

## **Study of Interrelationship between Social Network Ties and Shared-Goals for Knowledge-Sharing Intentions among Academia in Quetta City**

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### **ABSTRACT**

*Firms are eager to enhance the knowledge capital of their organization to remain competitive in turbulent market conditions. Workers' interaction with external and internal networks are considered a key factor in knowledge accumulation, dissemination, integration and sharing intention. Knowledge management scholars have unpacked several factors from leadership, organizational, personality, psychological and external network perspectives. However, internal networks like social network ties and shared-goals are catalyst for knowledge-sharing intention. The existing literature requires empirical verifications to examine the connection of social network ties and knowledge sharing intention from various sectors and context because the existing findings are contradictory. The goal of this study is to substantiate the impact of social network ties, shared-goals on knowledge-sharing intention with mediating effect of interpersonal-trust. Faculty members of three public sector universities operating in Quetta city were considered as target population who filled three hundred questionnaires. Regression approach was used to test hypotheses. Findings show that instrumental-ties, expressive-ties and shared-goals are positive and significant predictors of knowledge-sharing intention. Cognitive and affect-based trust significantly mediates the link between ties and knowledge sharing intention. Shared-goals became the most critical predictor of knowledge-sharing intention when the trust was considered a mediator.*

**Keywords:** Shared-goals, Instrumental-ties, Expressive-ties, Cognitive-trust, Affect-based trust and knowledge-sharing intention.

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## INTRODUCTION

Firms in the global village are striving hard to remain competitive in markets based on knowledge management initiatives (Mahdi, Nassar, & Almsafir, 2019; Torres, Ferraz, & Santos-Rodrigues, 2018). Though firms have plenty of knowledge acquisition options, research has identified that the most influential factor is knowledge-sharing among workers (Sonmez Cakir & Adiguzel, 2020). Thereby in knowledge-based economies, knowledge-based workers are replacing the regular, sequential workforce to meet competitive pressures (Ogunmokun, Eluwole, Avci, Lasisi, & Ikhide, 2020). Knowledge Management is achieved when firms create, integrate, accumulate, utilize and share knowledge via internal and external networks (Martins, Rampasso, Anholon, Quelhas, & Leal Filho, 2019).

Further scholars have documented voluminous literature on the benefits of KS, such as increased organizational performance (Asiaei & Bontis, 2019), creating innovative ideas (Mardani, Nikoosokhan, Moradi, & Doustar, 2018), effective organizational change (Gamble, 2020), foster business process (Bitkowska, 2020), group and team cohesiveness (Mutonyi, Slåtten, & Lien, 2020) and technological up-gradation (Ardito, Ferraris, Petruzzelli, Bresciani, & Del Giudice, 2019). Besides this literature, scholars have also unpacked factors and antecedents that foster knowledge-sharing behavior among coworkers (Ahmad & Karim, 2019; Bhatti, Vorobyev, Zakariya, & Christofi, 2020; Nguyen, Nham, & Hoang, 2019). In this regard, knowledge management scholars have focused on all aspects of KM, including technological inputs for database, networking, and different softwares to retain and distribute knowledge (Barros, Ferreira, do Prado, Piekarski, & Picinin, 2020). Though these electronic facilities help interact, researchers have argued that the prime source of knowledge is the worker responsible for creating, capturing, and sharing knowledge (Jarvenpaa & Staples, 2001; Nonaka & Toyama, 2015). Similarly, researchers have argued that knowledge management is not successful if it ignored the people associated with knowledge-sharing (Smedley, 2010), and also highlighted that 80% people and 20% technology contribute in knowledge management (Bruton, Dess, & Janney, 2007; Roberts, 2000).

Scholars consider the workers as a center of knowledge management initiatives; most prior research utilized the theory of reasoned action (TRA) developed by Ajzen and Fishbein (1973) to predict the intention to share knowledge (Hassandoust, Logeswaran, & Kazerouni, 2011; Tsai, Chen, & Chien, 2012). Scholars have utilized several approaches to unpack the factors contributing to knowledge-sharing behavior. These include; leadership approaches (Mishra & Pandey, 2018; Park & Kim, 2018), organizational culture (Hendriks, 2004; Jo & Joo, 2011; Kathiravelu, Mansor, Ramayah, & Idris, 2014), trust (J. H. Cheng, Yeh, & Tu, 2008; Kuo, 2013), participation at workforce (Amin & Rubel, 2020), perceived organizational justice (Hameed et al., 2019), reward-motivation practices (Bartol & Srivastava, 2002), a sense of self-worth (Wang & Noe, 2010), organizational climate (Razzaq, Rehman, Dost, & Akram, 2017). Further scholars move their attention on socio-cognitive factors that promote knowledge sharing (Farzaneh, Mehralian, & Isaai, 2020). Wong and Aspinwall (2005) argued that organizational knowledge is generated if employees establish a long-term positive relationship. Similarly, Chow and Chan (2008) have substantiated that relationship is the critical building

block of knowledge-sharing behavior among coworkers. Moreover, several authors have documented that social capital is also a critical factor in knowledge-sharing behavior if employees trust organizational and leadership practices (Aslam, Shahzad, Syed, & Ramish, 2013).

