

The negative effect of supervisor bottom-line mentality on employee creativity: The mediation of harmonious passion and moderating effect of humble leadership

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Abstract

Integrating social information processing theory with self-determination theory, we explored the negative influence towards employee creativity from supervisor bottom-line mentality (BLM), which refers to a one-dimensional mindset solely focusing on bottom-line outcomes and neglecting other considerations. By introducing harmonious passion as a potential mechanism beneath the relationship, we proposed that supervisor BLM may deliver information about exclusively pursuing the bottom line and hinder employees from internalization of work activities into their identities, hence weakening their harmoniously passionate motivation at work and in turn impairing their creativity. We further probed humble leadership from behavioral perspective as a boundary condition of such negative influence, referring to supervisors' admitting their weaknesses and acknowledging employees' contributions as well as keeping open for new ideas. When supervisors present more humble leadership behaviors, the impeded internalization of employees may be recovered to some extent and the negative relationship between supervisor BLM and employee harmonious passion would be mitigated. An overall moderated mediation was proposed in our research model that humble leadership buffered the indirect effect from supervisor BLM to employee creativity. Our hypotheses were generally supported by a multi-wave survey data collected from an online platform. Theoretical contributions and practical implications of the study are discussed.

Keywords Supervisor bottom-line mentality \cdot Harmonious passion \cdot Employee creativity \cdot Humble leadership \cdot Self-determination theory

Introduction

For modern organizations in business, economic performances and burgeoning profits are usually utilized to judge whether they are in a great operation circumstance as well as a bright prospect (Kramer & Pfitzer, 2022). Such goals are usually regarded as the bottom-line pursuit for an organization to survive. However, it will be problematic if

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¹ School of Business, Renmin University of China, Zhongguancun Street, Haidian District, Beijing, China organizations and executives treat such bottom-line as the only objective and neglect other crucial factors supporting the long-term thriving such as caring for employees and upholding social ethics (Wolfe, 1988). Former corporate scandal cases such as Volkswagen (e.g., Egan, 2016) have shown that blindly pursuing financial profits while ignoring other considerations may contrarily obstruct the normal operation and even ruin the organization. Hence, it is essential to deepen the understanding of this mindset and prevent it from damaging the operation and development of organizations. Such mindset is conceptualized as bottom-line mentality (BLM), referring to "a one-dimensional thinking that revolves around securing bottom-line outcomes to the neglect of competing priorities" (Greenbaum et al., 2012, p. 344).

Since the concept was introduced into organization research, a surge of studies pertaining to BLM have been conducted to enlarge the understanding of its nomological network. Regarding its outcomes on employees, research has found mixed results on task performance and has broadened the findings about the relationship between supervisor BLM and employee extra-role behaviors as well as other ethical behaviors. While in some research supervisor BLM was found positively related to employee task performance (Babalola et al., 2021), it was also possible to induce a worse leader-member exchange relationship hence have a negative impact on employee performance (Quade et al., 2020), revealing that supervisor BLM is not necessarily positive in nature and may entail results bad for employees and organizations. In terms of employee extra-role behaviors, Chen et al. (2022b) found that supervisor BLM positively influenced employees' helping behavior through enhancing their bottom-line goal commitment. What's more, supervisor BLM was found to potentially result in more employee unethical conduct, such as pro-self unethical behavior (Mawritz et al., 2023) and social undermining towards coworkers (Greenbaum et al., 2012).

Although current research has exerted to explore the influence of supervisor BLM and discovered many important findings, employee creativity was surprisingly seldom brought into focus. Defined as the ability and behavior to generate new thoughts and novel ideas potentially helpful for problem solving, creativity is vital to employee competency and organizational viability (Shalley et al., 2015). In the competitive and changeable modern business environment, creativity becomes more and more essential and of pivotal significance, hence has gained burgeoning attention in organizational research. Unpacking the relationship between supervisor BLM and employee creativity will further broaden understanding of the nature and potential disadvantage of supervisor BLM. The existing research relating BLM with creativity is the work of Greenbaum et al. (2020). Their study was framed at group level and adopted goal shielding theory to explain the impact of group BLM on group creativity through psychological safety. However, it remains unclear in the individual level how employee creativity is influenced by supervisor BLM both in direction and extent, as well as what acts as the potential mechanism beneath the relationship. Solving such research gap will contribute to both current literature and management practices.

We adopt social information processing theory (Salancik & Pfeffer, 1978) and self-determination theory (Ryan & Deci, 2017) to propose our research model, unfolding the relationship between supervisor BLM and employee creativity as well as the mechanism and boundary beneath it. Social information processing theory emphasizes the influence of external environment cues on guiding individual behavior, while self-determination theory focuses on one's internal psychological motivation state and process. Integration of the two theories provides an overarching framework for comprehensively scrutinize how employee creativity would be impaired under supervisor BLM from both external and internal perspective. Based on social information processing theory, a supervisor with BLM would release cues of desperately pursuing bottom-line outcomes at work, which would be perceived by employees and drive them explore ways to exclusively accomplish the bottom line. In our research, we identify harmonious passion as the internal mechanism of such process, which refers to being autonomously internalized an activity within one's identity hence companied with enjoyment when involved in such activity (Vallerand et al., 2003). According to self-determination theory, employees under the dominance of bottom-line pressure are less likely to autonomously pursue their personal goals and internalize their ongoing activities into their identities, hence weakening their harmonious passion at work. The lower harmonious passion may subsequently impede them from engaging in work proactively and impairing their creative performance.

Furthermore, we aim to explore the boundary of such relationship by examining the moderation effect of humble leadership, referring to supervisor's behaviors of admitting their own mistakes, highlighting follower strengths, and being open enough to feedback as well as keeping learning (Owens & Hekman, 2012). Social information processing theory proposes that one's attitude and behavior will be influenced by their perceived external information (Salancik & Pfeffer, 1978). We believe that humble leadership, as a highly visible behavior style with positive attribute, may mitigate the negative effect of supervisor BLM on employee creativity. Compared with those less in expressed humility, supervisors manifesting humble behaviors always provide more positive information about work activities for employees such as sincere acknowledgement towards their contributions and may uplift the security of employees' exploratory attempts. Humble leaders hence encourage them to autonomously involve in their job as well as to take initiatives with creativity. Thus humble leadership is possible to alleviate the negative relationship between supervisor BLM and employee creativity transmitted by harmonious passion.

