

### Economic Research-Ekonomska Istraživanja



ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/rero20

# Knowledge of the situation, social network and knowledge sharing in Peshawar University: an empirical study

#### Rabia Ishrat & Wali Rahman

To cite this article: Rabia Ishrat & Wali Rahman (2020) Knowledge of the situation, social network and knowledge sharing in Peshawar University: an empirical study, Economic Research-Ekonomska Istraživanja, 33:1, 752-768, DOI: 10.1080/1331677X.2020.1718521

To link to this article: <a href="https://doi.org/10.1080/1331677X.2020.1718521">https://doi.org/10.1080/1331677X.2020.1718521</a>

9	© 2020 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
	Published online: 12 Mar 2020.
	Submit your article to this journal 🗗
ılıl	Article views: 455
Q <sup>N</sup>	View related articles 🗗
CrossMark	View Crossmark data ☑
4	Citing articles: 1 View citing articles 🗗







## Knowledge of the situation, social network and knowledge sharing in Peshawar University: an empirical study

Rabia Ishrat and Wali Rahman

Department of Business Administration, Sarhad University of Science and IT, Peshawar, Pakistan

#### **ABSTRACT**

Disseminating and sharing of knowledge is the corner stone of knowledge economy. It is, therefore, imperative to know the factors which could be instrumental in this distribution. The purpose of this research is to understand the relative importance of knowledge-sharing factors such as knowledge of the situation and social network (SN) on knowledge sharing in University of Peshawar. Data from 244 randomly selected respondents from the target population has been collected through a questionnaire. The questionnaire was tested for its validity and reliability. Multiple regression analysis has been employed to test hypotheses of the study. Findings indicate that knowledge of the situation and SN both are positive and significant predictors of knowledge sharing. However, among the two, SN happens to be a stronger influential factor within the overall model. This research addresses the gap on knowledge sharing in general and in Universities in particular which appears sparse. As a social research, the study has its limitations. This article contributes to the theoretical integration of Attitude-to-Behaviour process model and social capital and put to empirical testing on regional data. Organisations working on knowledge transfer programs may get benefit from the findings of this research. Recommendations for further research have also been provided.

#### **ARTICLE HISTORY**

Received 12 December 2018 Accepted 13 January 2020

#### **KEYWORDS**

Knowledge sharing; attitude-to-behaviour process model; social capital; knowledge of the situation; social network; Peshawar University

#### 1. Introduction

The old adage 'knowledge is power' still holds. It is a key and critical factor for organisational success (Khan, Miah, & Manzoor, 2014; Oufkir, Fredj, & Kassou, 2017), the existence of sufficient amount of knowledge enables organisations to excel (Fauzi, Tan Nya-Ling, Thurasamy, Oluwaseyi Ojo, & Shogar, 2019), is instrumental in value creation, strategy development and market competitiveness. It is one the most valued human capital and strengthening this capital leads to innovation and creation of new avenues for the developments of organisations (Rahman, Rahman,

Khan, & Anwar, 2016). It is the management of this knowledge that ensures effective and efficient utilisation of organisational resources (Davenport & Prusak, 1998; Zboralski, 2009). Knowledge management plays vital role in providing directions to properly utilise knowledge resources for better functioning of an organisation. This focus on knowledge has caused the shift from dependency on natural resources to intellectual assets (Omotayo, 2015). However, this theoretical recognition has to be complemented by its actual application. This paradigm shift has exposed organisations to a knowledge challenge of how to create, disseminate and use knowledge (Vines, Jones, & McCarthy, 2015). Coping with this challenge has now become the question of survival for any organisation. In other words, organisations' dependency on knowledge has got intensified. It is, therefore, important to integrate the current knowledge of the employees and creation of new knowledge for the purpose to enhance the success of an organisation (Lin, 2007; Teigland, 2003). Knowledge management deals with the discovery of knowledge, capturing knowledge, processing the knowledge and then finally sharing of knowledge (Meihami & Meihami, 2014). Within these four components of knowledge management (KM), knowledge sharing is considered an important component that plays a vital role in the development of an organisation (Lee, 2001; Shin, 2004).

'An organization's ability to effectively leverage its knowledge is highly dependent on its people, who actually create, share, and use the knowledge' (Ipe, 2003, p. 341). To strengthen this ability of an organisation, it needs to develop a set of behaviours (Chow & Chan, 2008). However, before strengthening this capability, organisation needs to encourage active interaction among the employees, employing various techniques to convert individual knowledge into organisational knowledge (Ardichvili, Maurer, Li, Wentling, & Stuedemann, 2006). Only technology will not serve the purpose, it is more about relationships among the employees that promote learning and information exchange. Employees' motivation is critical in making them part of this activity because employees consider knowledge their property and have been found generally reluctant to share it (Du Plessis, 2007).

Notwithstanding the critical nature of nature of knowledge sharing in the survival of organisations has been widely admitted, it has been observed that information on factors affecting knowledge sharing is limited in developing countries (Asrar-Ul-Haq & Anwar, 2016; Lashari, Bhutto, Rashdi, & Abro, 2017; Schacter, Gilbert, Wegner, & Hood, 2011). That is why researchers (e.g. Akbari & Ghaffari, 2017) emphasise on the need of designing and developing strategic perspectives in the area of human resource to affect this deficiency. Keeping this in mind, researchers have explored the various factors in relation to knowledge, e.g. social network (SN) (Guo & Chen, 2010), social trust (Cheng-Hua, Yuan-Duen, Wei, & Li-Ting, 2007), shared goals (Chow & Chan, 2008), individual's perception and awareness of the situation (Davenport & Prusak, 1998; Khan et al., 2014), etc. regarding KS sharing. By close inspection of the extant literature, the authors have come to the conclusion that knowledge of the situation and SN are comparatively more ubiquitous in our culture as compared to the rest. Therefore, this articles attempts to empirically investigate the perception of employees from Peshawar University with the objective to validate the past results in other settings and cultures.

