‘When do HR delivery channels provide the highest HR service value?’ An integrated analysis using resource-based view, transaction cost economics, and resource-dependence perspectives.
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Nowadays many companies explore ways to enhance the value of human resource services. An important reason for introducing new approaches to deliver HRM in organizations is to perform HR activities more efficient and effective. One way to enhance the value of HR services is to make use of different delivery channels. Although previous studies list and describe the various HR delivery channels, they remain silent on which concrete HR delivery channel can be best selected for particular HR activities in order to create high HR service value. Several attempts were made to develop a comprehensive model for the categorization of HR delivery channels (Bos-Nehles, 2010; Farndale et al., 2010; Keegan, Huemann, & Turner, 2012; Ulrich et al, 2008; Valverde et al., 2006). In this study we distinguish intra-organizational (line managers, HR business partners and SSCs) and inter-organizational channels (external HR agencies), because they have different levels of sharedness. The selected variables uniqueness and dependence have emerged from the resource-based view (Barney, 1991), Transaction Costs Economics (Williamson, 2003) and the resource dependency theory (Pfeffer & Salancik, 1978).

In this research hypotheses are developed and tested that explain by which level of uniqueness and dependence, which HR activities can be best delivered by an external HR agency, SSC, HR business partner or line manager in order to achieve high HR service value. We build on the study of (Hofman & Meijerink, in press) by including uniqueness of HR activities (as a measure of differentiation in needs), in combination with user dependence on HR activities, as playing the leading role in determining which delivery channel can best deliver various HR activities.

The research goal in this thesis is as follows: ‘Which delivery channels can best perform which HR activities, depending on the variables uniqueness and dependence, so that the perceived HR service value is maximized?’.

In order to test the formulated hypotheses, a quantitative research is conducted at a company in the east of the Netherlands. The final sample existed of 50 HR activities which are distributed across the four delivery channels. To collect the data, a survey methodology was applied. After the data collection four regression analyses are carried out. These analyses tested the effect of the use of the four HR delivery channels on HR service value. The moderating variables uniqueness and dependence were included as well.

The results show that the impact of using different HR delivery channels on HR service value is not significantly affected by whether the activity is unique or whether the organization is
dependent of the activity. But what we did find is that line managers score lower on HR service value than other delivery channels. Besides that, the delivery channel SSC has a positive impact on HR service value irrespective of the degree of uniqueness and dependence. Also the independent variable dependence has an individually, positive effect on HR service value.

In practice, it can be assumed that an organization does not necessarily need to use different delivery channels when activities vary in their uniqueness and dependence. For organizations this means that based on the uniqueness and dependence of an activity, the HR service value will not significantly change when delivered by line managers, HR business partners, SSCs or external HR agencies. The outcome that line managers have a significant negative effect on HR service value is an interesting finding for organizations. It can be detrimental for organizations, because throughout the years line managers got more responsibility in the field of HRM (Guest, 1987; Harris et al., 2002; Larsen & Brewster, 2003; Legge, 1995; Schuler, 1992). Organizations might deal with this in different ways. On the one hand organizations can invest in their line managers so that they are better able to perform their HR tasks. This can result in an increase of a line manager's opportunity and ability which respectively indirectly and directly leads to higher performance (Bos-Nehles et al., 2013). On the other hand, the organization can choose to shift HR activities to other delivery channels.

The finding that SSCs have a significant positive effect on HR service value is very useful for organizations. This signifies that organizations should consider to make more use of SSCs in the future. By bundling HR activities in SSCs, the value of HR services can increase. HR activities can be organized more efficient, more effective and less costly (Bergeron, 2003; Cooke, 2006; Davis, 2005; Farndale et al., 2009; Kamal, 2012; Maatman et al., 2010; Meijerink et al., 2013). In this research it is found that when an organization wants to make (more) use of the services of a SSC, the SSC can best perform HR activities whereof the organization is highly dependent. When these activities are performed by SSCs, the organization can benefit from a higher HR service value.
This thesis is written to obtain my master’s degree in Business Administration. I would like to thank several people that supported me during this process.

First, WGV Zorg en Welzijn for providing the opportunity to conduct my master’s thesis at their organization. Hans Hokke and Paul Foole helped me mainly with the practical application of the theories used. Besides that, they provided the contacts I needed for my research. I enjoyed working at the office at WGV Zorg en Welzijn and gained many interesting contacts. Secondly, I want to thank the company for the effort they have made to fill in the questionnaires for my research. Third, I thank my supervisors of the University of Twente. I enjoyed working together with Jeroen Meijerink. He encouraged me to improve the academic quality of my report and during many meetings he provided useful feedback. In the final phase of my research Tanya Bondarouk shared her ideas with me which helped me to enhance the quality of my thesis.

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1 INTRODUCTION

1.1. PROBLEM BACKGROUND
Nowadays many companies explore ways to enhance the value of human resource services. In literature various HR delivery channels are described, that is, the actors involved in offering HR activities, including: HR shared service centers (HR SSCs), HR outsourcing vendors, e-HRM, business partners and line managers (Farndale, Paauwe, & Boselie, 2010; Ulrich, Younger, & Brockbank, 2008). For example, digital possibilities have been challenging traditional ways of HR delivery and by using e-HRM tools in combination with ERP systems, the HR service value is anticipated to increase in many organizations (Bondarouk, Ruël, & van der Heijden, 2009). Traditionally, HR activities have been performed in-house, but HR activities are increasingly being outsourced as well (Klaas, Mc Clendon, & Gainey, 1999).

An important reason for introducing new approaches to deliver HRM in organizations is to perform HR activities more efficient and effective. An example of this is the introduction of HR SSCs (Meijerink & Bondarouk, 2013). By making use of SSCs costs are assumed to reduce because multiple departments can make use of the services. This means that fewer HR personnel is needed and employee costs are assumed to decrease. Also the quality of HR services are assumed to increase because the experiences are bundled (Cooke, 2006). In addition, the HR function can have more time for the strategic issues because of the reduced workload (Meijerink & Bondarouk, 2013; Redman, Snape, Wass, & Hamilton, 2007). So by the use of SSCs the efficiency and effectiveness of HR activities is assumed to increase which others have referred to as an increase in HR service value which is the trade-off between the quality and costs of HR services.

However, HR service value might also decline if HR activities are not aligned with the most appropriate HR delivery channel. An example of a mismatch of the HR function can be found in the paper of Redman et al. (2007). In this case study an unusual HR model was found. All aspects of HR were shared among four primary care trusts (PCTs), whether transactional, professional advisory or transformational. The interviews showed that both the CEOs and the HR staff were concerned and told that they struggle with the strategic aspects of HR because of
a lack of time. Because of this mismatch, the HR service value decreased. So, it seems that carefully selecting an HR delivery channel for a selected HR activity is important because it is assumed to enhance the value of HR services. It can be seen that companies search for ways to increase the HR service value and one way to accomplish this is to deploy various HR delivery channels.

1.2. Problem description

Although previous studies list and describe the various HR delivery channels, they remain silent on which concrete HR delivery channel can be best selected for selected HR activities in order to create high HR value, in two respects.

First, many studies addressed the question whether to outsource HR activities or keep them in-house, without considering the various intra-organizational HR delivery channels that represent the in-house option (Lepak & Snell, 1998; Klaas et al., 1999). Lepak & Snell (1998) for example, found at the basis of the dimensions value and uniqueness in which way companies can best sort their activities. They made a distinction between core, traditional, idiosyncratic, and peripheral activities but do not discuss which specific delivery channel can best deploy these activities. The authors discuss that core activities can be best delivered in-house. The other three categories are considered appropriate for outsourcing. In some situations, traditional HR activities for example can be best outsourced, but sometimes they are too unique and valuable according to the company wherefore these activities can be best performed in-house. Furthermore, Klaas et al. (1999) applied the Transaction Cost Economics (TCE) perspective and examined whether factors at an organizational-level moderate the relationship between the degree of reliance on HR outsourcing and the perceived benefits produced by outsourcing. It is found that the relationship between the degree of outsourcing and the perceived benefits that were generated was moderated by reliance on idiosyncratic HR practices, uncertainty, firm size, and cost pressures. So, for example, when HR practices are highly idiosyncratic, the perceived benefits will decrease when this activity is outsourced. Pay level, overall outsourcing emphasis and strategic involvement did not have a moderating effect on the relationship between the two variables. Despite that these studies explain whether organizations can best outsource HR activities, they remain silent whether organizations can best select an internal HR SSC, HR business partner or line manager to perform internalized HR activities.
Second, there is only a handful of studies which considered the allocation of HR activities among internal HR delivery channels. Farndale et al. (2010) for example empirically describe intra-organizational HR delivery channels. However, this study is mainly descriptive and empirically describes which HR activities are performed by HR SSCs, business partners and line managers. As a result, it does not explain under which conditions these HR activities can be best sourced to maximize HR value. One of the few explanatory studies into HR delivery channel selection and value is the study of Hofman & Meijerink (in press) who found that the influence of sharing an HR activity (i.e. bundling in a SSC) on HR service value depends on differentiation in needs. Hofman & Meijerink (in press) found, in order to yield high service value, that HR activities for which business units have similar needs can be best shared, whereas those for which the business units have extremely different needs can be best retained within the individual business units. Unfortunately, the study of Hofman & Meijerink (in press) did not found an answer to the question whether to share HR activities with moderate diverse needs or not.

Besides that, the distinction between ‘sharing’ and ‘not sharing’ does not reflect an organization in reality, because there are multiple forms of sharing HR activities (e.g. outsourcing, SSCs or centers of excellence) and not sharing HR activities across business units (e.g. HR business partner, line manager or employees themselves). Hence, although research has progressed, it remains unclear which HR activities can be best delivered using which specific HR delivery channel (i.e. an external agency, shared service center, HR business partner and/or line manager) in order to create high HR service value. This research tries to find out which HR delivery modes match different types of HR activities.

1.3. Research goal
The purpose of this research is to develop and test hypotheses that explain under which conditions HR activities can be best delivered by an external HR agency, SSC, HR business partner or line manager in order to achieve high HR service value. We build on the study of Hofman & Meijerink (in press) by including uniqueness of HR activities (as a measure of differentiation in needs), in combination with user dependence on HR activities, as playing the leading role in determining which delivery channel can be best used for various HR activities. The reason why we also include user dependence on HR activities is because previous studies found that these influence transaction costs (Hillman et al., 2009; Medcof, 2011) and therefore influence the value of HR services. In the theoretical framework these variables will be further
explained and justified. With the outcomes of this thesis companies are better able to allocate HR activities to the appropriate departments which contribute to the effectiveness and efficiency of these activities. As a result, this will enhance the HR service value.

In addition to the scientific value described above, the findings of this study could provide a practical value for organizations. The research will influence the awareness of organizations concerning the delivery of HR activities. With the new knowledge organizations can reconsider and reorganize the allocation of HR activities to different HR delivery channels, with the goal to improve the value of the HR services. Shortly, the research goal in this thesis leads to the following research question:

‘Which delivery channels can best perform which HR activities, depending on the variables uniqueness and dependence, so that the perceived HR service value is maximized?’
To determine how companies can best allocate their HR activities among different delivery channels in the future, a literature study is conducted. In concurrence with the research question the theoretical framework is designed. First the different delivery channels which have to be taken into account will be introduced. Later these delivery channels will be deployed to decide by which channel the HR activities can be best deployed. Second, the term HR service value will be defined. Then the dimensions uniqueness and dependence that are chosen to decide what delivery channel can be best used to perform HR activities will be explained in more detail. The theories chosen to determine these dimensions will be the guide in this thesis. Finally the four hypotheses which are developed to test the research model will be introduced.

2.1. Delivery channels

HR delivery channels can be defined as the actors which offer HR services to employees and managers of an organization. In this case we distinguish intra-organizational (line managers, HR business partners and SSCs) and inter-organizational channels (external HR agencies). In the paper of Valverde, Ryan, & Soler (2006) the “HR function is not simply understood as the set of activities performed by the HR department, but as all managerial actions carried out at any level regarding the organization of work and the entry, development, and exit of people in the organization so that their competencies are fully used in order to achieve corporate objectives” (Valverde, 2001). In every organization the HR function can be seen as unique as companies can choose how they want to distribute the decision making of HR (Valverde et al., 2006).

