Exploring the Effect of HR service delivery quality on service climate perception.

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Abstract

In the HRM literature, HRM implementation is defined as the delivery of HR practices (Boselie, Dietz and Boon, 2005). Next to HR practices, HRM implementation is regarded as influential concerning the attitudes and behavior of employees (Haggerty and Wright, 2009). It is expected that the level of quality of HRM implementation serves as a signal, which is interpreted by employees, on how to behave in a desired way. However, research under this topic is scarce. Therefore, this study takes a look at HRM implementation from a service management point of view, as it is suggested in previous studies, to research the quality of HRM implementation (eg Gilbert, Winne and Sels, 2011). Based on the service management literature, HRM implementation can be defined as HR service delivery quality. To test the signaling function of HR service delivery quality, the relationship between HR service delivery quality of different HR service delivery channels and the service climate is researched. The findings confirm a positive influence of HR shared service center's HR delivery service quality and line manager's HR delivery service quality on service climate. HRM implementation quality thus has a signaling function, which signals the importance of service related attitudes and behavior to employees. Thereby, previous expectations of HRM implementation influence are confirmed. Consequently, this research should lead to a new way of thinking in future HRM research, because besides HR practices, HRM implementation seems to play an important role in influencing desired attitudes and behavior of employees.

Introduction - The importance of HRM implementation

In the existing HRM literature, HRM is mainly conceptualized as HR practices or bundles of HR practices, which are selected by organizations to influence employee attitudes and behavior, with the goal of improving organizational performance (Boxall and Purcell, 2003). The effectiveness of HR practices, therefore, was primarily measured in how far a HR practice influenced the attitudes and behavior of employees in an intended way (Boselie, et al., 2005). For example, the influence of HR practices on behavioral outcomes, such as job satisfaction (eg Guest, 1999; Hoque, 1999) and commitment (eg Tsui et al., 1997) or behavioral outcomes such as employee turnover (eg Batt, 2002; Huang, 1997; Shaw, Silver
and Randolph, 1998) and absenteeism (e.g. Lowe, Delbridge and Oliver, 1997), were confirmed. Furthermore, scholars tried to discover the link between HR practices and employee attitudes and behavior.

In a complex organizational setting however, the success of HRM does not only depend on the presence of HR practices, but it also depends on how HR practices are delivered to employees (Purcell, Kinnie, Hutchinson, Rayton and Stewart, 2003). For example employees are selected and recruited, payments are organized, and trainings are provided. These provisions of HR practices to the employee are known as implementation of HRM (Boselie, Dietz and Boon, 2005). It can thus be argued, that before signals of HR practices can be perceived by employees, HR practices need to be implemented via different so called HR delivery channels (such as HR shared service centers, HR professionals and line managers) (Farndale, Paauwe and Boselie, 2010). In doing so, the quality of implementation of HRM can differ between delivery channels, for example, line managers lack of HR capabilities (Townsend, Bartam and Wilkinson, 2011) or deliver HR practices inconsistently (Renwick, 2009). Thus, there exist different levels of quality in HRM implementation. Thereby, the quality of implementation of HRM itself should already send signals to employees, which could be interpreted as expected forms of attitude and behavior referring to the signaling theory of Bowen and Ostroff (2004). High quality in HRM implementation should thereby signal the importance of high service quality attitudes and high service quality behavior to employees. This idea is in line with the findings of Haggerty and Wright (2009), who argue that besides HR practices, the HRM implementation through different delivery channels, should have an important role in signaling desired attitudes and behavior. In addition, Gilbert et al. (2011) study supports the argument of the importance of the influence of high quality HRM implementation on employees' attitudes and behavior. They found a significant effect of HR department’s quality of HRM implementation on affective commitment of employees.

Despite the important role of HRM implementation, is likely to have as a signaling function, HRM literature seems to have widely neglected researching the influence of HRM implementation on employees' attitudes and behavior (Boselie et al. 2005). This study will thus contribute to this existing gap in HRM implementation literature, by researching the influences of HRM implementation quality on the perception of desired attitudes and behavior by employees. In addition, Purcell et al., (2003) found that there is a lack of knowledge concerning the role of different HR delivery channels in the implementation of HRM. Hence, this research will also consider the influence of different HR delivery channels such as HR
shared service centers (HR SSCs), HR professionals and line managers on the relationship between HR service delivery quality and the interpretation of desired attitudes and behavior of employees. The following research model (Fig. 1) visualizes the expected relationship which can be summarized in the research question:

*To what extent does the quality of HRM implementation of HR professionals, HR SSCs and line managers affect employees' interpretation of desired attitudes and behavior?*

In addition to the scientific value described above, the findings of this study could provide a practical value for organizations. Proving that the quality of HRM implementation is an important signal, which influences employee’s perception of expected behavior, will influence the awareness of organizations concerning quality of HRM implementation. This knowledge enables an organization to invest in the quality of HRM implementation of different HR delivery channels, with the goal to improve employee attitudes and behavior. For example, Thornhill and Sounders (1998) found, that complex organizations struggle to implement HR practices. Thus, awareness in the importance of investing in HR implementation could help to overcome this issue.
Fig 1.

Research model: Hypothesized relationships between quality of HRM implementation of three different HR delivery channels and employees' interpretation of desired attitudes and behavior.

