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[Investigating Individual-Level Antecedents of Knowledge Sharing Quality in Higher Education Institutions]

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ABSTRACT

Individual factors have been known because of their significant influence on knowledge sharing behavior in organization. The purpose of this study is to explore the relationship between individual factors such as awareness, trust, commitment and personality and the quality of knowledge sharing. Survey technique employing questionnaires was used as tool for collecting data. The survey involved a Sample of 150 respondents from leading public universities located in Punjab, Pakistan. The data collected was examined by using SPSS version 22.0. Factor analysis and reliability test were executed to ensure the validity and reliability of the tool. Confirmatory factor analysis was applied to verify the four dimensions of individual aspects. Analysis revealed that there exist positive and significant correlation between individual factors and the quality of knowledge sharing. The results of multiple regression analysis indicated that personality is the most important predictor of knowledge sharing quality followed by trust, commitment and awareness.

Introduction

In the present business world knowledge is essential for any organization to accomplish competitive edge in the competitive environment. Not only businesses reflected and admitted the implication of knowledge, but all the academics are agreed upon its vitality as said by the Scarborough (1999). Knowledge sharing is the purposeful act in which knowledge is reused through its transmission from the one party to other Lee and Al-Hawamdeh (2002). Knowledge sharing quality has become very significant for the survival of the organizations, because although knowledge is shared within the organizations, but its quality is always questioned (Van de Brink, 2003). Knowledge shared among the employees is meaningful, if it subsidizes to better performance of the organizations. Knowledge sharing quality is reflected in terms of its completeness, accuracy, reliability, easy understanding and relevancy Mcknney et al. (2002).

Trust is defined as the most effective technique for the sharing of knowledge within the organization & it provides the basis for cooperation (Dyer & Singh, 1998, Molm, 2003). High degree of trust ensures that the organizational members will not only think about the bad consequences for the future, but will also share their knowledge openly. Trust among the organizational members is in fact the basis of relation amongst the organizational members, which provides the pace for knowledge sharing (Fox, 1974).

Awareness is defined as a means for increasing the collaboration & knowledge sharing in the collaborative process (Daneshgaar, 2001). All the level of employees should be aware about the importance of knowledge sharing in the organization. Awareness about the significance of knowledge provides space for the creative thinking, readiness for improving errors and a sense of risk taking (Hadi, 2005).

Commitment is something which stimulates all the parties to accomplish the organizational goals. Serious commitment among the organizational members encourages the employees to tackle any problem faced in the organization. Commitment leads to inter-firm communication and higher level of knowledge sharing within the

organization (Wuyts & Geyskens, 2005). Committed employees are always ready to put in extra effort for the sharing of knowledge in the organization (Mowday et al., 1979).

Personality characters of employees trigger strong influence on the knowledge sharing in the organization (Cabreta et al., 2006). It has found that extrovert employees are of great importance in the sharing of knowledge in the organization. Extroverts people feel secure and are self-confidence, thus participate in the knowledge sharing in the organization.

Problem Statement

Knowledge is nowadays reflected as an asset which is accomplished of giving various untold paybacks that make a difference between successful and unsuccessful organization but there is insufficient Information on knowledge sharing and factors encouraging knowledge sharing quality. Knowledge is of minor value unless it is shared (Small & Sage, 2006) and the significance of knowledge sharing depends upon the quality of the knowledge shared. Much of the earlier studies underlined the knowledge sharing behavior, rather than the quality of knowledge sharing. Therefore, it is the purpose of this study to explore the quality of knowledge sharing since quality based knowledge is the main concern of organizations and to identify the individual factors inducing knowledge sharing quality. Due to inadequate past research on this important area of organization, it has motivated us to research on this endeavor.

Objectives of Study

Following are the objectives of this study:

- To explore that whether individual factors impact knowledge sharing quality.
- To explore which factors are more inducing in sharing the knowledge?

The study will emphasis on individual aspects related to knowledge sharing because sharing of knowledge depends upon the individual himself/herself. We will conduct this research to reply the research question is there any effect of individuals' factors on knowledge sharing quality. As significant contribution of knowledge sharing is purifying the quality of service provision of an organization and organizations are now more service oriented than manufacturing goods as their products.