This research is anticipated to have several contributions. First, it introduces self-determination theory into BLM literature to broaden current understanding of supervisor bottom-line mentality and explores its relationship with employee creativity. The potential detrimental effect on creativity spotlights an insight to future research for further probing, as well as reminding practitioners of being cautious about blindly pursuing bottom line. Second, this research discovers the mechanism beneath the mentioned relationship by examining the mediating effect of harmonious passion, which clearly reveals the specific process and brings in more implications. Third, humble leadership is included in our research model, acting as a boundary condition to mitigate the negative effect from supervisor BLM. By probing such moderation effect, this research identifies the possible alleviating factor and develops a comprehensive view for the proposed relationship, further facilitating future research agenda.

Literature review

Supervisor bottom-line mentality

In light of so many cases of organization failure blaming to blindly pursuing financial outcomes while ignoring multiple values, research on bottom-line mentality is of great practical significance and has been highly emphasized. Bottom-line mentality (BLM) was defined as a mindset with a narrow focus on bottom-line outcomes, like financial consequences, while neglecting competing priorities (Greenbaum et al., 2012). Compared with BLM existing inside employees, supervisor BLM has been explored greater in width and depth (Greenbaum et al., 2023), for supervisors' important role at work as well as their wide-range social connections in teams. Among current research, those probing into consequences take up a larger part and contribute a lot to our understanding of the construct, especially its dysfunctional influences such as inducing employee proself unethical behavior (Mawritz et al., 2023) and social undermining towards coworkers (Greenbaum et al., 2012), as well as decreasing employee performance (Quade et al., 2020) and increasing turnover intentions (Mesdaghinia et al., 2019). The reason is that aiming only at bottom-line goals may make supervisors ignore other important aspects such as ethics and employee well-being (e.g., Mawritz et al., 2023), which can in turn bring unfavorable outcomes to organizations.

Employee creativity

Creativity is conceptualized as the generation of novel thoughts and useful ideas (Shalley et al., 2015), which has been found to be significant for both individuals and organizations (Zhou & Hoever, 2014). Employees with high creativity may behave better in addressing job challenges such as dealing with unexpected problems and proceeding their work flows proficiently (Shalley et al., 2015), which displays their high competency and competitiveness. Regarding its benefits toward organizations, creativity helps organizations upgrade work practices with better productivity and has become a source of distinct advantage in modern competition (Anderson et al., 2014; Baer, 2012).

Harmonious passion

Self-determination theory proposes that individual motivation acts as a continuum with the autonomy inside ranging from high to low (Ryan & Deci, 2017). The internalization extent of an activity decides the purity and power of the motivation. Defined as "a strong inclination toward an activity that people like, that they find important, and in which they invest time and energy" (Vallerand et al., 2003, p. 757), passion was proposed as two types on the extent of an activity's internalization into one's core self, i.e. obsessive passion and harmonious passion. Compared with obsessive passion referring to a controlled internalization of the activity, harmonious passion reflects one's full volition of engaging themselves within an activity and the harmonious mental state during the ongoing activity (Vallerand et al., 2003).

The nomological network of harmonious passion has been investigated in previous research. As for antecedents, personal factors such as personality preferences (Egan et al., 2017) have been revealed to influence individual harmonious passion given that personality preferences are closely linked with individuals' basic psychological need satisfaction, which can further have an impact on harmonious passion. In addition, contextual factors such as team support for autonomy (Liu et al., 2011) were also found to influence one's harmonious passion. The reason is that one of the three primary fundamental psychological needs for individuals, which is attaining a feeling of autonomy, can be satisfied with such kind of team support. That can in turn contribute to harmonious passion given that basic psychological need has been satisfied. Arising from a highly autonomous process, harmonious passion produces a stronger motivational force for individuals to engage in the activity with full volition (Vallerand et al., 2003), hence always leading to one's positive cognition, behavior, and performance. For example, harmonious passion was found to positively correlated to one's positive affect, concentration, and work performance in personal level (Curran et al., 2015; Pollack et al., 2020). As for interpersonal level, Ho et al. (2018) also found the promoting effect of harmonious passion on interpersonal interaction in the form of helping behavior.

Humble leadership

From the behavioral perspective, Owens and Hekman (2012) conducted in-depth interviews with leaders in various working contexts including banking, hospital, and manufacturing. They summarized humble leadership behaviors

as "view themselves more objectively, others more appreciatively, and new information or ideas more openly" (Owens & Hekman, 2012, p. 789). Three dimensions were highlighted for humble leadership including leaders' acknowledgement of their personal mistakes and limits, spotlighting follower strengths and contributions, and modeling teachability. Since then, the construct has been popular and accumulating concern among both academics and practitioners for its great value (Kelemen et al., 2023). In former research focusing on follower outcomes, humble leadership has been found to weaken employees' sense of power towards their supervisor (Lin et al., 2019), support their psychological freedom (Owens & Hekman, 2012), enhance their participative decision making and uplift the level of satisfaction (Chandler et al., 2023), as well as other beneficial influences (Kelemen et al., 2023). Luu (2020) also found in sales teams that humble leadership is positively associated with employees' adaptive selling behavior through customeroriented harmonious passion.

Social information processing theory and selfdetermination theory

Based on the literature review on the core constructs presented above, we found out important research gaps in current literature. Although previous research has accumulated findings about the effects of supervisor BLM, employee creativity as an important outcome was surprisingly neglected, especially in individual level, hence its relationship with supervisor BLM is yet to be further explored. In current competitive and changeable business environment, employee creativity becomes more and more essential to organizational viability. The lack of focus on the effect on employee creativity from supervisor BLM may underestimate the potential harm and would be detrimental to organizational performance and survival. Besides, probing and revealing potential mechanism and moderator beneath such relationship will better promote the understanding of the nature and underlying disadvantage of supervisor BLM, which will greatly contribute to current literature and management practices. Hence, our research aims at unfolding the relationship between supervisor BLM and employee creativity as well as the mediating mechanism and moderating boundary beneath it. We combine social information processing theory and self-determination theory as the overarching framework to build up our research model, in order to better comprehend the effects on employees' workplace creativity from the social cues perceived by them.

