The Relationships between MBO System Strength and Goal Climate Quality and Strength

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Abstract

We adopted Bowen and Ostroff’s (2004) HRM system strength concept so as to test it within the context of a management-by-objectives (MBO) system, which was utilized by six independent firms owned by a large, diversified family business group in Turkey. For this purpose we surveyed the middle managers to measure 10 context-specific metafeatures of the MBO system. By using aggregated scores at the functional group level (N = 47), we captured the distinctiveness, consistency, and consensus dimensions of this HRM practice. We tested and compared three alternative theoretical models of HRM strength where the three dimensions have compensatory, additive, and distinctiveness mediated effects on climate quality and strength. Results support the compensatory model and indicate that the strength of the MBO system (as a reflective latent variable representing the shared variance of the system’s distinctiveness, consistency, and consensus) is positively related to business units’ quality and strength of goal climate. In addition, distinctiveness—but not consistency and consensus—of the MBO system appears to be particularly critical for the emergence of a strong and high quality goal climate. Lastly implications and limitations of the study as well as possible future research directions are discussed.

Keywords: HRM process; HRM system strength; management-by-objectives (MBO); goal climate; climate strength
Examining the Relationships between

MBO System Strength and Goal Climate Quality and Strength

Over the past few decades, the strategic human resources management (HRM) literature has been dominated by studies that investigate the links between various sets of HRM practices (i.e., high-performance work practices, HPWPs; high-commitment or high involvement HRM systems) and organizational performance (e.g., Arthur, 1994; Batt, 2002; Becker & Huselid, 1998; Huselid, 1995). More recently however, others have criticized this content based approach to HRM by indicating that it fails to explain the “black box” existing between HRM practices and performance (Nishii, Lepak, & Schneider, 2008; Takeuchi, Lepak, Wang & Takeutchi, 2009) and advocate for the development of a process based approach (Bowen & Ostroff, 2004; Li, Frenkel, & Sanders, 2011; Sanders, Dorenbosch, & De Reuver, 2008; for a recent review see, Guest, 2011). A process based approach primarily deals with the variability in (a) the processes through which HRM systems are enacted (i.e., implemented and communicated) within organizations, and (b) the employees’ perceptions and reactions to those practices. Sources of variability are suggested to play an important moderator role that can illuminate the aforementioned black box (Nishii & Wright, 2008).

One of the most cited works following a process based approach has been by Bowen and Ostroff (2004), who examined “how the HRM system can be designed and administered effectively by defining metafeatures of an overall HRM system that can create strong situations in the form of shared meaning about the content that might ultimately lead to organizational performance” (2004, p. 206). They have described nine such metafeatures of an HRM system that are responsible for creating variation in the distinctiveness of, consistency in, and consensus on HRM practices. They pointed out that HRM systems that are high in distinctiveness,
consistency, and consensus lead to strategically focused strong organizational climates (e.g., climate for service, innovation, safety etc.) by creating unambiguous messages for all organizational participants regarding organizational goals and practices, and subsequent individual goals and behaviors.

Prior studies that follow this conceptual model have often focused on development of HRM strength measures (Cunha & Cunha, 2004; Delmotte, De Winne, & Sels, 2012; Gomes, Jorge, Coelho, Correia, & Cunha, 2010; Coelho, Cunha, Gomes, & Correia, 2012), or conducting partial tests of the theory by examining the relationships between some of the metafeatures and employees’ intentions and attitudes (Chen, Lin, Lu, & Tsao, 2007; Li, Frenkel, & Sanders, 2011; Sanders, Dorenbosch, & De Reuver, 2008). However, these efforts have yet been preliminary and limited in their scope. For example, all these studies used measures of HRM strength that make generic system-wide inquiries regarding employees’ overall perceptions of HRM systems, with items such as “HR practices here help me to achieve the company’s goals” (Li, Frenkel & Sanders, 2011). This generalized approach assumes that employees perceive the different components of the system in a uniform manner. However, in reality it is unlikely for any HRM system to be composed of individual practices that are equally strong and prevalent. Instead, organizations usually have a wide array of practices that are established at various points in time and in response to different organizational needs. In addition, the impact of particular HRM practices on employees’ day-to-day experiences can vary across functions (i.e., training vs. performance evaluation) and therefore have differing degrees of perceived strength. Individual practices can also lead to rather different intermediate outcomes (Evans & Davis, 2005). Thus, taking a more in-depth look into particular practices is therefore necessary to understand the specific mechanisms through which features of an HRM practice induce the behavioral and
organizational outcomes suggested by prior studies. Our focus on a single practice is consistent with findings of Combs, Liu, Hall, and Ketchen (2006), who indicated that all practices are not equal and “mere implementation of some practices might affect organizational performance whereas the effectiveness of the implementation might determine outcomes for others (Huselid et al., 1997)” (p. 518).

Focusing on a single HRM practice and examining its underlying processes may also allow researchers to explicate how specific actions contribute to an organization’s competitive success. For this purpose, using a resource-based view of the firm, Becker and Huselid (2006; Huselid & Becker, 2011) advocated that, instead of looking only at financial outcomes, scholars should focus more on key intermediate outcomes and within-firm differences across job groups through the use of context-specific analyses to uncover firms’ unique strategy implementation processes. They also have argued that HRM practices can lead to a sustainable competitive advantage when they ensure the alignment of firms’ strategic goals with employees’ behaviors, since alignment is causally ambiguous, path dependent, and affords a ‘first mover’ advantage. Building on these arguments, we view firms’ capability to engender organizational environments that truly foster employees’ motivation towards the implementation of corporate goals as one of the ways in which the aforementioned HRM “black box” operates.

In the present study we investigate the effect of the strength of one such practice—management-by-objectives (MBO) system—on the goal climates of 47 functional groups in six independent companies of a large business group in Turkey. We aim to contribute to the HRM process literature by empirically testing how the implementation processes of the MBO system shapes middle management’s shared perceptions of goal-related peer group norms in their work groups (which entails goal climate quality and strength, measured by the average level and
agreement within groups respectively). We argue that both the formal MBO system structure and the managerial activities towards its effective implementation together produce goal climates, a key intermediate HRM outcome, that emphasize and compel efforts to meet organizational goals. To understand MBO process implementation we utilize Bowen and Ostroff’s (2004) HRM system strength model to examine how the strength of MBO systems— their degree of distinctiveness, consistency, and consensus—are related to the quality and strength of the goal climates in functional groups. In the next section we will summarize past literature on MBO systems and then describe how we conceptualize the strength of MBO systems.

