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# Which Leadership Styles Matter to Subordinates' Knowledge Behavior? Focusing on the Occupational Self-Efficacy and Self-Regulatory Focus

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### ABSTRACT

The purpose of this research is to examine the importance of understanding employees' self-regulatory capacities and supervisors' leadership styles in enhancing employee knowledge-sharing and mitigating knowledge concealment through improvements in occupational self-efficacy. This research conducted quantitative methodology to investigate the relationships among leadership style, occupational self-efficacy, knowledge-related behavior, and self-regulatory focus. The authors conducted an online survey to investigate factors influencing the knowledge behavior of employees, with a sample of 299 employees in South Korea. This research revealed that both transformational and transactional leadership indirectly influence subordinates' knowledge-sharing and -hiding by enhancing occupational self-efficacy. Also, this research found that moderated mediation of subordinates' self-regulatory focus has significant effects on the relationships. This research emphasizes the importance of applying an employee's psychological state, including occupational self-efficacy, personal traits, and regulatory behavior, when assessing the effectiveness of leadership on employees' knowledge-related behavior. The research has practical implications for human resource development. It emphasizes the importance of monitoring employees' sense of professional self-efficacy. It also deals with the need for transparent rewards and performance evaluations to effectively manage the double-edged sword of transactional leadership. Finally, it discusses how to design customized leadership programs based on the personality traits of team members.

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The significance of knowledge in the workplace requires no further emphasis (Nonaka & Takeuchi, 1995; Phong & Thanh, 2023; Usman et al., 2024). The organizational competency

to utilize organizational knowledge effectively depends on employee resources (Brix, 2017; Georgiadou & Siakas, 2012; Nikitina & Lapina, 2019). However, the reasons why employees may not always share their knowledge and, in some cases, intentionally hide it deserve attention (Connelly et al., 2012; Xiao & Cooke, 2019). Knowledge hiding among employees has been extensively discussed (Evans et al., 2014; Nguyen et al., 2022; Peng, 2013), with some scholars examining the effectiveness of leadership in reducing the willingness of subordinates to hide knowledge (Al Hawamdeh, 2022; Nguyen et al., 2022; Scuotto et al., 2022; Usman et al., 2024).

Leadership in the workplace facilitates fostering knowledge management and improves organizational performance (Febrian et al., 2023; Gui et al., 2024; Phong & Thanh, 2023). Leaders also are able to compose a work climate where each subordinate works together to achieve the goals (Tjahjono & Rahayu, 2024). Furthermore, their leadership styles impact the subordinate and organizational change. However, the effectiveness of specific leadership styles could be contingent upon individual differences among followers, leading to distinct employee reactions (Hamstra et al., 2011; González-Cruz et al., 2019). When a supervisor's leadership style aligns with their followers' preferred work style and personality, better performance can be expected (Choi et al., 2019; Kark et al., 2018). Thus, it is essential to explore which leadership style is most suitable for each follower.

Given the job resource-demands model (Bakker et al., 2004; Katou et al., 2022; Xanthopoulou et al., 2007), both job resources and personal resources play pivotal roles in shaping subordinate behavior. Leadership is recognized as an invaluable resource for employees to engage in their jobs actively (Imran, 2019). Supervisor's leadership as a job resource can significantly affect employees' knowledge-related behavior (Anand et al., 2023; Herman & Mitchell, 2010; Ladan et al., 2017; Ugwu et al., 2020). Having confidence in subordinates' ideas becomes crucial, as sharing information and know-how with colleagues can sometimes lead to criticism and negative feedback (Runhaar & Sanders, 2016). Encouraging and providing a clear vision (Pillai & Williams, 2004) and implementing training and performance-based rewards systems (Deng et al., 2019) can further enhance employees' confidence and improve task efficacy.

While supervisors could facilitate knowledge sharing and reduce efforts to conceal knowledge, the role of leaders is paramount (Masa'deh et al., 2016; Scuotto et al., 2022). Beyond inherent traits, employee self-efficacy can be influenced by individual differences in the workplace (Schyns & Von Collani, 2002) and is associated with knowledge behavior (Butt, 2020; Lin & Hwang, 2010; Shen, 2019). Supervisory leadership, as a job resource, affects subordinates' personal resources, such as occupational self-efficacy, serving as a potential bridge.

Employees may exhibit subjective preferences for leadership styles (González-Cruz et al., 2019; Hamstra et al., 2011). Employees have specific focuses, including those involving promotion and prevention through the theory of self-regulatory focus (Higgins, 1997). The strategic orientation of subordinates is fundamental to changing their organizational behavior (Vriend et al., 2023). Some employees prioritize growth, challenging tasks, and performance, while others emphasize their obligations and responsibilities (Higgins, 1997, 2000). These differences can lead to distinct preferences for personal leadership styles (Choi et al., 2019; Delegach et al., 2017; Kark et al., 2018). Specifically, employees focused on promotions are

more likely to prefer transformational leadership, while those who focus on prevention may lean toward transactional leadership and vice versa. Therefore, we may infer our study improves the theoretical gap by examining the role of subordinate personality and traits in the relationship between leadership and knowledge behavior.

The purpose of this study is to examine the importance of understanding employees' self-regulatory traits and managing them with a matched leadership style to promote employee knowledge-sharing and reduce knowledge hiding through improving occupational self-efficacy. We first explore the relationship between supervisors' leadership styles and employees' knowledge-related behavior. Second, we examine the mediating effect of occupational self-efficacy in this relationship. Finally, we investigate the moderating and moderated mediating effects of employees by focusing on self-regulatory focus. We expect our findings to highlight the importance of demonstrating customized leadership that considers followers' traits, rather than solely focusing on specific leadership styles. At an organizational level, our research also emphasizes the need to examine whether leadership enhancement programs take into account the fit between leadership style and subordinates' personality.