Social information processing theory emphasizes the influence of context on directing one's attitudes and behaviors (Salancik & Pfeffer, 1978; Zalesny & Ford, 1990). Regarding individuals as adaptive organisms, this theory

contends that "social environment provides cues which individuals use to construct and interpret events", as well as "provides information about what a person's attitudes and opinions should be" (Salancik & Pfeffer, 1978, p. 226). Individuals are directed by their socially constructed observations from the surroundings to adjust their attitudes and behaviors to fit within the social context. Social information processing theory is prevalently utilized on employee attitudes and behaviors in organizational context considering various important social cues in it, such as leadership styles and coworker interactions. Former research has adopted this theory on the effects of supervisor bottom-line mentality on employees' attitudinal and behavioral responses (Greenbaum et al., 2023). For example, Babalola et al. (2022) drew on social information processing theory to demonstrate that supervisor BLM may drive employees to perceive a competitive climate which will result in their thriving at work but insomnia outside of work.

Complementarily, self-determination theory focuses on one's inner mental motivational status and process, helping us analyze individual responses when faced with outward social cues. Adopting the organismic and dialectical perspective in philosophy, self-determination theory assumes that human beings proactively pursue several innate psychological needs and exert to be self-determined when interacting with external environment (Deci & Ryan, 1985). Self-determination theory proposes three universally existing needs as basic psychological needs innate for humans, i.e. autonomy, competence, and relatedness (Ryan & Deci, 2000, 2017). Autonomy is defined as a feeling of willingness and volition on a specific behavior while competence and relatedness respectively refer to feeling effective to environmental interactions and closely connected to others in groups and society. Satisfaction of such fundamental needs, especially the one of autonomy, helps individuals enhance the quality of their motivation towards an activity as well as one's long-term involvement (Gagné & Deci, 2005; Liu et al., 2011). Ryan and Deci (2017) proposed that the conditions of supporting for the satisfaction of such personal needs would help promote one's integration of an activity, hence uplifting their motivational quality.

Integrating social information processing theory with self-determination theory provides a comprehensive framework, both externally and internally in a sequential perspective, for unpacking the relationship between supervisor bottom-line mentality and employee creativity. To be specific, social information processing theory emphasizes the role of external environmental cues one may perceive (Salancik & Pfeffer, 1978), which helps interpret the influencing process on employees from supervisor BLM as important external information. Self-determination theory, with a focus on one's internal psychological motivation state and process (Ryan & Deci, 2017), further depicts how employees' perceived outward information may function in their inner mindset and subsequently influence their creative performance at work. Hence, the integration of the two theories provides a more comprehensive perspective for understanding the whole process of how supervisor BLM may influence employee creativity.

Hypotheses development

Supervisor bottom-line mentality and Employee Creativity

In spite of the advantages of creativity (e.g., Anderson et al., 2014; Baer, 2012), employees at work are not always available at exploring on their own and realizing their full potential on creativity. Actually, creative processes for employees are bounded by various constraints (Acar et al., 2019). As prevalent in modern business, bottom-line mentality from supervisors may act as a contextual constraint and has potential detrimental effect on creativity. Probing the influence of supervisor bottom-line mentality on employee creativity is of great significance both theoretically and practically. Disappointingly, such relationship has been seldom investigated in current research. An exception is Greenbaum et al.'s (2020) study in group level. They explored relationship between group BLM and group creativity through psychological safety with goal shielding framework, which provided interesting and important insights for latter research. However, the individual-level creativity has been neglected and its relationship with supervisor BLM is yet to be explore. Besides, although Liu et al. (2022) focused on employee innovation and found the effect of supervisor BLM on it through psychological contract breach, former research has clarified great distinction that creativity refers to the idea generation stage whereas innovation emphasizes the idea implementation phase (Amabile et al., 1996; Anderson et al., 2014), which makes it essential to further focus on the specific relation between supervisor BLM and employee creativity. Hence the relationship and influencing process between supervisor BLM and employee creativity are yet to be further probed.

In light of the limited and unclear understanding, our research combines social information processing theory with self-determination theory as an overarching framework to explore the relationship between supervisor BLM and employee creativity. Prevalent theories adopted to analyze the consequences of supervisor BLM in past research included social cognitive theory (e.g., Greenbaum et al., 2012), social information processing theory (e.g., Babalola et al., 2022) and social exchange theory (e.g., Quade et al.,

2020). Greenbaum et al. (2023) mentioned that new theoretical perspectives were yet to introduced into the literature for better capturing the effects of BLM. Our research complementarily introduces self-determination theory into BLM literature as a new perspective. It may bring some new insights and help us better comprehend the effect of supervisor BLM on employee motivation as well as their performance at work (Gagné & Deci, 2005).

Componential model of creativity (Amabile, 1988) summarized three essential components leading to individual creativity: basic resources or raw materials, a set of processes or skills for combining them in new ways, and a motivation driver. According to social information processing theory (Salancik & Pfeffer, 1978; Zalesny & Ford, 1990), employees search for cues in their working context to guide the ways they perform at work. When their supervisors possess bottom-line mentality, this social cue will drive them place better emphasis on such pursuit. Their cognitive resources will be taken up mainly on the specific bottomline target perceived from their supervisors, which lessens the essential ones for creative process. Besides, Zhou et al. (2019) reviewed and proposed that the topic of the receiving side of creativity was of both scientific and practical value. If supervisors simply emphasize the bottom-line outcome, they may show less interest in collecting and adopting new ideas on work activities. The indifference of the receiving side will reversely deliver a negative signal to employees and leaving them an expectation of being rejected, hence blocking them from creativity emergence.

