BI Norwegian Business School - campus Oslo

GRA 19703

Master Thesis

Thesis Master of Science

Exploring e-HRM as an Antecedent to Absorptive Capacity: Further Exploration and Explanation of Moderating and Mediating effects.

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Start:	15.01.2019 09.00
Finish:	01.07.2019 12.00

BI Norwegian Business School

Master of Science in Leadership and Organizational Psychology Thesis

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Study Program:
Master of Science in Leadership and Organizational Psychology

Examination code:
GRA19703 – Master Thesis

Date of Submission:
6/28/2019

Supervisor:
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Acknowledgements

This master thesis was written as our final project and it marks the end of our journey to complete our Master of Science in leadership and organizational psychology. The process of writing the thesis has been both educational and inspiring. We would not have been able to complete this research without the guidance, encouragement and advice from our supervisor Elizabeth Solberg. We would therefore like to express our deepest gratitude to her. We would also like to thank all of our participants for taking the time to answer our survey, as we could not have done it without them. We would also like to thank each other for a great partnership.

Enjoy the read!

Hannah Liss Julie Svartangen

6/28/2019

Abstract

The present study investigates operational-, relational- and transformational- e-HRM practices as potential antecedents of Potential and Realized Absorptive Capacity. The potential moderating and mediating effects of psychological safety and Interdepartmental Connectedness are also investigated. Results are based on a quantitative study of 90 HR professionals from a wide variety of fields in Norway. Our findings suggests that e-HRM used for operational-, relational- and transformational purposes are all positively related to either both or one of the two dimensions of Realized Absorptive Capacity. Further, Interdepartmental Connectedness does, in some conditions, have a moderating effect on the relationship between transformational e-HRM and Realized Absorptive Capacity Transformational. Psychological safety is also found to show significant mediating effects on two relationships, including: the relationship between relational e-HRM and Realized Absorptive Capacity, and the relationship between transformational e-HRM and Realized Absorptive Capacity. Practical implications and limitations of the study are discussed.

Key words: e-HRM, Absorptive Capacity, psychological safety, Interdepartmental Connectedness, knowledge sharing, innovation

Content

Exploring e-HRM as an Antecedent to Absorptive Capacity: Further Exploration and Explanation of Moderating and Mediating effects.

As competition becomes more knowledge-based, organizations must be able to collect and leverage new knowledge quickly to meet the continually changing demands of their environments. By acquiring and exploiting new and different knowledge, organizations can use resources more efficiently (Lane & Lubatkin, 1998). Without the capability to learn and continually improve, an organization will be slow to react to its market, and the strategic value of its capabilities will inevitably erode (Chang, Gong, Way, & Jia, 2013; Lane & Lubatkin, 1998, Yi, 2009).

Reflecting the increasing need for knowledge and capability development processes in organizations, Absorptive Capacity (AC), which relates to an organization's ability to acquire, assimilate, transform, and exploit new knowledge using organizational routines and practices (Cohen & Levinthal, 1990; Uhl-Bien & Arena, 2018; Zahra & George, 2002), has become an important concept in the past two decades (Chang et al., 2013). Since its introduction, AC has become known as a dynamic capability that occurs at multiple levels within an organization and in its external environment via specific functions. These dynamic functions are generally considered to fall within the sub-concepts of Potential AC and Realized AC. Potential AC is considered a firm's ability to recognize the value of new and useful information, and Realized AC is a firm's ability to assimilate and apply said information (Zahra & George, 2002).

Many researchers have highlighted organizational processes which facilitate and encourage coordination and socialization (Jansen, Van Den Bosch, & Volberda, 2005), via structures of communication between the external environment and among units (Cohen & Levinthal, 1990) to increase Potential AC and Realized AC, respectively. This research has focused heavily on the organization learning from its external environment (Lane, Koka, & Pathak, 2006; 2002), however, and given that Potential and Realized AC are viewed as increasingly important for innovation and organizational development, some researchers have sought to identify how Human Resource Management (HRM) contributes to the development of both types of AC in organizations. Some

researchers have emphasized organizational systems and routines, such as flexible HRM (Chang et al., 2013), which focuses on developing the skills of employees holding important knowledge to facilitate a learning and sharing culture in which knowledge is codified and easily retrieved between colleagues as well as external knowledge bases (e.g. suppliers) (Chang et al., 2013; Lewin, Massini, & Peeters, 2011). To our knowledge, however, the relationship between Electronic HRM (e-HRM), referring to the conscious and direct integration of mechanisms and content shared between HRM strategies, policies, practices, and IT channels (Bondarouk & Ruël, 2009; Bondarouk, Harms, & Lepak, 2017; Ceric, 2017; Ruël Bondarouk, & Looise, 2004) and AC has not been investigated. This is surprising, because e-HRM is considered by many organizations to be a logical response to the increasing speed and nature of knowledge assimilation and exchange in the workplace (Tansley, Kirk, Williams, & Barton, 2014).

Given this gap, in the present research we investigate e-HRM as an antecedent of AC. E-HRM has shown to have a positive impact on a variety of outcomes, such as streamlined processes and administrative work (Bondarouk et al., 2017). Further, transformational e-HRM, referring to the use of e-HRM to achieve strategic outcomes related to organizational change, knowledge management, innovation, or data-driven decision making, is expected to increase knowledge sharing via the development of connectedness among departments (Tansley et al., 2014). Indeed, Interdepartmental Connectedness (IC), defined as the degree of contact between organizational departments (Kohli & Jaworski, 1990), has been shown to be important for achieving Realized AC at an organizational level (Szulanski, 1996; Jaworski & Kohli, 1993; Rowley, Behrens, & Krackhardt, 2000). IC describes the degree to which employees can and do pool information and knowledge together, and are eventually able to improve their organization's knowledge stock (Chang et al., 2013). When high, IC can facilitate knowledge exchange and coordination through various processes and practices (Jaworski & Kohli, 1993; Rowley et al., 2000).

In the present research, IC is investigated as a mediator in the relationship between e-HRM and AC, as e-HRM systems are expected to contribute to better contact between employees in different organizational departments, which in turn should facilitate the ability to access, retrieve, and utilize knowledge residing in employees (Tansley et al., 2014). This idea parallels Cohen and Levinthal (1990),

who initially highlighted the structure of communication between departments as an important aspect in the development of AC. Jansen and colleagues (2005) further explored this relationship, and found connectedness between departments to account for three times the variance as cross functional interfaces, participation in decision making, and job rotation. This relationship among AC, e-HRM, and IC, is therefore important to fully understand, as a lack of communication and connectedness between units indicates a need to improve knowledge utilization within an organization (Szulanski, 1996).

Additionally, it is important to point out that although employee use of e-HRM is likely facilitated by employees' and departments' abilities to connect with one another, it is unlikely that Potential AC or Realized AC will occur without a supportive organizational context. For an e-HRM system to work, factors like distinctiveness, consistency, and organizational consensus should be present (Bondarouk et al., 2017; Bowen & Ostroff, 2004). Therefore, psychological safety becomes relevant.

Psychological safety was originally defined as "a shared belief held by members of a team that the team is safe for interpersonal risk taking" (Edmondson, 1999 p.350), and has shown to be important for employee knowledge sharing, making it relevant for innovative pursuits, and likely the relationship between e-HRM and AC. The presence of e-HRM does not guarantee that all individuals from all departments will share knowledge, nor does IC ensure that the correct (i.e. useful) information will be shared, and subsequently lead to Potential AC and/or Realized AC (Uzzi, 1996). For this to occur, it is likely that employees need to feel a certain amount of psychological safety. We therefore hypothesize psychological safety to further enhance the relationships between AC, e-HRM, and IC.

By exploring these relationships, we aim to fill several gaps in this area of research, which has focused perhaps too heavily on organizational performance outcomes of AC (Lane, Koka, & Pathak, 2002), and neglected to fully explain how these outcomes are reached. That being said, researchers have shown that individual employees and departments, in order to share their knowledge and for said knowledge to become organizational knowledge, must be enabled and supported by structural features, such as Research and Development (R&D) (Cohen & Levinthal, 1990) and HRM (Chang et al., 2013). These structural systems tend to emphasize knowledge sharing via communication and coordination (Lane et al., 2002; Jansen

et al., 2005), but the exact quality and mode of these processes remains somewhat unclear. The quality of these structural features is critical, as an organization builds on these over time in order to develop and push new products, and effectively improve their bottom line (Cohen & Levinthal, 1990; Lane et al., 2002). Therefore, we aim to contribute by providing more research on e-HRM as an antecedent structural feature to AC, and the organizational characteristics that influence and permit this relationship (Tansley et al., 2014).

The intended contributions of this research are as follows. By linking e-HRM to the separate types of AC we will emphasize the value in different types of communication and social processes in sharing knowledge and applying concepts in new ways, while additionally recognizing a modern and relevant addition to basic organizational operations. Further, by recognizing the constructs, IC and psychological safety, we aim to establish the importance of additional variables that, when present, enhance the outcomes of e-HRM to fulfil its potential. We therefore ask: how does e-HRM impact an organization's Absorptive Capacity, and how do Interdepartmental Connectedness and psychological safety explain and influence this relationship?

Theory and Hypotheses

Absorptive Capacity

The concept of AC was introduced by Cohen and Levinthal (1990) and is considered an organization's ability to exploit new external knowledge (i.e. from customers, competitors, etc.). AC allows a firm to understand, predict, and exploit new advances in a particular knowledge domain, and a greater need for AC comes with increased competitiveness of a firm's industry (Cohen & Levinthal, 1994; Lane et al., 2006). The payoff of AC consequently depends on the realization of the technological and commercial promise of a particular area (Cohen & Levinthal, 1994).

Early descriptions considered AC to be a product of an organization's prior R&D efforts and domain-related knowledge, which enabled an organization's capacity to use external knowledge for innovative efforts. Through R&D activities, an organization develops a specific knowledge stock and relates it to their products and market. At the most basic level, this knowledge stock includes fundamental

skills or shared language, but may become more complex in areas such as scientific or technological developments. Over time, the firm develops processes, policies, and procedures that facilitate sharing that knowledge internally. The firm also becomes skilled at using that knowledge to forecast technological trends, create products, satisfy new markets, and maneuver strategically (Cohen & Levinthal, 1990).