#### 2. Literature review

#### 2.1. Knowledge and KM

The term knowledge is not new to the world but its relative importance has started gaining central role, because people have started, recently, noticing that among many other factors this factor is a critical contributor and one of the promising disciplines for the organisations (Maheshwarkar & Sohani, 2019). Keeping that in mind, many authors, researchers and philosophers have explained it from various aspects. For example, knowledge is true belief which is justifiable (Nonaka, Krogh, & Voelpel, 2006); it is understanding of human, objects, concepts, theories and also the way things are handled (Antal, 2000), etc.

'Knowledge management may simply be defined as doing what is needed to get the most out of knowledge resources' (Irma & Rajiv, 2010, p. 39). It is considered as a process of creation, assimilation, dissemination and application of organisational knowledge to explore new opportunities that help in the enhancement of organisational performance (Yang, 2011). Knowledge management, in the recent most scenarios, has become the main constituent of management. It is commonly believed that KM was recognized as a field to serve the business world as a tool of business in the early 1990s when it was promoted by 4 Cs (Computing availability; Consulting; Conference and Commerce) concept. In the words of Lambe (2011), it was 'fueled by a confluence of computing availability, propagation through consulting firms and conference promotion' (p. 179).

#### 2.2. Knowledge sharing

Extant literature is replete with the fact that knowledge sharing is the most important ingredient that plays a vital role in the development of an organisation (Lee, 2001; Shin, 2004). Researchers (Das & Van-de-Ven, 2000; Islam, Jasimuddin, & Hasan, 2018; Lee, 2001; Yassin, Salim, & Sahari, 2013) also view KS as an important and key factor of KM processes in organisations. However, it is believed and emphasised that knowledge held by an employee in an organisation must be shared with other workers for its proper utilisation and effectiveness. But it cannot be transferred the way we transfer goods. It relies on cognition and, for that matter, rebuilding behaviour is indispensible (Zheng, 2017).

The literature on KM has been using various terms for KS. The most commonly used term for KS is knowledge transfer (Awad & Ghaziri, 2004; Massa & Testa, 2009; Yahya & Goh, 2002). Notwithstanding, there is a difference between the two (Zheng, 2017). Such as, Alavi and Leidner (2001), while making distinction between the two, state that 'knowledge' is laden with uniqueness and has value in the context of KM system as compared to the traditional information systems. It means that knowledge transfer refers to the application of current knowledge from one person to another. In other words, it takes place in one direction which gives an assumption that the main source of knowledge is the owner. Whereas, KS is considered a broader term as compared to knowledge transfer. KS deals with the interactions, absorptions and

invention of new knowledge which is believed to be in two directions and occurs between two or more individuals (Boyd, Ragsdell, & Oppenheim, 2007).

#### 2.2.1. Knowledge of the situation and knowledge sharing

Another important factor discussed in knowledge sharing enabler literature is the situation where knowledge sharing occurs. Response to such an external stimulus is something very common with all human beings. This 'know-what,' knowledge helps an individual as what action one needs to take. With this, the next higher level of knowledge is 'know-how'. It means knowing how to decide on an appropriate response to a stimulus. The next and the highest level of knowledge is 'know-why' knowledge. All these complement one another and permit an individual employee to choose among the alternatives. To delve deep, one needs to understand the underlying theory and/or a range of experiences that include many instances of anomalies, interaction effects, and exceptions to the norms and conventional wisdom of an area (King, 2008). Extant literature suggests that this knowledge of the situation is the awareness of the 'physical setting' or simply the interaction with the setting (Vera & Simon, 1993). In the words of Fracker (1988), situation awareness is defined as 'the knowledge that results when attention is allocated to a zone of interest (i.e., the volumes of space that surround a pilot) at a level of abstraction' (p. 102). Likewise, Endsley (1988) view knowledge of the situation as 'the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning, and the projection of their status in the near future' (p. 97).

To fully grasp the process of knowledge sharing, one needs to be well aware of the effect of various situations and their respective cues (Krishnananda, 1983). To explain it more easily, he equates it with the pressure of circumstances and argues that human psychology may sometimes be surrounded by many things present in human mind at the time of sharing knowledge, some of which may be in the sub-conscience. Therefore, in the determination of action, greater importance is given to the understanding and awareness of situation in which s/he is sharing the knowledge. Similarly, there are possibilities that sometimes situations of sharing knowledge are reciprocal, and the arrangements are different at the receiving end and delivering end (Khanna, Gulati, & Nohria, 1998). In addition, ignorance of situation as an important factor may lead to failures. For instance a study of more than 200 aviation calamities revealed that lack of situation awareness was identified as a leading factor of such mishaps (Härtel, Smith, & Prince, 1989). This is because individuals' process of knowledge sharing occurs after giving meanings to the differences, situations and correspondences (Lamproulis, 2017). Moreover, describing the requisition of situation knowledge, many accept that critical information is perceived via exploration and observation made by the individuals with the presence of mind and certain expectations in an environment (Fracker, 1989). Similarly, Salas, Prince, Baker, and Shrestha (1995) treat situation awareness as a process based upon (state/goal), information processing function and pre-existing knowledge (pre dispositions) see Figure 1.

Situation awareness is a social construct with many dimensions. Szulanski (1996) identifies three types of barriers to share knowledge—the absorption capacity of the employees; the causal ambiguity (factors in environment and situation affecting

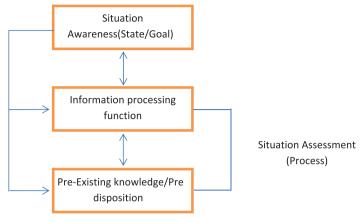


Figure 1. Individual situation awareness model (Salas et al., 1995, p. 126).

knowledge interaction and responding in the process of KS); and the hard relationship between knowledge donor and receiver. This study is related to second barrier related to KS that is the factors present in the situation while sharing knowledge. As knowledge is a 'subjective contextual construct', it is a continuum, social and reflective process and a product of the situation in which it is situated (Weick, 1995). It is argued that in every situation a human performer is trying to identify and understand the situation by linking the situation with the perceptual model which results in the important indications leading to the awareness of the situation (Paulin & Suneson, 2012). This is a three component (perception of the situation, understanding of the situation and projection of the situation) concept (Endsley & Garland, 2000). Keeping all these components of situation awareness in mind, the following hypothesis is put for testing and validation:

H1. The higher the organizational members' knowledge of the situation with respect to knowledge sharing, the organization will experience more knowledge sharing.

