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Bridging knowledge in ambidextrous HRM systems: empirical evidence from hidden champions

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Managing the tension between efficiency and flexibility is one of the core challenges that organizations must tackle in order to survive in the global competitive environment. Ambidexterity has been identified in the literature as a key way of managing this tension. Despite the enormous popularity of the concept of ambidexterity, the questions of how HR practices influence exploration and exploitation and support organizational ambidexterity remain underexplored. Drawing on our empirical case studies of three mid-sized 'hidden champions' in different high-tech manufacturing industries, we show how an ambidextrous human resource management (HRM) system works. We demonstrate that ambidextrous HRM systems can be regarded as a special type of high-performance work system (HPWS) that facilitates the continuous integration of exploration and exploitation in the pursuit of flexibility and efficiency. In particular, we elucidate how firms apply integrative employment practices and integrative work practices to facilitate collaboration and to create and strengthen a common frame of reference that fosters knowledge integration. Finally, setting up an ambidextrous HRM system supports the complementary interplay between a common frame of reference and a firm's ability to integrate knowledge in order to manage the conflicting demands of exploration and exploitation.

Keywords: ambidexterity; common frame of reference; exploration/exploitation; hidden champions; HR practices; HRM system; knowledge integration

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Introduction

Drawing on the resource-based view of the firm (Barney, 1991), several scholars have shown that managing human resources strategically is one of the main paths to sustained advantage (Barney & Wright, 1998; Lado & Wilson, 1994; Wright, Dunford, & Snell, 2001). However, with the increasing speed of environmental change in the past years, organizations have to recognize that relying on today's advantages can be dangerous, as they might be gone tomorrow. As a result researchers have started to investigate how firms use human resource management (HRM) to balance the tension between stability and change (e.g. Kang & Snell, 2009; Swart & Kinnie, 2010). This nascent field of HRM research reflects a broader trend of studying organizational responses to this tension that spans several disciplines from strategic management (e.g. Schilke, 2014) to public accounting (e.g. Malsch & Gendron, 2013).

One reason for this trend is that the turbulences that characterize the current economic environment repeatedly raise the question of how some firms are able to survive and prosper for decades, or even centuries, while others are not. A key stream of research that tackles this question centers on the concept of ambidexterity; that is, an organization's

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capability to pursue exploration and exploitation simultaneously in order to increase flexibility and efficiency and, thus, resolve the productivity dilemma (e.g. Adler et al., 2009; Gupta, Smith, & Shalley, 2006; Simsek, Heavey, Veiga, & Souder, 2009). While exploration refers to developing new capabilities in order to enhance flexibility, exploitation refers to refining and using existing capabilities in order to maximize efficiency (Levinthal & March, 1993; March, 1991).

Despite the enormous popularity that the concept of ambidexterity has gained in the last few years (Nosella, Cantarello, & Filippini, 2012; Turner, Swart, & Maylor, 2013), there are no sufficiently developed explanations of how HRM helps companies attain organizational ambidexterity. Although some studies in the literature on HRM have attempted to link the concept of organizational ambidexterity to HRM, little is known about how HRM systems that systematically support organizational ambidexterity unfold their positive effect (e.g. Kang & Snell, 2009; Prieto & Pilar Pérez Santana, 2012). Current research has started to investigate how high-performance work systems (HPWSs), that is, systems of specific work practices and employment practices that lead to superior performance (Boxall & Macky, 2009; Guthrie, 2001), might facilitate organizational ambidexterity (e.g. Patel, Messersmith, & Lepak, 2013). However, while existing studies either tackle this question conceptually or try to quantitatively determine the strength of the relationship, empirical evidence as to how HR practices influence the integration of exploration and exploitation to achieve short-term efficiency and long-term growth is still scarce.

In our study, we focus on the analysis of HR practices and on their role in facilitating ambidexterity in mid-sized 'hidden champions' (Murray, 1997; Simon, 1992, 1996, 2009) in different high-tech manufacturing industries. Hidden champions are medium-sized companies that are world-market leaders in niche markets but relatively unknown to the general public. They are neither large enough to consist of highly diversified exploratory and exploitative business units, nor small enough to establish a context where individuals are supposed to perform exploratory and exploitative tasks concurrently. Still, they require the continuous integration of exploration and exploitation, and thus they lend themselves to the micro-study of the interplay between ambidexterity and HR practices.

Our findings show that these firms use various employment practices and work practices that facilitate the integration of exploration and exploitation. How employment practices such as recruitment and selection, onboarding, and training and development practices are applied particularly stimulates social integration. The application of work practices such as job design predominantly enables formal integration. The continuous interplay of social integration and formal integration enables knowledge integration and, as a consequence, facilitates organizational ambidexterity. Thus, with our analysis we contribute to research on the links between HRM and organizational ambidexterity and shed light on the configuration of ambidextrous HRM systems that facilitate the integration of efficiency and flexibility. In particular, we show that ambidextrous HRM systems can be regarded as a particular type of HPWSs that facilitate the continuous integration of exploration and exploitation in the pursuit of increased flexibility and efficiency. In order to benefit from generated knowledge either from R&D or from sales and production, it is necessary to transfer knowledge between distinct (and often physically separate) domains and to integrate it in the new domain. Previous studies have focused on the integrative role of top management teams in particular or leadership in general in the context of exploration and exploitation. In contrast, we concentrate on showing how firms use particular employment practices and work practices to create a common frame of reference that allows them to integrate exploration and exploitation. By doing so, our findings further reveal that setting up an ambidextrous HRM system

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supports the complementary interplay between a common frame of reference and a firm's ability to integrate knowledge in order to manage the conflicting demands of exploration and exploitation.

Conceptual background

As indicated earlier, research on the relationship of HRM and ambidexterity is still in its infancy. Research on organizational ambidexterity has started to investigate antecedents of the construct only within the last decade. Prior to that, the field was mainly concerned with examining the 'ambidexterity hypothesis', namely the idea that ambidexterity leads to organizational success. The results of these studies indicate that organizational ambidexterity is positively related to various performance parameters, such as sales growth (He & Wong, 2004), innovation (Katila & Ahuja, 2002), financial performance (Gibson & Birkinshaw, 2004) and overall firm performance (Cao, Gedajlovic, & Zhang, 2009). As evidence for the positive effect of ambidexterity on organizational success grew, the question of how firms can facilitate ambidexterity has become central to the field. In the last few years, empirical studies have identified organizational antecedents such as top management team behavior (e.g. Lubatkin, Simsek, Ling, & Veiga, 2006) and organizational structure (e.g. Chang, Hughes, & Hotho, 2011). Surprisingly, with few exceptions (Kang & Snell, 2009; Ketkar & Sett, 2009; Patel et al., 2013; Swart & Kinnie, 2010), the role of HRM systems in supporting organizational ambidexterity has yet to be adequately researched. HRM systems – in other words, the overall configuration or aggregation of a firm's HR practices – are crucial to achieving ambidexterity, considering that HR practices serve to guide, govern and control the behavior of employees so that they accomplish the firm's goals according to the corporate strategy (e.g. Bowen & Ostroff, 2004; Lepak, Liao, Chung, & Harden, 2006; Wright & Snell, 1998). There is evidence that adopting HRM systems that enhance ability and motivation and promote opportunities leads to favorable performance outcomes (Jiang, Lepak, Hu, & Baer, 2012). Furthermore, certain HR practices foster efficiency and flexibility (Jin, Hopkins, & Wittmer, 2010), while HRM as a whole promotes organizational agility (Shafer, Dyer, Kilty, Amos, & Ericksen, 2001).

Research on the design of HRM systems indicates that especially one type is positively related to performance: HPWSs (Boxall & Macky, 2009; Delery & Shaw, 2001). The term 'HPWS' is used to describe a set of horizontally and vertically aligned work practices and employment practices that stimulate the abilities and motivation of employees (Becker & Huselid, 1998; Evans & Davis, 2005). Horizontal alignment refers to coordination between HR practices, while vertical alignment refers to coordination between HR practices and firm strategy. 'Work practices' refer collectively to the various ways in which work is organized within a firm (e.g. through supervised work groups or self-managed teams) and to the ways in which employees are able to participate in organizational decision-making (e.g. through Kaizen programs, quality circles and so on). Similarly, 'employment practices' comprise the practices that a firm employs to recruit, deploy, motivate, develop or retain employees (see Boxall & Macky, 2009 for a discussion of both terms). According to Boxall and Macky (2009, p. 8), designing appropriate organizational work practices is essential in order to achieve high involvement (Lawler, 1986), while effectively managing employment practices leads to high commitment (Wood & Wall, 2007). As HPWSs influence both the involvement and commitment of employees, and by strengthening their abilities and motivation, HPWSs enhance performance and enable firms to gain competitive advantage (Combs, Liu, Hall, &

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Ketchen, 2006). Empirical research on HPWSs has predominantly focused on investigating the link between HPWSs and diverse parameters of organizational performance. The principal findings are that HPWSs reduce staff turnover, increase firm productivity and enhance financial performance (e.g. Guthrie, 2001; Huselid, 1995; see Combs et al., 2006 and Evans & Davis, 2005 for an overview).

Despite considerable empirical evidence that both organizational ambidexterity and HPWSs have positive implications for company performance, the connection between these two concepts remains unclear. Particularly, only few studies have investigated how HPWSs influence organizational ambidexterity and research has not fully answered this question so far. In their conceptual works of how firms may couple exploratory and exploitative learning, Kang and his colleagues (Kang & Snell, 2009; Kang, Morris & Snell, 2007) theorized that generalists are inclined to favor exploratory learning, while specialists are inclined to prefer exploitative learning. The authors argue that, as a consequence, each category uses different and structurally differentiated development systems (related to job descriptions and training), performance systems (related to appraisal and leadership style) and employee relation systems (related to attachment and socialization). By using a multiple-case study design, Swart and Kinnie (2010) elaborated on these ideas in greater depth by elucidating the relationships of input (knowledge assets), process (HR practices) and outputs (exploration and exploitation) for generalists and specialists. In their single-case study, Huang and Kim (2013) examined the functions of HRM at LG Electronics and suggested that HRM facilitates innovation when firms operate on the basis of structurally separated units that are dedicated to either exploration or exploitation.