However, the focus on R&D has more recently been considered a limiting assumption of AC, in that it made the construct too narrow, causing neglect of other types of knowledge acquisition (Lane et al., 2006). Viewing AC solely as a knowledge base may overemphasize tangible outcomes (e.g. new products, bottom line profit), as opposed to less concrete but nonetheless critical outcomes (e.g. process outcomes), and somewhat equate AC to prior knowledge. Additionally, this focuses too heavily on technical knowledge, undervaluing the importance of market knowledge (Lichtenthaler, 2009). Lane and colleagues (2002) clarified that AC can not only facilitate the ability to imitate other organizations' products or processes, but also the ability to exploit less commercially-focused knowledge, such as basic scientific research. Therefore, researchers have attempted to describe the construct as more of a dynamic capability (Lane et al., 2006; Szulanski, 1996; Zahra & George, 2002). These researchers have expanded the AC construct from one that perhaps over-emphasized R&D, to one that includes organization-specific antecedents (e.g. job rotation, socialization tactics, participative management, and other HRM practices) that enhance AC (Chang et al., 2013; Jansen et al., 2005; Zahra & George, 2002).

Although it is important to integrate Cohen and Levinthal's (1990) original concepts, such as R&D, to avoid neglect of already established theory (Todorova & Durisin, 2007), revised perspectives focus on structure, policies, and processes within an organization that impact knowledge transfer, sharing, integration, and creation (Lane et al., 2006). Lane and Lubatkin (1998), for example, were able to show that factors such as compensation policies, dominant logic, knowledge sharing routines, motivation, and competencies explain more variance than R&D expenses. Lewin and colleagues (2011) additionally emphasized the need to direct attention to the importance of balancing internal knowledge creating processes with the identification, acquisition, and assimilation of new knowledge originating in the external environment.

Potential AC and Realized AC. Zahra and George (2002) offered a particularly important shift in AC literature, as they differentiated between Potential AC and Realized AC. This shift enabled researchers to better explain the fundamental claim that firms need to recognize new external knowledge, assimilate it, and apply it to commercial ends (Zahra & George, 2002; Cohen & Levinthal, 1990; Lane, Salk & Lyles, 2001). Potential AC refers to a firm's ability to acquire—identify and obtain—and assimilate—analyze, process, interpret, and understand—knowledge, and Realized AC refers to a firm's ability to transform and exploit external knowledge that has been absorbed (Zahra & George, 2002).

The notion of two types of AC suggests that firms fail often not because they do not have capable employees who can acquire or assimilate new knowledge, but because they are not able to combine new knowledge with existing knowledge and utilize it. Researchers have further supported this claim by showing that Realized AC requires a different set of organizational antecedents than Potential AC (Jansen et al., 2005). Potential AC is made possible by networks (e.g. partners and subsidiaries), socialization (Jansen et al., 2005) and tacit knowledge, and identifies the valuable knowledge and opportunities that are necessary to establish a high level of Realized AC (Chang et al., 2013). Conversely, Realized AC, precipitated by coordination (Jansen et al., 2005) and specific organizational operations (Zahra & George, 2002) then enables a firm to focus on and become more responsive to knowledge in the context of a product, service, or internal innovation. Realized AC goes beyond assimilating external knowledge and into matching knowledge to markets (Lewin et al., 2011; Lichtenthaler, 2009; Lane et al., 2006). This enables a firm to become more responsive to external knowledge and information that have been first identified and assimilated, and the effectiveness of this process depends on organizational antecedents as well as external variables (Chang et al., 2013; Jansen et al., 2005; Zahra & George, 2002).

Firms focused on acquisition and assimilation of new external knowledge (Potential AC) are able to continually renew their knowledge stock, but may suffer from the costs of acquisition without gaining benefits from exploitation. Conversely, firms focusing on integration and exploitation (Realized AC) may achieve short term profits but fall into a competence trap, and may not be able to respond to and initiate more stable environmental changes (Zahra & George, 2002). This illustrates that a balance is needed in order for these two types of AC to

complement and reinforce one another, as organizations and research may be focusing too heavily on external learning and AC.

From their introduction of the concept of AC, Cohen and Levinthal (1990) have emphasized that AC refers not only to the acquisition of external knowledge, but also the organization's ability to exploit it. However, much research has focused on interorganizational learning and external technology, and some caution that this focus, if too heavy, can hurt an organization's AC (Lei & Hitt, 1995). Similarly, Van de Ven and Polley (1992) point out that interorganizational conflict and guile may inhibit learning and AC. While knowledge from external sources and organizations is important, the organization's adopting a strategy appropriate for its home market matters more, and the competence in training and development matters most (Lane et al., 2001).

Process perspectives. A critical feature of AC is its cumulativeness, which means that the way a firm learns is typically built on what it has learned before, and building AC will enable more efficient knowledge accumulation in the future. In other words, having already developed expertise in an area, a firm knows more precisely what additional information it will require to be able to exploit new advances or related knowledge effectively in the future, as well as better where and how to find that information (Cohen & Levinthal, 1994). Process-based perspectives of AC illustrate this accumulation by emphasizing a firm's ability to utilize external knowledge through the sequential process of exploratory, transformative, and exploitative learning (Lane et al., 2002). An organization can enable this learning and development through HRM processes, such as sending employees for training, encouraging employees to monitor and read the technical literature in their fields, as well as networking (Cohen & Levinthal, 1994). Moreover, internal AC metaroutines—representing conceptual foundations that give rise to observable and executable AC practiced routines within organizations (Tsai, 2001)—can regulate the activities related to managing these internal processes (Lewin et al., 2011). These include bundles of routines that encompass the ability of companies to initiate change from within as well as identify and assimilate ideas from the external environment. They often include contextual, organization-specific routines for facilitating variation and enabling the emergence of new ideas, selecting ideas for further development, sharing and combining

knowledge, and routines for reflecting on, updating, and replacing old practices (Lewin et al., 2011).

Zahra and George (2002) argued that effective internal knowledge sharing—such as that enabled by metaroutines and processes—and integration are critical aspects of AC. Inside an organization, learning involves the transfer of knowledge among different organizational units, as some units may be removed from the original point of knowledge entry, thus relying on lateral groups of employees to share (Tsai, 2001; Cohen & Levinthal, 1990). Not every unit can learn from all other units in the same organization, because within firms, the transfer of knowledge between divisions is often not easy and cannot be automatically assumed (Tsai, 2001; Chang et al., 2013) Even though the knowledge is available, the unit may not have the capacity to absorb and apply it for its own use (Tsai, 2001). Moreover, new knowledge is often tacit, and difficult to be codified, transferred, and exploited within a firm (Chang et al., 2013). However, the introduction and increased utilization of e-HRM has made this codification, transfer, and exploitation significantly easier (Tansley et al., 2014).

E-HRM

The introduction and development of digital tools has a huge potential impact on HRM practices and processes in organizations, in that the increasing use of IT is challenging the traditional ways of delivering HRM (Bondarouk & Ruël, 2009; Heikkilä, Rentto, & Feng, 2017). Many previously labor-reliant HRM activities—from recruitment and selection to training, compensation and benefits, performance management, and planning—can now be automated and delivered through online mechanisms with a technology-intensive approach (Ceric, 2017; Parry & Tyson, 2011; Heikkilä et al., 2017). In this context, e-HRM refers to the conscious and direct integration of mechanisms and content shared between HRM strategies, policies, practices, and IT channels (Bondarouk & Ruël, 2009; Bondarouk, Harms, & Lepak, 2017; Ceric, 2017; Ruël et al., 2004). Organizations can now choose from a range of e-HRM technologies, from integrated HRM networks/platforms and firm-resource planning software to employing self-service applications, portals, and HRM functional mobile applications, among others (Ceric, 2017).

E-HRM appeals to organizations, as most are experiencing increasing pressure to achieve greater efficiency and effectiveness in HRM. E-HRM used for these purposes has shown to reduce costs, improve efficiency, provide flexible services, and increase employee participation (Bondarouk & Ruël, 2009; Maier, Laumer, Eckhart & Weitzel, 2013; Strohmeier, 2007). When considering these outcomes, however, it is important to acknowledge different types of e-HRM, because they facilitate different results.

There are generally three reasons why organizations use e-HRM, and these reasons align with three categories which comprise e-HRM: namely, operational, relational, and transformational (Lepak & Snell, 1998). The first and most basic reason is using e-HRM operationally, to deliver information to employees (Lengnick-Hall & Moritz, 2003; Lepak & Snell, 1998; Parry & Tyson, 2011; Ruël et al., 2004). This reason aligns with operational e-HRM, which, when successful, streamlines operations by automating administrative tasks, thereby reducing costs and increasing efficiency (Lepak & Snell, 1998). Examples of operational e-HRM include automatic payment systems, automatic registration, and digital filing (Ruël et al., 2004). The second reason relates to automation of transactions and integration of workflow via internal relationships between employees (Lengnick-Hall & Moritz, 2003; Gardner, Lepak, & Bartol, 2003; Lepak & Snell, 1998; Parry & Tyson, 2011). This reason aligns with relational e-HRM, which, when successful, provides employees of all levels with access to HR data and subsequently improves the timeliness and quality of work. Examples of relational e-HRM include digital recruiting and selection tools, as well as online training and onboarding (Ruël et al., 2004).

Operational-and-relational e-HRM both primarily enable automation and timeliness, but not necessarily strategic and competitive change (Lepak & Snell, 1998). These types of e-HRM reflect the tendency for e-HRM to be implemented with the motivation of standardization, reduced costs, transactional tasks, and record keeping due to automating administrative and routine HRM tasks (Heikkilä et al., 2017; Parry & Tyson, 2011; Strohmeier, 2007; Tansley, Huang, & Foster, 2013), rather than the transformation of HRM functions towards more strategic outcomes (Dery, Hall, Wailes, & Wilben, 2013). These operational motivations are useful, but neglect the strategic potential and innovative outcomes (Tansley et al., 2014) that are often not acknowledged or realized (Parry & Tyson, 2011). However,

with operational-and-relational e-HRM in place, employees may be better able to benefit from the third reason and type of e-HRM.

The third reason to use e-HRM involves the transformation of HRM processes to become more strategic (Ceric, 2017), and is the least commonly achieved. This reason aligns with transformational e-HRM, which, when successful, enables communication across offices, making time and geographic differences non-issues (Lepak & Snell, 1998). Examples of transformational e-HRM include strategic competence management and processes related to strategic goal accomplishment (Ruël et al., 2004). In this case, employees are able to focus less on routine administrative functions and more on filling strategic business-partnering roles (Bondarouk & Ruël, 2009), related to organizational change, knowledge management, innovation or data-driven decision making (Bondarouk at al., 2017; Tansley et al., 2014).

E-HRM and AC. To be more efficient in learning and applying new concepts, a balance should be achieved between optimising the efficiency of e-HRM with its strategic potential. With the outcomes respective to operational e-HRM, relational e-HRM, and transformational e-HRM in mind, a link to AC begins to emerge. Tansley and colleagues (2014) emphasized the need for a balance and interplay of streamlining, automation, and increased employee access to information (i.e. operational-and-relational e-HRM), with more strategic efforts (i.e. transformational e-HRM). We therefore propose operational e-HRM, relational e-HRM, and transformational e-HRM to be related to Potential AC, and transformational e-HRM to be related to Realized AC.