Significance of Study

It is evident that through effective development and transmission of knowledge, organizations would be able to attain competitive benefit and higher performance (Kogut & Zander, 1992; Grant, 1996). Thus, present organizations are encouraged towards managing their knowledge, to assist it to be shared from inside the organization. It is vital to ascertain aspects affecting knowledge sharing from individual viewpoint because certain public employees intend 'knowledge is power' and they are unwilling to share knowledge. So, we will conduct this study by taking sample of 150 faculty and administrative staff members from leading public universities located in Pakistan. Thus this study will offer the logic to educational sector's management to be loyal for sharing the knowledge in enhanced quality to get competitive gain in the growing market of service providing organizations.

Literature Review

Knowledge and Knowledge Management

In this era knowledge is considered as an asset of an individual that requires to be

treasured, established and achieved as well (The & Yong, 2011). Knowledge is defined as a mixture of values, experience, expert insight and contextual information according to Davenport & Prusak, (1998). According to Zack (1999) knowledge is defined as the meaningful organized accretion of information via communication, experience or inferences.

Knowledge management is a process of creating, capturing, storing, sharing and using the knowledge as said by Davenport & Prusak, (1998). Another definition of knowledge management is given by Holm 2001, which describes knowledge management as a process of disseminating information to the right people at the right time and also making beneficial use of those knowledge resources. Alavi & Leidner (1999) explains knowledge management as "a systemic & organizationally specified process for acquiring, organizing, & communicating both implicit and explicit knowledge of workers so that other workers may make use of it to be more effective and productive in their work'. Furthermore, Findings of research on SME's in Pakistan supported that transformational and transactional leadership styles have significant effect on knowledge management practices (Farooqi, 2017).

Knowledge Sharing

Knowledge sharing is a process which involves the exchange of both implicit and explicit knowledge & the creation of new knowledge Van de Hoof (2003). Lin et al. (2009) said that knowledge sharing is a process which involves the exchange of employee's experiences, skills and knowledge through the entire organization. Knowledge sharing in organizations is not solely dependent on technological factor, but is also dependent upon the behavioral factor of employees (Liao et al 2004). Knowledge sharing can be defined as the way of creating knowledge which contributes to enhance in employees' performance & harnessing innovation (Chen 2001). A research by Nazish et al. (2019) indicated positive impact of intrinsic rewards and transformational leadership style on knowledge creation, sharing and application.

Trust

It is revealed from the social exchange theory (Homans, 1958) that individuals prefer to exchange resources through the social exchange relationships. Social exchange involves trust, intrinsic rewards and personal obligations (Blau, 1964). Trust has strong relationship with the knowledge sharing quality because it encourages better communication within the organization and enhances the efficiency of work (Covey, 2006). Trust is something that enables the employee to believe that the sharing of knowledge will beneficial to them & they will not be oppressed by any party in organization (Jones & George, 1998; Riege, 2005). Al-Alawi et al. (2007) investigated that factors such as communication, trust, rewards, and information system exert great influence on the knowledge sharing quality among the organizational members. It has found that these factors are capable of breaking the constraints to knowledge sharing.

Awareness

Chong & Pandya (2003) argued that awareness of employees at all levels is the key component of effective application of knowledge management. Awareness is significant for knowledge encouraging discussion process and offers space for inventive thinking, risk accepting and the willingness to improvement (Hadi, 2005). The awareness about

the significance of knowledge sharing is reflected as an attitude that each employee should have including the upper management (Van den Brink, 2003).

Daneshgar (2001) reflected that awareness is an instrument for enhancing teamwork and knowledge sharing in cooperative process. Argani (2009) claimed that preliminary awareness stage is very important aspect for knowledge sharing success. Individual aspects such as personality, awareness, and trust are positively related to knowledge sharing quality. And the personality among them has high significant relationship with knowledge sharing quality (Ismail & Yusof, 2010).