Furthermore, based on self-determination theory (Ryan & Deci, 2017), supervisor BLM is likely to greatly impair the quality and power of the subsequent motivation component driving to creativity emergence. If supervisor holds a mentality that only bottom-line outcomes matter, they are likely to give detailed arrangements on how tasks should be implemented in order to make sure everything goes along the path of meeting the bottom line. Employees are given less entitlement to complete their tasks with own volition or even flexibly adjust their work arrangements. Besides, the information perceived from supervisors' bottom-line pursuit will narrow down the focus of employees, driving them to feel mentally occupied and highly controlled. Hence, their autonomy need is impeded from satisfaction and they will experience a more controlled motivation at work (Deci & Ryan, 2008; Ryan & Deci, 2017), which may in turn weaken their creativity. In summary, aligned with the viewpoints of social information processing theory and self-determination theory, we hypothesize:

Hypothesis 1 Supervisor bottom-line mentality is negatively related to employee creativity.

The mediating role of harmonious passion

Base on the proposed relationship above between supervisor BLM and employee creativity, we further explore the underlying mechanism to achieve a detailed understanding upon our research question. We introduce harmonious passion as an important motivational mediator in such relationship.

With regard to current research on harmonious passion, Egan et al. (2017) called for more attention on the effects of work environment antecedents and more investigation on the relationship between leadership and employee work passion. To broaden such understanding, we relate employee harmonious passion to supervisor BLM and probe the role of harmonious passion in the relationship between supervisor BLM and employee creativity. Few research investigated the relationship between BLM and individual passion in workplace, except for the work of Schellenberg et al. (2022). They focused on the obsessive aspect of passion and connected it with BLM in workplace and proposed that one's lay belief of the necessity of obsessive passion in high BLM context would in turn promote their obsessive passion. This research emphasized that employees' general lay belief of work success as an intrapersonal factor counts, instead of putting an emphasis on the influence of their supervisor as well as the interaction between subjects. Besides, for the harmonious aspect of work passion, i.e. harmonious passion, which is beneficial and significant, its relationship with supervisor BLM remains undiscovered in previous research. Exploring such relationship helps us reveal an important leader-related contextual antecedent for harmonious passion and also contribute to management practices. Our research takes up the role to investigate how supervisor BLM affects employees' harmonious passion, as well as the subsequent consequence and potential boundary in actual workplace setting.

Based on social information processing theory and selfdetermination theory (Ryan & Deci, 2017; Salancik & Pfeffer, 1978), we argue that supervisor BLM may decrease employees' harmonious passion at work. First, supervisor BLM signals the specific emphasis on bottom-line outcomes and blocks employees from working with free orientation and full volition. Occupied by bottom-line mentality, supervisors tend to regard employees as the tool to achieve the outcome rather than a partner with high-quality social exchange (Quade et al., 2020), hence may impose their expected goals and assign determined specific tasks to team members, presenting a higher dominance at work (Chen et al., 2022a) and leaving less space for employee discretion. It is even possible for such supervisors to tightly monitor their employees in order to make sure they are completing their tasks in the ways as expected to be beneficial to bottomline outcomes. Employees can clearly perceive the information with specific direction from their supervisor, hence adjusting their behaviors rather than accomplishing their work with full volition and in a harmonious mental state. Therefore, supervisor BLM will definitely impair the extent employees feel to be self-determined.

Second, the overemphasis on bottom line may impose high pressure on employees both cognitively and interpersonally, hence hindering them from feeling in harmony. On the one hand, working with a supervisor solely pursuing bottom-line performance, employee tend to behave under high pressure and perceive a highly competitive climate (Babalola et al., 2022). Even slightly deviating from the expected route may impose the feeling of incompetence on them because they will be to blame for the potential failure of meeting the outcomes, which will go against employees? competence need satisfaction. On the other hand, blindly emphasizing the bottom line was found to reduce the leadermember exchange (LMX) quality (Quade et al., 2020). It will be difficult for employees to fulfill the need of relatedness during the interaction with their supervisor. Besides, supervisor BLM may induce an intense competitive climate in teams (Babalola et al., 2022) and even social undermining towards coworkers (Greenbaum et al., 2012), which will be harmful for employees to feel closely connected and sincerely included with their team members. In summary, supervisor BLM delivers the emphasis on the bottom line with pressure and impedes employees from satisfying three basic psychological needs at work hence will hinder employees' internalization of external regulations and exert a harmful influence on their harmonious passion.

We further propose the mediating role of harmonious passion in the relationship between supervisor BLM and employee creativity. Former research has found established evidence for the beneficial effects of harmonious passion at work and life, such as bringing positive affect, high engagement and great flow (Curran et al., 2015). Based on self-determination theory, Liu et al. (2011) explored the linkage of organizational autonomy support and individual autonomy orientation towards employee creativity, providing rigorous support for the positive relationship between employee harmonious passion and creativity. When employees experience strong harmonious passion at work, they are working with high autonomy which plays an essential role in motivating them to generate novel and useful ideas (Amabile et al., 1988). Hence, taking the relationship between supervisor BLM and harmonious passion together, employee creativity may be damaged by lower harmonious

passion resulting from supervisor BLM. Based on the arguments above, the following hypotheses are proposed:

Hypothesis 2 Supervisor bottom-line mentality is negatively related to employee harmonious passion.

Hypothesis 3 Harmonious passion mediates the negative relationship between supervisor bottom-line mentality and employee creativity.

The moderating role of humble leadership

We further explore the potential boundary condition of the above relationships. Aside from the mindset lying inside supervisors like BLM, their presented behaviors at work may also influence employees' passion and subsequent creative performance, in a more straightforward and visible way. Unlike bottom-line mentality acting as an inner mindset that is mainly regarded as a long-term trait and takes time to be altered (Greenbaum et al., 2023), supervisors' manifested behaviors are changeable and adjustable hence also have great value in management practices. According to social information processing theory (Salancik & Pfeffer, 1978), such behaviors may act as an important source of messages for employees' perception and have influences on employee performance such as creativity. It has been clearly proposed that "leadership style and expected behaviors can shape the effect of information and examples available within an actor's environment" (Zhou & Hoever, 2014, p. 339). Hence, in this research we further dig into the feasible behavioral way for supervisors to attenuate the negative influence from their BLM.