#### 2.2.2. Social network and knowledge sharing

Among other factors, SN is one of these factors that have a proven relationship with knowledge sharing. The validity of this relationship has been supported by various studies. For instance, Guo and Chen (2010) are of the opinion that SN is an interactive network composed of social contact of those people who mutually understand and recognize one another, which is akin to established relationship. Similarly, Krackhardt and Stern (1985) take a wider picture of human relationship with one another and describe world as a network structure of societal actors and connections. These connections work as channel of social sources, and actors find chance to exchange and make use of these sources through channel network. And knowledge sharing in organisations is strongly affected by such context as organisations are context-sensitive (Oufkir et al., 2017). That is why it is argued that information interchange and KS is based on a certain level of SN which encompasses the links between different individuals. In this context-sensitivity, SNs are at the centre. These links can be categorised into four types: 'friendship network, intelligence network, advisory network, trust network'. Likewise, to be more specific about the friendship, an analysis conducted on the basis of SN shows that more friendship relations lead to higher efficiency of KS (Guo & Chen, 2010, p. 1716).

In the context of multi-division organisations, one division can learn from other division through divisional interactions and can acquire new knowledge developed by these divisions. This KS among divisions provides opportunities for mutual understanding and inter-divisional cooperation, which results in the creation of new knowledge (Tsai & Ghoshal, 1998). To elicit the importance of SN as an important factor in knowledge sharing, researchers argue that organisations that are able to maintain KS effectively between one section and another are more creative and more likely to sustain its productivity than those that are less proficient in knowledge sharing (Darr, Argote, & Epple, 1995). To explain the phenomenon further, researchers have focussed on inter-network. Here their focus on the SN perspective where KS is explained largely by studying the individuals behaviour to the SN in which the actors are embedded (Reagans & McEvily, 2003). To make it easy to understand, one needs to refer to Kogut and Zander (1992) topology that a 'firm should be understood as a social community specialising in speed and efficiency in the creation and transfer of knowledge' (p. 503). It has empirically been validated that there is significant relationship between the strength of SN and effective KS in an organisation (Marouf, 2007).

It is argued that SNs greatly impact the behavioural intentions of humans and it enhances knowledge sharing at both individual and organisational levels. The former is personal and intangible which encompasses an individual's KSAs and the later is the collective knowledge which is owned by the organisation shared by mutual identification and actions (Oufkir et al., 2017). At individual level, now a days, communication has become easier via SNs technological tools such as twitter, LinkedIn, Face book, Skype, Viber, WhatsApp and alike (Haque, Ahlan, & Razi, 2015). These tools play vital role in the establishment and maintenance of SNs among people. At organisational level, SN enables the high-acting knowledge workers to exchange most of the valued information with other people within their social circles (Iqbal et al., 2011). Besides, it is an important factor that stimulates the attitude of individuals towards sharing knowledge (Jolaee, Nor, Khani, & Yusoff, 2014). From this discussion, it is easy to postulate that:

H2. The wider the social network among organisational members, the organisation will experience more knowledge sharing.

#### 2.3. Theoretical and conceptual background

#### 2.3.1. Fazio's attitude-to-behaviour process model

The Attitude-to-Behaviour process model proposes that individual's attitude can direct a person's behaviour even when an individual does not actively reveal and is conscious about the attitude (Fazio, 1986). As per this model, the precursor of behaviour is a person's definition of the event that is taking place. In simple words, it is the individual's interpretation of a situation as to what is going to happen and is assumed to determine how s/he responds. By further explanation, an event comprised of two components: the perception of individuals of the attitude object in the instant situation and how do they define that situation. Here definition of the situation is related to the storehouse of information that the person possesses concerning the expected and appropriate behaviours in that particular situation. The model concludes that attitudes can guide how and what individuals perceive (Fazio, 1986). As per Fazio's process model, an attitude acts as an association in memory among the attitude object and a person's appraisal of the object. However, it is the very strength of such linkage that is instrumental in determining the openness of the attitude from memory. One needs to be aware of the fact that the strength of this link varies from person to person and situation to situation. In addition, the model explores whether the attitude is activated as of memory. Researchers opine that attitude can be activated from memory in several ways and such activations can happen as an outcome of situational cues (Snyder & Kendzierski, 1982). For instance, when we are told to cast our vote, our feelings, our attitudes are probable to be activated from memory. This is how our attitude directs our behaviour.

Faizo's typology that an individual's attitude reflects her/his likes or dislikes which stimulate the corresponding behaviour towards an event or others, has since its coinage been under criticism. Researchers (e.g. Hogg & Vaughan, 2005) contend that it is not attitude that influences behaviour rather it is behaviour that influences attitude. Anyway, none of the approaches is either wrong or right or absolute and is without criticism. To answer the difference, researchers (Young & Fazio, 2013) believe that we often encounter objects, people or events that can be categorised in multiple ways so is our attitude and behaviour. Actually, individuals are not viewing the event in the same way. To conclude, 'the principle of attitude consistency (that for any given attitude object, the ABCs of affect, behaviour, and cognition are normally in line with each other) thus predicts that our attitudes (for instance, as measured via a self-report measure) are likely to guide behavior'.