The three types of e-HRM and Potential AC. As Potential AC is concerned with a firm's ability to recognize, value, assimilate, and acquire new and useful information (Zahra & George, 2002), it is likely that all types of e-HRM would be beneficial from different approaches. Operational e-HRM helps in perhaps the most basic form, by providing more information to employees in a timely manner (Lepak & Snell, 1998). Because time is fundamental to obtaining the right information at the right moment (i.e. knowledge to match a firm's environmental demands) (Cohen & Levinthal, 1990), automated processes and sharing of information is a basic method to reach employees and provide more opportunity to capitalize on this information (Lepak & Snell, 1998).

Relational e-HRM begins to reflect the social processes that researchers highlight as critical to Potential AC (e.g. Jansen et al., 2005; Cohen & Levinthal, 1990). Structures of communication, both inter-and-intraorganizational, have shown to increase Potential AC (Cohen & Levinthal, 1990), and these structures are more and more digital (Ruël et al., 2004). Relational e-HRM facilitates interpersonal processes, such as training and recruitment (Ruël et al., 2004), and therefore likely has an impact on coordination, networking (Jansen et al., 2005), and subsequently the renewal and development of organizational knowledge stock (Zahra & George, 2002). By aligning this information, we theorize that the greater the availability of relational e-HRM tools, the more likely employees and external actors are to communicate, share, and develop ideas together, simultaneously contributing to a living knowledge base that continually incorporates new results of interpersonal sharing and teamwork.

Transformational e-HRM likely relates to Potential AC at a strategic level, enabling the identification of valuable and potentially tacit knowledge and opportunities (Jansen et al., 2005; Chang et al., 2013). Here, strategic knowledge management is a product of transformational e-HRM (Ruël et al., 2004) which relates to Potential AC (Jansen et al., 2005). Transformational e-HRM, in this sense, can involve the implementation of tools which facilitate a continually changing workforce which supports and encourages employees to develop with their organization's strategic goals (Ruël et al., 2004), further underlining the renewal of knowledge stock via employee empowerment and alignment (Zahra & George, 2002). The strategic intent that is fundamental to transformational e-HRM inevitably ties it to both Potential AC and Realized AC, underlining that transformational e-HRM likely has to help in establishing the building blocks (i.e. Potential AC) to then establish Realized AC (Chang et al., 2013).

Transformational e-HRM and Realized AC. Transformational e-HRM has shown to help facilitate greater integration of HRM practices between departments, and to overcome barriers caused by an international environment (Parry & Tyson, 2011; Smale & Heikkilä, 2009) due to more external and internal transparency and increased efficiency (Heikkilä et al., 2017). Transformational e-HRM has the potential to improve HRM service quality—which is considered HRM as experienced by internal customers (i.e. managers and employees)—due to simplification of processes, accumulation of accurate data, and enhancing

perceptions of HRM services (Bondarouk et al., 2017). These benefits occur because transformational e-HRM enables HR departments to store and analyze data to increase workforce information flows, to streamline many routine administrative and compliance functions traditionally performed by corporate HR departments, and to enable the planning, implementation, and application of information systems for both networking and supporting practitioners in their shared performance of HR activities (Strohmeier, 2007).

Ideally and in theory, these benefits produced by transformational e-HRM enable employees to have more time to engage in strategic tasks, due to the automation of administrative tasks (Heikillä et al., 2017). The implementation of transformational e-HRM can provoke a shift to more innovative activities that add value to the organization, such as organizational development, performance management, and learning (Thite, Kavanagh, & Johnson, 2009; Parry & Tyson, 2011). The efficiency, service delivery, and standardization goals that are realized by all types of e-HRM by a more streamlined and transformational manner enable staff to gain more time and information to support the organization in achieving its business strategy goals with transformational e-HRM (Parry & Tyson, 2011). This strategic potential varies between organizations, as some firms with e-HRM have shown to have better data and information to facilitate administrative and strategic goals than others (Burbach & Dundon, 2005; Parry & Tyson, 2011). If highly effective, transformational e-HRM outcomes can be achieved, in which HRM functions are able to address the strategic objectives of the organization (Ruël et al., 2004; Parry & Tyson, 2011; Ceric, 2017), leading to Realized AC.

For transformational e-HRM's strategic role to manifest, there needs to be an organizational need that is understood from the beginning, and which incorporates the collection and analysis of strategically valuable data (e.g. external or individual employee knowledge) in order to forecast market and environmental changes, suggesting a link to Realized AC. This link revolves around the capability of an organization's system to generate data, which depends on prior knowledge of what data is required, as well as the skills and knowledge of how to analyze that data meaningfully (Parry & Tyson, 2011). Both transformational e-HRM and Realized AC are therefore concerned with continual refinement and transformation of knowledge stock (Chang et al., 2013; Zahra & George, 2002), and we propose this link to begin with transformational e-HRM. Transformational and innovative

use of e-HRM may result in HR being more strategic by taking new roles, identities, and functions (Barrett & Oborn, 2013; Hempel, 2004; Heikkilä et al., 2017).

These associated activities and outcomes of transformational e-HRM often involve explorative pursuits. Exploration in e-HRM systems is future-oriented and experimental with the aim of discovering new and novel ways of doing things. This requires the identification and development of organizational processes, products, and services offering performance features and new strategies and policies (Tansley et al., 2014). In regard to the quality of these processes, important antecedents are HRM strength, e-HRM strength, and e-HRM use (Bondarouk et al., 2017). The ultimate result of gaining strategic potential will depend on the success of localizing the transformational e-HRM system (Heikkilä et al., 2017). Therefore, we posit that:

Hypothesis 1a: The degree to which e-HRM is used for operational, relational and transformational purposes in the organization will be positively related to Potential AC.

Hypothesis 1b: The degree to which e-HRM is used for transformational purposes in the organization will be positively related to Realized AC.

Interdepartmental Connectedness as Mediator

To gain a better understanding of how e-HRM relates to AC, the social network structures within the organization becomes relevant. We thus turn our attention in this section to Interdepartmental Connectedness (IC), first highlighting the expected relationship between IC and AC. We define IC as the degree to which there is effective contact and coordination, both formal and informal, among employees from different departments in an organization (Kohli & Jaworski, 1990; Narver & Slater, 1990; Ghoshal, Korine, & Szulanski, 1994; Tsai, 2001). IC, as it relates to the connection between employees in different departments, could potentially contribute to creating stronger ties between people in the organization with diverse knowledge. Further, having a connection between departments expands employees' internal and external network, thus enabling employees to reach a bigger and more diverse group of actors with potentially new and useful

information, knowledge, insight, and perspectives to be shared. This aligns well with the ideas that Potential AC relies on coordination and socialization (Jansen et al., 2005), and Realized AC relies on structures of organizational communication (Cohen & Levinthal, 1990), both of which are expected to be more likely with high levels of IC.

IC is a broad concept, and may manifest in a variety of ways. Within a network, employees have been described as having two different types of ties, arms-length and embedded. Whereas arms-length ties are more transactional and impersonal, embedded ties are more close, personal and reciprocal. Embedded ties are beneficial in the way that they are based on trust, facilitate information transfer, and joint problem solving (Uzzi, 1996). The information being shared in embedded ties, as opposed to arm's length ties, is more relevant to concepts such as AC, and Potential AC in particular (Scott & Davis, 2003; Fosfuri & Tribó, 2006). In other words, the more an employee is in contact with other employees from less-related departments, the more learning they are thought to accumulate, thus relating to more Potential AC and subsequent Realized AC (Fosfuri & Tribó, 2006).

Moreover, when a new employee joins an organization, they bring resources from prior interactions and experiences, and may also participate in more than one organization (e.g. with part-time work or side-gigs). These interactions, experiences, and external connections influence and constrain the employee's behavior, further highlighting the importance of considering their social network (Scott & Davis, 2003). Social capital, which is a central term within network theory, refers to an individual's network structure, the actors involved within said structure, and the interconnections among these actors. Social networks that consist of many diverse but interconnected individuals are considered to provide the most competitive advantages (Raider & Burt, 1996). Presumably, one of the largest benefits to gain from a diverse network structure is access to novel and valuable information. However, to create a network which provides these benefits, one needs to interact with non-redundant contacts, which work as bridges to new network clusters. If new contacts provide links to existing parts of the network (e.g. within one's own department), they are considered redundant, as they will not provide any new knowledge to the actor or their organization (Burt, 1992).

The value of diverse social networks is illustrated in the research linking IC to knowledge sharing and subsequent utilization of this knowledge (Jaworski &

Kohli, 1993). Activities associated with IC, such as the use of direct formal and informal ties to discuss and solve problems, can contribute to meeting market demands quicker (Menon, Jaworski & Kohli, 1997). For example, Jansen et al. (2005) found IC to have a positive impact on organizational innovation, and although both formal and informal connections showed positive effects, informal showed to be more influential. Unlike formal ties, within the organization, informal patterns emerge spontaneously, and manifest in what are referred to as “cliques” which result from personal relationships. These cliques can potentially contribute to an expansion of available resources (i.e. due to increased access to knowledge sharing via informal networks), and subsequently contribute to meet the organization's innovative objectives (Selznick, 1948) by increasing IC. Therefore, we assume that organizations should encourage the development of both formal and informal connections to facilitate various forms of knowledge sharing among members of different departments to enhance Potential AC and Realized AC.

Having access to a large variety of knowledge and information through networks has shown to be important for organizational performance and innovation (Rodan & Galunic, 2004; Fosfuri & Tribó, 2006). IC is suggested to be especially important in unstable markets in order to gain competitive advantage, and can be encouraged in a variety of ways (Menon et al., 1997). Rodan and Galunic (2004) suggested that organizational management should encourage their employees to gain access to specific unfamiliar areas of competence. For example, job rotation, which allows people to build new ties with different knowledge than their own, can foster both strategic and informal learning. An alternative approach to gain more knowledge is through web-based technologies.

Organizations can be seen as formal cooperative systems, in which each employee has a specific function and is assigned to one segment of the organization. However, in reality employees tend to move beyond their assigned roles and segments, spilling over into other parts of the organization (Selznick, 1948). This difference between outlined function and actual multifaceted function(s) underlines an issue in that different interdependent processes emerge due to specialization and division of labor, hindering interdepartmental alignment (Ruekert & Walker, 1987). Achieving IC therefore depends on the alignment of the functional areas and incentives and the creation in interfunctional dependencies so that each area perceives its own advantages in cooperating closely. Moreover, the departments

involved must be sensitive and responsive to the perceptions and needs of other departments (Narver & Slater, 1990). E-HRM practices have shown to have the potential to facilitate these processes (Tansley et al., 2014).