Coworkers work in social environment where knowledge is generated based on quality of social interactions relationships' psychological processes and nature become critical drivers of these social interactions among coworkers (Nguyen, 2020). Scholars consider psychological bonding of subordinates with leaders triggers knowledge-sharing behavior (Le & Lei, 2019; Xue, Bradley, & Liang, 2011). However, the nature of coworkers' relationships also triggers knowledge-sharing behaviors (Vuori, Helander, & Mäenpää, 2018). The social network theory explains that the nature of the relationship among coworkers determines work quality and quantity (Krause, Croft, & James, 2007). Thereby, theoretical underpinnings of link between social network influence on knowledge-sharing behavior need experimentation among diverse industries (S. H. Han, Yoon, & Chae, 2020). While research has extensively focused on commercial on commercial enterprises and environments (Soekijad & Andriessen, 2003). Scholars have developed their keen interest in public sector organizations, especially in public sector universities, with relatively limited empirical verifications (Elezi & Bamber, 2018). The underlying reasons to study universities is because universities are considered the hub of knowledge creation, the center of excellence for research institutions, collaborate and transfer knowledge to the private sector for increased profits, contribute to generating innovative ideas and innovation, and disseminate knowledge through training programs (Shahid & Naveed, 2020). Regarding knowledge-sharing behavior, the university faculty members also create volunteer networks for their research, innovation, and development. Other universities also establish teams and groups for several projects in which social network quality facilitates knowledge-sharing behavior (Fauzi, Tan, Thurasamy, & Ojo, 2019).

In public sector universities, faculty members are interested in the top because they want to attain promotional opportunities, acquire authoritative positions and become a (Al-Kurdi, El-Haddadeh, & Eldabi, 2018) reputable universities (Muqadas, Rehman, & Aslam, 2017). Further, faculty members also become a crucial part of knowledge creation, dissemination, and collaboration with other coworkers to benefit (Al-Kurdi et al., 2018). These social interactions develop behavior towards knowledge sharing (M.-Y. Cheng, Ho, & Lau, 2009). Further faculty members participate in international conferences, conducting seminars and webinars, workshops and training, and guidance (Álvarez, Guasch, & Espasa, 2009). These knowledge-based activities require supportive culture (Hendriks, 2004), good working relationships (Mardani et al., 2018), and personnel interest (Hameed et al., 2019). These activities help explore tacit-knowledge and then combine it with explicit knowledge to generate a new form of knowledge.

Therefore, it would contribute to existing knowledge-sharing behavior literature by examining the effect of social networks and shared-goals on knowledge-sharing intention among faculty members of public sector universities. This relationship is mediated if coworkers' trust (cognitive, affect) is present. In academia, knowledge-sharing intention is important because universities ask their faculties to create quality resources and expertise. These quality resources are enriched when researchers collaborate and share their

knowledge. As the quality and type of social network are different among coworkers due to their cultural, educational, and religious backgrounds (Park & Kim, 2018), which type of social network and shared-goals increase or decrease the knowledge-sharing intention is still undertheorized. Thus, this research aims to empirically substantiate the relationship between social network ties, shared-goals, trust (cognitive-affect), and knowledge-sharing intention among faculty members of higher education institutions.

## **Literature Review and Hypothesis Development**

### **Social Network Ties and Shared-Goals for Knowledge-Sharing Intention**

Social network tie provides an appropriate mechanism for interaction among colleagues. Most of the time, workers do not have understanding with all workers, but they actively communicate for the official reasons. Scholars argue that active communication fosters the process of sharing knowledge and innovation (Wasko & Faraj, 2005). The question arises of why the workers share their valuable knowledge with those having different nature of social network ties. According to Morrison (2002), social network ties are explained as a pathway by which knowledge flows. Social network ties can be a form of link between two individuals or parties, and these ties determine the nature of relationships. Many researchers explained the importance of social network ties in knowledge-sharing intention. Chen, Chen, and Kinshuk (2009) introduced the mobile learning management system with the help of which small group can learn by interacting with each other. Lin and Lo (2015) examined that social network ties positively relate to resource sharing. S.-h. Han, Grace Oh, and “Pil” Kang (2022) explained that this is all due to social network tie, which promotes a person's intentions in knowledge-sharing. According to Choi and Scott (2013) social network ties become a platform with the help of which knowledge will be shared online and offline. Granovetter (1973) first explained the strength of a bond by how much members invest their time, fix their emotions, and build close relationships. Thus the bond will be stronger. Koranteng and Wiafe (2019) also explained that if the frequency of interaction is increased, a considerable amount of knowledge will be shared. From above studies, it is assumed as follows;