## **Theoretical Background**

### ***The Relationship between Leadership Styles and Subordinates' Knowledge-Related Behavior***

Transformational leadership is widely recognized as an essential leadership style (Ugwu et al., 2020). Ladan et al. (2017) define transformational leaders as individuals who exhibit respect, trustworthiness, and ethical behavior. They inspire followers to increase their desire for success and maturity by addressing their achievement needs. Masa'deh et al. (2016) refer to transformational leadership as a process of helping employees achieve their goals and contribute to organizational improvement. Transformational leaders foster an optimistic and positive work environment that encourages change (Hamstra et al., 2011) by driving employees to willingly make an effort to improve their performance.

Transactional leadership, by comparison, is explained by reciprocal relationships among leaders and followers. It involves rewarding employees whose work performance meets expectations (Ugwu et al., 2020). Transactional leadership also includes an exchange process in which followers comply with leaders' requests, but it may not necessarily lead to high engagement in work and goals (Obiwuru et al., 2011). This leadership style comprises two representative components: contingent rewards and management by exception. Leaders using transactional leadership closely monitor employee performance and intervene only when mistakes or deviations from expectations occur.

Both transactional and transformational leadership styles have been found to influence employee knowledge behavior, as shown in previous studies (Ladan et al., 2017; Scuotto et al., 2022). Knowledge sharing is a critical process in knowledge management, as employee knowledge is a sustainable resource for organizations (Ugwu et al., 2020). However, knowledge sharing is not always straightforward, and employees may intentionally hide their knowledge despite organizational interventions (Connelly et al., 2012).

We would like to theoretically discuss the relationship drawing from the job demands-resources model (Bakker et al., 2004). In the job demands-resources model (Bakker et al., 2004), job demands refer to the need for sustained cognitive, emotional, and behavioral effort related to physiological and psychological costs. Job resources, such as individual personality, colleagues' support, and task clarity, help achieve work goals. Therefore, we theoretically infer the phenomenon that employees voluntarily share their knowledge as an expression of their confidence in their knowledge and its association with their proficiency. Furthermore, employees with higher occupational self-efficacy may be willing to share their knowledge with colleagues and be less likely to intentionally hide it. Employees consider supervisors' leadership as invaluable job resources and are willing to share their knowledge rather than hide it.

Given the importance of employee knowledge to organizations, supervisors must employ effective leadership styles that encourage knowledge sharing and reduce knowledge hiding among their followers (Anand et al., 2023; Usman et al., 2024). Ugwu et al. (2020) investigated the influence of leadership styles on knowledge sharing and found that transformational leadership has a more significant impact on knowledge sharing compared with transactional leadership. According to Herman and Mitchell (2010), transformational leadership fosters a shared identity and facilitates employees' willingness to share and create knowledge. Similarly, Scuotto et al. (2022) found that transformational leadership reduces employees' tendency to hide knowledge by fostering trust between managers and employees and a positive and collaborative work environment. Ladan et al. (2017) also suggest that transformational leaders discourage followers from engaging in dysfunctional behavior, such as knowledge hiding, which can negatively affect an organization. It is therefore reasonable to assume that transformational leaders play a crucial role in reducing employees' tendency to hide knowledge in the workplace.

However, few attempts have been made to study the relationship between transactional leadership and knowledge hiding. Faisal et al. (2021) rationalize a positive relationship between transactional leadership and subordinates' knowledge hiding. They propose that employees may consider a transactional management style as a cause to hide their knowledge. At the same time, transactional leadership may do the opposite, by encouraging employees to share their knowledge if it emphasizes their abilities and performance. Knowledge hiding may cause supervisors to underestimate their employees' capabilities and authenticity in task evaluations, based solely on their performance (Bass & Avolio, 1990; Graen & Uhi-Bien, 1995). This could prompt supervisors to actively discourage knowledge hiding and promote knowledge sharing leads to two hypotheses.

**H1:** Transformational leadership is positively related to employee knowledge-sharing(1a) and negatively related to knowledge-hiding (1b).

**H2:** Transactional leadership is positively related to employee knowledge-sharing (2a) and negatively related to knowledge-hiding (2b).

## **The Mediation Effect of Occupational Self-Efficacy**

Leaders are role models and organizational agents who affect employee attitudes and behavior according to their leadership styles (Stinglhamber et al., 2015). Leadership is effective in improving organizational knowledge management capabilities (Gui et al., 2024) as well as fostering employees' knowledge sharing (Phong & Thanh, 2023). In this context, it is necessary to investigate the mechanisms what psychological changes led to knowledge sharing.

Numerous studies have identified the importance of leadership in enhancing subordinates' self-efficacy in the workplace (Al Hawamdeh, 2022; Felfe & Schyns, 2002; Mohammad et al., 2023; Pillai & Williams, 2004). As defined by Bandura (1977), self-efficacy is an individual's belief in their ability to make use of their resources. Schyns and Von Collani (2002) focus on self-efficacy in the workplace and suggest that employees exhibit individual differences in self-efficacy according to their professional roles. We propose that supervisors' transactional and transformational leadership styles indirectly affect employees' knowledge-related behavior through their occupational self-efficacy based on the extended job demands-resources model (Bakker et al., 2004; Katou et al., 2022; Xanthopoulou et al., 2007).

The mediation relationship could be theoretically discussed by applying to job demands-resources model including the discussion of personal resources (Xanthopoulou et al., 2007). Similar to job resources (Bakker et al., 2004), personal resources refer to an individual's perceived ability to deal with and exert influence on their environment (Hobfoll et al., 2003; Xanthopoulou et al., 2007). Both transformational and transactional leadership styles serve as job resources that can influence employees' knowledge behavior. In this process, a supervisor's leadership style is positively related to an employee's occupational self-efficacy as a personal resource. Katou et al. (2022) argue that personal resources, such as proactive personality and personal expertise, mediate the relationship between job resources and work engagement. Similarly, Xanthopoulou et al. (2007) consider self-efficacy a personal resource that mediates the relationship between job resources and work engagement.

