

Continuous Innovation

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Continuous innovation has become a key to gaining a sustainable competitive advantage for organizations in the 21st century. Mindfulness and engagement could be characteristic mechanisms of high-quality leader–member exchange (LMX) that helps to facilitate innovation. Practical implications include its creative value in gaining a competitive edge over market competitors and helping organizations to find a sustainable source for their consistent growth through their human capital and innovative potential.

Keywords: leader–member exchange ; mindfulness ; work engagement ; innovative work behavior

1. Introduction

Continuous innovation has become a key to gaining a sustainable competitive advantage for organizations in the 21st century, set in the context of rapidly changing markets driven by constant technological advances ^{[1][2][3][4]}. The research field has already recognized the value of human capital and human relationships as some of the sources of innovation and competitive advantage across industries and countries ^{[5][6][7][8]}. Leadership has been attributed to leaders affecting behavioral changes among their employees in that leaders have the potential to inspire their employees to perform well and achieve organizational goals in competitive markets ^[9]. Mindfulness has become more salient in recent years and has been shown to increase market agility and strategic creativity ^{[10][11]}. Furthermore, mindfulness has been conceptualized as a strategy for sustainable competitive advantage, especially throughout the COVID-19 global pandemic ^[12]. Whereas there are numerous studies that link leadership (LMX) and innovation, only a few studies appeared recently linking LMX and innovation with mindfulness. Nevertheless, until now, research on innovation had not simultaneously included these variables as predictors of innovative behaviors, nor the relationships between leadership and mindfulness.

2. The Leader–Member Exchange (LMX) Theory and Innovation

The leader–member exchange (LMX) theory uses a relationship-based perspective of the leadership process. Based on role theory, LMX posits that leaders and followers undergo a role-making process in which differentiated roles result in various relationships ranging from high-quality socio-emotional to low-quality transactional ^{[13][14]}. The fundamental concept of the LMX theory is that the most effective leadership processes emerge when leaders and followers cultivate mature, high-quality relationships ^[15]. That is, this theory posits that effective leadership is realized through this dyadic relationship that is developed through a series of social exchanges of various tangible and intangible resources (e.g., leader: information, influence, desired tasks, decision latitude, support, and attention; member: task performance, commitment, loyalty, and citizenship behavior) ^[16].

Low-quality LMX, which was originally named “out-group relationships,” is based on the legal job contract and often implicates transactional leadership behaviors. On the other hand, high-quality LMX, which was originally named “in-group relationships,” transcends the formal employment contract and tends to include transformational leadership behaviors ^[16]. For instance, high-quality LMX relationships may include leaders providing followers with rich resources, such as support autonomy and decision-making latitude ^{[17][18]}. Meta-analyses have found that higher-quality LMX relationships are associated with better job performance ^[19] and extra-role performance, such as organizational citizenship behavior ^[20].

Previous research suggested relationships between LMX and innovative behavior. Leadership sets the critical psychological context to cultivate group climates of innovation. Organizational climate refers to the set of shared perceptions and descriptive beliefs of the work setting ^[16]. Leaders can be thought of as “climate engineers” ^[21] who play a key role in molding employees’ climate perceptions ^[22]. That is, leaders have the power to shape employees’ perceptions of support or other climate facets in the work environment. This leadership–climate relationship is supported by previous literature ^{[23][24][25]}. Leadership styles have also predicted innovation climate. Pons and Ramos ^[26] found that inspirational motivation and individualized consideration, two components of transformational leadership, were the first and third highest predictors of innovation climate. Further studies found an interaction effect between LMX quality and

LMX differentiation on innovation climate [27] and found LMX to fully mediate the relationship between transformational leadership and organizational citizenship behaviors [28]. Just as organizational citizenship behaviors, innovative behaviors can be conceptualized as another type of extra-role performance [29][30].

