f		Model 3f		Model 4f		Model 5f	
Independent Variable	**Absorptive Cap.**		**Acquisition**		**Assimilation**		**Transformation**		**Exploitation**	
Senior Leader Support	-.039	*-.049*	-.089	*-.093*	-.099	*-104*	.054	*.063*	-.019	*-.021*
Line Mgr. Engagement	.139***	*.194*	.149**	*.171*	.161**	*.185*	.116*	*.148*	.129*	*.150*
Coaching & Mentoring	.086**	*.152*	.126**	*.181*	.012	*.018*	.145***	*.234*	.063	*.092*
Job Rotations	.094***	*.161*	.064	*.090*	.206***	*.289*	.047	*.073*	.059	*.084*
Performance Appraisals	.036	*.059*	.014	*.019*	.068	*.093*	.042	*.064*	.020	*.028*
Continuous Investments	.224***	*.331*	.274***	*.330*	.241***	*.291*	.141**	*.189*	.241***	*.295*
Differentiation Strategy	.313**	*.182*	.256*	*.121*	.227*	*.108*	.290**	*.154*	.482***	*.233*
Low Cost Strategy	-.107	*-.063*	-.117	*-.056*	-121	*-.058*	-.062	*-.033*	.129	*-.063*
Global Operations	.150	*.069*	.077	*.029*	-.085	*-.032*	.225	*.095*	.383**	*.148*
Inclusive Talent Mgmt.	.016	*.009*	-.195	*-.093*	.115	*.055*	.132	*.070*	.013	*.006*
Constant	2.047***		2.212***		1.971***		1.873***		2.125***	
Adjusted R^2	.535		.322		.414		.442		.382	
F	22.04		9.687		13.92		15.47		12.32	
Sig.	.000		.000		.000		.000		.000	

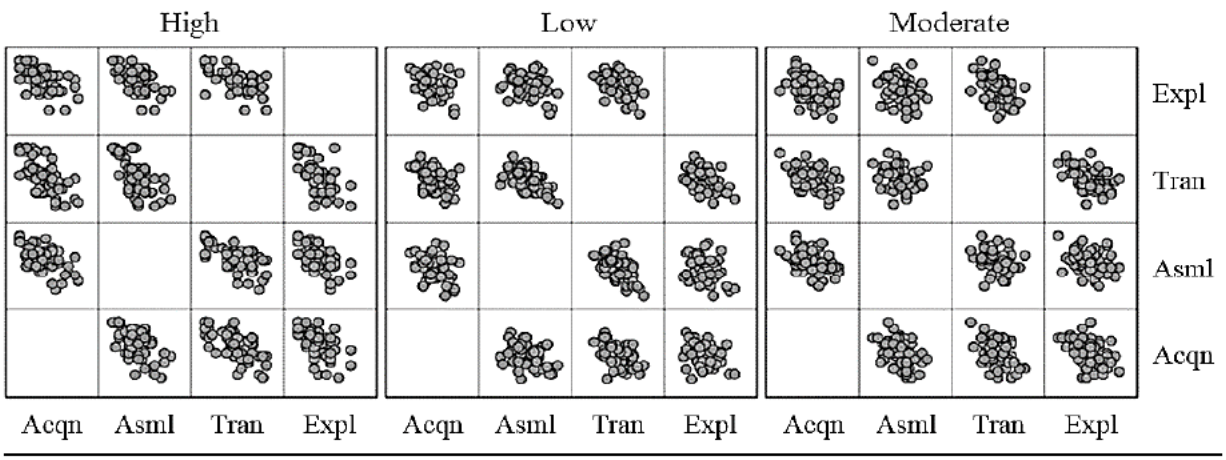
* $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$; *Standardized Coefficients Beta*

