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Line manager implementation and employee HR attributions mediating mechanisms in the HRM system – organizational performance relationship: A multilevel and multipath study

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Line manager implementation and employee HR attributions mediating mechanisms in the HRM system – organizational performance relationship: A multilevel and multipath study

Abstract

Drawing on the attribution and social exchange theories, this study by proposing an integrated multilevel and multipath framework examines the impact of HRM content on organizational performance, through the serially mediating mechanisms of HR strength, line manager HR implementation, and employee HR attributions. Using a sample of 158 Greek private organizations and having data from senior managers, line managers, and employees, we conducted a multilevel path analyses via Mplus. We found that between organizations (a) HR strength fully mediates the relationship between HRM content and line manager HR implementation, (b) line manager HR implementation fully mediates the relationship between HR strength and employee HR attributions, and (c) employee HR attributions fully mediate the relationship between line manager HR implementation and organizational performance. Accordingly, this study advances prior knowledge by examining an integrated research pathways framework that has largely been investigated in isolation.

Keywords: HRM content; HR strength; Line manager implementation; Employee HR attributions; Organizational performance

Practitioner Notes

- **What is currently known about the subject matter**
    1. There are three research pathways of attribution theories in HRM research that have been investigated in isolation

2. There is a debate whether HR strength moderates or mediates the relationship between HRM content and employee HR attributions
3. There is a debate whether line manager implementation moderates or mediates the relationship between HRM content and employee HR attributions

- **What their paper adds to this**
  1. The paper proposes and tests a multi-level research framework that integrates the three pathways of attribution HRM theories
  2. The paper supports theoretically and empirically that HR strength mediates the relationship between HRM content and employee HR attributions
  3. The paper supports theoretically and empirically that line manager implementation mediates the relationship between HRM content and employee HR attributions
- **The implications of study findings for practitioners**
  1. Senior managers, line managers and employees should go hand in hand for influencing the relationship between HRM content and organizational performance
  2. Senior managers should be trained for properly communicating HRM content to employees
  3. Senior managers and line managers should investigate the probable misalignment reasons in conveying HR messages to employees

INTRODUCTION

Over the last couple of decades, although there is a substantial volume of research that has been devoted to examining the relationship between human resource management (HRM) and organisational performance, there is still considerable debate regarding the precise nature of this relationship (Paauwe *et al.*, 2013). While earlier research supports a set of interrelated HR practices influencing organizational performance, lately, the literature has paid more attention at the process of how these HR practices were developed by organizations, communicated by management, implemented by line managers, and perceived by employees (Baluch, 2017; Bowen and Ostroff, 2004; Li *et al.*, 2011; Nishii *et al.*, 2008; Sanders *et al.*, 2008). At the heart of this process is *attribution theory* which refers to how individuals infer causes about a person's behaviour or events (Heider, 1958; Kelley, 1967, 1973; Weiner, 1979).

In their recent review referring to the mechanisms that are involved in the relationship between HR practices and performance, Hewett *et al.* (2018) distinguished three research pathways. The first pathway focuses on *human resource system strength* (HR strength), which enables HR practices to send unambiguous messages about the types of behaviours that the organization expects, values, and rewards. Without HR strength (Bowen and Ostroff, 2004; Kelley, 1973), shared perceptions of what HR practices convey will not be formed and individual-level idiosyncratic *HR attributions* and responses will predominate (Heider, 1958; Nishii *et al.*, 2008; Ostroff and Bowen, 2016; Weiner, 1979). While evidence in the field suggests that HR strength usually is positively associated with organizational performance, more research is needed on the mechanisms that help to explain how HR strength influences performance (Paauwe *et al.*, 2013).

The second pathway focuses on *functional HR attributions*, which relates to employee HR attributions with specific HR practices. In this research path *HRM content*

is of high importance, as it indicates how employees view individual practices included in the HRM content (Kinnie *et al.,* 2005). However, considering Bowen and Ostroff (2004) who propose that HRM content and HR strength processes are closely related, and as such they should be integrated in forming a human resource management system (HRM system), we argue that the functional HR attributions pathway could be also seen as a relationship between HR attributions and HRM system that includes specific HR practices reinforced by HR strength processes to link to firm performance.

The third pathway focuses on the role of line managers in forming employee HR attributions during HR practices implementation. Although it is accepted that senior managers influence employee HR attributions as critical actors of HR strength (Pereira & Gomes, 2012; Piening, Baluch, & Ridder, 2014), the role of line managers in efficiently implementing HR practices is also considered to influence employee HR attributions (Den Hartog *et al.,* 2013; Guest and Bos-Nehles, 2013; Purcell and Hutchinson, 2007). However, although it is accepted that senior manager behaviour precedes line manager behaviour (Gilbert *et al.,* 2015), research about the spill over of line manager implementation effects on employee HR attributions is still limited (Hewett *et al.,* 2018). Nevertheless, though recently there have been several studies that focus on the role of line managers (e.g., Gilbert *et al.,* 2015; Knies and Leisink, 2014; Bos-Nehles and Bondarouk, 2017; Vermeeren, 2014), the field of HR being self-critical recognizes that it has still neglected to investigate the line managers' responsibility in implementing HR practices. Linked to this, Hewett *et al.* (2018) suggest that future research could integrate line managers into the employee attribution process in explaining the relationship between HRM content and performance.

Research on the aforementioned pathways has largely been conducted in isolation (Hewett *et al.*, 2018). With respect to this issue, Hewett *et al.* (2018, p. 88)

state that "we know very little about how these inter-related research streams are complementary, and we have yet to address the possibility that they can be united under a general framework". In this study we respond to this call by theoretically proposing and empirically examining a framework that integrates the major issues of these three research streams. In particular, we argue that senior managers, line managers and employees behave like forming serially exchanging partnerships (Bos-Nehles and Meijerink, 2018) and go hand in hand in influencing the relationship between HRM content and organizational performance.

Additionally, although some variance exists between HRM content, HR strength and HR implementation, these three constructs are considered to form an HRM system, with the organization constituting the upper level of analysis (Wright and Nishii, 2006). In line with HRM process models, it is theorized that the construct of the HRM system influences employees' interpretations, constituting a lower individual level of analysis (Ostroff and Bowen, 2016; Bos-Nehles and Meijerink, 2018; Van De Voorde and Beijer, 2015). Thus, we aim to test cross-level (i.e. organizational level-2, and individual level-1) relationships by utilizing the proposed integrated framework that joins the major concepts presented previously. This is because organizations are by definition multi-level entities and employees are nested within organizations and thus, multi-level research is preferable (Klein and Kozlowski, 2000).