**Strength of MBO Systems**

As an HRM practice geared toward appraisal and management of performance of businesses, departments, and employees (Evans, 1986), MBO systems involve 1) setting companywide goals derived from corporate strategy, 2) establishing team and department level objectives, 3) collaboratively setting individual level goals that are aligned with corporate strategy and team or departmental objectives, and 4) reviewing performance and providing feedback (Greenwood, 1981). The process and outcomes of MBO systems constitute an essential component of the broader HRM systems since these goals define individuals’ responsibilities, evaluate and reward their performance, and assess their developmental needs.

Over the past few decades, both academic and professional interest in MBO systems have waned so much that this methodology is considered by some as an outdated management fad (Spell, 2001). Nevertheless, there is strong indication that MBO systems are still being utilized widely in many public and private organizations. A 2008 survey of 125 Fortune 1000 companies reveal a near tripling (up from 27% in 1981 to 79% in 2008) in the use of MBO methodology for
performance appraisal (Curtin, 2009). Indeed, the case studies of five leading firms (Becker & Huselid, 1999) clearly indicate the role of MBO as an important HRM tool for managing both individual and unit performance and how pay and performance are closely linked in such firms through use of “nested objectives” (p.295).

Despite their wide use, MBO systems can frequently run into problems due to reasons such as assignment of inconsequential, rigid or excessively demanding goals. In a collaborative-action research for the Volvo Car Corporation, Dahlsten, Styhre, and Willander (2005) showed that middle managers who received demanding goals from their top managers had emotional reactions to the MBO system and their top managers, and developed an overall sense of “target fatigue” (p. 533). The authors called for further research on MBO systems, most specifically on how middle-managers—as a group stuck in-between the long-term objectives of the firm and day-to-day activities—respond to such systems. In the same vein this study focuses on managers’ collective perceptions about an MBO system’s implementation process.

MBO systems are also worthy of further investigation since they can improve organizational effectiveness. The three major components of the MBO process (i.e., goal setting, participation in decision making, and objective feedback) are separately and together as a system shown to yield increases in organizational productivity (Kondrasuk, 1981; Rodgers & Hunter, 1991). The mechanisms through which MBO systems enhance organizational functioning are also closely related to their strength. For example, the goal setting process is suggested to enhance organizational effectiveness by “direct[ing] the attention and action of all organization members and mobilize[ing] overall effort” (Rodgers & Hunter, 1991, p.323). Throughout the organization, participation in decision making is expected to facilitate understanding of the relationship between goals and strategy. Giving objective feedback helps alleviate uncertainties
and allows employees to improve their performance vis-à-vis their goals. The extent to which an organization successfully implements all these processes is closely related to how strongly its members perceive the metafeatures of the MBO system. For example, managers and employees are likely to exhibit unified attention and action to the extent that they perceive those who set business objectives as having legitimate authority and consensus among themselves. Indeed, Rodgers and Hunter’s (1991) review of research on MBO effectiveness corroborates these arguments, indicating that MBO is only effective if implemented with the full support and participation of top management. In the current study we had the opportunity to collect data from six independent firms that share the same formal HRM system including the MBO system. The existence of a comparable system across these firms enabled us to examine the existence and consequences of varying levels of MBO system strength due to differences in implementation between the functional groups. We will now define and explain the context specific features of MBO system that constitute the overarching distinctiveness, consistency, and consensus dimensions of MBO system strength, based on Bowen and Ostroff’s (2004) conceptualizations.

**Distinctiveness.** Distinctiveness refers to a system’s “features that allow it to stand out in the environment, thereby capturing attention and arousing interest” (Bowen & Ostroff, 2004, p. 208) and is fostered by the degree of visibility of the practices, understandability of the content of these practices, the legitimacy of the authority that imposes these practices, and the relevance of these practices to important personal and organizational goals. **Visibility** refers to the degree to which HRM practices are salient and readily observable. **Understandability** refers to a lack of ambiguity and ease of comprehension of HRM practice content. In the present study, visibility and understandability are reflected by both the perceived quality of key performance indicators (KPIs) of assigned goals and the perceived specificity of goals. The existence of well-defined
and measurable KPIs signals the existence of a formal and well-structured MBO system. It also is an indicator of the degree of transparency and understandability of performance criteria, which contributes to distinctiveness perceptions. Similarly, specific goals improve understandability by eliminating ambiguity and signal to employees what tasks and goals are more important. In short, we argue that an MBO system is more likely to be visible and understandable if the process of implementation requires that the quality of KPIs and the specificity of goals are high.

According to Bowen and Ostroff (2004, p. 209), the “legitimate authority of the HRM system and its agents leads individuals to consider submitting to performance expectations as formally sanctioned behaviors.” This statement suggests that employees choose relevant authority figures for a particular practice and judge their legitimacy before expressing their willingness to cooperate. In MBO systems top management teams are usually responsible for determining the business objectives, which constitute the point of origin for all group and individual level goals. The credibility of the message source becomes particularly important when employees judge the attributes and importance of their goals. Thus, the perceived trustworthiness of the top management team, as an indicator of authority’s legitimacy, is likely to impact how actual group and individual level goals are perceived within the organization.

Bowen and Ostroff (2004) purport that an HRM system has higher distinctiveness if “individuals see the situation as relevant to an important goal” (p. 209). They also suggest that when individuals find a goal to be congruent with their personal as well as corporate goals, its motivational significance is highest. In the present study, goal internalization, as an indicator of relevance, signifies the perception of a valued organizational cause and embracing of the organization’s overall mission by the employees (Menon, 2001). We argue that internalized organizational missions are more likely to lead to the perceived relevance of the MBO system.
**Consistency.** Consistency refers to a system’s ability “to establish an effect over time and modalities whereby the effect occurs each time the entity is present, regardless of the form of the interactions” (Bowen & Ostroff, 2004, p. 210). It entails perceptions of instrumentality, validity, and consistent HRM messages. Bowen and Ostroff (2004) suggest that in order for an HRM system to be strong, employees should perceive unambiguous cause-effect relationships between desired employee behaviors and the associated consequences. This *instrumentality* perception is put forward by Vroom’s (1964) expectancy theory and is captured in this study by measuring employees’ goal performance-reward expectancies.