Appendix 19: Regression Analysis of Talent Retention and Absorptive Capacity

Regression	Model 1g		Model 2g		Model 3g		Model 4g		Model 5g	
Independent Variable	**Absorptive Cap.**		**Acquisition**		**Assimilation**		**Transformation**		**Exploitation**	
Senior Leader Support	.030	*.046*	-.082	*-.102*	.097	*.121*	.106**	*.148*	-001	*-.001*
Diverse Workforce	.099**	*.154*	.160**	*.203*	.113*	*.144*	-.008	*-.011*	.131**	*.170*
Work-Life Balance	.015	*.026*	.057	*.077*	-.032	*-.045*	.023	*.036*	.012	*.017*
Expatriate Support	.119***	*.213*	.121**	*.177*	.087*	*.127*	.118**	*.193*	.151***	*.225*
Non-monetary Rewards	.106***	*.177*	.128**	*.175*	.181***	*.249*	.074	*.114*	.038	*.053*
Employee Engagement	.056	*.095*	.093	*.128*	.041	*.056*	.023	*.036*	.071	*.099*
Autonomy & Freedom	.134***	*.202*	.120*	*.149*	.091	*.113*	.175***	*.243*	.148***	*.187*
Differentiation Strategy	.224**	*.130*	.129	*.061*	.188	*.090*	.180	*.096*	.400***	*.194*
Low Cost Strategy	-.046	*-.027*	.003	*.001*	-.086	*-.041*	-.041	*-.022*	-.058	*-.028*
Global Operations	.010	*.005*	-.102	*-.039*	-.171	*-.065*	.122	*.052*	.192	*.074*
Inclusive Talent Mgmt.	.183**	*.106*	-.008	*-.004*	.305**	*.145*	.310	*.165*	.124	*.060*
Constant	2.124***		2.112***		2.064***		2.229***		2.083***	
Adjusted R^2	.531		.347		.385		.390		.429	
F	19.82		9.839		11.43		11.62		13.51	
Sig.	.000		.000		.000		.000		.000	

* $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$; *Standardized Coefficients Beta*

Appendix 20: Scatter Plots: Dimensions of AC by Priority assigned to Talent Mgmt.



Appendix 21: Test of Normality - Dimensions of AC by Priority assigned to Talent Mgmt.

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Acquisition	.065	182	.059	.988	182	.124
Assimilation	.097	182	.000	.985	182	.053
Transformation	.074	182	.017	.986	182	.063
Exploitation	.089	182	.001	.973	182	.001

a. Lilliefors Significance Correction

Appendix 22: Correlation Analysis - Dimensions of Absorptive Capacity

		Acquisition	Assimilation	Transformation	Exploitation
Acquisition	Pearson Correlation	1	.554**	.623**	.547**
	Sig. (2-tailed)		.000	.000	.000
Assimilation	Pearson Correlation	.554**	1	.634**	.517**
	Sig. (2-tailed)	.000		.000	.000
Transformation	Pearson Correlation	.623**	.634**	1	.627**
	Sig. (2-tailed)	.000	.000		.000
Exploitation	Pearson Correlation	.547**	.517**	.627**	1
	Sig. (2-tailed)	.000	.000	.000	

* * Correlation is significant at the 0.01 level (2-tailed)

Appendix 23: Post Hoc Multiple Comparisons - Priority assigned Talent Management

Dependent Var.	(I) TM Level	(J) TM Level	Mean Diff. (I-J)	Std. Error	Sig.
Knowledge Acquisition	Low	Moderate	-.709*	.1514	.000
		High	-1.201*	.1555	.000
	Moderate	Low	.708*	.1514	.000
		High	-.493*	.1500	.003
	High	Low	1.201*	.1555	.000
		Moderate	.493*	.1500	.003
Knowledge Assimilation	Low	Moderate	-.613*	.1550	.000
		High	-1.205*	.1592	.000
	Moderate	Low	.613*	.1550	.000
		High	-.592*	.1536	.000
	High	Low	1.205*	.1592	.000
		Moderate	.592*	.1536	.000
Knowledge Transformation	Low	Moderate	-.604*	.1397	.000
		High	-1.195*	.1435	.000
	Moderate	Low	.604*	.1397	.000
		High	-.591*	.1384	.000
	High	Low	1.195*	.1435	.000
		Moderate	.591*	.1384	.000
Knowledge Exploitation	Low	Moderate	-.539*	.1552	.002
		High	-1.149*	.1595	.000
	Moderate	Low	.539*	.1552	.002
		High	-.610*	.1538	.000
	High	Low	1.149*	.1595	.000
		Moderate	.610*	.1538	.000

* The mean difference is significant at the .05 level

Appendix 24: Regression Analysis - Test for Mediation

Regression	Model 1: Path C	Model 2: Path A	Model 3: Path C' and B
Dependent Variable	**Firm Performance**	**Absorptive Capacity**	**Firm Performance**
Talent Management	.550*** (.512) *.068*	.754*** (.752) *.049*	.208** (.194) *.098*
Absorptive Capacity			.453*** (.423) *.098*
Constant	2.138***	1.233***	.1580***
Adjusted R^2	.258	.563	.332
F	64.903	237.588	46.794
Sig.	.000	.000	.000

