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How Transformational Leaders Promote Employees' Feedback-Seeking Behaviors: The Role of Intrinsic Motivation and Its Boundary Conditions

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Abstract: Feedback-seeking behavior is critical to employee self-change and self-improvement, which is conducive to the sustainable development of employees' own knowledge and abilities. Drawing on self-determination theory, this study aims to examine the underlying psychological mechanism and the boundary conditions of the relationship between transformational leadership and employees' feedback-seeking behavior. Data were collected from a large manufacturing firm in China, encompassing 415 employees, and subsequently analyzed employing SPSS 22.0 and SPSS PROCESS Macro. The results showed that employee intrinsic motivation mediated the relationship between transformational leadership and employees' feedback-seeking behavior. In addition, the positive association between transformational leadership and intrinsic motivation was more pronounced when organizational virtuousness was high than when it was low. On the contrary, the positive link between transformational leadership and intrinsic motivation was stronger when job complexity was low than when it was high. Organizational virtuousness and job complexity further moderated the indirect effect of transformational leadership on feedback-seeking behavior through intrinsic motivation. Our findings offer a better understanding of employee feedback-seeking behavior by considering factors that may trigger and influence employees' psychological motivation. In this way, this study contributes to the literature on self-determination theory and feedback-seeking behavior.

Keywords: feedback-seeking behavior; transformational leadership; intrinsic motivation; organizational virtuousness; job complexity

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1. Introduction

In the current highly unpredictable and dynamic business environment, it is difficult for organizations to always provide well-defined and static roles and objectives to guide the behavior of their employees [1]. In particular, in recent years, there has been an increasing trend among organizations to adopt digitalization, which not only enhances employees' work efficiency but also fosters their creativity in generating innovative ideas [2]. However, this transformation necessitates the continuous acquisition of knowledge and technology-related skills by the employees [3]. As a result, employees need to act proactively to adapt to changing tasks and social demands [4]. Feedback-seeking behavior (FSB) is a core component of self-regulatory tactics for optimal adaptation and performance [5,6].

A multitude of studies have documented the pervasive and positive effects of FSB on subordinates' satisfaction, career development, job performance, creativity, citizenship behaviors, and reduced turnover intentions (for reviews, see references [4,7–11]). Despite these benefits, employees do not often proactively seek feedback from their supervisors or peers in organizational contexts [12]. FSB usually entail various costs, such as extra time [13], fear of receiving negative evaluations, and lowered self-esteem [14]. Given the advantages and constraints of FSB, scholars have a keen interest in gaining a better understanding of how to promote and support employees' FSB (e.g., references [15,16]).

Considering the typical power dynamics between leaders and employees [17], it is likely that a leader can significantly influence their followers' work-related behaviors (e.g., references [18]). In terms of the concept of leadership style, in early research, Bass and Avolio's [19] full-range leadership theory (FRLT) is noteworthy for conceptualizing three types of leadership styles: transformational leadership, transactional leadership, and passive leadership. Passive leaders often ignore their employees [20]. Transformational and transactional leaders are both considered supportive styles of leadership. With the continuous development of leadership theories, the literature on feedback-seeking has begun to reveal the essential role of leadership in influencing employees' FSB [13].

The findings of recent studies have provided empirical evidence supporting the positive impacts of servant leadership [21], empowerment leadership [22], and ethical leadership [23] on employees' FSB. FSB is fundamentally a proactive work behavior, and the implementation of supportive leadership practices plays a pivotal role in stimulating employees' work-related proactivity [18]. For example, leaders usually need to encourage employees to be aware of their own performance, have high expectations, and set their own goals [24], which are particularly captured by transformational leadership.

The concept of transformational leadership entails a leader–follower relationship characterized by a series of leader behaviors that are perceived by subordinates as embodying idealized influence, motivational inspiration, intellectual stimulation, and individual consideration [25]. It is recognized as being more effective than other types of leadership in explaining a broader range of outcomes [26,27]. Transformational leadership influences followers by broadening and elevating followers' goals and providing them with the confidence to perform beyond the expectations specified in the implicit or explicit change agreement [28]. Previous research has empirically demonstrated that transformational leaders have a significant impact on employees' FSB through trust in their leader [29]. Specifically, in order to repay the leader, followers strive to meet the leader's expectations by obtaining information on how to improve their work-related outcomes. However, feedback-seeking, as an active social informal learning activity [30], is essentially a self-motivated strategy employed by individuals seeking to proactively address upcoming challenges and control their career trajectory in an organizational setting [7,12,31]. Understanding the underlying motivational processes is important because motivation is regarded as a crucial factor in determining employee proactive behavior [32]. Therefore, while there has been prior investigation into the potential mechanisms that connect transformational leadership with employees' FSB, very limited efforts have been made to explore how transformational leaders inspire their followers to proactively seek self-motivated improvement in the workplace [33]. Furthermore, despite the extensive adoption of Western management theories and ideas by numerous organizations in China [34,35], the cultural emphasis on 'face' as a measure of self-worth may discourage both supervisors and subordinates from providing feedback [36]. Consequently, it is crucial to understand which factors promote employees' FSB in the context of Chinese culture. Surprisingly, only a few empirical studies have analyzed how supportive leadership styles, including servant leadership and empowering leadership, affect employees' FSB in the Chinese context [21,22].

The objective of this study is to shed light on the 'black box' between transformational leadership and employees' feedback-seeking behavior in China from the perspective of self-motivation. The present study utilizes the self-determination theory [37] to establish that intrinsic motivation is a crucial explanation for how transformational leadership promotes employees' feedback-seeking behavior. The self-determination theory assumes that personal motivation plays a crucial role in regulating human behavior and can be driven by external factors. Intrinsic motivation is the desire of an individual to respond positively, out of interest or qualities of enjoyment, in an effort to complete work tasks [38]. Individuals who are intrinsically motivated are more effective in promoting growth and development and active participation in work-related behavior [38].

We propose that transformational leadership triggers employees' intrinsic motivation by tapping into their higher-order needs, fostering a sense of purpose, and empowering

them to reach their full potential [39], which, in turn, would promote employees' FSB. Furthermore, as a macro theory of human motivation, self-determination theory emphasizes the influence of external factors on individual motivation and behavior [37]. In a supportive environment, individuals are inclined to pursue goals aligned with their inherent organizational tendencies and growth needs. However, in an unsupportive environment, intrinsic motivation will be compromised, leading to self-alienation. Hence, it is crucial to recognize the subtle distinctions in discussing behavior based on different environments [38,40,41]. Considering the importance of these theoretical premises, the study incorporates organizational virtuousness and job complexity as moderating variables.

Organizational virtuousness is a positive and ethical organizational environment that encompasses tolerance, kindness, and trust, which are embedded in individual behavior but manifested at the collective level [42–44]. Organizational virtuousness creates a self-reinforcing cycle within the organization by triggering positive and virtuous activities, leading to the cultivation of more positive activities and values [43,45]. A higher level of organizational virtuousness contributes to a more optimistic and inclusive workforce. Transformational leadership is renowned for its ability to motivate, inspire, and shape employees, guiding them toward self-fulfillment and goal pursuit by providing incentives and support [25]. Organizational virtuousness provides a supportive and inclusive work environment that helps fulfill employees' intrinsic motivational needs. Specifically, a higher level of organizational virtuousness can offer broader support and recognition for transformational leadership, creating an environment that satisfies employees' intrinsic motivations. Employees believe that they can receive more valuable feedback and constructive input from organizational members, thereby enhancing their intrinsic motivation to seek feedback. We hence theorize that organizational virtues positively moderate the effect of transformational leadership on employees' intrinsic motivation.

Job complexity, derived from the theory of job characteristics model initially proposed by Hackman and Oldham [46], can affect employees' work attitudes and specific work behaviors [47]. When employees face high levels of job complexity, it can result in cognitive overload and task ambiguity, where individuals experience excessive mental demands and challenges in processing information. Furthermore, in complex work settings, employees may perceive limited autonomy and discretion due to the intricate nature of their tasks. The lack of perceived autonomy and decision-making opportunities can weaken the positive influence of transformational leadership on intrinsic motivation, as employees struggle to fully internalize and benefit from the motivating and inspiring behaviors exhibited by their leaders. Consequently, we propose that job complexity can weaken the relationship between transformational leadership and employee internal motivation.

The main purpose of this paper is to propose a comprehensive model that introduces intrinsic motivation as a new mediator and organizational virtuousness and job complexity as moderators to explain how transformational leadership facilitates employees' FSB. This study aims to make several theoretical contributions. First, by investigating the mediating role of employees' intrinsic motivation in the relationship between transformational leadership and FSB, this study advances our understanding of the individual differences in intrinsic motivation that account for the relationship between transformational leadership and employees' FSB. It also provides an avenue for exploring FSB that has not yet been fully explored. Second, we reveal the critical roles of supportive environmental factors (e.g., organizational virtuousness) and unsupportive environmental factors (e.g., job complexity) in influencing the relationship between transformational leadership and employees' intrinsic motivation. Our research also contributes to the self-determination theory. Our study responds to previous calls to explore the conditions of psychological needs [40]. Third, by integrating self-determination theory into the study of FSB, the research contributes to the existing literature on FSB. It enriches the understanding of how leadership and environment simultaneously shape employees' proactive motivation to seek feedback. Overall, our model builds upon previous work and provides a more comprehensive framework for understanding the influencing process of transformational leadership on employees' FSB.

Our study is structured into five main sections: introduction, theoretical background and hypothesis, method, results, and discussion.

2. Theoretical Background and Hypotheses

2.1. Self-Determination Theory

As a macro theory of human motivation, self-determination theory examines fundamental aspects of human motivation, including personality development, self-regulation, universal psychological needs, life goals, energy and vitality, nonconscious processes, the influence of culture on motivation, and the effects of social environments on motivation [48]. The theory has been applied across various domains, including education, health, and organizational phenomena. The satisfaction of autonomy, competence, and relatedness needs is related to a variety of positive outcomes, including educational practice [49], happiness [50], vitality [51], satisfaction [52], higher achievement [48], and job satisfaction [53].

Self-determination theory is based on the premise that human beings inherently desire to develop and grow toward their fullest potential [48]. It posits that humans have three innate psychological needs: autonomy (feeling ownership of one's actions), competence (feeling efficient in accomplishing personally important tasks), and relatedness (feeling secure and accepted in one's relationships), which are essential for individuals to experience optimal well-being and intrinsic motivation [48,54]. The central tenet of self-determination theory is that the satisfaction of psychological needs leads to high intrinsic motivation [40,48].

Moreover, although psychological needs are argued to be universal [48], the degree to which individuals are able to satisfy these needs differs across individuals and environments. Self-determination theory claims that individual factors will impact employee motivation [54]. Moreover, it has also shed light on the importance of the interaction between individuals and their social environment, which is an important mechanism in explaining the occurrence of intrinsic motivation and behavior [48]. In a supportive environment, individuals are inclined to proactively pursue aims and aspirations influenced by their innate, unique, and organization-specific inclinations and associated developmental requirements. Conversely, in unsupportive environmental conditions, behavior is subject to varying degrees of self-alienation [40].

Self-determination theory provides a detailed account of how an individual's intrinsic motivation and behavior are malleable through the interaction of satisfying basic psychological needs and the social environment. We believe that it provides a useful perspective from which to consider the role of employees' intrinsic motivation between organizational contexts and individual behavior. Therefore, through the lens of self-determination theory, we propose that transformational leadership will affect employees' FSB by triggering their intrinsic motivation and we also explore how two specific factors in the organizational environment (supportive organizational factors, i.e., organizational virtuousness, and unsupportive organizational factors, i.e., job complexity), interacting with transformational leadership, impact the development of individuals' intrinsic motivation and, consequently, influence their feedback-seeking behavior.

