



Knowledge Sharing and Innovative Work Behaviors are affected by Supervisor-Subordinate Guanxi with Mediation of Felt Obligations

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ABSTRACT

Given its importance in the Chinese context, the research area of "supervisor subordinate guanxi" is emerging as a way to analyze the relationship between supervisors and subordinates within a company. More research is needed on the subject of the content, antecedents, and other well-qualified assessments of supervisor subordinate guanxi, though, because this idea genuinely requires consideration in order to understand the dynamics of guanxi. The purpose of this research is to examine the impact of informal leader-member exchange (supervisor-subordinate guanxi) on employees' knowledge-sharing and innovative work behaviors. Based on social exchange theory, we recommend, guanxi with supervisor, cause employees felt obligated that improve employees knowledge sharing behaviors, and innovative work behaviors. In addition, in the current study, felt obligations as a mediator in the supervisor-subordinate guanxi and employees wok related behaviors. To test the proposed model temporally segregated data is gathered from employees belonging to service sector and analyzed data by utilizing AMOS and SPSS software. It is found that supervisor – subordinate guanxi influences employees' knowledge sharing and innovative work behaviors by nurturing employee a sense of obligation to the organization. This study discuss the implications of these findings for understanding and promoting supervisor – subordinate guanxi and employees' knowledge sharing and innovative work behaviors in the workplace.

Introduction

It is generally acknowledged that solid and healthy work environments achieve positive employee's outcomes, including performance, identity and work engagement, which can likewise spill over into non-work domains (Kossel, Kalliath, & Kalliath, 2012; Westman, Brough, & Kalliath, 2009). This contact typically takes the form of supervisor-subordinate guanxi in the workplace. Finding a solution to the problem of how to advance employee behavior using formal context factors and informal guanxi culture has become urgently essential. Yet, there is minimal academic research on this. As an organizational agent, the supervisor regularly engages with subordinates while carrying out both formal and informal organizational tasks. Any professional world must include these professional relationships between their employees at work (Qizhi He, 2022). In particular, the advices of all around associated leaders and codes of conduct can all the more effectively impact the way of behaving of employees. Regular one-on-one conversations with managers give staff members the opportunity to learn about how leaders behave in the long-term interests of the company. They also help staff members comprehend how managers think and act. Employees will exhibit a variety of behaviors that are beneficial to the growth of the company and team in accordance with the principle of reciprocity in order to repay the leaders' confidence and assistance (Gao et al., 2021). Workers will then be required to contribute to the groups' goals (Guihua Xie, 2022).

Consequently, this social exchange inspires the supervisors to utilize casual method for communications to resolve complex problems with support of employees/ subordinates. Additionally, through SSG, subordinates gain social and financial benefits, such as increased confidence, a sense of obligation, and chances for career advancement. The behavior of the workforce can also be more readily motivated through a comprehensive code of conduct and the directives of highly connected leaders (Xiaofeng Su, 2022). Employees demonstrate a positive attitude and team-building behaviors in accordance with the rule of exchange, which benefits the company. As a result, they can win their leaders' admiration and backing.

In the last ten years, the mechanism of supervisor-subordinate guanxi has been understood through a variety of theoretical lenses. SSG is a social exchange, an organizational environment, a psychological and physical source, according to some theoretical ideas, a link between human and subjective standards for demonstrating particular behaviors (Miao & Banks, 2020). A number of social and psychological outcomes are found to be predicted by supervisor-subordinate guanxi. According to research, supervisors are in favor of elevating and recognizing employees with whom they have good working relationships (Law, 2010). As evidenced by their improved performance and extra-role behaviors, employees who perceive a greater degree of supervisor subordinate guanxi become excellent human capital resources for businesses (Zejun Ma, 2023; Nazir et al., 2022).

Employees will consider about psychological support; generate positive feelings and attitude by connections with their supervisors/manager. In this manner, they will feel compelled to engage by taking actions that are advantageous to both the organizations and their managers (Baranik L. E., 2010). People intentionally assist the group (such as teams or organizations) out of a feeling of obligation derived from the basic social exchange and mutual reliance principles. Employees will be more proactive in communicating behaviors that are beneficial to the company when they feel strongly about their obligations to it (Xiaofeng Su, 2022). Presently it is vital to address the link between phenomenon of supervisor subordinate guanxi with employees behaviors both positive i.e., knowledge sharing behaviors and innovative work behaviors of employees in Pakistani culture as past literature suggests.

The main objectives of the study are enlisted as aligned with conceptual model see in figure as: (1) is to analyze direct effects of supervisor-subordinate guanxi on felt obligation, (2) is to determine direct influence of supervisor-subordinate guanxi on knowledge sharing behaviors and innovative work behaviors, (3) is to examine the impacts of felt obligation as mediator between supervisor-subordinate guanxi and knowledge sharing behaviors, (4) is to examine the impacts of felt obligation as mediator between supervisor-subordinate guanxi and innovative work behavior.

