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Mitigating Facets of Team Knowledge Hiding: A Collaborative View of Psychological Safety and Team Embeddedness through the Lens of COR theory

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Abstract

Drawing from the conservation of resources (COR) theory as the overarching framework, this study develops a collaborative view on mitigating team knowledge hiding facets (i.e., evasive hiding, playing dumb, and rationalized hiding). It proposes team embeddedness as an attachment construct acquired through investment in team psychological safety. Such acquisition compels team members to protect and foster the state of resource abundance and subsequently acts as a deterrent against team knowledge hiding. Multi-wave and multi-level data was obtained from 520 team members nested in 104 teams employed in information technology (IT) firms – a knowledge-intensive service sector. The data was analyzed using multi-level structural equation modeling through Mplus. The findings indicate that having access to team social resources (team psychological safety) leads to team embeddedness, creating a gain spiral that motivates members not to indulge in evasive hiding and playing dumb. Additionally, the mediation effect of team embeddedness between team psychological safety and team playing dumb is further moderated by individual-level learning orientation. On the other hand, these variables do not significantly decrease rationalized hiding.

Keywords: Multi-level analysis, team embeddedness, team psychological safety, evasive hiding, playing dumb, rationalized hiding, learning orientation, IT industry.

1. Introduction

Knowledge is vital for an organization's competitive advantage (Mustika et al., 2022). With technological advancements and the increasing complexity of markets, organizations need to leverage knowledge to stay ahead. The role of knowledge sharing in effective knowledge management is well established (Santhose & Lawrence, 2023). While organizations use internal social networking platforms and knowledge-sharing tools like wikis, some employees still hide knowledge to maintain personal advantages, a phenomenon known as knowledge hiding (KH), which remains underexplored in research (Anser et al., 2021). Overcoming KH and backing up individuals for knowledge sharing is a major challenge in knowledge management (Bari et al., 2024; Donate et al., 2022). KH refers to "an intentional attempt by an individual to withhold or conceal knowledge when requested by another person" (Connelly et al., 2012, p. 29). Evasive hiding (EH), playing dumb (PD), and rationalized hiding (RH) are the three facets of KH often depicted by employees (Connelly et al., 2012).

KH is considered a counterproductive knowledge behavior (Afshar-Jalili et al., 2021), having detrimental consequences, including the inhibition of idea generation (Butt, 2019), collaboration (Scuotto et al., 2022), innovative work behavior (Connelly et al., 2019), and growth possibilities (Zhao & Xia, 2019). The existing literature has predominantly focused on understanding why, how, and when individuals engage in workplace knowledge hiding (KH) (Skerlavaj et al., 2023). However, a significant gap exists in developing effective mitigation strategies to address KH within organizations (Bari et al., 2024). Additionally, research is scarce on the mitigation of team-level KH (Fauzi, 2022) and the comprehensive analysis of its facets (Arain et al., 2022). Thus, this study aims to redirect the discourse by addressing a less explored question: *How can the various facets of team KH, such as EH, PD, and RH, be effectively mitigated?*

We argue that patterns of knowledge behavior, deeply rooted in individual and organizational systems, often manifest in collaborative environments like teams, where individuals seek and exchange knowledge. As mentioned before, KH occurs when individuals intentionally conceal knowledge requested by others. Thus, it can be seen as a social phenomenon that obstructs the flow of knowledge in social interactions. Therefore, social-psychological variables can significantly mitigate various facets of team KH.

First, cultivating social resources and embeddedness, our collaborative view provides a framework where various resources encourage embedded team members to share their knowledge through formal and informal interaction channels, thereby mitigating facets of team KH. We argue that team psychological safety represents a significant instrumental resource within a team. Once obtained, team members are inclined to protect, maintain,

and nurture this resource. According to COR theory, individuals are less likely to engage in behaviors due to apprehension over the potential loss of access to such a critical resource (Hobfoll et al., 1989, 2018). Consequently, cultivating psychological safety within a team environment is a mitigation strategy for EH, PD, and RH.

Second, by focusing on how the inhibitory impact of team psychological safety on team EH, PD, and RH is likely to manifest, this study goes beyond examining a link between team social resources and team KH. The study uniquely claims that the team social resources (team psychological safety) - KH relationship is mediated via team embeddedness. The resource of team embeddedness is acquired by having access to critical social resources that serve an instrumental function within the team (Singh, 2019). For example, the psychological resource of team embeddedness is thought to result from supportive social conditions (team psychological safety). Once resources are gained, members enter a gain spiral that they strive to retain and protect. Thus, it is unlikely for an embedded team member to engage in team EH, PD, and RH due to fear of resource loss.

Third, previous research exploring the boundary conditions of team KH is limited (Skarlavaj et al., 2023). Research on individual differences as moderators to team KH needs more investigation (Xiao & Cooke, 2019). This study expands the theoretical paradigm by linking team social resources and team EH, PD, and RH by introducing a key moderator, i.e., team members' learning orientation in the pre-assumed mediation, which has garnered limited attention. Under the collaborative view, team members who possess team psychological safety and when have a high learning orientation are more embedded in their teams. Such members actively seek opportunities to acquire new knowledge and skills. With a focus on continuous learning and growth, these team members recognize the value of knowledge sharing and its benefits to individual and organizational performance (Malik et al., 2019). Consequently, they are less likely to engage in team EH, PD, and RH, as it contradicts their learning-oriented mindset and the desire to leverage their invested resources for ongoing learning and development.

According to this theory, individuals strive to acquire, protect, and invest valuable resources to cope with stress (Hobfoll et al., 2018). The theory suggests that resource gains and losses influence workplace behaviors, with the potential for resource crossover between individuals or team members. Team embeddedness, considered a psychological resource, aligns with COR principles, representing a state of resource abundance. The study frames team embeddedness as a resource caravan constructed by acquiring crucial team social resources, specifically team psychological safety (gain cycle principle). Team psychological safety fosters resource accumulation of team embeddedness, triggering a gain cycle. Additionally, this paper proposes that due to fear of losing the accumulated resources (primacy of loss principle) gained in the previous gain cycle, team members will refrain from engaging in team KH (i.e., EH, PD, and RH). These resources, further enriched by an individual's learning orientation, contribute to the value of team embeddedness and curbing of team KH.

The present study has several contributions to the team KH literature. First, the existing research explores team KH from a less-explored perspective, i.e., by concentrating on its mitigating factors (Bari et al., 2024). Second, our paper addresses Arain et al.'s (2022) research call to examine all three facets of team KH – thereby extending the prior research, which primarily focused on composite KH. Third, this study is among the first to test team embeddedness as an intervening variable in team psychological safety and KH. Finally, previous research has focused on contextual moderators with team KH; this study introduced an underexplored individual disposition as a boundary condition, i.e., learning orientation.

2. Hypotheses Development

2.1 Team Psychological Safety and Team Embeddedness

Developing a collaborative environment that promotes team psychological safety and embeddedness in contemporary workplaces is crucial to curbing negative behaviors like team KH. Psychological safety refers to a shared belief that team members will not be punished or humiliated for speaking up with ideas, questions, concerns, or mistakes. The team is safe for interpersonal risk-taking (Edmondson, 2018). As an instrumental resource, team psychological safety fosters interpersonal relationships through interactions at work and can increase team embeddedness. Team embeddedness refers to the extent to which team members are embedded in their teams. Higher on-the-team embeddedness implies they keep close contact with team members (links), perceive comfort with team members (fit), and thus find it difficult to give up the many benefits they have gained from their teams (sacrifice) (Chang & Cheng, 2015).