The social capital approach is a profound perspective that explains the knowledge-sharing intention. When workers are engaged for shared-goals, the likelihood of their interest to attain goals is higher. This shared goal creates an atmosphere based on knowledge discussion that facilitates the communication flow (Chow & Chan, 2008). Resultantly, members are optimistic and curious to attain shared-goals where all workers would gain the same benefit. This positive attitude creates the cohesive bonding among workers and enables them to trust each other (Faith & Seem, 2018). Though all workers work for their self-interest; however, when workers have shared-goals having common interest, their knowledge contribution level is triggered. As a result, workers share their tacit and explicit knowledge to achieve mutual goals (Chow & Chan, 2008). An organization shares goals through collaboration, and knowledge-sharing initiates the program. People who believe in shared-goals as a force can share whatever they know. In all those organizations with shared-goals, teamwork and knowledge-sharing intention are the only means to achieve them (Kremer, Villamor, & Aguinis, 2019). Chow and Chan (2008) examined that a shared goal shares the joint goals and ambition of the individuals of an organization. In many organizations, shared-goals are a method with the help of which the head of the

organization holds and integrates all employees to organizational resources (Alsaadi, 2018). All those who share a goal can make allies with those with whom he/she can do sharing of resource information (Alsaadi, 2018). Shared values and goals hold individuals in the networks and allow them to cooperate in a better way in knowledge-sharing, and in the end, the overall organization will succeed as a whole. It is assumed that

**H1:** *social network ties is positively linked with knowledge sharing intention*

### **Mediating Role of Interpersonal Trust between Social Network Ties, Shared-Goals and Knowledge-Sharing Intention**

According to Morgan and Hunt (1994), when members of any community trust each other the likelihood of bonding is increased that leads to sustainable affiliation. When member is committed it is likely to be engaged. Thus, when members of any organization have trust on each other their propensity to share knowledge is increased. As the social network ties are instrumental and expressive in nature, it effects the interpersonal trust. When member of organization has professional ties (instrumental), their intensity for trust is weaker as compare to friendship (expressive-ties). When members hold professional affiliation, they bound themselves to limited sharing of knowledge only relevant to particular work or project. In such conditions when interpersonal trust is strengthening the likelihood of sharing knowledge is increased. Trust is essential, which will boost the confidence level between members in sharing knowledge and result in a positive outcome (Morgan & Hunt, 1994). Thereby nature of social network ties promotes interpersonal trust among employees, whether cognitive or affect-based interpersonal trust (J. H. Cheng et al., 2008). Eventually, it can encourage knowledge-sharing intention between both parties sharing and with whom knowledge is to be shared. Earlier research has highlighted that social network ties promote interpersonal trust (Lin & Lo, 2015). Cognition-based Interpersonal trust is developed between trustees and trustier on work-related evidence of past performance that shows the person is reliable and qualified (Ogunmokun et al., 2020). Like an instrumental-tie, a relationship focuses on all those issues related to work and can communicate work-related knowledge in an effective manner (Chow & Chan, 2008).

Similarly, the expressive-ties (friendship) also have linked with work-related information sharing (Chow & Chan, 2008). When workers engage for a particular task, the existing friendship network create the positive cognition among workers which eases the communication flow and subsequently sharing of knowledge (Mayer, Davis, & Schoorman, 1995). Expressive networks always show the people who are similar in many aspects, such as the same background, status and knowledge (Manev & Stevenson, 2001). As a result, it becomes a homogenous network. In this case, vast amounts of data are overlapping and not functional (Reagans & Zuckerman, 2001). The underlying reason for cognitive ease is the emotional connection that is established in friendship networks (Naeem, Mirza, Ayyub, & Lodhi, 2019). When emotional connection among workers is established, it promotes the affect-based trust among them. Thereby within expressive-ties the affect-based trust is activated that increase the intensity of knowledge-sharing.