While these particular studies stress that firms use HR differentiation between exploratory and exploitative groups, other recent studies argue that establishing an HPWS as the dominant HRM system intensifies both exploration and exploitation throughout the entire organization (e.g. Ketkar & Sett, 2009). Prieto and Pilar Pérez Santana (2012), for instance, showed in their study of 198 companies headquartered in Spain that deploying a set of HR practices – that enhance ability and motivation, create opportunities and, thus, increase commitment – shapes the social climate of a firm in a way that facilitates ambidextrous learning. Similarly, Patel et al. (2013) found that the utilization of an HPWS enables firms to combine the learning modes of exploration and exploitation and therefore leads to organizational ambidexterity.

Despite these findings, simply adopting an HPWS does not ensure ambidexterity. Ketkar and Sett (2009, p. 1009) suggest that ‘a certain set of ambidextrous HR practices constitute a distinct dimension of HR flexibility, beyond the dimensions of flexibilities of skill, behavior and HR practices as already identified in the existing literature’. They (Ketkar & Sett, 2009, p. 1014) introduced the concept of an ambidextrous HRM system that ‘promotes a dynamic fit of the firm’s human resources with the changing needs of the competitive environment, and thereby supports both current and constantly evolving business strategy being crafted by the firm’. In other words, Ketkar and Sett (2009) argued that organizations that use a specific combination of ambidextrous HR practices that underpin both exploration and exploitation strengthen the ability to adapt to changes in the environment. Their study is important in that it points out that ambidextrous HRM systems encompass HR practices that promote flexibility; unfortunately, however, it does not theorize how these practices enhance organizational ambidexterity.

We believe that how firms integrate exploration and exploitation in practice is a key piece in this puzzle. In the literature, it is widely accepted that for ambidexterity to work, it is necessary to integrate exploration and exploitation (Raisch, Birkinshaw, Probst, &

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Tushman, 2009). There are, however, different ways to achieve this kind of integration. Studies on ambidexterity that focus on organizational design emphasize the need to establish different structures for exploration and exploitation (O'Reilly & Tushman, 2008; Tushman & O'Reilly, 1997), because 'the mindsets and organizational routines needed for exploration are radically different from those needed for exploitation, making a simultaneous pursuit of both all but impossible' (Gupta et al., 2006, p. 695). As a consequence, research on this kind of 'structural ambidexterity' focuses predominantly on formal integration mechanisms that support the flow of knowledge between structurally differentiated units. Examples include papers that examine aspects such as the critical role of senior management teams and how they mediate and integrate competing frames of reference (e.g. Gilbert, 2006; Lubatkin et al., 2006; Smith & Tushman, 2005), cross-functional interfaces (Jansen, Tempelaar, Van den Bosch, & Volberda, 2009) and formal knowledge bridges (Raisch, 2008). Studies on 'contextual ambidexterity', in contrast, focus on contextual features that enable individuals (or at least small organizational subunits) to combine exploration and exploitation on the individual level (Gibson & Birkinshaw, 2004; Güttel & Konlechner, 2009; Mom, Van den Bosch, & Volberda, 2007). While ambidexterity research suggested the structural approach and the contextual approach as incompatible ways of achieving ambidexterity in the past, first voices suggest a different, complementary view (e.g. Güttel, Konlechner, & Trede, 2015; Kauppila, 2010).

This reasoning can also be grounded in the related literature stream on 'hybrid organizations'. Hybrid organizations are organizations that are embedded in different organizational fields, but manage to balance the contradicting logics inherent in these fields (Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011). Examples of such organizations include microfinance organizations (banking and social development logics), medical education (care and science logics) and social enterprises (business and charity logics) (cf. Battilana & Lee, 2014). Research on hybrid organizations has employed a differentiation that is similar to the one suggested by ambidexterity literature: formal hierarchy and informal hierarchy. Following this literature stream, formal hierarchy (i.e. official structures and rules) allows hybrid organizations for balancing the contradicting logics, if it is complemented with an informal hierarchy (i.e. conscious and unconscious social processes) (Diefenbach & Sillince, 2011). While formal hierarchy eases formal integration by allocating formal roles and positions, informal hierarchy regulates the unofficial communication among members and facilitates social integration of different logics.

Based on this reasoning, we argue that, in addition to formal integration mechanisms, social integration provides another crucial means of coupling exploration and exploitation, even if organizations have structurally differentiated units dedicated to exploration and to exploitation. And, following literature on HPWSs, we also argue that HRM can positively affect social integration. Evans and Davis (2005) have highlighted the positive influence of HPWSs on the social structure of organizations. Collins and Smith (2006) have shown that commitment-based HR practices are positively related to a social climate that fosters a firm's capability to exchange knowledge. Likewise, Prieto and Pilar Pérez Santana (2012, p. 193) argued that such a social climate, defined as 'the collective set of norms, values, and beliefs that expresses employees' views of how they interact with one another while carrying out tasks for the firm', mediates the link between HRM and ambidexterity (e.g. Kang & Snell, 2009; Kang et al., 2007; Prieto & Pilar Pérez Santana, 2012) by facilitating the development of a common frame of reference within the firm (Güttel & Konlechner, 2009). A common frame of reference serves as a framework for a common language and a

common corporate culture with shared values and norms that guide behavior on the basis of shared expectations (Alvesson, 2002; O'Reilly & Tushman, 2008; Shrivastava & Schneider, 1984). It also increases the level of background knowledge – i.e. of knowledge about the strategic challenges and positioning of the firm (Baden-Fuller & Winter, 2005). Developing a common frame of reference is important for ambidextrous firms, which need to manage the conflicting demands and the tensions that arise from the concurrent pursuit of exploration and exploitation (Güttel, Konlechner, Müller, Trede, & Lehrer, 2012). In that respect, it fosters a shared understanding of the firm's goals and values and the consolidation of a common identity (Güttel & Konlechner, 2009; Ravasi & Schultz, 2006). Strong social ties reduce the probability of conflicts between units with heterogeneous learning foci (Nelson, 1989). Dense social relations and frequent communication prevent internal conflict, stimulate the exchange of ideas and make it easier for firms to build and maintain a common frame of reference.

To sum up, literature suggests that ambidexterity leads to favorable performance outcomes, HRM fosters ambidexterity and social integration enables firms to tackle the conflicting demands that exploration and exploitation pose on them. Furthermore, first studies have demonstrated that HRM affects organizational ambidexterity. However, there are few empirical papers that explain how this effect unfolds or how HRM contributes to the integration of exploration and exploitation. This scarcity of empirical evidence has led scholars such as Patel and colleagues (2013, p. 1434) to call for further research in order to 'tease out the more nuanced aspects of the relationships between particular HR practices and the contextual elements necessary to produce organizational ambidexterity'. In the context of structurally differentiated firms (Tushman & O'Reilly, 1996), that is, in firms that set up distinct units dedicated to exploratory and to exploitative learning, the role of HRM systems in social integration is markedly under researched. In view of this, in our paper we investigate how structurally differentiated organizations apply integrative HR practices to facilitate organizational ambidexterity. Our findings reveal how an ambidextrous HRM system – that is, a coherent set of work practices and employment practices – facilitates the continuous integration of exploration and exploitation in the pursuit of increased flexibility and efficiency – works in structurally differentiated firms.

Methods

Research setting and case selection

Given that there are few studies that attempt to link HR practices and ambidexterity, qualitative approaches can contribute to developing and refining existing theoretical approaches (Eisenhardt, 1989). With that in mind, we found a multiple-case study research design (Yin, 2009) to be most suitable, as it allowed us to gain a fine-grained understanding of various HR practices and of how they enable firms to integrate their exploratory and exploitative units. This research design also allowed us to analyze the complexity of organizational ambidexterity in depth and within its natural context (e.g. Simsek et al., 2009; Swart & Kinnie, 2010). In addition, our study is a response to the call for more qualitative research in the field of (human resource) management (Bansal & Corley, 2012; Welch, Piekkari, Plakoyiannaki, & Paavilainen-Mäntymäki, 2011).

We chose to study hidden champions in order to understand in depth how companies manage to integrate exploration and exploitation (Gibbert, Ruigrok, & Wicki, 2008). Tackling this challenge is of key importance to such organizations. Hidden champions are mid-sized companies that are world-market leaders in niche markets but relatively invisible to the end customer (Simon, 2009), so their brands and products are not widely

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recognized by the general public. We argue that, to some extent, hidden champions are also rather invisible to research: while there are several studies on ambidexterity in multinational enterprises (e.g. O'Reilly & Tushman, 2011), and increasingly also in small enterprises (e.g. Patel et al., 2013), little attention has been paid to companies of medium size (revenue below USD 4 billion). Hidden champions are large enough to separate exploitation and exploration for the sake of specialization. However, while they are too large to set up contextually ambidextrous work units in every part of the firm, they are not large enough to implement integration mechanisms on the upper-management level. The latter solution appears to be suitable for MNEs, such as Toyota (Adler, Goldoftas, & Levine, 1999) or IBM (Harreld, O'Reilly, & Tushman, 2007), which can afford to fully concentrate on 'ambidextrous leadership' on the senior management level (O'Reilly & Tushman, 2008).