E-HRM as an Antecedent to IC. When examining the localization of an e-HRM system within organizations, IC is a logical consideration. E-HRM has shown potential to provide new forms of data and information visibility within organizations, enabling employees to play a more proactive role when engaging with different units and for HR to strategically promote effective employee behaviors with performance management in new ways. A strong e-HRM system is designed and administered to send signals to employees that enable them to create a shared meaning of the desired and appropriate work behaviors and responses, as well as to form a sense of what is expected from them (Bondarouk et al., 2017). These outcomes are expected to have a mediating influence on the relationships between e-HRM and AC.

By integrating the use of intangible resources (e.g. individual tacit knowledge) from various organizational actors via networks, interactions, and relationships (Vargo & Lusch, 2008), e-HRM can facilitate more employee involvement, which is important for learning and innovation (Barret & Oborn, 2013). However, it is essential that managers and employees are fully engaged with these e-HRM practices for the previously mentioned outcomes to occur. The degree of engagement with these tools can explain gaps between the broad goals associated with the implementation of e-HRM and the eventual outcomes of e-HRM (Parry & Tyson, 2011). This effect of IC is expected to have a mediating influence on the relationships between e-HRM and AC.

E-HRM, IC, and Potential AC. The research mentioned up to this point has largely illustrated that, in order for both Potential AC and Realized AC to yield their optimal results, organization-wide knowledge sharing and collaboration must occur (Lane et al., 2002; Jansen et al., 2005). When considering Potential AC, we propose IC to be necessary for the ability to identify, process, and interpret knowledge (Zahra & George, 2002) due to the interpersonal nature of Potential AC (Jansen et al., 2005). E-HRM may be considered an ideal mechanism to be utilized before IC occurs, as operational-, relational-, and-transformational e-HRM can be installed provide relatively streamlined, operationalized tools throughout an organization's HRM infrastructure (Lepak & Snell, 1998; Écuyer, 2017). By making e-HRM

functions available throughout an entire organization, the process of developing IC may be made much simpler (i.e. as opposed to traditional forms of communication, involving physically knocking on a foreign manager's office door) (Écuyer, 2017). Further, as virtually all organizations use some form of digital technology today, e-HRM may be considered an important antecedent to IC.

Transformational e-HRM, IC, and Realized AC. When considering Realized AC, we propose IC to be necessary for the ability to transform and exploit absorbed knowledge, due to the need for aligned employee behaviors with strategic goals (Zahra & George, 2002). Transformational e-HRM, used strategically, may help facilitate IC due to increased employee participation and reduced silos (Bondarouk & Ruël, 2009), supporting global and virtual teams (Parry & Tyson, 2011) and reducing the rigidity of workplace roles (Barrett & Oborn, 2013). In other words, transformational e-HRM can function as a form of structure by facilitating a code of conduct regarding how the system is used and more specifically, how to utilize absorbed knowledge as a team, department, or cross-team, and thus how processes are carried out (i.e. Realized AC as an outcome) (Heikkilä et al., 2017). These strategic outcomes refer to the social impacts of transformational e-HRM, which provide employees with previously remote access to HRM information, thus increasing their ability to connect with other departments (Parry & Tyson, 2011; Thite et al., 2009). Therefore, by centralizing HRM functions, we expect that IC can occur strategically in order to foster Realized AC (Barrett & Oborn, 2013) Therefore, we posit that:

Hypothesis 2a: IC will mediate the positive relationships predicted between e-HRM used for operational, relational, and transformational purposes and Potential AC.

Hypothesis 2b: IC will mediate the positive relationship predicted between e-HRM used for transformational purposes and Realized AC.

Psychological Safety as Moderator

It is likely that e-HRM functions as an antecedent for AC more so when employees feel comfortable with each other and willing to use these new tools (Parry & Tyson, 2011). Therefore, the concept of psychological safety becomes

relevant. Psychological safety is particularly important in today's knowledge-based economy (Edmondson, 2012), as modern work requires employees to collaborate across positions and departments, and thus with people holding different knowledge (Edmondson & Lei, 2014). We define psychological safety as a shared feeling that one is safe and able to take interpersonal risks and show oneself without fear of negative repercussions from peers, diminished status, or reduced career outlook (Edmondson, 1999; Kahn, 1990).

Psychological safety is related to and enabled by constructs such as trust, mutual respect, and caring (Edmondson, 1999). However, it is important to differentiate psychological safety from these related constructs, such as cohesiveness, for example, because psychological safety does not refer to a stress-free context in which employees are necessarily friends, nor does it imply an absence of pressures, disagreements, or challenges (Janis, 1982). On the contrary, psychological safety describes a climate in which the focus can be on productive and open communication (Gibson & Gibs, 2006), and willingness to disagree with and challenge others' views (Janis, 1982; Gibson & Gibs, 2006), which can enable early prevention of problems and the accomplishment of shared goals, because people are more likely to focus on productive work than on self-protection (Edmondson & Mogelof, 2006).

Psychological safety is influenced by factors at multiple levels of analysis (Edmondson & Mogelof, 2006) At the individual-level, researchers investigate the relationship between perceptions of psychological safety and personality differences (Edmondson & Modelof, 2006), as well as individual outcomes, such as engagement and commitment (Edmondson & Lei, 2014). At the group level, research is focused on psychological safety as having a unique moderating function for outcomes such as innovation and learning (Edmondson & Lei, 2014; Gibson & Gibs, 2006), as well as team member interactions (Edmondson & Mogelof, 2006). For example, the ability of psychological safety to further enable creativity and learning-oriented conversations in innovation-focused collaborations has been highlighted (Edmondson, 2002; West, 1990; Edmondson & Lei, 2014). For the purposes of this research, we focus on psychological safety as a proposed moderator at the organizational level.

Psychological safety, e-HRM, IC, and Potential AC. It has been found that teams within an organization differ in psychological safety, and these differences

subsequently impact the organization's ability to learn (Edmondson, 2002), thus impacting Potential AC processes. Therefore, at the organizational-level, research revolves around the relationship between psychological safety and organizational culture and structure (Edmondson & Lei, 2014; Edmondson & Mogelof, 2006), such as operational-, relational-, and transformational e-HRM. These structural features help facilitate a context that ensures the availability of information, resources, and rewards (Edmondson, 1999), and are likely enhanced by climate features. When successful, these structures tend to be accompanied by consistently high levels of psychological safety (Edmondson & Lei, 2014), indicating a moderating influence. For example, Bunderson and Boumgarden (2010) found that the more structure (i.e. level of specialization) the more positive of an impact psychological safety had on knowledge sharing.

Moreover, psychological safety can bridge gaps and silos (e.g. between employees from different units with different expertise) by encouraging suspending judgment, remaining open to other ideas and perspectives, and engaging in active listening. This psychologically safe communication climate facilitates innovation because it promotes speaking up, voicing concerns, engaging in spontaneous and informal communication (Edmondson, 1999). When e-HRM tools are already present and filling these gaps and silos, psychological safety is expected to enhance these effects. For example, Edmondson (1999) found psychological safety to help in effective learning by mitigating interpersonal risks and encouraging members to admit mistakes, question current practices, ask for help, and solicit feedback.

Additionally, when psychological safety is high in an organization's communication climate, employees are more likely to provide unsolicited information organically to colleagues to improve their relationships and show attachment, thereby strengthening team dynamics, building shared history, and contributing to work flow. Collective learning and is driven by these interpersonal dialogues, perceptions and concerns, and a lack of psychological safety can inhibit experimenting, admitting mistakes, or questioning the status quo (Edmondson, 1999); these aspects are particularly important when considering IC. When IC is high, members from different departments communicate frequently and openly, and these processes are likely enhanced by psychological safety, enabling tough conversations and productive debate (Edmondson, 1999; Janis, 1982). In other words, it is likely that psychological safety enhances the expected effects of e-

HRM, IC, and Potential AC due to its associated outcomes of structural effectiveness, organic communication, and collective learning.

Psychological safety, transformational e-HRM, IC, and Realized AC. A psychologically safe communication climate has been identified as particularly important in organizations with structurally complex collaborations because it helps create trust (Jarvenpaa & Leidner, 1999; Gibson & Cohen, 2003) and reduce perceptions of risk (Handy, 1995; Dutton, 1999). Similarly, we propose psychological safety to moderate the structural feature, transformational e-HRM, by creating trust in a virtual or digitally-reliant environment. Trust has shown to be more difficult to develop in a digital context, but if implemented well, e-HRM can actually increase trust among employees, and psychological safety is proposed to further improve this when transformational e-HRM is used. It is likely that e-HRM users will feel more willing to rely on their colleagues and engage more so with these tools when the online environment is perceived as psychologically safe (Bissola & Imperator, 2013). Additionally, psychological safety is expected to moderate IC and Realized AC by enhancing the effectiveness of digital communication, improving dialogue associated with IC, and strengthening an organization's tendency to capitalize on absorbed knowledge.

The strength of this proposed moderating influence will depend on organizational context. Several of the researchers within the relevant fields acknowledge that organizational variables, such as values, norms and other social mechanisms have an impact on Realized AC and IC (Zahra & George, 2002; Jansen et al., 2005). With that being said, IC within organization does not necessarily have a direct impact on or ensure AC, because connectedness does not necessarily involve productive debate or conversation (Tsai, 2001). We therefore propose that the degree of psychological safety will impact the type of ties between employees (e.g. arm's or embedded), the depth of said ties, and ultimately, Realized AC due to further enabling risk taking and trying new things with existing knowledge. Therefore, we posit that:

Hypothesis 3a: Psychological safety will have a positive moderating effect on the relationship between e-HRM used for operational, relational, and transformational purposes, IC, and Potential AC, such that the positive mediated relationships are stronger when psychological safety is high.

Hypothesis 3b: Psychological safety will have a positive moderating effect on the relationship between e-HRM used for transformational purposes, IC, and Realized AC, such that the positive mediated relationship is stronger when psychological safety is high.

Method

Sample and Procedure

We have applied a purposive sampling method, with target respondents being HR professionals working in Norway. Our choice of Norwegian HR professionals was based on our location of study being Oslo and our available network. The reason for contacting HR workers as opposed to other managers is because they are more likely to know what HR practices are being used within their company, and are assumed to have some sort of contact with all departments within their organization (e.g. due to selection processes, payroll, benefits, etc.). Of Norwegian companies, we considered all firms with HR departments to be relevant. We did not have any explicit company-size cutoffs, as other research has justified that somewhat small organizations (e.g. under 100 employees) can still have a formal HR department or manager (e.g. Chang et al., 2013). To identify the potential respondents we conducted an extensive search for public contact information (e-mails) via Google, company websites, and LinkedIn. Additionally, we recruited participants from an executive HR course at BI Norwegian Business School.