By doing so, we answer the need to advance HR theories to justify the HRM content – performance relationship and bridge the theoretical perspectives with empirical evidence (Do *et al.,* 2018). Also, though there are studies (e.g., Bos-Nehles and Meijerink, 2018; Den Hartog *et al.,* 2013; Vermeeren, 2014; Van De Voorde and Beijer, 2015) that followed multi-level approaches in examining the influence of HRM on performance, we believe that our study is among the first to "address both top-down

and bottom-up relationships and thus bridges micro and macro domains – arguably one of the biggest future challenges in management research" (Nohe *et al.,* 2013, p. 379).

Therefore, we make two unique contributions through our study. First, we theoretically explain how the three core issues of HRM system (i.e., HRM content, HR strength and line management HR implementation) influences organizational performance through mediating mechanism of employee HR attributions. In doing so, we build on Hewett et al.'s (2018) three research pathways: a) synergies between HR system strength and HR attributions (HRM process), b) process attributions relating to specific HR functions (HR strength), and c) the role of managers in forming HR attributions (line management HR implementation) by simultaneously investigating whether the three core issues of HRM system influence employee HR attributions individually or through serially mediating mechanisms (Hewett *et al.*, 2018; Paauwe *et al.,* 2013; Van De Voorde and Beijer, 2015; Bos-Nehles and Meijerink, 2018). Second, we test the proposed complex but integrated framework as a whole, including all the necessary information in the operational framework so as to avoid a priori misspecification due to missing information, so as to understand the precise influence of variables under study (MacKenzie *et al*., 2005).

THE RESEARCH FRAMEWORK AND HYPOTHESES

The HRM system

We stated previously that HRM system is constituted by three distinct but mutually related dimensions; HRM content, HR strength, and HR implementation. HRM content refers to a set of related individual HR practices through which organizations try to achieve their strategic goals (Boselie *et al.,* 2005). Taking into consideration the works of scholars like Jensen *et al.* (2013) and Prieto and Santana (2012), in this study we use the *high-performance work system* (HPWS) approach. HPWS comprise a set of related HR practices that can facilitate employee ability and

skill (e.g., staffing and training and development), motivation and incentive (e.g., compensation and performance appraisal), and opportunity to perform (e.g., participation and communication) (Appelbaum *et al.,* 2000).

HR strength refers to the process by which HRM content is communicated by management to employees (Bowen and Ostroff, 2004; Li *et al.,* 2011). HR strength is reflected in its distinctiveness, consistency, and consensus (Sanders *et al.*, 2008). *Distinctiveness* refers to features that allow the event-effect relationship to stand out in the environment, thereby capturing attention and arousing interest. *Consistency* refers to features that allow the event-effect relationship to present itself the same over time, people, and contexts. *Consensus* refers to features that produce agreement among an employee's views of the event-effect relationship (Bowen and Ostroff, 2004). If the information pattern of HR strength satisfies the features of distinctiveness, consistency and consensus, then it produces a shared meaning about HRM content among employees (Ostroff and Bowen, 2016).

Often HR policies, procedures and practices are established at the organization level by top management teams but are realized at subunit level executed and implemented via multiple agents such as supervisors and line managers. Thus, HR implementation is tasked onto line managers/supervisors who have the responsibility of translating business policies into situation-specific actions (Zohar, 2000). Bringing the concepts of HRM content, HR strength and HR implementation into the HRM system it is recognized that although some variance exists between these concepts the basic level of analysis is the organization (Wright and Nishii, 2006). Among the multiple individuals who implement HR practices the line managers' role is considered to be crucial. According to Bos-Nehles (2010), a line manager's performance in implementing HR practices depends on two factors. First, are the personal or *internal*

factors such as the *desire* to perform the HR responsibilities and whether they have sufficient HR-related *competences*. Second, are the environmental or *external factors* such as the necessary *support* from senior managers to perform their HR roles effectively and the existence of clear *policies and procedures* for applying their HR responsibilities.

Thus there is a gap in our understanding of whether HR strength mediates or moderates the link between HRM content and line manager implementation. To date, to the best of our knowledge, research has only so far deliberated HR strength as a mediator/moderator in the link between HRM content and employee outcomes. For example, Bowen and Ostroff (2004) considered HR strength as a moderator of the relationship between individual perceptions of organisational context (psychological climate) and organisational climate (shared perceptions), recent evidence seems to suggest HR strength to both moderate as well as mediate the relationship between HR content and employee/organisational outcomes. On the one hand, previous research has shown HR strength to moderate the relationship between HR practices and outcomes based on covariation principle of Kelley's (1967; 1973) attribution theory (see also Sanders and Yang, 2016) by exploring the cause-effect relationships through distinctiveness, consistency and consensus of available information. On the other hand, HR strength was observed to be a mediator through signalling theory (Connelly, Certo, Ireland and Reutzel, 2011) as it translates the content of HR practices into signals about the intention of the organisations to employees (Bednall, Sanders & Yang, 2020).

Accordingly, consistent with Wright and Nishii (2006) as well as the signalling theory (Connelly et al., 2011; Bednall et al., 2020), we recognise that not all intended HR practices are implemented, but often the actual implementation of HR practices by actors, such as line managers, may depend on how these HR practices have been

communicated to the receivers, i.e., employees. In our study we argue that the three constructs of the HRM system are not independent, but they are serially related. Fittingly, HR strength is not an autonomous controlling process (i.e., moderation), expressed by rich or poor techniques of communicating any messages, but HRM content constitutes the specific enablers of HR strength. In turn, HR strength by making clear to line managers regarding what constitutes HRM content influences them (i.e., mediating) when they try to apply these HR practices. Accordingly, we hypothesize that:

Hypothesis 1: HR strength positively mediates the relationship between HRM content and line manager HR implementation.

The association between HRM system and employee HR attributions

We argue that employee HR attributions are influenced by three sources of HRM system. First, the HRM content itself, because employees are trying to interpret the intentions of the organization for introducing specific HR practices (i.e., the functional HR attributions) (Hewett *et al.*, 2018). Second, the characteristics of the HR strength process because employees are trying to recognize the actual meaning of the intended HRM system (Bowen and Ostroff, 2004). Third, the actual HR practices as have been implemented by line managers, because implementation of HR practices manifests the actual meaning of the HRM system (Bos-Nehles *et al.*, 2013; Den Hartog *et al.*, 2013). These three sources constitute the first mediating mechanism in the HRM content – output relationship, where HR strength precedes line manager implementation and employee behaviour (Gilbert *et al.*, 2015).