Our sample companies use both learning modes in different, structurally separated units. To select our empirical cases, we applied theoretical sampling in order to improve external validity (Yin, 2009). We selected these particular firms for three reasons: first, all three firms have been world-market leaders in their industry sector – high-end technology – for a long time and have thus proved their ability to gain short-term benefits, as well as to adapt to changing environments. Second, although the products of these companies are not very price-sensitive, the companies need to stay competitive in the face of increasing competition from lower-cost countries: they operate mainly in Austria, a country with high labor costs, and are constantly forced to build new and refine existing competences. Third, all three companies – as is typical of many hidden champions – operate within high-tech industries and are renowned for their high customer orientation. Because of these characteristics, most hidden champions need to have processes and systems in place that allow them to maximize their efficiency while keeping the flexibility allowing for this inimitable customer orientation (see also Simon, 1996).

On the basis of the definition of ambidextrous firms provided earlier and of the criteria that determine which companies are described as hidden champions, we can reasonably assume that the firms selected are experienced in managing exploration and exploitation. In that respect, the case companies provide a suitable setting for studying how HR practices foster ambidexterity by supporting the integration of exploratory and exploitative units.

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Case description

The sample consists of three hidden champions – we will refer to them by the fictitious names Firetrucker, Lookmaker, and Snowrider – in the high-tech manufacturing industry that are headquartered in the same region of Austria. Their main characteristics are summarized in Table 1.

The Austrian engineering firm Firetrucker is the world's leading manufacturer of fire-fighting vehicles. It offers a wide range of municipal fire-fighting vehicles and aerials built to both European and US standards, an extensive series of aircraft rescue fire-fighting vehicles and industrial fire-fighting vehicles, advanced fire-fighting components, and fire and safety equipment. Since 1866, when the firm was founded, it has developed into a worldwide sales and customer-service organization. Today the still family-owned (51%) Firetrucker Group has a permanent presence in more than 100 countries. In 2011, at the Group's eleven production facilities and six sales companies, its workforce of over 2100 employees generated revenues of EUR 541.6 million. Firetrucker's technological leadership is underpinned by a system of institutionalized design management.

Table 1. Overview of case companies.

	Firetrucker	*Lookmaker*	*Snowrider*
Industry sector	*Engineering firms in the high-tech industry sector*		
Product categories	Fire-fighting vehicles and aerials	Eyewear	Ski service, rental and depot solutions Agricultural research equipment Precision wood-cutting machines
Market leader	Fire-fighting vehicles	Rimless eyewear	All stated above
Annual turnover in EUR	541.6 million	210 million	100 million
Employees	2100	1500	800

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Lookmaker is an Austrian family-owned firm with 1500 employees that was founded in 1964; in the meantime, it has become a worldwide leader in the production of high-class rimless eyewear. Lookmaker's turnover in 2011 was approximately EUR 210 million. Lookmaker runs 13 stand-alone affiliates that sell its own brand but also the licensed brand of a well-known international sportswear supplier that operates in Europe, Asia and North America. The production of both brands is mainly located in Austria but the company also has an 'extended work bench' in the Czech Republic with 200 employees. Only brand management for the two brands is carried out in separate units.

Snowrider is also a family-owned engineering firm, founded in 1953. With its 800 employees worldwide, it achieved a turnover of more than EUR 100 million in 2011. Snowrider is a world-market leader in all of its three divisions: sports (ski service, rental and depot solutions), agriculture (agricultural research equipment) and wood-processing (thin-cutting solutions for panels, boards, etc.). Although the divisions are structurally independent, R&D and production are centralized.

All three companies need to ensure that production is highly efficient and that at the same time they keep their flexibility in order to be successful in their niches in the context of global competition. In all three cases, exploration is carried out by a group of employees who investigate new opportunities within the R&D department, while exploitation is the task of other employees in R&D, sales, customer service and marketing departments, who focus on refining existing products and adapting them to customer expectations. All three companies have a long tradition of innovational strength and place great emphasis on maintaining the business for the next generation. The numerous awards and patents that these firms boast reflect their status as leaders in the areas of technology and innovation and evidence that the simultaneous pursuit of exploration and exploitation ensures both short-term profits and long-term survival. The continuous search for new materials and new designs and the constant optimization of work processes underlie these firms' advantage over their competitors. An additional factor that contributes to their competitive advantage is the tight link between exploration and exploitation, which is facilitated by the spatial proximity between the R&D department and the main production facilities, which in all three cases are located at the Austrian headquarters.

Data collection

Data collection in all three cases took place between 2011 and 2012. We drew our data mainly from a total of 23 semi-structured interviews (Eisenhardt & Graebner, 2007) that

lasted between one and two hours. We selected several interview partners from different organizational units, such as R&D, production, marketing, sales and HR to triangulate sources (Huber & Power, 1985). In order to achieve different viewpoints, we interviewed managers and employees from different hierarchical levels, from the CEO to staff members working in the production department. This also allowed us to gain comprehensive information directly from the people who apply and thus have first-hand experience of various practices (Guest, 2011; Keegan & Francis, 2010).

During data collection, we paid particular attention to ensure the quality of our research. First, all interviews were based on a guideline (Spradley, 1979) that covered questions on daily work, the main activities and challenges in the department, HR practices and the structure of meetings. In order to understand the logic of our interviewees, we asked them to give us specific examples (Alvesson, 2003). Given that the research field we were investigating is underdeveloped, we kept our interview guideline flexible to allow for new themes to emerge. Second, all interviews were recorded and transcribed in German; the quotations that are presented in this paper were translated afterwards. The interviews were conducted on each firm's premises, which allowed us to observe the interviewees in their environment and complement our data with observational notes. Third, we conducted 'member checks'; i.e. we discussed our preliminary findings with key informants in order to enhance the credibility and validity of our constructs (Yin, 2009).

In addition, and in line with the most commonly suggested approaches to the triangulation of data in qualitative research (Huber & Power, 1985; Yin, 2009), we relied not only on multiple sources of evidence, but also on different researchers and complementary methods of data collection: interviews, observation and documents. Most prominently, we used information drawn from web pages and internal documents, such as HR programs, booklets and corporate reports to compare them with our interview data (see Patton, 2001). Table 2 gives an overview of our data sources.

Table 2. Overview of data sources.

	Firetrucker	*Lookmaker*	*Snowrider*
Qualitative in-depth interviews	*7 (118 single-spaced pages)*	*6 (114 single-spaced pages)*	*10 (204 single-spaced pages)*
Interview partners	Head of HR Staff member, sales Staff member, R&D Staff member, HR development Staff member, HR development Staff member, production Trainee	Head of design and R&D Head of sales and distribution Head of production Head of HR Team assistant, brand management Staff member, production plant	Senior executive president, manufacturing Head of HR (2x) Head of production Head of a division Team leader, engineering Team leader, lean management Staff member, sales Staff member, production Staff member, customer support
Documents	Annual reports Balance sheets Fact sheets Official homepage	'Welcome' booklet Communication media Human resource programs Official homepage Posters about norms and values	HR programs Official homepage Organization chart

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Data analysis

To process our data, we performed an inductive multi-step interpretative analysis. In order to identify the HR practices that the three companies employed to integrate exploration and exploitation, we paraphrased and coded the informants' viewpoints into 'first-order concepts' (Miles & Huberman, 1994). By doing so, these first-order concepts enabled us to develop 'second-order concepts' by extracting thematic categories, such as recruitment and selection, onboarding, and training and development. Subsequently, we condensed these second-order concepts into aggregated dimensions in line with HR literature, i.e. employment practices and work practices with an integrative function. Figure 1 gives an overview of how we structured and coded our data on integrative HR practices.

Having identified integrative employment practices and work practices that were employed and how they were applied in each case, our next analytical step aimed at investigating the underlying purposes of these practices and what kind of integrative function they fulfill. These steps of our analysis are depicted in Figure 2.

Our next step was to analyze how the integrative functions of the HR practices we had identified were interrelated, in order to explain how they support the successful integration of exploration and exploitation. During all analytical phases, the core analytical team met regularly to code the text, as well as discuss and revise the emerging categories and sub-categories. In addition, there were regular meetings with the researchers who were not involved in the coding process so that everyone could become familiar with the coding system in order to be able to interpret the coded data, discuss preliminary results (e.g. what are the underlying purposes of practices applied) and possible relationships (e.g. between the integrative functions of the various practices and how they support the integration of

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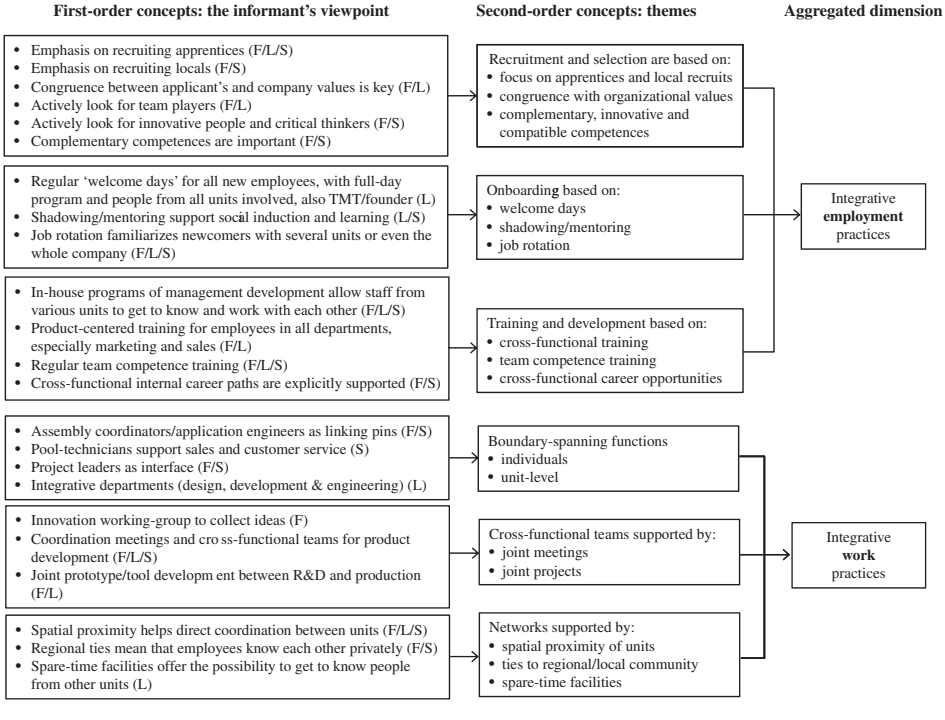


Figure 1. Overview of data structure and coding of integrated HR practices.