In total, 591 HR professionals from 384 organizations were contacted to request their participation in the study between March and April 2019. The respondents who were contacted online were initially asked to participate through an email which gave information about the survey, the protection of their data, the purpose of the study, and about us. To maximize the response rate, we established the importance and relevance of the research, offered communication of the results to participants, and sent two reminders to answer the survey. The respondents who were contacted during their executive course were contacted in class after a short presentation about the survey, the protection of their data, the purpose of the study, and about us. Our goal was to recruit at least 100 participants.

Of the 591 HR professionals contacted, 97 completed the survey, resulting in a response rate of 16.41%. However, there were several duplicate participants who worked at the same company. Two companies had two participants, one company had three participants, and one company had four participants. These organizational employee duplicates were removed randomly before analysis.

Of the HR professionals who participated, 43.33% represented companies with more than 500 employees, 32.22% represented companies with between 100-500 employees, 21.11% represented companies with 50-99 employees, and 3.33% represented companies with less than 50 employees. The most commonly reported positions were HR Manager (27.78%), HR Director (21.11%), and HR advisor (9%), among others related to HR. A total of 54.44% of participants reported that their company did not have divisions outside of Norway.

The HR professionals who responded to the survey provided information for all study variables. In an effort to reduce common method bias, the measures for each variable were not labeled and were separated by page breaks, making it more difficult for respondents to infer the constructs' relations to one another. Moreover, anonymity was ensured, as recommended to reduce biased responses (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003).

Measures

This study used existing scales from previous research. Each of the following scales were chosen based on their appropriateness for the hypothesized model and sample, and small changes were made to some items to differentiate them from items belonging to other measures, or to make them more focused on macro-level information (i.e. as opposed to team-level). Additionally, some of the Likert scales were altered to a five-point scale to make the questionnaire more easily completed on a mobile device. This process resulted in the following measures, all of which are provided in Appendices A-E.

Potential and Realized Absorptive Capacity. We measured Potential AC and Realized AC with 16 items measured on a five-point Likert scale (*strongly disagree to strongly agree)*, which had been adapted from the measure by Jansen et al., (2005). The measure of Potential AC included six items, three measuring acquisition and three measuring assimilation. The measure of Realized AC included 10 items, five measuring transformation and five measuring exploitation. Through

preliminary analyses, we found that the two reverse-scored items from the Potential AC measure (one indicating acquisition, one indicating assimilation) had poor factor loadings. They were therefore removed from the final variable calculations. The resulting two-item measure of acquisition and assimilation had a coefficient alpha indicating scale reliability of .83 and .80, respectively, which is similar to the reliability estimates reported by Jansen et al. (2005) (α = .79 and .76, respectively) (See Appendix A).

For Realized AC, the coefficient alpha, indicating scale reliability for the 5-item measure of transformation, was .80, similar to the reliability estimate reported by Jansen et al. (2005) (α = .72). One of the reversed items included in the measure of exploitation, again relating to Realized AC, was removed in the final variable calculation due to poor factor loadings. The coefficient alpha for the resulting 4-item measure was .77, similar to the reliability estimate reported by Jansen et al. (2005) (α = .71) (See Appendix B).

E-HRM. We adapted a ten-item scale based on the descriptions of the operational, relational, and transformational purposes of e-HRM in Bondarouk, Harms, and Lepak (2017), and Bondarouk, Parry, and Furtmueller (2017). Operational purposes of e-HRM and relational purposes of e-HRM were each reflected by three respective items, and transformational purposes e-HRM were reflected by four items. Participants were asked to indicate their agreement with each item using a five-point Likert scale ranging from *strongly disagree* to *strongly agree.* The coefficient alpha indicating scale reliability for operational e-HRM was .82, for relational was .86, and for transformational was .84. (See Appendix C).

Interdepartmental Connectedness. We measured Interdepartmental Connectedness with Jaworski and Kohli's (1993) seven-item scale using a five-point Likert scale ranging from *strongly disagree* to *strongly agree*. Through preliminary analyses, we found that the two reverse-scored items included in this measure had poor factor loadings. These items were therefore removed from the final variable calculation. The coefficient alpha indicating scale reliability for the remaining 5-item measure was .87, similar to the reliability estimate reported by Jaworski and Kohli (1993) (α =.80) (See Appendix D).

Psychological safety. We measured psychological safety by adapting Edmondson's (1999) seven-item scale. We adapted the measure such that, for each item, we removed the phrase "this team" and replaced it with "this company" to

make them macro-level questions. Additionally, we modified the scale from a seven-point Likert scale ranging from *very inaccurate* to *very accurate,* to a five-point Likert scale ranging from *strongly disagree* to *strongly agree.* The two reverse-scored items included in this scale were removed due to the findings of poor factor loadings in a preliminary analysis. The coefficient alpha indicating scale reliability for the remaining four-item measure was .71, slightly lower than the reliability estimate reported by Edmondson (1999) of .82 (See Appendix E).

Overall, all of our adapted measures had reliability estimates above .7, which is considered to be the acceptable threshold. However, most of our measures have values above .8 which are preferable (Pallant, 2011).

Analytical Approach

A Confirmatory Factor Analysis was conducted using the SPSS extension, AMOS (Hayes, 2013) to confirm the nine-factor structure that included acquisition and assimilation for Potential AC, transformation and exploitation for Realized AC, operational e-HRM, relational e-HRM, transformational e-HRM, Interdepartmental Connectedness, and psychological safety. Based of Comparative Fit Index (CFI) values and Root Mean Square (RMSEA) values, this analysis indicates that our proposed nine-factor structure has a good fit with the data (CFI: ,912; RMSEA: ,058). Standardized factor loadings are presented in Appendix F and G. Further, the nine-factor model provided a better fit then any of the alternative models that were tested. This testing included an eight-factor model in which the two Potential AC factors (acquisition and assimilation) were collapsed into one factor (CFI: ,899; RMSEA: .062), and another eight-factor model in which the two Realized AC factors (transformational and exploitation) were combined (CFI: ,901; RMSEA: .061). We also tested a seven-factor model in which the three different e-HRM factors were combined into a single factor (CFI: ,851; RMSEA: .075).

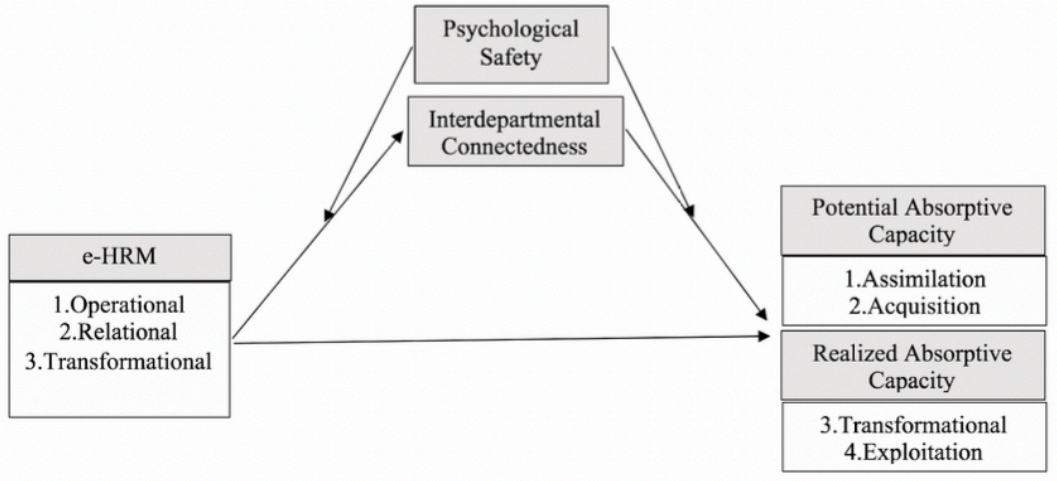
Based on these results, we can infer that the nine-factor structure is strongest by examining the CFI values RMSEA values. The CFI is a commonly used indicator of a good model fit; Hair, Sarstedt, Hopkins, and Kuppelwieser (2014) reported that values above .90, in most cases, indicate a good model fit. In contrast, although there are conflicting opinions of what the cut-off value should be, the lower the RMSEA value is, the better fit the model is considered to have. The cutoff value is disputed partially due to the fact that the RMSEA value is influenced by

other values, such as sample size. For smaller samples, an RMSEA of .07 to .08 is considered acceptable (Hair et al., 2014; Sharma, Mukherjee, Kumar & Dillon, 2005; Chen, Curran, Bollen, Kirkby & Paxton, 2008). The nine-factor model tested had the lowest RMSEA value at .058, which is lower than the suggested cutoff at .07.

To test for common method bias, we ran Harman's single factor test (1976). It is suggested that one should be concerned with common method bias if one variable explains the majority of the variance (i.e <50%) (Podsakoff et al., 2003). Our analyses show that the extraction of a single factor explains up to 25% of the variance of the data. We can therefore assume that we do not have common method bias issues. Furthermore, all independent variables were tested for multicollinearity. If the Variance Inflation Factor (VIF) is high, then one should be concerned about multicollinearity. A common cutoff is a value above 10. However, for smaller samples like ours it is suggested that this value should be more strict (Hair et al., 2014). All off our independent values had a VIF far below 10, the highest VIF being 2.616. Therefore, we can assume that multicollinearity is not an issue.

Our hypothesized model is concerned with the relationship between different purposes of using e-HRM and different aspects of Absorptive Capacity, the role Interdepartmental Connectedness plays in mediating these variables, and the moderating role of psychological safety. A tool highly recommended for testing mediation and moderation in parallel is the "PROCESS" extension developed by Hayes (Field 2016, p. 393). For our hypothesized relationships in the proposed model, the PROCESS model templates 1, 4, and 58 from Hayes' collection were used to conduct the analyses (Hayes, 2013). The initial relationships that were tested are illustrated in Figure 1 below.

Figure 1: Hypothesized Model



Results

The descriptive statistics can be found in Appendix H. Hypothesis 1a predicts a positive relationship between e-HRM used for operational, relational, and transformational purposes and Potential AC. Our results do not show support for these relationships (See Appendix I). Hypothesis 1b predicts that e-HRM used for transformational purposes will have a positive relationship with Realized AC. This hypothesis is supported for both Transformation (B = ,158, SE = .074 p <.05) and Exploitation (B = ,230, SE =.077 p <.01, (see table 1).