#### 2.3.2. Social capital

The concept of social capital has a thorough bearing on organisation (Coleman, 1988; Nahapiet & Ghoshal, 1998; Okoli & Oh, 2007). By definition, it is 'the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit' (Nahapiet & Ghoshal, 1998, p. 243). It is considered capital because it strongly influences the interpersonal knowledge sharing that occurs (Chiu, Hsu, & Wang, 2006). Besides its positive influences, researchers (Willem & Scarbrough, 2006) have studied its potential negative effects of power and organisational politics and warn manager to be mindful of this role in knowledge sharing. To understand it as wholesome construct, researchers (Nahapiet & Ghoshal, 1998) have deciphered it into three distinct dimensions-structural, relational and cognitive. While providing detail of these dimensions, Chow and Chan (2008) opine that the structural dimension defines organisational network relations, communication system and hierarchies; the second reflects the trust level that employees enjoy during communications and the last one 'refers to resources increasing understanding between parties' (p. 459). These authors have empirically investigated three different social factors to show the three dimensions of social capital with 'network configuration' renamed as 'social network' and 'trust' as 'social trust' (p. 459). Stakeholders in the organisation are strategically required to have a thorough knowledge of the interdependence of these dimensions and their composite influence on knowledge sharing in organisation.

From the knowledge sharing point of view, the role of social capital has been discussed by researchers (Van den Hooff & Huysman, 2009) by distinguishing two approaches—(a) the engineering approach, and (b) the emergent approach. According to them in the former, knowledge is manageable which means management is the determining factor in the process of knowledge sharing; while in the latter, it is the social capital that manages the process of knowledge sharing. They further elaborate that they cannot be compartmentalised. They hypothesised that each engineering factor positively affects all the three dimensions of social capital. From their research, they conclude that both emergent and engineering approaches have their respective role in knowledge sharing.

Since both social capital and attitude-to-behaviour process model emphasize on explaining individuals knowledge sharing behaviour through different factors, therefore, this study has tried to integrated one factor from each (i.e. situation awareness from attitude-to-behaviour process and SN from social capital).

On the basis of the above discussion, the following conceptual model (see Figure 2) is proposed:

#### 2.4. Research methodology

The current research study is a survey study based on an adopted questionnaire from Chow and Chan (2008) with simple customisation. Total population, as per Peshawar University Prospectus (2015-2016) is 502. The total faculty members including lecturers, assistant professors and full professors are the target population. Simple random sampling technique has been employed with a sample size of 244 respondents. To assess the measure model data was collected through questionnaire which has personally been administered, keeping in view all the research ethics, like confidentiality, voluntary participation, etc., in mind. Besides, validity and reliability of the instrument have been checked through expert's opinions, correlation matrix and pilot testing. Cronbach's alpha for reliability (situation awareness = 0.81, SN = 0.75 and knowledge sharing = 0.87) is being used. Statistical Package for Social Sciences (SPSS) 20th edition was used initially for descriptive analysis. Finally, regression analyses were made by using the OLS method with the help of SPSS.

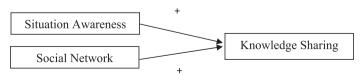


Figure 2. Conceptual model of the study. Source: Authors' own.

#### 3. Results

#### 3.1. Sample characteristics and descriptive statistics

Though the sample for this study was calculated as 250 but a total of 317 questionnaires were distributed among the 20 departments of Peshawar University of Khyber Pakhtunkhwa. In total, 244 questionnaires were collected back with response rate of 84%. It is believed that descriptive statistics for nominal or ordinal data is significant only for providing an overview and summary statistics such as frequencies and percentages (Gaur & Gaur, 2006). Therefore, detailed description of the respondents is provided in various frequency tables in the subsequent section. Demographic variables used in the study includes: University Name, age, gender, designation, current and total experience.

#### 3.2. Frequency tables for the demographic profile of the respondents

**Age:** Table 1 provides the detail descriptive analysis about the age of the respondents. The table clearly shows that most of the respondents are of the middle age (n = 67)and seniors (n = 83) comprising a valid percentage of 34 and 27, respectively, followed by young age (n = 65) in terms of categories used with a percentage value of 26.6, while the ratio of last category (n = 29) is about 11.9%.

Gender: Table 2 provides the gender wise detail of the respondents. The table indicates that greater number of females (n = 130) has responded to the survey, comprising a valid percentage of 53.4, whereas, the percentage of male respondents is 46.7 (n = 117).

**Designation**: Table 3 indicates the designation wise detail of the respondents. The table shows most of the respondents are Assistant Professors (n = 107), comprising a

**Table 1.** Age of the faculty members (N = 244).

	•			
Valid	Frequency	Percent	Valid percent	Cumulative percent
36–45	67	27.5	27.5	54.1
46-55	83	34.0	34.0	88.1
56 and above	29	11.9	11.9	100.0
Total	244	100.0	100.0	

**Table 2.** Gender of the faculty members (N = 244).

Valid	Frequency	Percent	Valid percent	Cumulative percent
Female	130	53.3	53.3	53.3
Male	114	46.7	46.7	100.0
Total	244	100.0	100.0	

**Table 3.** Designation of the faculty members (N = 244).

Valid	Frequency	Percent	Valid percent	Cumulative percent
AP	107	43.9	43.9	76.6
Prof	57	23.4	23.4	100.0
Total	244	100.0	100.0	

valid percentage of 43.9, followed by Lecturers (n = 80) with a percentage of 32.8 and then by Professors (n = 57) with a valid value of 23%.

**Experience:** Table 4 indicates the total experience wise detail of the respondents. The table shows most of the respondents are in the category of 1–5 (n = 19.7), 11–15 (n=20) respectively, followed by highly experienced people (n=43) 17%, while the ratio of last category represents only 7% responses (n = 17).

Descriptive statistics for the constructs: Table 5 provides the detail about the constructs of the study. The results show that means of the construct were in accordance to the number of questions used for each variable in the constructs. Similarly, all the constructs indicate somewhat close standard deviation.

#### 3.3. Regression analysis

The results, in the form of model summary, of the regression analysis provided in Table 6 show the value for adjusted R square as 0.68 for over all model which is accepted as a good model (Nau, 2017). However, prior to running regression technique, data was checked for normality, multicollinearity and hetroscedasticity assumption which were found within the acceptable range. The multiple regression model with all two predictors produced adjusted  $R^2 = 0.47$ , F (111), p < 0.000. Results in Table 6 reflect that situation awareness and SN have significant positive regression weights, confirming that employee's knowledge of the situation and SN as important factors to support the process of knowledge sharing in organisations.