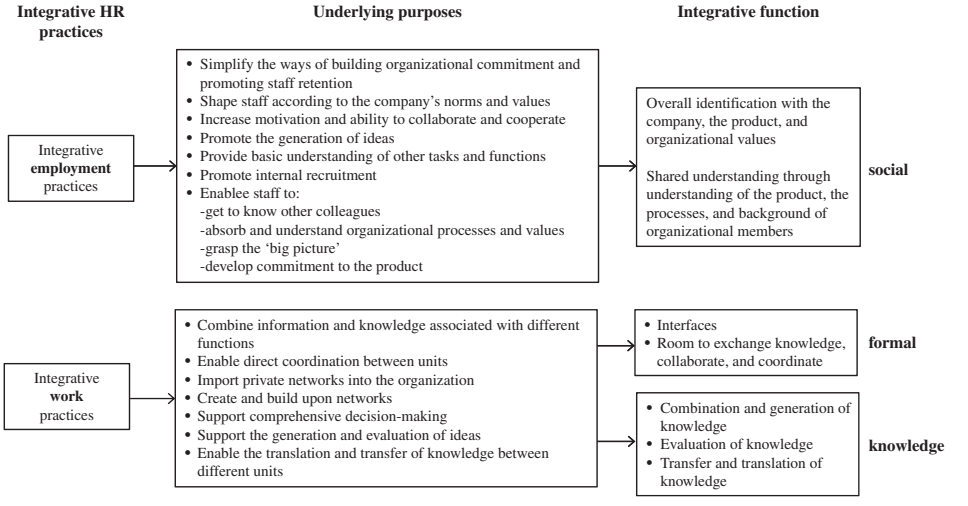


Figure 2. Overview of coding of integrative function and purposes of practices.

exploration and exploitation). We repeated the processes of going through the data and of cross-referencing our interpretations with findings in the existing literature again and again in order to strengthen the validity of our data and the reliability of our approach (Miles & Huberman, 1994; Yin, 2009).

Findings

Our analysis of the integrative employment practices and integrative work practices that we identified and of their underlying purposes provides several insights into the function of HR practices with respect to the integration of exploration and exploitation.

In the following section, we are going to describe our results with regard to the identified (1) employment practices and (2) work practices and their underlying purposes. Our results reveal that how employment practices are applied basically – not exclusively though – creates social integration, while the application of work practices mainly supports formal integration. We furthermore show (3) how both integrative functions, social and formal, foster collaboration and cooperation that in interplay with the common frame of reference consequently enable knowledge integration.

Employment practices particularly foster social integration

We identified a number of integrative employment practices that promote the identification of staff with their company's core values and products, as well as a shared understanding of the product and of the organizational processes. These practices concern mainly (1) recruitment and selection, (2) onboarding, and (3) training and development. An overview of these practices and their underlying purposes that provides a basis for social integration is presented in Table 3.

Recruitment and selection

Recruiting apprentices and locals. All three firms place great emphasis on acquiring young people. Firetrucker and Snowrider cooperate with local secondary schools or

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Table 3. Overview of findings on employment practices and their underlying purposes in the case firms.

	Firetrucker	*Lookmaker*	*Snowrider*	*Underlying purposes*	
Recruitment& selection	Recruitment of apprentices	Recruitment of apprentices	Recruitment of apprentices	Simplify the ways of building organizational commitment and of promoting staff retention Ease the socialization of staff according to the company's norms and values	
	Recruitment of locals		Recruitment of locals		
	Selection based on congruence between the candidates' and the organization's values	Selection based on congruence between the candidates' and the organization's values			
	Select team players	Select team players		Motivate staff to collaborate and cooperate	
	Select innovators		Select innovators	Promote the generation of ideas	
	Select candidates with complementary competences		Select candidates with complementary competences	Create a basic understanding of various tasks	
Onboarding		Welcome days			Internalize organizational norms
		Shadowing	Mentoring	Get to know people who have different functions	Comprehend organizational processes and values
	Job rotation	Job rotation	Job rotation		Understand various tasks
					Grasp the 'big picture'
Training & development	Cross-functional training	Cross-functional training	Cross-functional training	Understand other functions Get to know people from different functions	
	Product-related	Product-related		Grasp the 'big picture' Commitment (emotional bond) to the product = shared goal	
	Team competence training	Team competence training	Team competence training	Enhance the ability to collaborate/cooperate	
	Internal career paths		Internal career paths	Allow internal recruitment	

nearby technical secondary schools, actively participate in youth fairs, organize company tours and offer work placements. The new recruits start as apprentices and gradually make their way up the career ladder, which reflects the dominance of internal over external recruitment. However, whenever candidates are recruited externally, Firetrucker and Snowrider try to attract people from the local environment. It is not unusual to find among the staff of either firm people who represent two generations of the same family.

Basing staff selection on the congruence between the candidates' values and the organization's values. A definite selection criterion that both Firetrucker and Lookmaker apply is the fit between the candidate's values and the organization's values. As for Lookmaker, congruence between these two sets of values is the key criterion. In that company, all candidates are preselected by the HR department and only those who show a strong congruence with the organization's values are invited for a second interview with the area manager.

Selecting innovative team players. Firetrucker deliberately searches for 'critical thinkers' and 'troublemakers' (staff member, R&D). Snowrider also prefers 'little rogues' (Snowrider's Head of Production) who display initiative and entrepreneurial thinking and are courageous enough to express criticism. For both Firetrucker and Lookmaker, social competences and the ability to work in a team constitute important selection criteria.

Selecting candidates with complementary competences. In the process of filling vacancies, Firetrucker and Snowrider search especially for applicants with complementary competences. At Firetrucker, practical skills, or at least the willingness to improve them, are a prerequisite for getting employed in the R&D department. 'With regard to our R&D people, I can say that we expect them to be also able to handle a screwdriver and a jigsaw' (Firetrucker's Head of R&D).

Onboarding

Welcome days. Lookmaker arranges 'welcome days' frequently and all employees, regardless of their prospective positions, have to participate in a welcome day within one or two months after they have joined the company. As the Head of HR explains, 'we rely on the welcoming speeches of our executive board's members, who explain the company's history and our values, and we show photographs in order to create an emotional bond and a lasting memory'. A joint photograph of all participants together is always taken on these occasions, in order to strengthen the image of the organization as a family. There are also a buffet and welcoming cocktails to create a relaxed atmosphere and facilitate informal conversation regardless of the position.

Shadowing and mentoring. New entrants at Lookmaker are expected to learn their tasks by shadowing a member of staff who has been with the company for a long time. At Snowrider, mentors act as points of contact for new recruits within the department but are not responsible for work-related issues. There is a clear and formal separation between the role of mentors on social issues and mentors on work-related issues.

Job rotation. Apprentices, managers, sales people and R&D employees have to attend job-rotation programs that give them the opportunity to try out jobs within different units during their induction. For example, Snowrider's engineers, who will end up working in the R&D department, have to work in production for two weeks and then join the sales team for a short period to gain insights into their kind of job. Similarly, at Firetrucker, prospective pump engineers have to build pumps themselves for about a month in order to learn what it means to be a production worker.

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Training and development

Cross-functional training. The companies provide in-house training in leadership and management skills during which managers from different departments and on different hierarchical levels train together and have the opportunity to get to know each other and to share experiences.

> Project-management training is a classic. The Head of R&D sits next to someone from production, who gets to know a marketing employee he has not met before. Suddenly relations are formed and he realizes that the man who's always wearing a tie is not that bad, after all. (Lookmaker's Head of HR)

Firetrucker and Lookmaker also provide cross-functional training in how their products are designed and marketed.

Team competence training. All case firms employ external trainers to train apprentices in social competences and teamwork in order to strengthen the ability to work in teams. These trainings are especially targeted at team members that work in cross-functional teams spanning different departments.

Cross-functional internal career paths. Many examples from Firetrucker and Snowrider show that there are various possible ways to climb the career ladder. Several employees start in production as apprentices at the age of 15. After they finish their apprenticeship, they continue their employment while some of them additionally study for their degrees in specific technical domains. Following their graduation, most are internally recruited either as product managers, in the sales department, or even in the R&D department.

Employment practices primarily facilitate social integration

The employment practices we identified aim to create cognitive and emotional integration and as a result act as mechanisms of social integration. The cognitive aspect involves creating a shared understanding of the product, the processes and the background of other members of the organization. The emotional aspect involves fostering the identification of staff primarily with the organization's values and the product.

Lookmaker in particular relies on the identification of staff with organizational values in order to ensure social integration. To that end, the company pays close attention to the values of applicants, makes a point of recruiting young people, who are still relatively malleable, and designs welcome days as large company-wide events to enhance commitment via emotional appeal. Especially when employees who have different functions have to work together, it is easier to achieve social integration if these people come from the same family, have a similar background, perhaps know each other from school, local associations or sports activities, or are of similar age. Thus, the practice of recruiting locals (as Firetrucker and Snowrider do) and young people provides the basis for easier social integration.