*Validity* of HRM practices is another metafeature that supports the emergence of consistent HRM messages. HRM systems should “display consistency between what they purport to do and what they actually do in order for them to help create a strong situation” (Bowen & Ostroff, 2004, p. 211). Consistent with this definition, MBO systems can be considered valid to the extent that they actualize the aims they are intended to serve. These aims include helping business lines to plan and organize their functions in alignment with the general strategies of the organization, facilitating intra-organizational communication and cooperation, and motivating employees and enhancing commitment by providing an efficient tool for measuring their performance (Scott, 1980). To capture these validity perceptions, we assessed whether employees believed the existent MBO system accomplished these aims.

A final aspect of consistency, existence of *consistent HRM messages*, involves the degree of compatibility between different HRM practices as well as the stability of these practices over time. Since this study focuses on the perceptions regarding the MBO system, we limit our attention to the compatibility between HRM practices that pertains to this system the most. When MBO is used to manage and evaluate employees’ performance and determine monetary
Rewards that individuals receive, it is important for performance management and compensation practices to be compatible with one another and send employees consistent messages. The purpose of setting goals is to motivate employees to exert more effort and a firm’s ability to achieve this is strongly tied to the extent to which goal achievement is financially rewarded in line with the emphasis placed on goals. Hence we identify the perceived valence (i.e., attractiveness) of the goal performance-based monetary rewards as an indicator whether the MBO system emits consistent messages to employees across the performance management and compensation practices.

The stability or consistency of messages over time was measured by asking (1) whether there was an actual change in last year’s goals, and (2) employees’ perceptions on the likelihood of a change in their goals during the current year. However due to severe range restriction (since more than 80% of the participants reported no change in last year’s goals and zero likelihood of change in the current year) these measures were not reliable at the department level and therefore not utilized in further analysis.

**Consensus.** The last dimension, consensus, “results when there is agreement among employees in their view of the event-effect relationship” (Bowen & Ostroff, 2004, p. 212), and is fostered by the agreement among principal HRM decision makers as well as by the perceived fairness of the HRM system. Employees are likely to perceive existence of a higher level of agreement among HRM decision makers if line managers strongly convey the messages pertaining to the success of the MBO system by encouraging individuals’ attainment of work goals. Display of such leadership behaviors is likely to induce perceptions among employees that HRM system administrators’ and facilitators’ goals and efforts are aligned. In line with this
reasoning, the degree of leadership exhibited by immediate managers regarding employees’ work goals is used to indicate the extent of agreement among HRM decision makers.

*Fairness* perceptions of employees also contribute to the consensus dimension. Organizational fairness perceptions are indicated in the literature to consist of three types: distributive, procedural, and interactional (Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Colquitt, Greenberg, & Scott, 2005). Distributive justice indicates perceptions of fairness regarding the allocation of outcomes (e.g., rewards, recognition, etc.). Procedural justice indicates perceptions regarding the degree of fairness in the process through which allocation decisions are made. Interactional justice involves fairness perceptions about interpersonal treatment and information people receive when procedures are being implemented. Bowen and Ostroff (2004) argue that “management practices that lead to employee perceptions of procedural and interactional justice increase the transparency of distribution rules (Bowen, Gilliland, & Folger, 1999) and, by so doing, increase the likelihood that the HRM system will be characterized by consensus about event effect relationships” (p. 213). Since these two types of justice are deemed particularly relevant to HRM processes, we examined employees’ procedural and informational fairness perceptions about goal-setting process. Procedural fairness of goal-setting process is high when employees perceive that they were able to voice their opinion during or after the goal-setting process, that the goals were unbiased, consistent, and based on accurate information as well as ethical standards. Informational fairness of the goal setting process is high when employees perceive that their manager communicated openly throughout the process and provided detailed and timely explanations about assigned goals (Colquitt et al., 2001).

**Goal Climate Quality and Strength**
Organizational climate is defined as “the shared perceptions of employees concerning the practices, procedures, and kinds of behaviors that get rewarded and supported in a particular setting” (Schneider, White, & Paul, 1998, p. 151). These shared perceptions are critical in organizational effectiveness since they facilitate coordination of employees’ behaviors toward the collective achievement of the organization’s strategic objectives (Nishii & Wright, 2008).

Shared climate perceptions are likely to develop in work units in part due to ambient social and structural stimuli operating on all members of the same unit (e.g., exposure to similar norms, leadership, and HRM practices) and in part due to attraction-selection-attrition processes that can lead to homogeneity in values and perceptions in work organizations (Chan, 1998; Ostroff, Kinicki, & Tamkins, 2003). Climate scholars have also differentiated between climates for specific targets, such as safety (e.g., Zohar, 2000), service (e.g., Schneider et al., 1998), or empowerment (e.g., Seibert, Silver, & Randolph, 2004).

In the present study we focus on shared climate perceptions of a specific type: goal climate. Organizational climate level (James & Jones, 1974; Jones & James, 1979) or climate quality (Lindell & Brandt, 2000) are defined in the literature as employees’ average level of perceptions within an organization or a team. Goal climate quality entails the peer group norms regarding goal-related performance in a group. In groups with a high level of goal climate quality, employees on average would perceive their peers to be working hard towards their goals and would frown upon those behaviors that indicate a lack of goal commitment. Goal climate quality is important because overarching business objectives cannot be reached if employees with semi-interdependent tasks are not all working hard to achieve their own specific goals. If a group of employees does not take their performance goals seriously, it is likely that the business performance will suffer due to weak links in the value chain. On the other hand, a high goal
climate quality leads to a higher business performance mainly due to the synergies created by a group of employees who take their own and colleagues’ performance very seriously.

Organizational climate strength (Schneider, Salvaggio & Subirats, 2002) or climate consensus (Lindell & Brandt, 2000) is defined as the degree to which perceptions are shared within an organization. Goal climate strength entails the degree to which employees in a collective agree on peer group norms on goal performance (measured using standard deviations or $r_{WC}$ index values). Goal climate strength can be high even when goal climate quality is low, such as when group members all agree that their peers do not care about performance goals. Nevertheless, climate strength matters because climate quality is more likely to increase performance if it is perceived alike by all group members (Schneider et al., 2002).