In a psychologically safe setting, team members are inspired to go beyond their predetermined roles and participate in activities that improve their interpersonal relationships, positively impacting their networks (Singh, 2019). When team members feel safe to speak up, they are more likely to foster open communication and collaborate effectively (Leroy et al., 2012), which leads to a better understanding of each other's strengths and weaknesses, thereby creating a better level of team embeddedness. Team psychological safety also leads to higher trust and respect among team members, further strengthening the team's embeddedness (Song et al., 2020). Members with high psychological safety not only display reduced vulnerability but also freely express their authentic selves without fear of negative consequences. Such openness fosters deeper embeddedness, facilitating team members' shared understanding of values, beliefs, and motivations (Gardner & Prasad, 2022).

Members can effectively participate in task-related behaviors and feel confident in their abilities, which improves their perception of team embeddedness (Singh, 2019). Members of a psychologically secure team exhibit a sense of obligation and dedication to team goals leading to readiness to sacrifice, whether through extra time, increased responsibilities, or

mutual support during challenges (Singh et al., 2018). In sum, members with high psychological safety tend to forge deeper bonds, fit in better, and find it easy to make sacrifices, thus more likely to have increased team embeddedness (Waller, 2020).

According to the COR theory, individuals are motivated to acquire and protect valuable resources for their well-being and daily functioning. The COR theory posits that people strive to build a resource reservoir to cope with stressors and pursue growth and development. Importantly, individuals are more likely to invest their existing resources to acquire new resources, setting the stage for a resource gain spiral (Hobfoll et al., 2018). Psychological safety within a team is a crucial instrumental resource (Singh, 2019). As team psychological safety thrives, team members feel more embedded, depicting connectedness, alignment with team goals and values, and willingness to make sacrifices for the team. Team embeddedness represents a psychological resource gained through the investment in psychological safety. Such an investment sets in motion a resource gain spiral for the team. The above literature suggests that team psychological safety and team embeddedness can be linked through COR theory. Therefore, we postulate:

- *H1. Team psychological safety positively relates to team embeddedness.*

2.2 Team Embeddedness and Team KH

EH (evasive hiding) refers to a situation where a knowledgeable employee prefers to conceal their knowledge by giving false or irrelevant information, which can be influenced by team embeddedness. When members have close relationships and trust each other, they are more likely to communicate openly and honestly, reducing the need for EH (Pološki Vokić et al., 2021). Additionally, members are comfortable sharing their thoughts, concerns, and problems, and they choose not to provide incorrect information or indulge in stalling behavior, as manifested in EH (Mehmood et al., 2021). Moreover, embedded teams tend to have a strong sense of shared responsibility for their collective success (Rahimnia et al., 2022). Such members are less inclined to misdirect, blame others, and create distractions because they understand their actions will directly impact the team's performance and reputation.

Additionally, high team embeddedness can influence PD (playing dumb), which involves pretending not to know something to avoid taking responsibility or appearing incompetent. Teams characterized by high embeddedness encourage team members to seek clarification rather than play dumb. Collective responsibility and shared accountability deter team members from pretending ignorance. Finally, RH (rationalized hiding) refers to providing justifications for failing to fulfill the knowledge request by blaming the third party with restricted access or saying that the knowledge is only available to people working on the project. Team embeddedness can have a direct influence on this facet of KH as well. Embedded team members have a deeper understanding of team dynamics and know that hiding knowledge can lead to tensions and cause hindrances in teamwork (Coetzer et al., 2017). Additionally, knowledge is kept hidden from people outside the team in RH.

However, members who are part of a similar team and are embedded tend to have more open communication channels for information sharing, thereby discouraging RH.

Overall, team embeddedness decreases the prevalence of the three facets of team KH because team members capitalize on their abilities to fulfill job requirements (fit), wish to develop stronger connections (link), and avoid losing value to the team. High levels of "links, fit, and sacrifice" as a resource show a desire to build deeper relationships within a team by avoiding defensive behaviors like EH, PD, and RH. In contrast, team members experiencing a loss of resources due to low team embeddedness may feel psychological distress. Less team embeddedness results in significant resource loss, which reduces an individual's ability to connect with their team and its members, i.e., poor fit and link. Such members are also not ready to sacrifice for others as they face resource depletion and cannot meet team demands and expectations. To protect and maintain their essential resources and to avoid further resource loss, less embedded members are likely to exhibit EH, PD, and RH as resource protection defensive mechanisms to retain their depleting resources.

We argue that team embeddedness is associated with positive consequences, including reduced counterproductive knowledge behaviors. Studies show that access to sufficient resources can reduce counterproductive work behaviors (Shahid et al., 2023). In line with the COR theory, team embeddedness represents a state of resource abundance and a crucial psychological resource that members naturally desire to retain and foster. As members strive to protect against situations resulting in resource loss, they are unlikely to indulge in counterproductive knowledge behaviors (Kiazad et al., 2015) as it may set these resources at stake by reducing the perception of fit, eroding links, and endangering team membership. Therefore, based on the primacy of the loss principle, a team with high team embeddedness would unlikely engage in counterproductive knowledge behavior. The rationale behind this assertion rests on the understanding that by indulging in team EH, PD, and RH, members risk compromising or depleting their valuable resource of team embeddedness. Therefore, we suggest the following:

- *H2: Team embeddedness negatively relates to (a) evasive hiding, (b) playing dumb, and (c) rationalized hiding.*

2.3 Mediation of Team Embeddedness Between Team Psychological Safety and Team KH

A growing body of research focuses on intervening processes that explain how social resources impact counterproductive work and deviant behavior. Previous research suggests this link is intervened via job-related positive affect (Balducci et al., 2011), vitality, and core self-evaluations (Spanouli & Hofmans, 2021). Our collaborative view proposes that the cultivation of team psychological safety emerges as a critical social resource precipitating team embeddedness, which functions as a preventive mechanism against the different facets of team KH. Therefore, under the COR theory, the valuable resource of

team embeddedness is essential for understanding how team social resources affect team members' behavior (i.e., EH, PD, and RH).

Psychologically safe members feel comfortable speaking up and are more likely to share knowledge, ask questions, and work together, creating a sense of connectedness among members (Lim & Choy, 2023). Embedded members feel a sense of belonging and are likelier to engage in behaviors that benefit the team, such as sharing knowledge (Seo, 2023). Embedded team members are less likely to hide their knowledge and expertise, leading to a more efficient and effective team, as team members can build on each other's ideas and skills. As psychological safety helps members accumulate team embeddedness, they seek to protect and foster this resource by refraining from team KH. On the contrary, psychologically unsafe teams significantly result in team members' detachment (i.e., low team embeddedness). Such members are more likely to feel the tension and pressure of their team's social resources under threat due to less team embeddedness. Thus, they choose team KH (i.e., EH, PD, and RH) as a resource protection strategy.

Team embeddedness, therefore, acts as an indirect channel through which team psychological safety influences team KH (i.e., EH, PD, and RH). The reasoning is supported by the COR theory, which states that resources can produce additional resources, and this phenomenon is referred to as resource caravans or resource bundles. When members have access to one resource, they can better use it to develop or acquire more resources, creating a gain spiral whereby already acquired resources pave the path for acquiring more resources and further increasing positive outcomes (less team EH, PD, and RH) (Hobfoll et al., 2018)—extending the idea of the gain spiral, the availability of an instrumental resource aids in the acquisition of other resources, including personal resources, skills, energy, knowledge, and psychological states (Brummelhuis & Bakker, 2012). Once these resources are gained, team members enter a gain spiral and choose not to indulge in negative behavior such as EH, PD, and RH due to fear of losing accumulated resources.