Former research has found that it would be beneficial for followers' attitudinal and behavioral outcomes as well as their performance if leaders adopt a humble style at work such as making objective evaluations to themselves, viewing others appreciatively, and keeping open enough to new ideas (Chandler et al., 2023; Kelemen et al., 2023), namely humble leadership behaviors. Nevertheless, it remains uncertain about whether such leadership style could mitigate the detrimental impact of their bottom-line mentality. Hence, we further highlight humble leadership behaviors (Owens & Hekman, 2012) and investigate its potential moderating effects on the negative relationship between supervisor BLM and employees' harmonious passion as well as their subsequent creativity.

Based on social information processing theory (Salancik & Pfeffer, 1978), employees seek social cues in their work context especially from their supervisors and adopt those socially constructed observations to guide their own actions. When supervisor presents more humble behaviors, even if they are possessing a bottom-line mentality, they seldom shift the blame of their mistakes onto employees but honestly acknowledge such faults. They also show adequate patience and inclusion from their behavioral manifestations and deliver more positive information to employees, therefore employees will perceive less pressure on strictly accomplishing the bottom-line pursuit as well as less power and control from their supervisor (Lin et al., 2019). According to self-determination theory, the satisfaction of three basic psychological needs facilitates one's internalization and promote the perceived self-determination level hence leading to a strong harmonious passion (Ryan & Deci, 2017). Positive signals from supervisors' humble behaviors will give employees more space for free trial and be beneficial to their autonomy need satisfaction as well as the internalization of their work. Besides, humble supervisors admit and spotlight the contributions and strengths of employees as well as keep an open mind to new ideas from others (Owens & Hekman, 2012; Kelemen et al., 2023), which will make employees experience higher competency and perceive a better social connection in the process of pursuing bottom-line outcomes. Hence, when supervisor holding a BLM presents more humble leadership behaviors, the impairing effect of their BLM on employee harmonious passion may be mitigated.

On the contrary, when supervisors seldom display humble behaviors at their pursuit of bottom-line, they may deny the mistakes supposed to be their blame and accuse their employees of any deviance from expected bottom-line outcomes, hence inducing an impairing effect on employees' psychological safety (Qian et al., 2020) as well as imposing threats for employees to autonomously explore and implement their tasks. What's else, they rarely appreciate employees' contributions at work and adopt feasible suggestions from employees. It will drive employees to doubt whether they are competent enough in reaching the desired bottomline outcomes and also worsen their feelings of inclusion in the team. Hence, less humble leadership behaviors may even amplify the negative influence of their BLM on employee harmonious passion. Integrating the arguments together, humble leadership may mitigate the harmful effect of supervisor BLM on employee harmonious passion.

Furthermore, humble leadership is likely to moderate the negative relationship between supervisor BLM and employee creativity through harmonious passion. Compared with those displaying less humble leadership behaviors, when supervisor holding a BLM acknowledges their personal limits and employees' contributions as well as keeps open to different ideas, more positive messages are perceived and more freedom is guaranteed during employees' implementation of work activities. They are harmoniously passionate enough to probe in novel ideas on their

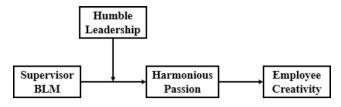


Fig. 1 Hypothesized theoretical model

work and confidently share with others considering that their competence and relatedness needs are also satisfied to some extent. Under such circumstance, employees are likely to present more creativity. It means that humble leadership somewhat reverses the disadvantageous effect of supervisor BLM on employee creativity. Hence, we propose a moderated mediation model in our research. The overall research model is depicted as Fig. 1. As described above, we propose the following hypotheses:

Hypothesis 4 Humble leadership moderates the relationship between supervisor bottom-line mentality and employee harmonious passion, such that the negative relationship is weaker when humble leadership is higher.

Hypothesis 5 Humble leadership moderates the indirect relationship between supervisor bottom-line mentality and employee creativity through harmonious passion, such that the indirect negative relationship is weaker when humble leadership is higher.

Methods

Sample and procedure

We utilized Prolific to collect working participants into our survey. Prolific is an online platform specialized for recruiting subjects for research projects, whose data quality has been found more reliable than other similar platforms (Eyal et al., 2022). To enhance our data quality, we made several restrictions on the included sample. Participants were required to be currently in the working status with more than 20 work hours per week. Those with a past approval rate below 85% were filtered out. To reduce the potential social desirability and acquire reliable responses, we promised that participants in our survey would be anonymous and their responses would be only used for academic research. We collected data in two waves in order to reduce common method bias (Podsakoff et al., 2003). At Time 1, questionnaires were distributed to 250 participants regarding their basic demographics as well as their direct supervisors' BLM and humble leadership behaviors. Their avoidance

Industry	Ν	Percent	
Retailing	36	19.9%	
Service	32	17.7%	
Information technology	29	16.0%	
Manufacturing	22	12.2%	
Healthcare	20	11.0%	
Education	17	9.4%	
Finance	13	7.2%	
Other	12	6.6%	
Total	181	100.0%	

goal orientation as a control variable was also collected. Two weeks later, a second survey was distributed to 238 participants who successfully passed the attention check in Time 1. They reported their harmonious passion and work creativity during the last two weeks. We use participants' unique ID to match the responses from the two waves and obtained 190 paired responses. After 9 participants were excluded for attention checks in Time 2, the final sample size came to 181, with an overall response rate of 72.4%.

Participants worked in various industries with retailing, service and information technology taking up the largest parts. The specific distribution of industries was summarized in Table 1. 44.75% of the participants were female. Age information was collected in age groups with the largest three proportions fell into groups of 25–34 years old, 35–44 years old, and 45–54 years old with the percentage of 30.9%, 27.6% and 19.3% respectively. In terms of education, 87.8% of the participants held a degree above high school. The average organizational tenure of the participants was 80.79 months.

In our study, confirmatory factor analysis (CFA) was conducted to compare different measurement models as well as evaluate the discriminant validity of the key measures. Proposed hypotheses were examined with regression and path analysis using Mplus version 7.4. For moderation models, interaction variables were centralized before analysis for a better interpretation of the results (Aiken & West, 1991).