Adjusted 
$$R^2 = 0.47$$
,  $F = (111)$ ,  $p < 0.000$ 

Table 4. Tot	al experience	of the	faculty	members	(N = 244).
--------------	---------------	--------	---------	---------	------------

		, .	•	
Valid	Frequency	Percent	Valid percent	Cumulative percent
1–5 years	48	19.7	19.7	19.7
6-10 years	43	17.6	17.6	37.3
11–15 years	49	20.1	20.1	57.4
16-20 years	44	18.0	18.0	75.4
21–25 years	43	17.6	17.6	93.0
25 and above	17	7.0	7.0	100.0
Total	244	100.0	100.0	

**Table 5.** Means and standard deviations for the constructs (N = 244).

Variables	Minimum	Maximum	Mean	St. dev.
Attitude towards KS	1	5	18	5
Individual perception	1	5	11	3
Knowledge sharing	1	5	18	5

**Table 6.** Regression model fit statistics.

Unstandardized coefficients			
В	Std. error	Τ	Sig.
1.447	0.189	7.647	0.000
0.508	0.035	14.681	0.000
0.114	0.053	2.140	0.033



#### 4. Discussion

#### 4.1. The effect of organisational members' knowledge of the situation on knowledge sharing

The current study hypothesised that organisational members' knowledge of the situation is a positive predictor of knowledge sharing. The empirical results of the study supported this hypothesis (the path coefficient of 0.11, the t-value of 2.1 and p value 0.033 were highly significant) which signify that knowledge of the situation is one of the factors that affects employees' behaviour in terms of knowledge sharing. The findings of this study are in line with the findings of the previous studies (Fracker, 1989; Frymier & Nadler, 2017; Härtel et al., 1989; Krishnananda, 1983; Paulin & Suneson, 2012; Szulanski, 1996). Frymier and Nadler (2017) argue that situations encourage individual's internal states such as belief, attitude and values, which ultimately affect the process of knowledge sharing in an organisation. While discussing about the relationship of attitude and behaviour these researchers further explain that a person having better understanding of the situations (i.e. individual situation, de-individual situation and scripted situation) has more command over his attitude and feelings resulting in different types of knowledge sharing behaviours in individuals.

Likewise, Järvinen and Ylinenpää (2017) opine that various situations (like competitive) greatly influence the individuals' attitude to share the knowledge. They further explain that it is the situation that molds an individual's attitude regardless of her/his position in that situation. For them it is the situation that directly influences the attitude and knowledge sharing behaviour of a person in an organisation. The positive relationship between situation and knowledge sharing is also supported by Kelly's theory of personal construct (Kelly, 1955), which has remained very popular for personality and cognitive development. According to this theory, every individual sees the world through her/his own exclusive set of preconceived notions about it, whereas these constructs are usually under flux due to the exposure of individuals to new situations. The theory claims that with new situations individuals get new experiences and practices which frame new behaviours in them resulting in changed behaviour.

From the empirical results of this study which validate the previous researches, it can be concluded that while working for creating and encouraging such an environment wherein knowledge sharing could take place, the importance of the situation can hardly be overlooked. It can, therefore, be said that performance of any organisation is mostly determined by effectively handling the situations while sharing the knowledge, because sometimes situations are well-known and can easily be handled with routine practices, whereas these could also be complex and difficult to handle which may create hurdles in transferring the individual knowledge to the organisational knowledge. Hence, in the light of empirical findings, it is suggested to introduce situation handling models for the better performance of the organisation (Wiig Karl, 2003).

#### 4.2. The effect of social network on knowledge sharing

The current study hypothesised that SN is a positive predictor of knowledge sharing. As per results of the study (path coefficient of 0.50, t value of 14.6 and p value 0.000 are highly significant), it is easy to conclude that the current empirical data validate the previous researches on the effect of SN and concludes that SN helps in increasing knowledge sharing (Chennamaneni, 2007; Guo & Chen, 2010; Jolaee et al., 2014; Marouf, 2007). As per SN theory, individuals' attitude or behaviour is greatly affected by the interrelationships established with the help of SNs, which ultimately results in easy flow of information and knowledge sharing in an organisation.

Likewise, the outcomes of the study are in line with the study conducted by Cudney, Corns, and Long (2014) wherein the results have revealed that networks (specifically SNs Analysis SNA) followed by established communication systems, technical support and trainings results in improved ways to organise and share knowledge. Theses authors contend that if employees form a tight core network with each other this will not only help them to retain the information but also results in rapid knowledge sharing process in the organisations. Similarly, a more recent research by Leon, Rodríguez-Rodríguez, Gómez-Gasquet, and Mula (2017) in insurance organisation has established that SN as a predictor for future knowledge flows in the subject organisations. As per their findings SN can help in identifying potential losses, determining the leaders, establishing standards to differentiate knowledge diffusers from knowledge repository and identifying the elements of future knowledge sharing. Furthermore, SNs can be established with the help of social intra and extranets services such as online blogs, media sharing pages etc. (Grant, 2016), communication systems, technical support programs and trainings (Cudney et al., 2014) and face-to-face SNs such as brainstorming, problem solving, consulting other employees, learning via teaching, trainings and job rotation of employees in the organisation (Saifi, 2016).

In essence, though the importance of SN and situation awareness in stimulating knowledge sharing is undeniable, the empirical results of this study reveal that SN has greater influence on knowledge sharing as compared to situation awareness. Therefore, organisations, more specifically higher education institutions such as University of Peshawar should establish infrastructure of strengthening SNs to facilitate and encourage knowledge sharing in the university. Also, the relevant citations from literature and empirical evidence of this study reveal the importance of SN towards knowledge sharing the in organisations. This will not only help in converting individual knowledge into organisational knowledge but will also contribute in mitigating gaps between theoretical knowledge and practical knowledge.

