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Toward an assessment of perceived HRM system strength: scale development and validation

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The purpose of this study was to develop and validate a theoretically grounded instrument to measure perceived HRM system strength. Relying on the work of Bowen and Ostroff, we identify different constructs capturing measurable features of a strong HRM system. Next, we develop items to measure these constructs, and use two different samples to validate the instrument. The resulting instrument builds on 11 constructs, organized along 3 different hierarchical levels. It is useful for HR practitioners in evaluating their functioning and for researchers to further test and develop theoretical insights in the HRM-performance relationship.

Keywords: HRM system strength; line managers; measurement instrument; scale development; trade union representatives

Since the beginning of the 1990s, a huge body of research has focused on the association between the presence/absence of HR practices and operational or financial firm performance (see Boselie, Dietz and Boon 2005; Wall and Wood 2005). This research stream has mainly examined HR content, i.e. the specific set of HR practices necessary for achieving an organizational goal (Bowen and Ostroff 2004, p. 204). From this viewpoint, good HRM is considered to be synonymous with a set of well-developed HR practices. This set may be different according to strategy (Chow, Huang and Liu 2008), organizational (Wood 1999; Wei, Liu, Zhang and Chiu 2008), and institutional (Subramony 2006; Gong and Chang 2008) context. Although this sounds good in theory, empirical research suffers from a lack of agreement on measurement issues (Lepak, Liao, Chung and Harden 2006) and consistency in empirical findings (Wall and Wood 2005). To date, we know little about the conditions under which HR practices are (not) effective.

Bowen and Ostroff (2004) have criticized this one-sided focus on HR content and argue that HR processes should be taken into account. They argue that the contribution of HRM to firm performance is determined not only by the choice of HR practices, but also by features of HR processes. We define HR processes as the set of activities aimed at developing, communicating, and implementing HR practices. According to Bowen and Ostroff (2004, p. 204), these HR processes should send signals to employees that allow them to understand the desired and appropriate responses and form a collective sense of what is expected [in line with the firm's strategy]. If HR processes succeed in this

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objective, a *strong HRM system* is created, which facilitates the relationships between HR practices, employees' attitudes, and individual performance, and contributes to firm performance.

The purpose of this article was to develop and validate a theoretically grounded instrument to measure perceived HRM system strength. We rely on the work of Bowen and Ostroff (2004), and start from the strong HRM system's features they distinguish: distinctiveness (visibility, understandability, legitimacy of authority, relevance), consistency (instrumentality, validity, consistent HRM messages), and consensus (agreement among HR decision makers, fairness). For the development and validation of our measurement instrument, we use a sample of line managers and one of trade union representatives. We focus on both parties because they are not only employees within an organization, but also crucial actors in the process of developing, communicating, and implementing HR practices (Poole and Jenkins 1997; Bryson, Forth and Kirby 2005; Verma 2005; Purcell and Kinnie 2007). The major goal of line managers is to manage their subordinates in such a manner that they realize output in line with organizational strategy. As such, they are the continuation of the HR department, i.e. people managers, on the shop floor and play an important role in communicating and implementing HR practices as developed by the HR department. Conversely, line managers will also steer the development of HR practices because they signal HR priorities for the business. The purpose of trade union representatives is to promote and defend employees' interests at the organizational level, especially in European countries. They are represented in the works council and thus influence the development of and communication on HR practices. As such, they also have an impact on the acceptance and implementation of HR practices among employees. If HRM wants to create a strong organizational climate, they need important HR agents, such as line managers and trade union representatives, to understand the objectives of HRM and to communicate and implement the HR practices as desired by the HR department. Therefore, the HR department needs to create a HRM system that is perceived as distinct, consistent, and unambiguous by both HR agents. If it does so, the likelihood that the strong HRM system is translated into a strong people management system, and subsequently into the creation of shared perceptions among employees of what is expected of them in line with the firm's strategy.

We contribute to existing literature by developing a theoretically grounded and empirically validated measurement instrument that might increase quality and consistency in future HR measurement practice. Thus far, the issue of validity is neglected in HRM-performance research. Moreover, our measurement instrument is new in that it widens the focus from content to process, which allows researchers to discover why one HR practice works in some settings but not in others. Next, although HR content measures are often context-specific, process features are of a more generic nature and thus widely applicable in surveys. Moreover, HR processes are – or even more – likely to be sources of sustained competitive advantage than HR practices because they are more difficult to duplicate due to issues of path dependency and social complexity (Barney 1991, 1995; Mueller 1996; Boxall and Steeneveld 1999). As such, this measurement instrument can help researchers to enhance insights in the HRM-performance relationship.

The remainder of the article is structured as follows. We start with a literature review to identify theoretically grounded constructs capturing HRM system strength. Next we describe the scale development process, including reliability and validity tests. We end with a discussion and suggestions for future research.

Literature review

The majority of research in the field of HRM concentrates on content-oriented HR assessments (e.g. Huselid 1995; Sels et al. 2006). HR professionals are asked to give information on the presence, frequency of use, coverage, or extensiveness of development of specific HR practices (Boselie et al. 2005). The resulting variables are subsequently linked with subjective or objective indicators of firm performance. Although there is evidence of a positive relationship, most critical reviews conclude that HRM-performance research suffers from a lack of consistent and convincing evidence and that the field shows insufficient methodological and theoretical progress (Paauwe and Boselie 2005; Wall and Wood 2005; Wright and Haggerty 2005). A first explanation is found in the methodological challenge to measure vertical and horizontal fit as put forward in the contingency and configurational perspectives (Venkatraman 1989; Delery and Doty 1996; Delery 1998). Although measuring the effect of fit between two variables on performance is rather easy using moderation or split sample techniques, measuring fit between multiple variables is very complex. Second, to test the concepts of vertical and horizontal fit, we need to focus on other variables than the content-oriented variables used in research today. If we only measure the selection technique that is applied, we lack important information to actually test the alignment with strategy (e.g. for an innovation strategy, specific selection criteria are needed) and/or other HR practices (e.g. the criteria used for selection should be consistent with the criteria used for promotion). Third, even if we succeed in methodologically fine tuning the analyses and choosing appropriate HR measures, the possible presence of equifinality (Doty, Glick and Huber 1993) as well as contingencies such as size, industry norms, legislation, or trade union presence (Boselie, Paauwe and Jansen 2001; Harney and Dundon 2006) might hinder researchers to draw firm conclusions and/or make comparisons between firms. Different firms that are equally performing might have very different and context-specific HR configurations, which make it difficult to statistically derive well-performing HR bundles. Case studies might be more appropriate here, but they lack the critical mass of observations to generalize findings. Finally, the presence of a HR practice does not say anything about the signals sent to employees, and thus the way it is experienced by employees (Gratton and Truss 2003). Yet, it can be argued that perceived HR practices are more likely to precede employees' attitudes and behavior as compared to intended HR practices (Nishii and Wright 2007).