Personality

Personality is defined as the degree to which an employee perceives themselves as extrovert or introvert, self-confidence or self-centered and feel secure or always cautious (Awad & Ghaziri, 2004). Personality has two dimensions i.e. extrovert and introvert as said by Jung, (1971). Extroverts are self-confident which like to share knowledge as compared to introverts which are self-centered (Awad & Ghaziri, 2004). Personality is one of the most important factors which greatly influence the knowledge sharing quality as said by the Award and Ghaziri, (2004). It is also clearly revealed from the study conducted by the Ismail & Yousf, (2010) that the personality has a great influence on the knowledge sharing as compared to awareness and trust factor.

Commitment

Scarbrough & Carter (2000) argued that commitment of the employees in the institute is one of the major issues in influencing the staffs to share their knowledge. Bartlett (2001) found that for making knowledge management Successful, the level of commitment and capability are strongly correlated to knowledge sharing. Organizational commitment is a paradigm of high interest, and numbers of studies have described the positive relationship with respect to employees' behavior and desired work results from organizational commitment. Hislop (2002) examined that the level of commitment will positively impact employee's attitudes and performances toward sharing their knowledge for the benefit of the organization. When employee's levels of commitment are high then they are highly keen to share knowledge and they work effectively for the benefit of organization. When an individual is committed to a firm, she or he takes and considers the organization's goals and standards, and willing to employ considerable efforts on behalf of the organization, and wants to retain membership in the organization (Burud & Tumolo, 2004). Watson & Papamarcos (2002) found the direct positive link between organizational commitment and knowledge-sharing intention.

Theoretical Framework

Variables and their definitions:

The purpose of this study is to ascertain the impact of individual factors i-e personality, trust, awareness and commitment on the knowledge sharing quality. Individual factors will be used as independent variables whereas knowledge sharing quality will be used as dependent variable.

Dependent Variable

Knowledge Sharing Quality

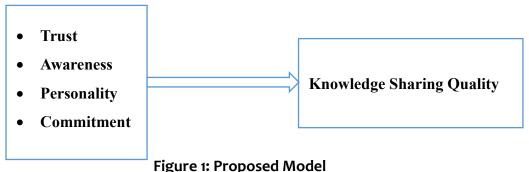
Knowledge sharing quality is measured in terms of: Relevancy, Easy to Understand, Accuracy, Completeness, Reliability, Timeliness (Mckinney et al 2002).

Independent Variable

- <u>Trust</u>: Trust is defined as the responsibility or obligation imposed on a person in whom authority or confidence is placed. Trust is in fact blood of the organization; thus it is the highest human communication. It leads to efficiency in the employees toward work.
- Awareness: Objective self-awareness theory defines awareness as a state of conscientiousness; in which individual direct his attention on self (Duwal and Wickland, 1972).
- <u>Personality:</u> Personality is basically a set of psychological characteristics existed in the individual that are ordered & are relatively long lasting which effects his interactions & adaptations to intra psychic, social and physical environment (Larsen & Buss, 2005).
- <u>Commitment:</u> Commitment is defined as the quality or state of being dedicated to any activity or any organization. It may also be expressed as an act of committing to trust or a charge.

Framework

This paper adapts the framework outlined by Lee & Al-Hawamdeh (2002) and Chiu et al. (2006) to investigate the relationship between individual factors and knowledge sharing quality emphasizing on the quality of the knowledge shared. However, commitment is added by us in this model.



Research Hypotheses

On the basis of literature and background of studies the following hypotheses will be configure by us:

H1: Trust has a significant effect on knowledge sharing quality.

H2: Awareness has a significant effect on knowledge sharing quality.

H3: Personality has a significant effect on knowledge sharing quality.

H4: Commitment has a significant effect on knowledge sharing quality.

Research Methods and Procedures

Population

For this purpose, primary data was used. It was investigated on the administrative staff and faculty members of the dominant universities located in Punjab, Pakistan. Sample was 150 respondents from dominant public universities located in Punjab, Pakistan.

