Performance management systems, innovative work behavior and the role of transformational leadership: an experimental approach

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Abstract
Purpose – Despite increasing attention to employee development, past research has mostly studied performance management systems (PMSs) in relation to task-related behaviors compared to proactive behaviors. Accordingly, this study addresses the relation between PMSs and innovative work behavior (IWB).

Design/methodology/approach – Building on signaling theory and human resource management (HRM) system strength research, the authors designed a factorial survey experiment (n = 444) to examine whether PMSs stimulate IWB under different configurations of distinctiveness, consistency and consensus, as well as in the presence of transformational leadership.

Findings – Results show that only strong PMSs foster IWB (high distinctiveness, high consistency and high consensus [HHH]). Additional analyses reveal that the individual meta-features of PMS consistency and consensus can also stimulate innovation. Transformational leadership reinforced the relationship between PMS consensus and IWB relationship, but not the relationships of the other meta-features.

Practical implications – The study’s findings suggest that organizations wishing to unlock employees’ innovative potential should design PMSs that are visible, comprehensible and relevant. To further reap the innovative gains of employees, organizations could also invest in the coherent and fair application of planning, feedback and evaluation throughout the organization and ensure organizational stakeholders agree on the approach to PMSs.

Originality/value – The study’s findings show that PMS can also inspire proactivity in employees, in the form of IWB and suggest that particular leadership behaviors can complement certain PMS meta-features, and simultaneously also compete with PMS strength, suggesting the whole (i.e. PMS strength) is more than the sum of the parts (i.e. PMS meta-features).

Keywords Innovative work behavior, Performance management system, Transformational leadership, Signaling theory

Paper type Research paper

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Introduction
Challenges like digitalization, financial crises and pandemics render innovation essential for organizational survival. Since employees are an important source of innovation, the question becomes how to stimulate innovative work behavior (IWB), being employees’ proactive behavior in creating and applying novel ideas at work (Prieto and Pérez-Santana, 2014; Mustafa et al., 2021). Research on human resource management (HRM) and IWB has highlighted a variety of HRM arrangements that benefit innovation (Bos-Nehles et al., 2017a), like high-performance work systems (HPWSs; Do et al., 2019) or reward systems (Hussain et al., 2019). Yet, while some studies have focused on innovation in relation to individual practices of performance management systems (PMSs), like performance appraisal (e.g. Botelho, 2020; Curzi et al., 2019; Singh et al., 2021) or how to innovate PMSs themselves (e.g. Anh Vu et al., 2022), few studies have addressed the relationship between PMSs and IWB (Audenaert et al., 2019). This is problematic, because PMSs constitute a fundamental cornerstone of HRM (Albrecht et al., 2015; DeNisi and Murphy, 2017).

PMSs refer to a go-together of planning, feedback and evaluation activities that “give[s] employees the means, motivation, and opportunity to improve firm-level performance” (Schleicher et al., 2018, p. 2211). Despite their importance, PMSs have so far mainly been studied in relation to task-related behaviors (Berdicchia et al., 2022). For long time, the idea that PMSs can also stimulate proactive behaviors, which by definition are self-initiated behaviors, has been dismissed over criticisms that PMSs are often reduced to administrative chores, disconnected from day-to-day activities and with little motivational value (Mertens et al., 2021; Murphy, 2020). While recent insights suggest that some PMS activities do have proactive potential, few studies have made the case for when and how PMSs foster proactive behaviors, like IWB (Berdicchia et al., 2022; Van Veldhoven et al., 2017). Addressing this gap is important given that PMSs are gradually evolving from a results-oriented focus towards a development-oriented focus concerned with a more diverse range of positive employee outcomes (Aguinis et al., 2012; Bizri et al., 2021; Kubiak, 2022; Van Veldhoven et al., 2017).