The intervening role of team embeddedness between team psychological safety and three facets of team KH behavior must still be fully understood. Despite the theoretical support from the COR theory and empirical support suggesting that team embeddedness is related to social resources and counterproductive work behaviors as a driver and a consequence, respectively (Ghosh et al., 2017; Mehmood et al., 2021). The present study attempts to fill in this gap and present a novel theoretical angle by developing the following hypotheses:

- *H3. Team embeddedness mediates the relationship between team psychological safety and (a) evasive hiding, (b) playing dumb, and (c) rationalized hiding.*

2.4 Moderated Mediation of Learning Orientation

Members with high learning orientation are focused on learning and believe they can improve their abilities through learning experiences as they can acquire new skills by tackling new tasks (Button et al., 1996). Additionally, they tend to take the initiative to

seek feedback from others to continue improving (Janssen & Van Yperen, 2004). Learning-oriented members more actively participate in tasks that need teamwork and are highly motivated to participate in team activities and communicate with other team members in various settings. Such an orientation highlights the value of having strong ties to one's workplace, resulting in team embeddedness.

Additionally, team members with a higher learning orientation tend to possess superior social skills compared to performance-oriented ones, as they regard obstacles as chances to enhance their skills, which lessens feelings of self-doubt (Porath & Bateman, 2006). Such members are more receptive and agreeable when interacting with others, which promotes more pleasant social interactions (Huang et al., 2008). Members with high learning orientation can manage team assignments more efficiently resulting in a stronger fit within the team and making it easier for them to be embedded. Learning-oriented team members frequently participate in team activities and are more likely to ask for assistance from others. They remain at the center of their support network due to their strong social skills. Those with high learning orientation will likely have more information and resources in such a network (Granovetter, 1973). Along with access to critical social resources, members with high learning orientation obtain more significant benefits, such as high team embeddedness.

Previous research argues that employees prioritizing learning are more concerned with personal growth and development than comparing themselves to others or competing. As a result, they are less inclined to guard their intellectual capital (Leung et al., 2014). Moreover, to enhance their exposure to critical information and access cutting-edge expertise, an organization's members must actively seek, share, and exchange knowledge (Sergeeva & Andreeva, 2016). Consequently, individuals oriented towards learning are driven to establish and leverage their social connections to broaden their chances of connecting with knowledgeable colleagues. Their desire for a more extensive social network of resources compels them to share their knowledge within the organization (Zhang & Takahashi, 2024). Lastly, prior research indicates that employees who possess learning-oriented goals demonstrate greater initiative and passion toward their work tasks (Zhang et al., 2016), and this commitment potentially mitigates their inclination to engage in negative behaviors such as KH (Khan et al., 2022).

Using the lens of COR theory, we argue that team members having team psychological safety and high learning orientation would be more embedded in their teams and, thus, will more willingly reinvest their resources and avoid indulging in any negative behavior, especially team KH due to fear of losing their invested resources. As social resources help members embed in teams, team members who exhibit a strong inclination toward learning are more inclined to share the knowledge sought, viewing it as a form of investing resources to enhance their future gains. Members with a strong learning orientation are more likely to value the knowledge exchange and actively seek opportunities to learn and collaborate

with their team members. In this case, higher levels of team psychological safety will be positively related to lower team KH through increased team embeddedness.

On the other hand, members with a weaker learning orientation may be less motivated to engage in knowledge exchange and may prioritize self-interest over collaboration. In this case, higher levels of team psychological safety may not significantly reduce team KH behavior, as it may not be enough to overcome the individual's lack of motivation for knowledge exchange. The effectiveness of team psychological safety reducing various facets of team KH via team embeddedness will depend on the learning orientation of team members. In a way, it can buffer the negative impact that team social resources have on facets of team KH through team embeddedness. Hence, we postulate the following hypotheses:

- *H4. Learning orientation moderates the indirect impact of team psychological safety on (a) evasive hiding, (b) playing dumb, and (c) rationalized hiding via team embeddedness such that the team knowledge hiding will be less for members with a higher learning orientation.*

Figure 1 portrays the theoretical framework based on the hypotheses of the current study.

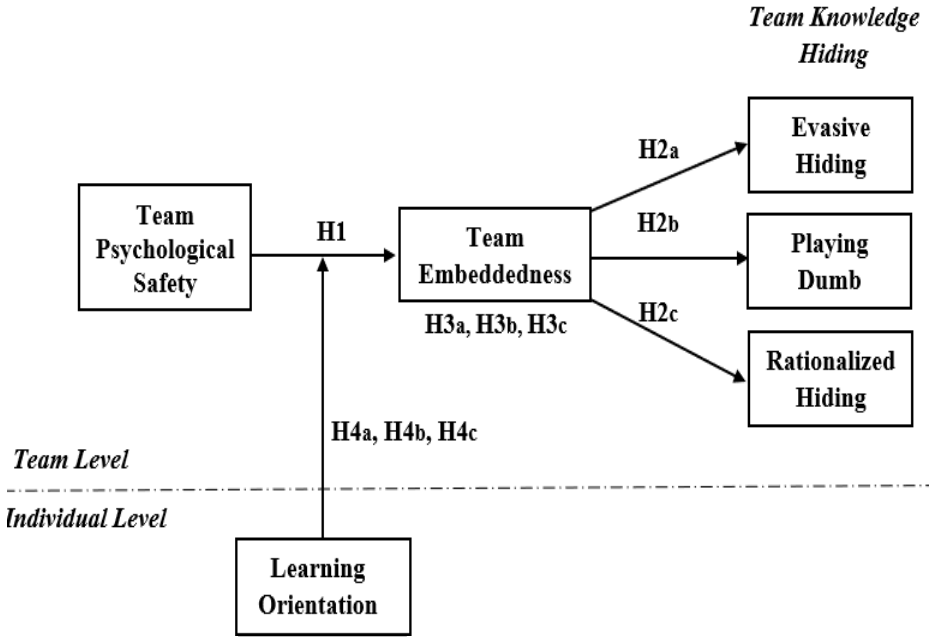

Figure 1: Research Model

3. Methodology

3.1 Sample and Procedure

This study employed a survey strategy to collect data through self-administered questionnaires from teams working full-time in knowledge-intensive IT firms - a prominent service sector in Pakistan's IT industry. Of the 126 IT service firms in Lahore listed in the Pakistan Software Export Board directory (PSEB, 2023), we filtered out 46 IT firms engaged in knowledge-intensive services, such as project conception, software development, analysis, and testing. When formally approached, 10 IT firms agreed to participate.

Before we began our data collection, we liaised with the human resource (HR) departments to reach knowledge-intensive teams within them. Knowledge-intensive teams typically operate in areas where knowledge and expertise are paramount, such as research and development, technology, innovation, and professional services (Reus & Liu, 2021). The significance of studying KH within knowledge-intensive service teams arises from their reliance on knowledge sharing and collaboration for success. With the cooperation of HR managers, we obtained a list of teams, including team members' names. We selected teams with at least 5 members (the sampling frame). We explained the purpose and data collection procedures (three-wave intervals to avoid common method bias and during active working hours). HR managers were specifically requested to obtain the data from 5 members per team with the assurance of confidentiality and anonymity.

In the first wave (time 1), data about team psychological safety and demographic information was collected from 140 teams, of which 122 teams completed their surveys. Approximately two weeks after the first wave (time 2), the team members were surveyed about team embeddedness and learning orientation. HR used identity codes to match subsequent questionnaires. At time 2, 108 teams completed the survey. Following a similar two-week interval (time 3), data on team members' KH behaviors was collected. The final sample consisted of 520 team members nested in 104 teams.

Our sample size is consistent with the previous studies on team KH behavior (Ma & Zhang, 2022; Peng et al., 2019). A demographic study of the sample was carried out to see the probable areas of diversity. 73% of the sample comprised males, and about 27% were female. On average, employees worked in their current organizations for six years.3.2

3.2 Measures

Team knowledge hiding facets was measured using a twelve-item scale developed by Connelly et al. (2012). These items were divided into four items per dimension. A sample item for EH includes, "Offered him/her some other information instead of what he/she wanted." A sample item for PD includes, "I said that I did not know, even though I did." A sample item for RH includes, "I said that I would not answer his/her questions." All the items were measured using a 5-point scale, indicating (1=never to 5=every time). We

defined team-level KH as the aggregation of KH reported by the team members. We calculated with-in-group agreement Rwg (j) and intraclass correlation coefficient (ICC) values to assess the validity of aggregating data for all three facets of team KH. The values for all three facets of KH were found to be in the acceptable range (Rwg (j) = 0.92, Rwg (j) = 0.89, Rwg (j) = 0.83, respectively). Moreover, the results of intraclass correlation coefficients [ICC (1) = 0.55, ICC (2) = 0.83, ICC (1) = 0.54, ICC (2) = 0.82, ICC (1) = 0.59, ICC (2) = 0.85] supported the aggregation of the team member's responses to the team-level KH (EH, PD, and RH) respectively.