#### 5. Conclusion

Importance of knowledge sharing is undeniable as evident from the literature. In this milieu, many scholars believe that further research is needed to promote knowledge sharing in various organisations especially in the education sector of the developing countries. Therefore, current study looked at the role of two factors, i.e. knowledge of the situation and SN on knowledge sharing to fulfil a portion of the highlighted gap. This was achieved through empirical data collected from the faculty members of Peshawar University, the oldest university of the province. The results of the tested model indicated that the factors in the study have significant impact on knowledge sharing in the target population.

Therefore, it is assumed that the results of the study have sufficient food for thought for the policy makers for formulating more pragmatic policies for the promotion of knowledge sharing in organisations in general and in Peshawar University in particular. Empirical findings of the study suggest that organisations should promote a culture where employees could easily decide as to what sort of action they are required to take by enhancing their 'know-what' knowledge and deepen the roots of SN among the employees. This understanding of the relevant factors can be a step towards affecting the situation within the organisations and could fulfil the need of knowledge sharing. The study also contributes towards minimising the gap between theoretical knowledge and practical knowledge by providing empirical evidence by considering the effect of important factors in transferring the individual knowledge to the organisational knowledge. In addition, this study will prove as a preliminary study for the other education sectors nationally and internationally. In future consideration, it may be applied to other sectors at broader level. For more in-depth understanding of the issue, adopting qualitative perspective will open new avenues for further research.

#### **Disclosure statement**

No potential conflict of interest was reported by the authors.

#### References

- Akbari, N., & Ghaffari, A. (2017). Verifying relationship of knowledge management initiatives and the empowerment of human resources. Journal of Knowledge Management, 21(5), 1120-1141. doi:10.1108/JKM-10-2016-0435
- Alavi, M., & Leidner, D. E. (2001). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. MIS Quarterly, 25(1), 107-136. doi:10.2307/3250961
- Antal, A. B. (2000). Types of knowledge gained by expatriate managers. Journal of General Management, 26(2), 32-51. doi:10.1177/030630700002600203
- Ardichvili, A., Maurer, M., Li, W., Wentling, T., & Stuedemann, R. (2006). Cultural influences on knowledge sharing through online communities of practice. Journal of Knowledge Management, 10(1), 94-107. doi:10.1108/13673270610650139
- Asrar-Ul-Haq, M., & Anwar, S. (2016). A systematic review of knowledge management and knowledge sharing: Tends, issues and challenges. COGENT Business and Management, 3, 1-17.
- Awad, E. M., & Ghaziri, H. M. (2004). Knowledge management. NJ: Pearson.
- Boyd, J., Ragsdell, G., & Oppenheim, C. (2007). Knowledge Transfer mechanisms: A case study from manufacturing. Paper Presented at the Proceedings of the 8th European Conference on Knowledge Management. Conference at the Consorci Escola Industrial de Barcelona (CEIB), Barcelona, Spain (6-7 September).
- Cheng-Hua, W., Yuan-Duen, L., Wei, L., & Li-Ting, Z. (2007). Effects of personal qualities and team processes on willingness to share knowledge: An empirical study. International Journal of Management, 24(2), 250.
- Chennamaneni, A. (2007). Determinants of knowledge sharing behaviors: Developing and testing an integrated theoretical model. PhD Dessertation, University of Texas at Arlington.
- Chiu, C. M., Hsu, M. H., & Wang, E. T. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. Decision Support Systems, 42(3), 1872-1888. doi:10.1016/j.dss.2006.04.001



- Chow, W. S., & Chan, L. S. (2008). Social network, social trust and shared goals in organizational knowledge sharing. Information & Management, 45(7), 458-465. doi:10.1016/j.im. 2008.06.007
- Coleman, J. S. (1988). Social capital in the creation of human capital. American Journal of Sociology 94, 95-120. doi:10.1086/228943
- Cudney, E. A., Corns, S. M., & Long, S. K. (2014). Improving knowledge sharing in healthcare through social network analysis. International Journal of Collaborative Enterprise, 4(1/2), 17-33. doi:10.1504/IJCENT.2014.065044
- Darr, E. D., Argote, L., & Epple, D. (1995). The acquisition, transfer, and depreciation of knowledge in service organizations: Productivity in franchises. Management Science, 41(11), 1750-1762. doi:10.1287/mnsc.41.11.1750
- Das, S. S., & Van-de-Ven, A. H. (2000). Competing with new product technologies: A process model of strategy. Management Science, 46(10), 1300-1316. doi:10.1287/mnsc.46.10.1300. 12276
- Davenport, T. H., & Prusak, L. (1998). Working Knowledge. Boston, MA: Harvard Business School Press.
- Du Plessis, M. (2007). The role of knowledge management in innovation. Journal of Knowledge Management, 11(4), 20-29. doi:10.1108/13673270710762684
- Endsley, M. R., & Garland, D. (2000). Theoretical underpinnings of situation awareness: A critical review. Situation Awareness Analysis and Measurement, 3-32.
- Endsley, M. R. (1988). Design and evaluation for situation awareness enhancement. Paper Presented at the Proceedings of the Human Factors Society 32nd Annual Meeting. doi:10. 1177/154193128803200221
- Fauzi, M. A., Tan Nya-Ling, C., Thurasamy, R., Oluwaseyi Ojo, A., & Shogar, I. (2019). Muslim academics' knowledge sharing in Malaysian higher learning institutions. Journal of Islamic Marketing, 10(2), 378-393. doi:10.1108/JIMA-10-2017-0111
- Fazio, R. H. (1986). How do attitudes guide behavior?. In Handbook of motivation and cognition: foundations of social behavior (Vol. 1, pp. 204-243). New York: Guilford Press.
- Fracker, M. L. (1988). A theory of situation assessment: Implications for measuring situation awareness. Paper Presented at the Proceedings of the Human Factors Society 32nd Annual Meeting. doi:10.1177/154193128803200222
- Fracker, M. L. (1989). Attention allocation in situation awareness. Paper Presented at the Proceedings of the Human Factors Society 32nd Annual Meeting. doi:10.1177/ 154193128903302007
- Frymier, A. B., & Nadler, M. K. (2017). Persuasion: Integrating theory, research, and practice (4th ed.). Kendall Hunt Publishing, Amazon Best Sellers Rank.
- Gaur, A. S., & Gaur, S. S. (2006). Statistical methods for practice and research: A guide to data analysis using SPSS. Sage Publications Pvt. Ltd. Amazon Best Sellers Rank.
- Grant, S. B. (2016). Classifying emerging knowledge sharing practices and some insights into antecedents to social networking: a case in insurance. Journal of Knowledge Management, 20(5), 898–917. doi:10.1108/JKM-11-2015-0432
- Guo, Y., & Chen, J. (2010). A case study: social network and knowledge sharing. Paper Presented at the E-Business and E-Government (ICEE), 2010 International Conference, Guangzhou, China, 7-9 May 2010.
- Haque, M. M., Ahlan, A. R., & Razi, M. J. M. (2015). Factors affecting knowledge sharing on innovation in the Higher education institutions. ARPN Journal of Engineering and Applied Sciences, 10(23), 18200-18210.
- Härtel, C. E. J., Smith, K. A., & Prince, C. (1989). Defining aircrew coordination: Searching mishaps for meaning. Paper Presented at the Fifth International Symposium on Aviation Psychology, the Ohio State University and the Association of Aviation Psychologists.
- Hogg, M. A., & Vaughan, G. M. (2005). Social psychology (4th ed.). Prentice Hall: Amazon Best Sellers Rank.
- Ipe, M. (2003). Knowledge sharing in organizations: a conceptual framework. Human Resource Development Review, 2(4), 337–359. doi:10.1177/1534484303257985