This paper examines the relationship between PMSs and IWB. In doing, we make two main contributions by arguing that fundamental to understanding this relationship are (1) employees’ perceptions (Van Waeyenberg et al., 2022) and (2) leaders’ involvement in the implementation of PMSs (Lee et al., 2020). First, HRM-innovation research has traditionally devoted little attention to employee perceptions, which are nonetheless fundamental to truly grasp how employees experience and act upon HRM (Bos-Nehles and Veenendaal, 2019). The present paper incorporates employees’ perceptions by combining signaling theory (Connelly et al., 2011) with the HRM system strength concept (Bowen and Ostroff, 2004). Signaling theory is increasingly valued as a theoretical lens to comprehend how people react to HRM (Guest et al., 2021) and PMSs in extension (Bauwens et al., 2019; Biron et al., 2011). Signaling theory states that HRM instruments, like PMSs, reflect organizational signals about values, expectations and rewards that employees use as a basis for their behavior. The concept of HRM strength states that such signals are easier to interpret when HRM instruments are distinct (i.e. visible, understandable, relevant and backed by legitimate authority), consistent (i.e. instrumental, valid and coherent messages) and consensual (i.e. fair and agreed upon) (Presbitero et al., 2022). The extent to which PMS displays these three “meta-features” of HRM system strength (i.e. distinctiveness, consistency, consensus) is referred to in PMS research as “PMS strength” (cf. Van Thielen et al., 2022; Van Waeyenberg et al., 2022). We propose that PMS strength influences the extent to which employees will align their behavior with the signals sent out by PMSs and that this also applies for proactive behaviors, like IWB. Importantly, while past research asserts that all three meta-features are required for employees to align their behavior, our study also examines whether different configurations of PMS strength (meta-features) could be equally effective in stimulating IWB. In doing, we contribute to recent configurational developments in the HRM system strength literature.
(cf. Aksoy and Bayazit, 2014; Bos-Nehles et al., 2021; Sanders et al., 2021) and to a better understanding of how these meta-features are related to one another.

Second, little is known about the boundary conditions of HRM system strength (Presbitero et al., 2022). Despite a growing body of research on HRM system strength that has committed itself to PMSs, the same is true for PMS strength (e.g. Van Thielen et al., 2022; Van Waeyenberg et al., 2022). Indeed, well-designed PMSs alone will not always lead to the desired behaviors. There is an increased understanding that the outcomes of PMSs depend on the leadership of line managers, responsible for their implementation (Lee et al., 2020). Accordingly, we examine whether leadership influences the extent to which PMS strength motivates employees to engage in IWB. We focus on transformational leadership, since past research demonstrates that its combination of vision, support and intellectual stimulation not only interacts with PMSs (Campbell et al., 2016), but also inspires employees to go beyond requirements (Audenaert et al., 2019).

In making these contributions, we adopt an experimental approach in which we manipulate PMS strength configurations through different experimental scenarios. This methodological innovation responds to recent calls in the field for more credible research designs (Sanders et al., 2021). We add to the emerging body of experimental knowledge on HRM perceptions (e.g. Batistić and Poell, 2022; Flinchbaugh et al., 2020; Meier-Barthold et al., 2023; Sanders and Yang, 2016) and to that of PMS perceptions specifically (Van Thielen et al., 2022), which could aid scholars to establish causal links and combat endogeneity problems in PMS and HRM system strength research.

A signaling approach to performance management system strength and innovative work behavior

PMSs are a go-together of planning, feedback and evaluation activities that help employees to attain performance expectations (Kubiak, 2022; Schleicher et al., 2018). Because those performance expectations are assumed to benefit firm performance, PMS research has mostly focused on task-related behaviors (Berdicchia et al., 2022). However, organizational PMSs are gradually abandoning their narrow result-oriented focus with an emphasis on compliance in favor of a development-oriented focus. The latter entails focusing on a broader behavioral repertoire that also includes more proactive behaviors, like IWB (Aguinis et al., 2012; Van Veldhoven et al., 2017; Kubiak, 2022). Accordingly, this study examines the relationship between PMSs and IWB, which we define as employees’ proactive behavior in creating and applying novel ideas at work. We argue that the relationship between PMSs and IWB can be explained through a combination of signaling theory (Connelly et al., 2011) and the concept of HRM system strength (Bowen and Ostroff, 2004).

Signaling theory is concerned with communication in organizations (Connelly et al., 2011). It considers HRM arrangements as ways in which organizations convey values, expectations and rewards to employees, who are assumed to align their behavior accordingly. In doing, this theory refines some of the mechanisms behind attributional approaches like HRM system strength (Bowen and Ostroff, 2004) that “address the quality and strength of the [HRM] signal” (Guest et al., 2021, p. 798). Following the logic of signaling theory, PMSs are used by organizations to alter employee attitudes and behaviors. Through planning, feedback and evaluation, PMSs communicate expectations that employees interpret as signals to which they need to commit their behavior (Biron et al., 2011; Bednall et al., 2022).