We expect employees to voluntarily share their knowledge as an expression of their confidence in their knowledge and its association with their proficiency. Moreover, employees with higher occupational self-efficacy are more willing to share their knowledge with colleagues and are less likely to intentionally hide it. Employees consider supervisors' leadership as invaluable job resources and leads to be willing to share their knowledge.

Supplying information and know-how to others may expose employees to criticism and negative feedback. employee knowledge sharing can also elicit negative opinions about that knowledge (Runhaar & Sanders, 2016). When employees are confident about their knowledge, knowledge is likely to be shared. Conversely, employees may choose to hide their knowledge to protect themselves from potential negative consequences. To promote knowledge sharing and discourage knowledge hiding, it is essential to enhance employee self-efficacy regarding their job and tasks. Runhaar and Sanders (2016) reported that teachers' occupational self-efficacy facilitated knowledge sharing. A meta-analysis by Witherspoon et al. (2013) found that knowledge self-efficacy is an antecedent of knowledge sharing.

Although few studies directly examine the relationship between occupational self-efficacy and knowledge hiding, related research suggests a negative relationship between self-efficacy and knowledge hiding (Butt, 2020; Lin & Huang, 2010; Shen et al., 2019). Butt (2020) found

that individuals with low self-efficacy regarding knowledge are more likely to hide their knowledge. Lin and Huang (2010) argued that employees' self-efficacy leads to a willingness to learn and create new knowledge, with little fear of losing their knowledge-related power. This confidence can reduce the likelihood of withholding knowledge. Shen et al. (2019) also found that individuals with a lack of self-efficacy are more likely to hide knowledge.

According to Liu et al. (2010), transformational leadership can improve employees' sense of job satisfaction and reduce their perceived level of work-related stress and stress symptoms. Prochazka et al. (2017) suggested that transformational leaders' belief in a successful future can motivate employees to learn vicariously and develop self-efficacy. Pillai and Williams (2004) found that self-efficacy mediates the relationship between transformational leadership, commitment, and performance. The role of transformational leadership makes it reasonable to assume that it can enhance employee self-efficacy and reduce knowledge hiding if transformational leaders encourage and support followers in applying their proficiency.

Meanwhile, transactional leadership can also influence employees' occupational self-efficacy. Transactional leaders set clear performance standards and provide rewards based on employee performance. The goal of transactional leadership is to achieve work objectives through a rewards program aligned with subordinate performance (Dai et al., 2013). Transactional leaders clarify task roles and responsibilities, reducing task ambiguity (MacKenzie et al., 2001). Deng et al. (2019) found that transactional leadership influences self-efficacy, ultimately leading to improved performance. By enhancing training, providing rewards, and imposing consequences based on performance, transactional leadership promotes employees' occupational self-efficacy. Employees with greater occupational self-efficacy may be more likely to share their knowledge and less likely to withhold it. Although the mechanisms may vary depending on leadership style and employee knowledge-related behavior, we expect occupational self-efficacy to play a crucial mediating role in the relationships discussed above, leading to two more hypotheses.

**H3:** Occupational self-efficacy mediates the relationship between transformational leadership and knowledge-related behavior including knowledge-sharing (3a) and knowledge-hiding (3b).

**H4:** Occupational self-efficacy mediates the relationship between transactional leadership and knowledge-related behavior including knowledge-sharing (4a) and knowledge-hiding (4b).

### ***The Moderation and Moderated Mediation Effects of a Self-Regulatory Focus***

An individual has different types of strategies, and these are key determinants of their behavior (Higgins, 1997; Vriend et al., 2023). Leadership effectiveness is deeply associated with the self-regulatory focus (Delegach et al., 2023). We approached subordinates has differential leadership preferences through self-regulatory focus theory (Higgins, 1997). Some individuals may tend to approach pleasure and avoid pain, leading to two self-regulatory processes: promotion focus and prevention focus.

In our context, we propose that employees who focus on promotions are likely to prefer transformational leadership, while those who focus on prevention are likely to prefer

transactional leadership. A focus on promotion means approaching tasks as opportunities for personal growth and achievement of goals (González-Cruz et al., 2019). Such individuals are driven by hopes and aspirations and are sensitive to fulfilling their growth needs. A focus on prevention focus is related to an avoidance principle (Higgins, 1997) in which individuals treat tasks as responsibilities to avoid negative outcomes. They focus on accuracy and responsibility in pursuing goals (González-Cruz et al., 2019).

From the perspective of self-regulatory focus as a personal characteristic, it is crucial to consider the fit between leadership styles and employees' self-regulatory processes (Hamstra et al., 2011). Choi et al. (2019) reported that relationship-oriented leaders who provide support are more effective at overseeing employees who have a high-quality focus on promotion. In contrast, leaders who provide structures that reduce task ambiguity and clarify boundaries for followers with a high-quality focus on prevention help employees concentrate on their tasks more efficiently.

Kark et al. (2018) indicated that transformational leadership enhances followers' situational promotion focus and promotes employee creativity, whereas transactional leadership enhances situational prevention focus and hinders creativity. However, the fit between a transactional leader and a follower with a strong focus on prevention can facilitate the work process. Delegach et al. (2017) suggested different structural relationships between leadership style, employee regulatory focus, and commitment. Transformational leadership was associated with employees who focus on promotions, leading to an increased commitment to safety. Transactional leadership, by comparison, indirectly affects followers' tendencies to embrace safety by enhancing their focus on prevention.

Employees who focus on promotions may perceive transformational leaders as more effective (Hamstra et al., 2011), while those who focus on prevention may prefer transactional leaders and value exchange-based relationships. This phenomenon can be applied to job demands-resources theory (Bakker et al., 2004). Individuals who focus on promotions consider transformational leadership a job resource, while those who focus on prevention may view transactional leadership as a job resource, rather than a form of leadership.