Based on attribution theory, Nishii *et al.* (2008) argued that employee attitudes and behaviours are influenced by the attributions they form with respect to HR practices. In particular, they propose a typology of employee HR attributions which is

both '*business /strategic goals underlying HR'* and '*employee-oriented philosophy'*. The business goals-oriented HR attributions refer to the two dimensions of *quality enhancement (commitment oriented)* and *cost reduction (control oriented)*. According to quality enhancement dimension, employees perceive HR practices as part of the quality HR strategy that considers employees to be an asset and as such must be protected and developed. According to the cost reduction dimension, employees perceive HR practices as part of the cost HR strategy and by considering employees to be a cost it must be efficiently controlled. Thus, the influence of the business goals-oriented HR attributions on employee attitudes and behaviours, and in turn of organizational performance, constitutes the net effect of the two opposing (in nature) dimensions of this construct (Nishii *et al.*, 2008).

The philosophy-oriented employee HR attributions refer to the two dimensions of *employee well-being (commitment oriented)* and *employee exploitation (control oriented)*. According to the employee well-being dimension, employees perceive HR practices as part of the managerial philosophy that facilitates the concern of the organization for the well-being of its employees. According to the employee exploitation dimension, employees perceive HR practices as part of the managerial philosophy of getting the most out of employees, for improving employee efficiency. Thus, the influence of the philosophy-oriented employee HR attributions on employee attitudes and behaviours, and in turn of organizational performance, constitutes the net effect of the two opposing in nature dimensions of this construct (Nishii *et al.*, 2008).

Due to the opposing nature of quality enhancement vs. cost reduction, and employee well-being vs. employee exploitation, Nishii *et al.* (2008) differentiated employee HR attributions into those that are expected to relate *positively* to employee attitudes (i.e., quality enhancement and employee well-being) and to those that are

expected to relate *negatively* to employee attitudes (i.e., cost reduction and employee exploitation). In our study, we follow this differentiation of control vs. commitment-oriented employee HR attributions.

Once the HRM content has been developed in the organization, it starts sending messages to employees. For example, "training and development practices may convey a message to employees that it is in the best interest of the organization to have employees stay longer in the firm… Benefits schemes applied to all employees may send a message that all employees are valuable assets… Employee involvement conveys a message that employees are trusted." (Katou and Budhwar, 2007, p. 28). In parallel, HR strength may act as a mediator between HRM content and employees by translating the content of HR practices regarding the intentions of the organization towards its employees. Similarly, line managers may act as a mediator between HR strength and employees by sending HR messages to employees that may have an influence on their attributions (Piening *et al.*, 2014).

The strength of the information sent to employees by the three sources of the HRM system may be asymmetrical. This is because each source tries to communicate intended meanings of HR, develops encoded contents of HR and transmits messages of HR to the receivers, who are the employees that will try to interpret the HR messages (Spence, 2002). According to the signalling theory, this asymmetry in information could be reduced in cases where there are spill-over effects between the information sources (Connelly *et al.*, 2011). In our study, the three sources of HRM system are serially related enforcing spill-over effects between them. However, in all these cases the influence of the sources is expected to relate positively to employee HR attitudes with respect to quality enhancement and employee well-being and to relate negatively to employee HR attitudes with respect to cost reduction and employee exploitation

(Nishii *et al.,* 2008). In fact, employees' HR attributions combine HRM content effect, HR strength effect and line management HR implementation effect (López-Cotarelo, 2011). Accordingly, we hypothesize that:

Hypothesis 2: (a) HRM content, (b) HR strength, and (c) Line manager HR implementation are positively associated with quality enhancement and employee well-being employee HR attributions (commitment oriented).

Hypothesis 3: (a) HRM content, (b) HR strength, and (c) Line manager HR implementation are negatively associated with cost reduction and employee exploitation employee HR attributions (control oriented).

The association between employee HR attributions and organizational performance

According to the attribution theory (Kelley, 1973), and in the context of HRM, employees' attitudes and behaviours are influenced by the attributions employees attach to the HR practices they experience (Nishii *et al.,* 2008). Thus, we argue that employee HR attributions, based on HRM system influence employee outcomes (Van De Voorde and Beijer, 2015), which in turn have an impact on organizational performance. In particular, for supporting this relationship we turn to social exchange theory (SET) (Blau, 1964).

Based on SET, it is argued that well-being employee HR attributions will be positively reciprocated by employee efforts to improve organizational performance (Takeuchi *et al*., 2007). Similarly, when employees perceive that organizations adopt HR practices, such as better training and development, in order to achieve the business goal of quality-enhancement, employees will feel obliged to reciprocate with more efforts to improve organizational performance (Nishii *et al.,* 2008), considering that the organization is treating them to be valuable assets (Katou and Budhwar, 2007). On the

contrary, employee perceptions of exploitation may not be reciprocated by further efforts of employees to improve organizational performance. Similarly, cost reduction employee HR attributions may be associated with work intensification or employee cost control by enforcing employee compliance with strict rules and procedures. In such a case employee cost reduction HR attributions may not be reciprocated by further efforts of employees to improve organizational performance. As a result, we argue that employee well-being and quality enhancement HR attributions are congruent with organizational performance (mutual gains perspective), but employee exploitation and cost reduction HR attributions may be incompatible with organizational performance (conflicting perspective) (Van De Voorde *et al.,* 2012). Accordingly, we hypothesize that:

Hypothesis 4: Quality enhancement and employee wellbeing employee HR attributions are positively associated with organizational performance.

Hypothesis 5: Cost reduction and employee exploitation employee HR attributions are negatively associated with organizational performance.

The HRM system – organizational performance framework

The operational model presented in Figure 1 involves the organizational-level-2 constructs of HRM system (i.e., HRM content, HR strength, line management HR implementation) and organizational performance (Ostroff and Bowen, 2016), and the individual-level-1 constructs of employee HR attributions (Hewett *et al.*, 2018). It presents three mediating mechanisms at multilevel – multipath framework. The first mediating mechanism presents hypothesis 1 as a 2-2-2 mediation model (i.e., HRM content – HR strength – line management HR implementation). The second mediating mechanism involves hypothesis 2 as a 2-2-1 mediation model (i.e., HR strength – line management HR implementation – employee HR attributions); and the third mediating

mechanism involves hypothesis 3 and 4 as a 2-1-2 mediation model (i.e., line management HR implementation – employee HR attributions – organizational performance).