Theoretical Foundation and Hypothesis Development

Social exchange theory has for sometime been applied to make sense of organizational behaviours (Cropanzano and Mitchell, 2005). To comprehend impacts of supervisor-subordinate guanxi on employees work related outcomes, we draw upon social exchange theory which has demonstrated helpful for understanding the reciprocal connection among supervisors and subordinates. (Ng & Feldman, 2015). Social exchange theory (Blau, 1964) recognizes two types of exchange connections, specifically economic exchange, and social exchange. Social exchange will generate individual commitment, trust and appreciation (Blau, 1964), bringing about the reciprocal behaviours from organizational member (Bin Yang, 2022). Social exchange theory demands that social way of behaving is dominated by reciprocal incentives that influence people's activities in social relations (Gächter, Fehr, and Kment, 1996). The norms of reciprocity is the groundwork of social exchange theory (Gouldner, 1960), which recommends that the parties become associated with and keep an exchange relationship with others under the assumption for getting returns (Xu, 2020). At the point when people are dealt favourably by another party, they feel obliged to respond the great deeds by showing favourable responses (Blau, 1964). Employees who get favourable treatments from their supervisor will generally reciprocate by framing positive perceptions toward both the supervisor and the organization. The theory likewise recommends that reciprocal exchange connections could form and advance into trusting and loyal mutual commitments (Charoensukmongkol, 2021).

According to the social exchange theory, the connection between a supervisor and a subordinate can be thought of as one of social exchange (Blau, 2012). The guidance of all surrounding associated executives, in particular, can have a more significant influence on how employees behave. Regular one-on-one interactions with managers give staff members the opportunity to learn about how leaders sacrifice the long-term interests of the company. They also help staff members comprehend how organizational functions progress. Prospective staff will exhibit good behaviors that are beneficial to the growth of the group and enterprise in line with the concept of reciprocity to return the leaders' support and trust (Gao, 2021). In high-quality relationship with co-workers, the drives behind focal individuals' knowledge sharing are to some degree different from that in quality supervisor-subordinate relationships. At co-worker level, the focal individuals and their co-workers are usually at the two ends of a knowledge sharing process – one side being the knowledge provider, the other being the knowledge collector. The knowledge being shared is one form of benefits being exchanged in the social exchange process. In quality SSG where the norm of reciprocity is emphasized, individuals will get the favor of knowledge provision repaid in a certain form, at a certain time in the future (Staples & Webster, 2008). Thus, workers will be bound to share knowledge to add to the objectives of the organizations. This study purposed that;

H1. "SSG will be positively related to knowledge sharing behaviors".

According to social exchange theory, the SSG should support employees' innovative actions. Employees with close SSG can receive support from leaders in the first scenario, including resources, excellent work tasks, and chances for career development, (Miao C, 2019), encourage and aid professional growth among employees. Employee creativity will improve because people

will feel more essential than others and be more ready to take on challenging tasks as a result (Charoensukmongkol P, 2021). Second, in keeping with the idea of reciprocity, staff members will act in ways that are highly advantageous to the growth of teams and organizations in order to return leaders' trust and support. Based on social exchange theory, the SSG should be beneficial to employee innovative work behaviors. First, employees with close SSG can get support from leaders, such as career development opportunities, high-quality work tasks and resources, (Miao., Qian.S, 2019) encourage and support employees' personal development. At this time, employees will think that they are more important than others, will be more willing to engage in challenging work, which is more conducive to stimulating employees' creativity. Second, based on the principle of reciprocity, employees will also show behaviors that are beneficial to the development of the team and organization to repay the trust and support of leaders. Consequently, the following argument is put forward;

H2: *"SSG will be positively related to Innovative Work Behaviors".*

The social exchange theory states that feeling obligated are a crucial element of cordial interactions between workers and leaders or bosses. This perceived duty is dependent on the reciprocity standards that govern social exchanges, which is one of the most compelling theoretical arguments of the social exchange theory (Blau, 2012). In other words, after receiving assistance or a favor from person B, person A feels obligated to return the favors and attempts to do so in the future. Conversely, high-quality relationships extend beyond the formal job contract, with leaders aiming to increase their followers' ability and motivation to achieve higher levels of performance and engage in other positive discretionary behaviors (Martin et al., 2016). In such high-quality relationships, the exchanges between leaders and followers are more social in nature, engendering mutual respect, affect, support, loyalty, and felt obligation (Uhl-Bien & Maslyn, 2003).

The strong relationship between LMX and the workers' creativity was disrupted by a sense of obligation (Pan, 2012). In order to highlight this process in the social exchange between leaders and followers, we draw on prior observational research as well as the theoretical support of social exchange theory (Jinyun Duan, 2022). Employees become more responsible and feel more obligated when they interact with their supervisors, whether they are from within the company or from outside groups, so this study purpose that;

H3: *"There is significant relationship between SSG and felt obligation".*

Workers will view a leader's advantage as a form of psychological support and develop favorable attitudes and feelings for the excellent role models. As a result, they will feel under pressure to respond by taking actions that are advantageous for both groups and their supervisor (Baranik L. E., 2010). Literature on the arrangement of obligation in organization (McAllister, 2016) asserts that individuals act consciously to support the group (such as a work group or an organization) out of a sense of duty that comes from fundamental social and reciprocal principles. When employees feel a strong sense of duty to the company, they will be more proactive in expressing actions that will benefit the company (Eisenberger R. A., 2001).

Based on the current circumstance, we presume that the manager promotes a subtle sense of duty to help the organization accomplish its goals despite the possibility of losing benefits to oneself in order to encourage workers to share information. In line with the moral principles supported and demonstrated by managers and leaders, information exchange is instantly committed to the objectives and successes of the organizations, according to comprehensive study. This study suggests that when there is a relationship with a manager, employees will not only have a positive evaluation of leaders and perceptions of them, but also attribute them to the organization the leader

represents, reduce their fear of being "taken advantage of" by the organization, develop a sense of obligation to pay it back and effectively contribute to the organization by sharing tacit knowledge, and more. Therefore, this study posits that.