2.2. Feedback-Seeking Behavior (FSB)

The early literature described FSB as 'the conscious devotion of effort toward determining the correctness and adequacy of behavior for attaining valued end states' [55]. In an organizational setting, individuals adjust their behavior to fit the environment based on the feedback they receive from the environment to achieve success [55]. A recent meta-analysis reveals that FSBs facilitate employees in gaining a greater grasp of how their work is being performed and what the expectations of the organization are [1]. The considerable empirical studies on the outcomes of feedback-seeking indicate that FSB is positively correlated with variables including initiative, socialization, management effectiveness, performance, correcting work errors, and impression management [12,13,16]. Accordingly, understanding and investigating ways to increase FSB incidence has significant consequences for FSB

theory and practice. Along these lines, there has been a recent movement from focusing on the potential outcomes of studies seeking feedback to the study of antecedents [13].

According to the extant literature [56,57], leaders were identified as a key link in the organizational control system to provide employee feedback. The leadership style, an important contextual factor, is particularly important in promoting FSB. Prior research has shown that a variety of leadership styles can positively influence FSB [58–60]. Among them, transformational leadership was widely recognized as an essential factor influencing employees' positive work motivation and proactive behavior [61–63]. Our research aims to explore the underlying mechanism of how transformational leadership influences employees' FSB, allowing us to gain insight into the pathways by which transformational leaders work and the boundary conditions it influences.

2.3. Transformational Leadership, Intrinsic Motivation, and FSB

Drawing on the understanding of self-determination theory [38,64], we propose that when employees are triggered by transformational leadership, favorable social mechanisms are likely to be perceived to satisfy employees' psychological needs and thus may foster the positive intrinsically motivated psychological processes required for feedback-seeking behavior [65]. In turn, intrinsic motivation is expected to positively influence feedback-seeking behaviors. In general, motivation refers to the internal psychological processes that drive an individual towards achieving a specific goal or fulfilling a particular need [66]. Intrinsic motivation reveals a person's inherent acceptance, affection, enthusiasm, and willingness to act in a particular manner [66,67]. The nature of intrinsic motivation, encompassing commitment, desire, affective, and cognitive components [54], may contribute positively to feedback-seeking behavior.

According to self-determination theory, individuals have three basic psychological needs: competency, autonomy, and relatedness. The satisfaction of these needs creates intrinsic motivation, which fuels their passion and motivation to take proactive actions [64]. Transformational leadership plays a vital role in fulfilling these needs. Specifically, it provides a clear and compelling organizational vision [68], instills a sense of mission in employees, and makes them aware of the importance of their responsibilities [69]. This leadership style motivates them to perform their jobs automatically, and satisfies their need for autonomy. Moreover, transformational leaders set high work standards, introduce innovative ideas, encourage subordinates to share new insights, and inspire them to solve work-related problems using novel means and methods [70]. These behaviors greatly fulfill employees' competency needs. Additionally, transformational leaders demonstrate genuine care for each subordinate, respect their individual needs, abilities, and desires, and provide tailored guidance and support based on each person's circumstances [71]. This support for relatedness satisfies the need for connection and belonging, which enhances intrinsic motivation.

When employees are more intrinsically motivated, their learning goal orientation (focusing on developing competencies and mastering new situations) will be more pronounced. Because feedback helps improve performance, employees who are learning-goal-oriented perceived it as valuable. Therefore, employees with higher intrinsic motivation are more likely to seek feedback more frequently [72–74]. In addition, highly intrinsically driven employees are highly engaged and in charge of their job [9], and they persevere to complete difficult and complicated tasks [75]. Therefore, highly intrinsically driven individuals are more inclined to seek feedback more frequently for the pleasure and self-satisfaction that accompany job completion. Employees with high intrinsic motivations, driven by contribution orientation, will put in more effort and look forward to completing their work with high quality [61,76,77]. Employees' high intrinsic motivation drives them to have a higher perception of work-related values, which, in turn, makes them more inclined to seek feedback to deepen their understanding of and control over their work.

Based on the argument presented, it is clear that transformational leadership satisfies employees' needs for autonomy, competence, and relatedness, consequently stimulating

employees' intrinsic motivation to actively seek feedback on their work. Thus, we put forward the following hypothesis:

Hypothesis 1. *Intrinsic motivation mediates the positive relationship between transformational leadership and FSB.*

2.4. Moderating Role of Organizational Virtuousness

A friendly organizational environment provides individuals with a degree of stability in their work situation and allows them to explore all the benefits of their work [78]. Self-determination theory claims that individual motivations are the result of the interaction between an individual and their social environment [37]. Along this line of reasoning, we infer that organizational virtuousness, as a positive organizational environmental factor, is more conducive to transformational leadership functioning by satisfying the psychological needs of employees to stimulate their intrinsic motivation.

Organizational virtuousness refers to a positive climate of an organization through which habits, aspirations, and practices such as chivalrousness, honesty, forgiveness, and trust are fostered at both the individual and group levels [25]. Employees interpret what the organization does and cares about [79] and form a general perception of the organization's core values and meaning, as well as whether the organization cares about its employees [80]. Perceived organizational virtuousness play an important role in influencing employees' attitudes [81]. As a result, we argue that organizational virtuousness creates a supportive organizational climate that fosters the fulfillment of employees' psychological needs, thereby enhancing their intrinsic motivation.

Working in an organization with high organizational virtuousness enables individuals to experience psychological safety and perceive organizational support [44]. High organizational virtuousness creates a supportive environment that allows transformational leaders to effectively meet the psychological needs of their employees. Within a highly virtuous organizational climate, transformational leaders are more likely to promote and support employees' autonomy, which strengthens their sense of choice and self-direction, consequently enhancing their intrinsic motivation. Transformational leaders provide individualized support, coaching, and mentoring to employees. These supports from transformational leaders reinforce employees' belief in their abilities and contribute to their intrinsic motivation, particularly in a high virtuousness context. Furthermore, transformational leaders demonstrate genuine care, support, and respect for employees' well-being and personal development, attending to their individual needs and aspirations, thereby fostering a sense of relatedness. When employees feel valued and connected within a virtuous work environment, their intrinsic motivation is strengthened as they perceive that their leaders genuinely care about their growth and success.

In contrast, in organizations with low organizational virtuousness, the positive effects of transformational leadership on employee intrinsic motivation will be weakened. In a context of low organizational virtuousness, where ethical values and moral behaviors are not emphasized or upheld, the influence of transformational leadership may be diminished. Specifically, in the context of low organizational virtuousness, where shared values and a sense of purpose are not prioritized [80], employees may not thus perceive their leaders as role models of virtuous behavior. Idealized influence and personalized consideration of leadership behaviors by transformational leaders facilitate employees' organizational identification [82]. Low organizational virtuousness will weaken the employees' perceived effects of transformational leadership, thereby reducing their intrinsic motivation to work for the collective vision of the organization. The absence of a virtuous work environment, characterized by ethical conduct, trust, and positive values, can undermine employees' intrinsic motivation to go above and beyond their job responsibilities. Moreover, the absence of positive values and ethical practices diminishes employees' sense of purpose and emotional connection to the organization [83]. Hence, the lower organizational virtuousness may dampen employees' intrinsic motivation to actively explore new ideas or engage in

work. In a word, low organizational virtue hinders the role of transformational leadership in satisfying the psychological needs to promote employees' intrinsic motivation. We accordingly hypothesize that:

Hypothesis 2. *Organizational virtuousness will moderate the relationship between transformational leadership and employees' intrinsic motivation; the positive relationship will be strengthened under conditions of high organizational virtuousness.*

As mentioned above, we have suggested that organizational virtuousness positively moderates the relationship between transformational leadership and employees' intrinsic motivation. Based on the above hypotheses, we infer that organizational virtuousness moderates the indirect impact of transformational leadership on employees' FSB via intrinsic motivation. Specifically, employees working in an environment with a higher level of organizational virtuousness are more likely to experience psychological safety, genuine care, support, and respect from transformational leaders, which strengthens their sense of choice and self-direction, thereby enhancing their intrinsic motivation. Hence, employees are more likely to seek feedback to improve themselves and achieve their aspirations. On the contrary, working in an environment of lower level of organizational virtuousness may hinder employees' engagement in feedback-seeking practices because it is more difficult to perceive the shared values, mission, and emotional connection to the organization. Under this unsupported context, the influence of transformational leaders on employees may be diminished, inhibiting employees' intrinsic motivation; hence, they are less likely to exhibit FSB. In sum, we propose the following hypothesis:

Hypothesis 3. *Organizational virtuousness will moderate the relationship between transformational leadership and FSB via intrinsic motivation, such that the indirect effect is stronger when employees work in the condition of high organizational virtuousness.*

2.5. Moderating Role of Job Complexity

Job complexity refers to the extent to which job tasks are difficult and multifaceted as well as involving the use of high-level cognitive skills [84]. Compared to simple jobs, complex jobs require higher levels of cognitive processing due to the greater need to integrate and synthesize informational cues [85,86]. We argue that job complexity negatively moderates the relationship between transformational leadership and employees' intrinsic motivation.

Job complexity can diminish the positive impact of transformational leadership on employees' intrinsic motivation. Transformational leaders inspire and motivate their employees by creating a vision, challenging the status quo, and encouraging innovation and growth [71]. However, when the job complexity is high, it requires multifaceted intricate thought processes and more advanced cognitive faculties than simpler jobs [87]. In such complex job settings, employees may experience a decrease in their intrinsic motivation. Job complexity can create feelings of stress, overwhelm, and uncertainty, which may dampen the positive effects of transformational leadership. Therefore, employees may struggle to find meaning and satisfaction in their work when they are constantly confronted with complex challenges. Furthermore, high job complexity often requires organizations to impose strict guidelines, procedures, or rigid work structures [88]. Transformational leaders typically empower their employees, provide autonomy, and foster a sense of ownership. However, in complex job environments, employees may perceive less freedom to make decisions and have limited control over their work processes. This perceived lack of autonomy can undermine their intrinsic motivation, as they may feel constrained and less engaged in their tasks. Furthermore, strict guidelines and rigid work structures generally require employees' intense focus and individual effort, reducing opportunities for collaboration and social interaction [89]. When employees feel socially isolated or disconnected from their colleagues, it can diminish their intrinsic motivation and job

satisfaction. Consequently, these employees may not form the intrinsic motivation of FSB under the high job complexity context.

Conversely, when job complexity is low, tasks and responsibilities are often repetitive and straightforward, employees can easily understand and perform their tasks without significant challenges, and they develop a sense of confidence, autonomy, and mastery. With less job complexity, there is typically more flexibility in how tasks are performed, allowing employees to exercise their judgment and decision-making skills [84]. Moreover, in low job complexity, the lack of external pressure or stringent guidelines can reduce stress levels and increase job satisfaction [90]. Employees may feel less burdened by complex problem-solving or demanding decision-making, allowing them to focus on enjoying their work. Transformational leaders encourage employees to explore their own potential and contribute innovative ideas by providing a vision, setting high expectations, and creating a supportive environment. This sense of purpose taps into employees' intrinsic motivation, as they feel a stronger sense of meaning and value in their work. Moreover, emotional support and encouragement from a transformational leader can significantly impact employees' intrinsic motivation. Consequently, by providing feedback, visionary motivation, and fostering a sense of belonging, transformational leaders enhance employees' feelings of competence, autonomy, and relatedness, which are fundamental psychological needs that drive intrinsic motivation. We accordingly hypothesize the following:

Hypothesis 4. *Job complexity will moderate the relationship between transformational leadership and employees' intrinsic motivation; the positive relationship will be stronger under conditions of low job complexity.*

As discussed above, we argue that job complexity negatively moderates the relationship between transformational leadership and employees' intrinsic motivation. Based on the above hypotheses, we infer that job complexity moderates the indirect effects of transformational leadership on employees' FSB through intrinsic motivation. Specifically, transformational leaders inspire and motivate employees by articulating a vision, challenging the status quo, and fostering growth and innovation [69]. However, when job complexity is higher, it may lead to excessive stress, and energy depletion [91]. Hence, we argue that the intricacies of complex jobs make it challenging for employees to recognize the benefits of transformational leadership or perceive the broader perspective that the leader is trying to convey; these employees may be hard-pressed to be intrinsically motivated to actively seek feedback. Conversely, in a lower job complexity work environment, where tasks are repetitive and straightforward [84]. Transformational leaders often promote personal and professional growth [71]. In such roles, we posit that employees may view feedback-seeking as a means to develop new skills or gain recognition. The prospect of personal growth serves as a powerful intrinsic motivator for employees seeking feedback. Therefore, in roles with low job complexity, employees usually have sufficient psychological resources for constant communication, timely feedback, and experience sharing [91]. Transformational leadership is more likely to stimulate employees' need for self-growth, which drives employees to actively engage in FSB. Accordingly, the following hypothesis is proposed in this study, and the theoretical model is shown in Figure 1.