Given the above considerations, HRM-performance research should focus on other potentially interesting variables. Several authors therefore started to focus on features of the development, communication, and implementation processes surrounding HR practices (e.g. Bowen and Ostroff 2004; Khilji and Wang 2006; Bhatnagar 2007). This reorientation is interesting because the manner in which HRM is implemented is a potential source of competitive advantage. Although HR practices can be easily copied by competitors, the processes surrounding these HR practices are not easy to copy (Mueller 1996). These processes are *capabilities* or *organizational capital*, i.e. information-based, tangible or intangible processes that are firm-specific and are developed over time through complex interactions among the firm's resources (Barney 1991, 1995). Issues of *path dependency* (e.g. the past behavior of HR staff will determine its legitimacy) and *social complexity* (e.g. the process through which HR staff succeeds in being perceived as legitimate is highly context-specific and invisible) make them difficult to copy (Barney 1991; Mueller 1996; Boxall and Steeneveld 1999).

The first empirical studies introducing process-related variables generate useful insights. Bhatnagar (2007), for example, provides evidence of a positive relationship

between the quality of the activities of the HR function and organizational commitment. Khilji and Wang (2006) show that consistent implementation, i.e. 'as intended', of HR practices increases employee satisfaction which subsequently positively affects organizational performance. Vandenberg, Richardson and Eastman (1999) conclude that high-involvement work processes (as perceived by employees) have a positive and direct impact on organizational effectiveness. Moreover, they have an indirect impact on organizational effectiveness through their positive influence upon employee morale. The conceptual work of Bowen and Ostroff (2004), in turn, offers researchers a strong theoretical background for integrating process-related variables in HRM-performance research. The authors argue that the introduction of a strong HRM system, fostering the emergence of a strong organizational climate from (individual) psychological climates, is necessary for a firm to perform well. They subsequently concentrate on the identification of characteristics, which are typical for such a strong HRM system. They search for HR process features leading employees to appropriately – i.e. in line with the firm's intended strategy - interpret and respond to the information conveyed in HR practices. To theoretically underpin their search, they rely on attribution theory (Kelley 1967). To enhance the likelihood that all employees perceive the message sent by HRM in the same manner, the HRM system should be perceived as high in distinctiveness, consistency, and consensus. Next, relying on literature on message-based persuasion and social influence, they elaborate on nine meta-features of HRM systems building distinctiveness, consistency, and consensus (Bowen and Ostroff 2004, p. 208). If all employees assess the HRM system positively regarding these meta-features, then the HRM system sends strong signals about what strategic goals are important and what employee behaviors are expected and rewarded (Bowen and Ostroff 2004). In other words, a strong HRM system will improve shared meanings in promotion of collective responses consistent with organizational goals (Bowen and Ostroff 2004, p. 213).

The work of Bowen and Ostroff (2004) is interesting because the authors distinguish two process features, i.e. relevance '[the degree to which] the situation is defined in such a way that individuals see the situation as relevant to an important [organizational or individual] goal', p. 209, and consistency of HRM messages '[the degree to which there is] compatibility and stability in the signals sent by the HRM practices', p. 211, which cover the idea of vertical and horizontal fit (cf. supra). Both process features are difficult to measure in a standardized and objective manner. For example, although one can easily measure whether a training program is present in the organization, it is difficult to objectively pronounce upon the relevance of this practice. Although the HR manager may find the training program very relevant to achieve organizational goals, line managers might have other and more important needs depending upon the situation in their business unit. Studies of Mitsuhasi, Park, Wright and Chua (2000), Wright, McMahan, Snell and Gerhart (2001), and McLean (2006) have already shown that differences might exist between HR managers' and line managers' perceptions regarding the effectiveness of HRM. Yet, if subjective perceptions about these process features are measured among employees, one has a good impression of the extent to which relevance and consistency are actually being experienced. The experience of relevance of HRM and consistency in HRM messages – rather than the mere presence of HRM – will steer employees' behavior in line with organizational strategy (Chang 2005; Nishii and Wright 2007). Therefore, measuring perceptions of process features might be more interesting and revealing to HRM-performance research than the use of content-related measures, especially regarding the issues of vertical and horizontal fit.

Next to relevance and consistent HRM messages, Bowen and Ostroff (2004) determine seven other meta-features (visibility, understandability, legitimacy of authority, instrumentality, validity, agreement among HR decision makers, and fairness) which can be theoretically linked to the distinctiveness, consistency, and consensus of HR signals sent within organizations, and subsequently to better performance of organizations. Although the content of the HRM system is often context-specific, these HR meta-features have a more generic nature and are, therefore, easily applicable in different settings. Not every organization has a formal HR department, but in every organization an employee can pronounce upon the (lack of) visibility of or agreement among HR decision makers. Similarly, not every organization introduces pay for performance, but in every organization, employees can pronounce upon their perception regarding the procedural justice of the compensation system in place.

Objective of the study and construct definition

Given the above arguments, developing measures for process features of strong HRM systems might enrich our insights in the HRM-performance relationship. Focusing on employees' perceptions of process features can provide us with insights into the signals sent by HRM, irrespective of the HRM content, and the variation in perceptions that might exist between employees. This variation in perceptions cannot be captured using objective measures on the presence, frequency, or intensity of intended HR practices coming from a single respondent (usually HR managers). Yet, it might explain in part the existing inconsistency in findings on the HRM-performance relationship and shed light on potential moderating process variables in the relationship between HRM content and performance. Therefore, the objective of this study was to develop and empirically validate a measurement instrument based on the theoretical work of Bowen and Ostroff (2004). In doing so, we pay attention to issues of reliability and validity.

Table 1 provides an overview of the definitions of the different constructs that are used for the instrument development.

These constructs are derived from the nine meta-features put forward by Bowen and Ostroff (2004). Yet, some of the meta-feature descriptions were too vague and abstract for item generation. We, therefore, redefined and described them more precisely. One example is understandability. According to Bowen and Ostroff (2004), it refers to the absence of ambiguity and the ease of comprehension of HR practice content. We elaborated the definition with more concrete elements, such as 'the degree to which internal customers understand how the practices developed by HR work, HR interventions are easy to understand, and HR solutions are simple, clear, and transparent'. A second example is visibility. This construct was defined in terms of a characteristic of HR practices. We, however, consider visibility to be also a characteristic of the HR decision makers. If the HR department succeeds in being visible and making its initiatives observable, the likelihood of standing out (distinctiveness) increases. A final example is fairness. In describing fairness, Bowen and Ostroff (2004) distinguish between procedural, distributive, and interactional justice. According to Folger and Cropanzano (1998), interactional justice is frequently treated as an aspect of procedural justice. Therefore, we only distinguish procedural from distributive justice. However, although Bowen and Ostroff (2004) consider fairness as one meta-feature, we include procedural and distributive justice as separate constructs. This explains why we have 10 constructs and Bowen and Ostroff (2004) have 9 meta-features.

In line with the work of Bowen and Ostroff (2004), we argue that if the perceptions of line managers and trade union representatives regarding each of the constructs presented

Table 1. Construct definitions.