These related but distinct aspects of organizational climate—quality and strength—have been argued to be influenced by the strength of the HRM system (Bowen & Ostroff, 2004). Similarly, we suggest that an MBO system that is high in distinctiveness, consistency, and consensus would create a strong “influence situation” where individuals can clearly interpret what is being asked of them in view of the firm’s strategic goals. In turn they are likely to reach a common understanding of social expectations and operate under strong prescriptive and proscriptive norms about performance in their group.

Bowen and Ostroff (2004) outline four different ways to model the effects of the strength of an HRM system on organizational climate: compensatory, additive, configural, and multiplicative. The latter two models suggest that either different profiles of features would have different effects (e.g., high distinctiveness-low consistency-low consensus vs. low distinctiveness-low consistency-low consensus) or that there are meaningful interactions among
the features. Although these models are potentially interesting, their theoretical underpinnings are not very clear. Therefore, in this study we focus on compensatory and additive models.

In a compensatory approach, the high level of one feature will make up for a low level of another. This approach can be tested by using a second order reflective latent variable that is identified by distinctiveness, consistency, and consensus dimensions. This second order latent variable, representing the overall strength of the MBO system, comprises the shared variance of the system’s dimensions. A strong and high quality goal climate is expected to emerge in functional groups with a stronger MBO system. This model forms the basis of Hypothesis 1.

_Hypothesis 1:_ MBO system strength defined as the shared variance of the distinctiveness, consistency, and consensus of the MBO system will be positively related to the quality and strength of the goal climate.

The additive model put forth by Bowen and Ostroff (2004) suggests that all three dimensions explain some additional or separate variance in goal climate quality and strength. This model presumes relative independence between the dimensions. We tested this approach by examining the separate links between distinctiveness, consistency, and consensus latent variables with both the level and strength of goal climate, as indicated in Hypothesis 2.

_Hypothesis 2:_ Distinctiveness, consistency, and consensus of the MBO system will each have a separate positive relationship with the quality and strength of the goal climate.

A third plausible model suggests that distinctiveness mediates the influences of consensus and consistency on organizational climate. Although, Bowen and Ostroff did not explicitly recommend it, they have suggested that distinctiveness can follow consensus in the causal chain by arguing that “when multiple decision makers agree on the message, distinctiveness can be enhanced because a larger number of individuals can send similar communications” (2004, p.
This model makes theoretical sense mainly because for a system to be distinctive (i.e., visible, understandable, relevant, and legitimate), it first has to be well governed by related authorities. When leaders inspire their groups to reach collective goals and are fair to them during the goal setting process (i.e., when consensus is high), employees are more likely to identify with their teams, internalize the group’s mission, and believe in the competency and good will of top managers (Podsakoff, MacKenzie, Moorman & Fetter, 1990). Employees are also more likely to understand their goals and raise potential objections to unspecific goals with no clear performance indicators, eventually achieving specificity and clarity of their goals. Hence distinctiveness could be a more proximal antecedent of a strong and high quality climate than the other two dimensions. Consistent with these arguments, Gomes et al. (2010) have cited two studies by Hewstone and Jaspars (1988) where consensus and consistency influence distinctiveness, which in turn is the factor shaping the final attributions. Thus, we also tested a third model where distinctiveness mediates the influences of consistency and consensus on goal climate content and strength.

**Hypothesis 3:** Distinctiveness of the MBO system will mediate the relationship of both consistency, and consensus of the MBO system with the quality and strength of goal climate.

**Method**

**Organizational Context**

Data were collected from six legally independent large (the number of employees at time of the study ranged from 1,000 to 15,774) firms operating under a Turkish business group. Four of the companies were mainly engaged in manufacturing sectors (white goods, electronic
appliances, automotive); two were in service related sectors (retail, chemical). Shares of five of the firms were publicly traded. Their total assets ranged from 1 billion to over 3 billion $US.

All six firms utilized a common MBO system which was designed by a centralized HR function at the headquarters of the business group. Every year the overall business objectives and strategies were determined by the conglomerate and firms’ top management. Once objectives were announced to all employees within the firms, they were distributed among relevant functions and cascaded down to employees from top to bottom. Function or unit managers were asked to conduct meetings in their departments to discuss annual responsibilities and settle any conflicts collectively. The firms paid special attention to the compatibility of managers’ goals with those of their subordinates, believing that incompatible goals would endanger the attainment of corporate goals. To provide support for the goal setting process firms’ HR departments established and trained cross-functional teams, which planned and managed the company-wide goal setting processes, attended goal setting meetings in the departments, acted as an intermediary when necessary and ensured that general guidelines regarding goal allocation were followed. While the instituted system was thorough, our interviews with the HR staff of the firms signaled that there was a considerable amount of variability across functions in terms of how well the formal procedures were carried out in real life. In every firm, there were reported to be managers who did not conduct meetings and even who notified employees about annual goals through email messages.

The consequences of employees’ success on yearly goals involved monetary and non-monetary gains. Based on their yearly goal performance, employees were able to advance in their careers after being placed in the pool of high potential employees. In addition, employees’ overall performance (which included objective goal performance as well as managers’ subjective
evaluations) influenced the amount of their pay increase. However employees were not told specifically how much of their pay raise was based on their job performance.

Participants and Procedures

The central HR department of the business group provided us the information on the pool of all potential participants, which included 496 managers at various levels (e.g., area/function managers, department managers, directors) in the six firms. We then emailed invitations to these people to participate in our study. At the end of the data collection period we received responses from 297 managers, which yielded a total response rate of 59.9%.

Although the study was endorsed by the management of the corporate headquarters, due to the sensitive nature of the subject matter (e.g., asking participants their opinions regarding immediate managers and top management), the central HR administration of the business group decided to ensure the anonymity of participants and did not allow collection of demographic data. Although the gender distribution of the sample of participants was not known, only 11 percent in the target population was female.