In cross-functional training, the product itself takes center stage and enables the participants to focus on a common goal regardless of their department and actual job. The purpose of this type of training is to use the product as a linking pin in order to bring together people from different domains in the same learning environment and create a sense of shared understanding and a feeling of community among them. Companies set great value upon the relationship between staff and product and prompt the participants in this kind of training to touch the actual product and play with it. In that way, companies encourage staff to form an emotional bond to their products, to 'fall in love' with them and to make it their employees' goal to do their best in order to create and produce good products. The way in which an employee from Firetrucker's R&D department describes one of their fire trucks illustrates the kind of fascination with the product that companies

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seek to arouse in their staff: 'Tiger (fictitious name of the most prestigious product) is our flagship: it's huge, it's fast, it transports an enormous amount of water, it's impressive'.

Although the identification of staff with the company's values and products is important also for Firetrucker and Snowrider, these two companies devote greater effort to creating the conditions that will allow a sense of understanding to develop among the participants. For that purpose, they employ integrative practices such as cross-functional training and welcome days, which, as we described above, allow people to get to know each other and understand each other's background. These activities also support the creation of internal (partly informal) networks, which promote cooperation among different departments and job functions. The main purposes of shadowing, mentoring and job rotation are to show new recruits not only how tasks are performed within the company but also why they are performed in a particular way. Understanding how the various processes of the organization interrelate and realizing the challenges that other domains face is crucial from these companies' point of view.

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Work practices particularly support formal integration

Our data reveal that all three firms build on specific work practices with the purpose to (1) manage the interfaces between different departments and to (2) provide space for coordination and collaboration and thereby support formal integration (Table 4).

Boundary-spanning functions

We identified variously labeled boundary-spanning functions on the individual level in several departments of the three case companies. At Firetrucker, the job of 'assembly coordinators' spans both sales and R&D. These employees regularly join the meetings of the sales department, where recent market developments and new trends are discussed. In addition, they actively participate in the meetings of the R&D department and report on market developments. The primary function of this company's assembly coordinators is to transfer knowledge from sales to R&D.

At Snowrider, 'pool technicians' support sales, production and the product development process, whereas 'applications engineers' serve as a link between customers and the R&D department. Applications engineers are part of the R&D department and therefore familiar both with the technology and the market logic. When customers need specific adaptations for their machines, applications engineers work together with the sales department to develop a solution. 'Project leaders' are another group of staff who link exploration and exploitation: on the one hand, they are responsible for their projects, from the conception of the idea in the R&D department to the stage where the new product is ready for serial production. On the other hand, they serve as an interface between sales and production. When the sales department sends to the R&D department impulses for the development of new products, project leaders translate the customers' needs into technical specifications, which are then sent back to the sales department, processed, returned to the technical project leaders and so on. In addition to this role, project leaders operate as an interface between R&D and sales, as a respondent at Snowrider points out, describing project leaders as means of 'communication between departments'. One difference we observed was that, whereas Firetrucker and Snowrider focus on creating this kind of human interface on the individual level and thus keep the distinct logics of the various departments apart, Lookmaker focuses on building integrative units that facilitate the combination of knowledge generated in different departments.

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Table 4. Overview of findings on work practices and their underlying purposes in the case firms.

	Firetrucker	*Lookmaker*	*Snowrider*	*Underlying purposes*
Boundary-spanning functions	Assembly coordinators		Pool-technicians Application engineers	Enable cross-functional knowledge transfer
	Project leaders		Project leaders	Ease translation of knowledge
		Department of 'design, development, and engineering'		Support combination of knowledge
Cross-functional teams (joint meetings and joint projects)	Innovation working group			Systematize generation and evaluation of ideas
	Coordination meetings Crisis meetings	Coordination meetings	Coordination meetings	Allow for comprehensive decision-making
	Cross-functional teams for product development	Cross-functional teams for product development	Cross-functional teams for product development	Facilitate generation and evaluation of ideas Allow for comprehensive decision-making Support combination of knowledge
	Joint prototype development by R&D and production	Joint tool development for serial production by R&D and production		Support combination of knowledge
Networks	Spatial proximity facilitates direct coordination	Spatial proximity facilitates direct coordination	Spatial proximity facilitates direct coordination	Ease face-to-face communication and coordination
	Local recruitment means that employees know each other from private contexts		Local recruitment means that employees know each other from private contexts	'Import' private networks into the organization
		Shared canteen Fitness club on the company premises		Build networks

On the unit level, at Lookmaker, the department of 'design, development, and engineering' plays an integrative role, facilitating the combination of explorative and exploitative knowledge. Various groups of employees work within this unit: (1) designers, who create ideas and design potential new products, (2) employees who engage in R&D and technical development, experimenting with and testing new materials, and (3) engineers, who build upon the designers' ideas and the technical knowledge that originates in the R&D department to create new products.

Cross-functional teams

Joint meetings. All three firms stressed that it is crucial to combine the resources of both the exploratory and the exploitative domain when it comes to deciding upon further product developments and setting up projects. At Firetrucker, an 'innovation working group', which consists of employees from different departments, is responsible for collecting new ideas from all departments. These ideas are then discussed with representatives from R&D, sales, etc., who decide jointly how to develop a product further. Ways of developing the company's products are also discussed during meetings among assembly coordinators, 'design talks', 'crisis meetings' (where representatives from different organizational units discuss current problems or challenges) and strategic, cross-functional meetings. An employee in Firetrucker's R&D department describes how these meetings work:

> The team for product X is small, consisting of a technician and a sales representative, who are responsible for product management [. . .], i.e. what sort of feedback do we get from the market? Which direction should development follow in the future? These questions are processed within this team and then discussed in a wider circle. [. . .] Only then do we start developing anything new.

Snowrider regularly holds meetings with representatives from the sales and R&D departments, where market or product developments are discussed. Members of the production and the sales departments also meet regularly to coordinate product-planning, service technicians and production managers meet to exchange experiences, and members of the R&D and sales units hold strategic meetings to discuss the further development of various products. Similarly, Lookmaker pointed out the importance of holding coordination meetings that include people from product management, marketing, sales, R&D and top management. Product managers, for example, 'make use of the employees within the pool of designers' to come up with blueprints for new products. These ideas are then widely discussed with representatives from the marketing and sales departments, as well as with members of the top management team. Once a decision on the development of a new product has been taken, Firetrucker staffs the project team with representatives from key organizational units, including technicians, sales persons and product managers. In much the same manner, Snowrider involves experts from different units – product managers, technicians and project leaders – in all new customer projects.

Joint projects. In all three companies, when a new idea turns into a project, especially during the first phases of its implementation, there is strong collaboration between R&D and production. At Firetrucker, technicians from the R&D department not only lay out the construction plans but, together with production staff, are also part of the assembling team that constructs the prototype. Similarly, at Lookmaker, R&D and production tightly collaborate to develop new tools for serial production, building upon each other's specialized knowledge and experience.

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Networks

Networks within the firm provide staff with the opportunity to coordinate their tasks in ways that complement coordination that is based on hierarchical structures and responsibilities. Many interviewees highlighted the importance of spatial proximity for building and maintaining such networks, which are a necessary precondition for daily work. Firetrucker's employees, for example, stressed the pivotal role of 'knowing who knows what' in developing new products and pointed out that being able to communicate directly with each other enables them to build on the knowledge and experience of colleagues from different departments. Importantly, one effect of Firetrucker's and Snowrider's strategy of recruiting staff locally is that private networks are often transferred from the local community into the firm. Employees who happen to be members of the same family or to know each other socially maintain and strengthen their social ties through their daily work. Lookmaker puts a strong emphasis on building up these informal networks within the firm. Apart from the already mentioned 'welcome days', which provide settings that allow new recruits to meet and connect, the shared canteen offers the chance for employees from all parts of the company to have lunch together and, thus, establish and maintain personal contacts regardless of hierarchical structures and job responsibilities. The organization's fitness club also offers staff the opportunity to participate in shared sports activities and to get to know colleagues from other departments. All these opportunities for socialization facilitate everyday collaboration, because 'we already know each other from other contexts' (Lookmaker, staff member of production). In all three firms, low staff turnover rates and the fact that many employees get to work in different departments as they progress along their internal career paths foster the development of networks and relationships throughout the organization.

The design of work practices that facilitate formal integration

The companies we investigated actively provide a formal context that enables collaboration and cooperation. Boundary-spanning functions, cross-functional teams and practices that foster social networks create interfaces between various parts of the organization and promote the exchange of knowledge between different departments. Thus, formal integration mechanisms underpin organizational structures that support collaboration and cooperation, and consequently the integration of exploratory and exploitative knowledge.

Collaboration and cooperation in interplay with a common frame of reference foster knowledge integration

In essence, the hidden champions we investigated actively manage the integration of knowledge between the domains of exploration and exploitation through mechanisms of social integration and formal integration. The employment practices applied enable staff for example to know other colleagues, to understand organizational processes and products, and to grasp the big picture. Hence, such practices lead to overall identification with the company and a mutual understanding. The application of work practices serves the purpose of providing room for exchange and coordination and creating interfaces. Boundary-spanning functions, in particular, make it possible to 'translate' knowledge generated in one department into knowledge that can be utilized in another department – more precisely, between exploratory and exploitative units. The firms we studied put a strong emphasis on cross-functional teams and meetings, as well as on developing and

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maintaining networks, which help create a setting in which ideas can be generated and evaluated, knowledge from various departments can be combined, tasks can be coordinated and informed decisions can be taken.