Team psychological safety was measured using a seven-item scale developed by Edmondson (1999). A sample item includes, “team members often ignore other people's opinions.” All the items were rated on a 5-point scale, indicating (1= never to 5= every time). PS1, PS5, and PS6 were reverse-coded items. Team-level psychological safety was aggregated by adding all the team members' responses. The values of team psychological safety were in the acceptable range (Rwg (j) = 0.87). Intraclass correlation coefficient (ICC) values were also calculated to assess the validity of aggregating data for team psychological safety. The results of intraclass correlation coefficients [ICC (1) = 0.55, ICC (2) = 0.79] supported the aggregation of the team members' responses to team-level psychological safety.

Team embeddedness, having thirteen items developed by (Lee et al., 2004) based on the results of (Mitchell et al., 2001), was employed to measure team embeddedness. All items were rated on a 5-point Likert scale ranging from (1= Strongly disagree to 5= Strongly agree). A sample statement includes, “I like my present role in my team.” Team-level team embeddedness was aggregated by adding all the team members' responses. The values of team embeddedness were in the acceptable range (Rwg (j) = 0.96). Intraclass correlation coefficient (ICC) values were calculated to assess the validity of aggregating data for team embeddedness. The results of intraclass correlation coefficients [ICC (1) = 0.33, ICC (2) = 0.86] supported the aggregation of the team member's responses to team-level team embeddedness.

Learning orientation was measured using a six-item scale (Button et al., 1996). All items were rated on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). A sample statement included, “I will do my best to improve my performance.”

Demographic variables included gender (0=male, 1=female), age, and organizational tenure (in years).

3.3 Analytic Strategy

Initially, SPSS was used for common method bias, reliability, and descriptive analyses. As the data were nested under teams, we conducted multi-factor Confirmatory Factor Analysis for convergent and discriminant validity, followed by ML-SEM with maximum likelihood estimation for mediation effects and multi-level path analysis for conditional indirect effects in Mplus (Muthén & Muthén, 1998, 2015).

4. Data Analysis and Results

4.1 Preliminary Analysis

We employed a two-step method recommended by Anderson and Gerbing (1988) and Hair et al. (2014) to access the hypothesized relationships. Initially, the fit and validity of the measurement model were evaluated, followed by an examination of the structural relationships. First, we looked for factor loadings in the CFA, which ranged from (0.55 to 0.96) except two items of team psychological safety (PS5 and PS6) showed low factor loadings (<0.5) with their latent constructs and hence were removed (Mahmoud et al., 2022). We improved the model fit by adjusting error terms with significant modification indices through covariance. The results showed that our hypothesized six-factor model fits well with the data ($\chi2 = 944.3$, df = 573, $\chi2/df = 1.65$, $p < 0.001$, CFI = 0.92, TLI = 0.91, RMSEA = 0.04).

Once the model fit was achieved, we assessed the convergent validity of the constructs by examining the composite reliability (CR) for all constructs. The CR for all constructs surpassed the recommended threshold of 0.70, as suggested by Hair et al. (2006). Additionally, the average variance extracted (AVE) for all constructs was higher than 0.5, indicating that convergent validity is established. Table 1 presents the adapted instruments' factor loadings, convergent validity, composite reliability, and Cronbach alphas.

We tested for discriminant validity using a model comparison test. The six-factor model, where all items were loaded onto their respective constructs, outperformed the one-factor model, where all items were loaded onto a single factor, as evidenced by fit indices falling within acceptable ranges and a significant $\chi2$ difference test (refer to Table 2). This confirms that the six constructs are distinct and possess discriminant validity. Another method suggested by Fornell and Larcker (1981) was employed to confirm discriminant validity further. It involved comparing the square root of all constructs' average variance extracted (AVE) with their correlations with other constructs (refer to Table 3). For all six constructs, the square root of AVE exceeded the correlations, establishing the discriminant validity. Additionally, Table 3 provides the means, standard deviations, and correlations among the study constructs.

Table 1. Reliability and Convergent Validity of Scales

Variables	*Dimensions*	*Items*	*SL*	*CR*	*AVE*	*Alpha*
Psychological Safety	PS1	5	0.93	0.90	0.65	0.84
	PS2		0.88			
	PS3		0.78			
	PS4		0.66			
	PS7		0.75			
Team Embeddedness	TE1	13	0.92	0.90	0.65	0.84
	TE2		0.79			
	TE3		0.75			
	TE4		0.74			
	TE5		0.91			
	TE6		0.91			
	TE7		0.89			
	TE8		0.89			
	TE9		0.93			
	TE10		0.89			
	TE11		0.57			
	TE12		0.61			
	TE13		0.92			
Knowledge Hiding	EH1	4	0.58	0.85	0.58	0.83
	EH2		0.80			
	EH3		0.84			
	EH4		0.80			
	PD1	4	0.77	0.86	0.61	0.82
	PD2		0.89			
	PD3		0.86			
	PD4		0.55			
	RH1	4	0.80	0.91	0.71	0.85
	RH2		0.89			
	RH3		0.96			
	RH4		0.70			
Learning Orientation	LO1	6	0.87	0.90	0.60	0.90
	LO2		0.89			
	LO3		0.81			
	LO4		0.69			
	LO5		0.70			
	LO6		0.67			

Notes: SL=Standardized loadings, CR=Composite reliability, AVE=Average variance extracted, PS=Psychological safety, TE=Team embeddedness, EH=extensive hiding, PD=playing dumb, RH=Rationalized hiding, LO=learning orientation. Two PS items were deleted due to low factor loadings.

Finally, we conducted Harman's one-factor analysis to assess common method bias. According to (Podsakoff et al., 2024), if a single factor explains less than 40% of the total variance, it indicates no substantial common method bias. In our study, the initial principal

factor accounted for only 13.50% of the cumulative variance, well below the 40% threshold, suggesting the absence of significant common method bias.

Table 2: Model Fit Summary for Proposed and Comparison Model

Models	χ^2	*df*	χ^2/df	$\Delta\chi 2$ *df*	*CFI*	*TLI*	*RMSEA*
6 Factors Proposed Model	944.3	573	1.65	-	0.92	0.91	0.04
5 Factor Model (PS+TE ; EH; PD; RH; LO)	1722.7	675	2.55	778.31	0.78	0.77	0.06
Four Factor Model (PS; TE; EH+PD+RH; LO)	1780.3	678	2.63	57.60	0.77	0.76	0.06
Three Factor Model (PS+TE; EH+PD+RH; LO)	2093.6	680	3.08	313.35	0.71	0.69	0.06
Two Factor Model (PS+LO; EH+PD+RH+TE)	9729.8	664	14.65	7636.15	0.49	0.47	0.16
One Factor Model	11263.6	666	16.91	1532.91	0.41	0.38	0.18

Notes: "+" represents two factors combined into one factor, CFI= Comparative fit index, TLI= Tucker-Lewis index, RMSEA= Root mean square error of approximation, PS= Psychological safety, TE= Team embeddedness, EH= Evasive hiding, PD= Playing dumb, RH= Rationalized hiding, LO= Learning orientation.