INSERT FIGURE 1 ABOUT HERE

FIGURE 1 The operational model

METHODS

Context and sample

Data for this research was collected in October-November 2017 by help of a survey which was distributed to the employees of 300 private organizations in the manufacturing, services and trade sectors covering the whole of Greece. Greece provides a particularly meaningful context for this research. It is a peripheral country in the EU that has been heavily affected by the 2008 economic and financial crisis and is still under the surveillance of the European Commission for improving its economic competitiveness. In this bleak situation, many Greek firms are trying to avoid closure and employees are struggling to stay in employment. Therefore, it would be interesting to study the role of line-managers and employees HR attributions in the relationship between HRM system and organizational performance. A total of 1112 usable questionnaires were returned out of 2,400 distributed from the employees in 158 organizations, a response rate of 52.7 percent at the organizational level, and 46.3 percent at the employee level.

Of the total sample organizations, 40.5 percent had 10 to 25 employees (very small), 20.9 percent had 26 to 50 employees (small), and 38.6 percent had more than 50 employees (medium); 21.5 percent, 51.3 percent and 27.2 percent were from the manufacturing, services and trade sectors respectively. In view of that fact that the distribution of small and medium organizations in Greece allocates 22.2 percent in

manufacturing, 42.9 percent in services, and 34.9 percent in trade (MKE, 2015), we believe that the sample organizations are representative of the population.

The distribution of respondents over the organizations was 38.4 percent from the very small, 23.2 percent from the small, and 38.4 percent from the medium. Of the total sample of respondents, 52.3 percent were male, and 47.7 percent were female; 65.6 percent had a university degree; 89.0 percent were full-time, and 11.0 percent part-time employed. Respondent's average age was 38.40 years old, their average seniority was 10.56 years; and with respect to their distribution, 18.3 percent of the respondents were senior managers (i.e., the heads of the Finance/HRM/Personnel Department), 22.8 percent were middle managers (i.e., line managers), and 58.9 percent belonged to the other category (i.e., individual employees not supervising other employees). According to the sample protocol, the individuals who were administering sampling were confirming that in each firm there were responses from all three levels of employees (i.e., senior managers, line managers and staff), for improving the reliability of measures (Gerhart et al., 2000). In particular, the average distribution of respondents per firm was 1.28 for senior managers, 1.61 for line managers, and 4.15 for staff. However, considering that some firms were very small, the owners and their assistants were in place of senior managers and line managers. Additionally, the minimum and maximum number of respondents among organizations ranged from 1 to 2 for managers, from 1 to 5 for line managers, from 1 to 16 for staff, and there were 18 organizations where there was one respondent from each position.

Measures

Unless indicated otherwise, we used a five-point scale ranging from 1=very little to 5=very much, or from 1=strongly disagree to 5=strongly agree. For the construction of second order factors used in estimation, confirmatory factor analysis (CFA) indicated

good data fit indices for all constructs. Having organized the database such that HRM content, HR strength, and organizational performance questions were answered by senior managers, line manager HR implementation questions were answered by middle managers, and positively and negatively oriented employee HR attribution questions were answered by employees, we controlled only for *organizational variables* of sector (1=manufacturing, 2=services, 3=trade), and size (1=up to 25, 2=26–50, more than 50 employees).

HRM content: This construct is based on the works of Jensen *et al.* (2013), Kroon *et al.* (2009), Patel *et al.* (2013) and Prieto and Santana (2012). It was measured along the five dimensions of *staffing* (α=.860), comprised of 4-items; *training and development* (α=.894), comprised of 7-items; *compensation* (α=.918), comprised of 4-items; *performance appraisal* (α=.812), comprised of 5-items; and *participation and communication* (α=.854), comprised of 11-items.

HR strength: This construct was developed by Delmotte *et al.* (2012) and measured along the dimensions of *distinctiveness* (α=.921), comprised of 13-items, which were measured along the sub-dimensions of visibility, understandability, legitimacy and relevance; *consistency* (α=.898), comprised of 11-items, which were measured along the sub-dimensions of instrumentality, validity and consistency of HR messages; and *consensus* (α=.876), comprised of 16-items, which were measured along the sub-dimensions of agreement among message senders, distributive justice, procedural justice and interactional justice.

Line management HR implementation: This construct was developed by Bos-Nehles (2010) and measured along the dimensions of *internally oriented characteristics*, which were measured along the sub-dimensions of *desire* for performing HR responsibilities and tasks (α=.808), comprised of 15-items, and *competencies* (α=.676), comprised of

8-items; and *externally oriented characteristics*, which were measured along the dimensions of *support* (α=.847), comprised of 6-items, and *policies and procedures* (α=.758), comprised of 9-items.

Commitment oriented employee HR attributions: This construct was developed by Nishii *et al.* (2008) and measured along the dimensions of *quality enhancement* (α=.880) and *employee well-being* (α=.904) comprised of 5-items each, reflecting the five functional areas of HPWS. Respondents were asked to show the extent to which the functional areas of HPWS were used in order to form their quality enhancement and employee well-being HR attributions.

Control oriented employee HR attributions: This construct was also developed by Nishii *et al.* (2008) and measured along the dimensions of *cost reduction* (α=.883) HR attributions and *exploiting employees* (α=.877) HR attributions, comprised of 5-items each, reflecting the five functional areas of HPWS. Respondents were asked to show the extent to which the five functional areas of HPWS were used in order to form their cost reduction and exploiting employees HR attributions.

Organizational performance: Following Delaney and Huselid (1996), this construct comprised of 6-items and was measured along the three dimensions of *productivity* (α=0.729), *growth* (α=0.775), and *creativity* (α=0.753).

Statistical analysis

Considering the hierarchical nature of our data, with employees nested within organizations, we adopted multilevel structural equation modelling (MSEM) via Mplus (Muthen and Muthen, 2014) in testing our multilevel model (MLM).