Employees’ interpretation of these signals does not only motivate task-related behaviors and performances, but can also inspire proactive ones, like IWB. According to Parker et al. (2010), employees engage in proactive behavior when they believe they can successfully engage in such behavior (“can do motivation”), see the value of such behavior (“reason to motivation”) and/or experience positive affective states (“energized to” motivation). A recent study by Berdicchia et al. (2022) shows that PMSs trigger “can do” and “reason to” motivations. From a signaling theory perspective, this implies that PMSs could signal...
expectations that help employees to see the value and success of IWB, ultimately motivating them to engage in such behavior. However, the extent to which employees will act upon these signals depends on the strength of these signals (Guest et al., 2021).

When PMSs are distinct, consistent and reflect consensus, they send strong signals to employees. PMSs are distinct when employees have a clear idea about PMS practices (i.e. planning, feedback and evaluation). PMSs are consistent when PMS practices are applied coherently over time, and they reflect consensus when PMS practices are fair and based on agreement between decision-makers (Van Waeyenberg et al., 2022). Strong PMSs could stimulate IWB through “can do” and “reason to” motivations. Employees might better value IWB (“reason to motivation”) when they have a clear understanding of PMS practices, which might signal the desired direction for innovation in the organization and inform employees on where to commit their innovative ideas (Aksoy and Bayazit, 2014). When PMSs are consistent, the underlying signals are repeated and therefore reinforced, increasing the chance that employees will pick up these signals and commit their IWB accordingly (Audenaert et al., 2019). Finally, employees might be more convinced about the success of IWB (“can do motivation”) when they see PMS practices are broadly carried within the organization, because such consensual HRM arrangements offer more psychological security for IWB (Jia et al., 2020). Based on the theoretical reasoning and empirical support for a link between IWB and HRM system strength on the one hand (Bednall et al., 2022; Sanders and Yang, 2016) and PMSs on the other hand (Audenaert et al., 2019; Curzi et al., 2019), we assert that strong PMSs are better capable of signaling organizational expectations, which serve as “can do” and “reason to” motivators for employees to engage in IWB.

H1a. Employee perceptions of PMS strength are positively and significantly related to IWB.

Despite the proposed positive relationship between PMS strength and IWB, there is currently little support to disregard independent and interdependent effects for the three HRM strength meta-features (i.e. distinctiveness, consistency, consensus) (Bos-Nehles et al., 2021; Ostroff and Bowen, 2016; Sanders et al., 2021). Some PMSs might lack certain meta-features but still effectively signal expectations and instil desired behavior in employees. The question then becomes which combinations or “configurations” of meta-features are indispensable for PMSs to remain strong signalers. Beyond a combination with high distinctiveness, high consistency and high consensus (HHH) there are seven alternative configurations: HHL, HLH, HLL, LHL, LLH and LHH (Sanders and Yang, 2016). While Ostroff and Bowen (2016) consider consensus as the most important meta-feature, we argue that especially configurations with high PMS distinctiveness (HHL, HLH, HLL) and consistency (HHL, LHL, LHH) stimulate IWB. Since IWB is self-initiated, it is particularly important to foster “reason to” motivations (Parker et al., 2010). Previously we argued that a clear understanding (distinctiveness) and coherent application (consistency) of PMSs might inspire such motivation by signaling the desired direction for innovation and increasing the chance that such signals are picked up by employees (Aksoy and Bayazit, 2014; Audenaert et al., 2019). This is supported by studies showing that PMS distinctiveness and consistency not only have more predictive value compared to PMS consensus (Van Waeyenberg and Decramer, 2018), but also are the only meta-features that can stimulate employee outcomes in isolation (Bos-Nehles et al., 2021).

H1b. Employee perceptions of PMS strength configurations high in distinctiveness and consistency are positively and significantly related to IWB.

The moderating role of transformational leadership
Line managers also send signals that can “amplify” those sent out by PMSs and increase the chance that employees will act upon signaled expectations (Bauwens et al., 2019). Line managers
can do this in several ways. For example, through verbal clarification, role modeling and positive reinforcement of desired behaviors or by engaging in a dialogue with employees over their comprehension of signaled expectations (Nishii and Paluch, 2018). A particular leadership approach that captures such line manager behaviors, but also stimulates employees to go beyond job requirements is transformational leadership (Kou et al., 2022).