Using a typology of nine categories of business functions that exist within the firms (which included: R&D/product-service design, IT стратегический planning, quality, HR/industrial relations/administrative affairs, financial affairs, purchasing/subcontractor management/logistics, marketing, sales/customer services/after sales services, manufacturing/service), responses were gathered into 47 functional groups across the participating six firms. The number of individuals in each functional group ranged from 1 to 21 ($M = 6.31, SD = 5.61$). Across the firms the largest number of participants were from manufacturing/service group ($N = 72$), followed by the sales/customer services/after sales services group ($N = 67$) and the fewest participants were in IT/strategic planning group ($N = 12$).
Measures

One of the measures (i.e., key performance indicators) was generated specifically for the purposes of this study. Another variable was measured using items from an already standardized Turkish scale (i.e., goal-related leadership). For all other measures that were originally in English, we conducted translation-back translation procedures and adapted them to fit the MBO context.

Indicators of MBO system’s distinctiveness.

Key performance indicators (KPIs). Each participant was asked to write down three of that year’s most highly weighted work goals. They were then asked to evaluate whether each goal item had (1) measurable, (2) relevant, and (3) well defined KPIs. The measure used in this study had a six-point response scale (1 = completely disagree to 6 = completely agree).

Goal specificity. Goal specificity was measured using Steers’ (1976) scale for assessing within task-goal attributes. The scale is comprised of three items and is measured using a six-point Likert scale (1 = completely disagree to 6 = completely agree). Sample items: “I understand fully which of my work objectives are more important than others; I have a clear sense of priorities on these goals.”

Trust in top management. The management version of interpersonal trust at work scale by Cook and Wall was utilized (1980). The scale contains six statements investigating participants’ faith in the intentions of and confidence in the ability of top management. A response scale of 1 (completely disagree), to 6 (completely agree) is used. A sample item is “Top management can be trusted to make sensible decisions for the firm’s future.”

Goal internalization. This variable was assessed through the goal internalization dimension of Menon’s (2001) empowerment scale. The measure consists of three items. An
example item is as follows: “I am inspired by the goals of the organization.” The items are rated using a six-point (1 = completely disagree to 6 = completely agree) response format.

**Indicators of MBO system’s consistency.**

**Instrumentality.** Reward expectancy was measured using four items selected from the Performance→Reward Expectancy section of the Work-Related Expectancies Scale (Sims, Szilagyi, & McKemey, 1976) and adapted to the context of goal performance. Items refer to three tangible rewards (such as “succeeding on my work goals increases my chances for promotion”) and one intangible reward (“succeeding on my work goals leads to increased recognition from my supervisor”). The items are rated using a six-point (1 = completely disagree to 6 = completely agree) Likert scale.

**Valence.** Participants were asked to rate how much they value the purchasing power of the performance-based monetary rewards that they expect to obtain that year. The responses were obtained on a 10-point scale (1 = not valuable at all to 10 = very valuable).

**Validity of MBO system.** Six items that investigate the perceived utility and success of the MBO system were obtained from the MBO Success/Value measure developed by Scott (1980). This measure captures the effect of MBO on the participant's job with regard to planning and organization of work, objective appraisal of work performance, motivating for best job performance, coordination of individual and work group objectives, and communication and coordination with supervisor. A six-point response format (1 = completely disagree to 6 = completely agree) was used.

**Indicators of MBO system’s consensus.**

**Goal-related leadership.** Seven items from the standardized Turkish version of the Multifactor Leadership Questionnaire (MLQ–Form 5X; Bass & Avolio, 1995) were used. These
items were chosen due to their relevance to goal achievement and motivation aspects of leadership. They consist of the four items of inspirational motivation dimension, as well as two items from idealized influence dimension and one item from the intellectual stimulation dimension. The items ask participants to rate their supervisors on a five-point frequency scale (1 = *almost never* to 5 = *frequently, if not always*).

**Procedural and informational justice.** Procedural justice and informational justice were assessed by tailoring the relevant dimension of Colquitt’s (2001) organizational justice measure to the goal setting context. The procedural justice measure consists of seven items, investigating the level of process and decision control, consistency, bias suppression, accuracy of information, correctability and ethics of the goal setting process (Colquitt, 2001). A sample item is “Have you had influence over the decisions/goals that are decided upon as a result of the goal setting process?” The informational justice measure contains five items that ask participants to evaluate their manager with respect to their behaviors during the goal setting process, through questions such as, “Were his/her explanations regarding the procedures reasonable?” For both justice measures, a five-point response format is used (1 = *to a small extent* to 5 = *to a large extent*).

**Dependent variables.**

**Goal climate quality and strength.** A measure of social influence (Hollenbeck & Klein, 1987) reflecting the employees’ perceptions of peer group norms on goal-related performance was used. The measure uses a six point scale (1 = *completely disagree* to 6 = *completely agree*) and consists of the following four items: “My peers believe that they should exert the necessary effort to achieve their assigned work goals”; “My peers believe that they can achieve their assigned work goals if they try hard enough”; “My peers believe in the importance of their
assigned work goals”; “Those among my peers who do not exert enough effort to achieve their assigned work goals are not received favorably."

Consistent with recommendations, we measured climate quality using “referent-shift consensus model” where individuals are asked questions pertaining to a higher level unit (Chan, 1998; Chen, Mathieu, & Bliese, 2004). The mean of these evaluations for each functional group was calculated to reflect the groups’ goal climate quality.

To measure goal climate strength a “dispersion composition model” approach was utilized, in which a group-level construct is measured by the variance of the individual responses (Schneider, et al., 2002). For this purpose, $r_{WG}^*$ values of functional groups are used to measure the strength of goal climate (Lindell & Brandt, 2000).

**Aggregation of Data to Group Level**

To examine whether firm membership explained variance in the study variables, we first conducted an analysis of variance (ANOVA) across the six firms in our sample. The results indicate that mean differences are not significant across firms for all variables, except procedural justice [$F(5, 291) = 6.16, p < .01$] and informational justice [$F(5, 291) = 5.01, p < .01$]. When we examined the pairwise mean comparisons produced by the post-hoc analyses, it became apparent that the differences are due to significantly lower scores obtained by the firm in the retail sector. Since only two variables show significant variation and that variation is related to only one of the firms we do not deem that it necessitates further analysis.