RESULTS

Data properties

Table 1 presents means, standard deviations, consistency and reliability indices and correlation coefficients of all the constructs involved in estimation. The average variances extracted (AVE) values are higher than 0.50, indicating acceptable survey instrument construct validity. Since all scores exceed 0.70, the construct composite reliability (CR) is acceptable. Also, given the correlation coefficients are smaller than the square root of each factor's AVE, construct discriminant validity was acceptable (see Hair *et al.,* 2010). Finally, with regard to the major initiating construct of the study, the mean value and the standard deviation of HRM is 3.640 (±.718) for senior managers, 3.572 (±.642) for middle managers, and 3.591 (±.677) for other employees.

INSERT TABLE 1 ABOUT HERE

TABLE 1 Means, standard deviations, consistency indices, and correlation coefficients of constructs

The measurement model

In testing the MLM through MSEM, we followed the five steps of analysis proposed by Peccei and Van De Voorde (2016). First, the hypothesized model was tested. The analyses showed acceptable fit for the hypothesized structure (Chi-Square=307.019 df=188, p=.000, Normed-Chi-Square=1.633, RMSEA=.024, CFI=.972, TLI=.959, SRMR-within=.028, SRMR-between=.043). Further, we examined all factor loadings and their squares for evaluating indicator reliability and we conclude that all measures are meaningfully related to their proposed latent dimensions. Then, we compared the fit of the proposed measurement model to an alternative less restrictive model, with all items loading on a single factor. This model was found to fit worse than the hypothesized model (Chi-Square=1940.490 df=218, p=.000, Normed-Chi-Square=8.901, RMSEA=.084, CFI=.590, TLI=.488, SRMR-within=.120, SRMR-between=.105), supporting the proposed factor structure of the constructs used in this

study. Additionally, comparing the results of these two MCFA (i.e. Δchi-square=1633.4, Δdf=30, Δratio=Δchi-square/Δdf=54.447), we conclude that the latent factors represent distinct constructs and that common method bias is limited because the Δratio=54.447 is much larger that the critical value of 3.84 per degree of freedom (see Brown, 2015).

Additionally, the results of the CFA separately for the different actors in the dataset supported an acceptable hypothesized cross-actors homology (Kozlowski and Klein, 2000), as it is indicated in the following CFA results: Senior managers (n=204) [Normed-Chi-Square=2.394, RMSEA=.083, CFI=.938, TLI=.919, RMR=.027]; Line managers (n=253) [Normed-Chi-Square=2.647, RMSEA=.081, CFI=.944, TLI=.927, RMR=.025]; Employees (n=655) [Normed-Chi-Square=7.316, RMSEA=.098, CFI=.914, TLI=.887, RMR=.025].

Structural model

With respect to step 2, in presenting the multilevel operational model in the literature review and hypotheses development section, we explained all the proposed cross-level links between initiating, mediator and outcome variables with reference to attribution and social exchange theories for accounting the downward and upward effects in multilevel mediation models of the HRM system – organizational performance relationship. Further, considering the multilevel mediation nature of our model we hypothesized cross-level homology (Kozlowski and Klein, 2000).

With respect to step 3, the intra-correlation coefficients ICC1 found to range between .469 (for cost reduction) and .768 (for externally oriented line manager HR implementation). Because these values are larger than .10, there is sufficient between-unit variation to justify multilevel analysis. The intra-correlation coefficients ICC2 found to range between .849 (for cost reduction) and .961 (for externally oriented line

manager HR implementation). Because these values are larger than .50, the constructs ensure that there is sufficient within-unit agreement to justify aggregation. Similarly, the inter-rater agreement measures $r_{wg}(j)$ found to range between .825 (for externally oriented line manager HR implementation) and .981 (for participation and communication). As these values are larger than 0.70, the constructs ensure that there is also sufficient within-unit agreement to justify aggregation (see Kozlowski and Klein, 2000).

In step 4 we estimated the hypothesized (cross-level) links simultaneously of our integrated model. We estimated two MLM: a fully mediating model (FMM), as it is presented in Figure 1 and a partially mediating model (PMM) by connecting all other direct links. We used organizational controls (sector and size) for the organizational level of the MLM. Considering the fit indices of the FMM (Chi-Square=519.653, df=196, p=.000, Normed-Chi-Square=2.651, RMSEA=.039, CFI=.923, TLI=.893, SRMR-within=.113, SRMR-between=.139) and the PMM (Chi-Square=510.265, df=201, p=.000, Normed Chi-Square=2.539, RMSEA=.037, CFI=.926, TLI=.900, SRMR-within=.090, SRMR-between=.138), we found that FMM is poorer compared to PMM. Moreover, in terms of the information extracted we preferred the PMM because more links were significant. Accordingly, in Figures 2 and 3 we present the MLM estimation results of the PMM for the within and the between dimension of the model where all the used variables were significant. The relatively similar estimated structure of the within and the between dimensions of the model verify partially the homology assumption made in step 2.

INSERT FIGURES 2 and 3 ABOUT HERE

FIGURE 2 The within-level estimation results of the operational model

FIGURE 3 The between-level estimation results of the operational model

Hypotheses testing

In step 5, we examine separately the within-level and between-level effects for separating within- from between-level effects to arrive at unbiased estimates of relevant between effects in the data (Peccei and Van De Voorde, 2016). Comparing the total effect and total indirect effect between constructs, Hypothesis 1 (model 2-2-2) predicted that the relationship between HRM content and line management HR implementation is fully mediated by HR strength for both the within- (total=.342, p=.000; indirect total=.342, p=.000) and the between-level (total=.506, p=.000; indirect total=.506, p=.000) estimation.

Hypothesis 2 is partially supported, considering that HR strength directly and positively predicts quality enhancement and employee well-being HR attributions, H2(b), for the within estimation, and HRM content and line manager HR implementation directly and positively predict quality enhancement and employee well-being employee HR attributions, H2(a) and H2(c), for the between estimation. However, combining these results it is seen that HR strength fully mediates the relationship between HRM content and the commitment oriented employee HR attributions (model 2-2-1) for the within estimation (total=.087, p=.004; indirect total=.087, p=.004), and HR strength and line manager HR attributions serially and partially mediate the relationship between HRM content and the commitment oriented employee HR attributions (model 2-2-2-1) for the between estimation (total=.538, p=.000; indirect total=.251, p=.000).

Hypothesis 3 is partially supported, considering that none of the three dimensions of the HRM system directly and negatively predict cost reduction and employee exploitation HR attributions for the within estimation, and HRM content and

line manager HR implementation directly and negatively predict cost reduction and employee exploitation HR attributions, H3(a) and H3(c), for the between estimation. However, combining these results it is seen that HR strength and line manager HR implementation does not mediate the relationship between HRM content and the control oriented employee HR attributions for the within estimation (total=-.020, p=.496; indirect total=-.020, p=.496), and HR strength and line manager HR attributions serially and partially mediate the relationship between HRM content and the control oriented employee HR attributions (model 2-2-2-1) for the between estimation (total=-.539, p=.000; indirect total=-.133, p=.032).

