INTELLECTUAL CAPITAL CONFIGURATIONS AND VALUE CREATION: A CONCEPTUAL MODEL OF HR SHARED SERVICES

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Jeroen Meijerink¹, Tanya Bondarouk, Jan Kees Looise
University of Twente, the Netherlands

ABSTRACT

The ways by which intellectual capital (IC) drives value creation is often limitedly understood, particularly in the case of Human Resource Shared Services (HRSS), as its components – human, organizational and social capital – are treated as independent and separate constructs. In this paper, a configuration approach to intellectual capital is adopted in order to develop a conceptual framework that provides an in-depth understanding of the ways in which intellectual capital creates value for HRSS end-users. We argue that the interrelationships among human, organisational and social capital form value-creating IC configurations which value creation capability is contingent upon the type of HR services offered. Through this, we contribute by explaining how intellectual capital drives value creation, and how HRSS may make use of their human, organisational and social capital to create value for their end-users.

Key words: configurations, human resource shared services, intellectual capital, service segmentation, value creation.

¹ Corresponding author: PO Box 217, 7500 AE Enschede, the Netherlands, j.g.meijerink@utwente.nl
INTRODUCTION

Human Resource Shared Services (HRSS) bundle and leverage intellectual capital (IC) – considered as their knowledge and knowing – to meet the needs of those they serve, or to create value for their end-users: employees, managers and HR professionals. Previous research has shown that constructive bundling of intellectual capital is critical for HRSS success (Cooke, 2006; Farndale, Paauwe, & Hoeksema, 2009; Ulrich, 1995). In this article, HRSS are understood as an HR service delivery model in which a (semi-)autonomous business unit within an organisational entity – also called an HR Shared Service Provider (HR SSP) – bundles intellectual capital to provide HR services which are adapted to the needs of its end-users and clients. Examples of HR services which are commonly offered through HRSS include transactional HR services, such as payrolling and personnel record keeping, and transformational HR services such as training or recruitment services (Redman, Snape, Wass, & Hamilton, 2007; Ulrich, 1995).

Our paper is geared by two research streams: studies into intellectual capital and emerging studies on HRSS. Most research on intellectual capital focuses on the contribution of three categories of intellectual capital – human, organisational and social capital – which are viewed as separate and independent categories in explaining differences in levels of firm performance (Walsh, Enz, & Canina, 2008; Yang & Lin, 2009; Youndt & Snell, 2004). For example, Youndt and Snell (2004) showed that higher levels of human, organisational and social capital result in higher levels of firm performance. Although this approach helps to explain why firms differ in levels of value creation, it simplifies the reality by often failing to recognise the interdependencies among the three IC categories (Youndt, Subramaniam, & Snell, 2004). Although some studies have revealed that these IC categories are interrelated
(Bollen, Vergauwen, & Schnieders, 2005; Hansen, Nohria, & Tierney, 1999; Ruta, 2009) they fail to explain how such interrelationships enable value creation. The popularity of the emerging studies into HRSS originates in the rapid growth of HRSS models. The literature has mainly focused on the motives for and structures of HRSS (Farndale, Paauwe, & Hoeksema, 2009; Janssen & Joha, 2006; Redman et al., 2007), and ignores questions about how HRSS creates value for end-users.

This paper strives to integrate the strengths of studies into intellectual capital and those into HRSS and, at the same time, minimises the drawbacks of both by developing a conceptual model for HRSS value creation through the configurations of the three categories of intellectual capital. A configuration approach to intellectual capital may enable a deeper understanding of how the latter creates value (Ruta, 2009; Youndt et al., 2004) by predicting how certain configurations, formed by the interaction of several variables (Miller, 1987), create value under a specific set of conditions (Short, Payne, & Ketchen, 2008). Based on this approach, we aim to develop a framework for examining how the interrelationships among human, organisational and social capital of HR SSPs create value for end-users.

This article makes several contributions. First, it contributes to the literature on intellectual capital by focusing on intellectual capital configurations that nuance our conceptual understanding of the ways in which intellectual capital creates value. Second, this paper advances studies into HRSS. Although previous studies have emphasised the importance of knowledge within HRSS models as a precondition for effective performance (e.g. Farndale et al., 2009; Redman et al., 2007), they fail to explain how the knowledge within HR Shared Service Providers drives HRSS value creation. By applying intellectual capital theory to HRSS, this paper contributes to the literature by explaining how HR SSPs can use their intellectual capital to create value.
for end-users. Third, this paper presents testable propositions on the paths through which the intellectual capital of HR SSPs creates HRSS value. As such, it provides a basis for future empirical research on value creation within an HRSS context.

In the remainder of this article we first give a more specific outline of the HR Shared Services model and present findings on which resources are bundled within an HR SSP, how it is structured, and the characteristics of the HR services it provides. Following this, we examine the characteristics of intellectual capital, its content and how its categories are related to one another. Finally, we build propositions by focusing on the interdependencies among the IC categories and their relationships with value creation, and propose that the strengths of these relationships are contingent on the type of HR services that are offered. Based on this, we discuss theoretical and practical implications of our framework.

**HR SHARED SERVICES: PREVIOUS RESEARCH**

HRSS refer to the concept where resources are centrally bundled within a single organisational unit – the HR SSP – that offers HR services which are adapted to the needs of its clients (i.e. business units) and end-users (i.e. employees, managers and HR professionals). The prime resources bundled within HR SSPs, alongside intellectual capital, include human resources and IT resources (Farndale & Paauwe, 2008).