Within-group agreement and between group variability of beliefs about the features of the MBO system and climate quality across the 47 functional groups were then analyzed by calculating the interrater agreement ($r_{WG}^*$ and $r_{WG(J)}$) and reliability statistics (ICCs). The average $r_{WG}^*$ and $r_{WG(J)}$ values based on uniform distribution for all variables are found to be .80
for $r_{WG(J)}^*$ (ranging between .61-.91) and .79 for $r_{WG(J)}$ (ranging between .24-.91) estimates based on uniform distributions (Table 1). All but one of the variables (i.e., valence) have values above the .70 value indicated as a rule of thumb threshold for this statistic (Klein & Kozlowski, 2000), which suggest that for most variables and groups interrater agreement is quite high.

Between-group variability of the study variables is analyzed using intraclass correlation coefficients (ICCs) (Table 1). Six of the 11 variables (i.e., goal climate, KPIs, goal specificity, goal internalization, valence, and procedural justice) are found to have ICC(1) values with a significant F test ($p < .05$), which justifies aggregating these variables (Klein & Kozlowski, 2000). Two variables (i.e., validity of MBO system and informational justice) have marginally significant ($p < .10$) F values. However, F-ratios of trust in top management, instrumentality, and goal-related leadership are not high enough to be significant, which indicates that the amount of variance in these variables that is attributable to group membership is lower than expected. Also, ICC(2) scores, which assess the reliability of the group-level means, are all below the conventionally accepted .70 level (Bliese, 2000).

Despite the fact that high ICC values are required for data aggregation to ensure the validity of measures, the lack of significant ICC values for at least some measures that we measured is both theoretically and practically reasonable. The low values obtained in these measures indicate that functional group membership does not significantly alter perceptions of HRM. In other words, the ratings on these measures are similar across these groups. Considering that all measures in the study have above acceptable levels of within-group agreement (indicated by $r_{WG}$ values), the low ICC values point out MBO system process leads to uniform perceptions across functional groups suggesting a strong system at the organizational or
business group level. Therefore, we, for the most part, consider them not as a source of measurement error but as an indicator of the nature of the HRM strength concept.

The intercorrelations among and the Cronbach’s alpha values of the aggregated scores are presented in Table 2. The alpha reliabilities of all measures are all above the .70 level.

**Analysis of Common Method Variance**

Since the study relied on cross-sectional self-report measures from a single source, we conducted some preliminary analyses to evaluate the extent to which common method bias exists in our dataset. For this purpose we first executed Harman’s one-factor test where all variables are entered into an exploratory factor analysis using unrotated principal components method (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The results indicate the existence of 10 distinct factors with eigenvalues greater than one. The first and largest factor accounts for 40% of the variance. Thus the majority of the variance cannot be explained by a single common factor. We also conducted a confirmatory factor analysis where all variables are defined as indicators of a single latent factor. This model presents a low level of fit to the data ($\chi^2_{(35)} = 79.72, p < .01, CFI = .83, RMSEA = .17, SRMR = .07$). Alternatively, the hypothesized model yields a good level of fit ($\chi^2_{(33)} = 44.42, p = .09, CFI = .95, RMSEA = .09, SRMR = .07$) and is a significantly better fitting model ($\Delta \chi^2_{(2)} = 35.30, p < .01$) than the single factor model. Thus these results indicate that common method variance does not pose a severe threat to the validity of our findings.

**Results**

Hypothesized models were constructed through a set of structural equation models. For the compensatory model (presented in Hypothesis 1) the fit statistics were as follows: $\chi^2_{(50)} = 90.53, p < .01, CFI = .87, RMSEA = .13, SRMR = .10$. In this model distinctiveness,
consistency, and consensus as first order latent variables are indicators of MBO system strength, a second order latent variable (see Figure 1, Model 1). The MBO system strength latent variable significantly predicts both goal climate quality ($\beta = .81$, $p < .01$) and goal climate strength ($\beta = .48$, $p < .01$). Thus, Hypothesis 1 is supported.

For the additive model (presented in Hypothesis 2) the fit statistics were as follows: $\chi^2 (46) = 75.71$, $p < .01$, CFI = .90, RMSEA = .12, SRMR = .10. In this model distinctiveness, consistency, and consensus latent variables were allowed to predict climate variables directly. Even though the fit of the additive model is significantly better than the compensatory model ($\Delta \chi^2 (4) = 14.82$, $p < .05$), only distinctiveness is found as a significant predictor of climate quality ($\beta = .92$, $p < .01$) and goal climate strength ($\beta = .92$, $p < .01$). The effects of consistency and consensus on both outcomes are not significant. Thus, Hypothesis 2 is not supported.

The last model is formed to test Hypothesis 3 so that the distinctiveness factor acts as a mediator between consistency and consensus dimensions and goal climate variables. The fit of this distinctiveness-mediated model ($\chi^2 (51) = 84.51$, $p < .01$, CFI = .89, RMSEA = .12, SRMR = .11) is significantly better than the fit of the compensatory model ($\Delta \chi^2 (1) = 6.31$, $p < .05$) and not significantly worse than the additive model ($\Delta \chi^2 (5) = 8.82$, ns). The results of the analysis show that consensus predicts distinctiveness ($\beta = .58$, $p < .01$) but consistency does not. In addition, distinctiveness is significantly related to both goal climate quality ($\beta = .82$, $p < .01$) and goal climate strength ($\beta = .50$, $p < .01$). Thus, the mediatory role of distinctiveness is only supported for the relationship of consensus with goal climate outcomes. These results provide partial support for Hypothesis 3.

Discussion
In the present study we examined the relationship between the strength of an MBO practice (Bowen & Ostroff, 2004) and the quality and strength of goal climates in the middle-management ranks of various functional groups within six firms owned by a Turkish business group. The results support Bowen and Ostroff’s compensatory model and show that a latent variable representing the MBO system strength—indicated by the shared variance of distinctiveness, consistency and consensus—is positively related to both goal climate quality and goal climate strength. Furthermore, out of the three dimensions, distinctiveness appears to be especially critical for the emergence of a strong goal climate and mediate the influence of consensus of the system on goal climate within the functional groups.