Climate perceptions, established by leadership, have been antecedents of appropriately deemed behavior [31]. An evidence-based model explained the way in which LMX affects climate perceptions and subsequent behaviors through a mediation relationship of leadership–climate–injury [32]. High-quality relationships (i.e., high-quality LMX) increase the leader's concern for her or his members' welfare [33][34][35]. These high-quality relationships are reciprocal [36] and lead to a balanced social exchange [37] in which both parties support the goals of the other party, which facilitates mutual concern [38]. Transformational leadership, associated with high-quality LMX and more intimate and personalized relationships, which consist of a higher level of concern for group members' welfare, promote supervisory safety practices [32]. This, in turn, creates higher safety climates, which leads to safer behavior, relationships supported by the integrative framework in which LMX quality would positively affect positive climate perceptions, cultivates climate strength, and facilitates similar perceptions among supervisors and subordinates [24]. To further support this framework, LMX quality, which can be defined as the level of within-group agreement of climate perceptions, has been associated with climate strength [22].

Previous research has empirically supported the positive predictive relationship between LMX on the individual dyadic level and innovation [39][40][41]. It should be noted that there is a difference between creativity and innovation. Creativity refers to “the production of novel and useful ideas in any domain,” whereas innovation includes “the successful implementation of creative ideas within an organization” [42] (p. 2). LMX has a historically positive relationship with creativity [43][44]. Multiple researchers have found LMX to predict creative work involvement [43][45]. However, it should be noted that the previous LMX–creativity correlations have been variable and the initial studies' creativity operationalizations have not been consistent (i.e., no distinction between creativity and creative work involvement) [43].

With respect to the relationship between high-quality LMX and innovation, a meta-analysis found that LMX quality was positively related to creativity and innovative follower behavior [46]. Employee satisfaction with HR practices mediated the relationship between LMX and innovative behavior [40]. This relationship is logical since creative workplaces are characterized by their capacity to create intrinsic motivation within their employees so that they transcend extrinsic motivators (e.g., financial rewards, competition) [47]. That is, the predictive relationship between high-quality LMX and innovative behavior, which has been supported by previous literature, is rational. The leader possesses the ability to establish and influence places, processes, and relationships that inspire innovation [48].

The relationships between LMX and mindfulness had recently gained interest from organizational researchers. The high-quality relationships set forth by LMX create the necessary context to facilitate mindfulness within the workers [49] (p. 729). One study proposed a mediational model between leader mindfulness (predictor), LMX quality (mediator), and employee performance (criterion), seeking to close the research gap to establish a predictive link between LMX quality and employee (i.e., member/follower) mindfulness [50].

Mindfulness has become an increasingly popular tool in the organizational setting [51]. There are two main streams of mindfulness research led by Kabat-Zinn and his colleagues, as well as Langer and her associates [52]. Kabat-Zinn's conceptualization was termed as “meditative-mindfulness” and Langer's scholarly approach was termed as “creative-mindfulness.” Whereas Kabat-Zinn highlighted mindfulness' meta-cognitive aspects (i.e., acceptance, non-striving/non-judgmental), Langer emphasized mindfulness' awareness of external surroundings and inventive aspects that form the basis of creativity [52].

Meditative-mindfulness, drawing from ancient Buddhist tradition, approaches mindfulness as present-moment nonjudgmental awareness [53]. On the other hand, creative-mindfulness views mindfulness as a flexible state of mind that is engaged in the present and its surroundings with four main components: engagement, seeking novelty, novelty producing, and flexibility [54][55]. Langer advanced the idea that mindfulness and creativity are naturally partners, as the principal characteristic of mindfulness—openness to novel ideas—initiates key cognitive processes for creativity (e.g., divergent and convergent thinking, flexibility, and ideational productivity) [56]. High-quality relationships between leaders and members stimulates a work context where non-judgments and secure climate for expressing opinions or developing new work procedures by employees are ensured. In addition, these leadership relationships provide workers with the required resources to allow reflectiveness and openness to novel ideas about tasks and goals. The immersion of tasks and the full awareness that characterizes mindfulness require a certain level of confidence and support from leadership.