**Resources and Structure of HRSS**

Previous research has found that employees within HR SSPs were formerly employed by the business units that the HR SSP serves, and then transferred to the HR SSP once it is established (Janssen, 2005; Redman et al., 2007; Reilly & Williams, 2003; Ulrich,
1995). However, there is also evidence that service employees within HR SSPs are recruited from the external labour market on occasions (Cooke, 2006). Farndale et al. (2009) found that HR SSPs employ first/second tier generalists who directly interact with end-users to handle a broad range of inquiries, plus inquiries in one or two specialist areas (e.g. payroll or benefits), and a second group of employees – also called third tier specialists – who offer expertise in specific areas (e.g. legislation or recruitment) (Reilly & Williams, 2003). The IT resources of HR SSPs are used to deliver transactional HR services and may consist of employee/management self-service web-technologies embedded in HR portals, HR information systems for the storage, retrieval and delivery of HR information and call-centre interaction systems for handling end-user inquiries (Cooke, 2006; Farndale & Paauwe, 2008; Farndale et al., 2009). Farndale et al. (2009) have shown that approximately 70% of HR SSPs make use of self-service applications and HR portals for the delivery of HR services.

Although resources are centrally bundled within HRSS, this is not viewed as the rebirth of centralisation (Janssen & Joha, 2006; Farndale et al., 2009). Centralisation refers to high levels of corporate-level control of resources with corporate staff functions being established to ensure economies of scale at the expense of business unit priorities (Janssen & Joha, 2006). However, the idea behind establishing HR SSPs is that they cover more than centralised staff functions and are positioned much closer to their clients (Janssen & Joha, 2006; Strikwerda, 2004). Figure 1 depicts several possible positions of HR SSPs within organisations. For instance, an HR SSP could be embedded within a business unit providing services to other business units (an embedded HR SSP: Type A in Figure 1), could be a separate business unit managed by the other business units (an internal joint venture: Type B in Figure 1) or a separate business unit managed by the corporate centre (Type C in Figure 1).
(Strikwerda, 2004). Farndale and Paauwe (2008) revealed that the majority of firms established the latter type of HR SSPs (i.e. business unit HR SSP).

Moreover, business units partially control the resources within the HR SSP as they determine the features of the HR services being provided (Ulrich, 1995), and therefore it would be wrong to associate HRSS with traditional centralisation (Farndale et al., 2009). For instance, Reilly and Williams (2003) describe an HR SSP where clients were involved in the design of new HR services as they determined and developed these HR services together with the HR SSP. In another study, it was shown that a majority of HR SSPs and clients jointly developed service level agreements (SLAs) in which client requirements were specified to ensure that the HR SSPs fulfilled these requirements (Farndale et al., 2009).

HRSS should also not be associated with decentralisation (Janssen & Joha, 2006; Strikwerda, 2004) as, to some extent, corporate control over HR SSPs will always remain. For example, Strikwerda (2004) describes an HR SSP where its director reported directly to the corporate HR director to ensure that HR policies were implemented correctly.

**HRSS’ Motives and Values**

The motives for establishing HRSS essentially come from the idea to capture the benefits of both centralised and decentralised models (Janssen & Joha, 2006). Centralisation models offer economies of scale and scope because the duplication of activities and resources is eliminated, but they also lead to long response times to
changes and reduce the focus on the needs of business units (Janssen & Joha, 2006). In decentralisation models, responses to changes are faster and the needs of the business units are better supported, but levels of duplication and inefficiencies are high as resources are duplicated (Strikwerda, 2004).

Firms establish HRSS to both increase efficiency through centrally bundling resources, and to delegate control over the resources within HR SSPs to business units (Farndale et al., 2009; Janssen & Joha, 2006; Redman et al., 2007; Ulrich, 1995). Ultimately, this should lead to the efficient provision of higher levels of service quality, which is seen as the potential value of HRSS (Janssen & Joha, 2006; Redman et al., 2007).

We view the value of HRSS as consisting of both HRSS use value and HRSS exchange value (Bowman & Ambrosini, 2000; Lepak, Smith, & Taylor, 2007). HRSS use value is defined as the quality of an HR service as perceived by end-users in relation to their needs. That is, HR SSPs create high-level value if their HR services meet the needs of the end-users. According to end-users, such needs can be thought of in terms of decreased administrative work, increased HR service quality (Cooke, 2006) or higher levels of consistency (Reilly & Williams, 2003). HRSS exchange value refers to the amount of effort that has to be expended by end-users to capture HRSS use value (Lepak et al., 2007). Therefore, a combination of both values implies that an HR SSP creates high-level value if its end-users make little effort to ensure that their needs are met by the HR SSP.

**HR Service Segmentation in HRSS**

Within an HRSS model, two distinct types of HR services are offered: transactional and transformational ones (Farndale et al., 2009; Redman et al., 2007; Ulrich, 1995).
Based on the concept of strategic segmentation (Batt, 2000; Keltner, 1999), we introduce *service segmentation* as meaning that different types of HR services, provided by HR SSPs, target different goals. For instance, transactional HR services are delivered to meet the administrative needs of end-users (Lepak, Bartol, & Erhardt, 2005; Ulrich, 1995) and include services such as absence registration, record-keeping or payroll administration (Farndale et al., 2009). On the other hand, transformational HR services are delivered in order to transform the human resources of the organisation (Ulrich, 1995) and may include career development, competence management, staffing and training services (Redman et al., 2007; Ulrich, 1995).