- Iqbal, M. J., Rasli, A., Heng, L. H., Ali, M. B. B., Hassan, I., & Jolaee, A. (2011). Academic staff knowledge sharing intentions and university innovation capability. African Journal of Business Management, 5(27), 11051.
- Irma, B.-F., & Rajiv, S. (2010). Knowledge management system & processes. Armonk, NY: M.E. Sharpe, Inc.
- Islam, M. Z., Jasimuddin, S. M., & Hasan, I. (2018). Determinants that influence knowledge sharing: an integrated literature review. International Journal of Knowledge Management Studies, 9(4), 363-380. doi:10.1504/IJKMS.2018.096318
- Järvinen, J., & Ylinenpää, E. (2017). A coopetitive situation and its effects on knowledge sharing: a single-case study on actors in coopetitive relationships. Independent thesis advanced level degree of master (two years)) (Student thesis). Linköping Sweden: Linköping University. Retrieved from http://urn.kb.se/resolve?urn=urn:nbn:se:liu:diva-139439 DiVA database.
- Jolaee, A., Nor, K. M., Khani, N., & Yusoff, R. M. (2014). Factors affecting knowledge sharing intention among academic staff. International Journal of Educational Management, 28(4), 413-431. doi:10.1108/IJEM-03-2013-0041
- Kelly, G. (1991). The Psychology of Personal Constructs (Vol. 2): Clinical Daignosis and Psychotherapy. London: Routledge.
- Khan, R. A., Miah, M. K., & Manzoor, A. (2014). Human resource management practices: A case study of South Asian Countries. IBT Journal of Business Studies, 9(1), 83-101.
- Khanna, T., Gulati, R., & Nohria, N. (1998). The dynamics of learning alliances: Competition, cooperation, and relative scope. Strategic Management Journal, 19(3), 193-210. doi:10.1002/ (SICI)1097-0266(199803)19:3<193::AID-SMJ949>3.0.CO;2-C
- King, W. R., & Marks, P. V., Jr. (2008). Motivating knowledge sharing through a knowledge management system. Omega, 36(1), 131-146.
- Kogut, B., & Zander, U. (1992). Knowledge of the firm, combinative capabilities, and the replication of technology. Organization Science, 3(3), 383-397. doi:10.1287/orsc.3.3.383
- Krackhardt, D., & Stern, R. N. (1985). The design of social networks and the management of crises. Paper Presented at the Academy of Management Proceedings. doi:10.5465/ambpp. 1985.4979014
- Krishnananda, S. (1983). What is Knowledge? The Knowledge Situation. Retrieved from http:// www.swami-krishnananda.org/knowledge/What is Knowledge.pdf.
- Lambe, P. (2011). The unacknowledged parentage of knowledge management. Journal of Knowledge Management, 15(2), 175-197. doi:10.1108/13673271111119646
- Lamproulis, D. (2017). A linguistic perspective of knowledge creation, sharing and its novel implementation. Journal of Organizational Knowledge Management, 2017(2017), Article ID 237973.
- Lashari, J. H., Bhutto, A., Rashdi, P. R. S., & Abro, Q. M. M. (2017). Assessment of academic knowledge transfer practices in field of environment. Asian Journal of Scientific Research, 10(4), 354–362. doi:10.3923/ajsr.2017.354.362
- Lee, J.-N. (2001). The impact of knowledge sharing, organizational capability and partnership quality on IS outsourcing success. Information & Management, 38(5), 323-335. doi:10.1016/ S0378-7206(00)00074-4
- Leon, R. D., Rodríguez-Rodríguez, R., Gómez-Gasquet, P., & Mula, J. (2017). Social network analysis: A tool for evaluating and predicting future knowledge flows from an insurance organization. Technological Forecasting and Social Change, 114(Supplement C), 103-118. doi:10.1016/j.techfore.2016.07.032
- Lin, H.-F. (2007). Knowledge sharing and firm innovation capability: An empirical study. International Journal of Manpower, 28(3/4), 315-332. doi:10.1108/01437720710755272
- Maheshwarkar, M., & Sohani, N. (2019). Knowledge management evaluation criteria for industries: Identification and interpretive structural modelling. International Journal of Knowledge Management Studies, 10(3), 227-250. doi:10.1504/IJKMS.2019.101482
- Marouf, L. N. (2007). Social networks and knowledge sharing in organizations: A case study. Journal of Knowledge Management, 11(6), 110-125.