Table 3: Descriptive Statistics, Correlation, and Discriminant Validity

Variables	*M*	*SD*	*1*	*2*	*3*	*4*	*5*	*6*
1. Psychological safety	4.08	0.40	*0.81*					
2. Team embeddedness	3.74	0.50	0.32**	*0.83*				
3. Evasive hiding	1.75	0.29	-0.08*	-0.31**	*0.76*			
4. Playing dumb	1.73	0.29	-0.17**	-0.25**	0.59**	*0.78*		
5. Rationalized hiding	1.89	0.47	0.02	-0.10*	0.19**	0.19**	*0.84*	
6. Learning orientation	3.79	0.79	-0.17**	0.06	-0.06	-0.01	0.18	*0.77*

Notes: n=520, ** p < 0.01, *p<0.05, Values in diagonal are the square root of AVEs value of corresponding constructs

4.2 Hypothesis Testing

Table 4 presents the results of the hypotheses testing using standardized path coefficients. The findings confirm H1 and a-path in mediation analysis, demonstrating a positive relationship (β= 0.32, p < 0.001) between team psychological safety and team embeddedness. Additionally, H2a and H2b indicating b-path and proposing negative relationships between team embeddedness and team EH and team PD were supported (β = -0.31, p< 0.001, β = -0.26, p < 0.05, respectively). H2c indicating b-path and proposing a negative relationship between team embeddedness and team RH was rejected (β = -0.05, p

> 0.05). Given the support for both a and b paths, we investigated the indirect effects in our analysis.

Table 4: Direct and Indirect Estimates for the Mediation Model

	Relationships	***Estimates***	***p-value***	***Results***
H1	Psychological safety → Team embeddedness	0.32***	0.001	supported
H2a	Team embeddedness → Evasive hiding	-0.31***	0.000	supported
H2b	Team embeddedness → Playing dumb	-0.26*	0.064	supported
H2c	Team embeddedness → Rationalized hiding	-0.05	0.830	not supported
	Indirect Effects			
H3a	Psychological safety → Team embeddedness → Evasive hiding	-0.102**	0.020	supported
H3b	Psychological safety → Team embeddedness → Playing dumb	-0.084*	0.077	supported
H3c	Psychological safety → Team embeddedness → Rationalized hiding	-0.015	0.834	not supported

Notes: ***p<.001, **p<0.05, *p<0.10nalysis

The findings confirmed only two mediation paths, as team psychological safety had a negative indirect impact on only two forms of team KH, i.e., team EH and team PD, through the mediating variable of team embeddedness ($\beta = -0.102$, $p < 0.05$, $\beta = -0.084$, $p < 0.10$) respectively. Therefore, H3a and H3b were supported. However, the indirect impact of team embeddedness on team psychological safety and team RH was insignificant ($\beta = -0.015$, $p > 0.05$). Hence, H3c was rejected.

Table 5: Estimates and Conditional Indirect Effects for the Moderated Mediation

	Relationships	***Estimates***	***p-value***	***Results***
H4a	Psychological safety → Evasive hiding	0.066	0.506	not supported
	Psychological safety x Learning orientation → Team embeddedness	-0.245	0.115	
	Index of moderated mediation	0.169	0.173	
	High learning orientation (+1 *SD*)	0.091	0.472	
	Low learning orientation (-1 *SD*)	-0.248	0.061	
H4b	Psychological safety → Playing dumb	-0.284	0.376	supported
	Psychological safety x Learning orientation → Team embeddedness	-0.302**	0.049	
	Index of moderated mediation	0.808**	0.035	
	High learning orientation (+1 *SD*)	0.532*	0.099	
	Low learning orientation (-1 *SD*)	-1.084**	0.047	
H4c	Psychological safety → Rationalized hiding	-0.201	0.451	not supported
	Psychological safety x Learning orientation → Team embeddedness	-0.093	0.640	
	Index of moderated mediation	-0.228	0.398	
	High learning orientation (+1 *SD*)	0.095	0.878	
	Low learning orientation (-1 *SD*)	0.551	0.054	

Notes: ** $p < 0.05$, *$p<0.10$

H4a, H4b, and H4c proposed that the indirect relationship between team psychological safety and the three facets of team KH (EH, PD, and RH) through team embeddedness is not straightforward but depends on team members' learning orientation levels (Table 5). At first, the interaction term was created by multiplying team psychological safety with learning orientation. H4a was rejected as the index of moderated mediation was insignificant (coefficient = 0.808, $p > 0.05$).

However, as evident from the index of moderated mediation (coefficient = 0.169, $p < 0.05$) reported in Table 5, the results found support for H4b related to the multi-level conditional indirect effect at a 95% CI. Our results suggest that when team members have a higher learning orientation, the negative impact of team psychological safety on team PD becomes more pronounced, suggesting that fostering team psychological safety is particularly effective in reducing team PD in such environments. Additionally, team embeddedness acts as a mediator in this relationship, and its effectiveness in reducing team PD is enhanced when learning orientation is high. Lastly, the non-significant outcome of path B (team embeddedness → team RH) led to the rejection of our mediation hypothesis H3c, as the

corresponding indirect path lacked statistical significance. Nonetheless, we tested H4c, proposing a moderated mediation effect on this non-significant path, and the estimates are presented in Table 5.

The moderation of learning orientation on the relationship between psychological safety and team embeddedness is quite interesting (Figure 2). On the one hand, the relationship between psychological safety and team embeddedness is stronger at a higher level of learning orientation. Nevertheless, the regression line is steeper at a lower level of learning orientation. In other words, there is an incremental benefit of psychological safety for team embeddedness for the members having low learning orientation.

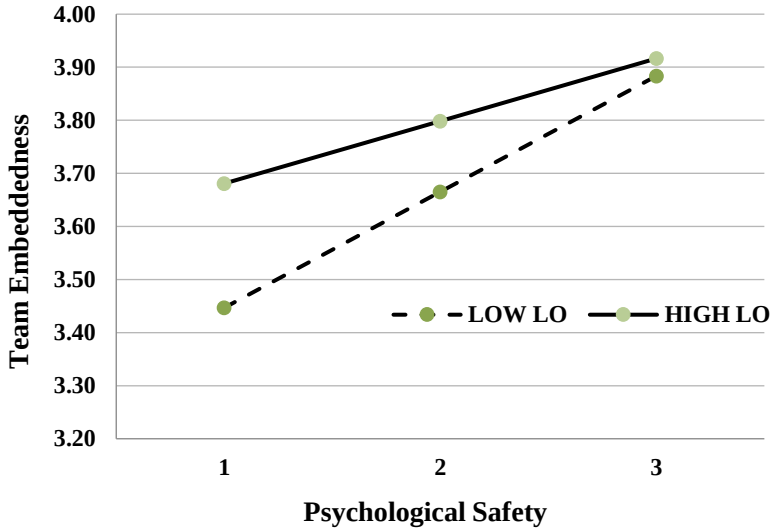

Figure 2: Moderation of Learning Orientation

5. Discussion

Drawing from the COR theory (Hobfoll et al., 2018) as the overarching framework, we developed a collaborative view to mitigate the three facets of team KH. Our hypothesis proposed a complex model where team psychological safety (Level 2) initially led to team embeddedness (Level 2), which subsequently reduced team KH in its various forms (team EH and team PD) (Level 2). Additionally, individual learning orientation (Level 1) positively influenced the indirect association between- team psychological safety and team PD through team embeddedness. Using ML-SEM, our results reaffirmed that team context, particularly the concept of team social resources, is one of the most significant sources contributing to team members' embeddedness, which, in turn, helps mitigate their negative

workplace behaviors, specifically team EH and team PD. Our results align with the previous research studies (Anser et al., 2021; Islam et al., 2022; Singh et al., 2018).