Theory and hypotheses

Early HR literature (before the mid-1990s) was mainly focused on researching influences of HR practices or bundles of HR practices on organizational performance (Huselid, 1995, Delery & Doty, 1996; Guest, 1987; Huselid, Jackson and Schuler, 1997; Storey, 1992). Since then, scholars got more and more interested in the question about what actually links HR practices and organizational performance. This issue is generally known as 'black box' (eg Purcell and Kinnie, 2007). There seems to be a mutual agreement in HR literature, that the link between HR practices and organizational performance is affected by employees’ attitudes and behavior (Boselie et al., 2005). Employees are expected to form their attitudes and behavior based on signals received by environmental influence such as HR practices (Bowen and Ostroff, 2004).
Notwithstanding these contributions, critics grew amongst scholars concerning the prior assumption that HRM can be researched by the presence of HR practices alone. Scholars argue that influence of the HR function so far was neglected in previous studies (Haggerty and Wright, 2009, Boselie et al., 2005). The HR function however plays an important role, concerning the implementation of HRM. Before HR practices reach the employees, they have to be implemented and delivered through so called HR delivery channels, such as HR SSC, HR professionals and line managers (Ulrich, Younger, Brockbank, 2008; Farndale et al., 2010). Thus, before HR practices can actually serve as signals, they have to reach the employee by being implemented. However, the quality, with which HRM practices are implemented, can vary among practices and HR delivery channels. Some line managers for example could lack in consistency while implementing HR practices (Renwick 2009). Therefore, Haggerty and Wright (2009) argue that the way HR practices and HR systems are implemented or in other words the level of quality of HRM implementation, can serve as a signal itself. For this reason high HRM implementation quality should transfer the importance of service quality behavior to employees. To conceptualize the quality of HRM implementation, this study adopts a service management perspective, as this stream of research has long been concerned with the service quality concept.

**HRM implementation quality from a service management perspective**

HRM can be regarded as an internal service, which is delivered to employees, because it fits the main characteristics of service, which are intangibility, heterogeneity and inseparability (Parasuraman, Zeithaml and Berry; 1998). Firstly, HRM is intangible, because it consists of HR policies and practices, which cannot for example be inventoried, tested or verified in advance. Secondly, the delivery of HR policies and practices is heterogenic, because the delivery might differ from line manager to line manager and the perception of HR might be entirely different than it was intended (Nishii & Wright, 2008). Thirdly, HR practices are inseparable, because the ‘consumption’ and ‘production’ of HR policies and practices happen at the same time. For example, on-the-job training is received by the employee at the same time as it is conducted by the line manager.

HRM thus are regarded as services, which makes it possible to use the concept of service quality to conceptualize the quality of HRM. In the service management literature, there are several approaches for defining the nature and the formation of service quality. Early
conceptualizations of service quality were based on the disconfirmation paradigm originated in the product quality literature (e.g. Cardozo 1965; Churchill & Surpremant, 1982; Howard & Sheth, 1969). The disconfirmation paradigm explains the quality of a service by comparison of an expected quality with the actually perceived quality. However, there are skepticisms that the nature of service quality should be conceptualized through a gap between expectations and actual performance. Cronin and Taylor (1992) state that service quality should be measured as an attitude, because the gap between perceived and expected service is already conceptualized as satisfaction of the customer. Hence, the evaluation of the service performance alone is seen as a better conceptualization of service quality (Cronin and Taylor, 1992; McAlexander, Kaldenberg and Koening, 1994; Chiu, 2002). In addition, Teas (1993; 1994) criticizes the same issue as Cronin and Taylor (1992) and suggests that perceived service quality should base on evaluated performance and norm quality. Subsequently to the latter argument service quality is regarded as service performance alone in this study.

There were many approaches trying to uncover the dimensions of service quality. The most noteworthy concepts are the Nordic perspective by Grönroos (1984) and the American perspective by Parasuraman, Zeithaml and Berry (1988). The Nordic perspective states that service quality consists of two dimensions, namely technical and functional quality. Firstly, technical quality describes the outcome of the service delivery, or in other words, what a customer is left with after service delivery. Secondly, functional quality is concerned with service delivery and the perception of interaction a customer perceives during the delivery of the service (Storbacka, Strandvik, Grönroos, 1994, Grönroos, 1984; 2000). In addition, Parasuraman et al. (1988; 1991; 1994) developed a five-dimensional conceptualization of service quality, including the measurement instrument called SERVQUAL. The five dimensions identified by Parasuraman, Zeithaml and Berry (1991) include the dimensions of tangibles, reliability, responsiveness, assurance and empathy. Firstly, tangibles are the physical facilities, the equipment used and the appearance of the personnel. Secondly, reliability derives from the ability to perform the promised service dependably and accurately. Thirdly, responsiveness reflects the willingness of service providers to help customers and provide prompt service. Fourthly, assurance deals with the knowledge and courtesy of service providers as well as their ability to inspire trust and confidence. And finally, empathy describes the caring and attention that an organization provides to its customer.

A later conceptualization by Rust and Oliver (1994) differentiates between service product quality, service delivery quality and service environment quality. This view echoes the conceptualization of Brady and Cronin (2001) who argue that service quality consists of
an outcome quality, interaction quality and physical environmental quality. Both dimensions of service product quality and outcome quality reflect technical quality, whereas service delivery quality and interaction quality reflect functional quality.

Mels, Boshoff and Nel (1997) did a factor analysis on Parasuraman's (1994) five dimensional concept of service quality. They found two dimensions which are extrinsic and intrinsic service quality. Extrinsic service quality corresponds to technical quality and intrinsic service quality is corresponding to functional quality. Their findings suggest that extrinsic service quality can be measured by the tangible dimension of Parasuraman et al. (1988) and intrinsic service quality can be expressed by the four dimensions of reliability, responsiveness, assurance and empathy (Parasurman et al., 1988). Summarizing the conclusion can be made, that there is no mutual agreement on which dimensions can be used to conceptualize service quality, however Grönroos' functional and technical quality seem to be widely supported.