Hypothesis 5. *Job complexity will moderate the relationship between transformational leadership and FSB via intrinsic motivation, such that the indirect effect will be stronger when there is a lower rather than higher level of job complexity.*

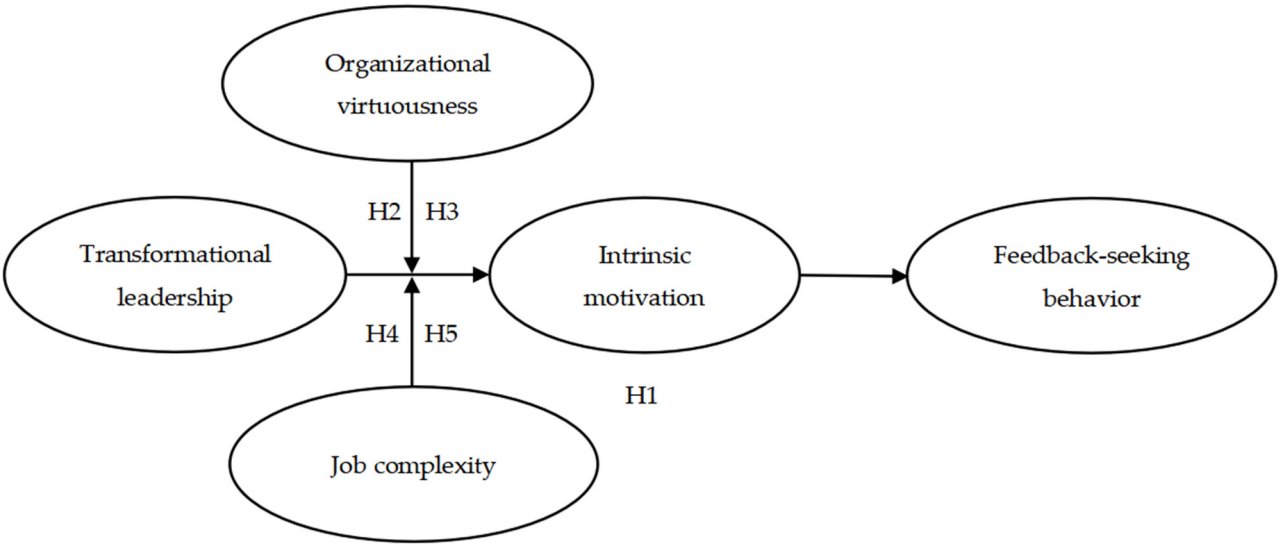

Figure 1. Theoretical model.

3. Method

3.1. Sample and Procedure

Following the previous studies on the influence of leadership on employee behavior (e.g., reference [18]), our research adopts quantitative and deductive methods. Due to resource constraints and the voluntary nature of employee participation, we employed convenience sampling to collect data, a method widely utilized in previous studies investigating the impact of leadership on employees [92–96]. The study was conducted in person in Zhengzhou, a major city in China. Selecting employees from a large manufacturing conglomerate in China as potential participants for investigating the impact of transformational leadership on employees' FSB is appropriate for several reasons. Firstly, the manufacturing industry is known for its diverse workforce comprising employees from various backgrounds, skill sets, and job roles. By choosing a large manufacturing conglomerate, the sample can capture this diversity, allowing for a broader representation of employees with different experiences and perspectives. This enhances the external validity of the findings, making them more applicable to other manufacturing settings. Secondly, feedback-seeking behavior is influenced by various factors, including job characteristics, organizational culture, and leadership styles. A large manufacturing conglomerate typically encompasses multiple departments, providing a rich context to explore the different dimensions of feedback-seeking behavior. This allows for an in-depth analysis of how transformational leadership affects employees' feedback-seeking behavior across different organizational units and job roles. Furthermore, the nature of manufacturing work often involves complex tasks, strict quality standards, and continuous improvement processes. This environment creates a strong need for employees to seek feedback to enhance their performance and contribute to overall organizational success. Therefore, by studying employees in a large manufacturing conglomerate, the research can gain insights into how transformational leadership influences feedback-seeking behavior within this specific context, providing valuable implications for both theory and practice.

The data were collected from August 2022 to December 2022. To ensure the randomness of our sample, data were collected with the assistance of HR managers, who prepared a list of randomly selected employees. To improve the validity of the questionnaire, we visited all respondents and introduced the purpose of the study. Surveys were implemented on a voluntary basis for all interviewees, who were guaranteed the confidentiality of the investigation information. To minimize the common source bias [97], we used three stages of data collection. The data distribution and collection process involved surveys at three points (2-month intervals). At Time 1, questionnaires were distributed to 650 employees. All participants were invited to assess their department leader's transformational leader-

ship level. We received responses from 541 people. At time 2, we sent a 10-min survey to these 541 people. This survey included intrinsic motivation, organizational virtuousness, and job complexity variable measures. We received responses from 461. Finally, at time 3, we sent another survey, with our measure of FSB, to the 461 participants who completed the time 1 and 2 surveys. We received 437 surveys. Respondents were reminded to use the same code or alias in three stages and to seal the completed questionnaire back into envelopes. In each wave of the survey, we prepared a nice gift for each respondent to show our appreciation. HR staff accompanied us through the entire questionnaire collection process.

After matching with questionnaires from employees and eliminating invalid questionnaires, we ended up with a valid sample of 415 employees with an overall response rate of 63.8%. Of these, there were 200 women (48.2%) and 215 men (51.8%) in the sample (SD = 0.50). Most participants were aged between 36 and 46 (42.90%). The educational level of the employees was distributed as follows. A total of 9 employees (2.2%) had earned a doctorate, 24 (5.8%) had a master's degree, 156 (37.6%) had a bachelor's degree, 177 (42.7%) had a college degree, and 49 employees (11.8%) were enrolled in high school or below grade level. The majority of the sample was in the health care department (24.3%), finance and accounting (20.5%), administrative support (19.8%), marketing (14.5), production and operations (12.5), and R&D (8.4%). The participants came from different levels of the company, with the majority (63.9%) being non-management employees and the rest being first-line supervisors (19.5%), middle managers (12.5%), and senior managers (4.1%). The average organizational duration of employment was between 3 and 8 years (SD = 1.79). In our sample, departments comprised 21 to 50 people on average.

3.2. Measures

All variables were rated from 1 to 5, except for the control variables. Since the original scales for all variables were originally developed in English, the Chinese versions we created underwent a translation and back-translation process [98]. Most scales showed satisfactory reliability (Cronbach's alpha > 0.80).

Feedback-Seeking Behavior (FSB). The participants reported their FSB (monitoring or inquiry) from two feedback-seeking sources (peers or supervisors) at time 3 using the 11-item scale developed and validated by Callister, Kramer, and Turban [99]. Four items measured feedback-seeking from supervisors (e.g., 'I ask my supervisor if I am meeting all my job requirements', 'From watching my supervisor, I can tell how well I am performing my job'; 1 'never' to 5 'very frequently'), and the other seven items measured feedback-seeking from peers (e.g., 'I ask my coworkers if I am meeting my job requirements', 'From their reactions, I can tell how well I am getting along with members of my work group'; 1 'never' to 5 'very frequently'). The degrees of reliability for the 'supervisor inquiry', 'supervisor monitoring', 'peer inquiry', and 'peer monitoring' were 0.84, 0.88, 0.85, and 0.85, respectively. The coefficient for the aggregated scale was 0.83. The confirmatory factor analysis (CFA) confirmed the existence of four factors that contributed to an overall index ($\chi^2(37) = 94.312$, TLI = 0.964, CFI = 0.976, RMSEA = 0.061).

Transformational leadership. Transformational leadership was assessed using the 14-item scale developed and validated by MacKenzie, Podsakoff, and Rich [100]. Transformational leadership includes four subdimensions, three items for idealized influence (e.g., 'My leader articulates a vision'), three items for inspirational motivation (e.g., 'My leader makes it clear that he/she expects a lot from us all of the time'), four items for individual consideration (e.g., 'My leader considers my personal feelings before acting'), and three items for intellectual stimulation (e.g., 'My leader asks questions that prompt me to think about the way I do things'). Employees rate their immediate supervisor's level of transformational leadership on a 5-point scale from 1 'strongly disagree' to 5 'strongly agree'. The degrees of reliability for the 'idealized influence', 'inspirational motivation', 'individual consideration', and 'intellectual stimulation' were 0.86, 0.90, 0.93, and 0.87, respectively. The Cronbach's alpha coefficient for the aggregated scale was 0.93. We evalu-

ated the appropriateness of considering the four dimensions individually or collectively as an overarching factor of transformational leadership. Following Wang, Law, Hackett, Wang, and Chen [101], we compare the single-factor model ((44) = 469.711, IFI = 0.820, CFI = 0.820, RMSEA = 0.153), the results demonstrated a better fit for the first-order model ((38) = 89.068, IFI = 0.979, CFI = 0.978, RMSEA = 0.057) and second-order model ((40) = 118.284, IFI = 0.967, CFI = 0.967, RMSEA = 0.069). The results did not show significant differences between the first-order and the second-order model. Therefore, the four dimensions were not analyzed separately.

Intrinsic Motivation. We used Vallerand's [102] 12-item scale to measure intrinsic motivation. It includes three types of intrinsic motivation: three items for intrinsic motivation to know (e.g., 'I do this job for the pleasure I feel while learning new things in my job'; 1 'strongly disagree' to 5 'strongly agree'), three items for intrinsic motivation to accomplish things (e.g., 'I do this job because I feel a lot of personal satisfaction while mastering certain difficult job skills'; 1 'strongly disagree' to 5 'strongly agree'), and three items for intrinsic motivation to experience stimulation (e.g., 'I do this job for the intense pleasure I feel while I am doing the tasks that I like'; 1 'strongly disagree' to 5 'strongly agree'). The degrees of reliability for each type of intrinsic motivation 'to know', 'to accomplish things', and 'to experience stimulation' were 0.90, 0.82, and 0.80, respectively. The aggregated scale had a coefficient alpha of 0.92. We compared to the single-factor model ((44) = 317.773, IFI = 0.895, CFI = 0.894, RMSEA = 0.123), and the results demonstrated a better fit for the first-order model ((41) = 134.852, IFI = 0.964, CFI = 0.964, RMSEA = 0.074) and second-order model ((40) = 110.45, IFI = 0.973, CFI = 0.973, RMSEA = 0.065). The results did not show significant differences between the first-order and the second-order model. Therefore, the three dimensions of intrinsic motivation were not analyzed separately.

Organizational Virtuousness. Organizational Virtuousness was assessed using the 13-item scale developed and validated by Rego, Vitória, Magalhes, Ribeiro, and Cunha [103]. These items are used to assess the extent to which employees perceive organizational optimism, trust, compassion, integrity, and forgiveness that employees derive from their tasks (e.g., 'We are optimistic that we will succeed, even when faced with major challenges'; 1 'strongly disagree' to 5 'strongly agree'). The degrees of reliability for each dimension were 0.84, 0.75, 0.76, 0.80, and 0.77 respectively. The Cronbach's alpha coefficient for the aggregated scale was 0.93. A confirmatory factor analysis (CFA) was carried out to test the five-factor model [45]. The result revealed a satisfactory fit of five factors ((44) = 106.936, TLI = 0.965, CFI = 0.977, RMSEA = 0.059).

Job Complexity. Job Complexity was assessed using the 4-item scale developed and validated by Morgeson and Humphrey [84]. The four items were 'The job requires that I only do one task or activity at a time (reverse scored)'; 'The tasks on the job are uncomplicated (reverse scored)'; 'The job comprises relatively uncomplicated tasks (reverse scored)'; and 'The job involves performing relatively simple tasks (reverse scored)'. On a five-point scale ranging from 1 'strongly disagree' to 5 'strongly agree', employees indicated the extent to which each of the five items applied to their job complexity. The Cronbach's alpha coefficient for the scale was 0.80.