Measures

Measures widely validated with high reliability in former research were utilized in our survey. All items were rated in 7-point Likert-type scales with anchors from 1 (strongly disagree) to 7 (strongly agree), except for humble leadership with a 5-point scale.

Supervisors bottom line mentality

Supervisor BLM was assessed with Greenbaum et al.'s (2012) 4-item measure. Sample items include "My supervisor is solely concerned with meeting the bottom line" and

"My supervisor treats the bottom line as more important than anything else" ($\alpha = 0.95$).

Humble leadership

Owens et al.'s (2013) 9-item measure was used to assess humble leadership. Sample items include "My supervisor admits it when they don't know how to do something" and "My supervisor often compliments others on their strengths" ($\alpha = 0.96$).

Harmonious passion

Vallerand et al.'s (2003) 7-item subscale regarding the harmonious dimension of work passion was used to assess harmonious passion. Sample items include "The new things that I discover with my job allow me to appreciate it even more" and "My job is in harmony with the other activities in my life" ($\alpha = 0.94$).

Work creativity

Work creativity was assessed with Baer and Oldham's (2006) 4-item measure. Sample items include "I suggest new ways of performing work tasks" and "I am a good source of creative ideas" ($\alpha = 0.94$).

Control variables

Besides basic demographics including gender (males were coded as 1 while females were coded as 0), age, education and organizational tenure, we controlled employees' performance avoidance goal because former research found potential negative correlations between avoidance goal and harmonious passion (Vallerand et al., 2007) as well as creativity (Gong et al., 2013). Avoidance goal orientation was assessed with VandeWalle (1997) 4-item performance avoid subscale (α =0.91).

Results

Confirmatory factor analyses

Before we conducted our formal analysis, we carefully scrutinized whether common method bias was severe in our data (Podsakoff et al., 2003). Following Podsakoff et al. (2003), we adopted confirmatory factor analysis (CFA) as "a more sophisticated test of the hypothesis that a single factor can account for all of the variance". The result of one-factor model showed poor fit indexes (χ^2 (252)=2447.737, p < .01, CFI=0.501, TLI=0.453, RMSEA=0.219), indicating that it was unlikely that a single factor could explain the majority of the variance. Hence, the result supported that common method bias was not severe in our research data.

Besides, we further conducted several confirmatory factor analyses to verify our measurement model (shown in Table 2). Our proposed four-factor model (i.e., supervisor BLM, humble leadership, harmonious passion, and creativity) presented a reasonable model fit result (χ^2 (246)=567.642, p < .01, CFI=0.927, TLI=0.918, RMSEA=0.085), which was superior to alternative models such as the three-factor model combining harmonious passion and creativity (χ^2 (249)=1075.059, p < .01, CFI=0.812, TLI=0.792, RMSEA=0.135). Such results also provided support for discriminant validity of our key variables.

Descriptive statistics

Means, standardized deviations, correlations, AVEs and reliability alphas of involved variables are presented in Table 3. As shown in the table, supervisor BLM was negatively correlated with employee harmonious passion (r=-.19, p<.05) and work creativity (r=-.26, p<.01). Employee harmonious passion was positively correlated to their creativity (r=.55, p<.01).

Hypotheses testing

The results of regression analyses are summarized in Table 4 and bootstrapping results for testing indirect effects are summarized in Table 5. We proposed in Hypothesis 1 that

Table 2 Comparison of measurement models

Tuble 2 Comparison of measurement models							
Model	χ^2	$\Delta \chi^2$	df	χ^2/df	CFI	TLI	RMSEA
Four-factor model	567.642	/	246	2.307	0.927	0.918	0.085
Three-factor model (SBLM+HL)	1010.435	442.793	249	4.058	0.827	0.808	0.130
Three-factor model (HP+CREA)	1075.059	507.417	249	4.318	0.812	0.792	0.135
Two-factor model (SBLM+HL, HP+CREA)	1517.697	950.055	251	6.047	0.712	0.683	0.167
One-factor model	2447.737	1880.095	252	9.713	0.501	0.453	0.219

Notes: N = 181. SBLM = supervisor bottom-line mentality, HL = humble leadership, HP = harmonious passion, CREA = creativity. CFI = comparative fit index, TLI = Tucker-Lewis index, RMSEA = root mean square error of approximation

Table 3 Descrip	tive statistics,	, reliability est	imates, and c	Table 3 Descriptive statistics, reliability estimates, and correlation matrix								
Variable	Μ	SD	AVE	1	2	3	4	5	6	7	8	6
1. Gender	0.55	0.50	ı									
2. Age	3.03	1.22	ı	-0.19*								
3. Education	4.47	1.34	ı	-0.02	0.03							
4. Tenure	80.79	85.10	I	0.01	0.29^{**}	0.04						
5. AVO	3.66	1.50	0.76	0.10	-0.17*	0.11	0.01	(0.91)				
6. SBLM	3.53	1.65	0.69	0.07	-0.04	0.07	-0.11	0.09	(0.95)			
7. HL	3.66	1.02	0.66	0.08	0.01	0.08	0.17*	-0.04	-0.64^{**}	(0.96)		
8. HP	4.47	1.33	0.66	-0.04	0.03	0.01	0.04	-0.19^{*}	-0.24^{**}	0.43**	(0.94)	
9. CREA	4.57	1.39	0.70	-0.01	0.04	0.10	0.07	-0.26^{**}	-0.26^{**}	0.44^{**}	0.55^{**}	(0.94)
Notes: $N = 181$. SBLM = supervisor botto are shown in parentheses on the diagonal	SBLM = supe rentheses on t	trvisor bottom the diagonal	-line mentali	ty, HL = humble	leadership, HP	= harmoniou	s passion, CR	EA = work creativ	<i>Notes: N</i> = 181. SBLM = supervisor bottom-line mentality, HL = humble leadership, HP = harmonious passion, CREA = work creativity. AVE = Average variance extracted. Cronbach's alphas are shown in parentheses on the diagonal	tge variance ex	tracted. Cronb	ıch's alphas
**p < .01, *p < .05	05											