Our findings show that team embeddedness mediates the negative association between team psychological safety and only two facets of knowledge-hiding behavior (i.e., team EH and team PD). The results indicate that having access to team psychological safety as an instrumental resource allows members to take interpersonal risks. Under such an environment, members are not punished or humiliated for speaking up with ideas, questions, concerns, or mistakes. Such a conducive environment shapes team members' sense of team embeddedness, which, as an essential psychological resource, motivates them to furnish the requested knowledge with the anticipation of accruing future resource benefits.

Moreover, the present work established that the indirect relationship between team psychological safety and team PD through team embeddedness is contingent on the team member's learning orientation, such that the indirect path is stronger for team members with a high learning orientation (Zhang & Takahashi, 2024). The findings indicate that psychologically safe members with high learning orientation tend to have more team embeddedness, and such members do not perceive a risk of experiencing a net loss of resources when sharing the requested knowledge. Instead, they view meeting their team members' knowledge requests as a chance to create future resource gains rather than PD as a strategy to hide knowledge.

5.1 Theoretical Implications

The study has several theoretical contributions. First, the current literature examines team KH from a less-explored perspective, specifically by concentrating on strategies that mitigate it (Bari et al., 2024). The paper adopts Hobfoll's et al. (2018) COR framework to explain the relationship between team social resources (team psychological safety) and team KH. Although social resources have been recognized in the knowledge management field, the mitigation of the team KH from the viewpoint of social resources still needs to be explored. Only a few studies have examined team KH by leveraging team social resources (Xiong et al., 2021; Skerlavaj et al., 2018; Che et al., 2022). Our research expands on the current literature on team psychological safety and team embeddedness as crucial team social resources. Team psychological safety and team embeddedness positively correlate with concern for others (Edmondson, 2018), promote the well-being of team members (Zhang & Song, 2020), and result in resource and information sharing (Rivera et al., 2021). Given these benefits, this study posits that access to team psychological safety can foster team embeddedness (gain spiral) and help mitigate team KH (primacy of loss principle). In other words, team members' instrumental and psychological resources can mitigate team KH. Thus, this paper extends the previous research on mitigating team KH by introducing the concept of team embeddedness as a lens to account for variance in team KH.

Second, our paper makes a significant theoretical contribution by answering the research call of Arain et al. (2022) to examine all three facets of team KH, a construct previously explored in the context of composite KH. Our research extends beyond this by dissecting team KH into its facets (team EH, PD, and RH). Our research recognizes that team KH is not a monolithic behavior. Addressing these individual facets adds depth to the existing body of knowledge, allowing for a more granular analysis of how different facets of team KH can be curbed under the collaborative view.

Third, the paper unveils the role of team embeddedness as a psychological resource that refers to how team members are deeply integrated into their team, forming a sense of belonging and shared identity. Adding to the COR theory's resource gain principle, the study suggests that team members invest in creating a psychologically safe environment. Psychological safety encourages open communication without fear of reprisal, enabling team members to feel secure in sharing their knowledge and ideas (Newman et al., 2017). When team members have access to psychological safety, they enter a state of resource abundance (team embeddedness), meaning they perceive the team as a place where knowledge, skills, and support are readily available (Ghosh et al., 2017; Kiazad et al., 2015). In such an environment, team members are more inclined to share their knowledge without fearing losing their resources, as they believe in the reciprocal nature of the team's collaborative efforts (Mehmood et al., 2021). Team embeddedness, therefore, acts as a catalyst for a positive gain spiral, where having trust and mutual support leads to increased knowledge sharing and curbing of team EH and PD.

The lack of a significant relationship between team embeddedness and RH could imply that this form of KH is driven by factors other than team embeddedness. RH may be more influenced by broader organizational factors, such as aligning with cultural norms, remaining dutiful to the team leader, trying to evade unfavorable situations, or the strategic perception of RH as a secure professional strategy (Connelly et al., 2019). This theoretical contribution suggests that team embeddedness does not uniformly impact the dimensions of team KH. Different aspects of team KH may be influenced by distinct interpersonal and organizational factors, shedding light on the complexity of the relationship between team embeddedness and team KH in a team setting.

Additionally, the paper contributes to the primacy of the loss principle of COR theory. In the context of team KH, the fear of losing accumulated resource repertoire is a powerful motivator (Hobfoll et al., 2018). When team members possess abundant resources (team psychological safety and embeddedness), they fear the potential consequences of withholding knowledge. The fear of resource loss stems from the understanding that if they intentionally hid information, they might jeopardize the collaborative dynamics within the team. The fear of losing the resource abundance and the psychological safety cultivated within the team are strong deterrents against team EH and PD mitigation.

Finally, it is important to note that while team psychological safety and embeddedness can curb team EH and PD, it does not guarantee it will be completely mitigated. Individual

dispositions may lead to team KH or, conversely, some dispositions have the capacity to mitigate such behavior within a collaborative view (Zhang & Takahashi, 2024). Our finding suggests that the indirect path between team psychological safety and team PD via team embeddedness was contingent upon individual members' learning orientation levels. Previous research on learning orientation has overlooked its role as a moderating variable in the relationship between team psychological safety and team embeddedness (Chang & Cheng, 2015; Harvey et al., 2019). This study fills this gap by depicting that the learning orientation of team members, as a valuable personal resource and disposition, buffers the negative indirect relationship between team psychological safety and team PD via team embeddedness.

5.2 Managerial Implications

The research offers managerial implications for organizations aiming to develop a collaborative view to reduce team KH. First, team leaders should prioritize creating a psychologically safe environment where team members can voice their concerns, questions, thoughts and ideas without being judged or mocked. Creating a psychologically safe environment involves establishing a culture of openness and respectfulness by providing different methods through which members can freely share their feedback and communicate with empathy. Psychological safety is also built by staying transparent with your team members while you make good or bad decisions. Setting clear expectations and clear rules to ensure fairness and predictability is another way to develop a safe environment. Second, integrating team members into crucial projects and ensuring they feel challenged with their assigned tasks can lead to more team embeddedness. The more members feel that their skills and identity fit the team, the more they are embedded. Team members can foster their social bonds by engaging in group activities, this makes members feel connected and valued, thus reducing the likelihood of team KH.

Third, organizations should promote a culture of continuous learning and growth. When evaluating team performance, it is crucial to consider task completion, creative efforts, team collaboration, and continuous learning activities. Furthermore, organizations should establish feedback systems and training programs tailored to support members' motivation for learning, intellectual growth, personal development, and skill development.

Fourth, organizations can apply the COR theory to manage and allocate resources effectively. By ensuring that team members perceive an abundance of resources, both in terms of instrumental and psychological resources, the fear of resource loss diminishes, thereby reducing the motivation for different facets of team KH. Lastly, organization managers need to make regular assessments and feedback mechanisms to help understand team dynamics, enabling timely interventions to reinforce positive behaviors and address any potential issues related to team KH.

5.3 Limitations and Future Direction

First, the research relies solely on survey data, which is prone to self-reported biases, especially when examining negative workplace behaviors like KH. Participants might have downplayed their behaviors as they are disliked mainly by colleagues and often penalized by employers (Connelly et al., 2012). Future studies should explore alternative data sources and collection methods, i.e., supervisor report or peer report data, experiments, and observations, to improve accuracy and avoid social desirability bias.

Second, while this study collected multi-level data from diverse knowledge-intensive teams working in IT service firms of the second-largest metropolitan city of Pakistan (Lahore), it did not specifically explore cross-team and cross-organizational differences. Team characteristics such as tenure, size, and industry differences could impact team KH directly or as mediators or moderators. Therefore, further research must explore how individuals, teams, and organizations might affect how team members seek social resources and preserve their intellectual capital (Skerlavaj et al., 2023). Moreover, data collected from a single sector can limit the generalizability. For greater generalizability, different industries can be explored.