Several attempts were made to develop a comprehensive model for the categorization of HR delivery channels. Ulrich et al. (2008) propose that organizations rely on corporate HR departments, HR SSCs, business partners, expertise centers and operational executors for the delivery of HR services. Farndale et al. (2010) developed a model that included electronic HRM, HR SSCs, HR expertise centers, HR business partners and corporate centers. Besides that, other studies suggest that top management, line management, project managers and external HR agencies also play an important role in delivering HR services (Bos-Nehles, 2010; Keegan, Huemann, & Turner, 2012; Valverde et al., 2006). It can be seen that HR activities are performed by many different delivery channels. There does not seem to be a coherent framework for
classifying delivery channels. However, it can be seen that delivery channels can be classified based on what we call the level of sharedness. The level of sharedness refers to the coverage of people, divisions or organizations which make use of the same delivery channel.

First, at an organizational level, *internal sharing* (line managers, HR business partners and SSCs) and *external sharing* (external HR agencies) can be distinguished. External HR agencies offer services that are shared across business units and organizational borders. External HR agencies are usually contracted by organizations to provide administrative HRM services or specialized HR solutions (Valverde et al., 2006). Activities that are carried out by external HR agencies can be seen as outsourced activities, because they are no longer kept in-house and are performed outside the organization instead. In the research of Valverde et al. (2006) it is seen that training delivery (19.6%), high level specialist HR activities (16.8%) and administrative and technical activities (12.2%) are mainly outsourced to external HR agencies. The benefits of outsourcing are lower costs because of economies of scale of the external agency, higher service quality and an enhanced HR focus on areas directly contributing to firm success (Cooke, Shen, & McBride, 2005; Greer, Youngblood, & Gray, 1999).

Second, besides outsourcing, there remain several sourcing options that are internal to the organization, but which might nevertheless be internally shared. In this respect, *within business unit sharing* (line managers and HR business partners) and *between business unit sharing* (SSCs) can be distinguished. Bergeron (2003) defines SSCs as a particular kind of sourcing arrangement with a long-term and strategic impact. In Figure 1 the situation wherein services normally were distributed and the use of a shared service center are illustrated. An HR SSC is a delivery channel in the internal organizations of a firm which delivers HR services to operational entities (e.g. divisions and business units) (Strikwerda & Seesing, 2004).

**FIGURE 1 - FROM PREVIOUSLY DISTRIBUTED SERVICES TO AN IN-HOUSE SSC (JANSSEN & JOHA, 2007).**
However, from the perspective of business unit managers, SSCs can also be mentioned as outsourcing, because activities are not executed by a business unit itself but by an overarching party. According to (Farndale, Paauwe, & Hoeksema, 2009), HR shared services reflect ‘in-sourcing’, that is, HR SSCs are internal outsourcing vendors meaning that they are shared among individual business units. The reason that organizations establish an organizational arrangement to deliver services is that it contributes to a higher level of efficiency, improved services and cost savings (Bergeron, 2003; Cooke, 2006; Davis, 2005; Farndale et al., 2009; Kamal, 2012; Maatman et al., 2010; Meijerink, Bondarouk, & Maatman, 2013). Ulbrich (2006, p. 196) states: “By cutting out duplicate support processes and non-strategic activities, and organizing them in so-called shared services, a tremendous theoretical potential exists for optimization and extensive economies”.

In most cases SSCs perform support services to lower the costs of these processes, but besides that SSCs can also deploy at a higher level as strategy coordination across the country subsidiaries in a region (Davis, 2005; Ulrich & Brockbank, 2005). These services together might cover a wide range of the HRM function responsibilities within an organization. Besides simply bundling administrative capacity into a center, the SSC is also an attempt by an organization to restructure the HRM function and the relationships, responsibilities and delegation of tasks within HRM (Maatman, Bondarouk, & Looise, 2010). Examples of HR activities which are performed by SSCs are payroll changes, recruitment administration, maintenance of personnel data, and absence monitoring. But besides transactional activities SSCs can also share expertise and e.g. support executives in their staffing process (Cooke, 2006; Meijerink et al., 2013; Reilly, 2000). By sharing these services across business units, organizations envision the efficiency and effectiveness of HR activities (Cooke, 2006; Farndale et al., 2009; Maatman et al., 2010; Meijerink et al., 2013).

At last, the remaining delivery channels can be differentiated as between team sharing (HR business partners) and within team sharing (line managers). The HR business partner is an HR professional who is embedded in a single business unit for the delivery of HR services to employees and line managers within that business unit (Ulrich et al., 2008). HR business partners are working alongside line management ensuring that policies and practices are implemented appropriately. For example, the different business units controlled by line managers are accountable for delivering business results, and thus often choose what services
they use from agents such as HR business partners (Farndale et al., 2010). The relationship between HR business partners and line managers is important; the HR business partner shares his expertise with multiple line managers of different teams within a business unit. Activities that are performed by HR business partners are for example: engagement and support of business strategy discussions, representation of employee interests and implications of change, measurement and tracking of performance to see whether the HR investments made by the business deliver the intended value, and the selection and implementation of the HR practices that are most appropriate to the delivery of the business strategy. An organization benefits of the deployment of HR business partners because they have unique knowledge of the business and the employees within the organization. Because they are closely related to the line managers and other employees, HR business partners are available to respond personally to questions and discussions. They are expected to select practices that add value, integrating them to deliver capabilities, and sequencing them to ensure implementation (Ulrich et al., 2008). The effectiveness and responsiveness of HR activities can increase by the use of HR business partners.

Line managers can be seen as key players in the delivery and implementation of employment policies (McGovern, Gratton, Hope-Hailey, Stiles & Truss, 1997). As stated by Purcell and Hutchinson (2007), the HR practices perceived or experienced by employees will, to a growing extent, be those delivered or enacted by line managers, especially front-line managers (FLMs) with direct supervisory responsibility. Besides their HR duties including selecting, appraising and communicating, their leadership behaviour has influence on employee attitudes and behaviour and give direction. Line managers act as a vital link between the policies developed by the HR department and their influence on employees and their performance. Line managers are expected to create a synergy between human, financial and physical resources because they are in contact with the employees on a daily base (Larsen & Brewster, 2003; Purcell & Hutchinson, 2003). The line managers carry out policies that are developed by the HR department or higher-level management and the responsibility for employee engagement rests for a large part with line managers (Purcell & Hutchinson, 2003; Ulrich et al., 2008). It is often seen that line managers perform the executive functions. During a recruitment and selection procedure for example, the HR department set up and support the procedure, while the line managers can best make the decision (Purcell & Hutchinson, 2007). Another example of an HR activity which is often carried out by line managers is performance review since this is tied in
with day-to-day management actions (Purcell & Hutchinson, 2003). Line managers can challenge team members and find out what they really want to achieve at work which is part of the development plan for the future. Because of the complex nature of some HR activities, line managers would need to acquire specialist skills. That is why they mainly perform executive activities, instead of conducting policy-oriented activities (Whittaker & Marchington, 2003). Line managers are the least shared option of the delivery channels discussed in this paper. The extent to which line managers are shared is low because they provide HR services to a limited amount of employees since they are dedicated to a single team. Various benefits can arise when line managers are involved in HRM; HR problems are solved at a team level (at the source), the speed of decision making increases, better change management is achieved, and the level and focus of employee commitment will be positively affected with the aim of making these employees more satisfied, more productive and more adaptable (Bos-Nehles, 2010; Budhwar, 2000; Currie & Procter, 2001; Thornhill & Saunders, 1998). By deploying line managers, HR activities can be performed more efficient and effective, and the responsiveness increases because of the team level approach.

In summary, the delivery channels line manager, HR business partner, SSC and external HR agency will be the focal delivery channels. The four delivery channels can be categorized from a low level of sharing activities to a high level of sharing activities (see Figure 2).

**FIGURE 2 – THE FOUR DELIVERY CHANNELS AND THE LEVEL THAT THOSE ARE SHARED**

<table>
<thead>
<tr>
<th>team level</th>
<th>BU level</th>
<th>internal level</th>
<th>external level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line managers</td>
<td>HR business partners</td>
<td>SSCs</td>
<td>External HR agencies</td>
</tr>
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</table>

2.2. HR SERVICE VALUE

The reason why different delivery channels are used to perform HR activities is that it can lead to several advantages such as higher efficiency, higher service quality and higher employee commitment. These benefits together can be defined as an overall term, namely HR service value. In order to determine which HR services can be best offered by which HR delivery channel, we need to set a benchmark against which different delivery options can be compared.
In this study the benchmark ‘HR service value’ is used, because it measures the proposed benefits of the HR delivery channels in terms of i.e. cost reduction, quality improvement and strategic change.

As mentioned earlier, outsourcing is assumed to lead to lower costs, higher service quality and enhanced HR focus on core activities (Cooke et al., 2005; Greer et al., 1999), SSCs are assumed to enhance the efficiency and effectiveness of HR activities (Cooke, 2006; Farndale et al., 2009; Maatman et al., 2010; Meijerink et al., 2013), HR business partners are supposed to enhance the effectiveness and responsiveness of HR activities (Ulrich et al., 2008), and by deploying line managers, it is assumed that HR activities can be performed more efficient and effective, and the responsiveness increases because of the team level approach (Bos-Nehles, 2010; Budhwar, 2000; Currie & Procter, 2001; Thornhill & Saunders, 1998). Hence, different types of HR service value can be distinguished when various delivery channels are used. In Table 1 a summary of the various types of HR service value is provided.

**TABLE 1 – VARIOUS TYPES OF HR SERVICE VALUE BY USING DIFFERENT DELIVERY CHANNELS**

<table>
<thead>
<tr>
<th>DELIVERY CHANNELS</th>
<th>REFERENCES</th>
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<tbody>
<tr>
<td><strong>HIGHER EFFICIENCY</strong></td>
<td>Bergeron (2003); Budhwar (2000); Cooke et al. (2005); Cooke (2006); Davis (2005); Greer et al. (1999); Kamal (2012); Maatman et al. (2010); Meijerink et al. (2013); Ulbrich (2006)</td>
</tr>
<tr>
<td><strong>HIGHER QUALITY</strong></td>
<td>Bergeron (2003); Bos-Nehles (2010); Cooke et al. (2005); Cooke (2006); Currie &amp; Procter (2001); Davis (2005); Greer et al. (1999); Kamal (2012); Maatman et al. (2010); Meijerink et al. (2013); Ulbrich (2006); Ulrich et al. (2008)</td>
</tr>
<tr>
<td><strong>MORE TIME FOR CORE BUSINESS</strong></td>
<td>Bergeron (2003); Cooke et al. (2005); Cooke (2006); Davis (2005); Greer et al. (1999); Kamal (2012); Maatman et al. (2010); Meijerink et al. (2013); Ulbrich (2006)</td>
</tr>
<tr>
<td><strong>LOWER COSTS</strong></td>
<td>Bergeron (2003); Cooke et al. (2005); Cooke (2006); Davis (2005); Greer et al. (1999); Kamal (2012); Maatman et al. (2010); Meijerink et al. (2013); Ulbrich (2006)</td>
</tr>
<tr>
<td><strong>HIGHER RESPONSIVENESS</strong></td>
<td>Budhwar (2000); Currie &amp; Procter (2001); Ulrich et al. (2008)</td>
</tr>
</tbody>
</table>
In the article of Zeithaml (1988) perceived value is defined as the consumer’s overall assessment of the utility of a product based on perceptions of what is received and what is given. Across consumers there is variety in what is received (e.g. volume, quality or convenience) and given (e.g. money, time or effort). In this thesis the definition will be applied to HR services. The consumers of HR services are the employees and managers in an organization. The value of HR service is the trade-off between the benefit of an HR service and the costs of its acquisition (Cronin, Brady, & Hult, 2000; Grewal, Monroe, & Krishnan, 1998). Therefore the ideal situation is that an HR activity is provided against high quality at a low price.