In summary, the greater the fit between leadership style and employees' regulatory traits, the stronger the effects on the work environment, leading to enhanced occupational self-efficacy. Furthermore, as hypothesized, employees' occupational self-efficacy influences employee knowledge sharing and hiding. When the fit between leadership style and individual self-regulatory focus is appropriate, we expect the strength of the relationship to be stronger. An employee's focus on self-regulation will therefore play a moderating and moderated mediating role in the relationship, leading to our final hypotheses.

**H5:** A positive relationship between transformational leadership and occupational self-efficacy is stronger when an individual's focus on promotions is strong (5a) while a positive relationship between transactional leadership and occupational self-efficacy is stronger when an individual's focus on prevention is strong (5b).

**H6:** The relationship between transformational leadership, occupational self-efficacy, knowledge-sharing (6a), and knowledge-hiding (6b) is stronger when an individual's focus on promotion focus is strong.

**H7:** The relationship between transactional leadership, occupational self-efficacy, knowledge-sharing (7a), and knowledge-hiding (7b) is stronger when an individual's focus on prevention focus is strong.

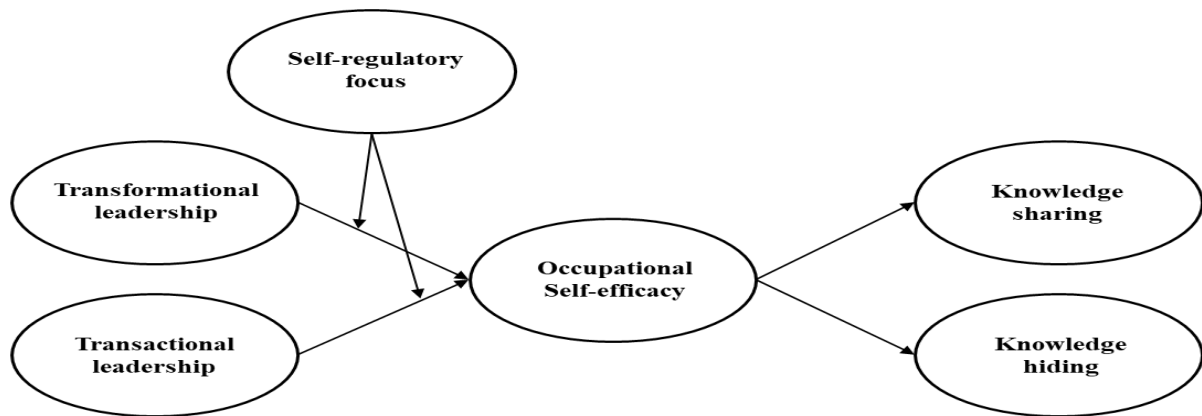
## Method

### Research Model

Our study examined the relationship between leadership style, occupational self-efficacy, and knowledge-related behavior including knowledge sharing, knowledge hiding, and self-regulatory focus. The proposed research model is shown in Figure 1.

**Figure 1**

*The Proposed Research Model*



**Source:** Created by author

### Research Context and Sample

We collected 330 data from employees working in organizations in South Korea through an online survey using the services of Entrust Survey, a company that performs online surveys of employees working in Korean enterprises. After excluding incomplete and missing responses, we used 299 valid samples. The demographic characteristics of the participants are as follows: 150 males (50.2%) and 149 females (49.8%). Most participants were in their 30s (43.8%), followed by their 40s (38.5%) and 20s (13.7%). Regarding tenure, the majority had 11–15 years of experience (27.4%), followed by 1–5 years (25.4%) and 6–10 years (25.4%). Education levels included 23 respondents with a high school diploma (7.7%), 249 with a bachelor's degree (83.3%), and 27 with doctoral or master's degrees (9.1%). Positions were distributed as follows: 79 staff (26.4%), 91 assistant managers (30.4%), 81 general managers (27.1%), 33 deputy general managers (11%), and 15 department managers (5%). In terms of task experience with leaders, most participants had 1–5 years of experience (223, 74.6%), followed by 6–10 years (56, 18.7%), and more than 10 years (20, 6.7%). The majority of organizations represented were small businesses (159, 53.2%), followed by mid-size companies (96, 32.1%), and major companies (39, 13%).

### Measurements

Before measuring the variables used in this study, we translated all measurements with a standard translation and back-translation process. We conducted the translation process using two academic experts with doctoral degrees in the social sciences. They independently



translated the measurements from English to Korean and we modified the inconsistent items by confirming the items' meaning. And then, we conducted the back-translation process into English by two experts. Finally, we compared the original and modified questionnaires, and the Korean version of the measurements was reworded.

Transformational leadership and transactional leadership were used by Dai et al. (2013) based on Bass and Avolio (1990). This measurement was utilized by Masa'deh et al. (2016). We refined the direct supervisor as the subject of leadership to measure the employee's perceptions at the individual level. Transformational leadership was measured using eight items. Sample items included "The supervisors can understand my situation and give me encouragement and assistance" and "The supervisor encourages me to rethink opinions that have never been doubted in the past." Transactional leadership was measured using four items. Sample items included "The supervisor gives me what I want to exchange for my hard work" and "The supervisor tells me that I can get special rewards when I show good work performance." These variables were measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Occupational self-efficacy was measured using eight items developed by Schyns and Von Collani (2002). They developed and validated the short version of occupational self-efficacy. Occupational self-efficacy was originally measured on a 6-point Likert scale (1 = completely true, 6 = not at all true). We reversed the original scale (1 = not at all true, 6 = completely true). Sample items included "If I am in trouble at my work, I can usually think of something to do" and "I can remain calm when facing difficulties in my job because I can rely on my abilities."