Third, the current study examined cross-sectional data, which limits the findings to associations rather than causation concerning team psychological safety, team embeddedness, learning orientation, and team KH. While individual learning orientations might remain consistent within an organizational context (Button et al., 1996), team members' embeddedness can evolve or change over time (Li et al., 2022). Several factors, such as changes in team composition, organizational restructuring, or shifts in project objectives, can influence team embeddedness. Thus, team embeddedness is not static and can fluctuate as circumstances and interpersonal relationships change over time. Therefore, future research should examine longitudinal data to uncover the causal relationships among the variables under study.

Lastly, team KH has different facets that require distinct process mechanisms to be addressed. Future research can explore social capital components, including norms, trust, and values, as potential interventions to mitigate RH. Moreover, other potential moderators, such as openness to experience, can be tested on the indirect relationship between team psychological safety and EH through team embeddedness. Individuals with high openness to experience may avoid EH because they value transparent communication, adaptability, and authenticity in interpersonal interactions. Their curiosity and openness create an environment that fosters the exchange of ideas and appreciation of different viewpoints, making EH less necessary (Banagou et al., 2021).

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REFERENCES

Afshar-Jalili, Y., Cooper-Thomas, H.D. & Fatholahian, M. (2021). Identifying and modeling the antecedents of counterproductive knowledge behavior: a three-study analysis. *Journal of Knowledge Management, 25*(5), 1362–1386.

Anderson, J.C. & Gerbing, D.W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin, 103*(3), 411-423.

Anser, M.K., Ali, M., Usman, M., Rana, M.L.T. & Yousaf, Z. (2021). Ethical leadership and knowledge hiding: an intervening and interactional analysis. *The Service Industries Journal, 41*(5–6), 307–329.

Arain, G.A., Bhatti, Z.A., Hameed, I., Khan, A.K. & Rudolph, C.W. (2022). A meta-analysis of the nomological network of knowledge hiding in organizations. *Personnel Psychology, 77*(2), 651-682.

Balducci, C., Schaufeli, W.B. & Fraccaroli, F. (2011). The job demands–resources model and counterproductive work behaviour: The role of job-related affect. *European Journal of Work and Organizational Psychology, 20*(4), 467–496.

Banagou, M., Batistič, S., Do, H., & Poell, R. F. (2021). Relational climates moderate the effect of openness to experience on knowledge hiding: A two-country multi-level study. *Journal of Knowledge Management, 25*(11), 60-87.

Bari, M. W., Shahzadi, I., & Sheikh, M. F. (2024). Management strategies to mitigate knowledge hiding behaviours: Symmetric and asymmetric analyses. *Knowledge Management Research & Practice, 22*(2), 162-176.

Butt, A.S. (2019). Antecedents of knowledge hiding in a buyer–supplier relationship. *Knowledge and Process Management, 26*(4), 346–354.

Butt, A.S. & Ahmad, A.B. (2021). Strategies to mitigate knowledge hiding behavior: building theories from multiple case studies. *Management Decision, 59*(6), 1291–1311.

Button, S.B., Mathieu, J.E. & Zajac, D.M. (1996). Goal orientation in organizational research: A conceptual and empirical foundation. *Organizational Behavior and Human Decision Processes, 67*(1), 26–48.

Chang, J.-N. & Cheng, C.-Y. (2015). Effects of learning orientation and team embeddedness on mobility: A multi-group comparison. *Cross Cultural Management, 22* (4), 570–593.

Che, F., Zhou, Y. & Liu, Y. (2022). Social quality, knowledge hiding, and community capacity: a study on multi-ethnic communities in Chinese cities. *Journal of Business Research, 144*, 1024–1038.

Coetzer, A., Inma, C. & Poisat, P. (2017). The job embeddedness-turnover relationship: Effects of organisation size and work group cohesion. *Personnel Review, 46* (6), 1070–1088.

Connelly, C.E., Černe, M., Dysvik, A. & Skerlavaj, M. (2019). Understanding knowledge hiding in organizations. *Journal of Organizational Behavior, 40*(7), 779–782.

Connelly, C.E., Zweig, D., Webster, J. & Trougakos, J.P. (2012). Knowledge hiding in organizations. *Journal of Organizational Behavior, 33*(1), 64–88.

De Clercq, D., Kundi, Y.M., Sardar, S. & Shahid, S. (2021). Perceived organizational injustice and counterproductive work behaviours: mediated by organizational identification, moderated by discretionary human resource practices. *Personnel Review, 50*(8), 1545–1565.

Donate, M. J., González-Mohíno, M., Appio, F. P., & Bernhard, F. (2022). Dealing with knowledge hiding to improve innovation capabilities in the hotel industry: the unconventional role of knowledge-oriented leadership. *Journal of Business Research, 144*, 572-586.

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly, 44*(2), 350–383.

Edmondson, A. C. (2018). *The fearless organization: Creating psychological safety in the workplace for learning, innovation, and growth*. John Wiley & Sons.

Fauzi, M.A. (2022). A review of knowledge hiding in team: evaluation of critical research streams. *Team Performance Management: An International Journal, 28*(6), 281–305.

Fornell, C. & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39–50.

Gardner, D.M. & Prasad, J.J. (2022). The consequences of being myself: Understanding authenticity and psychological safety for LGB employees. *Journal of Occupational and Organizational Psychology, 95*(40), 788–797.

Ghosh, D., Sekiguchi, T. & Gurunathan, L. (2017). Organizational embeddedness as a mediator between justice & in-role performance. *Journal of Business Research, 75*, 130–137.

Granovetter, M.S. (1973). The strength of weak ties. *American Journal of Sociology, 78* (6), 1360–1380.

Hair, J., Black, W., Babin, B., Anderson, R. & Tatham, R. (2006). *Multivariate data analysis*. Pearson Prentice-Hall.

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E. & Tatham, R. (2014). *Multivariate Data Analysis*. Pearson Prentice Hall.

Harvey, J.-F., Johnson, K.J., Roloff, K.S. & Edmondson, A.C. (2019). From orientation to behavior: The interplay between learning orientation, open-mindedness, and psychological safety in team learning. *Human Relations, 72*(11), 1726–1751.

Hobfoll, S.E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*(3), 513-524.

Hobfoll, S.E., Halbesleben, J., Neveu, J.-P. & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior, 5*, 103–128.

Holtom, B.C. & Darabi, T. (2018). Job embeddedness theory as a tool for improving employee retention. In M. Coetzee, I. Potgieter & N. Ferreira, N (Eds.), Psychology of Retention (pp. 95–117). Springer.

Huang, C.-H., Yin-Mei, H. & Shu-Chi, L. (2008). Examining the effects of goal orientation and role breadth self-efficacy on advice network in-degree centrality. *NTU Management Review, 19*(1), 29–50.

Islam, M.Z., Naqshbandi, M.M., Bashir, M. & Ishak, N.A. (2022). Mitigating knowledge hiding behaviour through organisational social capital: A proposed framework. *VINE Journal of Information and Knowledge Management Systems* (ahead-of-print).

Janssen, O. & Van Yperen, N.W. (2004). Employees' goal orientations, the quality of leader-member exchange, and the outcomes of job performance and job satisfaction. *Academy of Management Journal, 47*(3), 368–384.

Khan, J., Saeed, I., Fayaz, M., Zada, M. & Jan, D. (2022). Perceived overqualification? Examining its nexus with cyberloafing and knowledge hiding behaviour: harmonious passion as a moderator. *Journal of Knowledge Management, 27*(2), 460–484.

Kiazad, K., Holtom, B.C., Hom, P.W. & Newman, A. (2015). Job embeddedness: A multifoci theoretical extension. *Journal of Applied Psychology, 100*(3), 641-659.

Lee, T.W., Mitchell, T.R., Sablynski, C.J., Burton, J.P. & Holtom, B.C. (2004). The effects of job embeddedness on organizational citizenship, job performance, volitional absences, and voluntary turnover. *Academy of Management Journal, 47*(5), 711–722.