H4: *There is significant relationship between felt obligation and KSB.*

When SSG is excellent, managers take steps like data sharing, job support, and decentralization that help improve their employees' views of getting the knowledge and resources they need to do their jobs. Finally, subordinates' increased internal position will increase their influence (Yan, 2018). According to studies, this kind of connection boosts management productivity, employee motivation, and innovation (M, 1996). When employees recognize the value and significance of their job, they are better able to take on responsibility and express their enthusiasm and creativity (Liu, 2021). This study formalizes the argument in the following hypothesis.

H5: *There is significant relationship between felt obligation and IWB.*

Felt Obligation as mediator

In one of the most influential theoretical pieces of social exchange theory, (Blau, 1964) wrote an individual who supplies rewarding services to another obligates him. To discharge this obligation, the second must furnish benefits to the first in return. This felt obligation is based on the norm of reciprocity that regulates social exchanges. That is, person A, who has received help or favor from person B, develops a sense of obligation towards B and seeks to discharge this obligation in the future (Jinyun Duan, 2022). There is significant connection among leaders and subordinates on basis of felt obligations we found in literature mainly in guanxi case. For example, it is found that followers' felt obligation mediated the positive relationship between ethical leadership and their customer-oriented citizenship behavior (Garba et al. 2018).

Positive social exchange foster strong notions of justice and a sense of obligation in workers, enabling them to return to their organization and management with positive behaviors. We contend that this type of behavior includes knowledge sharing. Employees are more likely to engage in knowledge-sharing behaviors that increase and enhance group wellness when leaders use an informal style of communication with their followers (Guihua Xie, 2022). Employees that exhibit innovative behaviors are likely to help the company, the group, or even just one person by working harder and more efficiently. This means that there are no violations of the agreement between workers and organizational work regulations when failing to use innovative behaviors at work (Kamran, 2022).

It makes more sense to assume that innovative work behaviors are more likely to be an outcome of open employees' intrinsic motivations and how they interpret the results of psychological contract fulfillment. Employees who feel that their expectations of the psychological contract have been met by the employer have a direct influence on the stated commitment to contribute to the growth of the organization (Arup Varma, 2021). This suggests that if an organization meets employee expectations, the employees will feel motivated to engage in innovative practices. Employees are more inclined to engage in discretionary and voluntary behaviors and are more willing to sense an obligation to help the organization when they believe that their employers are fulfilling their commitments. (Bruk-Lee, 2009).

According to social exchange theory, employees express their sense of obligations to maintain a fair social exchange when the organization is treated favorably (Liang et al., 2012). When they receive favorable treatment, employees take the initiative to give back to the company and feel required to do so. The current study makes the assumption that the link between employee voice

and innovative behavior might be mediated by a sense of obligation. When employees are treated decently, they react more favorably, come up with fresh ideas, and give back to the company. According to the social exchange theory, when a person receives social advantages, they could feel obligated to repay those who gave them (Blau, 1964).

Employees are encouraged to respond to such actions by engaging in constructive and innovative behavior as a result of their sense of obligation, which is a personal trait that makes them feel that the organization is kind, considerate, and fair to them. According to the social exchange theory, when one party acts responsibly and fairly towards another, it makes them feel obligated to do the same by acting in ways that are expected at work (Blau, 1964). There is significant connection among leaders and subordinates on basis of felt obligations we found in literature mainly in guanxi case. Thus, for further working on workers' their image in front of the boss, they perform more extraordinary behaviors. These ways of behaving such as knowledge sharing, for of more support from their leader, innovative work behaviors after assigning challenging and specific work from manager and substantially more.

H6: "Felt obligation mediate the relationship between SSG and KSB".

H7: "Felt obligation mediate the relationship between SSG and IWB".

Figure 1: Conceptual Model



Methodology

This study aims to investigate the effects of supervisor-subordinate guanxi as an independent variable on information exchange and innovative work practices. This study is based on the explanatory study.

The primary focus of the current study is the workplace due to the respondents' diverse subordinates' employment in the organization and the presence of their supervisors or leaders, who provide oversight. This study featured factors that were not controlled nor changed, nor did it use any artificial setup. There was no artificial design in the current investigation. The researcher didn't modify the standard procedure. The data collection period used in this study is cross-sectional. Study designed to establish causal relationships; the researcher tries to change certain parameters to see how those changes affect the dependent variable of interest. Therefore, there isn't much researcher intervention shown. The focus of the current study is on employees' attitudes towards their attitude response. The unit of analysis in this study is the individual employee, who works for any kind of organization.

The primary subject of this study is service-related Chinese-owned companies with Islamabad registrations. Included in the study population frame were engineering, construction, and telecom companies. Findings from the study are mostly applied to Pakistani culture by focusing on Chinese organizations. These businesses operate with processes that call for staff members with expertise and innovative ideas. The study employed Morgan's table to establish sample size, and population size will be determined collaboratively from companies. Different companies and sample sizes ranging from 357 to 361 were the focus of this investigation. As a result, the study's low response

rate of 282 is seen. Respondent data is gathered using the convenience sampling technique, sometimes referred to as non-probability sampling. To collect data, the study used a quantitative methodology. Due to the researcher's limited involvement, 360 firm's employees received questionnaires via online and in-person means (Sekaran & Bougie, 2015).