Transformational leaders are high-committed leaders that motivate employees to go beyond requirements through role modeling, intellectual stimulation, appealing to a collective identity and showing consideration for employees’ personal needs (Bass and Riggio, 2006). Because of these characteristics, we argue that transformational leaders increase the likelihood that employees will respond in a proactive, innovative manner to the signaled expectations of strong PMSs. First, transformational leaders can strengthen “reason to” motivations (Hannah et al., 2016). By connecting signaled expectations to a collective identity, transformational leaders invite employees to internalize those expectations and transcend their self-interest. This increases the chance that employees will engage in proactive behaviors that benefit the collective, such as IWB (Campbell et al., 2016; Yan and Hu, 2022). Second, transformational leaders can reinforce “can do” motivations (Hannah et al., 2016). By showing more personal concern for employees (e.g. more frequent feedback), offering behavioral examples through role-modeling or by sparking creativity through intellectual stimulation, transformational leaders might strengthen employees’ confidence to respond with IWB to the signaled expectations (Pereira and Gomes, 2012). On an empirical level, such arguments are supported by observations that transformational leaders reinforce strong HRM systems (Pereira and Gomes, 2012; Yan and Hu, 2022) and stimulate the proactive outcomes of PMSs (Campbell et al., 2016). Hence, we advance the following hypothesis.

\[ H2. \] Transformational leadership moderates the relationship between employee perceptions of PMS strength and IWB, in such a way that the relationship is stronger under high transformational leadership.

Figure 1 provides a graphical summary of the hypothesized relationships.

**Materials and methods**

**Sample**

Data collection took place through Prolific Academic (www.prolific.co). We recruited 444 participants for a small fee (£9/hr). All participants were employed and reported to a supervisor. Participants worked in a variety of industries like business services (19.60%),...
retail (13.50%) healthcare (10.10%), Government (13.90%) and Production (11.70%). The mean age of the respondents was 28.91 years (SD = 8.56). The majority were male (52.30%) and possessed at least a bachelor’s degree (46.40%).

Procedure
Participants completed an online survey (Qualtrics) with validated scales and a descriptive experimental scenario. In the first part of the survey, participants completed the control variables and rated their supervisor on transformational leadership. In the second part of the survey, participants were presented with an experimental scenario in which we manipulated the three PMS strength meta-features (distinctiveness, consistency, consensus) as either high or low, resulting in eight different versions of the scenario (2 × 2 × 2) that were randomly assigned to respondents. After the scenario, we conducted a manipulation check. Finally, we asked employees to what extent they would engage in IWB if they and their supervisor found themselves in the presented scenario.

Measures
Transformational leadership. We used the scale by Carless et al. (2000), rated on a five-point scale (1 = strongly disagree; 5 = strongly agree). A sample item is “My supervisor communicates a clear and positive vision of the future.” Cronbach’s alpha was 0.91.

PMS strength manipulations. PMS strength scenarios were developed based on prevailing measures of PMS strength (e.g. Van Waeyenberg and Decramer, 2018; Van Waeyenberg et al., 2022). The scenarios describe a situation in which employees go through a series of planning, feedback and evaluation activities with their supervisor. This operationalization of PMSs aligns with earlier definitions that have considered PMSs as (a) a go-together of these specific activities (e.g. Biron et al., 2011; Schleicher et al., 2018), mainly (b) executed by the employees’ supervisor (Lee et al., 2020):

Imagine you find yourself in the following situation. At the beginning of the month, you have a meeting with your supervisor. During this meeting, your supervisor clarifies (1) what is expected of you this month, (2) when you will receive feedback and (3) based on which criteria your success will be evaluated.

In the first paragraph, participants read the distinctiveness manipulation. The concept of HRM strength (Bowen and Ostroff, 2004) states that HRM arrangements, like PMSs are distinct when they are visible, understandable, relevant and backed by legitimate authority (Van Waeyenberg et al., 2022). Accordingly, we manipulated the extent to which PMS activities were clear and understandable (visible/understandable), an appropriate HRM arrangement (relevance) and supported by the supervisor’s expertise and experience (legitimacy):

Based your observations, your impression of this meeting is that your supervisor’s explanation is [H: clear and understandable/L: unclear and confusing]. [L: Nonetheless, agreements are made]. You think your supervisor’s approach to goal setting, feedback and evaluation will [H: enable/L: hinder] you to deliver upon your expectations and grow in your role. You also believe your supervisor has [H: sufficient/L: insufficient] expertise and experience to oversee this process.