Control Variables. Employees' FSB may vary depending on their gender, age, and education level [1,29,60]. We used a dummy variable to control for participants' gender (1 = 'male', 0 = 'female'). Employee's age was measured by the number of years since his or her birth. We measured employees' education level on a 5-point scale (1 = 'High school or under grade level', 2 = 'College degrees', 3 = 'Bachelor degree', 4 = 'Master', 5 = 'Ph.D. degree'). As job tenure may be associated with lower perceived need and motivation for feedback-seeking, we controlled for employees' job tenure using the number of years that employees have worked in the company. Additionally, we asked respondents to indicate their department and position level, as these factors have potential influences on individuals' responsibilities, decision-making authority, and motivation for seeking feedback. The department types are mainly divided into health care, finance and accounting, administrative support, marketing, production and operations, and R&D. There are

four position levels: 1 = 'general staff', 2 = 'first-line manager', 3 = 'middle manager', and 4 = 'top manager'. Furthermore, we also controlled for department size [16] as this may affect the organizational structure and communication channels available to employees.

3.3. Analytic Strategy

We first conducted CFAs to confirm the dimensionality and the discriminant validity of our multi-item measures. Although the concepts of transformational leadership, intrinsic motivation, organizational virtuousness, and FSB are multidimensional in nature, our study treats them as holistic constructs without explicitly discussing their specific dimensions. This decision is based on previous research that has employed similar conceptualizations and used composite measures to capture the overall impact of these variables, and contributes to the understanding of the overall relationships among these variables. This approach provides a broader perspective on the relationships and effects of these variables in our study.

Secondly, we used the PROCESS macro [104] to test the mediating role of intrinsic motivation on the relationship between transformational leadership and FSB (H4), and the moderating effects of organizational virtuousness (H5 and H6) and job complexity (H7 and H8). Before analyzing the mediating and moderating effects, H1–H3 was tested using multiple stepwise regression analyses with controls.

Lastly, we also used Covariance-Based Structural Equation Model (SEM) techniques (AMOS) to examine the overall fit between the observed covariance matrix and the hypothesized model. This allowed us to assess the overall goodness-of-fit of the proposed model and evaluate the relationships among the latent constructs.

4. Results

4.1. Common Method Bias (CMB) and Confirmatory Factor Analysis (CFA)

Common method bias (CMB). Since all variables in this study were measured by employees, the potential for common method bias was possibly increased [97]. To reduce the impact of CMB, apart from voluntary participation and anonymity in the questionnaire survey process, we conducted Harman's single-factor test to test the bias. We conducted an exploratory factor analysis on the measured items for five variables (FSB, transformational leadership, intrinsic motivation, organizational virtuousness, and job complexity). The five factors collectively accounted for 67.5% of the total variance. The first factor explained 13.9% of the variance, which is much less than 50% [105], indicating that no single factor explained the vast majority of the variance. The CMB for the data in our study was not significant.

Confirmatory factor analysis (CFA). We conducted a confirmatory factor analysis using AMOS 24. The measurement model consisted of five latent variables: transformational leadership (four indicators representing four dimensions), intrinsic motivation (three indicators representing three dimensions), organizational virtuousness (thirteen indicators), job complexity (four indicators), and FSB (eleventh indicators). In Table 1, the results of the CFAs indicated that the hypothesized five-factor model ($\chi^2(504) = 974.79$, TLI = 0.93, CFI = 0.94, RMSEA = 0.05) yielded better-fit indexes than any alternative model. Factor loading reached significant levels for all items ($p < 0.001$).

Table 1. Results of confirmatory factor analysis.

Model	χ^2	df	CMIN/df	RMSEA	IFI	TLI	CFI
Five Factors	974.79	504	1.93	0.05	0.94	0.93	0.94
Four Factors [a]	1529.21	508	3.01	0.07	0.87	0.86	0.87
Three Factors [b]	1783.12	511	3.49	0.08	0.84	0.82	0.84
Two Factors [c]	1984.40	513	3.87	0.08	0.82	0.80	0.81
One Factor	1993.70	514	3.88	0.08	0.81	0.80	0.81

N = 415. RMSEA = Root-Mean-Square Error of Approximation; IFI = Incremental Fit Index; TLI = Tucker–Lewis Index; CFI = Comparative Fit Index. [a] Organizational virtuousness and job complexity combined. [b] Transformational leadership and intrinsic motivation combined and organizational virtuousness and job complexity combined. [c] Transformational leadership and intrinsic motivation combined, organizational virtuousness and job complexity combined.

4.2. Descriptive Statistics Analysis

The descriptive statistics, reliabilities, and correlations of our measures are presented in Table 2. This analysis indicated that transformational leadership is significantly and positively correlated with FSB (r = 0.52, $p < 0.001$). By calculating the variance inflation factors, we also conducted a multicollinearity test for these variables, and the results showed all VIFs were in the range of 0–4 (see Appendix A, Table A1), excluding the existence of strong linear relationships.

4.3. Hypothesis Testing

To test the direct effects and moderating effects, we conducted a hierarchical regression analysis following the steps suggested by Muller, Judd, and Yzerbyt [106]. As shown in Table 3 (Step 1), FSB was found to be positively related to transformational leadership ($\beta = 0.51$, $p < 0.001$). The results of Step 2 in Table 3 show that transformational leadership ($\beta = 0.49$, $p < 0.001$) was significantly related to intrinsic motivation. In addition, intrinsic motivation was significantly related to FSB, as shown by the results of Step 3 in Table 3 ($\beta = 0.32$, $p < 0.001$). Therefore, intrinsic motivation mediates the positive relationship between transformational leadership and FSB. Hypothesis 1 was supported.

Hypothesis 2 states that organizational virtuousness amplifies the positive relationship between transformational leadership and an employee's intrinsic motivation. We centered transformational leadership and organizational virtuousness prior to moderation testing. The results of Step 2 in Table 4 indicate that the interaction of transformational leadership and organizational virtuousness was significantly related to subordinates' intrinsic motivation ($\beta = 0.10$, $p < 0.05$). We plotted this positive moderating effect in Figure 2. It shows that, with high organizational virtuousness, transformational leadership was more positively related to subordinates' intrinsic motivation than it was to low organizational virtuousness. Hence, Hypothesis 2 was supported. The results of Step 3 in Table 4 indicate that organizational virtuousness positively moderates the indirect effect of transformational leadership on FSB via employees' intrinsic motivation, supporting Hypothesis 3.

Table 2. Means, standard deviations, and correlations of variables.

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Gender	1											
2. Age	−0.02	1										
3. Education	0.06	−0.01	1									
4. Department	−0.10 **	−0.01	0.09 *	1								
5. Position level	0.21 ***	0.39 ***	0.05	0.05	1							
6. Company tenure	0.13 ***	0.81 ***	−0.05	−0.01	0.55 ***	1						
7. Department scale	0.06	−0.02	0.02	−0.20 ***	−0.07	−0.03	1					
8. FSB	0.07	0.06	0.00	0.03	0.12 **	0.07	0.04	1				
9. TL	0.01	0.02	−0.03	−0.01	0.06	0.05	0.10 **	0.52 ***	1			
10. IM	0.01	0.091 *	−0.05	−0.04	0.06	0.08	0.09 *	0.49 ***	0.54 ***	1		
11. OV	0.12 **	−0.02	−0.03	0.04	0.093 *	0.06	0.01	0.56 ***	0.61 ***	0.58 ***	1	
12. JC	−0.01	0.00	0.01	−0.06	−0.110 **	−0.06	−0.02	−0.34 ***	−0.13 ***	−0.13 ***	−0.23 ***	1
Mean	0.50	1.92	2.44	3.99	1.66	3.12	3.19	3.23	3.69	4.01	3.70	2.83
SD	0.50	0.82	0.85	1.56	0.94	1.70	1.48	0.61	0.62	0.56	0.61	0.82

N = 415. ***, **, and * represent significance levels of 1%, 5%, and 10%, respectively. FSB = feedback-seeking behavior; TL = transformational leadership; IM = intrinsic motivation; OV = organizational virtuousness; JC = job complexity; Gender: 1 = 'male', 0 = 'female'; Education: 1 = 'High school or under grade level', 2 = 'College degrees', 3 = 'Bachelor degree', 4 = 'Master', 5 = 'Ph.D. degree'; Position level: 1 = 'general staff', 2 = 'first-line manager', 3 = 'middle manager', 4 = 'top manager'; Department scale: 1 = '1~10', 2 = '11~20', 3 = '21~30', 4 = '31~50', 5 = '>50'.

Table 3. Testing the mediating role of intrinsic motivation.

Variables	Transformational Leadership on FSB via Intrinsic Motivation											
	Step 1 (DV: FSB)				Step 2 (DV: Intrinsic Motivation)				Step 3 (DV: FSB)			
	coeff	se	t	*p*	coeff	se	t	*p*	coeff	se	t	*p*
Control												
Gender	0.07	0.05	1.34	0.18	0.00	0.05	0.06	0.95	0.07	0.05	1.38	0.17
Age	0.04	0.05	0.83	0.41	0.06	0.04	1.47	0.14	0.02	0.05	0.42	0.67
Education	0.00	0.03	−0.04	0.97	−0.02	0.03	−0.79	0.43	0.01	0.03	0.20	0.84
Department	0.01	0.02	0.68	0.50	−0.01	0.02	−0.71	0.48	0.02	0.02	0.92	0.36
Position level	0.06	0.04	1.67	0.10	0.01	0.03	0.20	0.84	0.06	0.04	1.68	0.09
Company tenure	−0.02	0.03	−0.68	0.50	−0.01	0.03	−0.47	0.64	−0.02	0.03	−0.57	0.57
Department scale	0.00	0.02	−0.10	0.92	0.01	0.02	0.80	0.43	−0.01	0.02	−0.34	0.73
Independent												
TL	0.51	0.04	12.34	0.00	0.49	0.04	12.94	0.00	0.36	0.05	7.56	0.00
Mediator												
IM									0.32	0.05	6.07	0.00
R-sq	0.29				0.31				0.35			
F	20.56				22.44				23.99			
df1	8.00				8.00				10.00			
df2	406.00				406.00				405.00			
p	0.00				0.00				0.00			

N = 415. FSB = feedback-seeking behavior; TL = transformational leadership; IM = intrinsic motivation.

Table 4. Testing the moderating role of organizational virtuousness.

Variables	Moderator: Organizational Virtuousness											
	Step 1 (DV: Intrinsic Motivation)				Step 2 (DV: Intrinsic Motivation)				Step 3 (DV: FSB)			
	coeff	se	t	*p*	coeff	se	t	*p*	coeff	se	t	*p*
Control												
Gender	−0.04	0.05	−0.92	0.36	−0.05	0.05	−1.10	0.27	0.03	0.05	0.50	0.62
Age	0.09	0.04	2.37	0.02	0.10	0.04	2.44	0.02	0.06	0.04	1.29	0.20
Education	−0.02	0.03	−0.69	0.49	−0.02	0.03	−0.64	0.53	0.01	0.03	0.30	0.77
Department	−0.02	0.01	−1.19	0.23	−0.02	0.01	−1.21	0.23	0.01	0.02	0.53	0.60
Position level	0.00	0.03	−0.02	0.98	0.01	0.03	0.17	0.87	0.06	0.03	1.84	0.07
Company tenure	−0.03	0.02	−1.11	0.27	−0.03	0.02	−1.27	0.20	−0.03	0.03	−1.29	0.20
Department scale	0.02	0.02	1.39	0.16	0.03	0.02	1.71	0.09	0.01	0.02	0.55	0.59
Independent												
TL	0.25	0.04	5.75	0.00	0.25	0.04	5.75	0.00	0.23	0.05	4.65	0.00
Mediator												
IM									0.18	0.06	3.29	0.00
Moderator												
OV	0.38	0.05	8.59	0.00	0.39	0.05	8.74	0.00	0.20	0.03	5.94	0.00
Interactive effects												
TL × OV					0.10	0.05	2.17	0.03	0.08	0.03	2.66	0.01
R-sq	0.41				0.42				0.41			
F	31.72				29.28				25.04			
df1	9.00				10.00				11.00			
df2	405.00				404.00				403.00			
p	0.00				0.00				0.00			

Note. N = 415. FSB = feedback-seeking behavior; TL = transformational leadership; IM = intrinsic motivation; OV = organizational virtuousness.