In addition, mindfulness facilitates engagement and innovative behaviors. One of mindfulness' main components—decreased discursive thought—enables the individual to experientially be present in the current moment without any language [57]. Language establishes a rigid and evaluative mode of mental processes that crystalizes thought and compromises the cognitive flexibility that facilitates making “the creative leap” [58], aligning with previous findings that

verbalizing problem-solving strategies impaired performance on creativity questions [59]. A multilevel meta-analysis found a significant correlation between mindfulness and creativity [60]. A study with two field experiments provided evidence of a relationship between mindfulness, creativity, and perceived competence [61]. A series of four studies found that one particular mindfulness skill—observing and attending to multiple stimuli—consistently positively predicted creative performance [62]. Another study found that a five-week mindfulness training positively impacted creativity over time [63]. That is, mindfulness' attention-regulation capacities are significant for the creative process through the power to broaden attention and integrate more information [64]. Moreover, mindfulness has the ability to focus and immerse employees in their tasks, which in turn allows them to uncover novelties in their work activity [65]. This study uses this foundational link with creativity to further close the gap in the mindfulness–innovative behavior line of research.

Another main component of mindfulness—attention regulation—enables the individual to control focus level and attention breadth in order to optimize goal-directed behavior [66]. This allows more mindful employees to more effectively engage in complex cognitive tasks [67].

Mindfulness has predicted work engagement, as mediated by authentic functioning [68]. Engagement can be conceptualized as full attention on tasks [68][69] and as “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” [70] (p. 74). Moreover, other underlying mechanisms (i.e., positive job-related affect and psychological capital) through which mindfulness positively predicts work engagement were identified [71]. Through a mindfulness-based intervention called Mindfulness in Motion, delivered to employees working in intensive care units, a chronically high-stress work environment, the intervention group's work engagement significantly increased after their eight-week series of sessions [72]. Moreover, in a recent meta-analysis of randomized controlled trials, mindfulness-based programs not only significantly improved employee mindfulness, but also significantly increased work engagement [73]. Mindfulness could be seen as a cognitive resource that contributes to increasing employee control over job demands. Following the job demands-resources model, mindful strategies increase work engagement and other positive work outcomes [74].

Engagement is not only predicted by mindfulness, but also by LMX. Initially, a positive relationship between LMX quality and work engagement was found [75]. Further tests of the relationship between the two constructs found that LMX positively predicted employee job performance through work engagement [76]. That is, the mediation relationship between LMX and work engagement in predicting employee performance has already been established. In addition, a multilevel structural equation model concluded that high-quality LMX offered a more resourceful workplace environment, which consequently positively predicted follower job performance, as mediated by job resources and work engagement [77]. This study established the double-mediation relationship between LMX as an independent variable and work engagement as the second mediator.

Moreover, in support of this positive predictive relationship between LMX and engagement, as well as engagement's mediating role in an extra-role performance outcome (e.g., innovative work behavior), a polynomial regression analysis of 280 dyads of leaders and subordinates found that LMX agreement between the two parties maximized work engagement and subsequent extra-role behavior [78]. High-quality leadership provides employees with resources that stimulates vigor, dedication, and absorption through the support from leaders and reciprocity of employees.

Finally, work engagement stimulates innovative behavior. High-quality LMX and high levels of mindfulness could be considered job resources to facilitate employee innovative behavior via engagement [79]. Using the job demands-resources model perspective, job resources have predicted extra-role performance through engagement [74]. A three-year longitudinal study found that job resources led to work engagement and work engagement led to personal initiative. Subsequently, personal initiative had a positive effect of work-unit innovativeness over time [80]. One study found that work engagement was one of the two mediators between transformational leadership and innovative work behavior [81]. Another study offered concrete evidence with their finding that work engagement mediated the relationship between LMX and innovative work behavior [82]. This paper fills a research gap by incorporating mindfulness into this LMX–work engagement–innovative work behavior model, conceptualizing both mindfulness and work engagement as personal job resources that facilitate positive work outcomes.

In sum, the previously established predictive relationships between LMX and mindfulness, work engagement, and innovative work behavior, in addition to the predictive relationships between mindfulness and engagement and creative performance, form the basis of this study's hypothesized double-mediation model. Although there has been previous empirical support for the predictive nature of the relationships between these constructs, there is no one theory that can explain all of these inter-variable relationships. Only the job demands-resources model [74] had provided support for the relationship between job resources (i.e., mindfulness, as well as high-quality relationships, considered resources at work) and work engagement and performance (i.e., innovative behaviors).

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