Hypothesis 4 is fully supported for both within- and between-level results, considering that quality enhancement and employee wellbeing HR attributions, positively predict organizational performance. Finally, Hypothesis 5 is not supported for the within-level results, whilst is supported for the between-level results, considering that cost reduction and employee exploitation negatively predict organizational performance.

Overall, the study supports that HR strength, line manager HR implementation and employee HR attributions positively mediate the relationship between HRM content and organizational performance both for the within- (total=.108, p=.077) and the between-level (total=.334, p=.001) results. This finding indicates that the effects of the quality enhancement and employee well-being HR attributions produce stronger positive impact on organizational performance compared to the negative impact of cost reduction and employee exploitation. Overall, considering the variety of information, augmented by the fact that we can define separate paths within and between organizations, and that the estimates were sensible, we can accept that the model plausibly represents the data (Heck and Thomas, 2009).

Post Hoc Analyses

Furthermore, to corroborate HR strength as a mediator, we ran post hoc analyses to ensure we estimated for moderating influence of HR strength as well. We ran a number of models beginning with HR strength moderating the HRM content -employee HR attributions relationship and line manager implementation moderating the employee HR attributions-organizational performance relationship (Chi-Square=7503.219, df=290, p=.000, Normed-Chi-Square=25.873, RMSEA=.150, CFI=.264, TLI=.050, SRMR-within=.273, SRMR-between=.352), followed by HR strength mediating the HRM content - employee HR attributions relationship and line manager implementation moderating the employee HR attributions - organizational performance relationship (Chi-Square=5592.157, df=262, p=.000, Normed-Chi-Square=21.344, RMSEA=.135, CFI=.343, TLI=.147, SRMR-within=.220, SRMR-between=.307). Both of these competing models yielded non-significant interaction results. We also ran a model where HR strength moderated the HRM content-employee HR attributions relationship and employee HR attributions mediated the HR strength-organizational performance and line manager implementation mediated the HR strength-organizational performance relationship (Chi-Square=3034, df=228, p=.000, Normed-Chi-Square=13.308, RMSEA=.105, CFI=.532, TLI=.371, SRMR-within=.192, SRMR-between=.230). Again, the results indicated that the relevant standardized interaction coefficients were highly insignificant suggesting HR strength to be a mediator rather than a moderator.

DISCUSSION AND CONTRIBUTIONS

Theoretical and research contributions

This paper serially joins three mediating mechanisms (i.e. HRM content – HR strength – line management HR implementation; HR strength – line management HR

implementation – employee HR attributions; line management HR implementation – employee HR attributions – organizational performance) in the relationship between HRM content and organizational performance. Through this study we make several important contributions to HR attribution related issues. First, by bringing together these three mediating mechanisms we are systematically illuminating the 'black box' between the two endpoints of HRM content and organizational performance (Katou *et al.*, 2014; Ostroff and Bowen, 2016; Sanders *et al.*, 2014; Sanders and Yang, 2016). This is because based on attribution theory HR strength (Bowen and Ostroff, 2004) constitutes the process through which shared perceptions of what HRM content convey develop common and not idiosyncratic employee HR attributions. Based on social interaction theory, line manager HR implementation process of HR practices is considered to reflect the obligation that line managers reciprocate for any support they receive from the organization. Additionally, the relationship between line managers and employees reflect a two-way exchange partnership (Bos-Nehles and Meijerink (2018) where both partners try to contribute towards implementing HR practices according to their perceptions and attributions respectively. Moreover, the formation of positive employee attributions will have a positive influence of employee attitudes and behaviours which in turn will improve organizational performance (Nishii *et al.*, 2008; Van De Voorde and Beijer, 2015).

Second, by amalgamating these three mediating mechanisms we took advantage of how information may be transferred from one mediating mechanism to another. This is important as there might be a spill-over effect from manager, to line manager and then to employees' attributions (Hewett et al., 2018). This can also be seen as a transmission process where the relationship between senior managers and employees is mediated by line managers (given they are executors/implementors of

policies/practices). While direct contagion between line manager HR implementation and employee HR attributions is plausible (as it has been shown between organizations), the higher quality of this relationship is likely to facilitate line managers' implementation quality partnership with employees (Story *et al.,* 2013) based possibly on mutual respect, trust and obligation.

Third, by treating HR strength as a mediating construct, taking into considerations the initial suggestion of Bowen and Ostroff (2004), it improves understanding on how employee HR attributions are related to HR strength characteristics and line management implementation attributes. For example, considering the between organizations relationships, we see that the 'business process' mediating mechanism (i.e., HR strength - line management HR implementation – commitment oriented employee HR attributions) constitutes a stronger predictor of outcomes than the 'personal process' mediating mechanism (i.e., HR strength - line management HR implementation – control oriented employee HR attributions). We argue that this is true because the 'business process' mechanism reflects more to tangible factors such as employee well-being, than the 'personal process' mechanism that is concentrated more to employee exploitation factors. These processes may also be seen as being depending on the osmosis between line managers and employees where line management HR implementation is closely related to positively oriented, than to control oriented employee HR attributions.

Fourth, our study improves the understanding with respect to the link between employee HR attributions and organizational performance. We argue that the positively-oriented employee HR attributions (i.e., quality enhancement and employee well-being) have a stronger nature in influencing organizational performance, whilst the negatively-oriented employee HR attributions (i.e., cost reduction and exploiting

employees) have a weaker nature in influencing organizational performance. Based on the social exchange theory, this argument supports the view that the nature of employee HR attributions is very important in influencing organizational performance (Van De Voorde and Beijer, 2015). In fact, we argue that the development of quality enhancement and employee well-being HR attributions is reciprocated by positive employee attitudes and behaviours, which in turn will improve organizational performance. Contrary to this, the perceptions of employees that the HRM system has been developed, communicated and implemented for intensifying their work and exploiting them, is reciprocated by negative employee attitudes and behaviours. The overall impact on organizational performance depends on the strength of these opposing employee attitudes and behaviours.