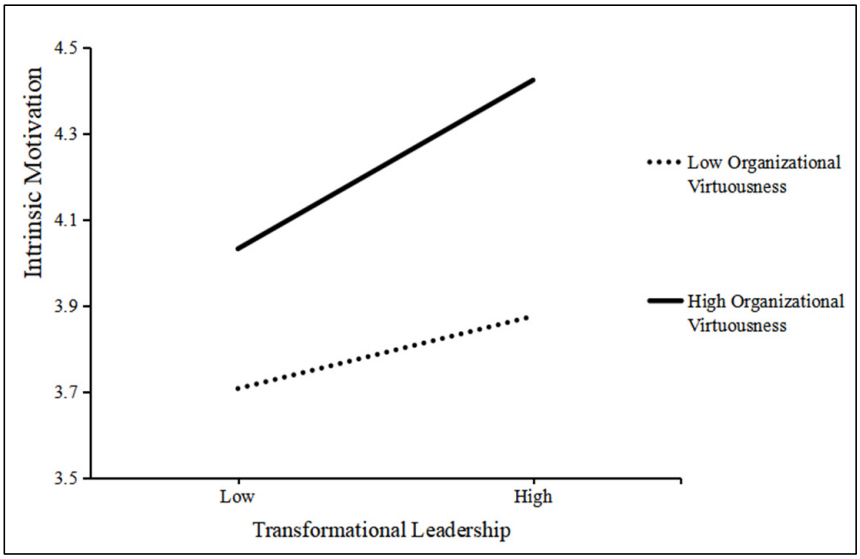

Figure 2. The moderation effect of organizational virtuousness.

Hypothesis 4 proposed that job complexity negatively moderates the relationship between transformational leadership and employees' intrinsic motivation. We centered transformational leadership and job complexity prior to moderation testing. As expected, the results of Step 2 in Table 5 show that job complexity had a negative moderating effect ($\beta = -0.09$, $p < 0.05$). We generated Figure 3 to graphically present this negatively moderating effect. It implies that the positive relationship between transformational leadership and subordinates' intrinsic motivation is weaker when the job complexity is high compared to when it is low. The results of Step 3 in Table 5 indicate that job complexity negatively moderates the mediated relationship between transformational leadership and FSB via intrinsic motivation. Therefore, Hypotheses 4 and 5 were supported. In sum, these findings offer full support to our hypotheses. The model in Figure A1 shows a numerical representation of the hypothetical relationships (see Appendix A, Figure A1).

Table 5. Testing the moderating role of job complexity.

Variables	Moderator: Job Complexity											
	Step 1 (DV: Intrinsic Motivation)				Step 2 (DV: Intrinsic Motivation)				Step 3 (DV: FSB)			
	coeff	**se**	**t**	***p***	**coeff**	**se**	**t**	***p***	**coeff**	**se**	**t**	***p***
Control												
Gender	0.01	0.05	0.10	0.92	0.01	0.05	0.16	0.87	0.08	0.05	1.74	0.08
Age	0.07	0.04	1.59	0.11	0.07	0.04	1.64	0.10	0.05	0.04	1.09	0.28
Education	−0.02	0.03	−0.77	0.44	−0.02	0.03	−0.76	0.45	0.01	0.03	0.30	0.76
Department	−0.01	0.02	−0.80	0.42	−0.01	0.02	−0.77	0.45	0.01	0.02	0.61	0.54
Position level	0.00	0.03	0.07	0.95	0.00	0.03	0.05	0.96	0.04	0.03	1.21	0.23
Company tenure	−0.01	0.03	−0.57	0.57	−0.01	0.03	−0.55	0.58	−0.02	0.03	−0.98	0.33
Department scale	0.01	0.02	0.75	0.46	0.02	0.02	0.86	0.39	−0.01	0.02	−0.35	0.73
Independent												
TL	0.48	0.04	12.67	0.00	0.47	0.04	12.52	0.00	0.34	0.05	7.55	0.00
Mediator												
IM									0.28	0.05	5.57	0.00
Moderator												
JC	−0.05	0.03	−1.60	0.11	−0.04	0.03	−1.52	0.13	−0.15	0.02	−6.39	0.00
Interactive effects												
TL × JC					−0.09	0.05	−1.97	0.05	−0.12	0.04	−3.15	0.00
R-sq	0.31				0.32				0.42			
F	20.31				18.79				26.81			
df1	9.00				10.00				11.00			
df2	405.00				404.00				403.00			
p	0.00				0.00				0.00			

Note. N = 415. FSB = feedback-seeking behavior; TL = transformational leadership; IM = intrinsic motivation; JC = job complexity.

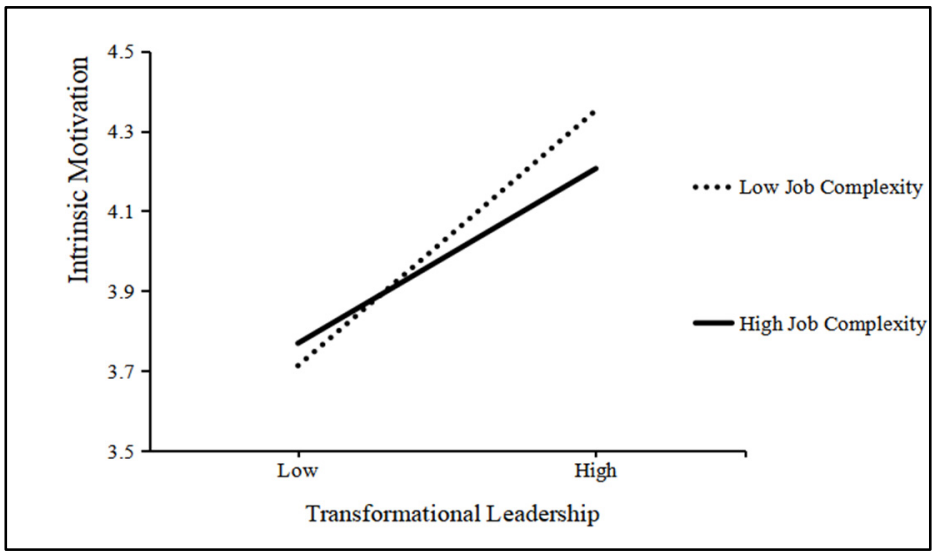

Figure 3. The moderation effect of job complexity.

As for H1, H3, and H5, we conducted these using the SPSS PROCESS procedure's Bootstrap method [104]. As in Table 6, at Bootstrap = 5000, the 95% confidence interval (95% CI) for the indirect effect is [0.1050, 0.2100]. Therefore, the indirect effect of transformational leadership on FSB through intrinsic motivation is significant, supporting H1. As shown in Table 7, the coefficient of the indirect effect of intrinsic motivation at lower organizational virtuousness is 0.0610 (95% CI = [0.0260, 0.1060). Moreover, the coefficient of the indirect effect of intrinsic motivation at higher organizational virtuousness is 0.0800 (95% CI = [0.0460, 0.1200]); CIs did not include zero. Therefore, our results indicate that the strength of the indirect relationship of transformational leadership and FSB via subordinates' intrinsic motivation was significant at both high and low levels of organizational virtuousness, supporting H3. For H5, according to the results in Table 7, the confidence interval of the difference between the higher and lower levels of job complexity is [0.0770, 0.1810], indicating that the moderated mediation effect is significant, supporting H5.

Table 6. Results of mediation effect.

	Effect	**SE**	**LLCI**	**ULCI**
Total effect	0.5110	0.0410	0.4290	0.5920
Direct effect	0.3560	0.0470	0.2630	0.4490
	Effect	BootSE	BootLLCI	BootULCI
Indirect effect	0.1550	0.0270	0.1050	0.2100

N = 415; Bootstrap = 5000; 95% Confidence Interval; SE = Standard Error.

Table 7. Results of moderated mediation analyses.

Moderating Variables	**Indirect Effect/Index**	**BootSE**	**BootLLCI**	**BootULCI**
Organizational Virtuousness				
Low (<−1 SD)	0.0610	0.0210	0.0260	0.1060
High (>−1 SD)	0.0800	0.0190	0.0460	0.1200
Difference	0.0990	0.0230	0.0560	0.1460
Job complexity				
Low (<−1 SD)	0.1740	0.0310	0.1160	0.2380
High (>−1 SD)	0.1510	0.0260	0.1020	0.2030
Difference	0.1270	0.0260	0.0770	0.1810

N = 415; Bootstrap = 5000; 95% Confidence Interval.

5. Discussion

Our study, based on 415 three-wave field data, found that transformational leadership stimulates the intrinsic motivation of employees, which drives more FSB from employees. Specifically, the present study revealed a positive association between transformational leadership and employees' intrinsic motivation, which is consistent with prior empirical evidence [107,108]. This implies that transformational leaders exert a direct influence on their subordinates' self-motivation (i.e., intrinsic motivation) by fostering a constructive perception of themselves and their tasks, stimulating autonomous thinking, and cultivating an equitable, respectful, and supportive work environment [109]. In addition, our findings provide additional evidence that individuals who possess higher levels of intrinsic motivation exhibit a greater propensity to actively pursue feedback. With a strong internal drive, individuals tend to seek more advice and challenges in their work in order to continuously improve themselves and strive for better performance. This finding is consistent with previous findings that there is a positive correlation between intrinsic motivation and proactive work-related behavior [110,111].

In addition, organizational virtuousness moderated the relationship between transformational leadership and intrinsic motivation in a strengthening way. Conversely, job complexity exerted a negative moderating effect, such that the relationship between transformational leadership and intrinsic motivation was weaker when job complexity was high than when it was low. The existing research mainly focuses on emphasizing the moderating role of leader–member relationships (e.g., identification with the leader and outcome control) and traditional values (e.g., power distance orientation) [112–114]. Our conclusion provides new boundary conditions from the perspectives of organizational climate and job characteristics, expanding the current studies on leadership's influence on employees' intrinsic motivation and work-related behaviors.

5.1. Theoretical Implications

Our study makes three significant contributions to the existing literature. First and foremost, it identified a critical psychological process through which transformational leadership is linked to FSB via intrinsic motivation. While Ashford [55] highlighted intrinsic motivation as a vital individual-level factor influencing FSB, few studies have empirically tested this notion in work settings. While prior research has established the direct influence

of transformational leadership on FSB (e.g., reference [29]), our study advances this understanding by proposing potential self-motivated mechanisms that underlie this relationship. Specifically, we contend that transformational leaders can intrinsically motivate employees, thus facilitating their engagement in FSB. This conclusion is consistent with the previous view that transformational leadership advocates open systems thinking and displays honesty, integrity, and trust when influencing followers, which makes transformational leadership more effective in influencing employee outcomes [115]. Additionally, a substantial body of research has emphasized the role of leader–follower relationships (e.g., LMX, Trust in the leader) in mediating the impact of leadership styles on FSB (e.g., reference [60]). However, only a limited number of studies have explored motivation-related variables as mediators in understanding the processes through which leadership influences FSB. Feedback-seeking theory has traditionally focused on how reducing perceived costs can increase the likelihood of seeking feedback [55,116]. Yet, recent research suggests that the perception of the value and meaning of FSB itself independently influences people's decision to seek feedback [16]. As articulated by Levy, Albright, Cawley, and Williams [117], regardless of the perceived cost, individuals are less likely to seek feedback if they do not perceive it as meaningful [118]. Our findings highlight the pivotal role of intrinsic motivation as a mediator in the process of transformational leadership motivating FSB. In sum, this study enriches our understanding of the antecedents of FSB and provides a comprehensive insight into the underlying processes that explain the positive impact of transformational leadership on FSB.