These integrative functions (social and formal) enable company-wide collaboration and cooperation. Integrative HR practices provide the foundation for a common frame of reference that is facilitated by integrative employment practices and reinforced by collaboration and thereby supports knowledge integration of exploration and exploitation of structurally separated units. As a consequence, knowledge from exploratory and exploitative domains is integrated. This integration resolves conflicting demands and tensions ambidextrous organizations are confronted with.

Discussion and conclusions

Ambidextrous firms are able to cope well with conflicting demands, especially in the context of global competition and the pressure to solve the productivity dilemma and achieve both efficiency and flexibility (Adler et al., 2009; Lavie, Stettner, & Tushman, 2010; Nosella et al., 2012; Turner et al., 2013). While the literature acknowledges that the integration of exploration and exploitation plays an important role in structurally ambidextrous companies, few studies examine how HR practices and their underlying purposes support this integration and help organizations attain organizational ambidexterity. In view of this gap in research, our analysis identified a set of aligned HR practices that support the integration of exploration and exploitation. The findings from three hidden champions elucidate how such an ambidextrous HRM system fosters cross-functional collaboration and a common frame of reference, which in turn allow for integrating exploration and exploitation.

Thereby, our study provides insights into ambidextrous HRM systems, and how they influence interaction between social integration and formal integration to facilitate collaboration and the building of a common frame of reference. This integration, in turn, supports the complementary interplay between a common frame of reference and a firm's ability to integrate knowledge in order to manage the conflicting demands of exploration and exploitation. Thus, we contribute to the literature on the linkage between HRM and organizational ambidexterity in various ways.

We shed light on how ambidextrous HRM systems work. While extant literature on HPWSs highlights its positive performance implications (Combs et al., 2006; Guthrie, 2001; Huselid, 1995), we show how HRM systems should be configured to facilitate organizational ambidexterity for combining short-term efficiency and long-term flexibility. By doing so, we focus on an issue that has just started to attract attention from research (e.g. Patel et al., 2013; Prieto & Pilar Pérez Santana, 2012). We elaborated on how specific employment practices and work practices interact to promote social and formal integration. This interaction is the foundation of an ambidextrous HRM system.

Based on our findings, we define an ambidextrous HRM system as a particular type of HPWS that facilitates the continuous integration of exploration and exploitation in the pursuit of increased flexibility and efficiency. While in large firms, HRM systems are highly differentiated (Kang & Snell, 2009) and connected via top management teams (Smith & Tushman, 2005), the mid-sized firms of our case studies apply HR practices that allow them to create a common frame of reference that serves both efficiency and flexibility. The companies we studied structurally separate exploitation and exploration for the sake of specialization. Therefore, the integration of exploratory and exploitative learning domains is essential. In contrast to companies that are large enough so that the

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upper-management level can fulfill such an integrative function, the question is how an ambidextrous HRM system can serve as a functional equivalent.

Nonetheless, the finding that the firms did not apply differentiated HRM systems across employee groups within the firm is interesting per se, for literature on HR differentiation in general (e.g. Marescaux, De Winne, & Sels, 2013) and research on HR differentiation and ambidexterity in specific. While prior research has rather suggested the use of different HRM practices for exploratory and exploitative units (e.g. Kang & Snell, 2009; Kang et al., 2007), our findings support recent suggestions of using a common set of HR practices for fostering organizational ambidexterity (Prieto & Pilar Pérez Santana, 2012). Our insights rather suggest a negative effect of differentiating HR practices between exploratory and exploitative groups, and highlight the importance of HRM's integrative function.

Regarding this integrative function, we elucidate the interplay between social integration and formal integration in structurally ambidextrous firms. We show that the mechanisms of social and formal integration that these companies employ are inextricably linked with respect to the ways in which they promote collaboration and cooperation. On the one hand, integrative employment practices enable companies to provide a common frame of reference, which is a precondition for successful collaboration within the company. On the other hand, integrative work practices strengthen this frame of reference and thus promote the integration of knowledge generated in different departments.

We extend previous findings on the role of this common frame of reference in ambidextrous organizations (e.g. Gilbert, 2006; Güttel & Konlechner, 2009) by showing how the careful management of HR practices contributes to creating and maintaining such a frame. As we found out, all three companies purposefully design their HR practices as social control mechanisms (O'Reilly & Chatman, 1996) to create a shared understanding among staff and to promote their identification with the company's goals and products (Ravasi & Schultz, 2006). The employment practices of recruitment and selection, onboarding, and training and development that we described are essential for the stabilization of the values and norms that help build the organizational culture (Chatman, 1991; Cook & Yanow, 1993). Similarly, the work practices we observed support the exchange of knowledge between exploratory and exploitative units. The firms we studied support this exchange mainly through interaction-oriented (Kogut & Zander, 1996) structures, projects and meetings. Networks, cross-functional teams and boundary-spanning functions, as well as the spatial proximity of different domains, also contribute to the fast exchange of knowledge.

Our analysis suggests the existence of a complementary interplay between the common frame of reference and a firm's ability to integrate knowledge (Figure 3). The continuous application of the practices we identified creates adaptive expectation effects (Sydow, Schreyögg, & Koch, 2009): the organization's members combine knowledge from different domains because they expect others to do the same, so the exchange and integration of knowledge becomes legitimate within a firm. The common frame of reference and the integration of knowledge reinforce each other mutually, link domains that are structurally separated and enable employees to gain a shared understanding of the conflicting demands that arise from tensions between exploration and exploitation.

So far the HR literature has paid little attention to these conflicting demands and how they can be integrated. The integration of knowledge strengthens the identification of staff with the company's goals and values as well as the sense of shared understanding. However, this integration is particularly relevant for structurally ambidextrous firms, which usually run the danger of losing the connection between exploration and exploitation.

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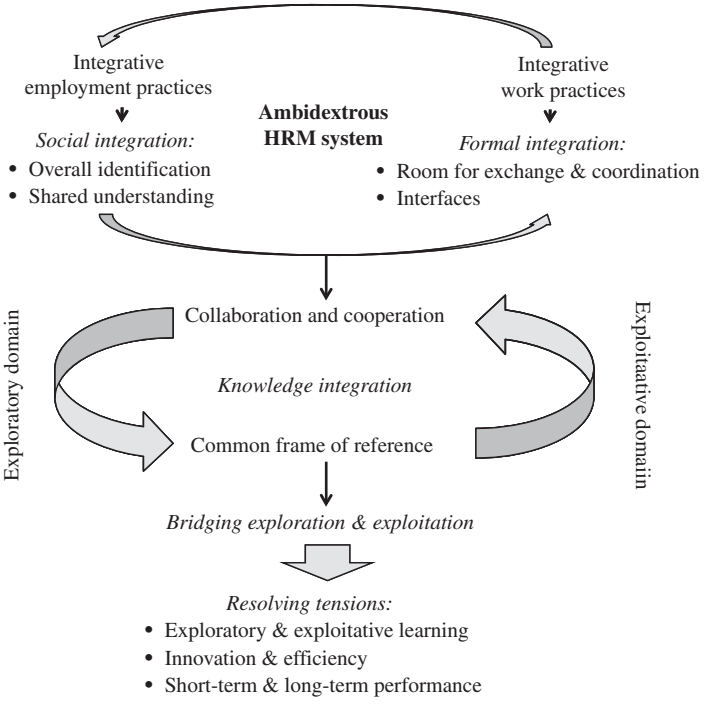


Figure 3. Ambidextrous HRM system.

Losing this connection would almost inevitably result in one-sided specialization and, thus, increase the risk of failure (Levinthal & March, 1993). By creating a common frame of reference, organizations facilitate the coupling of efficiency and flexibility as well as adopting a short-term and long-term performance focus concurrently. The downside of integration, however, is that it neither encourages different thinking nor does it stimulate exploration. As a consequence, it becomes more and more unlikely that other parts of the firm will appreciate these novel ideas, which leads to implementation difficulties or a lacking absorptive capacity for wishes from customers, reported by sales people, which could provide ideas for exploitation. We therefore emphasize the role of the complementary interplay between a common frame of reference and a firm's ability to integrate knowledge to connect different structurally separated domains.

Practical implications

In particular, mid-sized firms may profit from our findings that HRM systems play a pivotal role in facilitating ambidexterity for hidden champions. In contrast to previous studies, which concentrate on arguing how different practices can be combined to support ambidextrous learning, we emphasize that the main purpose of HRM is to create interfaces between the domains of exploration and exploitation – even between very heterogeneous organizational subunits – in order to facilitate integration. Knowledge exchange is critical to quickly learn from customer needs to align R&D and to implement cutting-edge knowledge from R&D for improving products and processes. Thus, the creation of interfaces between heterogeneous units serves as a main task for managers for enabling formal integration. These 'formal integration' mechanisms that managers utilize in order

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to create spaces of knowledge integration include various functions, projects, meetings and networks, as well as job design and task allocation.

Knowledge exchange requires mutual understanding and trust, which is fostered through social integration. Managers need to facilitate the creation and maintenance of a common frame of reference that helps align a range of expectations across the company and reduce ambiguity. Fostering overall identification, e.g., through specific recruitment and onboarding practices, is a necessary basis towards shaping this integrative frame of reference and lays the ground for organizational ambidexterity. Selecting employees whose values are congruent with the company's values helps ensure that the employees quickly accept and internalize the values and norms of the organizational culture, which are fundamental for connecting exploration and exploitation. Furthermore, recruiting locally means that staff is very likely to identify strongly with the firm and to have a long-term perspective, because virtually all new employees will already know some of their colleagues, which in turn implies that they will most probably have already formed a realistic idea of their new job.

In sum, our findings show that managers can facilitate the integration of exploration and exploitation by managing the organizational context and by paying attention to job design, rather than by means of explicit rewards.

