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MANAGEMENT | RESEARCH ARTICLE

Predictors of knowledge sharing in the Pakistani educational sector: A moderated mediation study

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Abstract: In present-day the business environment is highly competitive which creates hardship for firms to sustain commitment and career satisfaction. The identification of key drivers which enhance the relationship between firm and employees is very crucial. The higher commitment levels and career satisfaction helps to create positive environment in the firm which eventually boost up the knowledge sharing. The purpose of this research is to discover the effects of three commitment levels with knowledge sharing and also to analyze the mediating role of career satisfactions well as to understand moderator effects of organizational efficacy. There is limited research exists on relationship of given variables especially in educational sector of Pakistan. This study is based on primary research therefore 325 questionnaires were distributed in educational sector of District Multan, Pakistan. Later 273 questionnaires were used to conduct this research. The questionnaire was designed into five-point Likert scale from 1, strongly disagree to 5 strongly agree. For data analyzes for descriptive statistics SPSS 23 was used additionally it was used for measurement reliability. Validity of this study was measured through AMOS 23. Furthermore this study proposes recommendations for future research.

ABOUT THE AUTHORS

Sadia Cheema and Farheen Javed are HR researchers in Multan, Pakistan. Professor Sadia Cheema is a visiting lecturer of HRM. During this time, she has attended seven conferences and published eleven articles related to human resource management. She is a current member of AL-FATTAH Apparel Association. Both researchers have similar interest and mainly focus on corporate social responsibility, human resource practices, customer loyalty and customer relationship management. Recently they manage to start work on green practices and wrote three papers on green practices and these studies contribute towards different sectors of Pakistan.

PUBLIC INTEREST STATEMENT

Today's competitive environment in business world pushed organizations to be proactive and retain commitment levels in the firm. This study focuses on benefits of increased knowledge sharing and career satisfaction in the work environment. Furthermore, it presents in depth the three commitment levels i.e. affective commitment, normative commitment, continuance commitment and overall findings of this research suggest that increased levels of commitment among employees helps to gain organizational efficacy, career satisfaction and knowledge sharing. The overall performance of the firm can be improved by the effective development of training sessions on knowledge sharing in the firm. This study is conducted on Education sector of Multan, Pakistan. The advantageous discovery suggests that career satisfaction is one of the key predictors of knowledge sharing and this research highlights the ways which can increase commitment levels among employees and desire result can be achieved by simple learning process.

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Subjects: Human Resource Management; Business, Management and Accounting

1. Introduction

Commitment encompasses the contingent strength for organization specifically and having association and involvement to remain interlinked with particularly (Rhoades, 2014). Various studies agreed that affective commitment remains connected to employee an organization psychologically and force to employee to do not leave the firm (Imran, Arif, Cheema, & Azeem, 2014; Kim, Eisenberger, & Baik, 2016; Wayne, Casper, Matthews, & Allen, 2013). It is an identification and connection between organization and employee activity that bound the employee emotionally as well as psychologically. Researchers identified organizational commitment into two basic conventions and concluded in a progression of studies. Further Thomas (2014) categorized organizational commitment into three subsequences dimensions: continuance commitment, normative and affective commitment respectively. Some studies (Gutierrez, Candela, & Carver, 2012) also evaluated organizational commitment into three types: continuance commitment, cohesion commitment and control commitment respectively. Moreover Brockner, Senior, and Welch (2014) investigated organizational commitment into these three types: value organizational commitment, effort organizational commitment and retention organizational commitment. This research put forwarded this concept of organizational commitment asserted from this framework and that was further anticipated by Hassan, Wright, and Yukl (2014). This study contributes to past research through multiple ways in theoretical perspective. Practically, the earlier literature enhanced career satisfaction by analyzing three commitment levels to enrich organizational efficacy. Specifically, findings of this research showed significantly guidelines to employee of educational sector as to how there can be developed job satisfaction by involving organizational efficacy. Accordingly, this research has two objectives. First objective of this study was to determine the impact of commitment levels on the current and future career satisfaction in the education sector. The second objective was to analyze the moderated mediation relationship of organizational efficacy between continuance commitment and career satisfaction. The research question was based on the predicting moderation mediation study.

2. Literature review

2.1. Knowledge sharing

In educational management, the study of knowledge sharing has increased a lot of attention due to innovation and creativity with workers at all levels of organization. According to Nissen, Evald, and Clarke, (2014), knowledge sharing process is a discerning process to transform learning process from individual to organizational as a whole. Vogel et al. (2013) explored that knowledge sharing facilitates (Davison, Ou, & Martinsons, 2013), contributes to organizational and individually learning (Chen, Chang, Tseng, Chen, & Chang, 2013) Organizational performance and service quality enhancement (Paulin & Suneson, 2015) all these given organizational strategies and research related to knowledge sharing gave rapidly advancements. Earlier studies have focused on individually and organizationally as a whole on all contextual variables related to knowledge sharing. Organizational culture, cooperate and openness to learning process promotes and supports knowledge management. Despite present fast changes, the research on knowledge sharing demands further more conceptual and theoretical attention to eliminate antecedents related to it with further workers behaviors impacts (Mugisha & Hrastinski, 2013). In general, the knowledge sharing significance and concern was the lack of study on behavioral predictors at organizational level (Wang, Sui, Luthans, Wang, & Wu, 2014; Wang & Wang, 2012).