In the second paragraph, participants read the consistency and consensus manipulation. The concept of HRM strength (Bowen and Ostroff, 2004) states that HRM arrangements, like PMSs, are consistent when they are instrumental and provide coherent/valid messages. PMSs are consensual when they are fair and can rely on organizational agreement (Van Waeyenberg et al., 2022). Accordingly, we manipulated the extent to which PMS activities aligned with earlier communications and agreements (coherent messages/valid), could be attributed as a cause for the outcomes (instrumental), were approached similarly by others in the organization (agreement) and respected moral righteousness (fairness):

Furthermore, you learn that other supervisors in your organization use [H: the same approach/L: very different approaches] to managing employees.
That month you and your supervisor meet weekly. Both the interim feedback and final evaluation you receive [H: align/L: conflict] with the earlier communication and agreements made with your supervisor. At the end of the month, you perform exceptionally well. You attribute this achievement mainly to [H: your supervisor’s approach to goal setting, feedback, and evaluation/L: yourself]. Your overall feeling is that you [H: get/L: do not get] the recognition you deserve.

**Manipulation check.** After reading the scenario, participants completed a manipulation check by rating the scenario on a nine-item PMS strength scale adapted from Van Waeyenberg and Decramer (2018), which past research has used to assess PMS strength and its meta-features (1 = strongly disagree; 5 = strongly agree). A sample item is “In the scenario, the supervisor’s approach to goal-setting, feedback and appraisal was accompanied by a clear consistency between words and actions”.

**IWB.** After completing the manipulation check, we asked participants to what extent they would feel motivated to engage in IWB in the subsequent weeks if they found themselves in the displayed scenario with their supervisor. Participants had previously rated their supervisor on transformational leadership, and we instructed them to keep this rating in mind when picturing themselves in the scenario and answering the IWB-related questions. To assess participants’ IWB we used a scale by Bos-Nehles and Veenendaal (2019) which combines the dimensions of opportunity exploration (“paying attention to non-routine issues in your work, department, organization, or the marketplace”), idea generation (“generating original solutions to problems”), championing (“attempting to convince people to support an innovative idea”) and application (“contributing to the implementation of new ideas”). Answers were rated on a five-point scale (1 = to a very small extent; 5 = to a very large extent). Despite these multiple dimensions, confirmatory factor analysis (CFA) determined a one-dimensional IWB scale a good fit to the data ($\chi^2 = 85.07$, df = 40, CFI = 0.99, RMSEA = 0.05), while a four-dimensional IWB scale presented no significant improvement ($\Delta \chi^2 = 6.80$, $\Delta$df = 2, $p = 0.07$). Cronbach’s alpha for the overall scale was 0.93.

**Control variables.** To avoid extraneous variables affecting experimental outcomes, participants were randomly assigned to one of the eight experimental groups. Nevertheless, experimental groups can still differ in composition and affect outcome variables, which necessitates statistical control. Therefore, we controlled for gender (0 = female, 1 = male), age (in years) and education (primary education, secondary education, bachelor, master, PhD). Past research shows that IWB is higher among men (Sanders et al., 2018) and highly educated employees (Sanders and Yang, 2016), but decreases with age (Curzi et al., 2019). We also accounted for sector (0 = private, 1 = public and non-profit) as Bos-Nehles et al. (2017b) make note of significant discrepancies in the HRM-innovation linkage across different sectors.

**Results**

**Manipulation checks**

To test the effectiveness of our experimental manipulation, we compared the PMS strength scores from the manipulation check with PMS strength in the different scenarios through a series of one-way ANOVA’s. The results show that respondents perceived significantly more PMS distinctiveness in high-distinctiveness scenarios ($F(1, 442) = 284.36; p < 0.001$), PMS consistency in high-consistency scenarios ($F(1, 442) = 43.10; p < 0.001$) and PMS consensus in high-consensus scenarios ($F(1, 442) = 72.79; p < 0.001$). Therefore, we conclude our manipulation worked as expected.

**Descriptive statistics and correlations**

Table 1 shows the descriptive statistics and correlations. IWB showed a positive relationship with transformational leadership ($r = 0.25$, $p < 0.01$), the HHH scenario ($r = 0.21$, $p < 0.01$) and the female gender ($r = 0.14$, $p < 0.01$). IWB also showed a negative association with the HLL...
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**Note(s):** *p < 0.05; **p < 0.01; ***p < 0.001; n = 444

**Source(s):** Authors' own work
scenario ($r = -0.19, p < 0.01$). All correlations remained below the threshold of $|0.80|$ and variance inflation factors (VIF) stayed below 7.00 (range 1.20–2.40), indicating no multicollinearity concerns.