To gain a high value of HR services it is assumed that there has to be a fit between the used delivery channel and HR activity. For example Hofman & Meijerink (in press) found that the influence of sharing an HR activity (i.e. bundling in a SSC) on HR service value depends on differentiation in needs. In order to yield high service value, HR activities for which business units have similar needs can be best shared, whereas those for which the business units have extremely different needs can be best retained within the individual business units. In the article of Redman et al. (2007) there was a mismatch of the HR service delivery. In the case study it was seen that all aspects of HR were shared among four sites. This led to a lower HR service value, because for some activities it would be better to embed an HR professional or line manager. The price quality relationship was in this case unbalanced. Cooke (2006) examined through a case study, that there was a significant gap between literature espousing the efficacy and utility of HR SSCs and the extent to which the adoption of such a model is successful. After the implementation of the SSC some negative consequences arose. One of these consequences was the loss of face-to-face contact. Many employees did not feel comfortable talking about confidential issues to an unfamiliar person who works in a SSC (Cooke, 2006). In this case the HR service value decreases, because the employee desires an on-site HR contact point but the company does not offer that anymore. In this case the costs were probably reduced, but the quality was decreased as well which is undesirable. So for these specific activities it can be a better choice to embed an HR professional or line manager.
However, various HR delivery channels are used to increase value in an organization, and it remains unclear which of the four HR delivery channels identified in this study (line managers, HR business partners, SSCs or external HR agencies) can be best used, considering the uniqueness of and dependence on an activity, to provide a high HR service value. To answer this question the resource-based view (RBV), Transaction Costs Economics (TCE) and resource dependency theory (RDT) will be introduced which will lead to the variables uniqueness and dependence.

2.3. Resource-based view, Transaction Costs Economics & Resource Dependency Theory

To find out under which conditions which HR delivery channel can be best used to provide a high HR service value, we follow Lepak & Snell (1999) by using the resource-based view (RBV) and Transaction Costs Economics (TCE) and add to this the resource dependency theory (RDT). The reason that these theories are used is that they are theories of the firm. They conceptualize the boundaries of the firm, describe the nature of the firm, and explain under which conditions activities will be likely outsourced or shared. The degree of sharing of the different HR delivery channels is consistent with the question whether to share HR activities or not. The three theories will be used to answer the question what firms can be best do with different HR activities: to what degree can HR activities best be shared? The RBV, TCE and RDT will guide this thesis and lead to the two variables uniqueness and dependence. The purpose of this research is to examine by which delivery channels which HR activities can be best performed, including the variables uniqueness and dependence, so that the perceived HR service value is maximized.

2.3.1 Resource-based view

The RBV can be seen as one of the most influential theories in the management literature. It aims to clarify the internal sources of a firm’s sustained competitive advantage (SCA). According to one of its founders, Barney (1991), an activity contributes to SCA when it is valuable, rare, inimitably, and nontransferable (VRIN). An activity is valuable when it enables a firm to conceive of or implement strategies that improve its efficiency and effectiveness (Lepak & Snell, 1998). These activities are able to improve the performance of an organization by exploiting opportunities or neutralize threats in the environment. SCA can be achieved when a firm implements a value-creating strategy which is not simultaneously implemented by large numbers of other firms and when these other firms are unable to duplicate the benefits of this strategy (Barney, 1991). This explains the rareness of an activity. Valuable and rare activities can
only be sources of sustained competitive advantage if firms that do not possess these resources cannot obtain them. These activities are called imperfectly imitable (Lippman & Rumelt, 1982; Barney, 1986). Activities can be imperfectly imitable for different reasons: (a) the ability of a firm to obtain a resource is dependent upon unique historical conditions (e.g. the path a firm followed through history), (b) the link between the resources possessed by a firm and a firm’s SCA is causally ambiguous (e.g. imitating by other companies can be hard because the link between the resources and SCA of a firm is not (fully) understood), and/or (c) the resource generating a firm’s advantage is socially complex (e.g. a firm’s culture) (Dierickx & Cool, 1989). The last construct, non-substitutability, also influences whether an activity is a source of SCA or not (Barney, 1991). To gain SCA, there must be no strategically equivalent resource that can be exploited separately to implement the same strategies. If there is no strategically equivalent firm resource, the strategy will generate a SCA (because the resources used to conceive and implement them are valuable, rare, and imperfectly imitable). Therefore it can be concluded that activities with high VRIN are not likely going to be outsourced or shared with other organizations, because this jeopardizes the SCA of the firm. Instead, these activities can be best deployed inside the organization which will lead to higher quality and efficiency.

2.3.2 TRANSACTION COST ECONOMICS
Besides the RBV, the Transaction Cost Economics (TCE) is an important theory in management literature. The TCE discusses the make-or-buy argument and is concerned with the allocation of economic activity (Lepak & Snell, 1998). To identify the most efficient form of organizing an activity firms either rely upon the market to govern a transaction, or they organize this process internally (Lepak & Snell, 1999). According to TCE, firms are more likely to internalize activities when the transaction costs of doing so are lower than the costs that would be incurred through relying on open market relationships. The specificity of an asset, the disturbance to which transactions are subject, and the frequency with which transactions recur are three important dimensions which have to be taken into account when the make or buy decision has to be made (Williamson, 2003). Asset specificity can take a variety of forms (e.g. physical, human or site) and is a measure of non-redeployability (Williamson, 1979; Williamson, 2003). As an HR activity becomes more specific to a particular firm, relying upon an external arrangement may incur excessive costs since these activities are not likely to be readily available in the open market. And if the activities are rare, they may be extremely costly to acquire, thereby reducing their potential value. In direct contrast, HR activities that are not very specific but standardized across
firms may not justify the costs of their internal deployment because the effort required to execute these standardized HR activities internally at a high level is likely very high. Since external vendors or specialists may provide these services more efficiently, externalization may be appropriate for such activities (Barney, 1991; Williamson, 1979; Klaas et al., 1999; Lepak & Snell, 1998). In the context of human resources, using the TCE perspective, managers can best source the deployment of HR activities to the market (external HR agencies) when it is more efficient to do so. In combination with a resource-based perspective, firms can best focus their efforts on resources that are core to a firm’s competitiveness (Hamel & Prahalad, 1994, as cited in Lepak and Snell 1998) and can best outsource those activities that are not critical to the success of a firm with the result that there is more time to focus on core competencies (Quinn, 1992, as cited in Lepak and Snell 1998).

2.3.3 RESOURCE DEPENDENCY THEORY

The resource dependency theory (RDT) of Pfeffer and Salancik (1978) is based on the presumption that organizations depend on other organizations to provide necessary resources in order to survive and grow (Garavan, 2012). Dependence is defined by Emerson (1962, p. 32) as: “The dependence of actor A upon actor B is (1) directly proportional to A’s motivational investment in goals mediated by B, and (2) inversely proportional to the availability of those goals outside of the A-B relationship”. In other words, dependence increases when actor A considers an activity to be highly important for realizing its own goals and can hardly find the activity outside its relationship with actor B. A resource or activity that is valuable is obvious of great importance to a firm, and the more it is related to the success of a firm, the more the firm depends upon it because it helps the organization realizing its goals. The business unit which embodies that valuable resource or executes the corresponding activity has a basis for organizational power (Medcof, 2001). Ulrich and Barney (1984) describe the power maximization strategy which can take place in one or a set firms to centralize power. Other organizations may become dependent of those firms. In general, organizations aim to decrease their resource dependence on other organizations and increase the resource dependence of others on them (Cool & Henderson, 1998; Harpaz & Meshoulam, 1997). Power and dependence can simply be seen as the obverse of each other: B is dependent on A to the degree that A has power over B (Emerson, 1962, p. 33). When an organization has much power over other organizations, it can for example decide to ask an higher price for a product or service. Because other organization do not have an alternative and are dependent on the product they do not have another choice than
pay this higher price. Therefore, activities on which actors depend are not likely going to be shared on a large scale and outside the organization, because this increases dependence and thus might either harm quality or costs.

2.3.4 From theories to variables

The RBV, TCE and RDT have many commonalities (see Figure 3). Not only do they help explaining whether activities are outsourced or internally shared, their respective concepts are also overlapping (Lepak & Snell, 1999; Pfeffer & Salancik, 1978).

**FIGURE 3 – OVERVIEW OF CONSTRUCTS AND VARIABLES**

<table>
<thead>
<tr>
<th>Theory</th>
<th>Constructs</th>
</tr>
</thead>
<tbody>
<tr>
<td>RBV</td>
<td>Valuable</td>
</tr>
<tr>
<td>TCE</td>
<td>Rare, Inimitable, Non-substitutable</td>
</tr>
<tr>
<td>RDT</td>
<td>Dependence</td>
</tr>
</tbody>
</table>

The constructs rareness, inimitability and non-substitutability which are covered by the RBV are strongly related to the construct asset specificity which is derived from the TCE. When an activity is rare for example, it is a very specific activity and hard to imitate or substitute. These mentioned constructs (rareness, inimitability, non-substitutability and specificity) can all be categorized as characteristics which determine the uniqueness of activities. Also according to Lepak and Snell (1999) uniqueness can be thought of in terms of firm specificity (Williamson, 1991) or scarcity (e.g. rare, inimitable and non-substitutable) (Barney, 1991) in the external market. Therefore, the first variable we will consider to explain the value of sourcing decisions, is the *uniqueness* of HR activities which refers to the degree that an activity is specific, rare, inimitable and non-substitutable (Lepak & Snell, 1999).

Furthermore, the value of an activity and the dependence on an activity are also interrelated. Because a valuable activity relates to the success of a particular organization and is instrumental to the organization’s goals, the organization will become dependent of this activity and thus, will not likely be outsourced or shared. To develop the second variable we consider to explain the value of sourcing decisions. Therefore the constructs value and dependence will be combined to
form the variable *dependence*, which is defined as the degree that an organization depends on other organizations to provide the necessary resources in order to survive and grow. The more valuable a resource is, the more the firm depends upon it (Medcof, 2001).

### 2.4. Hypotheses building

The decision, by which of the four delivery channels (line managers, HR business partners, SSCs, or external HR agencies) different HR activities can be best delivered to maximize the HR service value, will be made on the basis of the variables uniqueness and dependence. By using the variable uniqueness, a distinction can be made between different groups: HR activities that can be best shared on a large scale between organizations or business units (external HR agencies and SSCs), and HR activities that can be best shared on a small scale within the business unit and teams (HR business partners and line managers). To know in which degree activities can be best shared is of great importance, because in this way two groups of delivery channels can be distinguished.

HR activities which are very unique for an organization, can better not be shared between organizations (outsourced). The reason for this is that outsourcing vendors (external HR agencies) do not have unique knowledge about the business and because of that the HR activities will likely become more standardized which may lead to a detrimental loss of a company's unique organizational characteristics (Cooke et al., 2005). Lepak and Snell (1998, p. 223) state: “As HR activities become more unique to a particular firm, relying upon an external arrangement may prove infeasible and/or incur excessive costs since these activities are not likely to be readily available in the open market. And if rare, they may be extremely costly to acquire, thereby diminishing their potential value”. “Rational companies would outsource everything except those special activities in which they could achieve an unique competitive edge, i.e., their core competencies” (Quinn & Hilmer, 1994). In terms of HR service value, the quality of unique HR services will decrease and the costs to deploy unique HR activities will increase. Besides that, cultural differences between the outsourcing vendor and organization can arise which can lead to problems in terms of quality since miscommunication can arise (Cooke et al., 2005). This is consistent with the finding of Klaas et al. (1999) who found that organizations who outsource idiosyncratic, firm-specific HR activities experience fewer benefits from outsourcing than those who only outsource generic HR activities with low uniqueness. Therefore it can be concluded that unique activities that contribute to SCA can better not be shared between organizations, but can better be deployed in-house.
SSCs share HR activities between business units, so HR activities that are deployed by SSCs are performed for various business units in an organization. When an activity is not very unique for an organization, it is rational to source it to SSCs, because a SSC can execute these activities efficiently which leads to lower costs. Besides that a SSC is specialized in performing specific HR tasks such as the maintenance of personnel data (Cooke, 2006) which can lead to an increased quality and efficiency. On the other hand, when unique HR activities are deployed by SSCs, it can harm quality and costs of HR activities, because the SSCs do not have the unique knowledge and experience that is required to perform the activity. Besides that, SSCs are centralized with the result that the personnel staff of SSCs does not always know what is happening in various business units. Unique HR activities will become more standardized which may be harmful to the unique organizational characteristics of a company (Cooke et al., 2006; Hofman & Meijerink, in press; Reilly, 2000; Ulrich, 2006, as cited in Klaas et al., 1999).