2.2. Impact of affective commitment on knowledge sharing

Affective commitment can be described as an authentic and valid recognition and strong psychological association with organization that called emotional and subconscious connection (Bergman, 2006). As learning process is an intimate and familiar activity, the organizational disposition has an

important impact on intended response in organizational level. In spite of knowledge sharing on organizational level, researchers focused to identify individual learning to behavioral attitude and affective commitment (Fullwood, Rowley, & Delbridge, 2013), knowledge management orientation (Zhou & Li, 2012) And learning social capital to management of behavioral collection (Majchrzak, Faraj, Kane, & Azad, 2013). This research indicates the significance in the present literature as well as by contributing the predictors of knowledge sharing and behavior on individual level connection with affective commitment. According to Chao and Yang (2012), knowledge sharing has been considered as a significant driver in the present economy as well as in the future success. Organizations focus mainly co-ordinations and system rules instead of sharing knowledge components among employees. Although, many firms tend to articulate knowledge sharing embedded effectively over-all rather than specifically on some areas of firms. According to Shih, Hsu, Zhu, and Balasubramanian (2012), knowledge based organizations emphasize on the workers creation individually and act a main role in enhancing their intellectual capability, which in turn benefits the organization's innovative skills and creativity. Michailova and Minbaeva (2012) Stated that research centers, colleges, universities and other profit oriented firms constitutes the knowledge to process in a better way that an employee plays an active role in the organization within healthier competition.

H1: Affective commitment is positively associated with knowledge sharing.

2.3. Career satisfaction as a mediator between AC and KS

Career satisfaction refers to generally as a subjective resource of success (Vrontis, Thrassou, & Melanthiou, 2007). Various studies related to career satisfaction were assessed as a goal oriented support and capability that includes social and substantial support to employee's particular goals and affective commitment. The studies investigated the career satisfaction on scientists and further, a recent research measured career satisfaction on scientists instead of job commitment. Due to various argumentations, the career satisfaction is considered very contiguous to affective commitment. Although, career satisfaction is considered as a significant constitute in human resource management and environmental behavior fields including learning process. Researchers argued (Berezina, Cobanoglu, Miller, & Kwansa, 2012) that it would be constructive and profitable to analyze the role of learning process and subordinates as well as workers individual characteristics in the career satisfaction preliminary workplace. According to Amin, Yahya, Ismayatim, Nasharuddin, and Kassim (2013), career satisfaction can be explained as an absolute psychological or job relevance output that a worker can achieve and assemble job experience. Another theory of person environmental fit supports this concept and explains that there are including three constructs to strong this perception and they are person organization fit, needs supplies fit and demands abilities fit respectively (Williams et al., 2001).

H1a: Career satisfaction mediates the relationship of affective commitment and knowledge sharing.

2.4. The impact of normative commitment on knowledge sharing

Normative commitment refers to worker's conception to be attached with their organization.

This research was established on the concept claimed by the three major organizational commitment model components and specifically on normative commitment that were examined by Jamal (1990) and Jamali, El Dirani, and Harwood (2015). Normative commitment refers to the employee belief of trust with organization that pushes to remain loyal and stay in the firm. There was conducted a survey and results revealed the learning level was more high in middle level managers rather than lower level and higher level managers. The study concluded that the normative commitment raised learning process among middle level managers significantly. Meyer and Parfyonova (2010) reported the organizational and professional commitment in education sector. The aim of the study was to observe the relationship between socio and psychological link. The major factors contributed to this study were study program, work region, job tenure and knowledge sharing. The organizational commitment variables were normative commitment, affective commitment and

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continuance commitment respectively. The findings revealed the close link between socio and psychological variables and explored the significant influence of organizational commitment. According to Vandenabeele (2009), the greater level of normative commitment can be linked to the desirable output. For instance, low stress, anxiety, more learning process and delighting employees with lower rate of turnover.

H2: Normative commitment is positively associated with knowledge sharing.