supervisor BLM would be negatively related to employee creativity. The result of Model 1 shown in Table 4 supported this hypothesis (B = -0.20, SE = 0.06, p < .01). The negative relationship between supervisor BLM and employee harmonious passion proposed in Hypothesis 2 was also supported as the presented Model 2 (B = -0.18, SE = 0.06, p < .01). For mediation effect linking supervisor BLM to employee creativity through harmonious passion, the significant relationship between harmonious passion and creativity in Model 3 (B = 0.51, SE = 0.07, p < .01) provided preliminary support. We further utilized Monte Carlo-based simulation with bootstrapping technique of 5,000 times to examine the mediation relationship. As shown in Table 5, the indirect effect from supervisor BLM to employee creativity was significantly negative (B = -0.09, SE = 0.04, 95%) CI = [-0.18, -0.02]). Therefore, Hypothesis 3 was supported.

We proposed moderation effects of humble leadership in Hypothesis 4 and Hypothesis 5. For Hypothesis 4, the moderation effect on the relationship between supervisor BLM and harmonious passion was found significant as shown in Model 4 (B=0.12, SE=0.05, p < .05). To further probe in such moderation effect, we further conducted simple slope test following the procedure recommended by Aiken and West (1991). Figure 2 was plotted based on the relationship of supervisor BLM and harmonious passion under contexts with high (+1 SD) or low (-1 SD) humble leadership. As shown in the figure, when humble leadership was high, the negative relationship between supervisor BLM and harmonious passion was reversed to significantly positive (slope=0.19, p < .01). When humble leadership was low, the relationship between supervisor BLM and harmonious passion was negative but not significant (slope = -0.06, p > .10). Hence, the results indicated the moderation effect of humble leadership and Hypothesis 4 was supported in our research. For moderated mediation model proposed in Hypothesis 5, we utilized Monte Carlo-based simulation with 5,000 times bootstrapping to examine such conditional indirect effect. As summarized in Table 5, the difference of indirect effects between circumstances with high (+1 SD) or low (-1 SD) humble leadership was not significant under 95% confidence level (B = 0.10, SE = 0.06, 95% CI = [-0.01, 0.23]). However, the indirect effect of supervisor BLM on employee creativity through harmonious passion was found positively significant when humble leadership was high (B = 0.08, SE = 0.05, 95% CI = [0.00, 0.18]), but not significant in the low humble leadership context with a negative coefficient (B = -0.02, SE = 0.04, 95% CI = [-0.01, 0.23]). Besides, under 90% confidence level, the conditional indirect effect was significant (B=0.10, SE=0.06, 95% CI = [0.01, 0.21]), which was significantly reversed in the context with high humble leadership (90% CI = [0.01, 0.16]) but not significant when humble leadership was low (90%

Table 4 Regression results

Variable	Harmonious	passion		Work Creativity				
	Model 2		Model 4		Model 1		Model 3	
	В	SE	В	SE	В	SE	В	SE
Intercept	5.38**	0.56	5.36**	0.51	5.40**	0.56	2.67**	0.66
Gender	-0.03	0.19	-0.19	0.18	0.10	0.20	0.12	0.17
Age	0.00	0.01	0.00	0.01	0.00	0.01	0.00	0.01
Education	0.04	0.07	-0.03	0.07	0.15*	0.07	0.12	0.07
Tenure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avoidance goal	-0.15*	0.07	-0.17**	0.06	-0.23**	0.07	-0.16*	0.06
Supervisor BLM	-0.18**	0.06	0.07	0.07	-0.20**	0.06	-0.11*	0.05
Humble leadership			0.50**	0.13				
Harmonious passion							0.51**	0.07
SBLM * HL			0.12*	0.05				

Notes: N = 181. SBLM = supervisor bottom-line mentality, HL = humble leadership

**p < .01, *p < .05

4

Fig. 2 Simple slope tests for moderation effect of Hypotheses

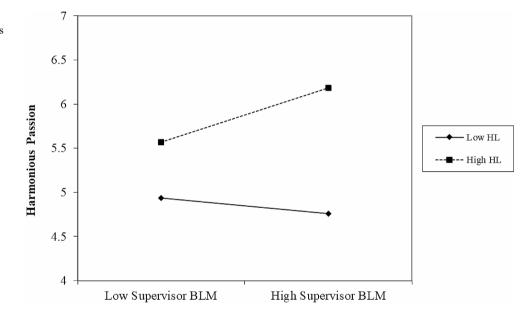


 Table 5 Bootstrapping results of indirect effect and conditional indirect effect

	В	SE	95% CI
Indirect effect of SBLM on CREA	- 0.09	0.04	[-0.18,
through HP			-0.02]
Conditional Indirect effect on HL			
High HL	0.08	0.05	[0.00, 0.18]
Low HL	-0.02	0.04	[-0.10, 0.06]
Difference	0.10	0.06	[-0.01, 0.23]

Notes: N = 181. SBLM = supervisor bottom-line mentality, HL = humble leadership, HP = harmonious passion, CREA = work creativity. Bootstrap sample size = 5,000

CI = [-0.09, 0.04]). Therefore, Hypothesis 5 was partially supported to some extent.

Discussion

Drawing on social information processing theory and selfdetermination theory (Ryan & Deci, 2017; Salancik & Pfeffer, 1978), our research focused on the detrimental outcome on employee creativity from supervisor BLM. We further investigated the mediating role of harmonious passion in the negative relationship as well as the buffering effect of humble leadership behaviors, which revealed how and when supervisor BLM may or may not hinder employees from being creative at work. Through a multi-wave survey, we provided empirical support for our proposed research model and broadened current understanding of the relevant research topics as well as contributing several insights to future research.