Demographics

From 282 responses, The ratio of male to female members is examined in this study. 36.5% of respondents were women and 63.5% of respondents were men, according to the data. The majority of respondents (34.0%) had ages ranging from 27 to 29. 19.1% of respondents had an age range of less than 20–23, 31.6% represented employees in the 24-26 age range, and 10.3% represented employees in the 30-33 age range. 5.0% of replies were limited to those who were at least 34 years old. Employees who have worked there for four to five years make up a higher share of 31.2%. The percentage is 17.4% among responders with two to three years of work experience. The ratio for responders with 3.4 years of employment experience is 26.6%. The percentage of responders with five to six years of work experience is 22.7%. The personnel with six years or more of service have the lowest percentage (2.1%).

Measurement Scales

For the purpose of this study, each variable is measured using a 5-point Likert scales, where 1 represents strongly disagree and 5 indicates strongly agree.

Supervisor-subordinate guanxi: Employees were requested to rate their probability of engaging in the ways of behaving or exercising proposed by four items created by (Regulation et al. 2000). Sample items are as: On days off or when I have free time and I'd like to call or visit my manager. Cronbach's α is 0.940 (Guihua Xie, 2022).

Felt Obligations: To measure felt obligations, this study modified four items from the scale (Ogunfowora et al. 2021). Model items include, I owe it to my company (manager) to put all of my effort into achieving goals in a moral way and I feel a personal obligation to assist my company (employer) in achieving its moral goals (accomplish wellbeing goals). Cronbach's α is 0.935. (Guihua Xie, 2022).

Knowledge sharing behaviors: Utilizing a measure of seven items taken directly from the participation components of the organizational citizenship behaviors scale, knowledge sharing is surveyed (Van Dyne, Graham, & Dienesch, 1994). The first scale comprises of 34 items, coordinated in five elements: functional, social, and advocacy participation, loyalty, and obedience. As a result, for the knowledge sharing scale, we selected the items that handle fostering a sharing culture within the company through investment in promotion and friendly support. Things done to capture the two aspects of sharing behaviors that interest us: encouraging others to share and disclosing one's own expertise. Finally, we settled on a selection of 2 items from the social involvement factor and 5 items from the advocacy participation factor. Sample items are as I provide ideas for new activities or general enhancements; and I keep informed about procedures and administrations and inform others. This scale was a 5-point Likert that expresses the respondent's responses. The scale's Cronbach alpha was 0.88.(Natàlia Cugueró-Escofet, 2019).

Innovative work behaviors: The study (Kang and Lee's. 2017) used four items to quantify IWB, using the following examples: I produce or come up with innovative ideas and I encourage and support others' ideas. Cronbach's alpha for this scale was stated as 0.90. (Islam & Iram Zahra, 2022).

Results

By using the AMOS we found that model is good fit because CMIN/DF, CFI, GFI, AGFI, RMSEA and PClose values were found here significant.

Table 1-: Model fir measures

Model	CMIN/DF	GFI	AGFI	CFI	SRMR	RAMSEA	P Close
Baseline Hypothesized Model	1.148	0.942	0.924	0.994	0.048	0.023	1.000

The tables above showed that the model was well-fitting, meaning it was fully fitted. Consequently, all values are displayed in the tables to be inside the threshold ranges. A good model fit is shown by the root mean square error value of 0.023, which is less than 0.07 in this case. A model fit that is outstanding is indicated by a comparative fit index (CFI) value of 0.994, which is now better than 0.90. In contrast, the SRMR needed to be less than 0.08; at 0.048, it demonstrated an exceptionally strong model fit. Furthermore, as it should be greater than 0.05, the PClose value of 1.000 indicates a good model fit. The data provide evidence that the four component model is an excellent model that yields superior conclusions.

Correlation Analysis

Table 2: Correlation Analysis

		SSG	FO	KSB	IWB
SSG	Pearson Correlation	1			
	Sig. (2-tailed)				
FO	Pearson Correlation	.536**	1		
	Sig. (2-tailed)	.000			
KSB	Pearson Correlation	.299**	.309**	1	
	Sig. (2-tailed)	.001	.000		
IWB	Pearson Correlation	.581**	.592**	.344**	1
	Sig. (2-tailed)	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed).

Table showing the degree of connection between the variables, with some showing a strong association and others only a moderate one. We discovered from the results that felt obligation and supervisor-subordinate guanxi have a high positive association ($r = 0.536$, $p < 0.01$). Knowledge sharing behavior and supervisor subordinate guanxi have a weak but positive connection ($p < 0.01$, $r = 0.299$). Additionally, where $r = 0.581$ and $p > 0.01$, there is a positive and statistically significant correlation between supervisor-subordinate guanxi and innovative work behavior. Felt obligations exhibit a considerably strong link ($r = 0.592$ and $p < 0.01$) with innovative work behavior and a significantly moderate correlation ($r = 0.309$, $p < 0.01$) with knowledge sharing behavior. Innovative work behavior and knowledge sharing behavior have a moderate but substantial correlation ($r = 0.334$, $p < 0.01$).