Distinctiveness	
Visibility	The degree to which internal customers have a clear idea of HR practices, know which HR programs are implemented, and what can and cannot be expected from the HR department
Understandability	The degree to which internal customers understand how the practices developed by HR work. HR interventions are easy to understand and HR solutions are simple, clear, and transparent. It refers to the absence of ambiguity of HR practice content (Bowen and Ostroff 2004)
Legitimacy (of authority)	The degree to which the HR function is perceived as a high-status and high-credibility function (Bowen and Ostroff 2004)
Relevance	The degree to which HR initiatives and practices are perceived as useful, significant, and relevant (supporting achievement of organizational goals) and HR is capable of anticipating on daily problems and needs
Consistency	
Instrumentality	The degree to which HR practices and programs positively influence levels of motivation, competence, and empowerment (Delery and Shaw 2001) and are thus able to steer behavior of employees in the desired direction
Validity	The degree to which there is an agreement between what HR practices purport to do and what they actually do
Consistency of HRM messages	The degree of compatibility between HR practices (Baron and Kreps 1999), of continuity and stability of HR practices over time and of agreement between words and deeds
Consensus	
Agreement among principal	The degree to which HR decision makers share the same vision and
HR decision makers	are on the same wavelength The degree to which the process by which decisions are reached or
Procedural justice	The degree to which the process by which decisions are reached or outcomes are allocated is fair (Folger and Cropanzano 1998)
Distributive justice	The degree to which the allocation of benefits and resources (the result of a decision) is fair (Folger and Cropanzano 1998)

in Table 1 are positive, the likelihood that they help the HR department in effectively installing a strong organizational climate increases. Subsequently, the likelihood of successful strategy implementation and a positive impact of HRM on firm performance increase.

Item and scale development process

To further develop the measurement instrument, we thoroughly followed the scale development guidelines provided by Schwab (1980), Hinkin (1995), and DeVellis (2003). This section is divided in three parts: (1) item generation, i.e. the development of an item pool for each construct, (2) scale development, i.e. the manner in which items are combined to form scales, and (3) scale evaluation, i.e. the psychometric examination of scales in terms of reliability and validity.

Item generation

We created a *pool of items* for each construct using a deductive approach, i.e. the items are derived from the construct definitions mentioned in Table 1 and measure the perceived effectiveness of the HR process-related features. The items for perceived distributive and

procedural justice were drawn from existing justice scales (Fields 2002). The remaining items are new. The item development resulted in an initial pool of 125 items, i.e. approximately 12 items per construct. This is in line with guidelines put forward in the literature (Cronbach and Meehl 1955; DeVellis 2003). We used negatively worded items to reduce and control for response biases (Nunnally 1978).

We followed a procedure similar to the two-stage method used by MacKenzie, Podsakoff and Fetter (1991) to assess content validity. In a first stage, six experts in the field of HRM reviewed and evaluated the initial item pool and the corresponding constructs. The main purpose was to enhance readability, clarity, and relevance of the items. The experts' advice was used to review the item content as well as to add or delete items. This procedure reduced the pool of 125 items to 80 items. In the next stage, a second group of four experts reviewed the construct definitions and repeated the initial item review. These experts were also asked to classify each item to the intended construct. Only those items that were assigned to the appropriate construct by at least three of the four judges were retained. This procedure reduced the pool to 68 items.

Scale development

We incorporated the 68 items in an online survey. The items were presented in random order. For each item, we used a Likert-type scale ranging from 1 (entirely disagree) to 5 (entirely agree). In addition to the 68-item instrument, extra variables on service quality (Parasuraman, Berry and Zeithaml 1988, 1991), HR role effectiveness (Ulrich 1997), and general HR satisfaction were included. Respondents also had to indicate their length of service in the company, educational background, and hierarchical level.

The sample consisted of 128 line managers in a consulting firm offering a wide range of HR services to organizations (e.g. tax and payroll processing, compensation and benefits and so on). All line managers in the sample are clients of the HR department. In this role of HR client, they are comparable to line managers in industrial or other service firms. Some of them, however, are also project leaders of consultancy projects in other organizations (e.g. projects regarding judicial HR advice, wage calculation and so on), which are executed by their junior staff. These projects are HR related. Yet, the main role of these line managers is the one of project leader. Their professional background might influence the overall perception on HRM system strength (they might be, for example, more critical toward HRM). However, for the scale development, the consistency in answer patterns is more important as compared with the absolute score values. Therefore, we do not consider the professional background of these line managers to be a problem or a limitation. Hundred and fifteen line managers participated, resulting in a usable sample of 111 line managers (87% response rate). Average seniority is 13 years. 19.6% have a degree of secondary education, 48% a bachelor's degree, and 32.4% a master's degree.

After data collection, the selected pool of 68 items was subjected to item analysis. Items were analyzed for each construct separately. We checked for each item the mean, standard deviation, and item-total correlations (DeVellis 2003). Those items with an item-total correlation of more than 0.30 and a reasonably high variance in response (standard deviation of more than 0.40) were retained (Churchill 1979). For some constructs, removal of certain items considerably improved the Cronbach's α coefficient. As individual items were removed, α values were recomputed for the remaining items and the new correlations were re-evaluated. A total of 50 items were retained for further examination.

To explore the underlying factor structure of the remaining pool of 50 items, the data were subjected to exploratory factor analyses (EFA), using principal axis factoring with

oblique rotation. Because of the small sample size (N = 111), the EFA were run for each dimension (distinctiveness (20 items), consistency (15 items), and consensus (15 items)) separately. That way, we have a minimum five respondents for each item. The oblique factor rotation allows for correlation between factors (Hair, Anderson, Tatham and Black 1998). There are theoretical arguments to assume that the constructs are correlated. For example, researchers have argued that even though distributive and procedural justice are conceptually distinct constructs, they should be correlated (Tyler 1994). Some researchers argued that for factor analysis, the number of cases must be larger than the number of variables. Hinkin (1995) noted that item-to-response ratios should vary between 1-4 and 1-10 for exploratory and confirmatory factor analysis (CFA). The item-to-response ratios for the three dimensions are 1-7 (distinctiveness), 1-8 (consistency), and 1-7 (consensus). We also computed the Kaiser's measure of sampling adequacy. These measures ranged from 0.77 (consensus) to 0.88 (consistency), suggesting that the data were suitable for factor analysis (Dziuban and Shirkey 1974).

The decision on the number of factors that had to be retained was simultaneously based on the examination of the scree plot (Cattell 1966) and the eigenvalues-greater-than-one-rule (Kaiser 1974). To achieve more meaningful solutions, items were deleted (a) if they loaded equally heavy on more than one factor (cross loading above 0.40) and (b) if their loadings were smaller than 0.40. After item deletion, the EFA was rerun. The process of scale purification in this stage reduced the number of items from 50 to 40. Results are shown in Tables 2–4.

For distinctiveness, a three-factor solution provided the most conceptually interpretable factor structure. The first factor legitimacy was measured by six items ($\alpha = 0.86$). Two items developed for the relevance construct, loaded on the legitimacy scale. As legitimacy is to a large extent built by past behavior, the result can be theoretically explained. If the HR function has created added value in the past and if the practices developed meet the needs of line managers, the likelihood that the HR function is considered legitimate increases. Factor 2 was labeled relevance and included three items ($\alpha = 0.75$). The third factor represented visibility and was measured by four items $(\alpha = 0.71)$. The items developed to measure *understandability* did not load on a factor. Consistency is represented by a two-factor solution. The results of the factor analysis indicated that instrumentality and validity overlap each other. The definitions are closely related to each other, which might explain the absence of two distinct factors. Although instrumentality refers to the purpose HR practices have to achieve, validity refers to the degree to which HR practices actually realize what they are supposed to achieve. The two factors were merged into a single scale, which will be referred to as validity. It consists of nine items ($\alpha = 0.86$). Factor 2 stands for *consistent HRM messages* and included four items ($\alpha = 0.70$). For *consensus*, three factors were retrieved. Factor 1 represented distributive justice and included five items ($\alpha = 0.83$). Factor 2 was labeled procedural justice and included four items ($\alpha = 0.81$). The third factor represented agreement and included five items ($\alpha = 0.76$).