Hypothesis tests: PMS strength configurations
Table 2 displays the regression results. We first calculated a model which isolates the effects of the experimental scenarios (model 1), and subsequently added the main effects and control variables (model 2), and finally the interactions (model 3). In the models, we used the LLL-scenario as reference category since this scenario corresponds to the absence of strong PMS activities. In line with H1a, employees reported more IWB in the HHH scenario ($b = 0.40, p < 0.001$). Contrary to H1b, we did not find indications for alternative PMS strength configurations, like those high in distinctiveness and consistency, stimulating IWB. Contrary to H2, transformational leadership did not reinforce IWB in the HHH scenario ($b = -0.09, p = 0.45$), but only moderated the relationship between PMS strength and IWB in the LLH scenario ($b = 0.35, p < 0.05$).

Additional analysis: PMS strength meta-features
While the hypothesis tests did not reveal alternative PMS strength configurations capable of stimulating IWB, authors like Van Waeyenberg et al. (2022) suggest that different PMS “meta-features” might still exhibit a differential impact on PMS outcomes, like IWB. To that end, we conducted an additional analysis in which we recoded the eight PMS strength scenarios into three dummy variables reflecting PMS distinctiveness (1 = high), consistency (1 = high) and consensus (1 = high). Table 3 displays these results. In partial support of H1b, we found that IWB benefits from scenarios high in PMS consistency ($b = 0.18, p < 0.01$) and PMS consensus ($b = 0.24, p < 0.001$), but not from scenarios high in PMS distinctiveness ($b = -0.10, p > 0.05$). In partial support of H2, transformational leadership positively moderated the relationship between PMS consensus and IWB ($b = 0.17, p < 0.05$), but not the relationships of the other two PMS strength meta-features. Figure 2 displays the interaction plot for the relationship between PMS consensus and IWB for high (+1SD) and low (–1SD) transformational leadership. It shows that the relationship between PMS consensus and IWB is stronger when transformational leadership is high.

Discussion
The present study set out to look at employees’ perceptions of PMS strength, IWB and the moderating role of transformational leadership. To investigate these relationships, we employed experimental scenarios embedded in a survey. Three main findings emerged from our research.

First, our study revealed that IWB benefits from PMSs where all meta-features are high (i.e. HHH configurations). This is in line with signaling theory (Connelly et al., 2011) and the traditional view of HRM system strength (Bowen and Ostroff, 2004). When PMS strength is high, PMSs send out stronger signals that increase the chance that (1) employees will pick up these signals and (2) commit their behavior accordingly (Guest et al., 2021). Second, we found that PMS meta-features can have differential relationships with PMS outcomes. While we did not find indications of differential PMS strength configurations as advanced by authors like Aksoy and Bayazit (2014) or Bos-Nehles et al. (2021), participants reported more IWB when confronted with scenarios high in PMS consistency and PMS consensus, but remained indifferent to PMS distinctiveness. This is in line with past research on PMS consistency (e.g. Audenaert et al., 2019; Bauwens et al., 2019; Van Thielen et al., 2018), but runs counter to studies that have found stronger effects for distinctiveness compared to other PMS strength meta-features (e.g. Aksoy and Bayazit, 2014; Van Waeyenberg and Decramer, 2018). A potential explanation is that proactive behaviors, like IWB, benefit from HRM systems that
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Table 2. Regression results for models predicting IWB

**Note(s):** *p < 0.05; **p < 0.01; ***p < 0.00. For the interactions and main effects, the LLL scenario (i.e. absence of PMS strength) serves as reference category; n = 444

**Source(s):** Authors’ own work

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Table 3. Post-hoc regression results for models predicting IWB

**Note(s):** *p < 0.05; **p < 0.01; ***p < 0.00; n = 444

**Source(s):** Authors’ own work
resemble strong commitment configurations (Batistić et al., 2022). PMSs high in consistency and consensus might compare to strong commitment configurations because they stimulate employees’ internalization of organizational expectations through consistent HRM messages, organizational agreement and fairness principles. However, such systems might lack the legitimacy and relevance of PMSs high in distinctiveness to enforce those specific expectations. Consequently, employees will internalize the organizational expectations and engage in IWB to make proactive contributions to organizational goals.

Third, in line with studies that have endorsed leadership as a contingency of PMSs and their outcomes (e.g., Audenaert et al., 2019; Lee et al., 2020), we found that transformational leadership reinforced the relationship between PMS consistency and IWB. However, the same could not be observed for other PMS configurations or meta-features. On the one hand, this suggests that transformational leaders’ charismatic and championing behaviors serve as catalysts for employees to unite behind a common PMS approach. On the other hand, it could also imply that clear, legitimate and fully coherent PMSs might direct employees’ attention away from transformational leaders’ visionary characteristics and, as a result, could leave such leaders little leeway to reinforce the innovative potential of PMSs.