2.5. Career satisfaction mediating the relationship of NC and KS

As Present studies (Nissen et al., 2014; Pless, Maak, & Stahl, 2012) defined that career satisfaction can be distributed into two terms: subjective and objective respectively. Subjective career satisfaction can be defined to intrinsic satisfaction while objective career satisfaction can be called an extrinsic career success. Linzer et al. (2000) and Williams et al. (2001) stated that objective career satisfaction would be straight observation or achievements like promotion, job enlargement and pay progression. However, subjective career satisfaction would be explained as a person's own satisfaction including job accomplishment. Researchers supported (Chiaburu, Diaz, & De Vos, 2013) that career satisfaction can be generally assessed as normative commitment and job satisfaction. Many career satisfaction models are involved with demographic variables like motivation, human capital etc. All these factors were found to be relevant with knowledge sharing. Past studies (Ammeter & Dukerich, 2002; Anderson & Sullivan, 1993; Judge, Cable, Boudreau, & Bretz, 1995) were assessed on career satisfaction as both objective and subjective passively and also proved through situational factors. Further studies (Amelink & Creamer, 2010) provided literature related to career satisfaction and organizational behavior association with commitment. The literature supported employee's certain attitude and behavior has a significant impact on organization. This study observed previous ten year literature direct effect on career satisfaction and results concluded that all the variables and models related to career satisfaction have a strong on normative commitment and organizational behavior.

H2a: Career satisfaction mediates the relationship between normative commitment and knowledge sharing.

2.6. The impact of continuance commitment on knowledge sharing

Continuance commitment is relied on worker's sunk cost that state to quit the organization (Gruen, Summers, & Acito, 2000). This study examined the concept of continuance commitment and asserted that there is a deep connection between organizational learning process and continuance commitment significantly. According to González and Guillén (2008), there was conducted a survey on primary school and asked to teachers about the continuance commitment and knowledge sharing. The survey was taken by 425 primary school teachers and results revealed that continuance commitment between teachers and schools is strong linked with each other significantly. Chen and Francesco (2003) analyzed the organizational commitment salient factors and observed that there is a positive impact of commitment of organizational output. The study was conducted on 480 civil engineers through observation with qualitative data collection. There were taken interviews to watch the significance among them. The finding explored the emotional link between employees and organization. There was observed a significant impact of continuance commitment on employee learning perception. The factors were taken as work stress, employee loyalty and organizational performance. All the factors showed a significant impact on continuance commitment. Based on all evidences, this research proposed now that:

H3: Continuance commitment is positively associated with knowledge sharing.

2.7. Effects of career satisfaction on the relationship of CC and KS

Continuance commitment refers to workers sunk cost that is relative to not remain in the firm (Top, Tarcan, Tekingündüz, & Hikmet, 2013). This study investigated the structure of continuance commitment with career satisfaction in deep details and identified a positive relationship between them strongly. Further studies also approved that there was found a positive impact of continuance commitment on career satisfaction (Huang, You, & Tsai, 2012). According to Judge et al. (1995), career satisfaction has a significant impact as the organizational behavior cumulative output from an environmental learning. Other researchers argued (Dinham & Scott, 2000) that employee personality acts a significant role in strong as well as weak situation. For organizational achievements, the firm should attract to the supportive workers that have an innovative and creativity direction in career success. Earlier studies (Ngobo, 1999; Nijman, Nijhof, Wognum, & Veldkamp, 2006) examined that during career satisfaction supervisor support plays a positive part in development of organizational achievement and learning process. The workers association and supportive association with managerial department influence a significant and powerful impact on career satisfaction. Various research on job satisfaction analyzed that distinct variables have a meaningful influence on not only personally but also as a whole on knowledge sharing. After considering all evidence, this research proposed that:

> H3a: Career satisfaction mediates the relationship between continuance commitment and knowledge sharing.

2.8. The role of organizational efficacy: As a moderator

Self-efficacy and organizational efficacy theories have been applied in various field t o predict collective or individual commitment in different tasks (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Stanley & McDowell, 2014). The research Mache et al. (2014) examined that "perceived collective efficacy is defined as a group's shared belief in its conjoint capabilities to organize and execute courses of action required to produce given levels of attainments". According to Cheema, Akram, and Javed (2015) and Moghadam, Mirani, Shirazi, and Boroujeni (2016), organizational efficacy is refer to achieve challenges significantly, to cope in various organizational activities and opportunities because this encounters towards company's culture. In earlier studies, there was pointed out various questions towards organizational efficacy. For instance, "what is the relationship between organizational efficacy and collective efficacy?" there was less supported literature towards these arguments (Gardner & Pierce, 1998; Jimmieson, Terry, & Callan, 2004).

Researchers supported the relationship between collective efficacy of a firm and resilience goal setting. However, some studies did not support the correlation between an organization's collective efficacy and sense of mission (Javed & Cheema, 2015; Malik, Butt, & Choi, 2015). According to Arun (2015), there has been found the moderating influence of organizational efficacy with the relation between distributed affective commitment and continuance commitment. There has been developed various arguments and predictions that helped to explore the cognition of psychological theories towards efficacy. According to Posen, Martignoni, and Lang (2013), organizational efficacy is applied in various businesses, sports, behavioral, environmental and psychological fields as a core variable. Willow (2015) explored that organizational efficacy is differentiated to self efficacy sue to various distinctions because self efficacy is considered as a judgment for individual satisfaction that "Self-efficacy may be thought of as a super ordinate judgment of performance capability that is induced by the assimilation and integration of multiple commitment determinants."