Leroy, H., Dierynck, B., Anseel, F., Simons, T., Halbesleben, J.R., McCaughey, D., Savage, G.T., et al. (2012). Behavioral integrity for safety, priority of safety, psychological safety, and patient safety: A team-level study. *Journal of Applied Psychology, 97*(6), 1273-1281.

Leung, K., Chen, T. & Chen, G. (2014). Learning goal orientation and creative performance: The differential mediating roles of challenge and enjoyment intrinsic motivations. *Asia Pacific Journal of Management, 31*, 811–834.

Li, J.J., Mitchell, T.R., Lee, T.W., Eberly, M.B. & Shi, L. (2022). Embeddedness and perceived oneness: Examining the effects of job embeddedness and its trajectory on employee proactivity via an identification perspective. *Journal of Applied Psychology, 107*(6), 1020-1030.

Lim, E. & Choy, S. (2023). Adults' social connectedness in the online learning environment. In T. Bastiaens (Ed.), Proceedings of EdMedia + Innovate Learning (pp. 1415-1421). Vienna, Austria: Association for the Advancement of Computing in Education.

Ma, B. & Zhang, J. (2022). Are overqualified individuals hiding knowledge: the mediating role of negative emotion state. *Journal of Knowledge Management, 26*(3), 506–527.

Mahmoud, M.A., Ahmad, S. bin & Poespowidjojo, D.A.L. (2022). Validation of the psychological safety, psychological empowerment, intrapreneurial behaviour and individual performance measurements. *RAUSP Management Journal, 57*, 219–234.

Malik, M.A.R., Choi, J.N. & Butt, A.N. (2019). Distinct effects of intrinsic motivation and extrinsic rewards on radical and incremental creativity: The moderating role of goal orientations. *Journal of Organizational Behavior, 40*(9–10), 1013–1026.

Mehmood, S.A., Malik, M.A.R., Saood Akhtar, M., Faraz, N.A. & Memon, M.A. (2021). Organizational justice, psychological ownership and organizational embeddedness: A conservation of resources perspective. *International Journal of Manpower, 42*(8), 1420–1439.

Mitchell, T.R., Holtom, B.C., Lee, T.W., Sablynski, C.J. & Erez, M. (2001). Why people stay: Using job embeddedness to predict voluntary turnover. *Academy of Management Journal, 44*(6), 1102–1121.

Mustika, H., Eliyana, A., Agustina, T.S. & Anwar, A. (2022). Testing the determining factors of knowledge sharing behavior. *SAGE Open, 12*(1).

Muthén, L., & Muthén, B. (1998–2015). *Mplus user's guide, 7*. Los Angeles, CA: Muthén & Muthén.

Newman, A., Donohue, R. & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review, 27*(3), 521–535.

Peng, J., Wang, Z. & Chen, X. (2019). Does self-serving leadership hinder team creativity? A moderated dual-path model. *Journal of Business Ethics, 159*(2), 419–433.

Podsakoff, P. M., Podsakoff, N. P., Williams, L. J., Huang, C., & Yang, J. (2024). Common method bias: It's bad, it's complex, it's widespread, and it's not easy to fix. *Annual Review of Organizational Psychology and Organizational Behavior*, *11*, 17-61.

Pološki Vokić, N., Rimac Bilušić, M. & Najjar, D. (2021). Building organizational trust through internal communication. *Corporate Communications: An International Journal, 26*(1), 70–83.

Porath, C.L. & Bateman, T.S. (2006). Self-regulation: From goal orientation to job performance. *Journal of Applied Psychology, 91*(1), 185-192.

PSEB (2023). Tech leads. Online available at: https://techleads.techdestination.com/ (accessed 27 November 2023).

Rahimnia, F., Nosrati, S. & Eslami, G. (2022). Antecedents and outcomes of job embeddedness among nurses. *The Journal of Social Psychology, 162*(4), 455–470.

Reus, T.H. & Liu, Y. (2021). Rhyme and reason: Emotional capability and the performance of knowledge-intensive work groups. *Emotion and Performance, 17*(2), 245–266.

Rivera, A.E., Rodríguez-Aceves, L. and Mojarro-Duran, B.I. (2021). Enabling knowledge sharing through psychological safety in inter-organisational arrangements. *Journal of Knowledge Management, 25*(5), 1170–1193.

Santhose, S.S. & Lawrence, L.N. (2023). Understanding the implementations and limitations in knowledge management and knowledge sharing using a systematic literature review. *Current Psychology, 42*(36), 1–16.

Scuotto, V., Nespoli, C., Tran, P.T. & Cappiello, G. (2022). An alternative way to predict knowledge hiding: The lens of transformational leadership. *Journal of Business Research, 140*, 76–84.

Seo, J. (2023). Why does the impact of psychological empowerment increase employees' knowledge-sharing intention? A moderated mediation model of belonging and perceived organizational support. *Behavioral Sciences, 13*(5), 387.

Sergeeva, A. & Andreeva, T. (2016). Knowledge sharing research: Bringing context back in. *Journal of Management Inquiry, 25*(3), 240–261.

Shahid, H., Chaudhry, S. A., Abbas, F., Ghulam Hassan, S., & Aslam, S. (2023). Do morality-based individual differences and relational climates matter? Ethical leadership and knowledge hiding: a multilevel framework. *SAGE Open*, 13(4), 1-17.

Singh, B., Shaffer, M.A. & Selvarajan, T. (2018). Antecedents of organizational and community embeddedness: The roles of support, psychological safety, and need to belong. *Journal of Organizational Behavior, 39*(3), 339–354.

Singh, S.K. (2019). Territoriality, task performance, and workplace deviance: Empirical evidence on role of knowledge hiding. *Journal of Business Research, 97*, 10–19.

Skerlavaj, M., Černe, M. & Batistič, S. (2023). Knowledge hiding in organizations: Meta-analysis 10 years later. *Economic and Business Review, 25*(2), 79-102.

Song, Y., Peng, P. & Yu, G. (2020). I would speak up to live up to your trust: the role of psychological safety and regulatory focus. *Frontiers in Psychology, 10*, 2966.

Spanouli, A. & Hofmans, J. (2021). A resource-based perspective on organizational citizenship and counterproductive work behavior: The role of vitality and core self-evaluations. *Applied Psychology, 70*(4), 1435–1462.

ten Brummelhuis, L.L. & Bakker, A.B. (2012). A resource perspective on the work–home interface: The work–home resources model. *American Psychologist, 67*(7), 545-556.

Waller, L. (2021). Fostering a sense of belonging in the workplace: Enhancing well-being and a positive and coherent sense of self. In S. Dhiman (Ed.), The Palgrave handbook of workplace well-being (pp. 341–367). Palgrave Macmillan/Springer Nature.

Xiao, M. & Cooke, F.L. (2019). Why and when knowledge hiding in the workplace is harmful: a review of the literature and directions for future research in the Chinese context. *Asia Pacific Journal of Human Resources, 57*(4) 4, 470–502.

Xiong, C., Chang, V., Scuotto, V., Shi, Y. & Paoloni, N. (2021). The social-psychological approach in understanding knowledge hiding within international R&D teams: An inductive analysis. *Journal of Business Research, 128*, 799–811.

Zhang, Z., & Takahashi, Y. (2024). How and when team-member exchange influences knowledge hiding behaviors: A moderated dual-pathway model. *Heliyon, 10*(7). e28373.

Zhang, M.J., Law, K.S. & Lin, B. (2016). You think you are big fish in a small pond? Perceived overqualification, goal orientations, and proactivity at work. *Journal of Organizational Behavior, 37*(1), 61–84.

Zhang, Z. & Song, P. (2020). Multi-level effects of humble leadership on employees' work well-being: the roles of psychological safety and error management climate. *Frontiers in Psychology, 11*, 571840.

Zhao, H. & Xia, Q. (2019). Nurses' negative affective states, moral disengagement, and knowledge hiding: The moderating role of ethical leadership. *Journal of Nursing Management, 27*(2), 357–370.