Knowledge hiding was measured following an approach described by Connelly et al. (2012). This measurement consists of three dimensions, including evasive hiding, playing dumb, and rationalized hiding. Each dimension was measured on 4 items and measured on a 7-point Likert scale (1 = not at all, 4 = somewhat, and 7 = to a great extent). Sample items of each dimension included "I told him/her that I would help him/her out later stalled as much as possible," "I pretended that I did not know the information," and "I explained that I would like to tell him/her but was not supposed to."

Knowledge sharing was measured using 10 items after Cheng and Li (2001). Knowledge hiding was measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Sample items included "I am usually willing to share my knowledge and experience with others" and "When my colleagues are in need, I do my best to offer the needed information and documents."

The self-regulatory focus was applied by the Work Regulatory Focus Scale developed by Neubert et al. (2008). The measurement consisted of 2 factors: promotion focus and prevention focus. In addition, each factor was measured for 9 items. The regulatory focus was measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Sample items of each factor were "I take chances at work to maximize my goals for advancement" and "I concentrate on completing my work tasks correctly to increase my job security."

## Analysis

We used IBM SPSS 26.0, AMOS 21.0, and Mplus 8.8 for the data analysis. First, we conducted a descriptive analysis to confirm the normality assumption and applied a Pearson

correlation analysis. Second, to confirm the validity and reliability of the variables, we conducted a confirmatory factor analysis and calculated Cronbach's alpha. We compared the model-fit indices, including the comparative-fit index ( $CFI \geq 0.9$ , Hu & Bentler, 1999), the Tucker-Lewis index ( $TLI \geq 0.9$ , Hu & Bentler, 1999), the root mean square error of approximation ( $RMSEA \leq 0.08$ , Browne & Cudeck, 1992), and the standardized root mean square residual ( $SRMR \leq 0.06$ , Hu & Bentler, 1999). Finally, to test the hypotheses, we used structural equation modeling with maximum likelihood estimates. We also applied Bootstrap to examine the moderated mediation effect, using 1,000 Bootstrap samples and verifying the confidence interval to check whether the value contains 0.

## Results

### *Descriptive Analysis and Correlation*

Means, standard deviations, correlations, and internal reliabilities among the used variables are listed in Table 1. The resulting data followed a normal distribution, as evidenced by the skewness ( $< 3$ ) and kurtosis ( $< 8$ ) values (Kline, 2005). Most of the correlation relationships are significant, except for the non-significant relationships between knowledge hiding and transformational leadership ( $r = .003$ , n.s.) and occupational self-efficacy ( $r = -.10$ , n.s.). Interestingly, transactional leadership was positively correlated with both knowledge sharing ( $r = .32$ ,  $p < .01$ ) and knowledge hiding ( $r = .32$ ,  $p < .01$ ). The variance inflation factor values ranged from 1.47 to 2.24, indicating multicollinearity was not a concern (Alin, 2010).

**Table 1**

*Descriptive Statistics and Correlations (n = 299)*

Variable	1	2	3	4	5	6	7
1. Transformational leadership	1						
2. Transactional leadership	.36**	1					
3. Occupational self-efficacy	.52**	.28**	1				
4. Knowledge sharing	.50**	.32**	.59**	1			
5. Knowledge hiding	.00	.32**	-.10	-.21**	1		
6. Promotion focus	.59**	.56**	.47**	.51**	.18**	1	
7. Prevention focus	.49**	.33**	.58**	.73**	-.12*	.56**	1
<i>M</i>	3.36	3.07	4.25	3.74	3.06	3.36	3.77
<i>SD</i>	0.74	0.74	0.66	0.53	1.22	0.63	0.48
Skewness	-0.58	-0.08	-0.41	-0.62	0.19	-0.45	-0.70
Kurtosis	0.00	-0.23	0.87	1.23	-0.82	0.36	1.71

Note. \* $p < .05$ , \*\* $p < .01$

### **Factor and Reliability Analyses**

We examined the distinctiveness of the variables using confirmatory factor analysis. We verified the structural measurement model, including transformational leadership, transactional leadership, occupational self-efficacy, knowledge hiding, knowledge sharing, promotions focus, and prevention focus. First, we conducted a confirmatory factor analysis and found the initial model could not meet the criteria ( $\chi^2 = 3229.72$ ,  $p < .001$ ,  $df = 1689$ ,  $RMSEA = .05$  [.05, .05],  $CFI = .85$ ,  $TLI = .84$ ,  $SRMR = .07$ ). Even though the values of  $RMSEA$  and  $SRMR$  are acceptable, from a recommendation of Little et al. (2013), we parceled each latent variable. This strategy can preserve the common construct variance and minimize unrelated specific variance. We found an improvement in model fit ( $\chi^2 = 361.98$ ,  $p < .001$ ,  $df = 149$ ,  $RMSEA = .06$  [.06, .07],  $CFI = .95$ ,  $TLI = .93$ ,  $SRMR = .05$ ). As presented

in Table 2, the factor loadings of all variables also met the criteria ( $> .50$ ) and are distinguishable. We examined the internal reliability verifying that the value of Cronbach's alpha was greater than .7. Regarding advice from Fornell and Larcker (1981), all variables met the criteria of average variance extracted and composite reliability. Cronbach's alpha exceeded .7, indicating the variables were reliable. Finally, we also found the single-factor model fit was poor ( $\chi^2 = 2096.66$ ,  $p < .001$ ,  $df = 170$ ,  $CMIN/DF = 12.33$ ,  $RMSEA = .19$  [.18, .20],  $CFI = .54$ ,  $TLI = .49$ ,  $SRMR = .15$ ). These results confirmed that all variables were independent and indicated an absence of serious issues of common method bias.