The HR service design for both service types also differs in terms of three characteristics (see table 1): end-user co-production, end-user contact and service customisation (Bowen & Ford, 2002; Skaggs & Youndt, 2004; Tansik, 1990). *End-user co-production* reflects the extent of end-user effort in the service production process (Skaggs & Youndt, 2004), and is high in the case of transactional HR services as these are offered in a self-service form such that end-users produce the services themselves (Farndale et al., 2009). In contrast, Farndale et al. (2009) demonstrated that transformational HR services are only delivered to a limited extent through self-service applications, probably because end-users have insufficient knowledge to serve themselves (Auh, Bell, McLeod, & Shih, 2007), suggesting that co-production is low in the case of transformational HR SSPs. Levels of *end-user contact*, which is the degree of interaction between end-users and service employees (Skaggs & Youndt, 2004; Tansik, 1990), are low with transactional HR services as end-users mostly interact with remote IT systems and not with service employees (Cooke, 2006). When transformational HR services are offered, service employees are expected to partner with end-users during the service production process (Ulrich, Younger, & Brockbank,
2008b), which results in high levels of end-user contact. The level of customisation is low in transactional HR SSPs because such HR SSPs standardise their services as much as possible (Cooke, 2006; Farndale et al., 2009; Ulrich, 1995; Ulrich et al., 2008b). In contrast, offering fully standardised services in the case of transformational HR SSPs would harm service delivery effectiveness as not all end-user needs would be met effectively (Ulrich et al., 2008b). Therefore, we would expect the levels of customisation in the case of transformational HR SSPs to be high.

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Insert Table 1 about here
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INTELLECTUAL CAPITAL IN HR SSPs

We define the intellectual capital within an HR SSP as the aggregate of knowledge and knowing which it is able to leverage with the aim of providing services that match end-user needs. Knowledge covers both explicit and tacit knowledge. Explicit knowledge is knowledge that can be expressed explicitly and reflected upon (Cook & Brown, 1999; Gourlay, 2006), whereas tacit knowledge refers to all ‘unarticulated elements of human knowledge’ (Miller 2008, p. 937). Neither type is considered to be objective (Cook & Brown, 1999; Gourlay, 2006; Kakabadse, Kakabadse, & Kouzmin, 2003; Miller, 2008; Polanyi, 1966; Tsoukas, 2003; Walshman, 2005) given the assumption that ‘all knowledge is either tacit or rooted in tacit knowledge’ (Polanyi, 1966, p. 7).

Knowledge is different from knowing: the first falls within the epistemology of possession, whereas the latter is part of the epistemology of practice (Cook & Brown, 1999). This distinction implies that knowledge connotes facts (Orlikowski, 2002), objects (Cook & Brown, 1999; Nahapiet & Ghoshal, 1998) and know-what (Brown &
Duguid, 1998), whereas knowing refers to the enactment of knowledge in practice (Nahapiet & Ghoshal, 1998; Orlikowski, 2002), know-how (Brown & Duguid, 1998) and the use of knowledge in goal-oriented action (Cook & Brown, 1999; Kuhn & Jackson, 2008).

Given that knowledge is enacted in action, it is not sufficient to focus on knowledge itself and one also has to consider what it does and how it works in action (Bukh, Larsen, & Mouritsen, 2001; Kuhn & Jackson, 2008; Orlikowski, 2002). Therefore, knowledge and knowing should be studied for their effects and what they do (Bukh et al., 2001; Stewart, 1997). Within HRSS, the most important effect of knowledge and knowing is to ensure that the quality of transactional and transformational HR services are at a level that they meet end-user needs (Farndale et al., 2009; Ulrich, 1995).

The Intellectual Capital of HR SSPs

Previous research has distinguished between three IC categories: human capital, organisational capital and social capital (Reed, Lubatkin, & Srinivasan, 2006; Ruta, 2009; Youndt et al., 2004).

The human capital of HR SSPs reflects the knowledge and knowing of individual employees employed within HR SSPs, as represented by their knowledge, skills and experiences (Yang & Lin, 2009; Youndt et al., 2004). The human capital within HR SSPs is seen as being made up of three elements (see Table 2): HR Technology, HR Delivery and Communication, based on research into HR competencies (Boselie & Paauwe, 2005; Brockbank & Ulrich, 2002), service competencies (Russ-Eft, 2004), and call-centre competencies (Hampson, Junor, & Barnes, 2009; Taylor & Bain, 1999). Cooke (2006) found that HR SSP employees need knowledge and knowing
required to use information technology and web-based channels, representing *HR technology* (Boselie & Paauwe, 2005; Han, Chou, Chao, & Wright, 2006; Meisinger, 2005). Employees within HR SSPs also rely on knowledge and knowing about the content and execution of concrete HR practices such as benefits, payroll administration or recruitment issues, which they have mostly gained from their positions before the HR SSP was established (Farndale et al., 2009; Ulrich, 1995). This suggests that they rely on *HR delivery*, which includes the knowledge and knowing of service employees, to effectively design and implement both transactional and transactional HR services (Han et al., 2006; Kochanski & Ruse, 1996; Paauwe & Boselie, 2005; Ulrich & Brockbank, 2005). Employees within HR SSPs are recruited for their communication skills (Cooke, 2006), and they consider such skills to be important in effectively delivering HR services (Redman et al., 2007). This reveals the reliance on *Communication*: the knowledge and knowing of service employees to effectively write and communicate with end-users (Hampson et al., 2009; Taylor & Bain, 1999).

The organisational capital within HR SSPs refers to the knowledge and knowing which is codified, embedded or stored within databases, protocols and processes (Bukh et al., 2001; Yang & Lin, 2009; Youndt et al., 2004). The quality of shared and bundled HR processes is expected to affect the performance of HR SSPs (Farndale et al., 2009; Quinn, Cooke, & Kris, 2000). Further, service employees within HR SSPs are dependent on protocols, scripted texts, online documents and knowledge databases which make up the organisational capital of HR SSPs for the delivery of HR services (Cooke, 2006; Farndale et al., 2009; Janssen & Joha, 2006; Quinn et al., 2000).