Fearon, McLaughlin, and Morris (2013) examined that generally self efficacy is understand to be constructed and linked with organizational efficacy that confuse with the characteristics in theoretically and conceptually definitions. In addition to this, organizational efficacy develops a common

overview of organizational level effectiveness and commitment to provide details for three charac-teristics. The first is to develop theoretical efficacy in organizations that enhance greater efficacious towards employees thought, job pattern, decision action efficacious that give outcome differently from organization to organization (Hirschi, 2012). According to Chin, You, and Chang (2012), organi-zational efficacy can be defined as "To perform effectively, groups also need at least a minimal belief in their own efficacy". Further another study defined organizational efficacy as "a sense of collective competence shared among individuals when allocating, coordinating, and integrating their resourc-es in a successful concerted response to specific situational demands" (Lin, Baruch, & Shih, 2012). According to Cherian and Jacob (2013), organizational efficacy can be understand as a whole pro-cess to identify commitment capabilities and assessed it as "Perceived collective efficacy will influ-ence what people choose to do as a group, how much effort they put into it, and their staying power when group efforts fail to produce results". A few studies added to organizational efficacy as a sense of "can do" that pushes the employees to do more in generative capacity (Jeon & Koh, 2014). Additionally, organizational efficacy is considered a moderator to measure the effect of organiza-tional commitment on career satisfaction through knowledge sharing. Based on all evidences, this research proposed that:

> H4: Organizational efficacy moderates the mediated relationship of continuance commitment and career satisfaction.

2.9. The impact of career satisfaction on knowledge sharing

Knowledge sharing is one of the most prominent actions in the research that shares and highlights as an compulsory process by which an employee can effort for learning based abilities that provide to create education and knowledge sharing for firm competitiveness (Hoarau & Kline, 2014). According to Nissen et al. (2014), knowledge sharing process is a discerning process to transform learning process from individual to organizational as a whole. Vogel et al. (2013) explored that knowledge sharing facilitates (Davison et al., 2013), contributes to organizational and individually learning (Chen et al., 2013) job satisfaction and service quality enhancement (Paulin & Suneson, 2015) all these given organizational strategies and research related to knowledge sharing gave rap-idly advancements. Earlier studies have focused on individually and organizationally as a whole on all contextual variables related to knowledge sharing. Organizational culture, cooperate and open-ness to learning process promotes and supports knowledge management. Despite present fast changes, the research on knowledge sharing demands further more conceptual and theoretical at-tention to eliminate antecedents related to it with further workers job satisfaction (Mugisha & Hrastinski, 2013). In general, the knowledge sharing significance and concern was the lack of study on behavioral predictors at organizational level (Wang et al., 2014; Wang & Wang, 2012). As learning process is an intimate and familiar activity, the organizational disposition has an important impact on intended response in organizational level. In spite of knowledge sharing on organizational level, researchers focused to identify individual learning to behavioral attitude (Fullwood et al., 2013), knowledge management orientation (Zhou & Li, 2012) And learning social capital to management of behavioral collection (Majchrzak et al., 2013). This research indicates the significance in the pre-sent literature as well as by contributing the predictors of knowledge sharing and behavior on indi-vidual level satisfaction. According to Chao and Yang (2012), knowledge sharing has been considered as a significant driver in the present economy as well as in the future success. Based on all evidences, this research proposed that:

> H5: Career satisfaction is positively associated with knowledge sharing.