Relating the findings in the literature of service quality to the HR practices and HRM implementation, it is possible to relate quality HR practices to technical quality, because employees are left with HR practices as a outcome after they have been implemented. Furthermore, the quality HRM implementation can be regarded as functional quality, which can be related to the interaction taking place between HR delivery channels and employees. In this study the quality of HRM therefore is regarded as HR service product referring to the quality HR practices and HR service delivery referring to the quality of HRM implementation, which is similar to the termination of service quality used by Rust and Oliver (1994).

The signaling function HR service delivery quality

The signaling theory by Spence (1973) states, that organizations send signals to employees, which communicate desired attitudes and behavior to employees. In the signaling theory, it is differentiated between strong and weak situations. In weak situations organizations send inconsistent messages leading to a high range of possible interpretations of desired behavior. In strong situations, signals are consistent, leading to a small range of interpretations of expected behavior and consequently to a desired attitude and behavior of employees. Signals send in a strong situations, therefore create a climate, which is targeted to a desired behavior of employees (Bowen and Ostroff, 2004).
Climate can be defined as employee's perception of kinds of behavior that are rewarded and supported in a particular setting (Schneider, 1990). This perception can either be perceived individually or shared. Individual perceptions from the environment can only be perceived on a psychological level. Accordingly, individually perceived climate is also known as psychological climate (James, James, & Ashe, 1990; Parker et al., 2003). A shared climate can be perceived on different levels. Examples of shared climate levels are a team level, a business unit level or on an organizational level (Bowen & Ostroff, 2004; Glisson & James, 2002; Jones & James, 1979; Joyce & Slocum, 1984). An organizational climate, for example describes the shared perception of all individuals in an organization aggregated to the organizational level.

Besides the level of perception, there are also differences of targets climates can be directed to. Therefore, scholars argue, that there are multiple climates in an organization with different targets (e.g. Schneider, Gunnarson and Niles-Jolly, 1994). Targets of climates, which are known in the literature so far, are safety climate (e.g., Zohar, 2000), empowerment climate (e.g. Seibert, Silver, and Randolph, 2004), innovation climate (e.g. Anderson and West, 1998), justice climate (e.g. Liao and Rupp, 2005) and service climate (e.g., Borucki and Burke, 1999; Schneider et al., 1998; Schneider, 1990).

Relating the signaling theory to HR service delivery, a high quality of HR service delivery should serve as a signal, indicating the importance of service quality in an organization. Thus, high HR service delivery quality as a signal will most likely be interpreted by employees as the desired attitude and behavior to provide a high-level of service quality. Therefore, the interpretation of signals regarding high levels of service quality should result in a perception of service climate. Service climate is defined as employee perceptions of signals send by an organization which reward, support, and expect a certain behavior with regard to customer service and customer service quality (Schneider et al., 1998).

Concerning HR service delivery quality as a signal, there has to be a differentiation between actors delivering HR service product to employees. Farndale et al., (2010) defined three intermediate deliverers in the HR function, who directly implement the HR service product to employees, which are HR shared service centers (HR SSC), HR professionals and line managers.

HR SSC offer self-services systems either online (e.g. e-HRM) or by call centers. Furthermore, HR SSC staff helps employees and line managers to organize and access
activities such as pay and benefits, resources, career management or personal development (Farndale et al., 2010).

HR professionals are managers with professional skills in HR and detailed knowledge of the HR system of a company. Their main task is to support line managers in the delivery of HR service (Farndale et al., 2010; Ulrich et al., 2008). Working alongside the line management, HR professionals ensure that the strategy is clearly understood and that a HR practice is appropriately delivered (Brown et al., 2004). In addition HR professionals offer help and consulting for employees regarding specialized HR problems, which direct line management cannot solve, because of their lack of professional skill and knowledge (Ulrich et al., 2008).

Line managers are in charge of the direct supervision of employees in their business unit. Thereby they hold the lowest management position in an organization (Hales, 2005, p. 473). However, line managers have a crucial role in HRM (Guest, 1987; Lowe, 1992; Marchington, 2001; Storey, 1992) as it is described in the literature of devolution. The concept of devolution explains how HR responsibilities from higher personnel management levels are delegated to line managers (e.g. Brewster & Larsen, 2000; McGovern, Gratton, Hailey, Stiles and Truss et al., 1997; Renwick, 2003). The primary HR responsibilities of line managers include managing resources and ensuring the performance of employees, for example their commitment, quality, flexibility and profitability (Lowe, 1992). HR services, which line managers provide are for example: motivation and reinforcement, punishment, conflict management, selection and recruitment, training and development (Luthans, Hodgetts & Rosenkrantz, 1988). Furthermore they may also include pay and benefits, industrial relations, health and safety as well as workforce expansion and reduction (Brewster & Larsen, 2000; Larsen & Brewster, 2003).

Based on the signaling theory and the concept of service quality, it is thus expected that high HR service delivery quality of HR SSCs, HR professionals and line managers will signal, that attitudes and behavior are expected, which provide high-levels of service quality. Consequently, high HR service quality of HR SSCs, HR professionals and line managers should lead to a high perception of individual service climate by employees. The following hypotheses represent the expected relationships:

**H1.1**: The HR service delivery quality by HR shared service center is positively related to service climate.
**H1.2: The HR service delivery quality by HR professionals is positively related to service climate.**

**H1.3: The HR service delivery quality by line managers is positively related to service climate.**

The role of HR service delivery quality in the relationship between different HR delivery channels

Findings of Ulrich et al. (2008) as well as Farndale et al., (2010) suggest that HR professionals and HR SSCs do not only deliver HR services to employees but line managers are also internal customers of these delivery channels. For this reason, line managers receive HR services as well as deliver them. Thus, the influence of the HR service delivery quality of HR professionals and HR SSCs on the HR service quality delivered by line managers to employees is an interesting factor as well, while researching the signaling function of HR service delivery quality.