* p < 0.1 ** p < 0.05 *** p < 0.01; (Standardized Coefficients Beta); *Coefficients Std. Error*

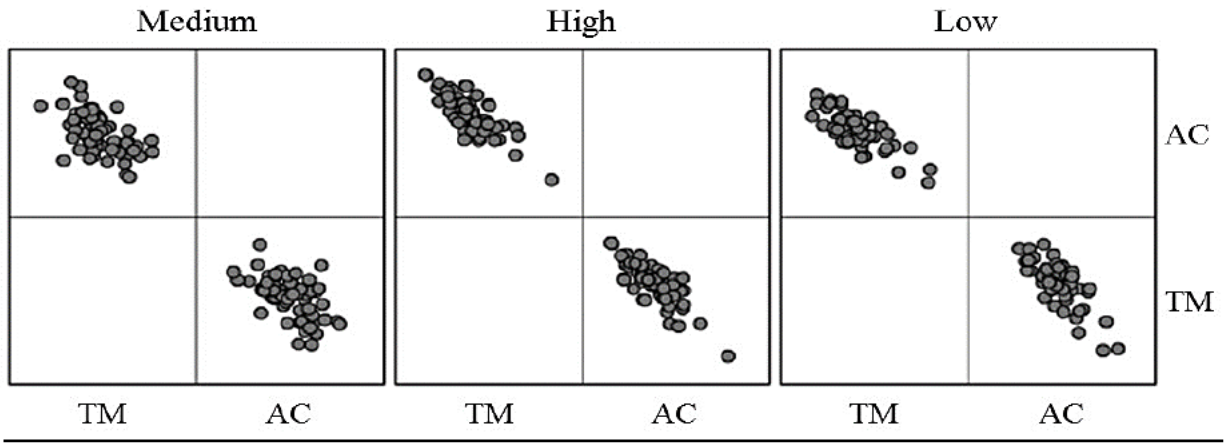
Appendix 25: Causal Mediation Analysis with Dummy Variables in the Model

Path Coefficient	*c*	*c'*	*a*	*b*
Standardized (β)	.422	.166	.697	.368
Unstandardized (*B*)	.454***	.178*	.699***	.394***
Standard Error (*SE*)	.071	.098	.052	.099

Sobel's *z*	3.8161	Aroian's *z*	3.8064	Goodman's *z*	3.8258
p-value	.00016	p-value	.00014	p-value	.00013

Mediation	Estimate 95%	CI Lower 95%	CI Upper 95%	p-value
ACME	.2755	.1286	.41	.000
ADE	.1783	-.0452	.37	.120
Total Effect	.4538	.2812	.58	.000
Prop. Mediated	.6070	.2759	1.15	.000

Appendix 26: Scatter Plots: TM and AC by Knowledge Intensity



Appendix 27: Test of Normality - TM and AC by Knowledge Intensity

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Talent Management	.074	183	.016	.968	183	.000
Absorptive Capacity	.037	183	.200*	.990	183	.204

a. Lilliefors Significance Correction

Appendix 28: Post Hoc Multiple Comparisons - Level of Knowledge Intensity

Dependent Var.	(I) Knowledge	(J) Knowledge	Mean Diff. (I-J)	Std. Error	Sig.
Talent Management Practices	Low	Medium	-.5472*	.14280	.001
		High	-.6783*	.14030	.000
	Medium	Low	.5472*	.14280	.001
		High	-.1311	.13519	.597
	High	Low	.6783*	.14030	.000
		Medium	.1311	.13519	.597
Organizational Absorptive Capacity	Low	Medium	-.4131*	.14281	.012
		High	-.7007*	.14031	.000
	Medium	Low	.4131*	.14281	.012
		High	-.2876	.13521	.087
	High	Low	.7007*	.14031	.000
		Medium	.2876	.13521	.087

APPENDIX: Questionnaire

1. Respondent's Profile

a) What is your current position?

b) How long have you worked for your company?

☐ less than 2 years ☐ 2 - 5 years ☐ 5 - 10 years ☐ more than 10 years

c) Which of the following best describes the industry of your company?

d) Which of the following best describes your company's geographic scope of operations?