Finally, from a purely technical point of view and taking into consideration the hierarchical nature of our data, we adopted multilevel structural equation modelling via Mplus in testing the hypotheses. We followed this research strategy for avoiding limitations of the traditional estimation techniques (Preacher *et al.*, 2011). As such, the analytical method followed verifies the five steps of SEM analysis proposed by Peccei and Van De Voorde (2016).

Practical implications

Our study demonstrates that in the path from HR practices to organizational performance there are three stakeholders – senior managers as developers and communicators of HR practices, line managers as implementers of HR practices, and employees as end-users of HR practices. The general message of the study is that by improving the exchange relationships between these three actors pays off (Bos-Nehles and Meijerink, 2018) in the sense that it helps to develop positive employee HR attributions which in turn will help in improving organizational performance. Starting

from senior managers, they should know whether the HR practices they develop send the expected messages to line managers and employees. In particular, in the study, the mean values of the HRM content and HR strength look high. However, these mean values do not significantly differ from the mean values of similar constructs in other studies, such as those of Bos-Nehles et al. (2010), Katou et al. (2014), and Nishii et al. (2008). But, these high values may not be enough to prove that the messages that HRM system is sending to employees are the expected ones. This means that senior managers should understand how the HRM system must become stronger. In practical terms, to achieve this they should plan a communication process for delivering the larger HRM message that utilizes three attribution features (Ostroff and Bowen, 2016, p. 197) of distinctiveness, consistency, and consensus.

The HRM system has no value unless it is implemented. Line managers are the implementers of the HRM system and constitute the mediating link between senior managers and employees, by conveying through implementation of HR practices messages to employees. If there is misalignment between senior managers and line managers in interpreting HR practices, then the intensions of line managers are not necessarily translated as expected (Hewett *et al.,* 2018). In such cases both senior managers and line managers should investigate the reasons for this misalignment. For example, senior managers should explore whether line managers have the necessary competencies for implementing HR practices (i.e., internally oriented line manager characteristics), and line managers should report to senior managers whether support and policies and procedures of the HRM department are adequate (i.e., externally oriented line manager characteristics).

Line managers and employees generally work closely. Therefore, this partnership develops employees HR attributions, which apart from HR strength, are

reflected in line manager implementation activities. This reflection is important because organizational performance depends on employee HR attributions. For example, we found that the impact on organizational performance of quality enhancement and employee well-being is positive, whilst the impact on organizational performance of cost reduction and employee exploitation is negative. The net effect on organizational performance of the combination of these two impacts may depend on the strength of these two opposing employee HR attributions. Accordingly, line managers should be trained in advancing to employees the scope and the benefits of HR practices to strengthen the commitment-oriented employee HR attributions and weaken the control-oriented employee HR attributions. All in all, senior managers and line managers should be trained in how to structure conversations with employees about the meaning of HR practices to ensure that this meaning is the expected, which in turn will strengthen positive HR attributions (Hewett *et al.,* 2018).

Limitations

This study has some limitations. First, the data were collected using a questionnaire at a single point in time. As a result, the study does not allow for dynamic causal inferences. Second, all variables were self-reported, giving rise to concerns about common method bias. Although data were collected using three actors and multiple respondents, this does not necessarily completely eliminate this source of bias. However, the use of multilevel analysis increased the unbiased nature of our results (Lai et al., 2013). Third, all variables were reported in retrospect, raising measurement concerns about recall bias. Fourth, the organizational sample size (N=158) is rather small for studying such a large and complex model.

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TABLE 1 Means, standard deviations, consistency indices, and correlation coefficients of constructs

Constructs	Means (Standard deviations)	Consistency and reliability indices		Correlation coefficients					
		Cronbah's alphas	Composite reliability	HRM content	HR strength	Line manager HR implementation	Commitment oriented employee HR attributions	Control oriented employee HR attributions	Organizational performance
HRM Content	3.596 (0.676)	.856	.906	[.659]					
HR strength	3.640 (0.737	.911	.945	.761	[.851]				
Line manager HR implementation	3.746 (0.539)	.792	.908	.427	.532	[.831]			
Commitment oriented employee HR attributions	3.603 (0.755)	.914	.959	.346	.296	.361	[.921]		
Control oriented employee HR attributions	2.600 (0.728)	.821	.918	-.234	-.208	-.190	-.564	[.848]	
Organizational performance	4.147 (0.639)	.858	.914	.652	.639	.404	.336	-.233	[.779]

Note: All correlation coefficients are significant at p=0.01
Figures in brackets indicate Average Variance Extracted (AVE)