On the contrary, when HR activities within a company are unique and contribute to SCA, they can be best shared on a low scale, in this case by the HR business partner or line manager. Both actors have unique knowledge of the business and the employees within the organization and work close with the employees in the organization (Bos-Nehles, 2010; Budhwar, 2000; Currie & Procter, 2001; Thornhill & Saunders, 1998; Ulrich et al., 2008). This is consistent with the findings of Hofman & Meijerink (in press) who found that, in order to yield high service value, HR activities for which business units have similar needs can be best shared, whereas those for which the business units have extremely different needs can be best retained within the individual business units. Therefore, it can be concluded that highly unique activities can better not be shared between business units, but can better be deployed by HR delivery channels residing within business units.

With this knowledge, a distinction between sharing between organizations/business units and sharing within business units/teams can be made. HR activities with generic characteristics can better be outsourced or shared in an HR SSC, whereas those that are highly unique can better be performed by line managers or HR business partners. However, at the moment when it is clear to share an HR activity on a large scale because it is not very unique, is the delivery channel that can be best chosen an external HR agency or a SSC? And what to do when an activity is unique and can be best shared on a small scale? Can a line manager or HR business partner best
perform this activity? These questions can be answered by using the second variable: dependence.

First, the variable dependence makes a distinction between the delivery channels that perform HR activities that are not very unique: external HR agencies and SSCs. When an activity is not very unique for an organization, and the organization is not very dependent on the activity, it can be best executed by an external HR agency because this may obtain efficiency advantages. The external HR agency is able to perform the activity at significant lower costs because the activity is performed on a large scale. Besides that the agency is specialized in performing these sort HR activities, which means higher service quality. Because the activity is not of strategic importance and valuable for the organization, it is rational to outsource to external parties since quality will increase and costs will decrease (Cooke et al., 2005; Greer et al., 1999). When an activity is not very unique, but the organization is dependent on the activity, it is better to assign it to a SSC. As said earlier, SSCs can, besides performing transactional activities, also share expertise and support executives in their staffing process (Davis, 2005; Ulrich & Brockbank, 2005). Because an organization is dependent on these valuable activities, it is a good choice to bundle these activities in a SSC so that the activities will be executed efficiently on the one hand, but also stay relatively close to the organization on the other hand. The SSC can easily stay in contact with the business units and can ensure that the quality of the HR activity is guaranteed. The organization can better not be dependent on other organizations to perform valuable HR activities, because when an HR activity is valuable for an organization and it is performed by an external vendor, this external vendor has power to raise the price of the HR activity whenever he wants to with the result that costs will increase (Pfeffer & Salancik, 1978). Using SSCs will have a positive influence on the overall HR service value, because it leads to higher efficiency, cost reduction and quality improvement (Bergeron, 2003; Cooke, 2006; Davis, 2005; Farndale et al., 2009; Kamal, 2012; Maatman et al., 2010; Meijerink et al., 2013).

Second, the variable dependence distinguishes the delivery channels that perform unique HR activities: line managers and HR business partners. Line managers can best deliver unique activities where an organization is very dependent on. Because these activities (e.g. performance appraisals and selection) provide for competitive advantage (Purcell & Hutchinson, 2003), the organization can best assign it to line managers who are essential to the delivery of these HR activities since they are in direct contact with the employees and share their expertise within...
their team. The line manager does not want to be dependent on an HR business partner when unique activities, whereof the team is dependent on, must be carried out, because an HR business partner can have other priorities. The HR business partner can have other preferences with regard to particular HR activities and can distribute his time in a different way which can lead to less attention to the very unique activities whereof teams are dependent on. When the HR business partner is focused on an entire business unit with various teams, the quality of these particular HR activities can decrease. A line manager is in this case better able to perform these idiosyncratic activities because this delivery channel is focused on a particular team. Deploying a line manager has a positive influence on the HR service value because the quality, responsiveness and employee commitment of HR activities increases (Bos-Nehles, 2010; Budhwar, 2000; Currie & Procter, 2001; Thornhill & Saunders, 1998). When an HR activity is very unique but the organization is not very dependent of the activity, HR business partners can best perform these activities because this delivery channel shares activities between teams. An example of this is the task to measure and track performance to see whether the HR investments made by the business deliver the intended value (Ulrich et al., 2008). This activity holds a strategic goal which is very unique to an organization, but for the individual teams this HR activity is not very valuable. That is why this HR activity can be best shared at a business unit level. To assign unique activities with low dependence to HR business partners, the quality of activities can increase because this delivery channel has unique knowledge about the business unit and can perform the activities for various teams at once which increases efficiency (Ulrich et al., 2008). When an HR business partner is dependent on a line manager to perform these HR activities, this may encounter problems in terms of quality and costs, because the line manager is probably not able to perform these activities for various teams within a business unit in an efficient way.
In Figure 4 an overview of the delivery of HR activities on the basis of the uniqueness and dependence variables is illustrated.

**FIGURE 4 – ARCHITECTURAL THINKING**

From this framework the final research model is developed. On the basis of Figure 5, the following hypotheses are developed and will be tested.

**FIGURE 5 – RESEARCH MODEL**
Hypothesis 1: HR activities which are characterized by (a) high uniqueness and (b) on which the organization is highly dependent, will have the highest service value when delivered by line managers in comparison to the other three delivery channels.

Hypothesis 2: HR activities which are characterized by (a) high uniqueness and (b) on which the organization is not highly dependent, will have the highest service value when delivered by HR business partners in comparison to the other three delivery channels.

Hypothesis 3: HR activities which are characterized by (a) low uniqueness and (b) on which the organization is highly dependent, will have the highest service value when delivered by SSCs in comparison to the other three delivery channels.

Hypothesis 4: HR activities which are characterized by (a) low uniqueness and (b) on which the organization is not highly dependent, will have the highest service value when delivered by external HR agencies in comparison to the other three delivery channels.
3 METHODOLOGY

3.1. PARTICIPANTS AND STUDY DESIGN
In order to test the formulated hypotheses, the research is conducted at a company – for anonymity reasons called ‘HealthCom’ – that provides help, advice and support to people with psychological and psychiatric problems. Besides these key activities, the organization has a HRM policy and carries out various HR activities both in-house and outsourced, relies on both shared and non-shared HR delivery channels, and consists at least of the four HR delivery channels: line managers, HR business partners, SSCs, and external HR agencies. Hence, this organization forms an useful empirical because within the organization there is a variation in which HR activities are offered through various delivery modes. HealthCom is a healthcare institution in the east of the Netherlands. In the organization 950 employees are working in 17 locations and are distributed among six business units. Besides that there are also seven staff departments which deploy supporting activities.

The units of analysis are the HR activities. First a list of HR activities is provided, using overviews from other research (Hofman & Meijerink, in press). Besides that, several documents about standard procedures are inquired to set up the list from which the HR activities are sampled – the sample frame. To guarantee that all possible HR activities are included in the sample frame, interviews were conducted with the HR manager from the organization to triangulate the overview of HR activities. Besides that it is examined which delivery channel performs which HR activity in the organization at the moment. After that a random sampling is carried out so that there is a selection of HR activities performed by all four delivery channels. The sample exists of 50 HR activities which are distributed across the four delivery channels.

To collect the data, a survey methodology was applied. The reason why surveys are chosen to collect data is that it helps to obtain variance in data which is needed to test the hypotheses. The large amount of data is used to find a numerical understanding about the various HR activities. Two surveys were carried out and were sent separately so that the respondents could not rate all variables in the same questionnaire, which can lead to common method bias. With common method bias there is a chance that respondents would see a certain covariation based on the implicit theories of the respondents (Podsakoff, MacKenzie, & Lee, 2003). By dividing the data
collection in two surveys and sending the second survey a week later in HealthCom, the possibility for this bias is reduced. Both surveys are conducted on the basis of a structured questionnaire. In this way each survey is presented with the same questions in the same order. This approach ensures that the answers can be reliably collected and that comparisons between different survey periods can be made with confidence. Besides that, close-ended questions are used which speed up the data processing.

After the development of the survey, a pretest was conducted in order to test the questions’ face validity and understandability. This pretest is done with two team managers from HealthCom, because they have an overall insight of the different business units within the organization. While filling in this pretest, the interviewees were asked to think out loud. With this think-aloud method it can be determined what a respondent thinks when answering a certain question. This is important because with this information it can be determined whether the respondent interprets the question as intended by the researcher. If this is the case the face validity of the questionnaire is ensured. During the pretests notes were taken and after that adjustments were made to the survey so that the respondents will understand the described HR activities and questions in a consistent way. The adjustments that were made were mainly about word choice. The team managers indicated that some items would be more understandable when the English terms would be replaced by Dutch words. Besides that the introduction is extended, because the team managers found it difficult to understand the perspective in which the answers should be answered. Also some HR activities were further specified so that the understandability would be higher.

The questionnaires were filled out by both business unit managers and team managers that perform HR activities in their daily operations. The questionnaire was sent to 6 business unit managers and 17 team managers of HealthCom. In total, the managers come from seven different business units. In the analysis the outcomes will be aggregated at a business unit level. The data will be gathered and expressed in a concise form so that the statistical analysis can be performed. The respondents in the same business unit can be aggregated, because the business unit has specific characteristics. The answers of the respondents of one business unit can be aggregated because they probably agree with each other. To be sure of this, the intraclass correlation is calculated in the result section. The research population knows about the use of HR activities across the organization and is able to assess the uniqueness of and dependence on
various HR activities. Besides that, the managers have an overview of the HR service value of the HR activities, because they have full insight in both the quality and price of HR services. In HealthCom many HR activities are performed by the line which makes them an important group in this research, because they are to a significant extent aware of the various HR activities in the organization. The business unit managers and team managers have daily contact with the line managers. They gather regularly and discuss trends in the field of HRM because they have to deal with it every day and hence know what developments play a role in the organization. That is why this group is asked to fill in the questionnaires.

In HealthCom the first questionnaire was filled out in the first week in order to determine how unique HR activities are found to be and in which degree an organization is dependent on HR activities. The second questionnaire was filled out in the second week and determines the HR service value of an activity. The independent variable delivery channel is measured by conducting an interview with the HR manager. Together we identified all HR activities within HealthCom and after that we discussed which actor executes which activity. After that the different actors are classified into the four delivery channels: line managers, HR business partners, SSCs and external HR agencies.

Invitations were sent by email which included a file to the questionnaire. The questionnaires were sent to a personal e-mail address, hence this increases the probability that the selected respondent would fill in the questionnaire personally. To reduce non-response, various response facilitation techniques were used: one week prior to the survey a pre-notification email was sent, in which a cover letter which explains the organization’s commitment to the research, guarantee of anonymity, and sponsorship of the researchers were included. Besides that one follow-up reminder for each questionnaire was sent (Dillman, 1991). Three days after sending the first questionnaire to HealthCom by e-mail there was a response rate of 35%. Consequently a reminder was sent by e-mail to the respondents who did not have returned the questionnaire. This increased the response rate to 65%, which means that 15 managers (4 business unit managers and 11 team managers) filled in the questionnaire. After the first questionnaire the second questionnaire was sent to measure the service value of provided HR activities. This survey was sent by e-mail to the respondents who filled in the first questionnaire. After sending a reminder for the second questionnaire the final response rate for this group was 80%, which means that 12 managers (3 business unit managers and 9 team managers) filled in the
questionnaire. The response rate is sufficient for this research, because the respondents are a well-balanced group of managers from different business units that is a good representation for this research. Therefore the achieved amount of observations gives sufficient statistical power.

3.2. MEASUREMENT OF THE VARIABLES
To measure the variables of interest the respondents gave an answer to statements using a five-point Likert scale (ranging from ‘strongly disagree’ to ‘strongly agree’) (Babbie, 2007).

3.2.1 INDEPENDENT VARIABLE: UNIQUENESS
The variable uniqueness is assessed by using two dimensions: (1) the frequency that the needs of users change for this service, and (2) the diversity of preferences of the users of this service (Joshi & Sharma, 2004; Martin & Ishii, 2002). These dimensions are based on existing scales which are used for research about differentiation in needs (Hofman & Meijerink, in press). Diverse needs can be compared with unique needs, because when there is variation in needs, it means that the activity is not standard but unique. Two items for need variation are included which measures both users and time.