**Table 2***Validity and Reliability of Measurements*

Variables	Factor loadings ( $> .50$ )	AVE ( $> .50$ )	CR ( $> .70$ )	Cronbach's $\alpha$ ( $> .70$ )
Transformational leadership	.83-.92	.75	.90	.90
Transactional leadership	.77-.88	.71	.83	.91
Occupational self-efficacy	.80-.85	.69	.87	.86
Knowledge sharing	.81-.89	.73	.89	.89
Knowledge hiding	.86-.87	.76	.90	.90
Promotion focus	.81-.87	.73	.89	.88
Prevention focus	.76-.87	.65	.85	.84

**Hypothesis Testing**

To separate transformational and transactional leadership paths, we analyzed a structural model (Table 3). First, we examined the relationships among transformational leadership, occupational self-efficacy, and knowledge sharing and hiding. Supervisors' transformational leadership was positively related to employees' occupational self-efficacy ( $b = .52$ ;  $p < .001$ ) and knowledge sharing ( $b = .17$ ;  $p < .001$ ), while knowledge hiding was not significant. These results support H1a but not H1b. We then verified the relationship between transactional leadership, occupational self-efficacy, knowledge sharing, and hiding. Supervisors' transactional leadership was positively related to employee's occupational self-efficacy ( $b = .36$ ;  $p < .001$ ), and knowledge sharing ( $b = .10$ ;  $p < .05$ ), interestingly, the relationship between transactional leadership and knowledge hiding was also positive ( $b = .97$ ;  $p < .001$ ) indicating that transactional leadership has a double-edged-sword effect on subordinates' knowledge behavior. H1b was therefore supported while H2b was not.

**Table 3***Path Analysis of Structural Model*

Path (TFL $\rightarrow$ OSE $\rightarrow$ KS & KH)	b	SE	$\beta$
Transformational leadership $\rightarrow$ Occupational self-efficacy	.52***	.05	.59
Transformational leadership $\rightarrow$ Knowledge sharing	.17***	.04	.24
Transformational leadership $\rightarrow$ Knowledge hiding	.20	.13	.12
Occupational self-efficacy $\rightarrow$ Knowledge sharing	.44***	.05	.53
Occupational self-efficacy $\rightarrow$ Knowledge hiding	-.41**	.16	-.22
<b>Path (TSL <math>\rightarrow</math> OSE <math>\rightarrow</math> KS &amp; KH)</b>			
Transactional leadership $\rightarrow$ Occupational self-efficacy	.36***	.07	.33
Transactional leadership $\rightarrow$ Knowledge sharing	.10*	.05	.11
Transactional leadership $\rightarrow$ Knowledge hiding	.97***	.14	.47
Occupational self-efficacy $\rightarrow$ Knowledge sharing	.52***	.05	.64
Occupational self-efficacy $\rightarrow$ Knowledge hiding	-.59***	.12	-.31

Note. TFL: Transformational leadership, TSL: Transactional leadership, OSE: Occupational self-efficacy, KS: Knowledge sharing, KH: Knowledge hiding, \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

This study also examined the mediation effect of occupational self-efficacy in supervisor leadership and employees' knowledge-related behavior (Table 4). The mediation effects of occupational self-efficacy were significant. First, occupational self-efficacy partially mediated the relationship between transformational leadership and knowledge sharing ( $b = .23$ ;  $p < .01$ ; 95% CI [.16, .33]). This means that transformational leadership influences directly as well as indirectly affects knowledge sharing supporting H3a. However, the direct effect of transformational leadership was not significant, and the indirect effect of the leadership was significant ( $b = -.21$ ;  $p < .05$ ; 95% CI [-.44, -.05]). Knowledge hiding was therefore fully mediated by transformational leadership through occupational self-efficacy, which suggests that transformational leadership has only an indirect decreasing effect on subordinate knowledge-hiding by increasing occupational self-efficacy, supporting H3b.

Second, unlike the transformational leadership model, occupational self-efficacy fully mediated the relationship between transactional leadership and knowledge sharing ( $b = .19$ ;  $p < .01$ ; 95% CI [.10, .29]). Self-efficacy also partially mediated the relationship between transactional leadership and knowledge hiding ( $b = -.22$ ;  $p < .01$ ; 95% CI [-.36, -.10]). This means that transactional leadership has a direct positive effect on knowledge hiding when considering employees' occupational self-efficacy, and an indirect negative effect on knowledge hiding. These results support H4a and H4b.

**Table 4**

*Mediation Analysis of the Structural Model*

Path (TFL → OSE → KS & KH)		b	SE	$\beta$	Boot 95% CI	
					CIL	CIU
TFL → OSE → KS	Total effect	.40**	.06	.55	.29	.53
	Direct effect	.17**	.05	.07	.06	.30
	Indirect effect	.23**	.04	.31	.16	.33
TFL → OSE → KH	Total effect	-.01	.12	-.00	-.25	.24
	Direct effect	.20	.17	.10	-.11	.57
	Indirect effect	-.21*	.10	-.13	-.44	-.05
<b>Path (TSL → OSE → KS &amp; KH)</b>						
TSL → OSE → KS	Total effect	.29**	.06	.33	.15	.40
	Direct effect	.10	.05	.11	-.01	.19
	Indirect effect	.19**	.04	.21	.10	.29
TSL → OSE → KH	Total effect	.75**	.17	.36	.43	1.11
	Direct effect	.97**	.18	.47	.62	1.37
	Indirect effect	-.22**	.04	-.10	-.36	-.10

*Note.* TFL: Transformational leadership, TSL: Transactional leadership, OSE: Occupational self-efficacy, KS: Knowledge sharing, KH: Knowledge hiding, \*  $p < .05$ , \*\*  $p < .01$