Regression Analysis

The study's first hypothesis proposes a substantial positive association between supervisor-subordinate guanxi and information sharing behaviors. Regression analysis was employed in this

study to assess this hypothesis. Hypothesis 1 enunciates that supervisor-subordinate guanxi is positive influences on the knowledge sharing behaviors. In the results it gives the strong justification. Result shows that supervisor-subordinate guanxi has the positive link with knowledge sharing. The R square = .089 and $\beta = 0.219$ with the significant p value 0.000. In addition and R Square tells us that one unit change in supervisor-subordinate guanxi brings 8.9% change in the knowledge sharing behaviors. Hence H1 is accepted. Hypothesis 2 enunciates that supervisor-subordinate guanxi is positive influences on the innovative work behavior. In the above table it gives the strong justification. Result shows that supervisor-subordinate guanxi has the positive link with felt obligation. The R square = .338 and $\beta = 0.503$ with the significant $p > 0.000$. In addition R square tells us that one unit change in supervisor-subordinate guanxi brings 33.8% change in the employees felt obligation. Hence H 2 is accepted. Hypothesis 3 enunciates that supervisor-subordinate guanxi is positive influences on the felt obligation. In the above table it gives the strong justification. Result shows that supervisor-subordinate guanxi has the positive link with felt obligation. The R square = .287 and $\beta = 0.536$ with the significant $p < 0.000$. In addition R square tells us that one unit change in supervisor-subordinate guanxi brings 28.7% change in the employees felt obligation. Hence H 3 is accepted.

Hypothesis 4 enunciates that felt obligation is positive influences on the knowledge sharing behavior. In the above table it gives the strong justification. Result shows that felt obligation has the positive link with knowledge sharing behaviors. The R square = .096 and $\beta = 0.309$ with the significant $p < 0.000$. In addition and R Square tells us that one unit change in felt obligation brings 9.6% change in the employee's knowledge sharing behaviors. Hence H4 is accepted. Hypothesis 5 enunciates that felt obligation is positive influences on the innovative work behaviors. In the above table it gives the strong justification. Result shows that felt obligation has the positive link with innovative work behaviors. The R square = .350 and $\beta = 0.592$ with the significant $p < 0.000$. In addition and R Square tells us that one unit change in felt obligation brings 35% change in the employees innovative work behaviors. Hence H 5 is accepted.

Mediation Analysis

This research has used the Hayes (2013) for mediation regression analysis. Hence, mediation regression analysis was conducted to examine the effect of felt obligation in between supervisor-subordinate guanxi and knowledge sharing behaviors.

Table 3: Mediation Analysis

	Effects	S.E	P. Value	Boot LLCI	Boot ULCI
Total Effect	.3522	.0673	0.000	.2197	.4846
Direct Effect	.2199	.0785	0.000	.0654	.3744
Indirect Effect	.1323	.0444	-	.0469	.2187

In Hypothesis 6 tables shows that indirect effect of supervisor subordinate guanxi on employees knowledge sharing behaviors through felt obligation as mediator. Total effect demonstrates the effect of supervisor subordinate guanxi on knowledge sharing behaviors. Above table displays the significant p value of 0.000 and the overall influence of supervisor subordinate guanxi on knowledge sharing behaviors as 0.3522. It shows that 35% of the employee's knowledge sharing behaviors varies as a result of supervisor subordinate guanxi. The bootstrap's lower and upper limits are 0.2197 and 0.4846, respectively, and zero is not present in the interim with 95% confidence.

The direct effect results for the impact of supervisor subordinate guanxi on knowledge sharing behaviors with mechanism of felt obligation as a mediating factor. As a result, we discovered that the outcome with mediation was 21.99% with a significant p value ($p = 0.000$). Finally, we assemble the data and disclose that, in the presence of felt obligation, there is a 21.99% variation in knowledge sharing behavior. The indirect impact in table shows that there is mediation that is 13.23%, i.e., that the link between supervisor subordinate guanxi and knowledge sharing behaviors is mediated by felt obligation. Due to the fact that the lower and higher limits are each 0.0469 and 0.2187, the bootstrap values are able to forecast results that are statistically significant. As a consequence, the H6 is supported by the data, and this hypothesis is accepted.

We must carry out the mediation analysis in order to evaluate hypothesis 7. In Hypothesis 7, tables show that indirect effect of supervisor subordinate guanxi on employees innovative work behaviors through felt obligation as mediator. Total effect demonstrates the effect of supervisor subordinate guanxi on innovative work behaviors. Above table displays the significant p value of 0.000 and the overall influence of supervisor subordinate guanxi on knowledge sharing behaviors as 0.7902. It shows that 79% of the employee's innovative work behaviors vary as a result of supervisor subordinate guanxi. The bootstrap's lower and upper limits are 0.6600 and 0.9204, respectively, and zero is not present in the interim with 95% confidence.

Table 4: Mediation Analysis

	Effects	S.E	P. Value	Boot LLCI	Boot ULCI
Total Effect	.7902	.0661	0.000	.6600	.9204
Direct Effect	.5035	.0717	0.000	.3625	.6446
Indirect Effect	.2867	.0518	-	.1907	.3957

The direct effect results for the impact of supervisor subordinate guanxi on innovative work behaviors with mechanism of felt obligation as a mediating factor. As a result, we discovered that the outcome with mediation was .5035 with a significant p value ($p = 0.000$). Finally, we assemble the data and disclose that, in the presence of felt obligation, there is a 50.35% variation in innovative work behavior. The indirect impact in table shows that there is mediation that is 28.67%, i.e., that the link between supervisors subordinates guanxi and innovative work behaviors is mediated by felt obligation. Due to the fact that the lower and higher limits are each 0.1907 and 0.3957, the bootstrap values are able to forecast results that are statistically significant. As a consequence, the H7 is supported by the data, and this hypothesis is accepted.