Secondly, our study contributes to the literature on self-determination theory by examining the moderating effects of organizational virtuousness and job complexity. Our findings provide further evidence supporting the holistic analysis of intrinsic motivation and behavior, illustrating that intrinsic motivation and proactive behavior result from the interplay of individual, organizational, and environmental factors [40,48]. Specifically, our results reveal that organizational virtuousness amplifies the positive impact of transformational leadership on employees' intrinsic motivation to seek feedback. This implies that the cultivation of virtuous and ethical practices within organizations enhances the effectiveness of transformational leadership in motivating employees to actively seek feedback, thereby underscoring the significance of fostering a healthy, people-centric organizational culture [119]. Additionally, we propose that high job complexity, characterized by stress, overwhelm, and uncertainty, exerts a detrimental influence on the relationship between transformational leadership and employees' intrinsic motivation to seek feedback. Our research indirectly confirms the viewpoint that coping with uncertainty and work-related adverse situations consumes psychological resources, which makes employees more likely to neglect actively improving and developing themselves, ultimately reducing their prosocial behavior and proactive behavior [119].

Thirdly, our study stands out for its data collection in the Chinese context. The influence of culture on employees' FSB has been well-documented [86]. The Chinese cultural context is characterized by unique values, norms, and work practices that can profoundly affect employee feedback-seeking behavior. By delving into this cultural context, our study extends our comprehension of how leadership within the Chinese cultural framework shapes employees' FSB through intrinsic motivation. These findings contribute to cross-cultural studies of FSB and offer valuable insights for organizations operating in the Chinese context. Moreover, it is worthwhile to consider the extent to which our findings may be culturally specific.

5.2. Managerial Implications

To remain competitive in a rapidly changing environment, organizations need to encourage employees to improve their performance by proactively seeking feedback from supervisors or colleagues [55,118]. The findings of this study allowed us to identify several managerial implications.

First, our research reconfirms that transformational leadership has a distinctively positive impact on employees' FSBs. We highlight the importance of leadership style. Transformational leaders, who inspire and motivate their teams, have a positive impact on employees' proactive behavior [120]. This implies that organizations should invest in developing and nurturing transformational leaders within their ranks.

Second, our research has found that employees with strong intrinsic motivation are more willing to engage in FSBs. Feedback is a crucial element in employee growth and development [99]. Intrinsic motivation, which stems from an individual's internal desires and values, serves as a catalyst in influencing employees' proactive behavior [38]. Transformational leaders should view feedback as a tool to inspire and support their team members, rather than merely a means of evaluation or correction. This shift in perspective can enhance intrinsic motivation. Moreover, leaders should inspire and motivate employees, create a vision for the future, and encourage innovation and creativity within the workplace. This will inherently enhance employees' intrinsic motivation to seek feedback.

Third, our results show that organizational virtuousness provides a supportive environment and plays a positive moderating role in the relationship between transformational leadership and employees' intrinsic motivation. Managers should cultivate a virtuous organizational culture and endeavor to create a friendly and trusting atmosphere that fosters open and honest communication among employees, thus promoting FSB. In contrast, we found that job complexity diminishes the link between transformational leadership and intrinsic motivation. Therefore, organizations should be attentive to the double-edged sword effect of job complexity when designing roles. While challenging tasks can stimulate motivation, excessive complexity can lead to frustration and demotivation. Organizations should encourage managers to assess and balance job complexity appropriately. Simplifying tasks when necessary, providing adequate resources, and offering training to help employees navigate complex roles effectively are essential steps. Furthermore, leaders can support job crafting, enabling employees to have some degree of control over their roles and responsibilities. This autonomy can counteract the negative effects of job complexity on intrinsic motivation.

5.3. Limitations and Directions for Future Research

Despite some encouraging results, there are certain limitations to this study. First, all variables in this study are examined by employee self-report, which raises the possibility of single-source bias. Instead of depending solely on employee self-reports, future studies can use several sources (e.g., leaders, coworkers, and employees) to evaluate these relationships [121]. Furthermore, prior studies have revealed that FSB is expected to decrease as individuals grow more used to their role and work environment (e.g., reference [118]). Future research might employ longitudinal and experimental approaches to compensate for this study's limitations. In addition, combining real-world applications or case studies can bridge the gap between theory and practice, and potentially uncover some underlying antecedents of FSB.

Second, due to resource constraints, such as the limited accessibility of the firm, data are collected from a convenience sample, which inherently restricts generalizability and consequently diminishes external validity [122]. This limitation may impede the generalizability of the study's findings. Future research endeavors should aim to gather data from random or stratified samples encompassing a broader range of company employees. The data for this study being drawn from the core cities of central China limits the external validity of our findings. Future research could be conducted in other cultural value contexts to test the generalizability of our findings.

Third, there was no distinction made in this study between seeking feedback from supervisors and seeking feedback from peers. When tasks are interdependent, employees seek more peer feedback [122]. Some studies have argued that seeking feedback from leaders is more conducive to performance improvement (e.g., reference [123]). In contrast, a recent study concluded that feedback provided by colleagues tends to be more effective

compared to leaders and that their feedback can complement that provided by supervisors through formal organizational performance appraisals [11]. Future research could, therefore, consider distinguishing between these two dimensions and conduct more research on antecedents and consequences. In addition, future research could distinguish between the nature (e.g., positive or negative) and form (e.g., monitoring or questioning) of FSB and compare the different mechanisms by which they arise and the impact on individual performance. Lastly, future research exploring the impact of other leadership styles, such as paradoxical leadership, on FSB could provide a more comprehensive understanding in the Chinese context.

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Appendix A

Table A1. Results of multicollinearity analysis.

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
Constant	0.943	0.240		3.925	0.000		
TL	0.236	0.049	0.241	4.849	0.000	0.563	1.775
IM	0.193	0.053	0.178	3.661	0.000	0.587	1.705
OV	0.254	0.052	0.257	4.855	0.000	0.494	2.022
JC	−0.163	0.028	−0.221	−5.721	0.000	0.929	1.076
Gender	0.050	0.048	0.041	1.033	0.302	0.883	1.133
Age	0.066	0.042	0.103	1.571	0.117	0.321	3.111
Education	0.008	0.027	0.012	0.312	0.755	0.968	1.033
Department	0.004	0.015	0.011	0.276	0.783	0.931	1.074
Position level	0.039	0.032	0.055	1.200	0.231	0.657	1.523
Company tenure	−0.034	0.024	−0.099	−1.388	0.166	0.271	3.694
Department scale	−0.002	0.017	−0.004	−0.111	0.911	0.931	1.074

Dependent Variable: FSB = feedback-seeking behavior; TL = transformational leadership; IM= intrinsic motivation; OV = organizational virtuousness; JC = job complexity.

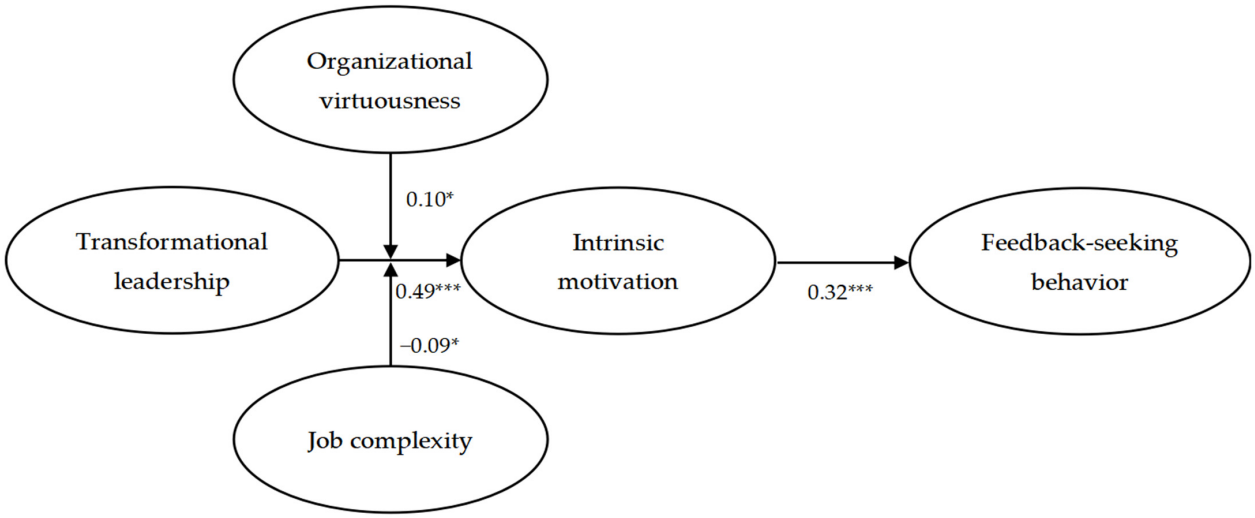

Figure A1. Results of the research framework. * $p < 0.05$, *** $p < 0.001$.

References

1. Anseel, F.; Beatty, A.S.; Shen, W.; Lievens, F.; Sackett, P.R. How are we doing after 30 years? A meta-analytic review of the antecedents and outcomes of feedback-seeking behavior. *J. Manag.* **2015**, *41*, 318–348. [CrossRef]
2. Dwivedi, P.; Dwivedi, R.; Yoshikuni, A.C.; Xie, B.; Naik, B. Role of Digitalization in Business Process to Reduce Manpower: A Case of Human Resource Management Process. *Int. J. Econ. Bus. Adm.* **2023**, *11*, 66–76. [CrossRef] [PubMed]
3. Gouda, H. Exploring the effects of learning abilities, technology and market changes on the need for future skills. *High. Educ. Ski. Work. Based Learn.* **2022**, *12*, 900–913. [CrossRef]
4. Sung, S.Y.; Choi, J.N. Do you value or worry about feedback? Tradeoffs between cost and value perceptions and dual feedback-seeking strategies toward creativity. *J. Organ. Behav.* **2021**, *42*, 950–963. [CrossRef]
5. Porath, C.L.; Bateman, T.S. Self-regulation: From goal orientation to job performance. *J. Appl. Psychol.* **2006**, *91*, 185–192. [CrossRef] [PubMed]
6. Grant, A.M.; Ashford, S.J. The dynamics of proactivity at work. *Res. Organ. Behav.* **2008**, *28*, 3–34. [CrossRef]
7. De Stobbeleir, K.E.; Ashford, S.J.; Buyens, D. Self-regulation of creativity at work: The role of FSB in creative performance. *Acad. Manag. J.* **2011**, *54*, 811–831. [CrossRef]
8. Lam, L.W.; Peng, K.Z.; Wong, C.S.; Lau, D.C. Is more feedback seeking always better? Leader-member exchange moderates the relationship between FSB and performance. *J. Manag.* **2017**, *43*, 2195–2217.
9. Renn, R.W.; Fedor, D.B. Development and field test of a feedback seeking, self-efficacy, and goal setting model of work performance. *J. Manag.* **2001**, *27*, 563–583. [CrossRef]
10. Van der Rijt, J.; Van den Bossche, P.; Van de Wiel, M.W.; Segers, M.S.; Gijselaers, W.H. The role of individual and organizational characteristics in feedback seeking behavior in the initial career stage. *Hum. Resour. Dev. Int.* **2012**, *15*, 283–301. [CrossRef]
11. Wanberg, C.R.; Kammeyer-Mueller, J.D. Predictors and outcomes of proactivity in the socialization process. *J. Appl. Psychol.* **2000**, *85*, 373–385. [CrossRef] [PubMed]
12. Parker, S.K.; Collins, C.G. Taking stock: Integrating and differentiating multiple proactive behaviors. *J. Manag.* **2010**, *36*, 633–662. [CrossRef]
13. Ashford, S.J.; De Stobbeleir, K.; Nujella, M. To seek or not to seek: Is that the only question? Recent developments in feedback-seeking literature. *Annu. Rev. Organ.* **2016**, *3*, 213–239. [CrossRef]
14. Park, G.; Schmidt, A.M.; Scheu, C.; DeShon, R.P. A process model of goal orientation and feedback seeking. *Hum. Perform.* **2007**, *20*, 119–145. [CrossRef]
15. Qian, J.; Wang, B.; Han, Z.; Song, B. Ethical leadership, leader-member exchange and feedback seeking: A double-moderated mediation model of emotional intelligence and work-unit structure. *Front. Psychol.* **2017**, *8*, 1174. [CrossRef]
16. Sherf, E.N.; Morrison, E.W. I do not need feedback! Or do I? Self-efficacy, perspective taking, and feedback seeking. *J. Appl. Psychol.* **2020**, *105*, 146–165. [CrossRef]
17. Hinkin, T.R.; Schriesheim, C.A. Development and application of new scales to measure the French and Raven (1959) bases of social power. *J. Appl. Psychol.* **1989**, *74*, 561–567. [CrossRef]
18. Elshaer, I.A.; Azazz, A.M.S.; Kooli, C.; Alshebami, A.S.; Zeina, M.M.A.; Fayyad, S. Environmentally Specific Servant Leadership and Brand Citizenship Behavior: The Role of Green-Crafting Behavior and Employee-Perceived Meaningful Work. *Eur. J. Investig. Health Psychol. Educ.* **2023**, *13*, 1097–1116. [CrossRef]
19. Bass, B.M.; Avolio, B.J. *Improving Organizational Effectiveness through Transformational Leadership*; Sage Publications: London, UK, 1994.