We examined the moderation and moderated mediation effects of self-regulatory focus using Mplus 8.8. To analyze each effect in the structural models, we separately executed the model analysis (Table 5). First, we confirmed the moderation and moderated mediation effects of subordinates' focus on promotions in a structural model that contains transformational leadership, occupational self-efficacy, and knowledge sharing. The moderation effect had no significant effect, while the moderated mediation effect was significant ( $b = .005$ ;  $p < .05$ ; 95% CI [.00, .01]). This means that when employees focused on promotions, their perception of positive relationship transformational leadership and occupational self-efficacy was comparable to the perceptions of employees with a weak focus on promotions. However, the indirect effect of transformational leadership on knowledge

sharing through occupational self-efficacy was more positive. H5a was therefore not supported, but H6a was supported. Moreover, we examined the conditional indirect effect of a focus on promotions, ranging from M-2 standard deviations (SD) to M+2SD and found a significant conditional indirect effect: M-2SD ( $b = .15; p < .001; 95\% \text{ CI } [.09, .02]$ ), M-1SD( $b = .15; p < .001; 95\% \text{ CI } [.09, .02]$ ), M( $b = .15; p < .001; 95\% \text{ CI } [.09, .24]$ ), M+1SD( $b = .16; p < .001; 95\% \text{ CI } [.09, .25]$ )and M+2SD( $b = .16; p < .001; 95\% \text{ CI } [.10, .25]$ ). Second, the moderation and moderated mediation effect of promotion focus was not significant in structural relationship transformational leadership, occupational self-efficacy, and knowledge hiding H5a nor H6b were supported.

We also examined the effect of a focus on prevention using a structural model that contains transactional leadership, occupational self-efficacy, and knowledge sharing. First, a focus on prevention significantly moderated the positive relationship between transactional leadership and occupational self-efficacy ( $b = .01; p < .001$ ) and moderated the mediation effect ( $b = .007; p < .001; 95\% \text{ CI } [.00, .01]$ ). This indicates that subordinates with a strong focus on prevention will perceive a stronger positive relationship between transactional leadership and occupational self-efficacy. Moreover, the indirect effect of transactional leadership on knowledge sharing through occupational self-efficacy is stronger for such subordinates. Although the conditional indirect effect of prevention focus was not significant, ranging from M-2SD to M+2SD, we found that H6b and H7a were supported.

Finally, with respect to structural relationship transactional leadership, occupational self-efficacy, and knowledge hiding, the moderation effect ( $b = .06; p < .001$ ) and the moderated mediation effect of a focus on prevention were significant ( $b = -.02; p < .01; 95\% \text{ CI } [-.04, -.00]$ ). This suggests that employees with a strong focus on prevention are less likely to withhold knowledge because the indirect effects of transactional leadership on knowledge hiding through occupational self-efficacy were more negative. We also verified the conditional indirect effect of a focus on prevention in this model and found significant conditional indirect effects, except in M+2SD: M-2SD( $b = .09; p < .05; 95\% \text{ CI } [.02, .19]$ ), M-1SD( $b = .08; p < .05; 95\% \text{ CI } [.02, .17]$ ), M( $b = .07; p < .05; 95\% \text{ CI } [.01, .15]$ ), and M+1SD( $b = .06; p < .05; 95\% \text{ CI } [.01, .14]$ ). Thus, These results support H6b and H7b.

**Table 5**

*Moderation and Moderated Mediation Analysis of the Structural Model*

Path (TFL → OSE → KS)	b	SE	Boot 95% CI	
			CIL	CIU
Moderation effect of PROF	.01	.00	.00	.02
Moderated Mediation effect of PROF	.00*	.00	.00	.01
Path (TFL → OSE → KH)				
Moderation effect of PROF	.00	.00	.00	.01
Moderated Mediation effect of PROF	-.00	.00	-.00	.00
Path (TSL → OSE → KS)				
Moderation effect of PVEF	.01***	.00	.00	.01
Moderated Mediation effect of PVEF	.00***	.00	.00	.01
Path (TSL → OSE → KH)				
Moderation effect of PVEF	.06***	.01	.03	.10
Moderated Mediation effect of PVEF	-.02**	.00	-.04	-.00

Note. TFL: Transformational leadership, TSL: Transactional leadership, OSE: Occupational self-efficacy, KS: Knowledge sharing, KH: Knowledge hiding, PROF: Promotion focus, PVEF: Prevention focus, \* $p < .05$ , \*\*  $p < .01$ , \*\*\* $p < .001$

## Discussion

### Summary of Findings

We examined the relationship between supervisors' leadership styles, subordinates' occupational self-efficacy, knowledge-related behavior, and a self-regulatory focus. First, our findings revealed a positive relationship between transformational leadership and knowledge sharing, but no statistically significant relationship with knowledge hiding. This aligns with prior research (Herman & Mitchell, 2010; Scuotto et al., 2022), emphasizing the pivotal role of supervisors' aspirational motivations, challenging tasks, and compassion in fostering subordinates' knowledge sharing. However, our findings did not provide robust evidence for a negative relationship between transformational leadership and knowledge hiding as reported previously by Ladan et al. (2017).

Transactional leadership had a positive relationship with both knowledge sharing and hiding. These results suggest that employees theoretically share their knowledge to showcase their capabilities and receive recognition, while also practically hiding knowledge to obtain superior evaluations and rewards from supervisors. Given the clarification regarding goal setting and performance-based rewards (Dai et al., 2013), the influence of transactional leadership on subordinates' knowledge-related behavior appears to be twofold.

Second, we observed that transformational leadership indirectly impacted positive knowledge sharing and mitigated negative knowledge hiding through occupational self-efficacy. This suggests that transformational leadership enhances subordinates' proficiency and engagement in their work, subsequently reducing knowledge hiding. The psychological state of subordinates emerges as a pivotal factor in shaping their knowledge behavior, emphasizing the necessity of considering it before addressing their tendencies in knowledge sharing and hiding.

Similarly, transactional leadership had an indirect effect on both positive knowledge sharing and negative knowledge hiding through occupational self-efficacy. Interestingly, the indirect effect of transactional leadership on knowledge hiding was negative. Consequently, it is imperative to explore how subordinates perceive their supervisors' leadership, irrespective of leadership style. This perception may be influenced by either a transactional relationship fostering competition with colleagues, or a social exchange relationship based on the reciprocation of leadership.