The present study constitutes a conservative test of the HRM strength model because the intended MBO system as well as the other subsystems of HRM were uniform in content across the firms due to the existence of a centralized HRM structure. Thus any variation in the resultant perceptions regarding the MBO process can be largely attributed to differences in actual implementation of MBO practice across functional groups rather than differences in systems and rules formally established by HR departments. These differences in the way in which goal-related processes are handled entail the quality and degree of specification of goals, fairness of goal-setting procedures, and goal-related inspirational motivation instigated among managers. In this sense our focus on implementation allows us to isolate and capture the effects of HRM process from the effects of HRM content (i.e., the formally established policies and intended practices). On the other hand, it is possible that the insignificance of consistency effects in Models 2 and 3 is caused by sample specific factors (i.e., the secrecy around performance pay and/or the highly uniform nature of MBO system objectives and guidelines across the firms). It
may be beneficial to test the models in less homogenous contexts to assess the external validity of our findings.

**Implications for Theory and Practice**

Our findings suggest that collective perceptions of HRM practices and their outcomes may diverge significantly within organizations—even when a standard set of guidelines is provided—due to variations in the implementation process. Such variations may be related to the degree to which jobs in question differ from each other in the strategic–nonstrategic continuum (Becker & Huselid, 2006) or to the ease of implementation of a particular practice due to the nature of jobs (e.g., specific measurable goals are easier to set in some functions than in others). Whatever may be the reason, it is imperative for HRM researchers and practitioners to pay as much attention to what actually goes on within different business functions during HRM processes as they do while designing HRM system content.

This study suggests that individual HRM practices or subsystems of HRM can be strong on their own and their strength can have consequences for the intermediate outcomes directly related to those specific practices. For example, in the same way that the strength of MBO system is related to goal climate quality and strength, the strength of socialization systems can be related to the level of group cohesiveness or social capital and the strength of staffing systems can be related to the level of collective efficacy or human capital. Theory development efforts should try to examine how the strength of each specific practice is related to its own specific intermediate outcome in order to illuminate the black box between HRM systems and firm performance. In this respect, the work of Evans and Davis (2005) which argues that different HRM practices affect different components of the internal social structure (e.g., bridging weak ties, generalized norms of reciprocity, shared mental models) is encouraging.
Our findings imply that HRM decision makers who are trying to implement MBO systems and enhance performance norms should primarily focus on fostering perceptions of distinctiveness. Specifically, they are recommended to use specific goals with measurable KPIs, to emphasize the value of overall organizational goals and to build employees’ trust in top managers, who are the ultimate decision makers on organizational objectives.

Our findings also imply that such a distinctive system is more likely if HRM decision makers can act in concert. With respect to MBO system strength, if those leaders who are responsible from implementing the policies and practices espoused by HR managers show their consensus by acting inspirationally and fairly, the value of collective goals, the trust in top managers as well as the perceived specificity and quality of goals would likely increase.

**Limitations**

The present study has certain limitations. All data came from the same respondents and were collected at one point in time. Hence, some of the relationships may be influenced by common-source bias, though our analysis suggests that this effect is not strong. We should also be cautious about the direction of the relationships we present since our data are cross-sectional and our research design is correlational. Even though theory suggests that a strong HRM system creates a strong climate, it can be the case that in strong climates it is easier to establish a strong HRM process, or that a third variable such as the type of employees attracted (e.g., achievement oriented) to the organization explain both system strength and climate strength. However, given the nature of latent variables and their relationships based on preexisting theory, we believe that common-source bias or our research design are not responsible for our results. Moreover, the fact that the interitem and intrarater reliabilities of some MBO system features were low also
poses limitations for our study. These shortcomings may have diminished our chances of finding true relationships due to lower levels of validity.

Another limitation of the current study is related to its generalizability. Despite the homogenizing effect of globalization, divergent practices in HRM still exist due to a variety of constraints, ranging from differences in the economic stages of development to business strategies (Brewster, Woods & Brookes, 2008), and from variation in institutional frameworks (Hall & Soskice, 2001) to national cultures (House, Hanges, Javidan, Dorfman & Gupta, 2004). Therefore, Turkey, with its particular institutional framework and cultural milieu, provides a specific context for the interpretation of our results. As a Mediterranean country with borders to Europe, East Asia and Middle East, Turkey is the only secular republic in the world with a dominant Muslim population. Its economy, much like economies of most emerging markets, has traditionally been dominated by large, family-owned business groups with legally independent diversified businesses, as well as the traditional presence of the state as a player in the economic domain (Colpan, 2010). After the market liberalization of the 80’s and the Customs Union with European Union in 1995, many of the state enterprises have been privatized and the private economy has generally been growing despite interruptions by economic crises. During the same period, consistent with the global trend, the power of trade unions has been largely diminished, and HRM has gained importance. Still, there are wide variations in HRM practices in Turkey (Aycan, 2001) between public and private sectors as well as between small and large firms within the private sector. On one hand, many firms still continue to use autocratic regimes and treat employees poorly. On the other hand, some large private firms (including the family business group firms that make up our sample) emphasize the value they attach to their human resources and have been importing HRM know-how through their international joint ventures
and relationships with international consulting companies to design effective HRM systems (Aycan, 2001). Indeed, two of the firms in our sample have previously won the European Foundation for Quality Management award. Therefore, we believe that our sample of firms is essentially not very different than their counterparts in economically advanced countries which use HRM to gain competitive advantage.

Cross cultural differences can also limit the generalizability of our findings. Research on cross-cultural values has indicated that Turkish managers rank below the world average on values of performance and future orientation (House, et al., 2004). This finding suggests that such cultural orientations might have restricted the range of certain variables (e.g., goal-related leadership, instrumentality) in the present study, negatively affecting the effective implementation of a culturally incongruent management practice (Newman & Nollan, 1996). However, based on our knowledge of the staffing practices in the sampled firms we do not believe this to be the case in the present study. Firms in our sample recruit their employees from among the most successful graduates of some of the highest ranking colleges in Turkey. Yet future research is needed to replicate our findings in cultures other than Turkey.

**Directions for Future Research**

The sample of participants was representative of the six firms’ middle management. We focused on managers because we deemed them to hold strategic positions in their respective functions. A poor implementation of MBO system was expected to lead to a gap between top management’s strategic vision and middle management’s responses to that vision (Dahlsten, et al., 2005). Future research can examine non-managerial employees perceptions of the system and performance, specifically how they are affected by the perceptions of middle manager as a group stuck in-between the long-term objectives of the firm and day-to-day activities.
It was not possible for us to look at more objective (e.g., financial) outcomes and test the mediating role of organizational climate since there are no comparable outcome measures across functional groups within firms. We advise researchers to focus on a strategic job category (e.g., customer service agents) that can be uniformly compared using a specific objective outcome such as improvement in financial or customer outcomes as a function of improved strength of the HRM system and higher quality and strength organizational climate. Such research would have a longitudinal design and control for past performance and the strength of other organizational systems (e.g., IT systems, financial systems, operational systems).