20. Almeida, M.C.; Yoshikuni, A.C.; Dwivedi, R.; Larieira, C.L.C. Do leadership styles influence employee information systems security intention? A study of the banking industry. *Glob. J. Flex. Syst. Manag.* **2022**, *23*, 535–550. [CrossRef]
21. Qin, D.; Xu, Y.; Li, C.; Meng, X. How servant leadership sparks feedback-seeking behavior: A moderated mediation model. *Front. Psychol.* **2021**, *12*, 748751. [CrossRef]
22. Qian, J.; Song, B.; Jin, Z.; Wang, B.; Chen, H. Linking empowering leadership to task performance, taking charge, and voice: The mediating role of feedback-seeking. *Front. Psychol.* **2018**, *9*, 2025. [CrossRef] [PubMed]
23. Moss, S.E.; Song, M.; Hannah, S.T.; Wang, Z.; Sumanth, J.J. The duty to improve oneself: How duty orientation mediates the relationship between ethical leadership and followers' feedback-seeking and feedback-avoiding behavior. *J. Bus. Ethics.* **2019**, *165*, 615–631. [CrossRef]
24. Manz, C.C.; Sims, H.P. Leading workers to lead themselves: The external leadership of self- managing work teams. *Admin. Sci. Q.* **1987**, *32*, 106. [CrossRef]
25. Bass, B.M. Does the transactional–transformational leadership paradigm transcend organizational and national boundaries? *Am. Psychol.* **1997**, *52*, 130–139. [CrossRef]
26. Hoch, J.E.; Bommer, W.H.; Dulebohn, J.H.; Wu, D. Do ethical, authentic, and servant leadership explain variance above and beyond transformational leadership? A meta-analysis. *J. Manag.* **2018**, *44*, 501–529. [CrossRef]
27. Muralidharan, E.; Pathak, S. Sustainability, transformational leadership, and social entrepreneurship. *Sustainability* **2018**, *10*, 567. [CrossRef]
28. Dvir, T.; Eden, D.; Avolio, B.J.; Shamir, B. Impact of transformational leadership on follower development and performance: A field experiment. *Acad. Manag. J.* **2002**, *45*, 735–744. [CrossRef]
29. Wang, B.; Qian, J.; Ou, R.; Huang, C.; Xu, B.; Xia, Y. Transformational leadership and employees' feedback seeking: The mediating role of trust in leader. *Soc. Behav. Personal.* **2016**, *44*, 1201–1208. [CrossRef]
30. Crommelinck, M.; Anseel, F. Understanding and encouraging feedback-seeking behaviour: A literature review. *Med. Educ.* **2013**, *47*, 232–241. [CrossRef]
31. VandeWalle, D.; Cummings, L.L. A test of the influence of goal orientation on the feedback-seeking process. *J. Appl. Psychol.* **1997**, *82*, 390–400. [CrossRef]
32. Pinder, C.C. *Work Motivation in Organizational Behavior*; Psychology Press: London, UK, 2015.
33. Lai, F.-Y.; Tang, H.-C.; Lu, S.-C.; Lee, Y.-C.; Lin, C.-C. Transformational leadership and job performance: The mediating role of work engagement. *SAGE Open* **2020**, *10*, 215824401989908. [CrossRef]
34. Lin, Y.J.; Cai, F.; Li, Z. *State-Owned Enterprise Reform in China*; The Chinese University Press: Hong Kong, China, 2001.
35. Chen, Z.; Lam, W.; Zhong, J.A. Leader-member exchange and member performance: A new look at individual-level negative feedback-seeking behavior and team-level empowerment climate. *J. Appl. Psychol.* **2007**, *92*, 202–212. [CrossRef] [PubMed]
36. Hofstede, G. *Cultures and Organizations: Software of the Mind*; McGraw-Hill: New York, NY, USA; London, UK, 1991.
37. Deci, E.L.; Ryan, R.M. Self-determination theory: A macrotheory of human motivation, development, and health. *Can. Psychol.* **2008**, *49*, 182–185. [CrossRef]
38. Ryan, R.M.; Deci, E.L. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *Am. Psychol.* **2000**, *55*, 68–78. [CrossRef] [PubMed]
39. Shafi, M.; Lei, Z.; Song, X.; Sarker, M.N. The effects of transformational leadership on employee creativity: Moderating role of intrinsic motivation. *Asia Pac. Manag. Rev.* **2020**, *25*, 166–176. [CrossRef]
40. DeRobertis, E.M.; Bland, A.M. Tapping the humanistic potential of self-determination theory: Awakening to paradox. *Humanist. Psychol.* **2018**, *46*, 105–128. [CrossRef]
41. Vansteenkiste, M.; Lens, W.; Deci, E.L. Intrinsic versus extrinsic goal-contents in self-determination theory: Another look at the quality of academic motivation. *Educ. Psychol.* **2006**, *41*, 19–31. [CrossRef]
42. Cameron, K.S.; Caza, A. Virtuousness as a source of happiness in organizations. In *The Oxford Handbook of Happiness*; Oxford Academic: London, UK, 2013; pp. 676–692.
43. Meyer, M. The evolution and challenges of the concept of organizational virtuousness in positive organizational scholarship. *J. Bus. Ethics.* **2018**, *153*, 245–264. [CrossRef]
44. Rego, A.; Ribeiro, N.; Cunha, M.P.; Jesuino, J.C. How happiness mediates the organizational virtuousness and affective commitment relationship. *J. Bus. Res.* **2011**, *64*, 524–532. [CrossRef]
45. Cameron, K.S.; Bright, D.; Caza, A. Exploring the relationships between organizational virtuousness and performance. *Am. Behav. Sci.* **2004**, *47*, 766–790. [CrossRef]
46. Hackman, J.R.; Oldham, G.R. Development of the job diagnostic survey. *J. Appl. Psychol.* **1975**, *60*, 159–170. [CrossRef]
47. Humphrey, S.E.; Nahrgang, J.D.; Morgeson, F.P. Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the work design literature. *J. Appl. Psychol.* **2007**, *92*, 1332–1356. [CrossRef]
48. Deci, E.L.; Ryan, R.M. The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychol. Inq.* **2000**, *11*, 227–268. [CrossRef]
49. Reeve, J. Self-determination theory applied to educational settings. In *Handbook of Self-Determination Research*; University Rochester Press: New York, NY, USA, 2002; pp. 183–204.
50. Sheldon, K.M.; Ryan, R.; Reis, H.T. What makes for a good day? Competence and autonomy in the day and in the person. *Personal. Soc. Psychol. Bull.* **1996**, *22*, 1270–1279. [CrossRef]

51. Reis, H.T.; Sheldon, K.M.; Gable, S.L.; Roscoe, J.; Ryan, R.M. Daily well-being: The role of autonomy, competence, and relatedness. *Pers. Soc. Psychol. Bull.* **2000**, *26*, 419–435. [CrossRef]
52. Judge, T.A.; Bono, J.E.; Erez, A.; Locke, E.A. Core self-evaluations and job and life satisfaction: The role of self-concordance and goal attainment. *J. Appl. Psychol.* **2005**, *90*, 257–268. [CrossRef]
53. Vansteenkiste, M.; Neyrinck, B.; Niemiec, C.P.; Soenens, B.; De Witte, H.; Van den Broeck, A. On the relations among work value orientations, psychological need satisfaction and job outcomes: A self-determination theory approach. *J. Occup. Organ. Psychol.* **2007**, *80*, 251–277. [CrossRef]
54. Deci, E.L.; Ryan, R.M. The general causality orientations scale: Self-determination in personality. *J. Res. Personal.* **1985**, *19*, 109–134. [CrossRef]
55. Ashford, S.J. Feedback-seeking in individual adaptation: A resource perspective. *Acad. Manag. J.* **1986**, *29*, 465–487. [CrossRef]
56. Morrison, E.W. Newcomer information seeking: Exploring types, modes, sources, and outcomes. *Acad. Manag. J.* **1993**, *36*, 557–589. [CrossRef]
57. Williams, J.R.; Miller, C.E.; Steelman, L.A.; Levy, P.E. Increasing feedback seeking in public contexts: It takes two (or more) to tango. *J. Appl. Psychol.* **1999**, *84*, 969–976. [CrossRef]
58. Beenen, G.; Pichler, S.; Levy, P.E. Self-determined feedback seeking: The role of perceived supervisor autonomy support. *Hum. Resour. Manag. J.* **2017**, *56*, 555–569. [CrossRef]
59. Levy, P.E.; Cober, R.T.; Miller, T. The effect of transformational and transactional leadership perceptions on feedback-seeking intentions. *J. Appl. Soc. Psychol.* **2002**, *32*, 1703–1720. [CrossRef]
60. Qian, J.; Lin, X.; Chen, G.Z.X. Authentic leadership and FSB: An examination of the cultural context of mediating processes in China. *J. Manag. Organ.* **2012**, *18*, 286–299. [CrossRef]
61. Piccolo, R.F.; Colquitt, J.A. Transformational leadership and job behaviors: The mediating role of core job characteristics. *Acad. Manag. J.* **2006**, *49*, 327–340. [CrossRef]
62. Kark, R.; Shamir, B.; Chen, G. The two faces of transformational leadership: Empowerment and dependency. *J. Appl. Psychol.* **2003**, *88*, 246–255. [CrossRef]
63. Shin, S.J.; Zhou, J. Transformational leadership, conservation, and creativity: Evidence from Korea. *Acad. Manag. J.* **2003**, *46*, 703–714. [CrossRef]
64. Deci, E.L.; Olafsen, A.H.; Ryan, R.M. Self-determination theory in work organizations: The state of a science. *Annu. Rev. Organ.* **2017**, *4*, 19–43. [CrossRef]
65. VandeWalle, D. A goal orientation model of feedback-seeking behavior. *Hum. Resour. Manag. J.* **2003**, *13*, 581–604. [CrossRef]
66. Al Shammre, A.S.; Alshebami, A.S.; Ali Seraj, A.H.; Elshaer, I.A.; Al Marri, S.H. Unleashing environmental performance: The impact of green entrepreneurial motivation on small enterprises. *Front. Environ. Sci.* **2023**, *11*, 476. [CrossRef]
67. Li, T.A.; Xuhui, W.; Maitlo, Q.; Zafar, A.U.; Bhutto, N.A.; Ahmed Bhutto, N. Unlocking employees' green creativity: The effects of green transformational leadership, green intrinsic, and extrinsic motivation. *J. Clean. Prod. J.* **2020**, *255*, 120229–120310. [CrossRef]
68. Sarros, J.C.; Gray, J.; Densten, I.L. Leadership and its impact on organizational culture. *J. Int. Bus. Stud.* **2002**, *10*, 1–26.
69. Ahmad, F.; Abbas, T.; Latif, S.; Rasheed, A. Impact of transformational leadership on employee motivation in telecommunication sector. *J. Manag. Policies Pract.* **2014**, *2*, 11–25.
70. Messmann, G.; Evers, A.; Kreijns, K. The role of basic psychological needs satisfaction in the relationship between transformational leadership and innovative work behavior. *Hum. Resour. Dev. Q.* **2022**, *33*, 29–45. [CrossRef]
71. Bass, B.M. *Leadership and Performance beyond Expectations*; Collier Macmillan: Berlin, Germany, 1985.
72. Madzar, S. Subordinates' information inquiry: Exploring the effect of perceived leadership style and individual differences. *J. Occup. Organ. Psychol.* **2001**, *74*, 221–232. [CrossRef]
73. Tuckey, M.; Brewer, N.; Williamson, P. The influence of motives and goal orientation on feedback seeking. *J. Occup. Organ. Psychol.* **2002**, *75*, 195–216. [CrossRef]
74. VandeWalle, D.; Ganesan, S.; Challagalla, G.N.; Brown, S.P. An integrated model of FSB: Disposition, context, and cognition. *J. Appl. Psychol.* **2000**, *85*, 996–1003. [CrossRef]
75. Grant, A.M.; Berry, J.W. The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Acad. Manag. J.* **2011**, *54*, 73–96. [CrossRef]
76. Cerasoli, C.P.; Nicklin, J.M.; Ford, M.T. Intrinsic motivation and extrinsic incentives jointly predict performance: A 40-year meta-analysis. *Psychol. Bull.* **2014**, *140*, 980–1008. [CrossRef]
77. Shin, J.; Grant, A.M. Bored by interest: How intrinsic motivation in one task can reduce performance on other tasks. *Acad. Manag. J.* **2019**, *62*, 415–436. [CrossRef]
78. Ryan, R.M.; Stiller, J.D.; Lynch, J.H. Representations of relationships to teachers, parents, and friends as predictors of academic motivation and self-esteem. *J. Early Adolesc.* **1994**, *14*, 226–249. [CrossRef]
79. Dutton, J.E.; Dukerich, J.M. Keeping an eye on the mirror: Image and identity in organizational adaptation. *Acad. Manag. J.* **1991**, *34*, 517–554. [CrossRef]
80. Eisenberger, R.; Armeli, S.; Rexwinkel, B.; Lynch, P.D.; Rhoades, L. Reciprocation of perceived organizational support. *J. Appl. Psychol.* **2001**, *86*, 42–51. [CrossRef] [PubMed]
81. Nikandrou, I.; Tsachouridi, I. Towards a better understanding of the "buffering effects" of organizational virtuousness' perceptions on employee outcomes. *Manag. Decis.* **2015**, *53*, 1823–1842. [CrossRef]