Social capital represents the knowledge and knowing which are mobilised through social relationships (Nahapiet & Ghoshal, 1998; Youndt et al., 2004) with knowledge
mobilisation having been shown to be dependent on relationships (Coleman, 1988; Collins & Smith, 2006; Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998). We make a distinction between internal and external social capital (Reed et al., 2006) because both knowledge and knowing are exchanged internally among service employees within HR SSPs (for example, about experiences and best practices), and also between HR SSP services employees and end-users/clients who are external to the HR SSP (Ulrich, 1995).

Insert Table 2 about here

Interrelationships among Intellectual Capital Categories

Previous research has demonstrated that the three IC categories are positively related to performance outcomes such as service quality (Liao, Toya, Lepak, & Hong, 2009), and firm performance (Yang & Lin, 2009; Youndt & Snell, 2004; Youndt et al., 2004). For example, Yang and Lin (2004) demonstrated that higher levels of human, organisational and social capital yield higher levels of firm performance, such as in terms of end-user loyalty. Although this stream of research treats the IC categories as independent and separate constructs, some studies have revealed interrelationships between these types of knowledge and knowing (Borgatti & Cross, 2003; Hansen et al., 1999; Moon & Kym, 2006; Newell, Tansley, & Huang, 2004; Ruta, 2009; Subramaniam & Youndt, 2005) (see Appendix A).

For instance, case study evidence has demonstrated that organisational capital is developed when employees store their knowledge and knowing of successful service experiences within databases and protocols (Hansen et al., 1999; Ruta, 2009; Wu, Chang, & Chen, 2008). In turn, employees use such databases and protocols to learn
and strengthen their own knowledge and knowing (Ruta, 2009). Further, the properties of processes arise as individuals store their knowledge and knowing in processes, and reversely, individuals also become increasingly skilled in their portion of a process (Cohen & Bacdayan, 1994). These findings suggest that human and organisational capital mutually influence each other: organisational capital originates from the knowledge and knowing of individual employees, while human capital is strengthened by the knowledge and knowing embedded within organisational capital.

To strengthen human capital, people exchange knowledge, that is they use their social capital (Coleman, 1988; Hansen et al., 1999). As an example, Hansen et al. (1999) demonstrated that consultants learn from one another as they exchange experiences from previous service encounters. Further, the exchange of knowledge is a function of the knowledge someone holds prior to the exchange (Borgatti & Cross, 2003; Simonin, 1999; Smith, Collins, & Clark, 2005; Szulanski, 1996). For example, Simonin (1999) revealed that high levels of prior experience reduce ambiguity over the knowledge to be exchanged and, therefore, result in higher levels of knowledge exchange. Moreover, the more knowledgeable the employees, the more they will assimilate knowledge from social ties (Cohen & Levinthal, 1990; Szulanski, 1996). These findings suggest that human and social capital create a virtuous circle: the more that the human capital of employees is strengthened as they exchange knowledge and knowing among themselves and with end-users/clients, the more they will exchange knowledge and knowing because they are better able so to do.

Being informed about the knowledge and knowing that another person possesses stimulates the exchange of knowledge and knowing (Borgatti & Cross, 2003). Usually, firms establish databases to store information about what specific knowledge and knowing is held by individual employees (Hansen et al., 1999; Ruta, 2009). As
such, organisational capital drives the exchange of knowledge among employees as it supports employees in finding others with whom they might profitably exchange knowledge and knowing. Conversely, social capital is positively related to organisational capital (Nahapiet & Ghoshal, 1998; Newell et al., 2004; Wu et al., 2008). As an example, Newell et al. (2004) showed in a case study that processes can only be developed and maintained when employees exchange and combine their knowledge because no single employee can articulate the full body of knowledge and knowing embedded within processes. Therefore, the development of new HR processes will only achieve maximum success if employees exchange their knowledge and knowing (i.e. use their social capital). These findings suggest a virtuous circle between social and organisational capital: organisational capital derives its knowledge and knowing from the exchange of knowledge and knowing, while the organisational capital itself facilitates knowledge and knowing exchange as it supports employees in finding others with whom they might exchange knowledge and knowing.

Overall, the interrelationships among human, organisational and social capital may drive performance as these IC categories simultaneously affect one another as well as the performance of organisations.

**POTENTIAL RELATIONSHIPS BETWEEN HRSS INTELLECTUAL CAPITAL CONFIGURATIONS AND VALUE CREATION**

To ensure that end-user needs are met, an HR SSP and its clients need to jointly determine the features of HR services which will be tailored to the needs of its clients and end-users (Reilly & Williams, 2003). This implies that clients should transfer knowledge about their specific needs to the HR SSP to ensure that the HR SSP
develops high-quality services which meet these needs. In line with this, Dyer and Hatch (2006) found that the quality of services increases as a client increasingly transfers knowledge to the service provider (Dyer & Hatch, 2006). Further, HR SSP managers consider the effectiveness of an HR SSP to be dependent on the relationship with end-users (Farndale et al., 2009; Redman et al., 2007). It is also argued that end-users should share knowledge about their needs and requirements in order to ensure that service employees satisfy these needs (Bowen & Ford, 2002; Tuli, Kohli, & Bharadwaj, 2007). Based on these arguments, we expect HRSS value creation to be dependent on the mobilization of knowledge and knowing between end-users/clients and HR SSP service employees (i.e. external social capital).