While delivering HR service products to employees, line managers face different constraints as described in the research on HR deviation (e.g. McGovern et al., 1997; Renwick, 2003). These constraints are partly relieved through HR services, which line managers receive by HR professionals and HR SSCs. For example, the need for support in how line managers should perform their HR service delivery, (Bond & Wise, 2003; Gennard & Kelly, 1997; McConville & Holden, 1999; Whittaker & Marchington, 2003) is relieved by HR professionals, who offer transformational help such as consulting and coaching (Farndale et al., 2010; Ulrich et al., 2008). Furthermore, the constraint deriving from a deficit of time or capacity line managers have available, to deliver the HR service product effectively, (Hall & Torrington, 1998; Renwick, 2003) can be relieved by administrative support of HR SSCs (Farndale et al., 2010; Ulrich et al., 2008). The relieve of line managers’ constraints through high HR service delivery quality of HR professionals and HR SSCs, is thus expected to result in higher HR service quality delivered from line managers to employees.

Based on this assumption, hypotheses following social exchange theory can be built. The social exchange theory contains the norm of reciprocity, which states that if a person is treated well by another person or entity, it feels obligated to reciprocate (Blau, 1967).
Accordingly, if line managers perceive high HR service quality through HR professionals and HR SSCs as explained above, they will feel valued and sufficiently supported. Consequently, line managers will deliver high HR service delivery quality to employees to maybe reciprocate the efforts of HR SSC and HR professionals. Therefore, the following hypotheses are proposed:

Hypothesis 2.1: HR service delivery quality of HR professionals, (as perceived by line managers) is positively related to HR service delivery quality of line managers (as perceived by employees).

Hypothesis 2.2: HR service delivery quality of HR SSCs (as perceived by line managers) is positively related to HR service delivery quality of line managers (as perceived by employees).
Methodology

Sample, participants, procedures and response rate

In order to test the hypotheses developed above, the research was conducted at an international aerospace and Defense Company in the Netherlands. This company was chosen, because the company’s HR function consists of the three mentioned delivery channels, HR professionals, HR SSCs and line managers (e.g. Ulrich et al., 2008). The organization includes around 151 line managers and 1614 employees to receive an adequate sample size to gain enough statistical power.

In order to test the effect of HR service delivery quality by HR professionals and HR SSCs on the HR service delivery quality of line managers, we used stratified random sampling. Thereby, the first line managers were grouped together with a number of 3-4 direct
employees. Managers, who have a double role for example being a first line manager as well having a first line manager as direct supervisor, were excluded from their employee position. This was done to receive a high enough number of line managers in the sample. From the whole sample frame only first line managers who had 3 or more employees as direct subordinates were chosen and grouped with their employees. An employee team size of minimum 3 employees was chosen, to be able to measure a shared perception of service climate.

In total, we sampled 95 groups of first line managers, with 3 or 4 employees as linked subordinates. Each line manager was paired with three or four randomly selected employees to a team. The random selection was done for teams, which had more than 4 employees; otherwise all 3 or 4 employees were selected. This procedure was chosen to on the one hand ensure the anonymity of respondents and on the other hand to make it possible to group a line manager with his respective employees. In total a number of 95 line managers and 359 employees were sampled.

In order to test the hypotheses, quantitative data was collected from the above mentioned sample. To ensure consistent measurement, we used self-administered questionnaires. Two questionnaires were developed including existing scales (Appendix) as well as control variables. We used two questionnaires: one questionnaire addressed line managers, measuring HR service quality of HR professionals and HR SSCs as perceived by line managers. The questionnaire addressed employees, measuring HR service quality of line managers and HR SSCs and as well as the service climate measured on a psychological / individual level. The questionnaires were administered in Dutch, thus the items of service climate and HR service quality had to be translated from English into Dutch. To avoid a loss of face-validity the back-translation method was used. In the back-translation method all items are first translated from English into Dutch and then again translated into English to ensure that the face-validity stays the same (Brislin, 1986). The back translation, conducted by a native English speaker, revealed that no changes had to be made to the Dutch questionnaire.

After the translation interviews were held with HR managers in which items were adapted to fit the terminology used by line managers and employees. This was done according to the need to fit an instrument to reflect specific features of a particular setting (Stafford, Prybutok, Wells and Kappelman, 1999). A pilot study with 4 line managers and 4 employees was conducted to test the instruments, in order to find unintelligible items which could lead to
non-response. Ambiguities which were found in the pilot study concerning the terms and explanation referring to HR professionals and HR SSCs were corrected in the final versions of the questionnaires. To deal with ambiguities concerning the roles of HR professionals and HR SSC, a short text explaining the roles and the services delivered by the different delivery channels was added to the questionnaire. The changes made to the actual items, which were derived from the scales existing in the HR and service management literature, are explained below and in table 3 (see Appendix).

The questionnaires were administered by paper and pen method and send to the employees and line managers through the help of internal company post. The paper and pen method was chosen to avoid security issues, which would have derived from the use of online questionnaire in that particular company. Each questionnaire was coded, to allow an identification of which line manager and which employees belong to one group. To increase the response rate line managers and employees received a personally addressed company email before the conduction of the questionnaires, which explained the purpose and urgency of the study. The actual questionnaire was printed on green paper, because previous studies found that green paper rather than white paper increases the response rate (Fox et al., 1988). Furthermore, two reminder emails to fill in the questionnaires were sent to all line managers and employees, in the first week after the distribution as well as in the second week.

The response rate of line managers was 56.8% with a total 54 line managers who send back the questionnaires. Employee response rate was 40%, with a total of 144 employee replies. Table 1 views the distribution of response rates amongst the different control variables. In addition, 48 teams out of 95 teams could be created consisting of 48 line managers and 97 employees. A team consists of at least one line manager and one direct employee. This results in a response rate of 50% usable teams. In their article about the height of response rates Sivo, Saunders, Chang and Jiang (2006) state that the rule of thumb for acceptable management response rate is 55.6%, where as the rule of thumb for acceptable small business respondents is 30%. Thus, comparing our line managers and employee response rates to the rule of thumb, they lie in the range of acceptability. It was not possible to assess non-response, because overall demographic data was not available for the chosen sample.
Table 1

Response rates of line managers and employees considering the distribution amongst the control variables.