3. Research framework
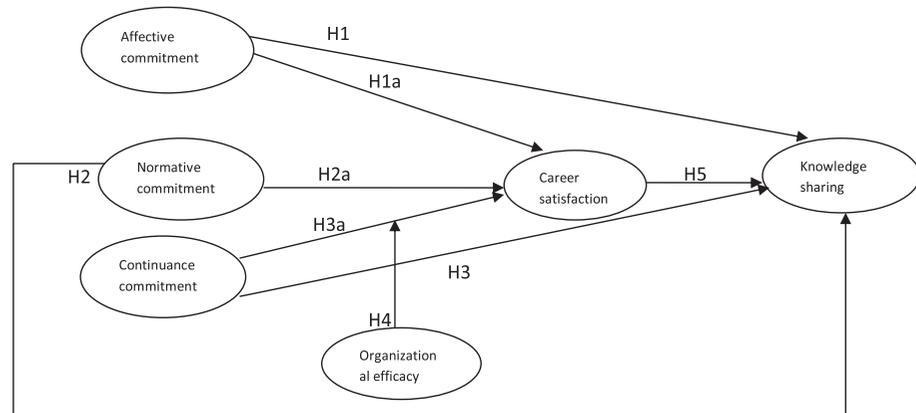
4. Methodology and measurement

4.1. Data collection and sampling design

This study consisted of unit analysis at educational sector. The lecturer, assistant professor, professor and associate professors were the target population for this research. The basic subject of this research was comprised of educationist from colleges and universities of district Multan, Pakistan. There was taken the subjects selection from two levels (Appendix 1). Primarily, there was applied convenience sampling method to choose eight colleges and two universities for the reason of data collection. Secondarily, there was further applied purposive sampling to choose 325 respondents who were associated at least 5 years with their organizations. Educationists were requested to write their name at questionnaire. As data collection tool, the questionnaire was distributed among eight colleges and two universities of district Multan. For calculating sample size, this research refers the criteria of Chou, Bentler, and Satorra (1991). For this purpose, there were multiplied total questions that were included in the questionnaire by 5, 7 or 15 to get an adequate sample size to fulfill the criteria of SEM analysis. This research chose the criteria of five cases per predictor. There was sent a 325 questionnaires to all education sectors but the complete filled were receives of 273 for data analysis. The questionnaire was designed into five-point Likert scale from 1, strongly disagree to 5 strongly agree. The data was analyzed through SPSS 23 for descriptive statistics and measurement reliability for the adopted instruments. AMOS 23 was used to analyze the validity of this study model and variables relationship through Structural equation modeling to acquire empirical results. For analysis structural model and measurement, structure equation modeling technique is the most powerful tool to investigate at two levels. This multivariate test examines the direct and indirect sides to check full and partial mediation. In this study nine scale items were chosen for normative, affective and continuance commitment in each three (Kaptein, 2013). For knowledge sharing measure, there were adopted three items from the studies of Bartlett (2001) and Hake (1998). For career satisfaction and organizational efficacy, there were adopted three items for each by Norris (2001). The basic reason to select cross section designing analysis was to the budgetary and cost saving method (Maslach & Leiter, 2008).

4.2. Demographic influence: Empirical results

The demographic statistics explored that 90.5% respondents were male while only 9.5% were female in this study. In employment status, the maximum response was found from lecturers at 72.9% while the least response was recorded from associate professors at 0.4%. Maybe, due to the limit time and less availability to associate professors was the main reason. On the other hand, the maximum respondents were holding Master's degree at 53.5%. The age distribution showed the maximum response among 31 to 40 years that were 55.7% (Table 1).

Table 1. Demographic					
		Frequency	**Percent**	**Valid percent**	**Cumulative percent**
Gender	Male	247	90.5	90.5	90.5
	Female	26	9.5	9.5	100.0
Employment	Lecturer	199	72.9	72.9	72.9
	Assistant professor	69	25.3	25.3	98.2
	Professor	4	1.5	1.5	99.6
	Associate professor	1	0.4	0.4	100.0
Education	Graduation	46	16.8	16.8	16.8
	Master	146	53.5	53.5	70.3
	Other	81	29.7	29.7	100.0
Age	21–30	73	26.7	26.7	26.7
	31–40	152	55.7	55.7	82.4
	41–50	40	14.7	14.7	97.1
	51–60+	8	2.9	2.9	100.0

4.3. Reliability analysis

There was measured reliability test for continuance commitment, affective and normative commitment that showed 0.835, 0.826 and 0.873 Cronbach's alpha respectively. In addition, knowledge sharing, organizational efficacy and career satisfaction also reported 0.841, 0.862 and 0.886 Cronbach's alpha respectively (Table 2).

4.4. Convergent validity

To measure a factor for various methods identical results is refer to convergent validity. The satisfactory results for items are always remained around 0.5. And the items (Churchill, 1979) indicated on the same factors like with >1. In this research, all items loaded on the same factor with >1. The results reported the all items showed the validity consistently from starting to 0.562 and greater that satisfied the above mention data criteria to prove this convergent validity (Table 3).

4.5. Discriminant validity

Researcher Herbst and Burger (2002) reported that the discriminant validity always remained around the data or variable that does not match with the constructs due to differentiation. Therefore, the table below showed correlation coefficient for all factors. All Cronbach Alpha showed the values greater than the values of correlation factors. This study examined from the results that the output meets the criteria and proves discriminant validity. The measurement model shows the output that details all constructs means, standard deviations and Cronbach's Alpha correlations. All results reported the significant and strong correlations of all constructs (Table 4).