At the same time, knowledge and knowing should be exchanged among service employees within HR SSPs (Ulrich, 1995) as internal knowledge exchanges are effective mechanisms for value creation (Hansen et al., 1999; Tuli et al., 2007). For instance, Tuli et al. (2007) demonstrated that service employees effectively solved problems for end-users by sharing information and knowledge about end-user needs and by sharing knowing about how to solve end-user problems. As such, the internal social capital of HR SSPs is also seen as a driver of value creation for end-users.

To bring about knowledge and knowing exchanges, service employees use their human capital since the level of knowledge exchange is a function of the knowledge owned prior to the exchange (Borgatti & Cross, 2003; Simonin, 1999; Smith et al., 2005; Szulanski, 1996). This suggests that social capital is dependent on the human capital of service employees. To ensure high levels of value creation, an HR SSP requires high levels of human capital as this strengthens the social capital of HR SSPs which drives value creation. We thus propose the following:
Proposition 1. The social capital of HR SSPs mediates the relationship between the human capital within HR SSPs and value creation for end-users.

Service firms rely on their organisational capital to create value for end-users (Cooke, 2006; Hansen et al., 1999; Ruta, 2009; Tuli et al., 2007). For instance, Hansen et al. (1999) demonstrated that the reuse of codified knowledge effectively facilitates the provision of services to end-users because it provides knowing on how to solve end-user problems and has proven to be an effective mechanism for meeting end-user needs (Hansen et al., 1999; Tuli et al., 2007). Further, the documentation of service experiences in databases and protocols aids service firms in creating value as they build an organisational memory of service experiences that succeeded or failed (Tuli et al., 2007; Youndt et al., 2004). Moreover, case study evidence on HRSS suggests that well-developed HR processes are important for the effective and efficient running of an HR SSP (Redman et al., 2007; Ulrich, 1995) because well-developed processes provide guidelines for service employees on how to meet end-user needs (Tuli et al., 2007).

Organisational capital is developed as employees codify their knowledge and knowing in databases and protocols (Hansen et al., 1999; Ruta, 2009), and this suggests that the organisational capital of an HR SSP is dependent on human capital. Thus, to ensure high levels of value creation, HR SSPs are expected to draw on high levels of human capital as this facilitates the development of organisational capital, which in turn ensures the creation of value for end-users. Therefore, we propose the following:
Proposition 2. The organisational capital within HR SSPs mediates the relationship between the human capital within HR SSPs and value creation for end-users.

To develop HR processes, service employees should exchange and integrate their knowledge and knowing because no single employee has the ability to develop processes alone (Newell et al., 2004), which makes the development of organisational capital dependent on the internal social capital of an HR SSP. Moreover, the HR processes within HR SSPs should be jointly developed with clients to ensure that the HR processes fit with the HR processes of the clients (Reilly & Williams, 2003), suggesting that the development of organisational capital is also dependent on the external social capital of HR SSPs. Therefore, we would expect the social capital of HR SSPs to indirectly create value by facilitating the development of organisational capital which then drives value creation for end-users. This leads us to the following proposition:

Proposition 3. The organisational capital within HR SSPs mediates the relationship between the social capital of HR SSPs and value creation for end-users.

Our first propositions (see figure 2) suggest that two IC configurations within HR SSPs can be distinguished. The first is a Social Capital (SC) configuration, where value creation is dependent on human capital and social capital because the knowledge and knowing of individual service employees is a prerequisite for the exchange of knowledge and knowing which then drives value creation. The second is
an Organizational Capital (OC) configuration, in which, for two reasons, value creation is dependent on all three IC categories. First, the leverage of human capital will ensure the development of the organisational capital on which value creation is dependent. Second, organisational capital also derives its value-creating capability from the exchange of knowledge and knowing among service employees and between end-users/clients and service employees.

Literature on configurations suggests that the creation of value by both configurations is contingent on particular conditions (Miller, 1987; Short et al., 2008). In the section below, we will outline the conditions under which both SC and OC configurations create value as we discuss how the contingent effect of service segmentation in HRSS moderates the mediating effects of both organisational and social capital.

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THE CONTINGENT EFFECT OF SERVICE SEGMENTATION

The strength of the relationship between intellectual capital and value creation is contingent on the type of service offered (Reed et al., 2006; Walsh et al., 2008). This implies that the mediating effects of organisational and social capital are moderated by the service segmentation within HRSS.

Transactional HR services are characterised by low levels of customisation and high levels of co-production (Cooke, 2006; Farndale et al., 2009) which result in relatively standard end-user requirements since such service characteristics limit the options from which end-users can choose (Skaggs & Youndt, 2004; Tansik, 1990). Hansen et al. (1999) observed that service firms which deal with standardised requirements largely rely on codified knowledge and knowing in databases and protocols to deliver
services. Similarly, within transactional HR SSPs, service employees are mainly trained to quickly trace knowledge and knowing stored within databases and HR information systems (Cooke, 2006). Databases and protocols reveal how service employees have dealt with end-user needs in the past (Hansen et al., 1999; Tuli et al., 2007), enabling the reuse of knowledge and knowing embedded within them to be an effective way to create value in the case of transactional HR SSPs since service employees are repeatedly confronted with similar end-user needs (Hansen et al., 1999; Walsh et al., 2008). Conversely, due to low levels of co-production and high levels of customisation, transformational HR SSPs experience higher levels of variability in end-user needs (Skaggs & Younct, 2004). To effectively respond to such diversified needs requires flexibility, implying that service providers cannot always rely on processes and codified knowledge because these organisational capital elements are rather inflexible (Bowen & Ford, 2002; Hansen et al., 1999). Batt (2000) found that only 6.2% of service employees that provide customised services rely on protocols, whereas 52.9% of service employees that provide standardised services do. Given that organisational capital is inherently rather inflexible (Hansen et al., 1999), we consider it to be a less effective type of knowledge and knowing for the creation of value when confronted with variable end-user needs (Walsh et al., 2008).