<table>
<thead>
<tr>
<th></th>
<th>Line managers (N=54)</th>
<th>Employees (N=144)</th>
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<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>96.4%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Female</td>
<td>88.9%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21-30</td>
<td>18.2%</td>
<td>7.6%</td>
</tr>
<tr>
<td>31-40</td>
<td>37.0%</td>
<td>16.4%</td>
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<tr>
<td>41-50</td>
<td>38.9%</td>
<td>25.0%</td>
</tr>
<tr>
<td>51&gt;</td>
<td>5.6%</td>
<td>50.1%</td>
</tr>
<tr>
<td>Tenure</td>
<td></td>
<td></td>
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<tr>
<td>&lt;5</td>
<td>16.3%</td>
<td>50.7%</td>
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<tr>
<td>5-10</td>
<td>10.9%</td>
<td>6.9%</td>
</tr>
<tr>
<td>10-15</td>
<td>7.3%</td>
<td>14.6%</td>
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<tr>
<td>15-20</td>
<td>16.4%</td>
<td>11.1%</td>
</tr>
<tr>
<td>20&gt;</td>
<td>49.1%</td>
<td>16.7%</td>
</tr>
<tr>
<td>Department</td>
<td></td>
<td></td>
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<tr>
<td>Dep. 1</td>
<td>35.2%</td>
<td>29.6%</td>
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<tr>
<td>Dep. 2</td>
<td>42.6%</td>
<td>47.9%</td>
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<tr>
<td>Dep. 3</td>
<td>14.8%</td>
<td>14.8%</td>
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<tr>
<td>Dep. 4</td>
<td>7.4%</td>
<td>7.7%</td>
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</table>

Measures

HR service delivery quality. HR service delivery quality can be measured by using the items of the original SERVQUAL constructs of reliability, responsiveness, assurance and empathy found by Parasuraman et al., (1988) (Mels et al., 1997). In their study about measuring line managers' constraints, while implementing HR, Nehles, Riemdijk and Looise (2008) did a factor analysis on four above named dimensions of the SERVQUAL instrument, to find a measure to their concept of HR support quality. HR support quality is operationalised as the
quality of HR services delivery, which corresponds with the previously described concept of HR service delivery quality. HR support services are measured by seven items of the original constructs of reliability and responsiveness assurance, and empathy dimensions of Parasurman et al., (1991). The Items Nehles et al. (2008) used, originally derive from Biemans (1999) who reformulated the SERVQUAL items to HR context and translated them into Dutch. All items are judged on a five-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). An example item is "When the (HR professionals/HR SSC/ line manager) promises to do something in a certain time frame. Then it does happen". In order to measure the service quality of HR professionals and HR SSCs, two scales with the above mentioned seven items were answered by line managers. Line managers were chosen as respondents to rate HR professionals and HR SSCs HR service quality, because they are the internal customers of these HR delivery channels (Farndale et al., 2010). Additionally, employees filled in the seven-item scale on the HR service delivery quality of HR SSCs, HR professionals and line managers’ quality. The measurement items had Cronbach’s Alpha of .68 which is close to the .70 threshold and a variance of 47.85%.

Service climate. Employees’ perception of service climate was measured with the seven-item global service scale developed by Schneider et al. (1998). The items were rated with a five-point Likert scale ranging from 1 (very poor) to 5 (excellent). A sample item was "The employees in my department often make suggestions about how to improve customer service and products in my department". The original scale was adapted to rate the service climate concerning products and services because a part of the company’s employees develop products as a service for internal and external customers (see table 3.) This was done to ensure a right understanding of service by employees. Following the service dominant logic argument, it can be stated, that a product always includes a service, because goods (both durable and non-durable) attain their value through their use or in other words through the service they provide (Vargo and Lusch, 2004). In this particular company for example public transportation payment systems are produced, which highest value is to deliver good service to the customer. All seven items were translated with help of a back-translation procedure recommended by Brislin (1980). Service climate was measured on the level of psychological service climate rated by each individual employee. The Cronbach’s Alpha for the measurement items of service climate was finally calculated with .75, which is above the acceptable reliability level of .70. The variance of the service climate scale was 41.20%.
Control variables

In order to reduce confounding effects, both questionnaires included five control variables, namely: age, gender, education, years in job and department working in. These control variables were chosen because several scholars expected a potential interfering effect in previous studies (e.g. Liao, Toya, Lepak and Hong, 2009; Takeuchi, Chen and Lepak, 2009).

Age and Tenure. The control variables of Age and Years in Job, where answered with filling in the year of birth and the year of begin of work in the company.

Gender and department working in. The control variables of gender and department working in, were measured with help of multiple choice questions, with only one suitable answer per control variable, for example “what is your gender” (Male; Female; I rather not answer).

Data analysis

Before the analysis was conducted, missing values were analyzed. The Littel's Test for the data of Managers as well as employees showed that all data is missing completely at random with significance above .05. In order to deal with a potential loss of statistical power through missing values, the missing values were treated with help of the Maximum Likelihood approach using the EM-algorithm (Schafer, 1997; Schafer and Olson, 1998).

Previously to testing the hypotheses an interclass correlation [ICC (1)] and reliability of the mean [ICC (2)] were examined to test the consistency among 48 teams (Bliese, 2000). In addition, the hypotheses were tested by using multilevel analysis and hierarchical linear regression analysis. The multilevel model with the proposed hypotheses can be found in Fig. 2.