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Limitations and avenues for further research

One of this study's strengths is the focus on hidden champions. Hidden champions are neither large enough to consist of highly diversified exploratory and exploitative units, nor small enough to perform exploratory and exploitative tasks solely in a contextual unit. Thus, they are perfect objects of investigation for micro-studies of how organizations integrate exploration and exploitation. Nevertheless, the case companies differ in significant ways from small or multi-national enterprises (e.g. in terms of the scale of R&D activities, world-market leadership or brand recognition), which suggests that caution should be exercised in the transfer of these findings to other contexts. For instance, performance appraisals and rewards were found to be irrelevant for our mid-sized case-study companies as they neither differentiated between exploratory and exploitative units nor supported integration by linking exploratory and exploitative units. Nonetheless, performance appraisals and rewards may play a role in larger organizations with several highly diversified business units. Therefore, more research will be needed to investigate the degree of differentiation of HRM systems and to clarify the role of HR practices in organizations of different sizes.

Furthermore, as the study was conducted in Austria, a country with high labor costs, a well-developed system of social partnership (i.e. cooperation between trade unions, employers' organizations and government) and rather employee-friendly labor rights, the findings may not fully apply to companies based in other countries with different labor rights that affect, e.g., the average length of employment in a company. Thus, further research is required to investigate how the HR practices identified in this paper relate to ambidexterity in companies based in different countries with different employee relations.

On a more general note, the multiple-case study design applied in this study is the most suitable approach for addressing our research question. Nonetheless qualitative case studies generally involve some limitations that need to be acknowledged. First and foremost, generalizing the results of case studies is based on analytical, rather than statistical principles (Yin, 2009). Case study companies are selected based on theoretical reasoning in order to select those cases that possibly provide rich insights. While this non-

random selection of cases is appropriate for choosing cases for our case study research, as it provides valuable information on the basic mechanisms of ambidexterity and HRM, it clearly lacks representativeness in a statistical sense. Case studies are strong in theory-building rather than in confirming or disconfirming theory (Gerring, 2004). In addition, also the small number of interviews limits the generalizability of the study. Still, case studies play a substantial role in advancing the theoretical state in an academic field. Thus, our case study can serve as a starting point for more research on ambidexterity and HRM. We especially encourage future research to build on our findings in order to develop appropriate measures and test quantitatively the relationships we have explored here.

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References

Adler, P. S., Benner, M., Brunner, D. J., MacDuffie, J. P., Osono, E., Staats, B. R., … Winter, S. (2009). Perspectives on the productivity dilemma. *Journal of Operations Management*, *27*, 99–113. doi:10.1016/j.jom.2009.01.004

Adler, P. S., Goldoftas, B., & Levine, D. (1999). Flexibility versus efficiency? A case study of model changeovers in the Toyota production system. *Organization Science*, *10*, 43–68. doi:10.1287/orsc.10.1.43

Alvesson, M. (2002). *Understanding organizational culture*. London: Sage.

Alvesson, M. (2003). Beyond neopositivists, romantics, and localists: A reflexive approach to interviews in organizational research. *The Academy of Management Review*, *28*, 13–33.

Baden-Fuller, C., & Winter, S. G. (2005). *Replicating organizational knowledge: Principles or templates?* Working paper (2005–2015) Max Planck Institute of Economics, Evolutionary Economics Group.

Bansal, P., & Corley, K. (2012). Publishing in AMJ-Part 7: What's different about qualitative research? *Academy of Management Journal*, *55*, 509–513. doi:10.5465/amj.2012.4003

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*, 99–120. doi:10.1177/014920639101700108

Barney, J. B., & Wright, P. M. (1998). On becoming a strategic partner: The role of human resources in gaining competitive advantage. *Human Resource Management Review*, *37*, 31–46.

Battilana, J., & Lee, M. (2014). Advancing research on hybrid organizing – Insights from the study of social enterprises. *Academy of Management Annals*, *8*, 397–441. doi:10.1080/19416520.2014.893615

Becker, B. E, & Huselid, M. A. (1998). High performance work systems and firm performance: A synthesis of research and managerial implications. *Research in Personnel and Human Resource Management*, *16*, 53–101.

Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-firm performance linkages: The role of the strength of the HRM system. *Academy of Management Review*, *29*, 203–221.

Boxall, P., & Macky, K. (2009). Research and theory on high-performance work systems: Progressing the high-involvement stream. *Human Resource Management Journal*, *19*, 3–23. doi:10.1111/j.1748-8583.2008.00082.x

Cao, Q., Gedajlovic, E., & Zhang, H. (2009). Unpacking organizational ambidexterity: Dimensions, contingencies, and synergistic effects. *Organization Science*, *20*, 781–796. doi:10.1287/orsc.1090.0426

Chang, Y.-Y., Hughes, M, & Hotho, S. (2011). Internal and external antecedents of SMEs' innovation ambidexterity outcomes. *Management Decision*, *49*, 1658–1676. doi:10.1108/00251741111183816

Chatman, J. A. (1991). Matching people and organizations: Selection and socialization in public accounting firms. *Administrative Science Quarterly*, *36*, 459–484. doi:10.2307/2393204

Collins, C. J., & Smith, K. G. (2006). Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms. *Academy of Management Journal*, *49*, 544–560. doi:10.5465/AMJ.2006.21794671

Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006). How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance. *Personnel Psychology*, *59*, 501–528. doi:10.1111/j.1744-6570.2006.00045.x

Cook, S. D. N., & Yanow, D. (1993). Culture and organizational learning. *Journal of Management Inquiry*, *2*, 373–390. doi:10.1177/105649269324010

Delery, J., & Shaw, J. (2001). The strategic management of people in work organizations: Review, synthesis, and extension. *Research in Personnel and Human Resources Management*, *20*, 165–198.

Diefenbach, T., & Sillince, J. A. A. (2011). Formal and informal hierarchy in different types of organization. *Organization Studies*, *32*, 1515–1537. doi:10.1177/0170840611421254

Eisenhardt, K. M. (1989). Building theories from case study research. *The Academy of Management Review*, *14*, 532–550.

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, *50*, 25–32. doi:10.5465/AMJ.2007.24160888

Evans, W. R., & Davis, W. D. (2005). High-performance work systems and organizational performance: The mediating role of internal social structure. *Journal of Management*, *31*, 758–775. doi:10.1177/0149206305279370

Gerring, J. (2004). What is a case study and what is it good for? *American Political Science Review*, *98*, 341–354. doi:10.1017/S0003055404001182

Gibbert, M., Ruigrok, W., & Wicki, B. (2008). What passes as a rigorous case study? *Strategic Management Journal*, *29*, 1465–1474. doi:10.1002/smj.722

Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal*, *47*, 209–226. doi:10.2307/20159573

Gilbert, C. G. (2006). Change in the presence of residual fit: Can competing frames coexist? *Organization Science*, *17*, 150–167. doi:10.1287/orsc.1050.0160

Greenwood, R., Raynard, M., Kodeih, F., Micelotta, E., & Lounsbury, M. (2011). Institutional complexity and organizational responses. *Academy of Management Annals*, *5*, 317–371. doi:10.1080/19416520.2011.590299

Guest, D. E. (2011). Human resource management and performance: Still searching for some answers. *Human Resource Management Journal*, *21*, 3–13. doi:10.1111/j.1748-8583.2010.00164.x

Gupta, A. K., Smith, K. G., & Shalley, C. E. (2006). The interplay between exploration and exploitation. *Academy of Management Journal*, *49*, 693–706. doi:10.5465/AMJ.2006.22083026

Guthrie, J. P. (2001). High-involvement work practices, turnover, and productivity: Evidence from New Zealand. *Academy of Management Journal*, *44*, 180–190. doi:10.2307/3069345

Güttel, W. H., & Konlechner, S. W. (2009). Continuously hanging by a thread: Managing contextually ambidextrous organizations. *Schmalenbach Business Review*, *71*, 149–172.

Güttel, W. H., Konlechner, S., Müller, B., Trede, J. K., & Lehrer, M. (2012). Facilitating ambidexterity in replicator organizations: Artifacts in their role as routine-recreators. *Schmalenbach Business Review*, *74*, 187–203.