☐ regional ☐ domestic ☐ international

e) About how many employees work at your company

☐ less than 100 ☐ 100 - 1,000 ☐ 1,000 - 10,000 ☐ more than 10,000

f) How would you describe your company's core competencies?

Please rate your agreement with below statements on a scale from 1 (strongly disagree) to 7 (strongly agree)

Innovation: Focus on innovative and advanced solutions	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Quality: Focus on products and services of superior quality	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Simplicity: Focus on user-friendly solutions for our clients	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Low Costs: Focus on solutions with great value for money	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Strong Brand: Maintain a highly recognized brand	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

2. Talent Management

a) Which of the following is most applicable to your company's talent programs?

☐ Talent programs in our company focus on all employees

☐ Talent programs in our company only focus on certain employees or groups of individuals

☐ Do not wish to answer

b) Talent Attraction

Please rate your agreement with below statements on a scale from 1 (strongly disagree) to 7 (strongly agree)

Our company's senior executives are actively involved in talent attraction	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our company uses campus recruitment to hire young talents for entry-level positions	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our company prefers internal hiring over external recruitment	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our company engages in succession planning to better predict future staffing needs	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our hiring process is highly selective and involves various assessment tools	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our company evaluates applicants based on cultural fit, not just formal qualifications	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our company makes extensive efforts to maintain a strong employer brand	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

c) Talent Development

Please rate your agreement with below statements on a scale from 1 (strongly disagree) to 7 (strongly agree)

Our company and senior leadership recognize the strategic value of talent development	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Line managers actively partake in talent and leadership development of their employees	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Our company offers a variety of coaching and mentoring programs to nurture young talents	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Our company makes extensive use of job rotations and cross-functional assignments	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Performance appraisals and employee feedback sessions are held on a routine basis	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Our company continues to improve the quality of its talent development opportunities	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐

d) Talent Retention

Please rate your agreement with below statements on a scale from 1 (strongly disagree) to 7 (strongly agree)

Our company and senior leadership recognize the strategic value of talent retention	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Our company is highly committed to creating and managing a diverse workforce	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Our company offers flexible working hours to ensure employees' work life balance	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Our company greatly supports expatriates throughout the duration of their assignments	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Our company uses a wide range of non-monetary rewards for employee recognition	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Our company uses a variety of tools to monitor and encourage employee engagement	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Talented employees are given greater autonomy and responsibility in decision-making	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐

3. Knowledge Management

a) Knowledge Acquisition

Please rate your agreement with below statements on a scale from 1 (strongly disagree) to 7 (strongly agree)

Our company supports knowledge exchange with other companies in our industry	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Our company collaborates in research projects with organizations beyond our industry	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
The search for new information about our industry is a routine part of our daily business	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Our employees regularly consult with third parties to gain new knowledge and information	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐
Our company encourages employees to use various sources of information to gain new knowledge	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	6 ☐	7 ☐

b) Knowledge Assimilation

Please rate your agreement with below statements on a scale from 1 (strongly disagree) to 7 (strongly agree)

Our company uses various communication tools to allow for an efficient flow of knowledge	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our company promotes the support from other departments and business units in problem-solving	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our company demands periodic cross-departmental meetings to exchange information	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our employees openly share new knowledge and information across departments and business units	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Employees from different levels and departments regularly socialize through informal interactions	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

c) Knowledge Transformation

Please rate your agreement with below statements on a scale from 1 (strongly disagree) to 7 (strongly agree)

Our employees are highly capable of combining new information with existing knowledge	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our employees are highly capable of using internal and external information to create new knowledge	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our employees voluntarily process external information to make it available for internal use	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our employees can access the tools to enhance new knowledge and apply it in their work	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our employees are encouraged to store new knowledge and information for future use	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our employees are free to use new knowledge and experiment with alternative solutions	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

d) Knowledge Exploitation

Please rate your agreement with below statements on a scale from 1 (strongly disagree) to 7 (strongly agree)

Our company becomes more productive by absorbing new knowledge from external sources	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our company regularly adapts products and services based on new knowledge and information	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our company is able to react quickly to external market changes by using new knowledge	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Our company secures its market position through continuous product and service advancements	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐

4. Firm Performance

Please estimate your company's performance over the past three years in comparison to the industry average on a scale from 1 (well below industry average) to 7 (well above industry average)

Market share growth	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Sales growth	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Profitability	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Employee turnover	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐
Net promoter score	1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