As the codification of knowledge and knowing is a more effective source of value creation when end-user needs are similar, we would expect the mediation effect of organizational capital, between both human and social capital on the one hand and value creation on the other, to be stronger with transactional HR services.
Proposition 4a. The mediating effect of the organisational capital within HR SSPs on the relationship between the human capital within HR SSPs and value creation for end-users is stronger with transactional HR services.

Proposition 4b. The mediating effect of the organisational capital within HR SSPs on the relationship between the social capital within HR SSPs and value creation for end-users is stronger with transactional HR services.

To respond to the need for flexibility when end-user needs are variable, service organisations are forced to use their social capital because knowledge and knowing exchanges involving relationships provide greater flexibility than exchanges based on documents (Hansen et al., 1999). This is expected to be the case with transformational HR SSPs in particular since these experience larger variability in end-user needs than transactional HR SSPs (Ulrich et al., 2008b). Moreover, a large variability in end-user needs results in service employees experiencing higher levels of uncertainty as it is unclear which end-user needs should be fulfilled (Tansik, 1990). This requires end-users and service employees to increasingly exchange information or knowledge on end-user requirements to reduce this uncertainty (Bowen & Ford, 2002). Given the larger variability in end-user needs with transformational HR services, the use of external social capital is highly effective for value creation since it effectively reduces uncertainty.

High levels of end-user contact are also associated with high levels of uncertainty because end-users have the opportunity to intervene in the service production process (Mills & Morris, 1986; Tansik, 1990). We expect levels of end-user contact to increase when end-users exchange knowledge with service providers, simply because
the latter requires an interaction. Given that transactional HR SSPs already experience low levels of uncertainty, leads us to expect that higher levels of external knowledge and knowing exchanges unnecessarily drive levels of uncertainty to be higher in transactional HR SSPs, which might harm value creation (Tansik, 1990). Therefore, we argue that the exchange of knowledge and knowing between services employees and end-users to be a more effective instrument for value creation when transformational rather than transactional HR services are involved.

To deliver customised services, service employees need to exchange and integrate their knowledge and knowing as it is unlikely that a single employee will have the ability to cope with all the uncertainty associated with such services (Bowen & Ford, 2002; Hansen et al., 1999). For example, Hansen et al. (1999) found that service employees especially exchange tacit knowledge to effectively provide customised services. The exchange of tacit knowledge is primarily facilitated through social relationships (De Jong, De Ruyter, & Lemmink, 2004; Hansen et al., 1999), which suggests that the use of internal social capital strongly drives value creation in transformational HR SSPs. Conversely, the delivery of standardised services requires little exchange of tacit knowledge and therefore can be effectively managed through the exchange of codified knowledge (Hansen et al., 1999). This reduces the importance of internal social capital for an effective service delivery in the case of transactional HR SSPs, as the exchange of knowledge by means of databases and protocols is already a sufficient mechanism for knowledge exchange and value creation (Hansen et al., 1999).

Given the greater importance of both external and internal knowledge and knowing exchanges when offering transformational HR services (as compared to transactional HR services), leads us to argue that both the internal and external social capital of HR
SSPs will have a stronger mediating effect on the relationship between human capital and value creation in the case of transformational HR SSPs.

*Proposition 5. The mediating effect of the social capital of HR SSPs, on the relationship between the human capital within HR SSPs and value creation for end-users, is stronger with transformational HR services.*

The relatively greater importance of organisational capital for value creation in transactional HR SSPs leads us to assume that the OC configuration will contribute most strongly to value creation when transactional HR services are being offered. Conversely, the value creating capability of the SC configuration will be strongest when HR SSPs are offering transformational HR services because value creation in transformational HR SSPs is mostly dependent on social capital.

**DISCUSSION**

Recognising the need for a better understanding of how the intellectual capital within HR SSPs creates value (Youndt et al., 2004; Ruta, 2009), we have built propositions based on the idea that human, organisational and social capital are interdependent and make up configurations which create value for end-users differently in transactional and transformational HR services. When HR SSPs offer transactional HR services, value is expected to be created by leveraging organisational capital, which is created when the human and social capital of HR SSPs become embedded within databases, processes and protocols. In other words, it is the OC configuration – comprising of human, organisational and social capital – that drives value creation in transactional HR SSPs. In contrast, transformational HR SSPs use their social capital to create
value. Their social capital derives its knowledge and knowing from the human capital within HR SSPs, and so transformational HR SSPs create value by relying on the combination of human and social capital, which we label the SC configuration.

In developing our propositions, we have extended earlier research in several ways. First, in a contribution to the study by Youndt et al. (2004), we offer further insights into IC configurations by showing how such configurations are developed and strengthened. Rather than focusing on whether levels of human, organisational or social capital are high or low within IC configurations (Youndt et al., 2004), this paper took a further step by suggesting researching the internal dynamics within configurations to improve our understanding of how IC configurations work in practice.

Second, this paper extends previous research by integrating two streams of literature on knowledge and knowing: the first that focuses on explaining differences in performance caused by human, organisational and social capital (Walsh et al., 2008; Yang & Lin, 2009; Youndt & Snell, 2004), and the second which reveals how human, organisational and social capital are related (Borgatti & Cross, 2003; Hansen et al., 1999; Newell et al., 2004; Ruta, 2009). Integrating the two streams has helped to envisage how intellectual capital might create value, rather than only explaining the differences in levels of value creation.