Scale evaluation

External validity

To evaluate whether new data would confirm the proposed structure of the items as determined in the exploratory stage of the research (Hinkin 1995; Jöreskog and Sörbom 1999), we conducted a second study and used CFA to re-evaluate the factor structure. In addition, the data in this study are used to further assess validity and to cross-validate

Table 2. EFA – dimension distinctiveness.

Kaiser's measure of sampling adequacy = 0.87					
Items	Intended construct	F1	F2	F3	Deleted items after third order CFA TUR
The HR department undertakes exactly those actions that meet our needs	Relevance	0.88			
The HR staff has enough authority to get their ideas accepted	Legitimacy	0.76			X
The HR department in this organization has a high added value	Relevance	0.73			
In this organization, HRM is synonymous with excellent work	Legitimacy	0.71			X
In this organization, the HR function is not a full management function. (R)	Legitimacy	0.57			X
In general, the HR staff is met with much appreciation in this organization	Legitimacy	0.57			
Cronbach's α In this organization, employees experience implemented HR practices	Relevance	0.86	0.79		
as relevant Many of the practices introduced by the HR department are useless. (R)	Relevance		0.78		
Employees in this organization often wonder about the usefulness of specific HR practices. (R)	Relevance		0.66		
Cronbach's α			0.75		0.81
The actual functioning of the HR department is a mystery to a large part of the employees	Visibility			0.80	
Employees are regularly informed about the initiatives taken by the HR department	Visibility			0.70	
The HR department works too much behind the scenes. (R)	Visibility			0.68	
In this organization, it is clear what belongs to the tasks and what's outside the field of the HR department	Visibility			0.39	
Cronbach's α				0.71	0.66^{a}
Eigenvalues	7.95	5.52	1.39	1.04	
Explained variance (%)	Total: 61.2	42.5	10.7	8.00	

the results to ascertain that the obtained factor analysis results are not purely influenced by sample specificity (DeVellis 2003; Sels, Janssens and Van Den Brande 2004).

The second study is based on a sample of Belgian trade union representatives employed in different organizations. Trade union representatives were chosen because they are also important HR agents. We opt to study representatives from different firms because this way we can examine whether our instrument can be used both within one company and among different companies.

^a Although less than Nunnally's (1978) recommended 0.70 cut-off, internal consistency coefficients greater than or equal to 0.60 are considered to be acceptable for an exploratory study (Robinson, Shaver and Wrightsman 1991; Hair et al. 1998).

Table 3. EFA – dimension consistency.

Kaiser's measure of sampling adequacy = 0.88				
Items	Intended construct	<i>F</i> 1	F2	Deleted items after 3rd order CFA
The suggestions, procedures, and practices developed by the HR department, actually add value to the functioning of the organization	Instrumentality	0.79		X
The HR practices in this organization do not contribute to employees' motivation. (R)	Instrumentality	0.77		
The compensation system is developed in such a way that desired performance is reinforced	Instrumentality	0.76		X
The HR instruments for employee appraisal succeed in encouraging the desired behavior	Instrumentality	0.74		X
The HR practices implemented in this organization sound good in theory, but do not function in practice. (R)	Validity	0.72		
The appraisal procedure developed by the HR department, has in practice other effects than the intended effects. (R)	Validity	0.65		
There is a wide gap between intended and actual effects of HR initiatives. (R)	Validity	0.64		
One can have faith that the HR practices realize the intended purpose	Validity	0.50		X
The HR department does not succeed in actively changing employees' behavior. (R)	Instrumentality	0.44		
Cronbach's α In this organization, HR policy changes every	Consistent	0.86	0.70	0.70
other minute. (R) The various HR initiatives send inconsistent signals. (R)	HRM messages Consistent HRM messages		0.70	
The successive initiatives introduced by the HR department often clash badly. (R)	Consistent HRM messages		0.68	
In this organization, there is clear consistency of HRM messages between words and deeds of the HR department			0.68	
Cronbach's α Eigenvalues	6.66	5.12	0.70 1.54	0.70
Explained variance (%)	Total: 51.2	39.4	11.8	

In addition to items relating to our instrument, extra variables on service quality (Parasuraman et al. 1988, 1991), HR role effectiveness (Ulrich 1997), general HR satisfaction, job satisfaction, and several questions about trade union's involvement in HRM and the degree of cooperation between employer and trade unions (social climate) were included. Respondents also had to indicate their length of service in the organization, educational background, and statute.

An email with a link to the online survey instrument was sent to 5800 trade union representatives. After a 1-month period, usable responses were obtained from a total of 1562 trade union representatives (26.9% response rate). The majority of respondents came from industrial firms (66.2%). Of the 33.8% of respondents located in the service sector,

Table 4. EFA – dimension consensus.

Kaiser's measure of sampling adequacy: 0.77					
Items	Intended construct	F1	F2	F3	Deleted items after 3rd order CFA
In this organization, the distribution of bonuses and other rewards is perceived as fair by employees	Distributive justice	0.78			
In this organization, employees consider promotions as fair	Distributive justice	0.72			
If employees perform well, they get the necessary recognition and rewards	Distributive justice	0.70			
In this organization, rewards are clearly related to performance	Distributive justice	0.70			
In this organization, the results of the yearly appraisals are generally considered as fair	Distributive justice	0.66			X
Cronbach's α		0.83			0.75
The HR department regularly takes decisions based on favoritism. (R)	Procedural justice		0.88		
Some employees in this organization get a preferential treatment because they are friends with HR staff. (R)			0.87		
The HR department takes decisions with two shapes and sizes in this	Procedural justice		0.79		
organization. (R) The HR department makes decisions in an impartial way in this organization	Procedural justice		0.44		X
Cronbach's α	Justice		0.81		0.80
HR management and line management are clearly on the same wavelength	Agreement			0.79	
All HR staff members in this organization mutually agree with the manner in which employees are managed	Agreement			0.71	
Top management and HR management clearly share the same vision	Agreement			0.69	
Management unanimously supports HR policy in this organization	Agreement			0.69	
HR management in this organization is established by mutual agreement between HR management and line management	Agreement			0.58	
Cronbach's α				0.76	0.71
Eigenvalues Explained variance (%)	8.55 Total: 61.1	4.83 34.5	2.06 14.7	1.66 11.9	

most were employed in financial services (8.3%), IT (7.9%), and transport & distribution (6.7%). Of the 1562 responses, 17.8% were trade union representatives in small organizations (10–99 employees), 43.5% in medium-sized organizations (100–499 employees), and 38.7% in large organizations (500 or more employees). The size of the HR department ranged from 1 to 170 employees, with an average of 11.8. Average seniority was 17 years. Two percent had a degree of primary education, 66.0% had a degree of secondary education, 22.9% a bachelor's degree and 9.1% a master's degree.