Theoretical implications
This research makes two main theoretical contributions to the literature on HRM and IWB. The first contribution concerns how employees’ perceptions of PMSs relate to IWB. By (a) combining signaling theory (Connelly et al., 2011) with Parker et al.’s (2010) proactive motivation model and by (b) demonstrating that strong PMS inspire IWB, this study provides a theoretical mechanism through which PMSs can inspire proactive behaviors without setting specific proactive goals (cf. Ligon et al., 2012) and move beyond being compliance-oriented systems. That is, strong HRM systems, like PMSs, send signals about organizational values, expectations and rewards. In turn, those signals aid employees in believing they can successfully engage in proactive behavior, in seeing the value of such behavior and/or in feeling energized by the prospect of engaging in such behavior. As such, this study advances the

Figure 2.
Interaction plot for the relation between PMS consistency and IWB for high (+1SD) and low (−1SD) transformational leadership

Source(s): Authors’ own work
emerging literature on PMSs and proactivity (e.g. Berdicchia et al., 2022; Van Veldhoven et al., 2017). Furthermore, by looking at both PMS meta-features (PMS distinctiveness, consistency, consensus) and configurations of such features (HHH, HHL, HLH, HLL, LLL, LHL, LLH, LHH), this study highlights the merits of a strong PMS, as well as the individual meta-features of PMS consistency and consensus. Together, these results show that strong PMSs is more than the sum of its parts. As such, this study extends recent debates in HRM system strength literature (cf. Aksoy and Bayazit, 2014; Bos-Nehles et al., 2021; Sanders et al., 2021) to PMS research.

A second contribution deals with transformational leadership as a boundary condition of PMS strength. This study has taken a signaling theory approach to line managers' transformational leadership because it has considered leadership as an “amplifier” of the signals sent out by PMSs (cf. Bauwens et al., 2019; Lee et al., 2020). By demonstrating that a specific leadership style (i.e. transformational leadership) only reinforces specific meta-features (i.e. PMS consensus) and that the presence of strong PMSs can direct employees’ attention away from particular leader behaviors, this study suggests that specific leadership styles might act as competing mechanisms for PMSs, while other leadership styles might act as complementary mechanisms to PMSs to pursue proactive behaviors like IWB (cf. Audenaert et al., 2019; Campbell et al., 2016). Overall, such findings suggest that PMSs and leaders work together in more complex ways. To untangle this complex interplay, further studies that investigate potential interactions of leadership and PMS characteristics are necessary. In this sense, scholars like Leroy et al. (2018) draw attention to different patterns of “leader-HRM fit”. That is, line manager leadership could not only moderate, but can also predict (i.e. dynamic fit) and mediate the relationship between PMS strength and its outcomes (i.e. enactment). For example, past research shows that PMS strength is predicted by differences in line managers’ ability, motivation and opportunity (Van Waeyenberg and Decramer, 2018). Therefore, it is up to future studies to investigate different types of “leader-PMS fit” to further unravel the leadership styles and behaviors that unlock the proactive, innovative potential of PMSs.

Limitations
This study contains limitations. First, the experimental vignettes did not incorporate transformational leadership and IWB but measured them indirectly via employee reports. This might explain why the results for transformational leadership were rather modest, as some perspective-taking from the side of the participant was required, which uses more cognitive resources. In a similar manner, future experiments could also assess IWB through real-life innovative tasks incorporated into the experimental design (e.g. brainstorm task). Second, our operationalization in specific vignettes focused on individual perceptions of the PMS process (i.e. how PMSs take place). Employees might react differently when PMS content (i.e. specific goals or practices) is also included in the experimental manipulation. This could be, for example, in the form of specific innovation goals (Ligon et al., 2012), through developmental goal-setting that considers employees’ unique talents and strengths (van Woerkom and Kroon, 2020) or through a well-developed feedback culture (Mertens et al., 2021). Employees might react differently to PMSs in a team context, for example by discussing shared goals and possibilities to attain them. As more and more organizations draw on teams and team-based working, it becomes essential for PMSs to not only focus on individual development, but also on team development. This fosters collaboration and prevents internal competition. Therefore, future experimental PMS studies could design scenarios where both PMS process and content are combined, while also considering the multilevel nature of (team) PMS perceptions (Van Thielen et al., 2018).