Third, this paper builds on the emerging studies into HRSS by discussing how the intellectual capital of HR SSPs drives value creation. Moreover, given that the previous research on HRSS recognises the lack of theory (Farndale et al., 2009; Strikwerda, 2004), this paper proposes a theoretical framework for value creation by HR SSPs, which paves the way for large-scale research into HRSS (Farndale et al.,
2009) that could test our proposed relationships between intellectual capital and value creation by HR SSPs.

We acknowledge that this paper has its limitations although we see these as motivations for future research efforts in the field of HRSS. More thorough exploration is needed into what constitutes HRSS value as perceived by end-users. Although we described how intellectual capital might ensure that end-user needs are met, we remained silent on the specific needs of end-users because relatively little is known about how end-users actually perceive HRSS value. Therefore, we would suggest that explorative research on what constitutes value creation as perceived by end-users is needed before progressing to making analytical generalisations about HRSS values.

Further, although elements of human capital within HR SSPs have been identified in this paper, we have not considered how these elements affect HRSS value creation in the specific cases of transactional and transformational HR SSPs. In other words, one might infer that human capital elements are equally valuable in both situations. However, the findings of Ulrich et al. (2008a) suggest that transactional and transformational HR SSPs rely on different elements of human capital. For instance, the relative influence of the HR technology element of human capital, on the performance of services providers, has been found to be stronger with transactional HR SSPs (Ulrich, Brockbank, Johnson, Sandholtz, & Younger, 2008a). Therefore, a potentially valuable avenue for future research would be to conceptually and empirically examine which human capital elements explain the creation of HRSS value within both transactional and transformational HR SSPs.

Finally, to illustrate how the interdependencies among human, organisational and social capital enhance value creation, we limited our discussion about their value
creation capabilities to only three possible interdependencies. We could have added other potential relationships among the various IC categories and considered their effects on value creation. For example, social capital could also indirectly affect value creation as it ensures the development of human capital, which has been shown to positively affect the value created by service employees within HR SSPs (Ulrich et al., 2008a). Therefore, we would encourage further theorising on the effects of the interdependencies among IC categories and value creation in order to further strengthen our understanding of how intellectual capital creates value.

This article has direct implications for HR SSP managers. The conceptual framework outlined in this paper can help practitioners in the field of HRSS to understand how to create value for end-users by making use of one of their most valuable resources: the intellectual capital within the HR SSPs (Farndale et al., 2009). Our arguments suggest that HR SSPs should invest in their human capital as this constitutes the basis of HRSS value creation. Moreover, HR SSPs should be aware that the management of its intellectual capital and the latter’s effect on value creation depends on the type of service being offered. In the case of transactional HR services, the knowledge and knowing of individuals should primarily be used through embedding them in processes, databases and documents. Conversely, with transformational services, HR SSPs should ensure that knowledge and knowing of its employees drive knowledge and knowing exchanges among people to ensure that value is created for end-users.

In conclusion, the conceptual framework presented in this paper provides an insight into how the intellectual capital within HR SSPs drives value creation. Human, social and organisational capital are viewed as both interdependent and as drivers of value creation. In particular, our paper shows how these IC categories strengthen each other
and, as such, represent either an OC or a SC configuration that boost HRSS value creation for transactional and transformational HR SSPs respectively. While further conceptual and empirical work is needed to better understand HRSS value creation, a focus on the interrelationships among IC categories would facilitate the analysis of how intellectual capital drives value creation, and how HRSS may use their human, organisational and social capital to create value.
FIGURE 1

Positioning of HR SSPs within the Organisation
FIGURE 2
Conceptual Framework: IC Configurations for Value Creation by HR SSPs

- Human Capital within HR SSP
  - HR technology
  - HR delivery
  - Communication

- Social Capital of HR SSP
  - Internal
  - External

- Organizational Capital within HR SSP
  - Processes
  - Protocols
  - Databases

- Value for End-Users

- Service Segmentation
  - Transactional HR services
  - Transformational HR services
TABLE 1

HR Service Characteristics

<table>
<thead>
<tr>
<th></th>
<th>End-user co-production</th>
<th>End-user contact</th>
<th>Service customisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transactional HRSS</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Transformational HRSS</td>
<td>Low</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>
### TABLE 2

**Intellectual Capital of HR SSPs**

<table>
<thead>
<tr>
<th>Intellectual Capital</th>
<th>Definition: knowledge and knowing …</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Capital</strong></td>
<td>HR technology</td>
</tr>
<tr>
<td></td>
<td>… of service employees in use of technology and web-based channels through which HR services are delivered</td>
</tr>
<tr>
<td></td>
<td>HR delivery</td>
</tr>
<tr>
<td></td>
<td>… of service employees in providing transactional and transformational HR services</td>
</tr>
<tr>
<td></td>
<td>Communication</td>
</tr>
<tr>
<td></td>
<td>… of service employees in effectively writing and communicating with end-users</td>
</tr>
<tr>
<td><strong>Organisational Capital</strong></td>
<td>IT and HR processes</td>
</tr>
<tr>
<td></td>
<td>… embedded within a series of actions that result in the production of an HR service</td>
</tr>
<tr>
<td></td>
<td>Protocols</td>
</tr>
<tr>
<td></td>
<td>… stored in manuals or online documents</td>
</tr>
<tr>
<td></td>
<td>Databases</td>
</tr>
<tr>
<td></td>
<td>… stored as a structured set of data held on a computer</td>
</tr>
<tr>
<td><strong>Social Capital</strong></td>
<td>Internal</td>
</tr>
<tr>
<td></td>
<td>… mobilised through social relationships among service employees within the HR SSP</td>
</tr>
<tr>
<td></td>
<td>External</td>
</tr>
<tr>
<td></td>
<td>… mobilised through social relationships between the HR SSP service employees and end-users/clients</td>
</tr>
</tbody>
</table>
REFERENCES


Tsoukas, H. 2003. Do We Really Understand Tacit Knowledge. In M. Esterby-Smith, & M. A. Lyles (Eds.), *Handbook of Organizational Learning and Knowledge*. Cornwall: Blackwell.