Forty three percent were blue-collar workers, 46% are white-collar workers and/or clerks, and 11% belong to the executive (management) level.

For validation purposes, the sample was restricted to private sector companies. The final sample consisted of 1274 trade union representatives. The system of trade union presence and regulations concerning HRM are different in public and private organizations in Belgium. We did not account enough for the high complexity of both the HR organization and the (political) appointment of trade union representatives within the public sector in our questionnaire. The response in this sector was, therefore, lower, and less reliable.

The dimensionality of the scales was assessed using Mplus. Because this sample was large enough, we assessed a third order CFA to determine whether the different scales from the line managers' sample loaded on the three different dimensions of Bowen and Ostroff (2004; distinctiveness, consistency, and consensus), and subsequently whether these three dimensions load one higher order construct perceived HRM system strength. In evaluating the model resulting from the line managers' sample, we considered several goodness-of-fit measures (Hatcher 1994; Table 5). An examination of the fit statistics indicated that the initial factor model had no good fit. Therefore, the theoretical model had to be optimized. Using the modification indices, we decided to drop some items to optimize the model. The items dropped are indicated in the last column of Tables 2-4. The goodness-of-fit measures for the optimized factor model were all above the minimum acceptable and recommended cut-off criteria. Legitimacy and relevance load on one factor in this optimal scenario. As mentioned before, relevance and legitimacy seem to be highly correlated and measure the same higher order construct (which we will call relevance). The process of scale purification in this stage reduced the number of items from 40 to 31. The final results are provided in Figure 1.

Reliability

To estimate reliability, the Cronbach's α s were calculated (Cronbach 1951). The results show that the scales resulting from the factor analyses exhibit good internal consistency for both the line managers' and trade unions representatives' sample (see Tables 2–4 and Figure 1). We also recalculated the Cronbach's α s for the line managers' sample, based on the optimized results from the trade union representatives' sample. These were all above the recommended cut-off of 0.70 (Nunnally and Bernstein 1994; $\alpha_{\rm relevance} = 0.83$; $\alpha_{\rm visibility} = 0.71$; $\alpha_{\rm validity} = 0.78$; $\alpha_{\rm consistency\ HRM\ messages} = 0.70$; $\alpha_{\rm procedural\ justice} = 0.87$; $\alpha_{\rm distributive\ justice} = 0.80$; $\alpha_{\rm agreement} = 0.76$; $\alpha_{\rm distinctiveness} = 0.85$; $\alpha_{\rm consistency} = 0.80$; $\alpha_{\rm consistency} =$

Convergent validity

Convergent validity refers to the degree of agreement in two or more measures of the same higher order construct (Bagozzi 1981). To measure convergent validity of our measure for perceived HRM system strength, we rely on the SERVQUAL instrument of Parasuraman

Table 5. CFA: goodness-of-fit measures third order factor model.

	Theoretical model	Optimized model
Bentler's Comparative fit index (CFI)	0.83	0.90
RMSEA	0.06	0.05
SRMR	0.06	0.05

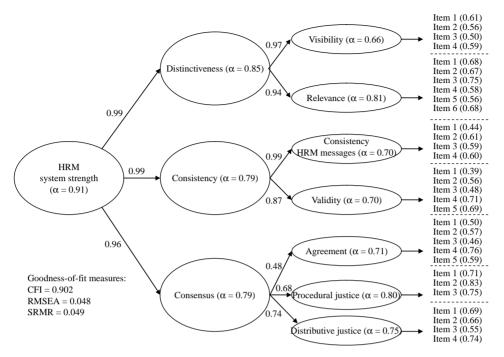


Figure 1. Third order CFA – trade union representatives' sample.

et al. (1988, 1991). This instrument was developed in marketing literature to measure consumer perceptions of service quality. As HR departments play a major role in service delivery to its internal customers, the instrument is applicable to a HRM context. We argue that both perceived HRM system strength and service quality measure the higher order construct of perceived HRM system effectiveness, i.e. the extent to which the HRM system is perceived as efficiently and effectively contributing to the organizational goals, and should, therefore, correlate positively.

We adopt three dimensions of the SERVOUAL instrument of Parasuraman et al. (1988, 1991) which are relevant to a HRM context: (1) reliability, (2) responsiveness, and (3) empathy. Reliability refers to the ability to perform the promised HR services accurately. A HR service is reliable if the HR department performs the service right the first time and delivers the service correctly. Responsiveness refers to the willingness to help customers (line managers and employees) and provide prompt service. Empathy refers to the ability to perceive and understand the feelings and perceptions of different groups of customers and to learn about their specific needs and wishes. More specifically, it refers to the degree to which the HR function provides caring and individualized attention to internal customers. We included items for each dimension in the questionnaire. These items were drawn from the SERVQUAL instrument of Parasuraman et al. (1988, 1991) and were reworded to fit a HRM context. It has been argued in the past that modifications are sometimes required to reflect the specific features of a particular setting (Stafford 1999). Moreover, previous research has shown that minor modifications do not influence the psychometric qualities of the scale (e.g. Barnes, Sheys and Morris 2005; Arambewela and Hall 2006; Zhou and Pritchard 2009). An EFA on the SERVQUAL items resulted in one factor, which was labeled service quality. We validated the factor structure with a CFA on the trade union representatives' sample (Table 6).

Table 6. EFA – dimension service quality.

Kaiser's measure of sampling adequacy: 0.87			
Items	Intended construct	<i>F</i> 1	Deleted items after CFA
HR staff performs HR services punctually and accurately	Responsiveness	0.83	_
HR staff provides prompt HR service	Responsiveness	0.79	
The HR department guarantees error-free administrative HR service	Reliability	0.73	
The HR department performs HR service right the first time	Reliability	0.72	
The HR department meets its engagements	Reliability	0.72	
HR staff is often too busy to answer requests. (R)	Responsiveness	0.70	X
Employees are only numbers to HR staff. (R)	Empathy	0.69	
When the HR department promises to do something,	Reliability	0.68	
it does so HR staff tells employees exactly when the service will be delivered	Responsiveness	0.68	
HR staff is always willing to help employees	Responsiveness	0.66	
When problems occur, the HR department shows sincere interest in solving it	Reliability	0.63	
HR staff understands the specific needs of employees	Empathy	0.60	
The HR department is aware of what is of interest to the employees	Empathy	a	
HR staff can put oneself in the personal situation and problems of employees	Empathy	a	
Employees receive individual attention from the HR department	Empathy	a	
Cronbach's α		0.89	0.91
Explained variance (%)		0.07	V., 1

One item had to be removed. The α s of the resulting scales amounted to 0.89 for the line managers' sample and 0.91 for the trade union representatives' sample.

Tables 7 and 8 show the correlations between both concepts, i.e. 0.65*** for the line managers' sample and 0.76*** for the trade union representatives' sample. These findings are an indication of convergent validity.

Criterion-related validity

Criterion-related validity is demonstrated by finding a statistically significant relationship between the construct measures and a criterion, which is presumed to be theoretically related to the construct measures (Nunnally 1978; Nunnally and Bernstein 1994). To test criterion-related validity, general satisfaction with delivered HR services is used as a criterion in both samples. Moreover, for line managers, we received information on the performance evaluation scores of the respondents in the period after they filled in the questionnaire. For trade union representatives, we also have information on the satisfaction with the job of trade union representative and general job satisfaction (Table 8).