82. Koveshnikov, A.; Ehrnrooth, M. The cross-cultural variation of the effects of transformational leadership behaviors on followers' organizational identification: The case of idealized influence and individualized consideration in Finland and Russia. *Manag. Organ. Rev.* **2018**, *14*, 747–779. [CrossRef]
83. Panaccio, A.; Vandenberghe, C. Perceived organizational support, organizational commitment and psychological well-being: A longitudinal study. *J. Vocat. Behav.* **2009**, *75*, 224–236. [CrossRef]
84. Morgeson, F.P.; Humphrey, S.E. The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *J. Appl. Psychol.* **2006**, *91*, 1321–1339. [CrossRef]
85. Perlow, L.A. The time famine: Toward a sociology of work time. *Adm. Sci. Q.* **1999**, *44*, 57–81. [CrossRef]
86. Speier, C.; Vessey, I.; Valacich, J.S. The effects of interruptions, task complexity, and information presentation on computer-supported decision-making performance. *Decis. Sci.* **2003**, *34*, 771–797. [CrossRef]
87. Shalley, C.E.; Gilson, L.L.; Blum, T.C. Interactive effects of growth need strength, work context, and job complexity on self-reported creative performance. *Acad. Manag. J.* **2009**, *52*, 489–505. [CrossRef]
88. Crawford, E.R.; LePine, J.A.; Rich, B.L. Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *J. Appl. Psychol.* **2010**, *95*, 834–848. [CrossRef]
89. Nahrgang, J.D.; Morgeson, F.P.; Hofmann, D.A. Safety at work: A meta-analytic investigation of the link between job demands, job resources, burnout, engagement, and safety outcomes. *J. Appl. Psychol.* **2011**, *96*, 566–584. [CrossRef] [PubMed]
90. Lee, R.T.; Ashforth, B.E. A meta-analytic examination of the correlates of the three dimensions of job burnout. *J. Appl. Psychol.* **1993**, *78*, 123–133. [CrossRef] [PubMed]
91. Tian, Q.; Bai, J.; Wu, T. Should we be" challenging" employees? A study of job complexity and job crafting. *Int. J. Hosp. Manag.* **2022**, *102*, 103165. [CrossRef]
92. Yagil, D.; Medler-Liraz, H. Feel free, be yourself: Authentic leadership, emotional expression, and employee authenticity. *J. Leadersh. Organ. Stud.* **2014**, *21*, 59–70. [CrossRef]
93. Niu, W.; Yuan, Q.; Qian, S.; Liu, Z. Authentic leadership and employee job behaviors: The mediating role of relational and organizational identification and the moderating role of LMX. *Curr. Psychol.* **2018**, *37*, 982–994. [CrossRef]
94. Tarkang Mary, M.E.M.; Ozturen, A. Sustainable ethical leadership and employee outcomes in the hotel industry in Cameroon. *Sustainability* **2019**, *11*, 2245. [CrossRef]
95. Mubarak, F.; Noor, A. Effect of authentic leadership on employee creativity in project-based organizations with the mediating roles of work engagement and psychological empowerment. *Cogent Bus. Manag.* **2018**, *5*, 1–14. [CrossRef]
96. Bao, P.; Xiao, Z.; Bao, G.; Noorderhaven, N. Inclusive leadership and employee work engagement: A moderated mediation model. *Balt. J. Manag.* **2022**, *17*, 124–139. [CrossRef]
97. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.Y.; Podsakoff, N.P. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* **2003**, *88*, 879–903. [CrossRef]
98. Brislin, R.W. (Ed.) *Applied Cross-Cultural Psychology*; Sage Publications: New York, NY, USA, 1990.
99. Callister, R.R.; Kramer, M.W.; Turban, D.B. Feedback seeking following career transitions. *Acad. Manag. J.* **1999**, *42*, 429–438. [CrossRef]
100. MacKenzie, S.B.; Podsakoff, P.M.; Rich, G.A. Transformational and transactional leadership and salesperson performance. *J. Acad. Mark. Sci.* **2001**, *29*, 115–134. [CrossRef]
101. Wang, H.; Law, K.S.; Hackett, R.D.; Wang, D.; Chen, Z.X. Leader-member exchange as a mediator of the relationship between transformational leadership and followers' performance and organizational citizenship behavior. *Acad. Manag. J.* **2005**, *48*, 420–432. [CrossRef]
102. Vallerand, R.J. Toward a hierarchical model of intrinsic and extrinsic motivation. In *Advances in Experimental Social Psychology*; Academic Press: Cambridge, MA, USA, 1997; pp. 271–360.
103. Rego, A.; Vitória, A.; Magalhães, A.; Ribeiro, N.; Cunha, M.P. Are authentic leaders associated with more virtuous, committed and potent teams? *Leadersh. Q.* **2013**, *24*, 61–79. [CrossRef]
104. Hayes, A.F. *PROCESS: A Versatile Computational Tool for Observed Variable Mediation, Moderation, and Conditional Process Modeling*; University of Kansas: Lawrence, KS, USA, 2012.
105. McFarlin, D.B.; Sweeney, P.D. Distributive and procedural justice as predictors of satisfaction with personal and organizational outcomes. *Acad. Manag. J.* **1992**, *35*, 626–637. [CrossRef]
106. Muller, D.; Judd, C.M.; Yzerbyt, V.Y. When moderation is mediated and mediation is moderated. *J. Personal. Soc. Psychol.* **2005**, *89*, 852–863. [CrossRef]
107. Khan, H.; Rehmat, M.; Butt, T.H.; Farooqi, S.; Asim, J. Impact of transformational leadership on work performance, Burnout and Social Loafing: A mediation model. *Futur. Bus. J.* **2020**, *6*, 40. [CrossRef]
108. Charbonneau, D.; Barling, J.; Kelloway, E.K. Transformational leadership and sports performance: The mediating role of Intrinsic Motivation. *J. Appl. Soc. Psychol.* **2001**, *31*, 1521–1534. [CrossRef]
109. Turnnidge, J.; Côté, J. Transformational coaching workshop: Applying a person-centred approach to coach development programs. *Int. Sport. Coach. J.* **2017**, *4*, 314–325. [CrossRef]
110. Tu, Y.D.; Lu, X.X. Erratum to: How ethical leadership influence employees' innovative work behavior: A perspective of intrinsic motivation. *J. Bus. Ethics.* **2012**, *116*, 457. [CrossRef]

111. Shi, W.; Yang, J.F.; Sun, T.; Zeng, Y.; Cai, Z. Do people become more proactive at work as they grow older? Examining the mediating roles of intrinsic motivation, emotional exhaustion, and career aspiration. *Front. Psychol.* **2023**, *14*, 1154861. [CrossRef] [PubMed]
112. Su, W.; Lyu, B.; Chen, H.; Zhang, Y. How does servant leadership influence employees' service innovative behavior? the roles of intrinsic motivation and identification with the leader. *Balt. J. Manag.* **2020**, *15*, 571–586. [CrossRef]
113. Zhang, Y.; Yang, F. How and when spiritual leadership enhances employee innovative behavior. *Personal. Rev.* **2020**, *50*, 596–609. [CrossRef]
114. Bande, B.; Fernández-Ferrín, P.; Varela-Neira, C.; Otero-Neira, C. Exploring the relationship among servant leadership, intrinsic motivation and performance in an industrial sales setting. *J. Bus. Ind. Mark.* **2016**, *31*, 219–231. [CrossRef]
115. Ramdehal, D.; Madueke, C. Corporate American Employees Prefer Transformational Leaders with Integrity and Trust. *Int. J. Manag. Sci. Bus. Adm.* **2022**, *8*, 28–36. [CrossRef]
116. Anseel, F.; Lievens, F.; Levy, P.E. A self-motives perspective on feedback-seeking behavior: Linking organizational behavior and social psychology research. *Int. J. Manag. Rev.* **2007**, *9*, 211–236. [CrossRef]
117. Levy, P.E.; Albright, M.D.; Cawley, B.D.; Williams, J.R. Situational and individual determinants of feedback seeking: A closer look at the process. *Organ. Behav. Hum. Decis. Process.* **1995**, *62*, 23–37. [CrossRef]
118. Ashford, S.J.; Blatt, R.; VandeWalle, D. Reflections on the looking glass: A review of research on FSB in organizations. *J. Manag.* **2003**, *29*, 773–799.
119. Guberina, T.; Wang, A.M.; Obrenovic, B. An empirical study of entrepreneurial leadership and fear of COVID-19 impact on psychological wellbeing: A mediating effect of job insecurity. *PLoS ONE* **2023**, *18*, e0284766. [CrossRef]
120. Su, Y.L.; Reeve, J. A meta-analysis of the effectiveness of intervention programs designed to support autonomy. *Edu. Psychol. Rev.* **2011**, *23*, 159–188. [CrossRef]
121. Allen, T.D.; Barnard, S.; Rush, M.C.; Russell, J.E. Ratings of organizational citizenship behavior: Does the source make a difference? *Hum. Resour. Manag. Rev.* **2000**, *10*, 97–114. [CrossRef]
122. Murray, G.R.; Rugeley, C.R.; Mitchell, D.G.; Mondak, J.J. Convenient yet not a convenience sample: Jury pools as experimental subject pools. *Soc. Sci. Res.* **2013**, *42*, 246–253. [CrossRef] [PubMed]
123. De Stobbeleir, K.; Ashford, S.; Zhang, C. Shifting focus: Antecedents and outcomes of proactive feedback seeking from peers. *Hum. Relat.* **2020**, *73*, 303–325. [CrossRef]

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