## APPENDIX A

### Previous Research Revealing IC Category Interrelationships

<table>
<thead>
<tr>
<th>Relations</th>
<th>Finding</th>
<th>Article</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HC → OC</strong></td>
<td>Consultants store their project experiences in databases to share with others</td>
<td>Ruta (2009)</td>
</tr>
<tr>
<td></td>
<td>Consultants store their knowledge in documents which are published and accessible online</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Formalisation of processes creates a basis for future learning</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consultants store knowledge objects from previous projects in databases</td>
<td>Hansen et al. (1999)</td>
</tr>
<tr>
<td></td>
<td>Properties of routines arise from the way individuals store their components in routines</td>
<td>Cohen &amp; Bacdayan (1994)</td>
</tr>
<tr>
<td></td>
<td>$\beta = 0.51 \ (p &lt; 0.001)$</td>
<td>Wu et al. (2007)</td>
</tr>
<tr>
<td><strong>OC → HC</strong></td>
<td>Consultants gain knowledge from documents which can be uploaded from an HR portal</td>
<td>Ruta (2009)</td>
</tr>
<tr>
<td></td>
<td>As individuals become skilled in their part of a routine, their actions become stored as procedural memories</td>
<td>Cohen &amp; Bacdayan (1994)</td>
</tr>
<tr>
<td></td>
<td>Coefficient = 1.267 (p &lt; 0.05)</td>
<td>Moon &amp; Kym (2006)</td>
</tr>
<tr>
<td><strong>HC – OC</strong></td>
<td>Correlation = 0.23 (p &lt; 0.05)</td>
<td>Youndt et al. (2004)</td>
</tr>
<tr>
<td></td>
<td>Correlation = 0.23 (p &lt; 0.05)</td>
<td>Youndt &amp; Snell (2004)</td>
</tr>
<tr>
<td></td>
<td>Coefficient = 0.16 (p &lt; 0.05)</td>
<td>Yang &amp; Lin (2009)</td>
</tr>
<tr>
<td></td>
<td>Correlation = 0.61 (p &lt; 0.01)</td>
<td>Reed et al. (2006)</td>
</tr>
<tr>
<td><strong>HC → SC</strong></td>
<td>The evaluation of someone’s knowledge and skills is positively related with frequency of knowledge</td>
<td>Borgatti &amp; Cross (2003)</td>
</tr>
<tr>
<td>Exchange</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Experience $\rightarrow$ ambiguity: $t = -4.031 \ (p < 0.01)$ | Simonin (1999)  
| knowledge transfer: $t = -3.511 \ (p < 0.01)$ |  
| $\beta = 0.54 \ (p < 0.01)$ | Szulanski (1996)  
| $\beta = 0.27 \ (p < 0.01)$ | Wu et al. (2007)  
| $\beta = 0.34 \ (p < 0.01)$ | Smith et al. (2005)  
| **SC $\rightarrow$ HC** |  
| • To strengthen the HC of their children, parents transfer knowledge to them. | Coleman (1988)  
| • Consultants learn from each other as they exchange knowledge and experiences | Hansen et al. (1999)  
| $\beta = 0.478 \ (p < 0.001)$ | Wu et al. (2008)  
| **HC $\rightarrow$ SC** |  
| Correlation $= 0.44 \ (p < 0.05)$ | Subramaniam & Youndt (2004)  
| Correlation $= 0.42 \ (p < 0.01)$ | Youndt et al. (2004)  
| Correlation $= 0.44 \ (p < 0.1)$ | Youndt & Snell (2004)  
| Coefficient $= 0.20 \ (p < 0.01)$ | Yang & Lin (2009)  
| Correlation $= 0.53 \ (p < 0.01)$ | Reed et al. (2009)  
| Correlation $= 0.61 \ (p < 0.01)$ | Reed et al. (2006)  
| **OC $\rightarrow$ SC** |  
| • Consultants can search for experts in databases which ensures that experts share their knowledge with others | Ruta (2009)  
| • A *people finder* database facilitates knowledge sharing as it helps people to contact one another | Hansen et al. (1999)  
| • Information on someone’s knowledge and skills are related with frequency of knowledge exchange | Borgatti & Cross (2003)  
| **SC $\rightarrow$ OC** |  
| • The pooled knowledge and routines of an | Nahapiet &
| Organisation is created when knowledge is exchanged and combined | Ghoshal (1998) |
| Processes are developed when employees integrate their knowledge since no single employee can articulate the complete body of knowledge embedded within processes | Newell et al. (2004) |
| Interaction with business is needed to ensure that processes are effectively integrated within the business |  |
| $\beta = 0.551 \ (p < 0.001)$ | Wu et al. (2008) |
| **OC – SC** |  |
| Coefficient = 0.25 ($p < 0.01$) | Yang & Lin (2009) |
| Correlation = 0.42 ($p < 0.01$) | Reed et al. (2006) |

**Legend:**
- **HC**: human capital
- **OC**: organisational capital
- **SC**: social capital
- $\rightarrow$: found direct relationship
- $\rightarrow$: found interrelationship