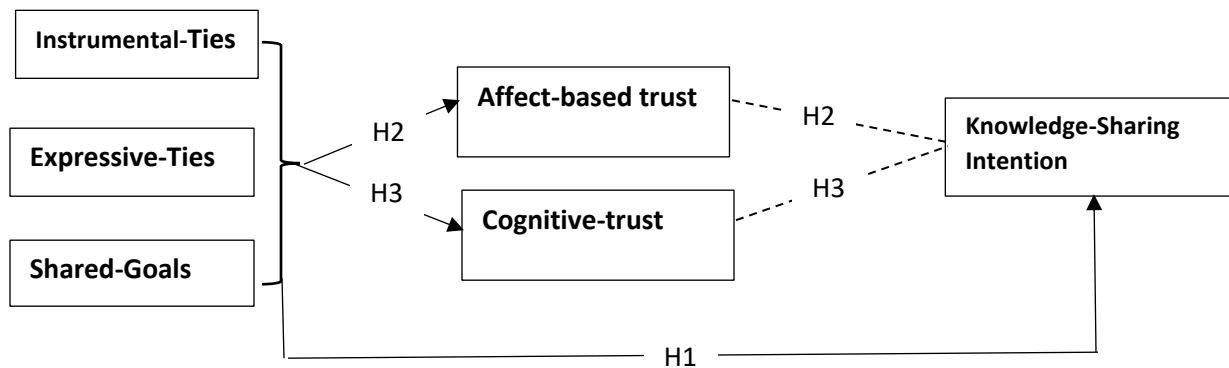
Moreover, the link between instrumental-ties and affect-based trust can be assumed because during work related matters, workers with same interest can create the friendship bonding that could facilitate the knowledge-sharing. The earlier research demonstrate that

affect-based trust is higher in expressive-ties as compare to instrumental-ties (Chow & Chan, 2008). It is hard to obtain practical knowledge from homogenous networks (Hansen, 1999). On the other hand, in the instrumental network, there is heterogeneity (Manev & Stevenson, 2001). Due to heterogeneity, there is variety in the knowledge obtained and much of the knowledge in a functional expressive-tie is more beneficial due to the quality of transfer position as compared with an instrumental-tie. The expressive-tie makes a better channel for tacit knowledge-sharing intention. An instrumental-tie is due to heterogeneity in nature and having much variety and helpful knowledge (Chow & Chan, 2008). This quality will make Instrumental-ties more efficient than expressive-ties in sharing explicit knowledge. While Grant (1996) also shares the same concept that informal coordination is more efficient in sharing tacit-knowledge than instrumental, which is an example of formal coordination. Willem and Scarbrough (2006) examined that further with the help of the degree of complexity. He shared his view that whenever the complexity of shared knowledge is low, an instrumental-tie is an efficient channel in knowledge-sharing intention.

Previous studies empirically reflect that shared-goals is critical for establishing interpersonal trust (Chow & Chan, 2008). Shared-goals creates the psychological bonding among workers because workers think that all are working for same goals and thereby knowledge-sharing is essential to achieve the target. This positive perception towards each other makes easy to forecast the actions of other members. When each worker establishes that the other actions are for same goals and they are not projecting their self-interest, it increases the intensity of trust. Similarly, Kuo (2013) verifies that individuals tend to trust the members who share the same goals. Hardly ever in the same way, knowledge is received and interpreted in the same way as the sender wants to do (Husted & Michailova, 2002). Only with the help of which proper sharing occurs in both parties between whom the knowledge is shared viewer share context (Mäkelä & Brewster, 2009) which can have developed by shared-goals. In this context, it is also essential who has trust and who will provide knowledge (Abrams, Cross, Lesser, & Levin, 2003). A previous study also explained that a shared-goal is helpful for effective knowledge-sharing (J. H. Cheng et al., 2008). Further research shows that shared-goals become more explanatory for knowledge sharing when trustworthiness is present (Guerrero, Mendes de Leon, Evans, & Jacobs, 2015). It is examined by many researchers that there is a positive relationship between shared-goals and perceived trustworthiness (Chow & Chan, 2008). Thus, it is hypothesized that

**H2:** *Affect-based trust mediates link between social network ties, shared-goals and knowledge sharing intention*

**H3:** *Cognitive trust mediates link between social network ties, shared-goals and knowledge sharing intention*



## METHODOLOGY

In order to examine the objective of the study, i.e., the impact of instrumental-ties, expressive-ties, and shared-goals on knowledge-sharing intention with mediating effect of cognitive-trust and affect-based trust, the quantitative research has opted. Quantitative research is suitable because testable assumptions are derived based on earlier theoretical grounds require statistical verification (Roni, Merga, & Morris, 2020). Under quantitative research, several research designs are available, such as experimental, quasi-comparative, descriptive and relational, and historical (Lazaraton, 2005; Roni et al., 2020). The descriptive and relational design has been opted for this study because it provides a guideline to conduct a survey in a natural setting and subsequently test the hypotheses statistically. The targeted population was the faculty members of higher education institutions operating in Quetta city. Through a convenience sampling approach, three hundred self-administered questionnaires were distributed and returned among different faculties in three higher education institutions in Quetta city. The data was obtained with prior approval of departmental heads.

Knowledge sharing intention is measured through validated scale (Bock, Zmud, Kim, & Lee, 2005), Interpersonal trust (Xie & Li, 2021), social networks (Lee, Kim, & Choi, 2019), and shared-goals (Chow & Chan, 2008) on 5-point agreeableness scale.