Hypotheses 2a and 2b both predict mediation and were tested using Hayes' (2013) PROCESS model 4. Hypothesis 2a predicts that IC will mediate the positive relationship predicted between e-HRM used for operational, relational, and transformational purposes and Potential AC. No indirect effects were found for any dimension of e-HRM for Potential AC, and therefore Hypothesis 2a was not supported. Further, Hypothesis 2b predicts that IC will mediate the positive relationship predicted between e-HRM used for transformational purposes and Realized AC. Similarly, the results do not suggest an indirect effect. Hypothesis 2b is therefore not supported by our findings.

Hypotheses 3a and 3b predict a moderated mediation relationships, and were investigated using Hayes' (2013) PROCESS model 58. Hypothesis 3a predicts a positive moderating effect of psychological safety on the indirect relationship between e-HRM used for operational, relational, and transformational purposes, and Potential AC, mediated by IC. Results do not suggest any significant support for this, and Hypothesis 3a is therefore not supported. Lastly, Hypothesis 3b

predicts a positive moderating effect of psychological safety on the mediated relationship between e-HRM used for transformational purposes, and Realized AC, mediated by IC. Similarly, results do not show any significant support for this relationship, and hypothesis 3b is therefore not supported.

In light of the lack of support for the majority of hypotheses, we conducted additional analyses to further explore Hypothesis 1b, and found some rather interesting findings. Initially, we found that there is a relationship between relational e-HRM and both Realized AC Transformation (B = ,193, SE = .069 *.p* <.01) and Exploitation (B = ,191, SE =.075*, .p* < .05), (see table 1.). Moreover, we found a significant positive relationship between operational e- HRM and Realized AC Transformation (B =,192, SE =.072 *.p* = <.01), (see table 1.). Further, we chose to rearrange the variables, IC and psychological safety, in an attempt to better explain these relationships.

Table 1. Significant direct effects of eHRMT, eHRMR and eHRMO on Realized AC Transformational and Exploitation

	RACT		RACE	
Variable	B	SE	B	SE
eHRMT	,158*	,074	,230**	,077
eHRMR	,193**	,069	,191*	,075
eHRMO	,192**	,072	NS	

Note: N = 90. RACT, realized absorptive capacity transformational. RACE, realized absorptive capacity exploitation.
eHRMT, eHRM transformational, eHRMR, eHRM relational, eHRMO, eHRM Operational
B = Unstandardized coefficient; SE= Standard error
NS = Non Significant, *P = <.05; **P = <.01.

Through additional testing, we find that IC, in some conditions, has a moderating effect on the relationship between the use of e-HRM for transformational purposes and Realized AC, as it concerns Transformation. The results were found using Hayes' (2013) PROCESS model 1. This moderating relationship is found when IC is low (B = ,4114, SE= 1336*,* P<.01 CI [.1459, .6770]) or at the mean level (B = ,2057, SE = .0720, P<.01 [.0627, .3488]). However, when IC is high, it has no significant moderating effect on the relationship between e-HRM for transformational purposes and Realized AC Transformational (See Table 2 & Figure 2).

Table 2. Additional analysis

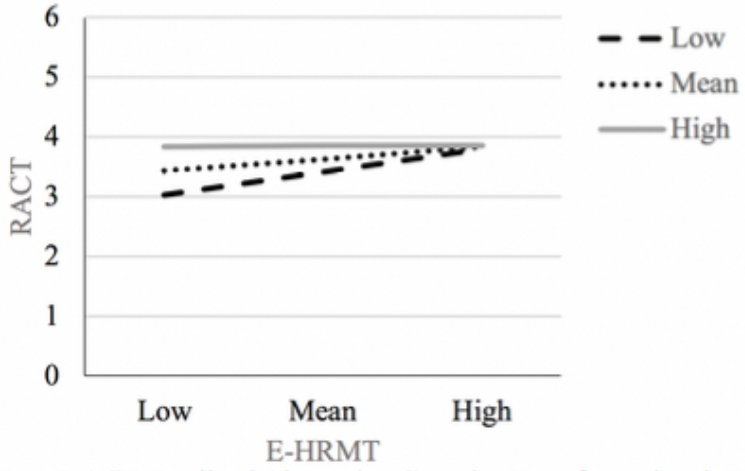
Dependent variable	RACT					
	1		2		3	
	B	SE	B	SE	B	SE
1.Control variables						
Employees	-,166/,081*		-,181/,079*		-,133/,076NS	
Divisions	-,426/,140**		-,431/,137**		-,387/,130**	
2.Independent variable						
eHRMT			,170/,070*		,156/,066*	
3.Moderating variable						
ICONN					,301/,088**	
R^2	,113		,170		,269	
ΔR^2	,113		,057		,099	
F	5,519		5,858		7,822	

Conditional Effects at RACT

	B	SE	t	p	LLCI	ULCI
- 1 SD	,4114	,1336	3,0802	,0028	,1459	,6770
M	,2057	,0720	2,8587	,0053	,0627	,3488
+ 1 SD	,0084	,0931	,0931	,9260	-,1875	,1875

Note: N=90. RACT, Realized Absorptive Capacity Transformation; eHRMT, eHRM Transformational; ICONN, Interdepartmental Connectedness; Employees, amount of employees employed by the company; Divisions, whether or not the company have divisions outside Norway.
B = Unstandardized coefficients; SE = Standard error
*P = <.05; **P = <. 01.

Figure 2: Moderating effects of IC on the relationship between e-HRMT and RACT.



Note: RACT, Realized Absorptive Capacity Transformational. E-HRMT, E-HRM Transformational. IC, Interdepartmental Connectedness.

In an attempt to explore the initial Hypothesis 1b from an additional perspective, we also investigated mediating effects. The results found using Hayes' (2013) PROCESS model 4 indicate that psychological safety mediates several relationships. We found a significant indirect effect of psychological safety on the

relationship between e-HRM used for Relational purposes and both Realized AC, Transformation (B= .0815, SE = .0398, 95% CI [.0115,.1665]) and Realized AC, Exploitation, (B = .0585 SE = .0329, 95 % CI [.0075, .1331]). We also found a significant indirect effect of psychological safety on the relationship between e-HRM used for transformational purposes and both Realized AC Transformation (B = .1021 SE =.0452 95% CI [.0206, .1979]) and Realized AC Exploitation, (B =.0672 SE = .0373 95% CI [.0128, .1575]).

Because IC and psychological safety both have indirect effects on the relationship between e-HRM used for transformational purposes and Realized AC Transformation, with psychological safety as a mediator and IC as a moderator—opposite to what we hypothesized—, we decided to test these together. using Hayes' (2013) PROCESS model 58. However, the results indicate that adding IC to the model does not explain any additional variation than what is already explained by the mediating effect of psychological safety. All the significant findings, and respective coefficients are presented in Tables 3 and 4.

Table 3: Results

Dependent variable	**RACT**								**RACE**					
	1		2		3		4		1		2		3	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
1.Control variables														
Employees	-,166/,081*		-,181/,079*		-,144/,070*		-,134/,071 NS		-,067/,090 NS		-,088/,086 NS		-,063/,084 NS	
Divisions	-,426/,140**		-,431/,137**		-,323/,123**		-,324/,123**		-,292/,157 NS		-,299/,150*		-,228/,147 NS	
2.Independent variable														
e-HRMT			,170/,070*		,076/,065 NS		,084/,066 NS				,235/,077**		,173/,078*	
3.Mediating variable														
PSAF					,385/,079**		,333/,097**						,254/,094**	
4. Moderating variable														
ICONN							,093/,103 NS							
	Mediating effect of PSAF								Mediating effect of PSAF					
	B= . 1021, 95%, SE = ,0452, BCa CI [.0206, .1979]								B=. 0672, 95%, SE = .0373 BCa CI [.0128, .1575]					
R^2	,113		,170		,353		,359		,039		,134		,203	
ΔR^2	,113		,057		,183		,006		,039		,095		,069	
F	5,519		5,858		11,587		9,414		1,771		4,426		5,409	
Sig F. Change	,006**		,017*		,000**		,368 NS		,176 NS		,003**		,008**	

N= 90

Note: N=90. RACT, Realized Absorptive Capacity Transformation; RACE, Realized Absorptive Capacity Exploitation; eHRMT, eHRM Transformational; PSAF, Psychological Safety; ICONN, Interdepartmental Connectedness; Employees, amount of employees employed by the company; Divisions, whether or not the company have divisions outside Norway.

B = Unstandardised coefficients; SE = Standard Error

**P* = <.05; ***P* = <. 01.

Table 4: Results

Dependent variable	**RACT**						**RACE**					
	1		2		3		1		2		3	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
1.Control variables												
Employees	-,166/,081*		-,201/,078*		-,160/,070*		-,067/,090 NS		-,100/,088 NS		-,070/,085 NS	
Divisions	-,426/,140**		-,403/,134**		-,311/,121*		-,292/,157 NS		-,271/,152NS		-,203/,148 NS	
2.Independent variable												
e-HRMR			,203/,066**		,129/,061*				,193/,075*		,138/,074 NS	
3.Mediating variable												
PSAF					,372/,076**						,272/,093 **	
	Mediating effect of PSAF						Mediating effect of PSAF					
	B= ,0815, 95%, SE = .0398, BCa CI [.0115, .1665]						B =. 0585, 95%, SE = ,0329, BCa CI [.0075, .1331]					
R^2	,113		,200		,375		,039		,108		,189	
ΔR^2	,113		,088		,175		,039		,068		,081	
F	5,519		7,189		12,769		1,771		3,455		4,951	
Sig F. Change	,006**		,003**		,000**		,176		,012		,004	
N= 90												

Note: *N*=90. RACT, Realized Absorptive Capacity Transformation; RACE, Realized Absorptive Capacity Exploitation; eHRMR, eHRM Relational; PSAF, Psychological Safety; Employees, amount of employees employed by the company; Divisions, whether or not the company have divisions outside Norway.
B = Unstandardised coefficients; SE = Standard Error
*P = <.05; **P = <. 01.

Discussion

The aim of this study was to examine the relationship between e-HRM and AC, and the role played by IC and psychological safety in facilitating this relationship. We drew on theories regarding strategic HRM and organizational innovation to guide our conceptual analyses of the proposed model, and employed Hayes' (2013) PROCESS analysis to investigate potential indirect effects. Overall, we identified several patterns of discussion, which are the focus of this section.

A Lack of Potential AC Predictors

Notably, our results revealed no significant relationships between operational-, relational-,or-transformational e-HRM and Potential AC. This may be explained by the idea—fundamental to the differentiation of Potential AC and Realized AC—that the two subcategories require a different set of antecedents (Jansen et al., 2005). Our hypotheses 1a and 1b reflected this idea, but perhaps not enough in that e-HRM, as illustrated by the support of Hypothesis 1b, is more significantly related to Realized AC.