Measurement of Variables

In this study, personality is defined as the degree to which an employee perceives themselves as extrovert or introvert, self-confidence or self-centered and feel secure or

always cautious (Awad&Ghaziri, 2004). Knowledge sharing quality is measured in terms of relevancy, easy to understand, accuracy, completeness, reliability and timeliness. The items were adapted from McKinney et al. (2002), web-information quality and DeLone and McLean (2003) concept of Information quality. Individual factors consist of four constructs: awareness (3 items), trust (4 items), personality (2 items) and commitment (2 items). Six items were used to evaluate the response towards knowledge sharing quality. Responses were measured using five Likert scales with 1=strongly disagree and 5=strongly agree. Questionnaire is used as an instrument for collecting data on individual factors i.e. personality, trust, awareness, commitment and knowledge sharing quality.

Measurements & Discussion

Individual factors & Knowledge Sharing Quality

Descriptive analysis for individual factors disclose that awareness (mean=4.28, S.D=.426) affects more to the knowledge sharing quality amongst government officers followed by trust (mean=4.03, S.D=.406) & personality (mean=3.98, S.D=.517). In terms of knowledge sharing quality, relevant knowledge sharing has the highest mean with statistical value of 4.13 standard deviation =0.462 followed by easy to recognize dimension (mean 4.06, S.D=0.418), reliability (mean 3.95, SD=0.469), accuracy (mean 3.86, SD=0.5649) and completeness (mean 3.67, SD=0.639). On the basis of elements' mean scores, respondents have reported that relevancy as being the most significant followed by easy to understand & timeliness.

Goodness of Fit for Individual Factors & KSQ

Reliability & validity tests were directed to test the suitability of the measure undertaken for the study. Factor analysis was directed as a data decrease technique and also to define whether items are tapping into the same construct. The factor analysis was done distinctly on independent and dependent factors because it is inappropriate to mix dependent and independent variables in a single analysis (Hair et al. 2006). During factor analysis, factors with eigen value of more than one would be retained for further analysis (Hair et al. 2006). Reliability test was applied to confirm consistency in measurement through time and various items in the instrument (Sekaran, 2005).

(1) Individual Factors

All the 11 items of individual factors are submitted for analysis using Principal Component Analysis (PCA). KMO value is 0.714 which exceeds the recommended value i.e. 0.6 (Sekaran, 2005) and the Bartlett's Test of Sphericity is also significant. The result of KMO & Bartlett's test suggests that sample data is suitable for factor analysis. Table 3 presents the result of varimax factor rotation of all variables for individual factors. The PCA extracted three distinct components with eigen values exceeding 1.0. 3 items from awareness loaded on Factor 1 with a variance of 23.87 percent, 4 items from trust loaded on Factor 2 with a variance of 20.543 percent, 2 items from personality loaded on Factor 3 with a variance of 20.13 percent and 2 items from commitment loaded on Factor 4 with a variance 20.24 percent. The total variance achieved is 71.29 percent. Cronbach's Alpha value for all the factors were between 0.699 and 0.895 meeting the acceptable value 0.6 (Sekaran, 2005). The results are showed in Table 1 & 2 below.

Table 1: Factor Analysis And Reliability Test Results On Individual Factors

Items	Components				
	1	2	3	4	
I understand the meaning of knowledge sharing.	0.881				
I understand the meaning of knowledge	0.885				
management.	0.736				
I aware the importance of knowledge sharing in					
daily works.					
I fully trust expertise that my colleagues have.		0.793			
I trust that help given by my colleagues while		0.761			
having problem in doing my job.		0.705			
I believe that my colleagues will not exploit for		0.845			
their own interest.					
My self confidence is high.					
I am an extrovert type of person			0.815		
I am always cautious			0.602		
I am committed with my work.				0.702	
I am committed with my organization.				0.706	
Cronbach Alpha	0.788	0.653	0.659	0.652	
Eigenvalues	2.148	1.849	1.813	1.822	
Percentage of common variance	23.861	20.539	20.122	20.232	
Cumulative percentage	23.861	44.402	64.521	62.521	
Table:2 Bartlett's Test For Individual Factors Instrument					
Kaiser-Meyer-Olkin of Sampling Adequacy				0.714	
Bartlett's Test of Sphericity	$\mathbf{A}_{\mathbf{I}}$	pprox.Chi		999.015	
		quare			
	D			35	
	Si	gnificance	e	0.000	