FIGURE 1 The operational model

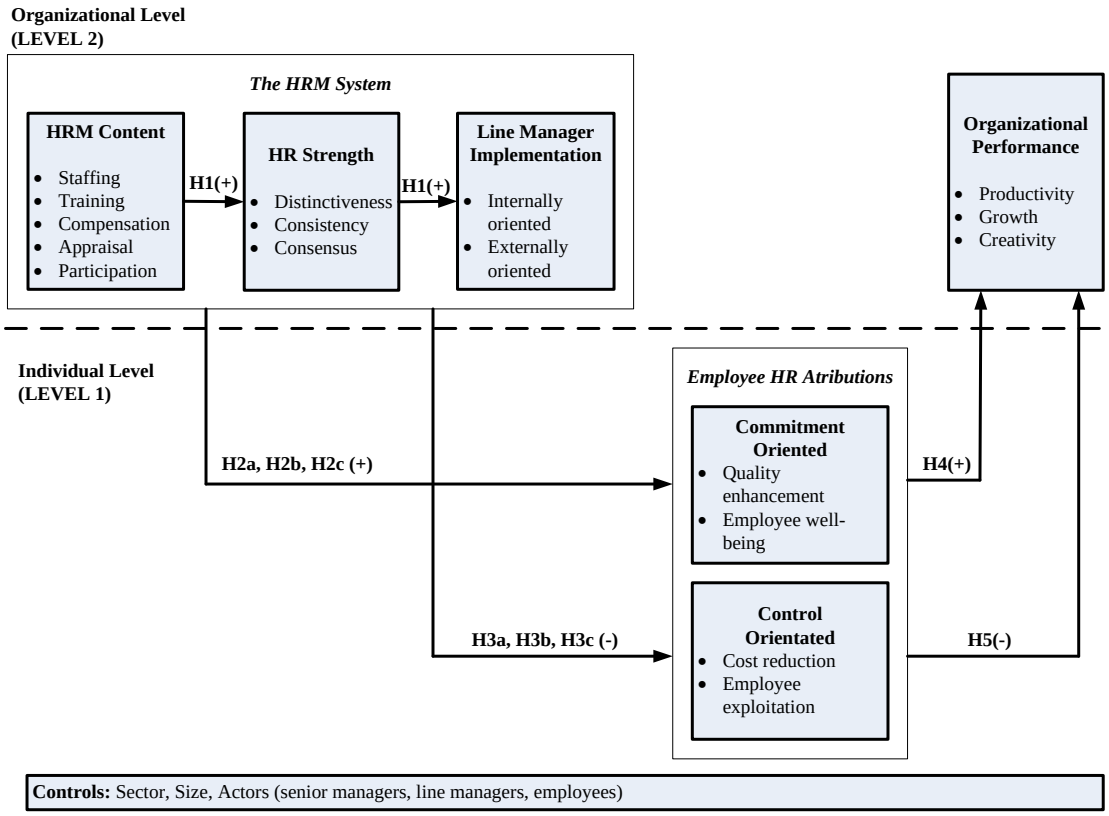

FIGURE 2 The within-level estimation results of the operational model

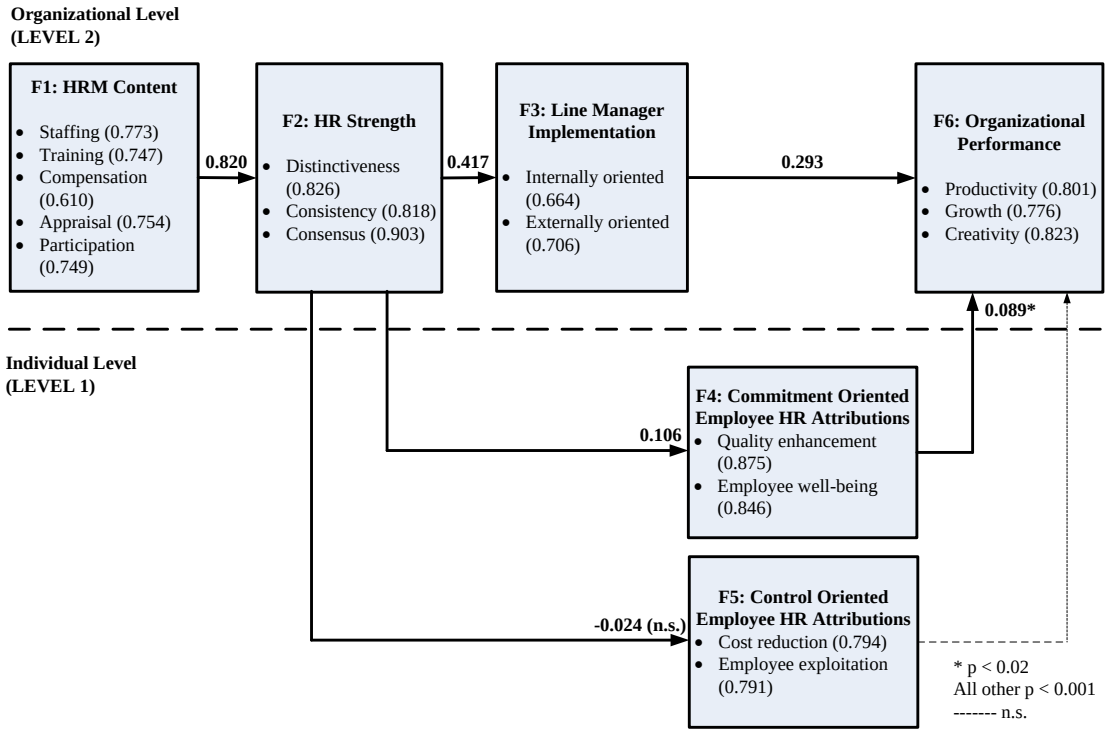
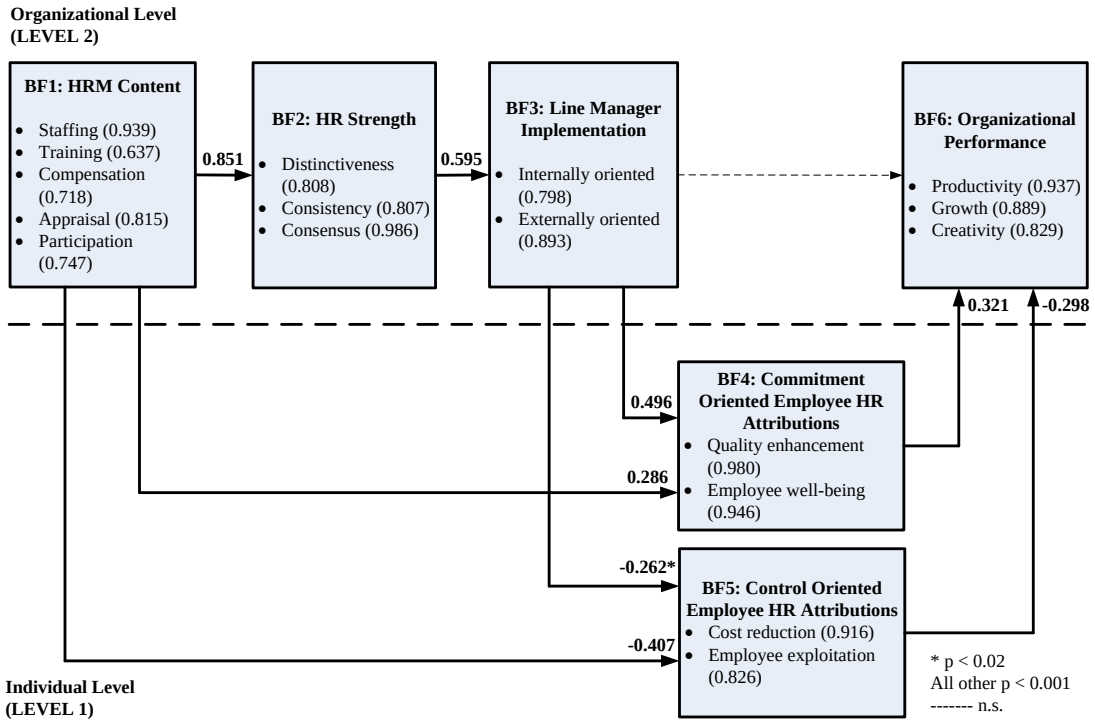
FIGURE 3 The between-level estimation results of the operational model