Implications for policy and practice
Our study conveys three important messages to organizations wishing to unlock their employees’ innovation. First, by linking PMSs to IWB, our study shows that the benefits of
PMSs are not limited to compliance and task performance. Instead, PMSs can also stimulate proactive behaviors, like IWB and therefore also serve more developmental purposes. Second, organization should continue to invest in strong PMSs. Strong PMSs can be achieved by (1) providing planning, feedback and evaluation activities that are visible, comprehensible and relatable to employees and their job (this stimulates IWB by convincing employees of the value and need for such behavior); (2) investing in the coherent application of planning, feedback and evaluation throughout the organization (this ensures the underlying message is reinforced, increasing the chance that employees will pick it up and align their behavior); (3) ensuring fairness and agreement from organizational stakeholders on PMS approaches (this provides employees with psychological safety and a stronger belief in the success of their innovative attempts). Despite assertions that there could be multiple ways in which PMSs can achieve their outcomes, our study found no support for such alternatives. Instead, we highlighted the merits of strong PMSs over their alternatives. This implies that the three points above are not an either-or story, but a full approach to PMS implementation. Finally, organizations should select and develop visionary and charismatic leaders with idealized influence, inspirational motivation, individual consideration and intellectual stimulation. Through role modeling, appealing to a collective identity and increased personal consideration for employees, such leaders enhance the likelihood that employees will respond in an innovative way to the signaled expectations of strong PMSs. Our additional analyses show that this is especially the case when the implementation of PMSs is coherent and enjoys agreement, as clear PMSs might restrain such leaders.

Conclusion
PMSs are reflections of what organizations consider important, which employees use as input to their own behavior. Through a survey with experimental scenarios, this study demonstrated that PMSs represent a source for self-initiated, proactive behaviors, like IWB. While employees also use leader behavior as input, our findings for transformational leadership were mixed, which could suggest that strong PMSs could also provide less leeway for line managers. Overall, this study highlights that PMSs are not merely compliance-oriented HRM arrangements, but that they can also serve as motivators for innovation.

References


An experimental approach


Appendix

**Transformational leadership** (*Carless et al., 2000*)

My supervisor . . .

1. . . . communicates a clear and positive vision of the future.
2. . . . treats staff as individuals, supports and encourages their development.
3. . . . gives encouragement and recognition to staff.
4. . . . fosters trust, involvement, and cooperation among team members.
5. . . . encourages thinking about problems in new ways and questions assumptions.
6. . . . is clear about his/her values and practices which he/she preaches.
7. . . . instils pride and respect in others and inspires me by being highly competent.

**Manipulation check** (*Van Waeyenberg and Decramer, 2018*)

To what extent do the following statements apply to the previously shown scenario?

In the scenario, the supervisor’s approach to goal-setting, feedback and appraisal . . .

**Distinctiveness**

1. . . . was easy to understand.
2. . . . was appreciated.
3. . . . was experienced as relevant.

**Consistency**

1. . . . contributed to better functioning.
2. . . . succeeded in reinforcing the desired behavior and realizes the goals for which it was intended and designed.
3. . . . was accompanied by a clear consistency between the words and actions of my supervisor.

**Consensus**

1. . . . was based on mutual agreement between supervisors in the organization about how to deal with employees.
2. . . . was accompanied by impartial decisions by my supervisor.
3. . . . was considered fair.
Innovative work behavior (Bos-Nehles and Veenendaal, 2019)

If you found yourself in the previously shown scenario with your supervisor, to what extent would you feel motivated to engage in the following behaviors in the subsequent weeks?

If I found myself with my supervisor in this scenario, I would feel motivated in the subsequent weeks to . . .

Opportunity exploration

(1) . . . pay attention to non-routine issues in my work, department, organization, or the market place.

(2) . . . look for opportunities to improve an existing process, technology, product, service or work relationship.

(3) . . . recognize opportunities to make a positive difference in my work, department, organization, or with customers.

Idea generation

(1) . . . search out new working methods, techniques, or instruments.

(2) . . . generate original solutions to problems.

(3) . . . find new approaches to execute tasks.

Championing

(1) . . . attempt to convince people to support an innovative idea.

(2) . . . make important organizational members enthusiastic for innovative ideas.

Application

(1) . . . put effort into the development of new things.

(2) . . . contribute to the implementation of new ideas.

(3) . . . systematically introduce innovative ideas into work practices.

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