Uniqueness indicators
U1: The needs of the users regularly change for this activity.
U2: The users have very different preferences for this activity.

The activities were first described individually and then the respondents assessed the items on the rating scale that ranged from ‘strongly disagree’ to ‘strongly agree’. The inter-item correlation is calculated so that the internal consistency of the uniqueness scale can be ensured. The inter-item correlation for the uniqueness indicators is 0.80 (α = 0.89) which means a high correlation since a level of 0.70 is acceptable.

3.2.2 INDEPENDENT VARIABLE: DEPENDENCE
The variable dependence will be determined by using a single item: the degree that the organization is dependent on the effective performance of an activity in order to perform its own tasks effectively (Astley & Zajac, 1990). The respondents were asked to indicate the dependence on an activity for the organization, because the entire organization makes use of HR activities. To answer the hypotheses which are i.e. about the dependence of the organization on HR activities, the respondents have to fill in the questions from an organizational perspective.
**Dependent indicator**

D: HealthCom is very dependent on this activity to continue to perform well.

The activities were first described individually and then the respondents assessed the item on the rating scale that ranged from ‘strongly disagree’ to ‘strongly agree’.

3.2.3 **Independent variable: Delivery channel**

The independent variable delivery channel is determined by conducting an interview with the HR manager. Together we identified all HR activities within HealthCom and after that we discussed which actor executes which activity. After that the different actors are classified into the four delivery channels: line managers, HR business partners, SSCs and external HR agencies. Because the organization uses different terminology, it was sometimes hard to address the various actors to one of the four delivery channels. The degree of sharedness was very useful to classify the channels with, because it can be easily examined at which level different actors perform activities. The question for how many business units or teams an actor works was very important. For the variable HR delivery channel a dummy variable was created (1 = line manager, 2 = HR business partner, 3 = SSC and 4 = external HR agency). By testing the hypotheses and comparing one channel with the other three, another dummy variable was created for the variable HR delivery channel (1 = one of the four delivery channels, 0 = the other three delivery channels). The four analyses are conducted by comparing one delivery channel with the other three so that the differences between the groups can be tested and the hypotheses can be answered.

3.2.4 **Dependent variable: HR service value**

The value of HR services is defined as the trade-off between the benefit or quality of an HR service and the costs of its acquisition (Cronin et al., 2000; Grewal et al., 1998). The service value scale of Cronin et al. (2000) is used since it includes two measures for the trade-off between service benefits and costs. Service value is defined as “the consumers’ overall assessment of a service based on perceptions what is received and what is given” (Zeithaml, 1988, p. 14). In this research the consumer can be seen as the users of the HR services. For HealthCom this means all employees in the organization who use the HR services. That is why the scales are adapted from ‘consumers’ to ‘users’.
Service value indicators

SV1: Overall, the users value the execution of this service as very high.
SV2: In relation to the overall costs, time and effort, the execution of this service satisfies the needs of the users very well.

The activities were first described individually and then the respondents assessed its service value on the rating scale ranged from 'strongly disagree' to 'strongly agree'. The inter-item correlation is calculated so that the internal consistency of the service value scale can be ensured. The inter-item correlation for the service value indicators is 0.82 (α = 0.89) which means a high correlation since a level of 0.70 is acceptable.
4 ANALYSIS AND RESULTS

4.1. INTRACLASS CORRELATION
The intraclass correlation coefficient (ICC) within the different business units is calculated because the respondents are distributed over seven different business units. An ANOVA was conducted because it allows to analyze the extent to which responses coming from the respondents in the same group resemble each other. This is done by dividing the sum of squares between groups by the total sum. The ICC for service value, uniqueness and dependence is respectively 0.32, 0.56 and 0.62. All ICC coefficients are above 0.15, so it can be concluded that there is agreement among managers within a business unit and therefore, the data was aggregated to a business unit level. In the new dataset the data is aggregated to a business unit level and transposed so that all cases become variables and all selected variables will become cases. With this data the regression analysis can be conducted.

4.2. DESCRIPTIVE STATISTICS AND CORRELATIONS
The means, standard deviations and correlations among the variables are shown in Table 2. The mean of uniqueness is 2.93 with a standard deviation of 1.17. This shows that only 15.86% of the HR activities have a high (> 1σ) uniqueness score, which is above 4.10. The mean of the variable dependence is 3.11 with a standard deviation of 0.78. This indicates that only 15.86% of the HR activities have a high (> 1σ) or very high (> 2σ) dependence score, which is respectively above 3.89 or 4.67.

The HR service value of an HR activity varies according to the delivery channels line managers and SSCs. Also the uniqueness of an activity and the degree that an organization is dependent on an activity influences the HR service value. The use of the delivery channel SSC, and the variables uniqueness and dependence have a positive relationship with HR service value. There is a striking negative correlation between the delivery channel line managers and HR service value; the more an organization makes use of line managers instead of other channels, the lower the HR service value is.
The dependence variable correlates significantly positive to uniqueness (p < .01). So when an organization becomes more dependent of an activity, the uniqueness of the activity increases as well.

**TABLE 2 - DESCRIPTIVE STATISTICS AND CORRELATIONS**

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<tbody>
<tr>
<td>1. HR service value</td>
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<td>0.65</td>
<td></td>
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<td>2. Delivery channel –</td>
<td>0.22</td>
<td>/</td>
<td>-0.28**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Line managers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Delivery channel – HR business partners</td>
<td>0.16</td>
<td>/</td>
<td>0.01</td>
<td>/</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Delivery channel – SSCs</td>
<td>0.57</td>
<td>/</td>
<td>0.27**</td>
<td>/</td>
<td>/</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Delivery channel –</td>
<td>0.04</td>
<td>/</td>
<td>-0.07</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td></td>
</tr>
<tr>
<td>External HR agencies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Uniqueness</td>
<td>2.93</td>
<td>0.67</td>
<td>0.15**</td>
<td>-0.14**</td>
<td>-0.04</td>
<td>0.15**</td>
<td>-0.02</td>
<td></td>
</tr>
<tr>
<td>7. Dependence</td>
<td>3.11</td>
<td>0.78</td>
<td>0.29**</td>
<td>-0.13**</td>
<td>-0.02</td>
<td>0.11*</td>
<td>-0.10*</td>
<td>0.32**</td>
</tr>
</tbody>
</table>

*p < .05  
**p < .01
N = 339 HR activities

The variables uniqueness and dependence have a significant negative correlation with line managers (p < .01), which deserves attention. The outcome is not consistent with the findings of Hofman & Meijerink (in press) who found that, in order to yield high service value, HR activities for which the business units have extremely different needs can be best retained within the individual business units, which are i.e. line managers. Besides that, activities whereof an organization is dependent (e.g. performance appraisals and selection) provide for competitive advantage (Purcell & Hutchinson, 2003). That is why it was expected that the organization can best assign these activities to line managers because they are essential to the delivery of these HR activities since they are in direct contact with the employees and share their expertise within their team. However, both correlations are weak, suggesting that the uniqueness and dependence for activities that are performed by line managers may not always be lower.

Dependence has a significant negative correlation with external HR agencies (p < .05). This is consistent with the finding of Cooke et al. (2005) and Greer et al. (1999) since they found that activities which are not of strategic importance and valuable for the organization (so whereof
the organization is not dependent), are appropriate to outsource to external parties since quality will increase and costs will decrease.

4.3. Hypotheses Testing with Regression Analysis

In order to test the hypotheses, four regression analyses are conducted. These analyses serve to examine the effect of the use of the four HR delivery channels on HR service value. Besides that, the moderating variables uniqueness and dependence are included as well as the interaction effects. The outcomes are visually displayed in a plot.

4.3.1 Line Managers

Hypothesis 1 proposes that HR activities which are characterized by (a) high uniqueness and (b) on which the organization is highly dependent will have the highest service value when delivered by line managers in comparison to the other three delivery channels. To test this hypothesis, we tested three regression models.

First, Model 1 in Table 3 is confined to the inclusion of the main variables delivery channel, uniqueness and dependence. The delivery channel line manager is significantly negatively related with HR service value (p < .01) which shows that line managers consistently provide lower levels of HR service value in comparison to the other three HR delivery channels (i.e. external HR agencies, the HR SSC and HR business partners). The variable dependence is positively related to HR service value which means that when an organization is more dependent of an HR activity, the service value will increase for this HR activity. The variable uniqueness is not significantly related to HR service value.

In Model 2 we introduced a two-way interaction between dependence and uniqueness. The interaction term does not significantly improve the model fit (p > .05). The interaction is shown to be non-significant (p = .596), meaning that the strength of the relationship between dependence and HR service value is not significantly different for different levels of uniqueness.

In Model 3 we included the two-way interaction between dependence and delivery channel, and uniqueness and delivery channel. Besides that the three-way interaction between dependence, uniqueness and delivery channel is introduced in the model. The explanatory power of Model 3 in comparison to Model 2 is not significantly improved (p > .05). Also, the two-way interaction effect between dependence and delivery channel is not significant (p > .05) which means that the relationship between using an HR delivery channel and HR service value is not contingent on
the degree of dependence. The two-way interaction effect between uniqueness and delivery channel is also not significant (p > .05), meaning that the relationship between using an HR delivery channel and HR service value is not contingent on uniqueness. The three-way interaction between dependence, uniqueness and delivery channel also showed to be non-significant (p > .05). This means that the effect of using a delivery channel on HR service value is not contingent on dependence and uniqueness. The non-significant regression coefficient for the interaction effect in Model 3 and the regression lines in Figure 6 indicate that Hypothesis 1 is not supported. That is, HR activities which are characterized by (a) high uniqueness and (b) on which the organization is highly dependent do not have the highest service value when delivered by line managers in comparison to the other three delivery channels. Table 3 gives the results of the regression models of HR service value for line managers.

**TABLE 3 - RESULTS OF THE REGRESSION MODELS OF HR SERVICE VALUE FOR LINE MANAGERS**

<table>
<thead>
<tr>
<th>Variables</th>
<th>HR service value</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1</td>
<td>S.E.</td>
<td>Model 2</td>
<td>S.E.</td>
</tr>
<tr>
<td>Constant</td>
<td>2.607**</td>
<td>.183</td>
<td>2.334**</td>
<td>.544</td>
</tr>
<tr>
<td><strong>Main effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery channel – Line manager</td>
<td>- .376**</td>
<td>.079</td>
<td>- .377**</td>
<td>.079</td>
</tr>
<tr>
<td>Uniqueness</td>
<td>.033</td>
<td>.052</td>
<td>.133</td>
<td>.196</td>
</tr>
<tr>
<td>Dependence</td>
<td>.199**</td>
<td>.044</td>
<td>.287</td>
<td>.171</td>
</tr>
<tr>
<td><strong>Two way interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependence x Uniqueness</td>
<td>- .032</td>
<td>.059</td>
<td>- .055</td>
<td>.069</td>
</tr>
<tr>
<td>Dependence x Delivery channel</td>
<td>- .278</td>
<td>.420</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uniqueness x Delivery channel</td>
<td>- .488</td>
<td>.472</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Three way interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependence x Uniqueness x Delivery channel</td>
<td>.145</td>
<td>.154</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Model F</strong></td>
<td>18.815**</td>
<td>14.151**</td>
<td>8.350**</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>.144</td>
<td>.145</td>
<td>.150</td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.137</td>
<td>.135</td>
<td>.132</td>
<td></td>
</tr>
<tr>
<td>ΔR²</td>
<td>.144</td>
<td>.001</td>
<td>.005</td>
<td></td>
</tr>
<tr>
<td>F Change</td>
<td>.281</td>
<td>.672</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a Unstandardized coefficients are given, with s.e. meaning standard errors. n = 339.

*p < .05

**p < .01
Nevertheless, the plot of the regression coefficients and interaction terms yields some interesting findings as can be seen in Figure 6. The HR activities which are characterized by high uniqueness and on which the organization is highly dependent are encircled in red. The HR activities which are presented in the green line, are conducted by a line manager and are highly unique. The blue line presents the HR activities which are also highly unique, but delivered by the other three delivery channels. As far as unique HR activities are concerned, it can be seen that the other three delivery channels do not score significantly higher on service value than line managers. This means that it can be concluded that an HR activity which is of high uniqueness and on which the organization is highly dependent will not necessarily have the highest service value when delivered by a line manager compared to the other delivery channels, which again shows that Hypothesis 1 has to be rejected. Regardless of what channel is used, the service value is similar under the conditions of high uniqueness and high dependence.