Results

Concordance among teams

To test the data interrater reliability for the different constructs, the ICC (1) and ICC (2) were obtained (Bliese, 2000), with values of .45 and .53 respectively. These values indicate a moderate agreement amongst teams. Respondents’ agreement within teams is not very high. Thus, we decided not to aggregate scores to a team level.
Descriptives
The means, standard deviation and correlations of the dependent and independent variables are demonstrated in Table 1 and Table 2, with Table 1 showing variables measured on employee level and Table 2 showing variables measured on line manager level. Employees rating of HR service delivery quality was similar for each delivery channels, with a rating somewhat higher than average. The rating of line managers was consistent with the employee rating. Furthermore, significant correlations between the HR service delivery quality of HR SSC and HR professionals have been found at both measurement levels. On employee level the two latent of HR service delivery quality of HR SSC and HR professionals, have a high correlation with \( r(142)=.62, p<0.01 \), which is close to the .70 threshold, explaining a high correlation following the rule of thumb. A high correlation between two latent variables bears the threat of multicollinearity. However, the VIF values of both variables 1.7 and 1.8 deriving from the regression analysis lie below the threshold of 5, indicating no multicollinearity problem (O’Brien, 2007). The HR service delivery quality of line managers only significantly correlates with the HR service delivery quality of the HR professionals. In addition, the findings show that the outcome variable service climate is significantly correlated to the HR service delivery quality of all HR delivery channels.
Table 2

Descriptives variables measured at employee level (n=144)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>HR service delivery quality of HR SSC <em>employee level</em></td>
<td>3,83</td>
<td>0,67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>HR service delivery quality of HR professional <em>employee level</em></td>
<td>3,47</td>
<td>0,69</td>
<td>.621**</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>HR service delivery quality of line manager <em>employee level</em></td>
<td>3,80</td>
<td>0,77</td>
<td>.145</td>
<td>.334**</td>
</tr>
<tr>
<td>4.</td>
<td>Service climate</td>
<td>3,25</td>
<td>0,48</td>
<td>.195*</td>
<td>.179**</td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level (2-tailed).
* Correlation is significant at the .05 level (2-tailed).

Table 3

Descriptives variables measured at line manager level (n=54)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>HR service delivery quality of HR SSC <em>line managers level</em></td>
<td>3,47</td>
<td>0,59</td>
</tr>
<tr>
<td>2.</td>
<td>HR service delivery quality of HR SSC <em>line managers level</em></td>
<td>3,81</td>
<td>0,48</td>
</tr>
</tbody>
</table>

** Correlation is significant at the .01 level (2-tailed).
Hypotheses 1.1-1.3 assumed that HR service delivery of HR SSC, HR professionals and line managers has a positive influence on service climate. Because the data was nested in teams, we undertook the first step of a multilevel analysis, to examine if the variance in the intercept of service climate across teams is significantly different. The analysis revealed no significant variance, var(u0j) = 0.00, χ² (1) = 0.0, p=n.a.. Consequently a hierarchical linear regression analysis was conducted, consisting of two models. Model 1 included the control variables Gender, Age, Tenure and Department. The findings show that only the age of employees significantly is significantly related to service climate (β = -0.21, p < .10), suggesting that higher age leads to a decrease of perception of service climate.

In Model 2 the independent variables of HR service delivery quality of HR SSC, HR professionals and line managers were added, thereby the model fit was increased to 15%. The results indicated a significant positive relationship between HR service delivery quality of HR SSC and service climate (β = .19, p < .10). Additionally, the HR service delivery quality of line managers likewise is positively related to service climate (β = .20, p < .05). Furthermore, the HR service delivery quality of HR professionals was not found to be significantly related to service climate (β = .01, p = n.a.). Summarizing it can be stated that if the HR service delivery quality of HR SSC and line managers increased, consequently leads to a higher perception of service climate by employees. The results are summarized in Table 4.

Hypotheses 2.1-2.2 hypothesized, that the HR service delivery quality of HR professionals and HR SSC (as perceived by line managers) is positively related to HR service delivery quality of line managers (as perceived by employees). The first step of the multilevel analysis was to look for random effects of teams in the model testing the influence of HR service delivery quality of HR SSC HR professionals perceived by line managers on the HR service delivery quality of line managers perceived by employees. However, the analysis did not show a significance variance in intercepts of HR service delivery quality of line managers across teams, var(u0j) = 0.00, χ² (1) = 0.0, p = n.a.. Therefore, it was decided to conduct a hierarchical linear regression analysis. The findings of the regression analysis can be found in Table 4.

Model 1 includes the control variables, indicating that only employee gender seems to have a significant positive influence on line manager HR service delivery quality. Thus, if
employees of line managers get older they perceive a higher HR service quality of line managers.

In model 2 the predicting variables of HR service delivery quality of HR SSC and HR service delivery quality of HR professionals were added. None of the expected predictors was significantly related to the HR service delivery quality of line managers

Table 4

Hierarchical Regression Analysis for HR service delivery quality of three different HR delivery channels predicting service climate (n=144)

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th></th>
<th>Model 2</th>
<th></th>
<th></th>
</tr>
</thead>
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<tr>
<td></td>
<td>B</td>
<td>SE B</td>
<td>β</td>
<td>B</td>
<td>SE B</td>
<td>β</td>
</tr>
<tr>
<td>Gender</td>
<td>0.06</td>
<td>0.11</td>
<td>0.04</td>
<td>0.08</td>
<td>0.11</td>
<td>0.06</td>
</tr>
<tr>
<td>Age</td>
<td>-0.01</td>
<td>0.01</td>
<td>-0.21*</td>
<td>-0.10</td>
<td>0.01</td>
<td>-0.21*</td>
</tr>
<tr>
<td>Tenure</td>
<td>-0.00</td>
<td>0.00</td>
<td>-0.04</td>
<td>-0.00</td>
<td>0.00</td>
<td>-0.10</td>
</tr>
<tr>
<td>Department</td>
<td>0.06</td>
<td>0.05</td>
<td>0.10</td>
<td>0.07</td>
<td>0.05</td>
<td>0.13</td>
</tr>
<tr>
<td>HR service delivery quality of HR SSC</td>
<td>0.13</td>
<td>0.08</td>
<td>0.19*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HR service delivery quality of HR professionals</td>
<td>0.01</td>
<td>0.08</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HR service delivery quality of line managers</td>
<td>0.13</td>
<td>0.05</td>
<td>0.20**</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R²=0.062  R²=0.150**