Table 2. Alpha reliability coefficients of composite scales			
Reliability statistics			
Construct	**Cronbach's alpha**	**Cronbach's alpha based on standardized items**	**No. of items**
Continuance commitment	0.835	0.819	3
Affective commitment	0.826	0.820	3
Normative commitment	0.873	0.801	3
Knowledge sharing	0.841	0.836	3
Organizational efficacy	0.862	0.812	3
Career satisfaction	0.886	0.802	3

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Table 3. Exploratory factor analysis

Factor	Items	Loading	KMO	TV	Bartlet's test	C.R
Affective	Affective1	0.813	0.876	54.369	0.000	0.642
	Affective2	0.804				
	Affective3	0.745				
Normative	Normative1	0.725	0.868	57.824	0.000	0.732
	Normative2	0.667				
	Normative3	0.689				
Continuance	Continuance1	0.884	0.852	53.479	0.000	0.688
	Continuance2	0.769				
	Continuance3	0.788				
Efficacy	Efficacy1	0.856	0.879	62.476	0.000	0.781
	Efficacy2	0.738				
	Efficacy3	0.621				

Table 4. Mean, standard deviation and correlation

Constructs	Mean	Standard deviation	A	B	C	D	E	F
A. Affective commitment	2.52	0.529	0.835					
B. Normative commitment	2.63	0.546	0.673*	0.826				
C. Continuance commitment	2.48	0.632	0.642*	0.528*	0.873			
D. Organizational efficacy	2.36	0.712	0.614*	0.625*	0.697*	0.841		
E. Career satisfaction	2.59	0.566	0.677*	0.691*	0.587*	0.526*	0.862	
F. Knowledge sharing	2.45	0.521	0.592*	0.693*	0.633*	0.696*	0.669*	**0.886**

Table 5. Structural model

Overall fit of the model

Chi-square/degree of freedom (χ^2/df)	1.768
Goodness-of-fit index (GFI)	0.902
Root mean square residual (RMR)	0.062
Comparative fit index (CFI)	0.903
Tucker Lewis index (TLI)	0.867
Root mean square error of approximation (RMSEA)	0.041

4.6. Structural model's result

In the overall model fit, all values showed the appropriateness of model fit. The output revealed CMIN = 1.857, GFI = 0.876, RMR = 0.039, TLI = 0.867, RMSEA = 0.041, CFI = 0.901). The measurement model examines the path analysis (Table 5).

This study examined the path analysis and identified the all measures appropriateness and adequacy to further progress analysis covariance of all variables including mediator and moderator. To check the impact of moderator organizational efficacy, there was applied the interaction term and

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Table 6. Structural model	
Overall fit of the model	
Chi-square/degree of freedom (χ^2/df)	1.857
Goodness-of-fit index (GFI)	0.876
Root mean square residual (RMR)	0.039
Comparative fit index (CFI)	0.901
Tucker Lewis index (TLI)	0.914
Root mean square error of approximation (RMSEA)	0.385

continuance commitment multiplied by organizational efficacy. The reason was to measure the impact of continuance commitment on knowledge sharing with career satisfaction being moderator. Further, mediating analysis was tested through Bush and Hair (1985) approach. First, the impact of all three independent variables affective, normative and continuance commitment was test without mediator career satisfaction into AMOS 23, Structural equation model technique. Then the beta coefficients were analyzed through adding the mediator career satisfaction (Table 6).

The results showed the full mediation in measurement model table and the hypothesis 2 did not support. However, H1, H1a, H2a, H3, H3a and H4 showed strong support to this study. The covariance residual were lower and near to zero and the full results are shown in this model.

The hypothesis 1 "affective commitment has a positive effect on knowledge sharing" supported to this study with p value of 0.000. Further, hypothesis 3 also supported the study significantly in these results. The mediator career satisfaction supported with hypothesis H1a, H2a and H3a. All results supported this study positively. In addition, hypothesis 4 supported significantly the continuance commitment relation to career satisfaction and knowledge sharing was moderated by organizational efficacy.