Discussion

SSG will be positively related to Knowledge sharing Behaviors

To be investigated was the first hypothesis, which states that supervisor-subordinate guanxi and knowledge sharing practices are positively connected. Given the results, which show a positive correlation between supervisor-subordinate guanxi and knowledge sharing behaviors, hypothesis 1 is accepted. The outcome of this particular hypothesis was found to be significant. The social exchange theory's tenets are supported by our findings. Also, supervisors would expect their subordinates to go above and beyond their formal work tasks, priorities the group's interests, and take on organizational responsibilities (Uhl-Bien 1995; Law et al., 2000). Supervisors who gave them special treatment at work in return for their extra-role expectations would try to gratify subordinates by pushing them beyond the call of duty (Ilies et al., 2007). Employees possessing superior LMX and SSG may also feel more in charge of their work and have an obligation to

utilize their discretion to further the goals of the group, such as by sharing knowledge (Khan & Malik, 2017; Liu et al., 2013).

When focal persons have excellent relationships with their coworkers, their reasons for sharing information with them are different from those when they have excellent relationships with their subordinates. One type of benefit that is traded in the social commerce process is knowledge. People will be compensated for sharing their knowledge in a certain way at a predetermined future date in high-quality SSG that highlights the reciprocity rule (Staples & Webster, 2008). It follows that those with superior SSG are more likely to share their information. SSG employees also have a strong feeling of community and camaraderie, which encourages open communication and a desire to share knowledge (Woerkom and Sanders; 2010 and Yen et al. 2014). A positive correlation has also been demonstrated between LMX and knowledge sharing (Kim et al., 2021), SSG and knowledge sharing (Yen et al., 2014), and colleague guanxi and knowledge sharing (Yen et al., 2014).

SSG will be positively related to Innovative Work Behaviors

Guanxi between supervisors and subordinates is positively correlated with innovative work practices, according to the study's second premise. Leadership dependency is another term for follower dependency (Qi and Liu; 2019). According to Dong and Zhong (2021), a dependent person needs validation, direction, and guidance from others in order to overcome their shortcomings and, more importantly, to accept, uphold, and advance the ideas of others. The results of this hypothesis were found to be significant, and since it was discovered that supervisor-subordinate guanxi is positively connected with innovative work practices, hypothesis 2 was approved. The phrase used to characterise how reliant workers are on their leaders while still exerting a lot of effort is called "follower motivational dependency," (Gu and Qin (2017)).

Research has shown that in order for leaders—who hold organizational authority and control over a variety of resources—to perform their job responsibilities and achieve organizational goals, they must rely on their subordinates. The current study makes the claim that innovative work practices can be encouraged by a good supervisor-subordinate relationship. First and foremost, workers have resource security when their SSG is operating well (Law & Wong, 2000). Additionally, it helps them develop, expand, and employ their network resources more skillfully in order to obtain the kinds of resources needed for innovation. In addition to providing psychological comfort, a strong supervisor-subordinate connection can motivate employees to embark on risky jobs like innovative work practices (Han & Wang, 2019).

There is significant relationship between SSG and felt obligation

The third hypothesis, which states that guanxi between a supervisor and subordinate is positively correlated with employees' feelings of obligation, was examined using the framework as follows. Based on the significant result for this particular hypothesis, which shows that felt responsibility among workers is positively correlated with guanxi between supervisor and subordinate, hypothesis 3 is accepted. The concept of social trading is supported by our data. Even though behaviors are the primary medium of exchange in social interactions between superiors and subordinates (Wang et al., 2005), employees will be motivated to go above and beyond the call of duty to uphold or improve their guanxi with supervisors, which includes maintaining cordial relationships (Lin and Ho, 2010).

Managers in these situations treat staff employees with perks and protection similar to those of family members (Zhang et al., 2015). Subordinates are more likely to feel driven to work harder and more responsible when they receive this kind of treatment. Yet, strong bonds go beyond the

written employment agreement, as managers endeavour to boost their employees' capacity and drive to accomplish more and engage in other constructive extracurricular activities (Martin et al., 2016). Relationships of this caliber, according to Uhl-Bien and Maslyn (2003), may stimulate more social contacts between leaders and followers, which in turn may promote sentiments of duty, allegiance, affect, and mutual respect.

There is significant relationship between felt obligation and KSB

A framework was developed to examine the fourth hypothesis, which postulates a positive correlation between perceived duty and knowledge sharing behaviors. The results of this particular hypothesis were found to be significant, and hypothesis 4 is accepted in light of the findings, which suggest a positive correlation between employees' knowledge-sharing activities and their emotions of obligation. According to social exchange theory, a two-party exchange relationship can only last as long as both sides uphold the concepts of reciprocity and fairness in exchange (Blau, 1964).

Given that employees view favors from superiors as presents, SSG is comparable to receiving a "gift" (Skinner et al., 2014). In order to maintain this mutual relationship, employees who feel that their managers are showing them favoritism need to behave in a way that is consistent with what these leaders anticipate of them (Kierein and Gold, 2000). Previous studies (Yu, 2019; Chen H. et al., 2021) have demonstrated that employees who experience trust are more likely to act in ways that are advantageous to the business, including taking initiative, speaking up, sharing knowledge, and engaging in organizational citizenship. Reducing undesirable habits like knowledge concealment and silence is another way that employees can show their thanks for their superiors' trust (Zhu et al., 2019). On the other hand, when employees and managers get along well, they will feel compelled to defend the leaders' or the company's interests (Chen X. et al., 2021). They could also be more receptive to inquiries for knowledge from other employees.