- Massa, S., & Testa, S. (2009). A knowledge management approach to organizational competitive advantage: Evidence from the food sector. European Management Journal, 27(2), 129–141. doi:10.1016/j.emj.2008.06.005
- Meihami, B., & Meihami, H. (2014). Knowledge Management a way to gain a competitive advantage in firms (evidence of manufacturing companies). International Letters of Social and Humanistic Sciences 14, 80-91. doi:10.18052/www.scipress.com/ILSHS.14.80
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. Academy of Management Review, 23(2), 242-266. doi:10.5465/amr.1998.533225
- Nau, R. (2017). Statistical forecasting: Notes on regression and time series analysis. Retrieved from https://people.duke.edu/~rnau/rsquared.htm.
- Nonaka, I., Krogh, G. V., & Voelpel, S. (2006). Organizational knowledge creation theory: Evolutionary paths and future advances. Organization Studies, 27(8), 1179-1208. doi:10. 1177/0170840606066312
- Okoli, C., & Oh, W. (2007). Investigating recognition-based performance in an open content community: A social capital perspective. Information & Management 44, 240-252. doi:10. 1016/j.im.2006.12.007
- Omotayo, F. O. (2015). Knowledge management as an important tool in organisational management: A review of literature. Business Information Review 1238, 1-23. doi:10.1177/ 0266382119831458
- Oufkir, L., Fredj, M., & Kassou, I. (2017). Performance measurement for knowledge management: Designing a reference model. Journal of Organizational Knowledge Management, 2017(2017), Article ID, 733562.
- Paulin, D., & Suneson, K. (2012). Knowledge transfer, knowledge sharing and knowledge barriers - three blurry terms in KM. The Electronic Journal of Knowledge Management, 10(1), 81-91.
- Rahman, H., Rahman, W., Khan, M. A., & Anwar, K. J. (2016). The mediating role of career development in its antecedents and outcomes: Empirical evidence from Pakistan. Sarhad Journal of Management Sciences, 2(2), 164-175. doi:10.31529/sjms.2016.2.2.6
- Reagans, R., & McEvily, B. (2003). Network structure and knowledge transfer: The effects of cohesion and range. Administrative Science Quarterly, 48(2), 240-267. doi:10.2307/3556658
- Saifi, S. A. A. (2016). The relationship between face to face social networks and knowledge sharing: an exploratory study of manufacturing firms. Journal of Knowledge Management, 20(2), 308-326.
- Salas, E., Prince, C., Baker, D. P., & Shrestha, L. (1995). Situation awareness in team performance: Implications for measurement and training. Human Factors: The Journal of the Human Factors and Ergonomics Society, 37(1), 123-136.
- Schacter, D., Gilbert, D., Wegner, D., & Hood, B. (2011). Psychology: European Edition. Palgrave Macmillan: Macmillan International Higher Education.
- Shin, M. (2004). A framework for evaluating economics of knowledge management systems. Information & Management, 42(1), 179-196. doi:10.1016/j.im.2003.06.006
- Snyder, M., & Kendzierski, D. (1982). Acting on one's attitudes: Procedures for linking attitude and behavior. Journal of Experimental Social Psychology, 18(2), 165-183. doi:10.1016/0022-1031(82)90048-8
- Szulanski, G. (1996). Exploring internal stickiness: Impediments to the transfer of best practice within the firm. Strategic Management Journal, 17(S2), 27-43. doi:10.1002/smj.4250171105
- Teigland, R. (2003). Knowledge networking: Structure and performance in networks of practice. Stockholm School of Business, Stockholm: Institute of International Business.
- Tsai, W., & Ghoshal, S. (1998). Social capital and value creation: The role of intrafirm networks. Academy of Management Journal, 41(4), 464-476. doi:10.2307/257085
- Van den Hooff, B., & Huysman, M. (2009). Managing knowledge sharing: Emergent and engineering approaches. Information & Management, 46(1), 1-8. doi:10.1016/j.im.2008.09. 002
- Vera, A. H., & Simon, H. A. (1993). Situated action: A symbolic interpretation. Cognitive Science, 17(1), 7-48. doi:10.1207/s15516709cog1701\_2



- Vines, R., Jones, M., & McCarthy, G. (2015). Collaborating across institutional and jurisdictional boundaries: enabling the emergence of a national innovation system through public knowledge management. Knowledge Management Research & Practice, 13, 187-197. doi:10. 1057/kmrp.2013.41
- Weick, K. (1995). Sensemaking in organizations. London, UK: SAGE Publications Ltd.
- Wiig Karl, M. (2003). A knowledge model for situation-handling. Journal of Knowledge Management, 7(5), 6-24. doi:10.1108/13673270310505340
- Willem, A., & Scarbrough, H. (2006). Social capital and political bias: An exploratory study. Human Relations, 59(10), 1343-1370. doi:10.1177/0018726706071527
- Yahya, S., & Goh, W.-K. (2002). Managing human resources toward achieving knowledge management. Journal of Knowledge Management, 6(5), 457-468. doi:10.1108/13673270210450414
- Yang, D. (2011). The effect of knowledge management on product innovation-Evidence from the Chinese software outsourcing vendors. iBusiness, 03(01), 16-22. doi:10.4236/ib.2011. 31003
- Yassin, F., Salim, J., & Sahari, N. (2013). The influence of organizational factors on knowledge sharing using ICT among teachers. Procedia Technology, 11, 272-280. doi:10.1016/j.protcy. 2013.12.191
- Young, A. I., & Fazio, R. H. (2013). Attitude accessibility as a determinant of object construal and evaluation. Journal of Experimental Social Psychology, 49(3), 404-418. doi:10.1016/j.jesp. 2012.12.009
- Zboralski, K. (2009). Antecedents of knowledge sharing in communities of practice. Journal of Knowledge Management, 13(3), 90-101. doi:10.1108/13673270910962897
- Zheng, T. (2017). A literature review on knowledge sharing. Open Journal of Social Sciences, 05(03), 51-58. doi:10.4236/jss.2017.53006