Instead, the highest service value is provided when activities are of low uniqueness and are performed by line managers (dependence does not have significantly influence on service value in this case). The lowest value can be found when an activity is of low uniqueness and is provided by HR business partners, SSCs or external HR agencies. For standard activities, the difference between the lowest and highest value is thus caused by the delivery channel which is chosen. Almost all lines in the figure go up, meaning that a higher dependence leads to higher HR service value, regardless of the independent variables delivery channel and uniqueness. This corresponds with the finding that the HR service value increases when the dependence on an activity grows (see Model 1).
4.3.2 HR BUSINESS PARTNERS

Hypothesis 2 proposes that HR activities which are characterized by (a) high uniqueness and (b) on which the organization is not highly dependent, will have the highest service value when delivered by HR business partners in comparison to the other three delivery channels. To test this hypothesis, we tested three regression models.

Model 1 is confined to the inclusion of the main variables delivery channel, uniqueness and dependence. The delivery channel HR business partner is not significantly related to HR service value (p > .05) meaning that HR business partners do not offer significant higher levels of HR service value in comparison to the other three HR delivery channels. The variable dependence is positively related to HR service value which means that when an organization is more dependent of an HR activity, the service value will increase for this HR activity. The variable uniqueness is not significantly related to HR service value.
In Model 2 we introduced a two-way interaction between dependence and uniqueness. The interaction term does not significantly improve the model fit ($p > .05$). The interaction is shown to be non-significant ($p = .668$), meaning that the strength of the relationship between dependence and HR service value is not significantly different for different levels of uniqueness.

In Model 3 we included the two-way interaction between dependence and delivery channel, and uniqueness and delivery channel. Besides that the three-way interaction between dependence, uniqueness and delivery channel is introduced in the model. The explanatory power of Model 3 over Model 2 is not significantly improved ($p > .05$). Also, the two-way interaction effect between dependence and delivery channel is not significant ($p > .05$) which means that the relationship between using an HR delivery channel and HR service value is not contingent on the degree of dependence. The two-way interaction effect between uniqueness and delivery channel is also not significant ($p > .05$), meaning that the relationship between using an HR delivery channel and HR service value is not contingent on uniqueness. The three-way interaction between dependence, uniqueness and delivery channel also showed to be non-significant ($p > .05$). This means that the effect of using a delivery channel on HR service value is not contingent on dependence and uniqueness. The non-significant regression coefficient for the interaction effect in Model 3 and the regression lines in Figure 7 indicate that Hypothesis 2 is not supported. That is, HR activities which are characterized by (a) *high uniqueness* and (b) on which the organization is *not highly dependent* do not have the highest service value when delivered by *HR business partners* in comparison to the other three delivery channels. Table 4 gives the results of the regression models of HR service value for HR business partners.
TABLE 4 - RESULTS OF THE REGRESSION MODELS OF HR SERVICE VALUE FOR HR BUSINESS PARTNERS

<table>
<thead>
<tr>
<th>Variables</th>
<th>HR service value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1 s.e.</td>
</tr>
<tr>
<td>Constant</td>
<td>2.382** .177</td>
</tr>
<tr>
<td><strong>Main effects</strong></td>
<td></td>
</tr>
<tr>
<td>Delivery channel – HR business partners</td>
<td>.023 .091</td>
</tr>
<tr>
<td>Uniqueness</td>
<td>.059 .053</td>
</tr>
<tr>
<td>Dependence</td>
<td>.218** .045</td>
</tr>
<tr>
<td><strong>Two way interactions</strong></td>
<td></td>
</tr>
<tr>
<td>Dependence x Uniqueness</td>
<td>-.026 .061</td>
</tr>
<tr>
<td>Dependence x Delivery channel</td>
<td>-.176 .485</td>
</tr>
<tr>
<td>Uniqueness x Delivery channel</td>
<td>.169 .557</td>
</tr>
<tr>
<td><strong>Three way interactions</strong></td>
<td></td>
</tr>
<tr>
<td>Dependence x Uniqueness x Delivery channel</td>
<td>.039 .170</td>
</tr>
<tr>
<td>Model F</td>
<td>10.643**</td>
</tr>
<tr>
<td>R²</td>
<td>.087</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.079</td>
</tr>
<tr>
<td>ΔR²</td>
<td>.087</td>
</tr>
</tbody>
</table>

* Unstandardized coefficients are given, with s.e. meaning standard errors. n = 339.

*p < .05

**p < .01

In Figure 7 the outcomes are plotted. The green (HR business partner) and blue (the other delivery channels) line can be compared and the points of interests are encircled in red. It can be found that unique activities whereof the organization is not highly dependent have a slightly higher service value when delivered by HR business partners compared with the other delivery channels. However, this difference is not significant. This means that it can be concluded that an HR activity which is of high uniqueness and on which the organization is not dependent will not necessarily have the highest service value when delivered by a HR business partner compared to the other delivery channels, which again provides evidence that Hypothesis 2 has to be rejected. Regardless of what channel is used, the service value is similar under the conditions of high uniqueness and low dependence. The highest service value is found when activities are of low uniqueness, high dependence are performed by the other three channels (line managers, SSCs or external HR agencies in this case). The lowest HR service value appears when HR activities of
low uniqueness and low dependence are performed by HR business partners. This partially supports the second hypothesis, because it indicates that activities with low uniqueness (green line) score lower on HR service value than activities with high uniqueness (red line) when delivered by HR business partners. Figure 7 also shows the positive relationship between dependence and value. In all cases, HR service value is higher when dependence increases.

FIGURE 7 - INTERACTION EFFECTS: HR BUSINESS PARTNERS VERSUS OTHER DELIVERY CHANNELS

4.3.3 SSC
Hypothesis 3 proposes that HR activities which are characterized by (a) low uniqueness and (b) on which the organization is highly dependent, will have the highest service value when delivered by SSCs in comparison to the other three delivery channels.

Model 1 is confined to the inclusion of the main variables delivery channel, uniqueness and dependence. First, the delivery channel SSC is significantly positively related to HR service value ($p < .01$) such that HR service value increases when the delivery channel SSC is used, in comparison to the delivery channels line managers, HR business partners and external HR
agencies. In other words, the SSC provides higher levels of value than the other three HR delivery channels. The variable dependence is also positively related (p < .01) to HR service value which means that when an organization is more dependent of an HR activity, the service value will increase for this HR activity. The variable uniqueness is not significantly related to HR service value.

In Model 2 we introduced a two-way interaction between dependence and uniqueness. The interaction term does not significantly improve the model fit (p > .05). The interaction is shown to be non-significant (p = .773), meaning that the strength of the relationship between dependence and HR service value is not significantly different for different levels of uniqueness.

In Model 3 we included the two-way interaction between dependence and delivery channel, and uniqueness and delivery channel. Besides that the three-way interaction between dependence, uniqueness and delivery channel is introduced in the model. The explanatory power of Model 3 over Model 2 is not significantly improved (p > .05). Also, the two-way interaction effect between dependence and delivery channel is not significant (p > .05) which means that the relationship between using an HR delivery channel and HR service value is not contingent on the degree of dependence. The two-way interaction effect between uniqueness and delivery channel is also not significant (p > .05), meaning that the relationship between using an HR delivery channel and HR service value is not contingent on uniqueness. The three-way interaction between dependence, uniqueness and delivery channel also showed to be non-significant (p > .05). This means that the effect of using a delivery channel on HR service value is not contingent on dependence and uniqueness. The non-significant regression coefficient for the interaction effect in Model 3 and the regression lines in Figure 8 indicate that Hypothesis 3 is not supported. That is, HR activities which are characterized by (a) low uniqueness and (b) on which the organization is highly dependent do not have the highest service value when delivered by SSCs in comparison to the other three delivery channels. Table 5 gives the results of the regression models of HR service value for SSCs.
In Figure 8 the red (SSC) and yellow line (the other delivery channels) can be compared. It can be found that activities which are not very unique but whereof the organization is highly dependent have a higher level of service value when it is performed by the other delivery channels instead of the SSC. This means that it can be concluded that an HR activity which is of low uniqueness and on which the organization is highly dependent will not necessarily have the highest service value when delivered by a SSC in comparison with the other delivery channels. Regardless of what channel is used, the service value is similar under the conditions of low uniqueness and high dependence. The highest service value is realized when activities are of low uniqueness, low dependence are performed by the other three channels (in this case line managers, HR business partners or external HR agencies). Figure 8 also shows the lowest service value when an HR activity is of low uniqueness, low dependence and is performed by SSCs. The service value increases when the dependence accrues. The positive effect of dependence applies

### TABLE 5 - RESULTS OF THE REGRESSION MODELS OF HR SERVICE VALUE FOR SSCS

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>s.e.</th>
<th>Model 2</th>
<th>s.e.</th>
<th>Model 3</th>
<th>s.e.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.338**</td>
<td>.170</td>
<td>2.188**</td>
<td>.545</td>
<td>2.744**</td>
<td>.760</td>
</tr>
<tr>
<td><strong>Main effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery channel – SSCs</td>
<td>.306**</td>
<td>.067</td>
<td>.305**</td>
<td>.067</td>
<td>-.436</td>
<td>1.112</td>
</tr>
<tr>
<td>Uniqueness</td>
<td>.030</td>
<td>.052</td>
<td>.085</td>
<td>.197</td>
<td>-.144</td>
<td>.285</td>
</tr>
<tr>
<td>Dependence</td>
<td>.205**</td>
<td>.044</td>
<td>.253</td>
<td>.172</td>
<td>-.024</td>
<td>.250</td>
</tr>
<tr>
<td><strong>Two way interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependence x Uniqueness</td>
<td>-0.017</td>
<td>.060</td>
<td>.089</td>
<td>.090</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependence x Delivery channel</td>
<td>.403</td>
<td>.351</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uniqueness x Delivery channel</td>
<td>.314</td>
<td>.401</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Three way interactions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependence x Uniqueness x Delivery channel</td>
<td>-.155</td>
<td>.123</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Model F                        | 18.225** | 13.652** | 8.571** |
| R²                             | .140     | .141     | .153    |
| Adjusted R²                    | .133     | .130     | .130    |
| ΔR²                            | .140     | .000     | .013    |

*a Unstandardized coefficients are given, with s.e. meaning standard errors. n = 339.

*p < .05

**p < .01
to all activities, except for the activities which are characterized by a low uniqueness and are performed by line managers, HR business partners or external HR agencies.

**FIGURE 8 - INTERACTION EFFECTS: SSCS VERSUS OTHER DELIVERY CHANNELS**

![Interaction Effects Diagram](image)

### 4.3.4 EXTERNAL HR AGENCIES

Hypothesis 4 proposes that HR activities which are characterized by (a) *low uniqueness* and (b) on which the organization is *not highly dependent*, will have the highest service value when delivered by *external HR agencies* in comparison to the other three delivery channels.

Model 1 is confined to the inclusion of the main variables delivery channel, uniqueness and dependence. First, the delivery channel external HR agencies is not significantly related to HR service value ($p < .01$) such that HR service value does not change when the delivery channel external HR agency is used. The variable dependence is positively related ($p < .01$) to HR service value which means that when an organization is more dependent of an HR activity, the service
value will increase for this HR activity. The variable uniqueness is not significantly related to HR service value meaning that the degree of uniqueness does not have influence on the service value level.

In Model 2 we introduced a two-way interaction between dependence and uniqueness. The interaction term does not significantly improve the model fit (p > .05). The interaction is shown to be non-significant (p = .675), meaning that the strength of the relationship between dependence and HR service value is not significantly different for different levels of uniqueness.