There is significant relationship between felt obligation and IWB

Five theories were developed in order to investigate the relationship between felt responsibility and innovative work habits. The approval of hypothesis 5 was based on the noteworthy outcome for this particular hypothesis, which suggests a favourable correlation between employees' sense of obligation and their innovative work practices. Social exchange theory shows a substantial correlation between an employee's sense of duty and the company's outcomes. Good social ties provide workers a strong sense of justice and accountability, which enables them to act in a way that is advantageous to their management and organisation. Innovative work approaches can be implemented to improve task performance and benefit the team, the company, and individual employees, claims (Bukhari., 2022).

Another argument is that, since adopting new methods does not violate employee agreements or organizational standards, there are no negative repercussions for not using them at work. It makes sense that employees who are sincere and motivated by their own beliefs about fulfilling their psychological contracts would be more likely to demonstrate creative work practices. Employees' alleged commitment to help the company expand is directly impacted by how satisfied they are with the employer's performance of the psychological contract. So, it is hypothesized that if the business satisfies the expectations of its employees, their sense of obligation will motivate them to use innovative work methods (Bukhari, 2022). Managers may improve their employees' impressions of getting the knowledge and resources they need to complete their jobs by putting techniques like job assistance, decentralization, and data sharing into practice. The effect of subordinates will also be amplified due to their heightened internal standing (Yan, 2018). These

kinds of interactions boost management productivity, employee motivation, and creativity, according to studies (M, 1996). Employees who believe that their job is valuable and important are more likely to take responsibility for it and to be passionate and innovative (Liu., 2021).

Felt obligation mediate the relationship between SSG and KSB

A framework was developed in order to examine hypothesis number six, which states that felt duty moderates the relationship between supervisor-subordinate guanxi and knowledge-sharing practices. As hypothesis 6 shows that employees' emotions of obligation regulate the relationship between supervisor-subordinate guanxi and knowledge-sharing behaviors, it is accepted based on the study results for this particular hypothesis. Employees will perceive SSG as a kind of psychosocial support in addition to positive emotions and attitudes for the role modes. People will therefore feel bound to repay the organisation and the leader by doing acts that benefit both (Baranik et al., 2010). People proactively participate in ways that benefit the collective (such as an organisation or work group) out of a sense of obligation that arises from fundamental concepts of reciprocal obligation and social exchange, according to literature on the development of responsibility in organizations (McAllister and Ferris, 2016).

In the present context, the study indicates that SSG cultivates a nuanced sense of commitment to assist the organisation in accomplishing its objectives, even in the event that an individual's benefits are lost. This, in turn, motivates staff members to engage in knowledge sharing. The greatest amount of research demonstrates how knowledge sharing directly contributes to the goals and accomplishments of the organisation in a way that is congruent with the moral principles that the SSG models and supports.

Felt obligation mediate the relationship between SSG and IWB

Examining the seven hypotheses allowed for the investigation of whether or not felt duty moderates the association between innovative work conduct and supervisor-subordinate guanxi. The results, which indicate that employees' sense of obligation acts as a mediator in the relationship between supervisor-subordinate guanxi and information sharing behaviors, support the acceptance of hypothesis 7. It was found that the outcome of this particular hypothesis was remarkable. According to this study, SSG both directly and indirectly influences employees' creative work habits through a sense of obligation. Workers who spend more time on social media platforms profit more from their involvement, according to the social exchange theory (J. Li., 2017).

Strong bonds with staff members promote trust and give them access to fresh chances for development and advancement. A greater sense of accountability among employees will improve job embedding, which will encourage employees to come up with, share, and use original ideas (HJ., 2014). According to the reciprocity principle, workers who feel obligated to their supervisor will also take actions that advance the development of the team and organisation. Social exchange theory states that when an organisation is treated fairly, its personnel express their sense of obligation to maintain a fair social exchange (Liang et al., 2012). When workers receive good treatment, they feel obliged to give back to the organisation and take the initiative to do so. This study is based on the concept that an employee's sense of duty may mediate the relationship between their voice and their innovative activity. When employees receive fair treatment, they react better, give more to the company, and come up with fresh ideas. According to the social exchange hypothesis, someone who gains from society could feel obligated to repay those who provide them (Blau, 1964).

Conclusion

The current study developed an area of the guanxi between supervisors and subordinates and its impact on the positive attitudes of workers in an organisation. It's considered the most important and popular topic of study to compete worldwide among all the new multinational firms in the world. The dissertation under investigation contends that relationships between subordinates and supervisors are the primary factor contributing to employees' positive views". This study adds to the body of research demonstrating how perceived duty functions as a mediating factor in the relationship between the subordinate and supervisor guanxi, knowledge-sharing, and innovative work practices. Data for this study's analysis were gathered through distributed questionnaires. The study and the theories it presents are supported by the application of social exchange theory. As there hasn't been enough research on how subordinate-supervisor guanxi affects positive employee attitudes, this study's primary contribution is the amount of information it has made public. knowledge exchange, creative working methods, and the duty of a mediator. H1, H2, H3, H4, H5, H6, and H7 are all compatible with the Pakistani configuration used in this experiment. It has been demonstrated that supervisor-subordinate guanxi predicts a wide range of social and psychological outcomes. Empirical study indicates that managers are more inclined to praise and promote workers with whom they get along well in the workplace (Law, 2010). Employees with higher supervisor subordinate guanxi perform better and display extra-role behaviors, which organizations value as human capital assets (Zejun Ma, 2023).