** p<.05
*p<.10
Table 5

Hierarchical Regression Analysis for HR service delivery quality of HR SSC and HR professionals perceived by line managers predicting HR service delivery quality of line managers (n=95)

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
<td>B</td>
<td>SE B</td>
</tr>
<tr>
<td>Employee gender</td>
<td>-0.46</td>
<td>0.21</td>
<td>-.22*</td>
<td>-0.46</td>
</tr>
<tr>
<td>Employee age</td>
<td>0.01</td>
<td>0.01</td>
<td>.07</td>
<td>0.01</td>
</tr>
<tr>
<td>Employee tenure</td>
<td>-0.01</td>
<td>0.01</td>
<td>.15</td>
<td>0.01</td>
</tr>
<tr>
<td>Employee department</td>
<td>0.11</td>
<td>0.22</td>
<td>-.12</td>
<td>-0.05</td>
</tr>
<tr>
<td>Line manager gender</td>
<td>0.11</td>
<td>0.44</td>
<td>.03</td>
<td>0.07</td>
</tr>
<tr>
<td>Line manager age</td>
<td>0.10</td>
<td>0.02</td>
<td>.09</td>
<td>0.01</td>
</tr>
<tr>
<td>Line manager tenure</td>
<td>0.01</td>
<td>0.01</td>
<td>.12</td>
<td>0.01</td>
</tr>
<tr>
<td>Line manager department</td>
<td>-0.01</td>
<td>0.23</td>
<td>-.02</td>
<td>-0.07</td>
</tr>
<tr>
<td>HR service delivery quality of HR SSC perceived by line managers</td>
<td></td>
<td></td>
<td>-0.03</td>
<td>0.22</td>
</tr>
<tr>
<td>HR service delivery quality of HR professionals perceived by line managers</td>
<td></td>
<td></td>
<td>-0.15</td>
<td>0.26</td>
</tr>
</tbody>
</table>

R²=0.344
R²=0.355

* p<.05
Discussion

This study examined the signaling function of HR service delivery quality on the perception of service climate by employees. Therefore, the relationship between HR service delivery quality of HR SSC, HR professionals and line managers and service climate perceived by employees was studied. The findings suggested that HR service delivery quality of HR SSC as well as HR service delivery quality of line managers have a significant positive effect on service climate perceived by employees. HR service delivery quality of HR professionals however did not have a significant influence on service climate perceived by employees.

In addition the influence of HR service delivery quality of HR SSC and HR professionals on the HR service delivery quality of line managers was researched. The findings suggested that neither HR service delivery quality of HR SSC nor HR service delivery quality of HR professionals had a significant influence on the HR service delivery quality of line managers as perceived by employees.

Theoretical implications

In modern HRM literature, there is a shared consensus that HR practices or bundles of HR practice are not the only component of HRM, which influences the behavior of employees (e.g. Boselie et al., 2005). The assumption amongst scholars grew, that the influence of HRM implementation or in other words the delivery of HR practices, plays an important role in influencing employees' HR perception too. This study proposed that HRM implementation quality signals the importance of service orientation and service quality in an organization. Thereby, its main contribution to HRM literature was to explore the role of HRM implementation quality on the perception of signals by employees, or in other words, the influence on HR service delivery quality of HR SSC, HR professionals and line managers on employees' perception of service climate. Previous research revealed that this topic so far has been neglected in HRM research (e.g. Boselie et al., 2005, Haggerty and Wright, 2009). Hence, the findings give new inside in an underdeveloped field of HRM implementation.

Firstly, the findings suggest, that both HR SSC and line manager HR service delivery quality have a positive influence on the perception of service climate by employees. This influence can be regarded as an evidence that HR service delivery quality indeed has a signaling function in HRM. Thus, there should be recognition in HR literature that signals,
which influence the perception of expected behavior by employees, are not only provided by HR practices. Because, the way HR practices are delivered is serving as a signal as well. Future research, regarding the signaling theory in the HR context, can benefit from this awareness, by including HR service delivery quality as a signaling function next to HR practices. Other forms of climate could also be influenced by signaling effects which are sent through HRM implementation, not only through the level of quality, but also through high levels of consistency or frequency. Furthermore, the quality of HR service delivery can also be regarded as relevant for the general effectiveness of HRM, because signals are sent which are assumed to influence the desired attitudes and behaviors of employees, which could consequently lead to an organization's goal of higher employee performance (Huselid, 1995).

In the case of service quality, HRM service delivery quality is likely to have a positive effect on the service performance of employees, probably mediated by service climate. Other attitudes and behavior could also be influenced by high level of HR service delivery quality, such as affective commitment as already found by Gilbert et al. (2011).