In Model 3 we included the two-way interaction between dependence and delivery channel, and uniqueness and delivery channel. Besides that the three-way interaction between dependence, uniqueness and delivery channel is introduced in the model. The explanatory power of Model 3 over Model 2 is not significantly improved (p > .05). Also, the two-way interaction effect between dependence and delivery channel is not significant (p > .05) which means that the relationship between using an HR delivery channel and HR service value is not contingent on the degree of dependence. The two-way interaction effect between uniqueness and delivery channel is also not significant (p > .05), meaning that the relationship between using an HR delivery channel and HR service value is not contingent on uniqueness. The three-way interaction between dependence, uniqueness and delivery channel also showed to be non-significant (p > .05). This means that the effect of using a delivery channel on HR service value is not contingent on dependence and uniqueness. The non-significant regression coefficient for the interaction effect in Model 3 and the regression lines in Figure 9 indicate that Hypothesis 4 is not supported. That is, HR activities which are characterized by (a) low uniqueness and (b) on which the organization is not highly dependent do not have the highest service value when delivered by SSCs in comparison to the other three delivery channels. Table 6 gives the results of the regression models of HR service value for external HR agencies.
In Figure 9 the red (external HR agency) and yellow line (the other delivery channels) can be compared. It can be found that activities which are not very unique and whereof the organization is not dependent have an higher level of service value when it is performed by the other delivery channels instead of an external HR agency. But, this difference is not significant (p > .05). This means that it can be concluded that an HR activity which is of low uniqueness and on which the organization is not dependent will not necessarily have the highest service value when delivered by an external HR agency in comparison with the other delivery channels.

The highest service value can be found when activities are of high uniqueness, whereof the organization is highly dependence are performed by external HR agencies. But this outcome is non-significant. Figure 9 shows that the HR service value is the lowest when HR activities with low uniqueness and low dependence are carried out by external HR agencies.

### TABLE 6 - RESULTS OF THE REGRESSION MODELS OF HR SERVICE VALUE FOR EXTERNAL HR AGENCIES

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main effects</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery channel – External HR agencies</td>
<td>-.127**</td>
<td>-.127*</td>
<td>-.150**</td>
</tr>
<tr>
<td></td>
<td>.176</td>
<td>.176</td>
<td>.3182</td>
</tr>
<tr>
<td>Uniqueness</td>
<td>.059**</td>
<td>.141**</td>
<td>.287**</td>
</tr>
<tr>
<td></td>
<td>.053</td>
<td>.202</td>
<td>.177</td>
</tr>
<tr>
<td>Dependence</td>
<td>.215**</td>
<td>.287**</td>
<td>.307**</td>
</tr>
<tr>
<td></td>
<td>.045</td>
<td>.177</td>
<td>.181</td>
</tr>
<tr>
<td><strong>Two way interactions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependence x Uniqueness</td>
<td>-.026</td>
<td>.061</td>
<td>-.031</td>
</tr>
<tr>
<td></td>
<td>.061</td>
<td>.063</td>
<td></td>
</tr>
<tr>
<td>Dependence x Delivery channel</td>
<td>.363**</td>
<td>1.320</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uniqueness x Delivery channel</td>
<td>.120</td>
<td>1.170</td>
<td></td>
</tr>
<tr>
<td><strong>Three way interactions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dependence x Uniqueness x Delivery channel</td>
<td>-.163</td>
<td>.457</td>
<td></td>
</tr>
</tbody>
</table>

| Model F                                | 10.808**       | 8.130**        | 4.803**        |
| **Adjusted R²**                        | .088           | .089           | .092           |
|                                      | .08            | .078           | .073           |

**Unstandardized coefficients are given, with s.e. meaning standard errors. n = 339.**

* p < .05
** p < .01
FIGURE 9 - INTERACTION EFFECTS: EXTERNAL HR AGENCIES VERSUS OTHER DELIVERY CHANNELS

Service value

Low Dependence | High Dependence

(1) High uniqueness, External HR agencies
(2) High uniqueness, Other three channels
(3) Low uniqueness, External HR agencies
(4) Low uniqueness, Other three channels
5 Discussion

5.1 Main findings
This study provides insight in the delivery of HR activities by four different delivery channels, namely line managers, HR business partners, SSCs and external HR agencies. We found that the three-way interaction between dependence, uniqueness and delivery channel is non-significant. This means that the effect of delivery channel on HR service value is not contingent on both the dependence and uniqueness of an HR activity. Despite the fact that the hypotheses cannot be accepted, some other interesting results are found.

Dependence
What did come out of the analysis is that the variable dependence has a significantly positive impact on HR service value in all cases. This can be explained as follows: when an organization is very dependent on an HR activity it is possible that they make more effort to better understand that particular HR activity and think about ideas to perform the HR activity in a better, more effective way. This together may lead to a higher HR service value. This finding implies that future research may also benefit from focusing on the degree of dependence on HR activities to explain why the value of HR services differs.

Line managers
We also found that the delivery channel line manager yields significant lower levels of service value than the other three delivery channels. This finding is very interesting, because there can be various reasons why this outcome arose. It is possible that the activities which are performed by line managers do not fit with the knowledge, abilities, and skills of the line managers (Hope Hailey, Farndale, & Truss, 2005; Whittaker & Marchington, 2003). Previous studies found that line managers need advice and coaching from human resource specialists on how to perform HR activities (Hall & Torrington, 1998; McGovern, 1999; Whittaker & Marchington, 2003). However, this support is often lacking (Nehles, van Riemsdijk, Kok, & Looise, 2006), with lower levels of service value provided by line managers as the likely result. Another reason that line managers perform their tasks with less success is that some line managers are enthusiastic about their HR responsibilities for the people they supervise, while other line managers are not very motivated to perform HR activities, which can lead to lower HR service value (Harris, Doughty,
& Kirk, 2002; McGovern, 1999). But, in the study of Bos-Nehles, van Riemsdijk, & Looise (2013) it is found that motivation did not moderate the effect of ability on performance as predicted, so it can be suggested that this relationship needs further attention. Besides that it may be the case that line managers are not able to dedicate enough time to HRM tasks, especially when short-term operational pressures dominate. Because of this lack of time they do not have the opportunity to perform their tasks well (Gratton & Truss, 2003; Renwick, 2000). Bos-Nehles et al. (2013) found that opportunity enhances the effect of ability on the effectiveness of HRM implementation. Further, if the use of HR practices is unclear, line managers can ‘adjust and fine tune’ the practices according to their idiosyncratic understanding (Brewster & Larsen, 2000; Bowen & Ostroff, 2004) which can harm the service value of HR activities. It is found that role clarity and a clear understanding about mutual expectations and responsibilities help to make line managers successful HRM implementers (Bos-Nehles et al., 2013).

The outcomes in this research show that line managers perform significant lower on HR service value than HR business partners, SSCs and external HR agencies. Future research can further explore how to handle with this and solve this phenomenon. First it should be considered to reorganize the distribution of HR tasks, because line managers are probably more qualified to perform other or less HR activities instead of the tasks they carry out at this point. An (anonymous) employee satisfaction survey can be carried out wherein the performance of all tasks of a line manager can be rated. By doing this in different organizations, a generalizable outcome can be conducted which can help to redistribute the HR activities within an organization. Besides an employee satisfaction survey it should also be investigated in which extent the line managers get support of the organization in order to perform their tasks well. In this way the scores of HR service value of line managers can be better explained. It is also important to find out what line managers need to perform their HR tasks well. This is already studied by the aforementioned authors, but it may be necessary to perform a longitudinal study to explore the development of line managers when organizations invest in their needs. With a longitudinal study it can be measured whether the HR service value of line manager will increase over time, instead of measuring only a snap shot in a short period of time. By performing a research over a longer period of time using different points in time, a trend can be monitored which can help to understand the performance of line managers on HR activities.
Another important finding in this research is that the use of the delivery channel SSC results in a significant higher service value than line managers, HR business partners and external HR agencies. In other research it is already explored what the key characteristics and impact of SSCs is on firm performance (Bergeron, 2003; Cooke, 2006; Davis, 2005; Farndale et al., 2009; Kamal, 2012; Maatman et al., 2010; Meijerink et al., 2013; Redman et al., 2007; Reilly, 2000; Ulbrich, 2006). In addition Hofman & Meijerink (in press) found on the basis of differentiation in needs that an organization can better make use of SSCs when HR activities are homogenous. But the finding that the use of SSCs results in a higher service value compared to other delivery channels is a contribution to current literature, because the HR service value of the delivery channel SSC is measured by a large-scale quantitative survey and compared to three other delivery channels. Our findings show that the HR service value, which is measured by the overall costs, time and effort relative to the needs of users, is higher for SSCs compared to line managers, HR business partners and external HR agencies. The reason that SSCs provide higher levels of HR service value compared to the other three delivery channels may be the usage of centralized and decentralized delivery approaches while minimizing the drawback of both. A SSC is on the one hand centralized, because it delivers services to different business units within an organization. On the other hand a SSC is decentralized because the various business units are still in control of the decision making. An overview of the (dis)advantages of centralization and decentralization related to SSCs can be seen in Figure 10.

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**FIGURE 10 - ADVANTAGES AND DISADVANTAGES OF CENTRALISATION AND DECENTRALISATION RELATED TO THE SSCS (SCHULMAN ET AL., 1999).**

<table>
<thead>
<tr>
<th>Decentralised model</th>
<th>Shared Services Model</th>
<th>Centralised model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disadvantages</td>
<td>Advantages</td>
<td>Advantages</td>
</tr>
<tr>
<td>Higher costs</td>
<td>Pool experience</td>
<td>Consistent standards and control</td>
</tr>
<tr>
<td>Variable standards</td>
<td>Enhanced career progression</td>
<td>and control</td>
</tr>
<tr>
<td>Various control environments</td>
<td>Independent of business</td>
<td>Common systems and support</td>
</tr>
<tr>
<td>Duplication of effort</td>
<td>Synergies</td>
<td>Economies of scale</td>
</tr>
<tr>
<td>Business units remain in control of decisions</td>
<td>Lean, flat organisation</td>
<td>Economies of scale</td>
</tr>
<tr>
<td>Recognition of local priorities</td>
<td>Recognition of group functions</td>
<td>Critical skills mass</td>
</tr>
<tr>
<td>Responsive to client needs</td>
<td>Dissemination of best practices</td>
<td>Remote from business</td>
</tr>
</tbody>
</table>

Compared to the other three delivery channels, SSCs are on the one side centralized which results in i.e. economies of scale, while on the other side i.e. the responsiveness to client needs is still high. This results in a higher HR service value than line managers, HR business partners
and external HR agencies attain. Future research can further explore the relation between SSCs and HR service value. Important is to find out in which circumstances a SSC can be best established to benefit from the advantages and diminish the disadvantages. To explore how to monitor, control, and govern the HR activities which are carried out and delivered by i.e. SSCs can help to decide how the different HR activities within the organization can be best delivered with the aim to achieve a high service value.

*Plot - line managers versus the other three channels*

We also found some interesting outcomes from the plots. It is seen in the plot that is developed to answer the first hypothesis that the highest service value is provided when activities are of low uniqueness and are performed by line managers. This is the opposite of our expectation, but can be explained by the interpretation of a line managers’ inability to perform HR activities (Bos-Nehles et al., 2013). It is expected that line managers have unique knowledge of the business and the employees within the organization (Bos-Nehles, 2010; Budhwar, 2000; Currie & Procter, 2001; Thornhill & Saunders, 1998; Ulrich et al., 2008), but it may be the case that line managers are overestimated in the case of performing HR activities. In the case study of Thornhill & Saunders (1998) it was found that line managers who are expected to carry out multiple HR activities without support from a higher level or HR specialist, are likely to fail to achieve the set goals for HRM. They are probably overestimated by the organization and are unjustly held responsible for the HR tasks, while they need more support to carry out this work. That is why it seems that line managers can better perform generic HR activities because these activities are probably more standardized and easy to perform, or should receive more support from HR specialists.

The lowest HR service value can be found when an activity is of low uniqueness and is provided by HR business partners, SSCs or external HR agencies. That the HR service value of an HR business partners is lower when activities with low uniqueness are performed was expected, but the low score on HR service value was not expected when SSCs or external HR agencies perform activities with low uniqueness. It is seen that HR business partners, SSCs and external HR agencies achieve an higher HR service value when they perform unique activities. It is possible that activities which are not very unique for HealthCom are completely standardized within the organization. The external HR agencies and SSCs that perform the non-unique activities possibly use their standard formats to carry out the HR activities which leads to a mismatch because the implementation does not fit with the needs of the various business units within an organization.
When HR activities are more unique to an organization, the delivery channels have to perform services that are more customized.