For the relationship with general satisfaction with HR services, we rely on the confirmation paradigm in marketing literature to underpin the assumed relationship (East 1997). Customer satisfaction is defined as *the full meeting of one's expectations* (Jamal and Naser 2003, p. 30). It is the feeling or attitude of a customer toward a product or

^a The loadings were lower than 0.60. These items were, therefore, deleted in the EFA.

Table 7. Descriptive statistics and correlations (line managers' sample).

	Mean (/10)	QS	I	2	3	4	5	9	7	8	6	0I	II	12
1. Visibility	5.75	1.39	1.00											
2. Relevance	6.31	1.15	0.52	1.00										
3. Validity	6.23	1.33	0.36	69.0	1.00									
4. Consistency	7.00	1.03	0.43	0.57	0.53	1.00								
5. Agreement	6.58	1.24	0.38	0.57	0.47	0.35	1.00							
6. Distributive justice	5.73	1.62	0.29	0.45	09.0	0.40	0.38	1.00						
7. Procedural justice	7.95	1.65	0.14	0.33	0.42	0.41	0.21	0.41	1.00					
8. Distinctiveness	80.9	1.09	0.84	06.0	0.62	0.58	0.55	0.42	0.28	1.00				
9. Consistency	5.38	0.87	0.44	0.73	0.93	0.80	0.48	0.59	0.47	69.0	1.00			
10. Consensus	09.9	1.11	0.36	09.0	89.0	0.52	0.73	0.82	0.68	0.56	0.70	1.00		
11. HRM system strength	6.02	0.89	0.61	0.84	0.83	0.71	89.0	0.72	0.56	0.85	0.89	0.88	1.00	
12. Service quality	7.07	1.12	0.49	0.65	0.49	0.54	0.35	0.44	0.32	0.65	0.58	0.50	0.65	1.00
13. General satisfaction with HR services	6.77	1.05	0.44	0.61	0.39	0.51	0.42	0.30	0.18	0.61	0.49	0.41	0.58	0.59

Note: Correlations larger than 0.14 are significant at the $p \le 0.01$ level; correlations larger than 0.25 are significant at the $p \le 0.001$ level.

Descriptive statistics and correlations (trade union representatives' sample). Table 8.

	Mean (/10)	QS	I	2	E	4	5	9	7	8	6	01	II	12	13	14
1. Visibility 2. Relevance 3. Validity 4. Consistency 5. Agreement 6. Distributive justice 7. Procedural justice 8. Districtiveness 9. Consistency 10. Consensus 11. HRM system strength 12. Service quality 13. General satisfaction with HR services	5.50 5.43 5.04 5.04 6.64 6.64 6.53 6.53 5.53 5.69 5.69 5.69	1.51 1.38 1.33 1.43 1.41 1.61 1.99 1.19 1.19 1.103 1.133 1.133 1.133 1.133	1.00 0.67 0.55 0.60 0.34 0.50 0.46 0.68 0.64 0.79	1.00 0.64 0.67 0.35 0.53 0.94 0.73 0.62 0.73	1.00 0.58 0.24 0.47 0.65 0.91 0.53 0.77 0.52	1.00 0.35 0.41 0.47 0.70 0.87 0.56 0.62	1.00 0.29 0.19 0.32 0.71 0.55 0.35	1.00 0.43 0.56 0.50 0.78 0.71 0.47	1.00 0.51 0.52 0.71 0.66 0.47	1.00 0.76 0.66 0.91 0.53	1.00 0.61 0.87 0.54	1.00 0.87 0.61 0.58	1.00 0.76 0.71	1.00	1.00	
14. Satisfaction with the job as trade union	6.62	1.76	0.30	0.33	0.15	0.30	0.23	0.25	0.22	0.35	0.24	0.32	0.34	0.35	0.39	1.00
representative 15. General job satisfaction	7.04	1.55	0.29	0.25	0.20	0.26	0.16	0.37	0.26	0.36	0.26	0.36	0.38	0.35	0.41	0.43
Note: All correlations are significant at the	ant at the $p \le 0.0$	$p \le 0.001$ level														

	Mean (/10)	SD	A (N = 13)	B(N = 78)	C/D $(N=5)$	Have left the organization voluntarily $(N = 5)$
1. Visibility	5.75	1.39	5.23	5.86	6.00	5.10
2. Relevance	6.31	1.15	6.00	6.34	6.75	6.00
3. Validity	6.23	1.33	5.97	6.21	6.50	5.76
4. Consistency	7.00	1.03	6.75	7.03	7.00	7.00
Agreement	6.58	1.24	6.37	6.69	6.60	6.16
6. Distributive justice	5.73	1.62	5.04	5.73	5.63	6.30
7. Procedural justice	7.95	1.65	6.50	8.06	7.67	8.80

5.58

5.17

5.79

5.48

6.15

5.37

6.68

6.07

6.45

5.50

6.54

6.17

5.64

5.16

6.87

5.93

Table 9. Performance evaluation scores of line managers.^a

6.07

5.35

6.58

6.00

1.10

0.87

1.11

0.90

8. Distinctiveness

9. Consistency

11. HRM system

strength

Consensus

service after it has been used. The basic premise is that an evaluation of the product or service has been made. We argue that if line managers and trade union representatives perceive the HRM as strong (i.e. distinct, consistent and based on consensus), HRM meets their expectations. Subsequently, they will be more satisfied with HR services. For the relationship with trade union representatives' job satisfaction, both specific and general, we argue that trade union representatives, who perceive the HRM system in their company as strong, will feel more supported by the organization, and subsequently be more satisfied with their job (Allen, Shore and Griffith 2003).

To determine whether the construct is related to the satisfaction measures, we performed a simple correlation analysis (Tables 7 and 8). The correlation between perceived HRM system strength and general satisfaction with HR services is 0.58*** for line managers and 0.71*** for trade union representatives. However, because there might be some overlap in both concepts, we also measured the correlation with more distal satisfaction measures based on the trade union representatives' sample. The correlation between perceived HRM system strength and satisfaction in the job of trade union representative is 0.34***. For general job satisfaction, the correlation amounts to 0.38***. This pattern of correlations suggests that perceived HRM system strength is indeed positively related to satisfaction measures, which in turn can contribute to better individual performance and lower turnover intention (e.g. Petty, McGee and Cavender 1984; Tett and Meyer 1993).

For the line managers, we received the evaluation scores of the line managers in the year after they filled in the questionnaire. The evaluation scores (ranging from 'A = excellent' to 'D = problematic') are determined by the line managers' supervisor and are based on their performance in the last year. On the basis of social exchange theory (Blau 1964), we argue that the perceived HRM system strength and evaluation scores might be related. Social exchange theory posits that *employees seek a balance in their exchange relationships with organizations* (Wayne, Shore and Liden 1997, p. 83). If line managers perceive the HR department as strong and thus supportive in their execution of HR tasks, they will feel obliged to engage in behaviors that are fruitful for the organization and to perform well (Wayne et al. 1997). In this case, we would expect a positive correlation between perceived HRM system strength and performance. However, it can also be the other way round. If line managers perform well, they will expect the organization to

^aTen missing values.

provide the necessary support to execute their job well. Consequently, they will have higher expectations and will be more critical regarding HR services as compared with less performing line managers. If so, we would expect a negative correlation between perceived HRM system strength and performance. Although we have to be careful to draw firm conclusions (because the data we received suffer from central tendency), a comparison of the mean scores for the three groups (A, B, and C/D) endorses the latter assumption. Moreover, the scores of line managers who have left the organization voluntarily after the survey are lower than the mean scores. This might indicate that if HR does not succeed to improve its service level in the long term, the organization might loose good line managers, which subsequently might endanger the successful implementation of HRM.