Besides the three theoretical models tested here, Bowen and Ostroff (2004) also suggested the possibility of configural (i.e., different profiles of dimensions), multiplicative or contingency models (i.e., interactions among the dimensions) of HRM strength. Future studies may benefit from comparing the validity of the models we have tested along with these other alternatives. Such research requires a high level of power as well as extensive and reliable measurement of all features that constitute the metafeatures. We also believe that, in addition to studies examining HRM system as a whole, future research should also focus on the strength of a specific HRM practice since the relative importance of features may differ based on practice.

Conclusions

Adopting a process based approach we showed that the strength of MBO systems predict the quality and strength of goal climates in functional groups. We believe that research would progress faster and have more practical utility if we study the strength of separate practices and their relationship with relevant intermediate outcomes at the group level, rather than the strength of HRM system as a whole in relation to generic employee attitudes.
References


Table 1

*Interrater Agreement (IRA) and Interrater Reliability (IRR) Estimates For the Study Variables.*

<table>
<thead>
<tr>
<th>Variables</th>
<th>IRA</th>
<th>IRR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$r_{WG(J)}^*$</td>
<td>$F$ ratio</td>
</tr>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Goal climate</td>
<td>.87</td>
<td>.12</td>
</tr>
<tr>
<td>Key performance indicators</td>
<td>.89</td>
<td>.06</td>
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<tr>
<td>Goal specificity</td>
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<td>.07</td>
</tr>
<tr>
<td>Trust in top management</td>
<td>.77</td>
<td>.14</td>
</tr>
<tr>
<td>Goal internalization</td>
<td>.91</td>
<td>.08</td>
</tr>
<tr>
<td>Instrumentality</td>
<td>.77</td>
<td>.14</td>
</tr>
<tr>
<td>Valence</td>
<td>.61</td>
<td>.23</td>
</tr>
<tr>
<td>Validity of MBO system</td>
<td>.78</td>
<td>.14</td>
</tr>
<tr>
<td>Goal-related leadership</td>
<td>.71</td>
<td>.18</td>
</tr>
<tr>
<td>Procedural justice</td>
<td>.82</td>
<td>.12</td>
</tr>
<tr>
<td>Informational justice</td>
<td>.80</td>
<td>.16</td>
</tr>
</tbody>
</table>

Notes: $M = \text{mean, } SD = \text{standard deviation.}$  
$r_{WG}^*$ is based on Equation 5 in Lindell, Brandt, & Whitney (1999).  
*p < .10; **p < .05; ***p < .01.
Table 2

Means, Standard Deviations, Alpha Coefficients, and Intercorrelations among Constructs (N=47).

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
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<tbody>
<tr>
<td>1 Goal climate quality</td>
<td>4.77</td>
<td>.56</td>
<td>(.87)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Goal climate strength</td>
<td>.87</td>
<td>.12</td>
<td>.61 **</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Key performance indicators</td>
<td>5.03</td>
<td>.38</td>
<td>.29 *</td>
<td>.11</td>
<td>(.75)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4 Specificity of goals</td>
<td>5.13</td>
<td>.46</td>
<td>.66 **</td>
<td>.21</td>
<td>.55 **</td>
<td>(.73)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>5 Trust in top management</td>
<td>4.60</td>
<td>.57</td>
<td>.73 **</td>
<td>.18</td>
<td>.40 **</td>
<td>.71 **</td>
<td>(.90)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>6 Goal internalization</td>
<td>5.22</td>
<td>.38</td>
<td>.56 **</td>
<td>.27</td>
<td>.29 *</td>
<td>.41 **</td>
<td>.53 **</td>
<td>(.79)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7 Instrumentality</td>
<td>4.44</td>
<td>.53</td>
<td>.19</td>
<td>.40 **</td>
<td>.19</td>
<td>.07</td>
<td>.00</td>
<td>.27</td>
<td>(.86)</td>
<td></td>
<td></td>
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<td>8 Valence</td>
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<td>1.89</td>
<td>.54 **</td>
<td>-.02</td>
<td>.17</td>
<td>.27</td>
<td>.25</td>
<td>.20</td>
<td>.08</td>
<td>-</td>
<td></td>
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<td></td>
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<tr>
<td>9 Validity of MBO system</td>
<td>4.34</td>
<td>.57</td>
<td>.59 **</td>
<td>.14</td>
<td>.48 **</td>
<td>.44 **</td>
<td>.48 **</td>
<td>.59 **</td>
<td>.27</td>
<td>.50 **</td>
<td>(.96)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Goal related leadership</td>
<td>3.58</td>
<td>.45</td>
<td>.47 **</td>
<td>.11</td>
<td>.49 **</td>
<td>.45 **</td>
<td>.65 **</td>
<td>.39 **</td>
<td>.21</td>
<td>.23</td>
<td>.60 **</td>
<td>(.90)</td>
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<td>11 Procedural justice</td>
<td>3.72</td>
<td>.38</td>
<td>.46 **</td>
<td>.02</td>
<td>.33 **</td>
<td>.42 **</td>
<td>.61 **</td>
<td>.53 **</td>
<td>.17</td>
<td>.15</td>
<td>.51 **</td>
<td>.57 **</td>
<td>(.86)</td>
<td></td>
</tr>
<tr>
<td>12 Informational justice</td>
<td>3.77</td>
<td>.41</td>
<td>.53 **</td>
<td>.16</td>
<td>.46 **</td>
<td>.47 **</td>
<td>.64 **</td>
<td>.59 **</td>
<td>.21</td>
<td>.22</td>
<td>.70 **</td>
<td>.76 **</td>
<td>.77 **</td>
<td>(.90)</td>
</tr>
</tbody>
</table>

Notes: Values on the diagonal represent estimates of internal consistency.

* p < .05; ** p < .01.
Figure 1. Hypothesized models testing the effects of distinctiveness, consistency, and consensus on goal climate quality and strength

*Standardized coefficients are presented. *p < .05**, **p < .01