## RESULTS

Table 1 shows the sample characteristics of respondents. The gender reflects that males were 51% and females were 49%, showing the equal participation of males and females. The age distribution shows that most respondents belong to the 41-50 years' category, followed by 18-40 years. Education distribution shows that most respondents had MS/MPhil degrees leading to Ph.D. In this study, three public sector universities have been selected for data collection from the faculty members. Respondents designation range included Lecturer, Assistant Professor, Associate Professor & Professor. The total Lecturer were around 1439 and on the basis of scientific criterion sample of each was calculated which was 118 from University of Balochistan, 52 from Sardar Bahadur Khan Women University and 130 from BUIITEMS- Balochistan University of Information technology, Engineering and Management Sciences with total 300.

**Table 1**  
**Sample Characteristics**

| Variable  | Category       | Percentage | Total (300-Resp) |
|-----------|----------------|------------|------------------|
| Gender    | Male           | 51.3       | 154              |
|           | Female         | 48.7       | 146              |
| Age       | 18-30 years    | 24.3       | 73               |
|           | 31-40 years    | 20.7       | 62               |
|           | 41-50 years    | 42.7       | 128              |
|           | Above 50 years | 12.3       | 37               |
| Education | Masters        | 17.7       | 53               |
|           | MS/M.Phil.     | 62         | 186              |
|           | PhD            | 20.3       | 61               |

**Table 2**  
**Convergent Validity and Reliabilities**

| Variables                     | Reliability-Items        | The average variance extracted (AVE) |
|-------------------------------|--------------------------|--------------------------------------|
| Knowledge-Sharing Intention   | .85 (05)                 | .748                                 |
| Instrumental-Ties             | .85 (04)                 | .738                                 |
| Expressive-Ties               | .92 (03)                 | .765                                 |
| Shared-Goals                  | .86 (06)                 | .749                                 |
| Interpersonal Cognitive-Trust | .89 (04)                 | .738                                 |
| Interpersonal Trust           | Affect-based<br>.92 (07) | .744                                 |

Table 2 highlights the reliabilities and average variance extract (AVE) of all variables used in this study. The reliability was calculated through Cronbach's alpha whose value must be greater than .60. The reliability values of all variables are more significant than .60, thereby establishing reliability. Further convergent validity is ensured through criteria of Average-Variance extract, whose value must be greater than .50 (Hair Jr & Sarstedt, 2021). The AVE values of variables are more significant than .50, which establishes convergent validity (Bell, Bryman, & Harley, 2018).



**Table 3: Correlations and Descriptive Statistics**

| Pearson correlations                | Mean | S.D  | 1          | 2          | 3          | 4          | 5          | 6          |
|-------------------------------------|------|------|------------|------------|------------|------------|------------|------------|
| 1. Knowledge-Sharing Intention      | 4.19 | .392 | <b>.86</b> | .450**     | .200**     | .651**     | .290**     | .390**     |
| 2. Instrumental-Ties                | 4.15 | .621 |            | <b>.86</b> | .719**     | .702**     | .507**     | .551**     |
| 3. Expressive-Ties                  | 3.94 | .958 |            |            | <b>.86</b> | .767**     | .486**     | .487**     |
| 4. Shared-Goals                     | 4.15 | .561 |            |            |            | <b>.86</b> | .727**     | .696**     |
| 5. Interpersonal Cognitive-Trust    | 4.26 | .502 |            |            |            |            | <b>.86</b> | .38**      |
| 6. Interpersonal Affect-based Trust | 4.25 | .502 |            |            |            |            |            | <b>.86</b> |

*Note: Correlation is significant at the .01 level (2-tailed); diagonal values are the square root of AVE*

Table 3 shows the descriptive and correlation values. The descriptive (mean and standard deviation) values for knowledge-sharing intention, Instrumental-ties, expressive-ties, shared-goals, cognitive-trust, and affect-based trust are near the agreeableness scale. It reflects that the respondents have observed all variables within the organizational environment.

Moreover, discriminant validity is ensured via two methods. The first method was proposed by O'Reilly III, Chatman, and Caldwell (1991), i.e., the predictors should have a weak correlation with each other and the second method was suggested by Fornell and Larcker (1981), i.e., co-relation values are smaller than values of the square root of AVEs of each construct (Henseler, Ringle, & Sarstedt, 2015). Table 3 reveals that the correlation between predictors (Instrumental-ties, expressive-ties, shared-goals, cognitive-trust, trust-affect) has a positive, significant, and high correlation. Though correlation is high among predictors, the square root values of AVEs (presented in diagonal) are higher than correlation values. Thus, the discriminant validity is present.