Secondly, identifying that HR SSC's HR service delivery quality as well as line manager's HR service delivery quality influences the service climate perceived by employees, supports the assumption by Purcell et al. (2003). They assumed that the different roles of HR delivery channels are important in the enactment of HRM. Line manager HR service delivery quality, therefore, has the greatest impact on service climate, compared to the other two HR delivery channels. Thus, especially the importance of line managers in the enactment of HR should be recognized in the HRM literature, as it was already asked for by Purcell et al. (2003). Contrarily, to the prior assumption, HR service delivery quality of HR professionals did not have a positive effect on the perception of service climate. This could be explained by the frequency of HRM being implemented by HR professionals in contrast to HR SSC and line managers. HR professionals HRM implementation to employees occurs mostly in cases where line managers fail to implement HRM probably (Farndale et al., 2010). The frequency of HRM implementation by HR professionals to employees is thus smaller, resolving in a lesser influence on service climate. As stated by Farndale, et al. (2010) HR professionals are considered more as a support in implementing HRM, whereas HR SSC and line managers deliver HR services on a daily basis.

Furthermore, the research was concerned which influence HR service delivery quality of HR SSC and HR professionals have on the HR service delivery quality of line managers. The argument was built on findings by for example Farndale et al. (2010), who described line
managers as an internal receiver of HR service delivery. This study argued that line managers would reciprocally deliver high HR service delivery quality to employees if they themselves receive high HR service delivery quality. However, no significant relationship between the HR service delivery quality of the HR delivery channels and the HR service delivery quality of line managers has been found. Regarding the AMO framework, line managers may have other motivational factors than a reciprocity, which lead them to provide high HR service delivery quality, for example their own responsibility of employee performance, which is most likely influenced by the line managers HR service delivery quality. Maybe opportunity is mediating the effect of reciprocity of delivery high HR service delivery quality while receiving it, because there may not be enough time or capacity to delivery high HR service delivery quality on a line manager level.

Practical Implications

This research provides practical contribution for organizations, by indicating the importance of HR service delivery quality. Especially, the HR service delivery quality of line managers and HR SSC is influential concerning a perceived service climate of employees. If organizations want to increase the perception service climate and consequently the service performance of employees, they should consider increasing the quality of HR service delivery. This could be done by developing the skills and knowledge of especially of line managers concerning HRM implementation. Furthermore, HR service delivery provided by HR SSC through HR websites or call centers should be from high quality as well to ensure a perception of service climate. An additional practical contribution of this study is the developed scale, which can be used by practitioners to access the HR service delivery quality of HR delivery channels in their organization.

Limitations and Future research

This research includes limitations that offer possibilities for future research. Firstly, a limitation of this study could be that the research is conducted only in one organization. However, the influence of HR service delivery quality could be different in organizations of different field, for example regarding high level service organizations compared to
organizations with less service activities. Therefore, future research in different organizations is encouraged to receive a more generalizeable outcome.

Furthermore, data for testing the hypotheses regarding the relationship between HR service delivery quality and service climate was obtained from a single source. This causes a potential influence of common method bias. However, validated scales were used, which are assumed to be less sensitive to a common method bias (Doty and Glick, 1998). Furthermore, an EFA of all items distinctively revealed separate factors, indicating that common method bias is not likely to have a high effect (Podsakoff and Organ 1986). To control for common method bias in future research, service climate could for example be measured at a later point in time rather than measuring it together with HR service delivery quality at the same time. In addition, the statistical power of the multiple regression analyses was 0.99 and 0.99, thus the results are less likely to have been a Type II error.

Conclusion

This study revealed that HR service delivery quality serves as a signal for employees, which is interpreted as service climate. Furthermore, it was found that different HR service delivery channels have different influence in sending signals while delivering HR, whereas line managers HR service delivery quality is found to have the strongest impact. Thus, the role of HR service delivery quality as well as the role of line managers delivering HR services should be recognized in future HRM research.

References


### Appendix

List of items used:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Original items</th>
<th>Changed Items</th>
<th>References</th>
<th>Respondents</th>
</tr>
</thead>
</table>
| HR Service delivery quality | Defined as the quality of the enactment or implementation of HR practices | • When XYZ promises to do something by a certain time, it does so.  
• XYZ insists of error-free records  
• Employees of XYZ tell you exactly when services will be performed  
• Employees of XYZ are always willing to help  
• Employees of XYZ have the knowledge to answer your question  
• XYZ give me individual attention  
• XYZ has your best interest at heart | • When the (HR Professionals/HR SSC/ line manager) promises to do something in a certain time frame, then it does happen.  
• The (HR Professionals/HR SSC/ line manager promises) insists on administering data without mistakes  
• The (HR Professionals/HR SSC/ line manager promises) informs me if new services are provided  
• The (HR Professionals/HR SSC/ line manager promises) are always willing to help.  
• The HR managers have the necessary knowledge to answer my questions.  
• The (HR Professionals/HR SSC/ line manager promises) gives me individual attention  
• The (HR Professionals/HR SSC/ line manager promises) tries to reach the best for me. | Parasuraman et al. 1991, Nehles et al., 2008 | Line managers; employees  
α = .68  
Var. Expl. = 47.85% |
| Service climate | Service climate is defined as employees' shared perception of the policies, practices and procedures that are rewarded, supported and expected | • How would you rate the job knowledge and skills of employees in your business to deliver superior quality work and service?  
• How would you rate efforts to measure and track the quality of the work and service in your business? | Schneider et al. 1998 | Employees  
α = .75  
Var. Expl. = 41.20% |
<table>
<thead>
<tr>
<th>Concerning superior external service quality (Schneider, White &amp; Paul, 1998).</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How would you rate the recognition and rewards employees receive for the delivery of superior work and service?</td>
</tr>
<tr>
<td>• How would you rate the overall quality of service provided by your business?</td>
</tr>
<tr>
<td>• How would you rate the leadership shown by management in your business in supporting the service quality effort?</td>
</tr>
<tr>
<td>• How would you rate the effectiveness of our communications efforts to both employees and customers?</td>
</tr>
<tr>
<td>• How would you rate the tools, technology, and other resources provided to employees to support the delivery of superior quality work and service?</td>
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