(2) Knowledge Sharing Quality

Principal Component Analysis (PCA) was applied for the 6 items of the knowledge sharing quality. The result discloses that Kaiser- Meyer-Olkin of Sampling Adequacy (KMO) value is 0.815. This value is best because it surpasses the recommended value of 0.6 (Pallant, 2001) and the Bartlett's Test of Spehericity is also significant (0.000). The results (KMO and Bartlett's test) suggest that sample data is suitable to proceed with a factor analysis procedure. The PCA extracted one distinct component with eigen values exceeding 1.0. 6 items were weighed down on a single factor with variance of 53.66 percent. The Cronbach's Alpha value was 0.829 meeting the acceptable value is 0.6 (Sekaran, 2005). The results are presented in Table 3 and 4 below.

Table 3: KMO and Bartlett's test for trust instrument

Kaiser-Meyer-Olkin of Sampling Adequacy			0.815
Bartlett's Test of Sphericity	Approx.	Chi	878.066
	Square		
	Df		16
	Significance		0.000

Table 4: Factor analysis and reliability test result on knowledge sharing quality

Items	Component
Knowledge that I share with my colleagues in my organization is accurate.	0.782
Knowledge that I share with my colleagues in my organization is reliable.	0.773
Knowledge that I share with my colleagues in my organization is timely.	0.732
Knowledge that I share with my colleagues in my organization is easy to	0.723
understand.	0.695
Knowledge that I share with my colleagues in my organization is complete.	0.689
Knowledge that I share with my colleagues in my organization is relevant to	
job.	
Cronbach Alpha	0.829
Eigenvalues	3.29
Percentage of common variance	53.653
Cumulative percentage	53.653

Overall, the results statistically reveal that the items used in the study are valid and measure what it is hypothetical to measure. The instrument is reliable (with high consistencies with Cronbach Alpha for all the factors more than 0.64) that meets the acceptable value of 0.60 (Sekaran, 2005).

Table 5: Results Of Regression Analysis

•	Dependent variable
	Knowledge sharing quality
Independent variables	(Beta Standardized
Awareness	Coefficient)
Trust	0.207*
Personality	0.254*
Commitment	0.267*
	0.265*
F value	52.273*
R ₂	0.271
Adjusted R2	0.266

The results of multiple regression showed that individual factors have significant effects on knowledge sharing quality. The model is significant (p<0.01) with F-value of 52.273. The coefficient of determination (R) is 0.271, which indicates that 27.0% of the variance in knowledge sharing quality was described by the independent variables (awareness, trust, commitment and personality). The results show that personality (b=0.267), is the most significant predictor of knowledge sharing quality followed by commitment (b=0.265), trust (b=0.254) and awareness (b=0.207) Therefore it can be concluded that all hypotheses (H1, H2, H3 and H4) were supported.

Conclusion

Findings of the study demonstrated the purpose of this study i.e. to identify the relationship between individual factors and knowledge sharing quality. Individual factors (awareness, commitment, trust and personality) correlate significantly with knowledge sharing quality. Personality appears to be the most significant predictor on the quality of knowledge sharing, followed by commitment, trust and awareness. This finding will help

the government of Pakistan in formulating a new policy to encourage the sharing of knowledge among employees in all its organizations. Without the suitable personality, commitment, awareness and trust, knowledge sharing in public sector will all in vain. Continuous awareness programs might help to change worker's personality, raise their awareness and shape trust among themselves.

Limitations

Though this study has accomplished its goal, but it is also not without limitation.

- 1. The range of the study was constrained to only leading public universities located in Punjab. Therefore, generalizing the results can be questioned.
- 2. The study relies just on quantitative approach. It is proposed that for future study qualitative approach by means of open ended interview.
- 3. This study only focuses on knowledge sharing quality rather than form the quantity feature. It is valuable to combine knowledge sharing both the quality and quantity features in order to gain the benefits of the practice in maximum.
- 4. Finally, the study emphases only on four aspects from individual perspective. Future research should cover its scope to other individual aspects such as other types of personality.

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