Furthermore, the predictive validity is checked via the correlation between predictors (Instrumental-ties, expressive-ties, shared-goals, cognitive-trust, trust-affect) and outcome (knowledge-sharing intention). The correlation values show a significant positive relationship between all predictors and outcome variables. The highest correlation was found between knowledge-sharing intention and shared-goals (.651\*\*) and the knowledge sharing intention with expressive-ties is having low correlation. It shows that the shared-goals and instrumental-ties are critical for knowledge-sharing intention within higher education institutions.

For hypotheses testing, regression statistics were used. For H1 the Multiple linear regression analysis was used because, in these hypotheses, there were three predictors and one dependent variable. Results in Table 4 shows the predictors (Instrumental-ties, expressive-ties, shared-goals) are positively significant with knowledge-sharing intention

( $R^2 = .34$ ,  $p, .00 < .05$ ). The coefficient values show that shared-goals and Instrumental-ties are higher in knowledge-sharing intention as compared to expressive-ties. As all the predictors are significant, thereby H1 is accepted.

Table 4: Results of Multiple Regression

| Hypothesis | F-statistics<br>(p-value) | R-Square | Coefficients<br>(Beta) | T-statistics<br>(p-value) | Decision | Note: ** |
|------------|---------------------------|----------|------------------------|---------------------------|----------|----------|
| H1         | 51.65 (.00)               | .34      | .20** (INS)            | 6.83 (.03)                | Accept   |          |
|            |                           |          | .06** (EXP)            | 3.02 (.02)                |          |          |
|            |                           |          | .20** (SHG)            | 4.23 (.04)                |          |          |

significant at .05 level. INS=Instrumental-ties, EXP= expressive-ties, SHG=Shared-goals

The mediation hypotheses H2 and H3 were tested through Hayes Process Model 4 with bootstrapping resample 5000 and 95% confidence interval (Preacher & Hayes, 2008), the highly preferred approach for mediation (Kim et al. 2015). The condition for mediation is that zero is not present between lower and upper interval, all paths must be significant for mediation (MacKinnon, 2008). Table 5 represents that the path between instrumental-ties, expressive-ties, shared-goals, and cognitive-trust and affect-based trust are positive and significant—further, the path is significantly positive between affect-based trust and intention to shared knowledge. Moreover, the direct path between instrumental-ties, expressive-ties, shared-goals, and knowledge-sharing intention is positive and significant. For mediation, when cognitive-trust is added as a mediator, the indirect coefficient between instrumental-ties and knowledge-sharing intention increased (.20\*\* to .23), expressive-ties and knowledge-sharing intention increased (.06\*\* to .08), and shared-goals and knowledge-sharing intention decreased (.20\*\* to .15). These results represent that the cognitive-trust is positive mediator for (instrumental-ties, expressive-ties, shared-goals) and knowledge-sharing intention. Hence H2 is accepted. For H5, the trust-affect was added as a mediator, the indirect coefficient between instrumental-ties and knowledge-sharing intention reduced (.20\*\* to .13), expressive-ties and knowledge-sharing intention increased (.06\*\* to .09), and shared-goals and knowledge-sharing intention reduced (.20\*\* to .19). All indirect paths were significant, containing zero between lowest CI and upper CI. Thereby it shows the significant mediation. Thus, H3 is accepted.

Table 5

Results of Multiple Regression and Mediation Analysis

| Variables | Outcome | R <sup>2</sup> | F-value | P   | Coefficient | S.E | T     | LICT | UICT |
|-----------|---------|----------------|---------|-----|-------------|-----|-------|------|------|
| Constant  |         |                |         |     | 2.12        | .17 | 11.93 | 1.77 | 2.47 |
| ant       |         | .54            |         | .00 |             |     |       |      |      |

|                            |                        |                |     |       |     |       |     |      |
|----------------------------|------------------------|----------------|-----|-------|-----|-------|-----|------|
| Instru-<br>mental<br>-ties | Cognitive-<br>Trust    | 116.8<br>9     |     | .40** | .04 | 10.14 | .33 | .48  |
| Expres-<br>sive-<br>ties   |                        |                |     | .25** | .02 | 9.62  | .20 | .30  |
| Shared<br>-Goals           |                        |                |     | .65** | .03 | 18.27 | .58 | .72  |
| Instru-<br>mental<br>-Ties | Affect-<br>based trust | .50 101.0<br>9 | .00 | .44** | .03 | 11.44 | .36 | .52  |
| Expres-<br>sive-<br>Ties   |                        |                |     | .25** | .02 | 9.60  | .20 | .30  |
| Shared<br>-Goals           |                        |                |     | .62** | .03 | 16.72 | .55 | .69  |
| <b>Const-<br/>ant</b>      | Knowledg-<br>e-        |                |     | 1.06  | .22 | 4.63  | .61 | 1.51 |
| Instru-<br>mental<br>-Ties | SharingInt-<br>ention  | .34 51.65<br>9 | .00 | .20** | .03 | 6.83  | .16 | .29  |
| Expres-<br>sive-<br>Ties   |                        |                |     | .06** | .02 | 3.02  | .02 | .11  |
| Shared<br>-Goals           |                        |                |     | .20** | .04 | 4.23  | .11 | .30  |