The last finding in the plot (Figure 6) is that almost all lines in the figure go up, meaning that a higher dependence leads to higher HR service value, regardless of the other independent variables delivery channel and uniqueness. This corresponds with the findings in Model 1 of all four regression models. The more an organization is dependent of an HR activity, the more effort they make to understand that particular HR activity which leads to higher HR service value.

Plot – HR business partners versus the other three channels
In the plot of Hypothesis 2 (Figure 7) the highest service value was found when activities of low uniqueness but high dependence are performed by line managers, SSCs and external HR agencies. It was hypothesized that activities with low uniqueness can be best performed by SSCs and external HR agencies, so this outcome agrees to this expectation. Also the line managers score an higher service value when performing non-unique activities instead of unique activities. This was not expected but can be explained by the ability of the line managers who have to perform these HR activities. Ability has a positive and significant effect on the performance of line managers. Because the activities are not idiosyncratic, the line managers do not need specialized skills which help them to perform the tasks by using common sense. Besides that it is likely that HR managers provided clear and adequate policies and procedures to carry out the HR activities with low uniqueness. This can help a line manager to perform his tasks properly (Bos-Nehles et al., 2013). The outcome that line managers and SSCs yield an high HR service value when performing activities whereof the organization is very dependent was hypothesized. The high score on HR service value of external HR agencies on activities whereof the organization is highly dependent can be explained by the positive relation between dependence and HR service value. The finding that the HR service value increases when the dependence on an activity grows can explain the high score on HR service value of external HR agencies performing activities whereof the organization is dependent.

The lowest HR service value appeared when HR activities of low uniqueness and low dependence are performed by HR business partners. This partially supports Hypothesis 2, because it indicates that activities with low uniqueness score lower on HR service value than activities with high uniqueness when delivered by HR business partners. The outcome that HR
business partners perform low on HR service value performing activities whereof the organization is not dependent, was not expected. This may be explained by the positive relation between dependence and HR service value. When an organization is not that dependent of an HR activity, it is possible that they do not make much effort to understand that particular HR activity which leads to lower HR service value.

Plot - SSCs versus the other three channels

By plotting the outcomes of the regression models of Hypothesis 3 (Figure 8) it can be found that the highest service value is realized when activities of low uniqueness and low dependence are performed by line managers, HR business partners or external HR agencies. This was hypothesized for the external HR agencies, but completely the opposite expectation for the delivery channel line managers. The reason that line managers score higher on activities which are of low uniqueness and low dependence can be explained by the ability of the line managers who have to perform these HR activities. Ability has a positive and significant effect on the performance of line managers. Because the activities are not idiosyncratic, the line managers do not need specialized skills which help them to perform the tasks by using common sense. Besides that it is likely that HR managers provided clear and adequate policies and procedures to carry out the HR activities with low uniqueness and low dependence. This can help a line manager to perform his tasks properly (Bos-Nehles et al., 2013).

For HR business partners one part of the outcome was expected: it was hypothesized that activities whereof the organization is not very dependent can be best delivered by HR business partners or external HR agencies. But, the result that activities with low uniqueness lead to higher HR service value when delivered by HR business partners was unexpected. Because the HR business partner is combined with two other delivery channels in one plot it is possible that the other two delivery channels have a dominant influence on the outcome. When the HR business partner scored rather average, the final score for HR service value may turn out higher than expected.

The lowest HR service value is found when an HR activity is of low uniqueness, low dependence and is performed by SSCs. This partly confirms the hypothesis because it was expected that activities with low dependence can be better performed by HR business partners or external HR agencies instead of SSCs or external HR agencies. That SSCs perform low on HR activities with low uniqueness was not foreseen. This outcome can be explained by the idea that SSCs use their standard formats to carry out the HR activities with low uniqueness which can lead to a
mismatch because the implementation does not fit with the needs of the various business units within an organization.

The service value increases when the dependence accrues. The positive effect of dependence applies to all activities, except for the activities which are characterized by a low uniqueness and are performed by line managers, HR business partners or external HR agencies. The reason for the direction of this line can be explained by the expectation that HR business partners and external HR agencies can better perform activities whereof the organization is not very dependent instead of performing very dependent activities. That can be the reason that the line decreases when the dependence increases. Line managers were expected to perform an higher HR service value when they carry out HR activities whereof the organization is very dependent of, but the reason that the HR service value decreases when the dependence increases may again be due to a line managers' inability to perform HR activities (Bos-Nehles et al., 2013).

Plot – external HR agencies versus the other three channels
In the plot of the regression models of Hypothesis 4 (Figure 9) it can be found that the highest service value is found when activities with high uniqueness and high dependence are performed by external HR agencies. The lowest service value is found when HR activities with low uniqueness and low dependence are carried out by external HR agencies. Despite the fact that these outcomes are non-significant, it is completely counterintuitive. A reason that can be given for this outcome is that the data for the external HR agency was very little. There were only two HR activities measured for this delivery channel and employees in one business unit did not give an answer to the question about service value in the case of one HR activity that was deployed by external HR agencies. Therefore it is questioned whether the outcomes are reliable. Another reason that can lead to these counterintuitive outcomes is that respondents are not very familiar with the HR activities that are performed by an external HR agency. Hence, it is possible that they presume that these HR activities have a high uniqueness and dependence because a specialized organization are performing the activities.

Conclusion
Nevertheless, the question remains whether HR activities with diverse uniqueness and dependence should be performed by a line manager, HR business partner, SSC or external HR agency to maximize the HR service value. Our findings do not give a significant answer to this. In this research the independent variables explain 12.3% of the variance of the dependent
variable HR service value. So, there are many other variables that have influence on HR service value. Future research could further investigate the relation between the use of different delivery channels and HR service value. By investigating other theoretical factors that can explain the use of different delivery channels and the influence on HR service value, the knowledge in the HR delivery field can be further explored.

5.2. MANAGEMENT ADVICE
The outcomes imply that in general an organization does not necessarily need to use different delivery channels when activities vary in their uniqueness and dependence. For organizations this means that based on the uniqueness and dependence of an activity, the HR service value will not significantly change when delivered by line managers, HR business partners, SSCs or external HR agencies. Yet there are some extremes whereof an organization should be aware of, such as the effect of line managers and SSCs on HR service value. This is important to keep in mind when organizations want to revise the delivery of HR activities.

The outcome that line managers have a significant negative effect on HR service value is an interesting finding for organizations. It can be detrimental for organizations, because throughout the years line managers got more responsibility in the field of HRM (Guest, 1987; Harris et al., 2002; Larsen & Brewster, 2003; Legge, 1995; Schuler, 1992). Organizations might deal with this in different ways. On the one hand organizations can invest in their line managers by organizing meetings and trainings to inform line managers about the content of their HR activities. Besides that, line managers should get more time and explanation of the HR procedures they have to perform in addition to their primary tasks. By doing this the line manager’s opportunity and ability can increase which respectively indirectly and directly leads to higher performance (Bos-Nehles et al., 2013). But, in this case it may be considered what influence it has on costs. It is expected that the HR service value will rise eventually, but is it worth the effort? Instead of investing in the line managers, the organization can also choose to shift HR activities to other delivery channels.

The finding that SSCs have a significant positive effect on HR service value is very useful for organizations. This signifies that organizations should consider to make more use of SSCs in the future. By bundling HR activities in SSCs, the value of HR services can increase. HR activities can be organized more efficient, more effective and less costly (Bergeron, 2003; Cooke, 2006; Davis, 2005; Farndale et al., 2009; Kamal, 2012; Maatman et al., 2010; Meijerink et al., 2013). Not
all HR activities are appropriate to be carried out by SSCs which can be seen in Figure 8. The service value for SSCs increases when the dependence on activities increases (see the green and red line). So activities whereof the organization is not highly dependent can better not be performed by SSCs, if organizations wish to achieve a high service performance. When an organization want to make (more) use of the services of a SSC, the SSC can best perform HR activities whereof the organization is highly dependent. When these activities are performed by SSCs, the organization can benefit from a higher HR service value.
6 CONCLUSIONS AND RECOMMENDATIONS

6.1. LIMITATIONS AND FUTURE RESEARCH

One of the limitations of this research is the bias that may have played a role in the second questionnaire. Because the managers had to judge the service value of the HR activities according to users of their division, it is the case that some of these activities were delivered from their own department. Even though the managers were asked to judge the service value in an objective way and that the data would not be used for other purposes, self-appraisal bias could have played a role. These problems can be captured in future research, by conducting the surveys in organizations with employees who can independently judge levels of HR service value.

Another limitation of this research is the variance of the delivery of the HR activities to various channels within the organization. In the interview with the HR manager it is discussed which actor performs which activity. For all activities there are particular delivery channels responsible, but it is possible that the delivery channel that performs the activity normally temporarily assigned the work to another actor within the organization. Or that the HR policy was not fully pursued and that the employees within the organization see for themselves how the activities can be conveniently performed. An example of this is the use of a selection committee when a line manager does not have enough time or knowledge for a specific function to conduct the interviews. These potential occurrences may cause that the established list is possible not fully valid.

Besides that, the operationalization of the variable ‘service value’ is a limitation. There were two questions included in the questionnaire to measure this variable. One of the questions measured the overall costs, time and effort which is an objective measure. In this research the question is filled in by the different managers, which led to a subjective measure. By obtaining an overview of the costs versus performance of service value, the question can become more objective and trustworthy, because the outcomes emerge from the data of the company in which no or only a small variance can occur because there is no influence of individual feelings or prejudices.
The non-significant findings can be examined to the extent that they have statistical power. The statistical power are the odds of saying that there is an relationship or difference between variables when in fact there is one. It relates to the size of the sample, the size of the t-value and the established confidence level (\( \alpha \)). We have calculated that the statistical power for external HR agencies and HR business partners is low, respectively 0.11 and 0.39. The statistical power for SSCs and line managers is respectively 0.99 and 0.85 which is sufficient, because the lower bound is set at 0.80 (Soper, 2014). The sample size can always be improved. This will also better the t-value because the t-value is dependent on the sample size. The larger the sample size, the more the t-value will take extreme forms and the more confident it can be concluded that the difference is significant. The confidence level is fixed at \( \alpha = .05 \) and this choice leads in general to a sufficient statistical power. It can be concluded that the outcomes for the external HR agencies and HR business partners are limited and can be further investigated.

Finally, the concern of single source bias is a limitation, because the data for this research is obtained from a single group of respondents, namely the managers in HealthCom. However, having a time lag between the first (measuring independent variables) and second questionnaire (measuring dependent variable) mitigates single source bias (Podsakoff et al., 2003).

6.2. Conclusion

Despite the limitations of this study, we have addressed a gap in the literature on HR sourcing. With the results the main question of this research can be answered:

‘Which delivery channels can best perform which HR activities, depending on the variables uniqueness and dependence, so that the perceived HR service value is maximized?’

Our results show that the impact of using different HR delivery channels on HR service value is not significantly affected by whether the activity is unique or whether the organization is dependent of the activity. But what we did find is that line managers score significant lower on HR service value than other delivery channels. Besides that, SSCs have a positive impact on HR service value irrespective of the degree of uniqueness and dependence. Also dependence has an individually, positive effect on HR service value. We hope that other researchers can get inspired by these research findings and can take the outcomes into account when HR delivery is further researched.


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APPENDIX

APPENDIX A - MULTI-ITEM SCALES USED IN THE SURVEY

For all items a five-point response scale ranging 1 = “strongly disagree” to 5 = “strongly agree” was used. Before presenting the items, we first described the HR activity of interest. The items presented below had to be administrated for all 50 selected HR services separately.

**Uniqueness** (the frequency to which user-needs for an HR service differ across end-users and across time (Joshi & Sharma, 2004; Martin & Ishii, 2002)).

U1: The needs of the users regularly change for this activity.
U2: The users have very different preferences for this activity.

**Dependence** (the degree that the organization is dependent on the effective performance of an activity in order to perform its own tasks effectively (Astley & Zajac, 1990)).

D: HealthCom is very dependent on this activity to continue to perform well.

**Service value** (“the consumers’ overall assessment of a service based on perceptions what is received and what is given” (Zeithaml, 1988, p. 14)).

SV1: Overall, the users value the execution of this service as very high.
SV2: In relation to the overall costs, time and effort, the execution of this service satisfies the needs of the users very well.