Downloaded by [89.144.209.63] at 07:30 22 July 2015

Güttel, W. H., Konlechner, S. W., & Trede, J. K. (2015). Standardized individuality versusindividualized standardization: The role of the context in structurally ambidextrousorganizations. *Review of Managerial Science*, *9*, 261–284.
Harreld, J., O'Reilly, C. A., & Tushman, M. (2007). Dynamic capabilities at IBM: Driving strategy into action. *California Management Review*, *49*, 21–43. doi:10.2307/41166404
He, Z. -L., & Wong, P. -K. (2004). Exploration vs. exploitation: An empirical test of the ambidexterity hypothesis. *Organization Science*, *15*, 481–494. doi:10.1287/orsc.1040.0078
Huang, J., & Kim, H. J. (2013). Conceptualizing structural ambidexterity into the innovation of human resource management architecture: The case of LG Electronics. *The International Journal of Human Resource Management*, *24*, 922–943. doi:10.1080/09585192.2012.743471
Huber, G. P., & Power, D. J. (1985). Retrospective reports of strategic-level managers: Guidelines for increasing their accuracy. *Strategic Management Journal*, *6*, 171–180. doi:10.1002/smj.4250060206
Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, *38*, 635–672. doi:10.2307/256741
Jansen, J. J. P., Tempelaar, M. P., Van den Bosch, F. A. J., & Volberda, H. W. (2009). Structural differentiation and ambidexterity: The mediating role of integration mechanisms. *Organization Science*, *20*, 797–811. doi:10.1287/orsc.1080.0415
Jiang, K., Lepak, D. P., Hu, J., & Baer, J. C. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal*, *55*, 1264–1294. doi:10.5465/amj.2011.0088
Jin, Y., Hopkins, M. M., & Wittmer, J. L. C. (2010). Linking human capital to competitive advantages: Flexibility in a manufacturing firm's supply chain. *Human Resource Management*, *49*, 939–963. doi:10.1002/hrm.20385
Kang, S., Morris, S. S., & Snell, S. A. (2007). Relational archetypes, organizational learning, and value creation: Extending the human resource architecture. *Academy of Management Review*, *32*, 236–256. doi:10.5465/AMR.2007.23464060
Kang, S.-C., & Snell, S. A. (2009). Intellectual capital architectures and ambidextrous learning: A framework for human resource management. *Journal of Management Studies*, *46*, 65–92. doi:10.1111/j.1467-6486.2008.00776.x
Katila, R., & Ahuja, G. (2002). Something old, something new: A longitudinal study of search behavior and new product introduction. *Academy of Management Journal*, *45*, 1183–1194. doi:10.2307/3069433
Kauppila, O. -P. (2010). Creating ambidexterity by integrating and balancing structurally separate interorganizational partnerships. *Strategic Organization*, *8*, 283–312. doi:10.1177/1476127010387409
Keegan, A., & Francis, H. (2010). Practitioner talk: The changing textscape of HRM and emergence of HR business partnership. *International Journal of Human Resource Management*, *21*, 873–898. doi:10.1080/09585191003729341
Ketkar, S., & Sett, P. K. (2009). HR flexibility and firm performance: Analysis of a multi-level causal model. *The International Journal of Human Resource Management*, *20*, 1009–1038. doi:10.1080/09585190902850240
Kogut, B., & Zander, U. (1996). What firms do? Coordination, identity, and learning. *Organization Science*, *7*, 502–518. doi:10.1287/orsc.7.5.502
Lado, A. A., & Wilson, M. C. (1994). Human resource systems and sustained competitive advantage: A competency-based perspective. *Academy of Management Review*, *19*, 699–727.
Lavie, D., Stettner, U., & Tushman, M. L. (2010). Exploration and exploitation within and across organizations. *The Academy of Management Annals*, *4*, 109–155. doi:10.1080/19416521003691287
Lawler, E. (1986). *High-involvement management*. San Francisco, CA: Jossey-Bass.
Lepak, D. P., Liao, H., Chung, Y., & Harden, E. E. (2006). A conceptual review of human resource management systems in strategic human resource management research. *Research in Personnel and Human Resource Management*, *25*, 217–271.
Levinthal, D. A., & March, J. G. (1993). The myopia of learning. *Strategic Management Journal*, *14*, 95–112. doi:10.1002/smj.4250141009

Downloaded by [89.144.209.63] at 07:30 22 July 2015

Lubatkin, M. H., Simsek, Z., Ling, Y., & Veiga, J. F. (2006). Ambidexterity and performance in small-to medium-sized firms: The pivotal role of top management team behavioral integration. *Journal of Management*, *32*, 646–672. doi:10.1177/0149206306290712

Malsch, B., & Gendron, Y. (2013). Re-theorizing change: Institutional experimentation and the struggle for domination in the field of public accounting. *Journal of Management Studies*, *50*, 870–899. doi:10.1111/joms.12006

March, J. G. (1991). Exploration and exploitation in organizational learning. *Organization Science*, *2*, 71–87. doi:10.1287/orsc.2.1.71

Marescaux, E., De Winne, S., & Sels, L. (2013). HR practices and affective organisational commitment: (When) does HR differentiation pay off? *Human Resource Management Journal*, *23*, 329–345.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.

Mom, T. J., Van den Bosch, F. A. J., & Volberda, H. W. (2007). Investigating managers' exploration and exploitation activities: The influence of top-down, bottom-up, and horizontal knowledge inflows. *Journal of Management Studies*, *44*, 910–931. doi:10.1111/j.1467-6486.2007.00697.x

Murray, L. W. (1997). Hidden champions: Lessons from 500 of the world's best unknown companies. *Journal of Product Innovation Management*, *14*, 145–147. doi:10.1016/S0737-6782(97)83954-9

Nelson, R. E. (1989). The strength of strong ties: Social networks and intergroup conflict in organizations. *Academy of Management Journal*, *32*, 377–401. doi:10.2307/256367

Nosella, A., Cantarello, S., & Filippini, R. (2012). The intellectual structure of organizational ambidexterity: A bibliographic investigation into the state of the art. *Strategic Organization*, *10*, 450–465. doi:10.1177/1476127012457979

O'Reilly, C. A., & Chatman, J. A. (1996). Culture as social control: Corporations, cults, and commitment. *Research in Organizational Behavior*, *18*, 157–200.

O'Reilly, C. A., & Tushman, M. L. (2008). Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. *Research in Organizational Behavior*, *28*, 185–206. doi:10.1016/j.riob.2008.06.002

O'Reilly, C. A., & Tushman, M. L. (2011). Organizational ambidexterity in action: How managers explore and exploit. *California Management Review*, *53*, 5–22. doi:10.1525/cmr.2011.53.4.5

Patel, P. C., Messersmith, J. G., & Lepak, D. P. (2013). Walking the tightrope: An assessment of the relationship between high-performance work systems and organizational ambidexterity. *Academy of Management Journal*, *56*, 1420–1442. doi:10.5465/amj.2011.0255

Patton, M. Q. (2001). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.

Prieto, I. M., & Pilar Pérez Santana, M. (2012). Building ambidexterity: The role of human resource practices in the performance of firms from Spain. *Human Resource Management*, *51*, 189–211. doi:10.1002/hrm.21463

Raisch, S. (2008). Balanced structures: Designing organizations for profitable growth. *Long Range Planning*, *41*, 483–508. doi:10.1016/j.lrp.2008.06.004

Raisch, S., Birkinshaw, J., Probst, G., & Tushman, M. (2009). Organizational ambidexterity: Balancing exploitation and exploration for sustained performance. *Organization Science*, *20*, 685–695. doi:10.1287/orsc.1090.0428

Ravasi, D., & Schultz, M. (2006). Responding to organizational identity threats: Exploring the role of organizational culture. *Academy of Management Journal*, *49*, 433–458. doi:10.5465/AMJ.2006.21794663

Schilke, O. (2014). On the contingent value of dynamic capabilities for competitive advantage: The nonlinear moderating effect of environmental dynamism. *Strategic Management Journal*, *35*, 179–203. doi:10.1002/smj.2099

Shafer, R. A., Dyer, L., Kilty, J., Amos, J., & Ericksen, J. (2001). Crafting a human resource strategy to foster organizational agility: A case study. *Human Resource Management*, *40*, 197–211. doi:10.1002/hrm.1011

Shrivastava, P., & Schneider, S. C. (1984). Organizational frames of reference. *Human Relations*, *37*, 795–809. doi:10.1177/001872678403701002

Simon, H. (1992). Lessons from Germany's midsize giants. *Harvard Business Review*, *70*, 115–123.

Simon, H. (1996). *Hidden champions: Lessons from 500 of the world's best unknown companies*. Boston, MA: Harvard Business School Press.

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Simon, H. (2009). *Hidden champions of the twenty-first century: The success strategies of unknown world market leaders*. New York, NY: Springer.
Simsek, Z., Heavey, C., Veiga, J. F., & Souder, D. (2009). A typology for aligning organizational ambidexterity's conceptualizations, antecedents, and outcomes. *Journal of Management Studies*, *46*, 864–894. doi:10.1111/j.1467-6486.2009.00841.x
Smith, W. K., & Tushman, M. L. (2005). Managing strategic contradictions: A top management model for managing innovation streams. *Organization Science*, *16*, 522–536. doi:10.1287/orsc.1050.0134
Spradley, J. (1979). *The ethnographic interview*. New York, NY: Holt, Reinhart & Winston.
Swart, J., & Kinnie, N. (2010). Organisational learning, knowledge assets and hr practices in professional service firms. *Human Resource Management Journal*, *20*, 64–79. doi:10.1111/j.1748-8583.2009.00115.x
Sydow, J., Schreyögg, G., & Koch, J. (2009). Organizational path dependence: Opening the black box. *Academy of Management Review*, *34*, 689–709. doi:10.5465/AMR.2009.44885978
Turner, N., Swart, J., & Maylor, H. (2013). Mechanisms for managing ambidexterity: A review and research agenda. *International Journal of Management Reviews*, *15*, 317–332. doi:10.1111/j.1468-2370.2012.00343.x
Tushman, M. L., & O'Reilly, C. A. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California Management Review*, *38*, 8–30. doi:10.2307/41165852
Tushman, M. L., & O'Reilly, C. A. (1997). *Winning through innovation*. Boston, MA: Harvard Business School Press.
Welch, C., Piekkari, R., Plakoyiannaki, E., & Paavilainen-Mäntymäki, E. (2011). Theorising from case studies: Towards a pluralist future for international business research. *Journal of International Business Studies*, *42*, 740–762. doi:10.1057/jibs.2010.55
Wood, S., & Wall, T. (2007). Work enrichment and employee voice in human resource management-performance studies. *International Journal of Human Resource Management*, *18*, 1335–1372. doi:10.1080/09585190701394150
Wright, P. M., Dunford, B. B., & Snell, S. A. (2001). Human resources and the resource based view of the firm. *Journal of Management*, *27*, 701–721. doi:10.1177/014920630102700607
Wright, P. M., & Snell, S. A. (1998). Toward a unifying framework for exploring fit and flexibility in strategic human resource management. *Academy of Management Review*, *23*, 756–772.
Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage.

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