Discussion

The main purpose of this study was to develop a theoretically grounded and empirically validated instrument to measure perceived HRM system strength. We argue that this measurement instrument might enhance insights in the HRM-performance relationship because (1) it allows us to measure the issues of vertical and horizontal fit more easily, (2) it measures perceptions regarding the signals sent by HRM, which are antecedents of actual behavior, (3) the items have a generic nature and are, therefore, widely applicable in research and practice, and (4) the instrument allows researchers to measure HRM system strength at different hierarchical levels (for example measuring overall HRM system strength versus measuring separate scores on distinctiveness, consistency, and consensus).

The validation of the instrument based on two different samples (one of line managers coming from one organization, and one of trade union representatives coming from different organizations) also makes us confident about the applicability of the instrument for different research purposes. Depending upon the research question, our measurement instrument should be used within one firm or among different firms. For example, if one wants to examine the relationship between perceived HRM system strength and firm performance among different firms, one should collect data among (ideally) all employees within the different companies. For each company, indicators should be calculated of the overall level (mean scores) and strength (standard deviation in scores) of the features of the HRM system. These indicators should subsequently be linked to firm performance. An assessment by a single individual within the organizations would not be reliable in this case. However, if one is interested in determining the relationship between perceived HRM system strength and employee attitudes, answers can be collected from respondents from different organizations. As these analyses concern the individual level, an assessment by a single individual within the organizations is not considered to be a problem.

We focused on line managers and trade union representatives because they are considered to be important HR agents in implementing and communicating HRM, and in steering employees' behavior in line with the firm's strategy. However, we argue that the instrument can be easily applied among regular employees as well. The items are clearly formulated and one does not have to be in contact with the HR department every day to be able to evaluate its functioning.

Future research applications

The instrument opens up interesting lines of inquiry for future research. First, the instrument can be used complementary to content-oriented measures of HRM to further unravel the relationship between HRM and firm performance and to detect why HR practices work in one setting but not in another. The characteristics of the HRM system

might have a moderating role in the relationship between HR practices and firm performance. For example, the effect of training on competence levels might be stronger when employees understand why they have to attend a training course and consider the training to be relevant (*distinctiveness*). Different HR practices may have a bigger impact on firm performance if the HRM system is perceived as signaling consistent signals (*consistency*). The impact of performance appraisal and performance-based pay on motivation might be stronger when employees perceive the procedures for and outcomes of performance appraisal and performance-based pay as fair (*consensus*).

Second, perceived HRM system strength can be linked with firm performance. To do so, data have to be collected among different firms. On the basis of Bowen and Ostroff (2004), one could argue that there exists a positive relationship between the average score on perceived HRM system strength (measured among employees and aggregated at firm level) and firm performance. This relationship will be probably stronger if the standard deviation is small, implying that all (or almost all) employees share a collective psychological contract.

Third, the relative importance of the different HRM system strength characteristics can be examined in different settings. One could argue that consensus will be extremely important in turbulent times of restructuring, whereas distinctiveness and consistency are important for a firm's day-to-day functioning. Moreover, the relative importance of the different perceived HRM system characteristics in determining, for example, satisfaction with HR services might depend on the group of internal customers studied. For line managers, perceived relevance may be very important, whereas employees might pay more attention to procedural justice.

Fourth, the way HR delivers its services has undergone considerable changes in recent years. Day-to-day people management activities are increasingly transferred to line managers, and activities previously carried out in-house have been outsourced, automated (HRIS), or integrated into HR shared service centers. It might be interesting to examine how the use of these various delivery options influences internal customers' perceptions of HRM system strength. How can HR safeguard *consistency* of HRM messages when HR activities are delegated to line managers? Is the *distinctiveness* of HRM messages in danger when some or all parts of the HR function are outsourced? Which impact has HR outsourcing on the *consensus* between HR community members? From this point of view, HRM system characteristics could be introduced as mediating variables in the relationship between HR structure and individual and firm performance.

Finally, the devolution of HR responsibilities from HR to line managers is a growing trend. It would be interesting to investigate whether the effects of HR devolution on HR effectiveness depend on the level of HRM system strength. Research suggests that people management activities are most effective when HR and line managers hold a common vision regarding the conduct of people management activities in the organization (Currie and Procter 2001). Other research show that line managers need clear procedures, information, and practices to perform their HR tasks in an effective way (Nehles, van Riemsdijk, Kok and Looise 2006). From this point of view, HR departments could improve the effectiveness of HRM if they succeed in creating strong HRM systems, thereby sending clear signals to line managers as to what is expected from them.

Managerial applications

From a managerial point of view, our instrument is a powerful diagnostic tool to measure HRM system strength and evaluate the HR function. More specifically, the instrument

allows multiple stakeholder assessments, which can help HR professionals to understand how their different internal customers evaluate the HR function in their organization. It is important for them to get to know what each customer expects and considers important. Moreover, such an assessment provides the HR department with general feedback on the practices and programs they introduced and information to detect strengths and weaknesses in its internal functioning.

Next, the instrument can be used as a '360-degree' performance tool. '360-degree' feedback refers to assessments in which self ratings (the HR professionals themselves) are combined with ratings from other parties (the different HR customers). Such a multisource assessment is particularly effective in promoting self-awareness (London and Beatty 1993), a necessary condition for the HR department to remain alert, effective, and efficient in the long term.

In addition, HR professionals might also use the instrument for benchmark purposes. Foot (1998, p. 5) describes benchmarking as a process of measuring your service's processes and performance and systematically comparing them to the performance of others in order to seek best practice. Benchmarking enables the identification of areas in which improvement is possible, how improvement might be achieved, and what benefit it might deliver. Internal benchmarking compares the performance of units or departments within one organization. This form of benchmarking is particularly valuable for multiple unit businesses and HR staff services decentralized to the business unit level. It allows HR professionals to compare internal customers' assessments across business units.

Finally, HR professionals might use this instrument to monitor trends and evolutions in perceptions of HRM system strength over time, and to take adequate action when needed.

How to strengthen strong HRM system features?

For practitioners, the question remains as to how they can create a strong HRM system. In what follows, we develop some guidelines, based on management literature (e.g. Anderson 1994; Kim and Mauborgne 1997; Armstrong 1998; Kenton and Yarnall 2005; Bliss and Mathews 2007; Cropanzano, Bowen and Gilliland 2007; Ulrich, Brockbank, Johnson, Sandholtz and Younger 2008) for strengthening distinctiveness, consistency, and consensus of the HRM system.