4.7. Results in model framework
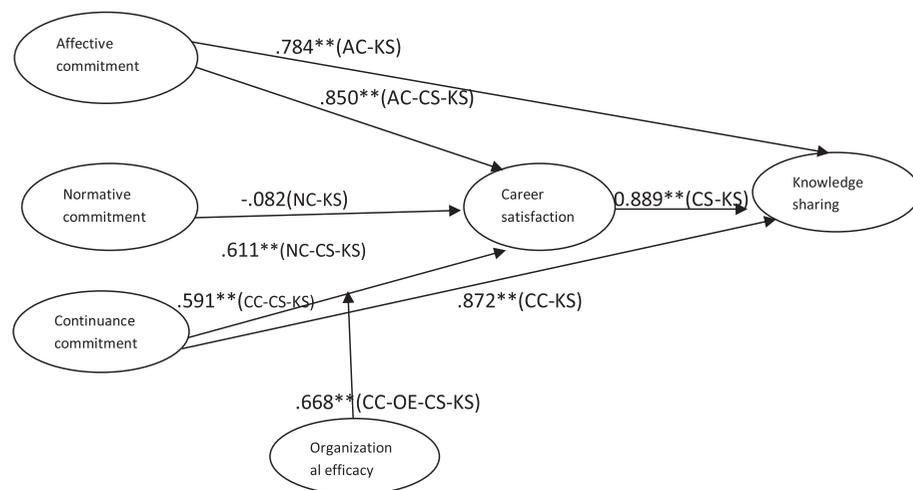
4.8. Discussion

The purpose the study was to analyze the impact of commitment levels on career satisfaction. Particularly, the aim was to examine the impact of organizational efficacy as a moderator of relationship between continuance commitment and career satisfaction. The findings showed the significant support to H1, H1a, H2a, H3, H3a and H4 as the covariance residual were lower. In contrast, hypothesis 2 did not support to this research but hypothesis 4 supported positively the continuance commitment relation to career satisfaction and thus, knowledge sharing was moderated by organizational efficacy. The study also revealed that through more commitment the chances of career satisfaction increased to knowledge sharing level. All demographic characteristics identified the significant impact on this study. The results showed the positive relationship of affective and continuance commitment on knowledge sharing. Findings of this research examined the variance of significance by the organizational commitment on knowledge sharing and career satisfaction. However, the overall results were positive and significant and support to this study. During data collection, majority of respondents showed the need to be more commitment and higher knowledge sharing for proficient efficiency in every organization. The integration of this study's variables and demographic constructs identified to be constructed a competitive, potential and strengthening communication through collaborative process.

5. Conclusion and recommendation

The results on the base of affective, continuance and normative commitment showed the key determinant of career satisfaction. To examine the impact of the three independent variables with knowledge sharing as a dependent and career satisfaction as a mediator, there was conducted primary research with empirical data from colleges and universities of Multan District, Pakistan, Academically this research identified the significance of study by giving in two distinct levels. Firstly, it implemented an integration of framework to anticipate knowledge sharing with other intervening variables. Further, educationists often indicate a behavior of satisfaction towards their organizations. This study illustrates this dilemma through revealing the moderation effect. The impact of organizational efficacy was taken as a moderator of relationship of continuance commitment and career satisfaction. The results identified that knowledge sharing mediates strongly as H1a, H2a and H3a. The research concluded that through more commitment the chances of career satisfaction increased to knowledge sharing level. The past research also supported and proved through various surveys, interviews and observations and explored a positive impact of affective commitment and continuance commitment on knowledge sharing except normative commitment. Further, the demographic factors showed a strong influence on all variables. The outcome of age, gender, education and employment status explored the powerful impact on research. SEM, AMOS 23 was applied to support the study and significant impact was found of affective and continuance commitment on knowledge sharing. The results showed the variance of significance by the organizational commitment (including affective, normative and continuance) on knowledge sharing and career satisfaction. Although, there was found some problems during questionnaire filling from respondents in universities that needs to do further research with greater quantity of data in future. All respondents explored the need to be more commitment and higher knowledge sharing for proficient efficiency in all sectors. The integration of all these variables and demographic factors revealed to be constructed a competitive, potential and strengthening communication through collaborative process. These are the following recommendations for further studies. To strengthen commitment in the organization especially in Education sectors, organizations should introduce training sections for all the staff members which will improve commitment level and also helps to build strong concept of knowledge sharing in all sectors. For knowledge sharing purpose, proper education should be given to the employees to increase learning level in the organizations which eventually improve overall satisfaction.

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References
Amelink, C. T., & Creamer, E. G. (2010). Gender differences in elements of the undergraduate experience that influence satisfaction with the engineering major and the intent to pursue engineering as a career. *Journal of Engineering Education, 99*, 81–92. http://dx.doi.org/10.1002/jee.2010.99.issue-1

Amin, M., Yahya, Z., Ismayatim, W. F. A., Nasharuddin, S. Z., & Kassim, E. (2013). Service quality dimension and customer satisfaction: An empirical study in the malaysian hotel industry. *Services Marketing Quarterly, 34*, 115–125. http://dx.doi.org/10.1080/15332969.2013.770665

Ammeter, A. P., & Dukerich, J. M. (2002). Leadership, team building, and team member characteristics in high performance project teams. *Engineering Management Journal, 14*, 3–10. http://dx.doi.org/10.1080/10429247.2002.11415178

Anderson, E. W., & Sullivan, M. W. (1993). The antecedents and consequences of customer satisfaction for firms. *Marketing Science, 12*, 125–143. http://dx.doi.org/10.1287/mksc.12.2.125

Arun, K. (2015). Effect of knowledge sharing and supply chain management on organizational performance. *International Journal of Knowledge-Based Organizations (IJKBO), 5*, 19–32. http://dx.doi.org/10.4018/IJKBO