Potential AC is facilitated by networks, socialization (Jansen et al., 2005) and tacit knowledge (Chang et al., 2013), which could be better understood by additional or other constructs besides e-HRM, as suggested by our results. Additionally, it may be of interest for future researchers to explore intra-organizational tools. Whereas e-HRM practices are largely inter-organizational, tools which help in recognizing external knowledge may explain more (Zahra & George, 2002). The description provided by Fosfuri and Tribó (2006) may be more appropriate for future research on Potential AC, as they define Potential AC as "the bridge between what is outside and what is inside the organization" (p. 174). With this definition in mind, perhaps constructs related more to IC should be investigated as antecedents to Potential AC, such as arms-length ties (Scott & Davis, 2003; Fosfuri and Tribó, 2006) as well as constructs which better integrate the initial component of AC as introduced by Cohen and Levinthal (1990), R&D.

The Importance of all types of e-HRM for Realized AC

Whereas no significant relationships were found between e-HRM practices and Potential AC, e-HRM used for operational-, relational-, and -transformational purposes showed to significantly relate to Realized AC. Realized AC refers to the ability to apply and utilize available information (Zahra & George, 2002). That being said, in terms of operational e-HRM, making information more accessible

through operational practices, such as digital filing systems, is likely to contribute to making the information more easily applicable and utilized (Strohmeier, 2007), thereby increasing Realized AC.

In terms of e-HRM used for relational purposes, the enhancement of communication flow, and increased awareness and usage of HR tools (Bondarouk et al., 2017) likely stimulates conversations which not only share information, but facilitate using existing knowledge for new purposes (i.e. Realized AC) (Ruël et al., 2004;Bondarouk et al., 2017). Because Realized AC describes a firm's ability to apply collected knowledge (Zahra & George, 2002), the interactions established between previously unfamiliar-to-each-other employees are likely to stimulate new mixtures of information, and subsequently new processes and products. Future researchers may choose to explore how relational e-HRM can specifically encourage productive knowledge integration and new idea development.

In terms of e-HRM used for transformational purposes, this relationship could be understood through the logic of sourcing information. The noted outcomes of transformational e-HRM, such as increased employee involvement and alignment of structures and the workforce (Bondarouk & Ruël, 2009), provide a logical and supported relationship. Results suggest that the strategic outcomes of transformational e-HRM lead to the transformative and exploitative outcomes of Realized AC (Zahra & George, 2002) through an integrated set of digital tools that enable the workforce to develop along with the organization's strategic choices (Rüel et al., 2004). Future researchers may want to further explore this relationship in terms of what specific transformational e-HRM practices lead to the most effective Realized AC outcomes, or what organizational characteristics enhance this relationship.

Although operational e-HRM and relational e-HRM were not hypothesized to relate significantly to Realized AC, there are several possible explanations for this finding. First, with the streamlining of previously time-consuming administrative tasks, comes the freeing of work time for more creative and strategic tasks (Gardner et al., 2003). Conversely, all types of e-HRM relating to Realized AC could be a reflection of the different purposes of e-HRM being highly correlated. A company that uses e-HRM for transformational purposes is likely to also use e-HRM for operational purposes, for example. Future researchers should

explore the differentiation of the three purposes of e-HRM to better explain why and how they all relate to Realized AC.

The Impact of Transformational e-HRM on Less-Connected Firms

Although AC, and Potential AC in particular, emphasize the role of social networks and arms-length ties, our hypothesized integration of IC did not show to mediate any relationships between e-HRM and AC. It is possible that e-HRM practices themselves allow for connectedness, and are therefore not explained by connectedness. For example, Wu and Kane (2014) found the implementation of an organization-wide social network to benefit most those employees who were disadvantaged regarding staying informed. In other words, the availability of easy-to-use and organization-wide digital practices was able to level the information sharing and benefit those who had weaker ties. However, it is also possible that IC is necessary moreso in the *implementation* of e-HRM practices, which was not the focus of this paper. Future researchers should explore the impact that digital tools can have on organizational and employee processes alone, because their impact may be larger than expected—researchers such as Strohmeier (2007) have started this process by exploring the gaps (or lack thereof) between what implementation of e-HRM is expected to do and what implementation actually does in terms of strategic improvement. With that being said, the potential importance of IC cannot be considered fruitless, as a moderating influence was found.

IC as a Moderator. Previous research has largely considered the relational aspect of e-HRM to be fundamental to achieve the desired outcomes of digital HRM. Relational impacts of e-HRM might, for instance, provide employees and managers with remote access to HR information and increase their ability to connect with other parts of the company and outside organisations, so that they can perform HR activities themselves (Parry & Tyson, 2011). These social and relational aspects of connectedness have been considered requisite for the benefits of e-HRM to be realized (Tansley et al., 2013; Barret & Oborn, 2013). However, when considering Realized AC as an outcome of e-HRM, our results revealed that transformational e-HRM is most beneficial to employees who are not highly connected.

While previous researchers have emphasized the importance of connectedness between e-HRM workers and other units as a requisite for the benefits of e-HRM to be realized (Rowley et al., 2000; Parry & Tyson, 2011; Jaworski & Kohli, 1993), our findings indicate that e-HRM practices can be used

perhaps as substitutes for lack of adequate engagement and connectedness between HRM and other departments. In our study, low levels of IC positively moderated the relationship between transformational e-HRM and Realized AC Transformational. In other words, transformational e-HRM and Realized AC transformational were strengthened by low levels of IC. That being said, transformational e-HRM practices may be particularly useful in organizations lacking high levels of connectedness. Some researchers, such as Bondarouk and Ruël (2009) have suggested similar patterns, such as connectedness being an outcome of transformational e-HRM, rather than a requirement for e-HRM success. With this in mind, more research is needed to explain exactly how these practices are able to compensate for lower levels of IC in the realization of AC.

Bondarouk and Ruël (2009) emphasized that e-HRM, when implemented well, improves employees' ability to stay updated in organizational processes and opportunities to participate in online discussions. On the other hand, this finding simultaneously suggests that when IC is high, it is non-influential on transformational e-HRM and Realized AC. It is possible that, when employees are highly connected and subsequently well-informed and integrated, e-HRM practices are perceived as unnecessary attempts to solidify already concrete social processes.

When considering why high levels of IC do not influence the relationship between transformational e-HRM and Realized AC, potential explanations may lie in perceived usefulness. Davis (1989) asserted that the extent to which employees are willing to use and experience the outcomes of a digital tool depends on the degree to which they perceive the tool as useful. When put into the context of this research, it is possible that employees with lower levels of IC perceived more potential usefulness in transformational e-HRM practices, and thus experienced greater subsequent Realized AC. Employees with higher levels of IC may not have perceived higher-level strategic potential in the e-HRM practices, and therefore did not experience greater Realized AC outcomes. Moreover, findings suggest that, rather than the proposed IC mediator, one antecedent to the relationship between transformational e-HRM and Realized AC: psychological safety as a mediator.

Psychological Safety: a Key Mediating Variable in e-HRM and AC Processes

The concept of psychological safety, as indicated by this research, is critical to various sub-relationships between e-HRM and AC. With this in mind, it is important to clarify that a mediated moderated model was not found, and instead

significant relationships were found in separate mediated and moderated models. When considering the relationship between e-HRM and Realized AC, psychological safety showed to have a significant impact when positioned as a mediator. Notably, psychological safety showed to mediate the relationship between both relational e-HRM and Realized AC, and transformational e-HRM and Realized AC.

It is particularly interesting that the addition of psychological safety was able to explain the correlation between relational e-HRM and Realized AC, because it underlines that social aspects are indeed of importance in this process. This finding, when considered in light of the IC findings, is notable because the specification between what social processes are helpful and necessary begins to emerge. The concept of psychological safety, more so than IC, refers explicitly to work (Edmondson, 1999) rather than networks, like IC (Kohli & Jaworski, 1990; Narver & Slater, 1990). Psychological safety may require IC as a prerequisite, as it appears to be a higher level construct, requiring trust and mutual respect (Edmondson, 1999), but also a willingness to debate and challenge (Gibson & Gibs, 2006). Therefore, these findings suggest that a particular context which is supportive of problem-searching, problem-shooting, and problem-solving, is able to explain the relationship between relational- and transformational- e-HRM and Realized AC, more than an environment in which employees from different departments are friendly and reachable.

Theoretical Contributions

The current study offers a number of theoretical contributions. First, we extend the current understanding of e-HRM by further exploring the outcomes of different types. Operational, relational, and transformational e-HRM all showed to be positively related to AC, but likely in different ways. The likely differentiations between types of e-HRM in their impact on AC may be a useful avenue of study for future researchers who wish to focus on either administrative or strategic outcomes. Conversely, future researchers may want to focus on particular aspects of e-HRM to alienate certain functions and explore whether or not they can function separately or work best when used together.

Second, we add to the ongoing discussion of Potential and Realized AC by further differentiating the two subcategories, and highlighting that future

researchers should look into more differentiated antecedents. Potential AC in particular, is not well-explained by this model, which offers much opportunity for future researchers to re-incorporate, for example, R&D constructs with social and knowledge-sharing constructs.

Third, we underline and further emphasize the potential of psychological safety in these knowledge sharing and innovation processes. Psychological safety as a mediator should be further explored and antecedents to this construct should be studied to better understand how to facilitate optimal Realized AC in the future.

Limitations and Suggestions for Future Research

This research is not without limitations. It is important to note that our study cannot imply causality, and future studies may want to employ an experimental method to better illustrate the nature and direction of the constructs explored. Similarly, our measuring the perceptions of HRM employees cannot infer completely objective reports. Additionally, although adequate and appropriate for quantitative analysis, our sample is relatively small, decreasing statistical power (Highhouse & Gillespie, 2009). Our defined population of HR employees in Norway was relatively specific, and we chose to focus on the perspective of these individuals entirely. There are reliability issues associated with single informant data, and single-source bias is therefore a potential limitation (Bagozzi, Yi, & Phillips, 1991), but due to the specificity of our target participants, we deemed one HR employee per organization as sufficient for the purposes of this research. Future studies are advised to include at least one participant filling a non-HR role in addition to an HR professional per organization to increase statistical power as well as reliability.

Further, this study measured multiple constructs at one point of data collection, running a higher risk of common method bias (Podsakoff, MacKenzie, & Podsakoff, 2012). In an effort to reduce common method bias, the measures for each variable were not labeled and were separated by page breaks, making it more difficult for respondents to infer the constructs' relations to one another.

Another limitation to be aware of is that the questionnaire employed in this research was in English, and it is assumable that the majority of the participants were non-native English speakers. This is potentially problematic, as the English text may have discouraged some potential respondents from participating, or made

the survey experience more difficult or confusing for those who did choose to complete the survey.