Theoretical contributions

Our research theoretically contributes to current literature in several ways. First, we responded to the call of Greenbaum et al. (2023) to explore the outcomes of BLM adopting new theoretical perspectives. Although supervisor BLM defined as a single-minded mindset revolving around securing bottom-line outcomes has become a popular research topic in recent years (Greenbaum et al., 2023), seldom understanding has been uncovered on its influence on employee creativity, which is found crucial to both employees and organizations (Shalley et al., 2015). By introducing selfdetermination theory as a new perspective (Ryan &Deci, 2017) and combining it with social information processing theory (Salancik & Pfeffer, 1978), we propose and examine the negative relationship between supervisor BLM and employee creativity, broadening the current understanding and reveals the detrimental effect of supervisor BLM on employee creativity, which provides important insights for future research.

Second, our research responded to the call of Egan et al. (2017) to explore more antecedents and effect mechanism of harmonious passion. Actually, scholars have called for more attention on examining how harmonious passion can be developed (e.g., Vallerand et al., 2014). Therefore, in this current study, based on the conceptualization of work passion of Vallerand et al. (2003), we focus on the harmonious dimension of passion which reflects a high motivation level and was found tightly connected to creativity (Liu et al., 2016), and examine its mediating role in the relationship between supervisor BLM and employee creativity. Self-determination theory emphasizes that satisfaction of three inherent psychological needs facilitates individuals' internalization of an activity into their identity (Ryan &Deci, 2017). The higher internalization level is reached during the interaction with environment, the more persistent engagement and higher passionate state individuals will experience. Supervisor BLM, however, drives supervisor to narrowly emphasize the bottom line and imposes a blocking influence to employees' pursuit of autonomy, competence and relatedness, hence impeding them from highly internalizing their work and being harmoniously passionate at work. The impaired harmonious passion in turn lessens employee creativity. The mediating mechanism of harmonious passion under the negative relationship pushes our understanding a step forward.

Third, we responded to the suggestion of Zhou and Hoever (2014) to examine whether leadership style may have an impact on the association between employee work performance and its antecedents. Our research investigates the potential boundary condition of the negative relationships among supervisor BLM, harmonious passion and employee creativity. From the behavioral perspective, we focus on humble leadership and explore its mitigating role in the relationship between supervisor BLM and employee creativity through harmonious passion. Although previous studies have revealed the relationship between supervisor BLM and subordinate-related outcomes such as employee innovation (e.g., Liu et al., 2022; Greenbaum et al., 2020), the potential boundaries of such relationships seems to be neglected, which is an essential research gap. To solve such gap, by integrating humble leadership into our research model, we illustrate a more comprehensive framework to understand the effect of supervisor BLM as well as providing insight for counteracting its negative influences.

Practical implications

Our research also has practical implications for organizations. On the one hand, our research reveals the potential damage of supervisor BLM towards employee harmonious passion as well as creativity. Such harmful influence should be much accounted of for all levels of leaders in organizations. It is essential for top executives to realize that exclusive focus on the bottom-line outcomes will be detrimental to long-term survival of the organization and remove any notion pertaining to blindly pursuing financial profits out of their vision or strategies. A strict selection should be conducted to lessen the chances of bottom-line pursuit in organizations, especially those with high requirements for creativity. Potential candidates are advised to be evaluated about their level of bottom-line mentality in addition to regular personality tests. It will better to inform supervisors about the damage from adopting such mindset before formal promotion as well as providing subsequent seminars and training regularly about thinking comprehensively and thoroughly at work. The appraisal system for supervisor is also required to redesign to not only focus on the financial results, but also take multiple dimensions into consideration such as employee development and organizational longterm thriving.

On the other hand, our research provides support for the advantageous effect of humble leadership because it is found to buffer the negative influence of supervisor BLM. Hence, it is advisable for leaders, especially those already occupied with a bottom-line thinking, to lead from the ground and present more humble behaviors towards their subordinates. Supervisors should make objective evaluations about themselves and avoid being arrogant. They should not blame their own mistakes on subordinates, but genuinely admit those mistakes and make reflections. Furthermore, they should always keep an eye on employees' progress and sincerely acknowledge their contributions at pursuing working objectives. It will be great if they often praise employees for their work and keep releasing positive signals for their development. Besides, supervisors should keep open enough to new ideas and always listen to opinions from others. Such behaviors may help supervisors counteract the potential negative results from BLM and also get closely connected to their employees.

Limitations and future directions

This research has several limitations and yet to be advanced in the future. First, we used a single-source data in our research. Although a multi-wave design was utilized in data collection process to reduce potential common method variance, we cannot infer causal relationships from our data. However, by conducting a one-factor CFA, we discovered that there was no severe common method variance in our research data. But for the measurement of dependent variable, the self-reported way may drive employees overestimate their creativity and bring deviation to the results. Hence, we suggest that the results from our research should be interpreted with caution. Future research can improve credibility by collecting data from multiple sources or adopt experimental methods to further verify the causality of the proposed relationships, especially considering a more sophisticated measurement of employee creativity. Second, we mainly focused on motivational mechanism beneath the relationship between supervisor BLM and employee creativity. Former research also discovered cognitive mechanism as an important factor, such as creative self-efficacy (Liu et al., 2016). Future research can further explore the role of creative self-efficacy and other potential mechanisms under the linkage from supervisor BLM to creativity, which will help further deepen our understanding. Third, although the passive side of supervisor BLM towards creativity was found in our research, there may be some other boundary conditions restricting such negative influence yet to be further discovered. It will be interesting to find out factors not simply buffer the negative effect but even totally reverse it. Besides, former research found the benefits of supervisor BLM in certain circumstances. Future research may try to explore whether circumstances exist that supervisor BLM plays a neutral or even facilitating role in employee creativity emergence process.

Conclusion

We broaden current understanding of relationship between supervisor BLM and employee creativity in our research. We adopt social information processing theory and selfdetermination theory to analyze the negative effect of supervisor BLM on employee creativity with the mediated mechanism of harmonious passion and boundary condition of humble leadership. Empirical evidence supported our theoretical model. Such harmful influence on employee harmonious passion and creativity should be taken seriously both in future research and in management practice.

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Data availability The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethical approval All procedures performed in the study involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Consent to participate Informed consent was obtained from all individual participants included in the study.

Competing interests The authors have no competing interests to declare that are relevant to the content of this article.

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