|                         |         |                                  |       |     |      |     |     |
|-------------------------|---------|----------------------------------|-------|-----|------|-----|-----|
| Cognitive-Trust         |         |                                  | .34** | .04 | 7.86 | .25 | .42 |
| Affect-based Trust      |         |                                  | .29** | .04 | 7.06 | .21 | .38 |
| <b>Indirect Effects</b> |         |                                  |       |     |      |     |     |
| Cognitive-Trust         | INS_KSI | B-value Increased (.20** to .23) | .02   |     |      | .06 | .15 |
|                         | EXP_KSI | B-value Increased (.06** to .08) | .01   |     |      | .05 | .12 |
|                         | SHG_KSI | B-value Reduced (.20** to .15)   | .03   |     |      | .08 | .22 |
| Affect-based Trust      | INS_KSI | B-value Reduced (.20** to .13)   | .02   |     |      | .08 | .19 |
|                         | EXP_KSI | B-value Increased (.06** to .09) | .01   |     |      | .06 | .13 |
|                         | SHG_KSI | B-value Reduced (.20** to .19)   | .03   |     |      | .11 | .27 |

Note: beta is significant at  $p < .05^{**}$

## DISCUSSION

The proposed research model provides a framework for understanding knowledge-sharing intention in higher education institutions. The positive and significant relationship between Instrumental-ties, expressive-ties, shared-goals, and knowledge-sharing intention suggests that social networks positively affect higher education institutions. The magnitude of each predictor reveals that instrumental-ties impact knowledge-sharing intention more than expressive-ties and shared-goals. This magnitude is changed when the cognitive-trust and affect-based trust are added as mediator. When trust is added, the shared-goals become a more significant predictor of knowledge-sharing intention. The earlier studies from various contexts reveal similar and contrasting results. For instance, a study conducted by Bock et al. (2005) which is experimented on 30 organization shows that social ties manipulate more knowledge-sharing intention. Social network ties & knowledge-sharing intention both has positive relationship with each other. According to Chen & Yang (2007) once an individual make a relation then he/she feel more easy to share their knowledge with each other. Our finding is also supported by Chen & Yang (2007) study.

Empirical findings of this research shows significant link between network ties and trust. Expressive and instrumental-ties both have significantly linked with each facet of trust (cognitive and affective). Expressive is more connect with trust. This is also supported by previous study (Gibbons, 2004). The mediating affect of trust correspondes with earlier study of Levin and Cross (2004).

It has been observed that the influence of social network ties on knowledge transfer is significant by looking at their indirect and total effects. In light of the confirmation of H3, it is emphasized that the instrumental-ties can facilitate knowledge transfers regardless of whether a trust is managed or not; nevertheless, expressive-ties are a double-edged sword. One advantage of these ties is their high level of reliability, as previously stated but there are also drawbacks such as duplication, time constraints, quality of network and huge data set (Hansen, 1999; Willem et al., 2006). When trust is abused, the unfavorable aspects of expressive-ties emerge. It has a vast and harmful impact on explicit-knowledge transmission. Expressive-ties tend to be overused in knowledge transfer courses because of inherent disadvantages. Finally, instrumental-ties is better than expressive in overall explanation. The reason is that instrumental-ties reduces the barriers for knowledge like less and distorted information. There is little doubt that the use of Instrumental-ties dominates information transfer. Despite the hypothesis, where expressive shows better magnitude than the effect of the instrumental-tie when tacit knowledge is strong. Tacit knowledge cannot be shared effectively through an informal or formal network (Willem et al., 2006). In some academic circles, "practice sharing" is a necessary component of tacit-knowledge transfer (Brown and Duguid, 2001). However, it does not ensure "practice sharing," even though the expressive relationship increases trustworthiness and encourages more intimate engagement.