Lastly, to attain a nine- factor structure that would enable us to separate between PAC assimilation and PAC Acquisition the two factors were each made up by only two items, which is against some recommended minimum number of three items per factor (e.g. Costello & Osborne, 2005). This could mean that we could not assess all of the complexity of the factors, potentially impacting the results. However, requirements for items per factor varies, and some consider two-item factors to be acceptable (Raubenheimer, 2004). Potential AC did not have any significant relationships, in contrast to what we hypothesized. This was also the case when we combined the two into one factor made up by four items. We can therefore say that the two items factor did not have any negative impact on our results.

Conclusion

In an increasingly knowledge-based economy, the processes underlying information-sharing and innovative practices is ever-more relevant. The purpose of this study was to contribute to research within the fields of electronic-Human Resource Management and Absorptive Capacity by conducting macro-level mediated moderation research. We aimed to fill existing gaps by considering the effects of perceived climate factors (psychological safety), and the nature of the organizational structure (Interdepartmental Connectedness) as potential antecedents of AC. Our research suggests that the relationships between operational-, relational-, and transformational e-HRM and Realized AC—particularly in terms of knowledge exploitation—are strong and important in modern organizational systems, making this research beneficial for both academic and practical pursuits. Further, the finding that psychological safety is as a mediator for multiple relationships should not be overlooked. In environments striving for aligned goals and strategy, psychological safety may prove to be a critical component. Future research may find where our found proposed moderator, Interdepartmental Connectedness, fits in this process to better and more-completely facilitate both Potential and Realized AC. In a work environment which is increasingly digital, the antecedents and contributors to successful e-HRM cannot be overlooked, as these processes relate significantly to Realized Absorptive Capacity.

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Appendix A

Measure of ***Potential Absorptive Capacity*** adapted from Jansen et al. (2005).
5-point scale from "strongly disagree "to "strongly agree."

Acquisition:

1. We regularly search for external information that is relevant for our business operations.
2. We are quick to identify information in the market that is important for business.
3. We are not very good about keeping an eye on market information and/or other external indicators that are relevant for our business. (reversed)

Assimilation:

1. We are quick to analyze and interpret changing market demands.
2. We are quick to understand where and how we can serve our clients/customers better.
3. We are slow to recognize shifts in our market (e.g., competition, regulation, demography). (reversed)

Appendix B

Measure of ***Realized Absorptive Capacity*** adapted from Jansen et al. (2005)

5-point scale from "strongly disagree "to "strongly agree."

Transformation

1. We regularly consider the consequences of changing market demands in terms of our product and service offerings.
2. We regularly discuss the consequences that market trends and new product/service. development have for the organization's strategy or position among its competitors.
3. We are quick to recognize the usefulness that new knowledge has for our existing knowledge.
4. We quickly recognize business opportunities from the market knowledge collected in the organization.
5. Knowledge assimilated in the organization is quickly integrated with existing knowledge in order to facilitate new insight and/or generate new ideas.

Exploitation

1. We constantly consider how to better exploit new knowledge gained and integrated in the organization.
2. We are quick to convert market knowledge into new product and service offerings
3. We are slow to incorporate new knowledge gained and integrated in the organization into our business operations. (reversed)
4. In general, we have difficulty implementing the new products and/or services. (reversed)
5. When we present new product/service opportunities, this information typically "falls on deaf ears" (i.e., management ignores them). (reversed)

Appendix C

Measure of ***e-HRM*** adapted from descriptions from Bondarouk, Harms, and Lepak (2017), and Bondarouk, Parry, and Furtmueller (2017)

5-point scale from "strongly disagree "to "strongly agree."

In this company, the use of technology-enabled HRM activities and services are used for:

Operational purposes

1. Achieving gains in the effectiveness of HR service provision (improving the ability of HR to deliver desired and intended results)
2. Achieving gains in the efficiency of HR services provision (achieving desired and intended results using less resources)
3. Accomplishing HR work with fewer HR personnel

Relational purposes

1. Improving communication between HR staff and other organizational members
2. Improving employee awareness of HR programs and services
3. Improving employee's use of HR program and services

Transformational purposes

1. Enabling organizational change activities
2. Facilitating innovation processes
3. Supporting knowledge management processes
4. Gathering and leveraging HR data

Appendix D

Measure of ***Interdepartmental Connectedness*** adapted from Jaworski and Kohli (1993)

5-point scale from "strongly disagree "to "strongly agree."

1. It is easy to talk with virtually anyone you need to in the company, regardless of rank or position.
2. There is ample opportunity for informal «hall talk» among employees from different departments.
3. Employees from different departments contact each other directly when the need arises.
4. Employees are discouraged from discussing work related matters with those who are not their immediate superiors or colleagues. (reversed)
5. Employees in one department are quite accessible to employees and managers in other departments.
6. Employees in one department can easily schedule meetings with employees in other departments.
7. Communication between employees from different departments are expected to be routed through «proper channels». (reversed)

Appendix E

Measure of ***Psychological safety*** adapted from Edmondson (1999).
5-point scale from "strongly disagree "to "strongly agree."

In this company...
1. If you make a mistake, it is often held against you.
2. Employees are able to bring up problems and tough issues.
3. People sometimes reject others for being different
4. It is safe to take a risk.
5. It is difficult to ask other employees for help
6. No one would deliberately act in a way that undermines the efforts of other employees
7. Each employee's unique skills and talents are valued and utilized when working with other employees.

Appendix F

Standardized factor loadings

Table 5. Scales items and Conformatory Factor analysis loadings.

Items	PACAC	PACAS	RACT	RACE	ICONN	PSAF	eHRMO	eHRMR	eHRMT
PAC2: We are quick to identify information in the market that is important for business	,92								
PAC3: We are not very good about keeping an eye on market information and/or other external indicators that are relevant for our business	,77								
PAC4: We are quick to analyse and interpret changing market		,91							
PAC5: We are quick to understand where and how we can serve our clients/customers better		,74							
RAC1: We regularly consider the consequences of changing market demands in terms of our product and service offerings			,72						
RAC2: We regularly discuss the consequences that market trends and new product/service developments have for the organization's strategy or position among its competitors			,62						
RAC3: We are quick to recognize the usefulness that new knowledge has for out existing knowledge.			,65						
RAC4: We quickly recognize business opportunities from the market knowledge collected in the organization			,72						
RAC5: Knowledge assimilated in the organization is quickly integrated with existing knowledge in order to facilitate new insight and/or generate new ideas			,64						
RAC6: We constantly consider how to better exploit new knowledge gained and integrated in the organization				,63					
RAC7: We are quick to convert market knowledge into new product and service offerings				,69					
RAC8: We are slow to incorporate new knowledge gained and integrated in the organization into our business operations				,63					
RAC9: In general, we have difficulty implementing the new products and/or services				,75					

(Continued)

Appendix G

Standardized factor loadings *(Continued)*

Table 5. *Continued*

Items	PACAC	PACAS	RACT	RACE	ICONN	PSAF	eHRMO	eHRMR	eHRMT
CON1: It is easy to talk to virtually anyone you need to in the company, regardless of rank or position				,73					
CON2: There is ample opportunity for internal "hall talk" among employees from different departments				,73					
CON3: Employees from different departments contact each other directly when the need arises				,84					
CON5: Employees in one department are quite accessible to employees and managers in other departments				,74					
CON6: Employees in one department can easily schedule meetings with employees in other departments				,76					
PS2: Employees are able to bring up problems and tough issues					,62				
PS4: It is safe to take a risk					,53				
PS6: No one would deliberately act in a way that undermines the efforts of other employees						,56			
PS7: Each employee's unique skills and talents are valued and utilized when working with other employees						,85			
eHRM1: Achieving gains in the effectiveness of HR service provision (improving the ability of HR to deliver desired and intended results).							,92		
eHRM2 : Achieving gains in the efficiency of HR services provision (achieving desired and intended results using less resources)							,89		
eHRM3: Accomplishing HR work with fewer HR personnel							,52		
eHRM4: Improving communication between HR staff and other organizational members								,76	
eHRM5: Improving employee awareness of HR programs and services								,84	
eHRM6: Improving employee's use of HR programs and services								,87	
eHRM7: Enabling organizational change activities									,84
eHRM8: Facilitating innovation processes									,74
eHRM9: Supporting knowledge management processes									,81
eHRM10: Gathering and leveraging HR data									,63

Notes: PACAC, Potential Absorptive Capacity Acquisition; PACAS, Potential Absorptive Capacity Assimilation; RACT, Realized Absorptive Capacity Transformational; RACE, Realized Absorptive Capacity Exploitation; PSAF, Psychological Safety; ICONN, Interdepartmental Connectedness; eHRMO, e-HRM Operational; eHRMR, e-HRM Relational; eHRMT, e-HRM Transformational.

Appendix H

Table 6. Descriptive Statistics, Reliability and Correlations

Variables	*Mean*	SD	α	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. PACAC	3,7944	,99689	,828									
2. PACAS	3,5833	,80116	,803	,595**								
3. RACT	3,6267	,67455	,802	,525**	,649**							
4. RACE	3,3019	,72504	,773	,446**	,505**	,664**						
5. PSAF	3,8028	,79632	,713	,394**	,447**	,529**	,371**					
6. ICONN	4,3078	,72157	,868	,459**	,460**	,376**	,318**	,582**				
7. eHRMO	3,5963	,96181	,820	,034	,100	,274**	,206	,220*	,083			
8. eHRMR	3,4648	,99828	,862	,007	,020	,286**	,263*	,247*	,036	,653**		
9. eHRMT	3,3972	,95097	,837	,068	,067	,223*	,301**	,285**	,046	,709**	,712**	

Note: N=90. PACAC, Potential Absorptive Capacity Acquisition; PACAS, Potential Absorptive Capacity Assimilation; RACT, Realized Absorptive Capacity Transformational; RACE, Realized Absorptive Capacity Exploitation; PSAF, Psychological Safety; ICONN, Interdepartmental Connectedness; eHRMO, e-HRM Operational; eHRMR, e-HRM Relational; eHRMT, e-HRM Transformational.
**p<.05; **p<.01 (two-tailed)*

Appendix I

Table 7. Non-significant direct effects of eHRMT, eHRMR and eHRMO on Potential AC Acquisition and Assimilation

	PACAC		PACAS	
Variable	B	SE	B	SE
eHRMT	,071 - **NS**	,111	,056 - **NS**	,067
eHRMR	,007 - **NS**	,106	,016 - **NS**	,086
eHRMO	,035 - **NS**	,110	,083 - **NS**	,088

Note: *N = 90*. PACAC, Potential Absorptive Capacity Acquisition. PACAS, Potential Absorptive Capacity Assimilation. eHRMT, eHRM transformational, eHRMR, eHRM relational, eHRMO, eHRM operational
B = Unstandardized coefficient; SE= Standard error
NS = Non significant, *P = <.05; **P = <.01.