Thirdly, we discovered that subordinates' orientation on promotions serves as a moderator in the mediation of the relationship between transformational leadership and knowledge sharing through occupational self-efficacy. Additionally, in contrast to a focus on promotions, an orientation on prevention also moderates the mediation effects on both knowledge sharing and hiding through occupational self-efficacy. This implies that leaders aiming to impact their subordinates' knowledge behavior must take into account the individual preferences of subordinates, such as whether they are inclined towards challenging tasks or prefer stable tasks, to avert adverse outcomes. The knowledge behavior of subordinates is thus shaped by a combination of leadership style and individual leadership preferences.

### **Theoretical Implications**

Comprehending the discussed dynamics in relationships could aid organizations in fostering a positive knowledge-sharing culture while alleviating knowledge-hiding tendencies among employees. Our findings propose the following theoretical implications. First, we empirically investigated the relationship between supervisors' leadership styles and knowledge behavior by integrating both the job resource-demands theory (Bakker et al., 2004; Xanthopoulou et al., 2007) and the self-regulatory focus theory (Higgins, 1997). Our results illuminate the intricate interaction among supervisors' leadership styles, subordinates' occupational self-efficacy, and knowledge behavior. Notably, subordinates' occupational self-efficacy, influenced by leadership, can either drive knowledge sharing or mitigate knowledge hiding. In accordance with the job-resource demands model, our findings argue that each subordinate may perceive their supervisors' leadership as a job resource differently. This study holds theoretical significance as we contribute to expanding and re-examining the theoretical model. Given the direct positive relationship between transactional leadership and both knowledge sharing and hiding, there is a need for further exploration of moderators that facilitate sharing while discouraging knowledge hiding.

Second, our study derives theoretical contributions by examining the differential relationship between subordinates' psychological states and knowledge behavior based on a self-regulatory focus. We specifically focused on individual personality as a moderator, exploring the effectiveness of a supervisor's or colleague's self-regulatory focus and examining the fit between supervisor and subordinate self-regulatory focus. Since knowledge sharing and hiding are interactional behaviors within a team, understanding these dynamics can offer valuable insights for enhancing team collaboration and performance.

### **Practical Implications**

Our findings carry significant practical implications for HRD practitioners. Firstly, the impact of transformational leadership on subordinate knowledge behavior is evident. However, it is crucial for leaders to assess whether subordinates perceive professional self-efficacy within their occupational context. Leaders should critically evaluate their leadership styles, ensuring they empower subordinates adequately. Moreover, leaders must actively support and manage the professional growth of their subordinates. To accomplish this, prioritizing the analysis of skill gaps between subordinates' current competencies and those needed for the future (within 2–3 years) is essential. Regularly exploring interventions to bridge this gap and implementing appropriate strategies can foster employee confidence through incremental successes and transparent recognition.

Second, recognizing the double-edged sword effect of transactional leadership, can both reduce knowledge hiding through occupational self-efficacy and directly encourage it. Building upon Pierce et al.'s (2001) psychological ownership theory, as discussed by Peng (2013), clear task goal clarification and contingent rewards can instill not only ownership of tasks but also ownership of knowledge. Leaders should also consider the level of task interdependence and team members' responsibility for team tasks. In situations where interdependence is low and individual responsibility is high, individuals may develop a sense

of ownership of their work. Transparent reward systems and performance practices should be in place as individuals recognize knowledge as power, thereby reducing knowledge sharing.

Third, organizations should establish customized leadership programs for team leaders based on the personality traits of team members. As discussed earlier, an individual's personality and a leader's working style are closely interrelated. Employees focusing on promotions might find the transformational leadership style more suitable, feeling more confident in the workplace. Conversely, employees prioritizing prevention may lean towards transactional leadership. Drawing from the study on situational leadership (Blanchard et al., 1993), acknowledging the effectiveness of leadership styles aligned with the characteristics of team members can enhance leadership outcomes and team performance.

### **Limitations and Future Research**

Although this study contributes to examining the relationship between leadership, personality, and knowledge behavior, we acknowledge several limitations. First, we did not explore the interaction effects of two leadership styles and two types of self-regulatory focus. As regulatory focus is an individual preference, some employees may exhibit high levels of both forms of regulatory focus. To address this, future research should categorize the degree of regulatory focus and examine whether each group demonstrates distinct behavioral patterns.

Second, we considered positive and negative knowledge behavior, although knowledge sharing and knowledge hiding are not conceptual opposites (Peng, 2013). In fact, knowledge sharing can be divided into explicit and implicit forms, while employees' knowledge behavior spans a spectrum, including various degrees of knowledge hiding. To gain a deeper understanding of their knowledge behavior, future research should employ qualitative methods to explore how employees passively share knowledge and implicitly hide it.

Third, our data were collected from employees in an Eastern context, in which silence in conversations is often perceived as a virtue for social harmony (Shim et al., 2008). Additionally, Faisal et al. (2021) discovered the moderating role of Islamic work ethics in the relationship between transactional leadership and subordinates' knowledge behavior. These findings suggest that employees may intentionally hide knowledge when strong social norms prevail over an individual's personality. It is therefore crucial to consider the cultural context when interpreting observable knowledge behavior.

### **Conclusion**

Not all leaders can meet the needs of their subordinates. Nevertheless, in order to properly demonstrate the effectiveness of leadership and followership, it is necessary to know the leadership preferences of subordinates as well as to demonstrate flexible leadership styles from perspective forming amicable relationships between leaders and followers and collaborating together. The subordinates' implicit assets such as ideas, knowledge, and wisdom are fundamental to sustainable organizational development and performance. Therefore, leaders and organizations need to pay continuous attention to ensure that subordinates voluntarily share and utilize their knowledge and do not hide it.



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