Theoretical Implications

Theoretical implications of the present work have been emphasized, which will help researchers in the future in their many fields of study. This study demonstrated the relationship between the positive employee behaviors—like sharing information and innovative work behaviors — and the subordinate-supervisor guanxi. Despite appeals for specific issues and research, we examine the Chinese concept of supervisor-subordinate guanxi in numerous national cultures. Overall, there have only been 31 empirical studies on the SSG phenomenon (Zejun Ma, 2023). Thus, in addition to the components that have already been looked at, this study will look into relationships between other factors. Many of the most significant gaps in the research are covered in the reasoning section above, which adds to the study's significance.

To have an impact on employees, employers must effectively manage their relationships with staff members. Maintaining objectivity and sincerity in day-to-day management can be facilitated by managers giving priority to the development of a strong SSG over accepting its cooperative role in employee conduct. From these findings, numerous theoretical implications follow. In order to understand how subordinate-supervisor guanxi encourages information sharing and innovative work practices among employees, this research first highlights the complementary nature of social exchange processes. Moreover, moral character has long been regarded as very important in Chinese social culture (Ling et al., 1987). The results show how advantageous supervisor-subordinate guanxi is and how important it is even in modern Chinese enterprises.

This study also shows that guanxi between superiors and subordinates fosters information sharing and innovative work practices among employees by instilling a strong sense of obligation to assist their supervisors or the organisation in accomplishing performance- or interest-related goals. Until date, managers have mostly ignored the possibility of promoting knowledge sharing among employees through social exchange-based processes. This study expands on the theoretical framework that scholars could apply to analyses this phenomenon. Our research shows that employees share knowledge and engage in creative work practices not just out of intrinsic moral ownership but also out of a sense of moral obligation or duty for the good of all. Third, this study

shows that although the guanxi between a supervisor and a subordinate affects information exchange and innovative work practices among staff members, the degree to which these relationships are strong is determined by felt obligation. When strong guanxi is present, subordinates usually understand the helpful behaviors of their superiors better. To support the expansion of their business, they will be more willing to share expertise and demonstrate innovative work practices.

Practical Implications

Companies ought to pay attention to our real-world outcomes. Organizations shouldn't enforce a definite ban on the production of SSG. Excellent SSG may be replicated in calm work situations. Employees will participate in a variety of dynamic work behaviors in addition to information sharing and the advancement of the innovation field. It is incumbent for supervisors to attend to and develop an employee's psychological well-being. Enhancing the psychological independence of workers is essential. By providing support, demonstrating gentle and caring effort, and cultivating a first-rate work environment, managers can contribute to its good advancement. First and foremost, companies should be concerned about the moral character of their leaders since supervisors set an example for their subordinates. Supervisors encourage employees to share knowledge for the good of the company rather than holding it to themselves for personal gain. Supervisors have a key position in the company, hence employers should exercise caution when selecting or identifying individuals who possess the attributes needed to be good role models (Ogunfowora et al., 2021). As a result, businesses can establish effective procedures and practices for choosing and promoting guanxi-possessed managers by implementing leadership development activities.

Second, by employing two distinct strategies to promote information exchange and innovative work practices, managers can help employees develop an inherent moral ownership and/or a sense of obligation to assist the business in accomplishing its objectives. It is imperative that leaders employ training and development initiatives to foster a sense of accountability and owner-mindedness among their employees. Managers should regularly evaluate their own leadership behaviors or approaches in order to motivate employees to actively offer their strength and expertise to the running and development of the business. In addition, they ought to try to lead above and beyond their own interests in order to promote the well-being and goals of the collective. This will eventually provide the business with a competitive advantage and result in success. Third, by giving leaders the training they require to become more aware of and capable of cultivating strong connections with subordinates, organizations should encourage the development of good leadership-subordinate relationships. As a result, creative work methods and employee knowledge sharing will be promoted. Organizations may host different events in the interim to provide executives more chances to interact and build relationships with their staff members. Everyday demands must be taken into consideration, open lines of communication must be actively established, employees must be given opportunity to take on difficult jobs, and leaders must inspire and motivate their team members to generate more innovative work.

Limitations of research

The research is typically subject to a few limitations, which prevents us from covering every aspect of our inquiry. This work has filled a knowledge gap by adding some insightful information to the body of literature. Time and financial limitations are just two of the restrictions that apply to this investigation. One of the primary drawbacks is convenience sampling. By means of convenience sampling, information is obtained at random from a large population. Consequently, the limited geographic reach, convenient sampling method, and small sample size of the current

study make it challenging for researchers to generalize the results. Though the sample size is small, the current study has several shortcomings that can be investigated further in the future by other researchers. The data came from only two cities in Pakistan: Rawalpindi and Islamabad. Secondly, the data was collected from a specific industry; however, as similar behaviors are common in all organizations, more research from a range of industries and sectors—including international firms in Pakistan—is needed for this study. Finally, many may question the impact of culture because the study was limited to Pakistan. Because Pakistan has more robust cultural effects, including those pertaining to collectivism and the altruistic attitude, it was selected for this study. Subsequent research findings may vary throughout nations and areas. Thus, future scholars can look into these relationships in different nations or communities. The main goal of this research is to determine how guanxi between superiors and subordinates affects employees' embeddingness personal behavior. A team may also be impacted by the guanxi that exists between managers and employees. Additional research may look into how SSG affects certain departments or groups. Additional investigation ought to focus on moderating variables as well as other potential mediating traits like job, workplace stress, and self-esteem.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be available on request.

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