Distinctiveness

Enhancing distinctiveness is possible by introducing relevant HR practices and processes, which are visible for HR customers (for definitions of relevance and visibility, see Table 1). To develop *relevant initiatives* HR staff has to know the business, both in terms of the long-term objectives of the firm and the short-term goals of line managers, who will use the HR practices and processes to steer their employees in line with organizational strategy. This will allow HR staff to align business strategy and HRM. To do so successfully, a mix of generalist knowledge (How does a firm function?) and expert knowledge on HR practices and processes (What are the conditions under which individual performance-based pay is successful?) is needed. Next, empathy is needed as well. An empathetic HR staff is aware of others' emotions and able to use that emotional awareness to achieve results. An empathetic HR staff is also more likely to gain insight into employees' individual situations and line managers' local context and is subsequently more likely to develop the necessary tools to stimulate and motivate employees. *Visibility of initiatives and HR staff* can be enhanced in different manners. It is important for HR

customers to know which services are provided and how these services can help them. One way to do so is to develop a HR manual or HR intranet site that provides access to a broad spectrum of HR information and an overview of answers to Frequently Asked Questions. An 'HR roles and responsibilities charter', in turn, can make clear which services belong to the tasks of the HR department and which are outside the scope of HR's responsibilities. This will help to minimize duplication of effort, conflicts, or tasks falling between the cracks. Next, developing a transparent HR organizational chart showing the various positions, the position holders, and lines of command, can help HR customers to detect who they have to contact in case of problems or questions. Finally, HR staff should ensure availability to customers. One way to proceed is to make HR staff's schedules available on outlook so that customers can easily set an appointment.

Consistency

Enhancing consistency is possible by introducing valid HR practices, all sending consistent messages toward employees (for definitions of validity and consistency of HRM messages, see Table 1). A necessary condition for HR practices to be valid is the presence of HR expertise. Knowing how HR practices should be developed, under which circumstances they can be successful and how they should be communicated will enhance the likelihood that HR practices actually do what they purport to do. Next, introducing measurement instruments to measure the efficiency, impact, and return on investment of HR initiatives can provide insights in how HR practices should be adapted to become valid. To signal consistent HRM messages, it is important to create 'powerful connections' and avoid 'deadly combinations' when designing HRM systems (Becker, Huselid, Pickus and Spratt 1997). A poorly designed system of HR practices, sending contradictory messages, can reduce performance. This happens, for example, when managers implement team work and individual performance-based pay at the same time. As such, it is critical for HR professionals to understand how each practice might influence the effectiveness of the other practices. Using a HR scorecard (Becker, Huselid and Ulrich 2001) might be fruitful. It is a strategic planning and measuring system that can be used to assess the contribution of the HR department to the strategic objectives of the organization. If all HR practices are aligned with the same strategic goals (vertical fit), the consistency between these HR practices (horizontal fit) will also increase. Another way to enhance consistency is to develop a competency framework. The use of competency profiles is believed to contribute to the internal integration of HR practices. Next, communications and actions need to be in harmony. Make sure that the behavior and decisions of members of the HR department are consistent with the HR department's vision. HR departments also have to practice what they preach; otherwise internal customers are likely to view the HR department as hypocritical. Finally, the HR department should take care of a sufficient level of continuity and stability over time, without giving up flexibility. Change might be needed and is not necessarily bad. However, in case of changes, HR staff always has to communicate in a clear and consistent manner on the reasons of changes as to make the vision behind the changes comprehensible to all employees.

Consensus

Enhancing consensus is possible by introducing procedural and distributive just HR practices and stimulating agreement among members of the HR community (for definitions of procedural and distributive justice, and agreement, see Table 1). To increase

procedural justice, the HR department has to make sure that decision-making procedures are clearly communicated and made transparent as to create realistic expectations. Moreover, the decision-making processes should be in line with organizational norms and values to enhance acceptability among employees. Next, decisions have to be based on correct and accurate information and the procedures should apply in the same manner to all employees. Acceptability might also be enhanced by engaging employees in decisionmaking processes (e.g. 360° appraisal) or – afterwards – by clearly explaining why and how decisions were made. Finally, in case of protest against a decision, a procedure to report and deal with complaints should be foreseen. Distributive justice is about the consequences or outcomes of the decisions. The HR department has to ensure internal, external, and individual equity. Employees will believe that what they get (e.g. wage, promotion) is fair when they perceive it as fair relative to what co-workers in the same organization get (internal equity) or what counterparts holding the same position in other organizations get (external equity). In general, employees consider skill, effort, responsibility, and working conditions to determine the value of their job relative to other jobs. The HR department can increase the acceptability of decision outcomes by thoroughly analyzing and categorizing jobs (to make sure that employees know what each job implies in terms of responsibilities, working conditions, etc.), and executing external benchmarks by means of wage and salary surveys. Finally, individual equity refers to the fairness of decision outcomes based on the relative performance contributions of individuals working in the same type of job in the same organization. Employees will accept other individuals to earn more or to be promoted as long as they are confident that differences in performance contributions are fairly measured (cf. procedural justice).

HRM is no longer the exclusive responsibility of the HR department, but rather the responsibility of a mix of actors inside and outside the organization, such as top managers, line managers, and external HR service providers (Valverde, Ryan and Soler 2006). Slumbering disputes between these actors could lead to stern and difficult collaboration. It is, therefore, important to ensure mutual agreement by stimulating open discussion and debate. This facilitates an intense exchange of knowledge between HR community members and makes unarticulated issues/problems more explicit. Moreover, it increases the likelihood of agreement on the actions that should be taken on the strategic, tactical, and operational level, and the manner in which employees are selected, motivated, evaluated, rewarded, and managed throughout the organization. It is also important to establish this consensus on HR matters before they are communicated and to make communication lines as short as possible to reduce noise and to make sure that every HR decision maker and/or employee gets 'first line' information. Finally, there should be a focus on common goals and team work. This will foster a 'we' – as opposed to an 'us and them' - mentality. For example, line managers and HR professionals will usually have mutual HR objectives. These include finding highly qualified workers in a timely fashion, reducing turnover of employees, and increasing employee productivity. These goals should frame HR decision making and interactions between line managers and HR staff. To develop agreement, it is important to emphasize these mutual goals and to show that close collaboration will enhance the achievement of these goals.

Methodological limitations

Despite promising results, the instrument still needs to survive the ravages of time. First, although we tested the scales with two independent samples, additional refinement and validation is required. Future studies examining (1) perceptions of stakeholders neglected in

this study (e.g. employees and top management) and (2) perceptions of HR customers in organizations active in different settings (e.g. organizations from different countries, industries, size and so on) can increase insights in the generic nature of the constructs and measurement scales. Second, future research might focus on a further assessment of construct validity by testing nomological validity, i.e. an examination of relationships between antecedents of the constructs, the constructs themselves, and outcomes of the constructs. More specifically, the relationship between HRM content and firm performance should be thoroughly tested. Finally, some of the items refer to specific HR practices (e.g. the appraisal procedure developed by the HR department does not produce the expected effects). Although we are quite confident that these items' formulation did not impact our results, it is better to avoid reference to specific HR practices because they might be context-specific. Rewording these items in a more generic way (e.g. the practices and procedures developed by the HR department do not produce the expected effects) is necessary to guarantee the broad applicability of the instrument and the generalization of findings.

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