## **THEORETICAL AND PRACTICAL IMPLICATIONS**

The finding of this study contributes empirically to theoretical debates among scholars regarding literature on knowledge-sharing intention that is spanned multiple perspectives. The earlier contribution in literature is from the leadership, personality, organizational and psychological factors. This study argues that the social network perspective is another viable factor in explaining knowledge-sharing intention in academic institutions. The findings indicate that instrumental-ties, expressive-ties, and shared-goals positively contribute to explaining knowledge-sharing intention. Both expressive and instrumental network ties have a considerable favorable impact on trust constructs based on cognition and emotion. When building affect-based trust instead of cognition (i.e., how one feels about someone), the expressive connection appears more critical than the instrumental link, even though it was not discussed that how powerful it is. These findings bolster earlier research showing that expressive-ties are more trustworthy than instrumental ones (Gibbons, 2004). According to this study, the intention to transfer knowledge is also facilitated by the trust. When trust is taken into account, the indirect effect of social ties on the transmission of knowledge is significant and positive. When trust is taken into account, the positive and significant effects of both explicit and tacit knowledge transfer are even more apparent. Our understanding of trust's function in information transfer can be bolstered by the logic of Baron and Kenny (1986). In line with past research, this finding supports the hypothesis being put out (e.g., Levin and Cross, 2004). A surprising discovery is that when knowledge is explicitly stated, trust-based on cognition does not substantially impact the transfer of that knowledge. In another way, Levin and Cross (2004) found that trust is crucial when tacit information is conveyed. Our research supports that conclusion, which shows how cognitive trust may not be necessary when knowledge is explicitly conveyed.

Research has various stakeholders that are connected with the outcomes of research. The findings are relevant to faculty members, higher education institutions and research scholars within the domain of practical implications. The research is about the knowledge-sharing intention among higher education institutions where the instrumental-ties, expressive-ties and shared-goals work as predictors of knowledge-sharing intention. These research findings exhibit that faculty members' intention to share knowledge increases when expressive-ties and shared-goals increase. It indicates that the faculty members' community should develop their teams with those faculty members who have expressive-ties and shared-goals. For instance, faculty members can create a group to launch a research journal, publish research articles and develop case-studies. These groups can be within institutions and across various departments.

Moreover, higher education institutions can establish groups of those people who have expressive-ties and shared-goals. It will help to improve the ranking of higher education institutions. Further, higher education institutions can create a platform where the faculty members can join those platforms to create knowledge. Hence this process would be helpful to ignite the intention of faculty members to share knowledge. Overall higher education institutions would develop a culture of knowledge-sharing among faculty members. Within departments of higher education institutions, faculty members need to create an environment of cognitive and affect-based trust. The knowledge-sharing intention increases when the cognitive trust and affect-based trust are operational. Though all members have diverse cultural and educational backgrounds, their shared-goals intensity and expressive-ties could be helpful to generate trust among faculty members.

## **LIMITATIONS AND FUTURE RESEARCH DIRECTION**

As every research holds certain limitations, thus this study also has observed a few limitations. The first limitation is linked to research design. This study opted for descriptive and relational design because the independent variables could not be manipulated. In order to check the cause-effect relationship within the descriptive and relational design, the quality of causality is weakened despite all the statistical procedures to ensure the reliability, validity and hypotheses testing are applied. It is recommended that future research apply the quasi-comparative design to check the impact of instrumental-ties, expressive-ties, and shared-goals on knowledge-sharing intention among faculty members of higher education institutions.

Moreover, these social network ties could be tested across several groups based on gender and ethnicity. The second limitation is about the sampling design. The best suitable sampling design for quantitative research is the probability design, where respondents are chosen randomly. This study chooses the convenience sampling design which is a nonprobability design because the higher education institutions of Quetta did not provide a proper updated sampling frame. Thereby, it is recommended that future research can be conducted using the appropriate probability design to test the hypotheses significance. Third limitation of the study is linked to the generalizability of the findings. The study was carried out only in Quetta which is quite culturally enriching and holds the conventional lifestyle that makes different strata from metropolitan cities. Thereby the findings could not be fully generalized to larger populations. However, future research could be carried out in different cities where knowledge-sharing intentions could be linked with

conventional versus modern societies. The fourth limitation is about the nature of the organizations in which research was conducted. This study was carried out only in public sector universities, limiting the findings' generalizability. As private universities hold different organizational cultures and competitive environments, thus future research could be carried out to compare the knowledge-sharing intention between public and private universities.

## CONCLUSION

The purpose of this research was to substantiate the impact of instrumental-ties, expressive-ties and shared-goals on knowledge-sharing intention keeping the trust (cognitive and affective) as mediator. Findings show that instrumental-ties, expressive-ties and shared-goals are positively linked with knowledge-sharing intention, cognitive trust and affect-based trust. Moreover, the cognitive trust and affect-based trust significantly mediates the relationship between Instrumental-ties, expressive-ties and shared-goals. This study concludes that instrumental-ties are most important predictor of knowledge-sharing intention among faculty members. Furthermore, the shared-goals and expressive-ties are more significant predictor for cognitive trust and affect-based trust. When cognitive trust is mediated between instrumental-ties and knowledge-sharing intention the strength of relationship is decreased and when affect-based trust is mediated between instrumental-ties and knowledge-sharing intention the strength of relationship is increased. Thereby when faculty members have the project-based relationship thereby the shared-goals and formal networks improve the knowledge-sharing intention. Moreover, cognitive-trust and affect-based trust significantly mediates between expressive-ties, shared-goals and knowledge-sharing intention.

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