Bartlett, K. R. (2001). The relationship between training and organizational commitment: A study in the health care field. *Human Resource Development Quarterly, 12*, 335–352. http://dx.doi.org/10.1002/hrdq.1001

Berezina, K., Cobanoglu, C., Miller, B. L., & Kwansa, F. A. (2012). The impact of information security breach on hotel guest perception of service quality, satisfaction, revisit intentions and word-of-mouth. *International Journal of Contemporary Hospitality Management, 24*, 991–1010. http://dx.doi.org/10.1108/09596111211258883

Bergman, M. E. (2006). The relationship between affective and normative commitment: Review and research agenda. *Journal of Organizational Behavior, 27*, 645–663. http://dx.doi.org/10.1002/(ISSN)1099-1379

Brockner, J., Senior, D., & Welch, W. (2014). Corporate volunteerism, the experience of self-integrity, and organizational commitment: Evidence from the field. *Social Justice Research, 27*, 1–23. http://dx.doi.org/10.1007/s11211-014-0204-8

Bush, A. J., & Hair, Jr., J. F. (1985). An assessment of the mall intercept as a data collection method. *Journal of Marketing Research*, 158–167. http://dx.doi.org/10.2307/3151361

Chao, A. F. Y., & Yang, H. L. (2012). Knowledge sharing effects on the market of used durable goods: Agent-based simulation approach. *Journal of Convergence Information Technology, 7*, 253–264.

Cheema, S., Akram, A., & Javed, F. (2015). Employee engagement and visionary leadership: Impact on customer and employee satisfaction. *Journal of Business Studies Quarterly, 7*, 139.

Chen, C. W., Chang, M. L., Tseng, C. P., Chen, B.-C., & Chang, Y. Y. C. (2013). Critical human factor evaluation of knowledge sharing intention in Taiwanese enterprises. *Human Factors and Ergonomics in Manufacturing & Service Industries, 23*, 95–106. http://dx.doi.org/10.1002/hfm.20300

Chen, Z. X., & Francesco, A. M. (2003). The relationship between the three components of commitment and employee performance in China. *Journal of Vocational Behavior, 62*, 490–510. http://dx.doi.org/10.1016/S0001-8791(02)00064-7

Cherian, J., & Jacob, J. (2013). Impact of self efficacy on motivation and performance of employees. *International Journal of Business and Management, 8*, 80.

Chiaburu, D. S., Diaz, I., & De Vos, A. (2013). Employee alienation: Relationships with careerism and career satisfaction. *Journal of Managerial Psychology, 28*, 4–20. http://dx.doi.org/10.1108/02683941311298832

Chin, J. H., You, J. S., & Chang, K. J. (2012). Comparison of role conflict, self-efficacy, job satisfaction, and job involvement between nutrition teachers and dietitians at School Food Service in Incheon Metropolitan City-focusing on the interactions between nutrition teachers and dietitians. *Korean Journal of Nutrition, 45*, 64–79. http://dx.doi.org/10.4163/kjn.2012.45.1.64

Chou, C. P., Bentler, P. M., & Satorra, A. (1991). Scaled test statistics and robust standard errors for non-normal data in covariance structure analysis: A Monte Carlo study. *British Journal of Mathematical and Statistical Psychology, 44*, 347–357. http://dx.doi.org/10.1111/bmsp.1991.44.issue-2

Churchill, Jr., G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 64–73. http://dx.doi.org/10.2307/3150876

Davison, R. M., Ou, C. X. J., & Martinsons, M. G. (2013). Information technology to support informal knowledge sharing. *Information Systems Journal, 23*, 89–109. http://dx.doi.org/10.1111/isj.2013.23.issue-1

Dinham, S., & Scott, C. (2000). Moving into the third, outer domain of teacher satisfaction. *Journal of Educational Administration, 38*, 379–396. http://dx.doi.org/10.1108/09578230010373633

Fearon, C., McLaughlin, H., & Morris, L. (2013). Conceptualising work engagement: An individual, collective and organisational efficacy perspective. *European Journal of Training and Development, 37*, 244–256. http://dx.doi.org/10.1108/03090591311312723

Fullwood, R., Rowley, J., & Delbridge, R. (2013). Knowledge sharing amongst academics in UK universities. *Journal of Knowledge Management, 17*, 123–136. http://dx.doi.org/10.1108/13673271311300831

Gardner, D. G., & Pierce, J. L. (1998). Self-esteem and self-efficacy within the organizational context an empirical examination. *Group & Organization Management, 23*, 48–70. http://dx.doi.org/10.1177/1059601198231004

González, T. F., & Guillén, M. (2008). Organizational commitment: A proposal for a wider ethical conceptualization of 'normative commitment'. *Journal of Business Ethics, 78*, 401–414. http://dx.doi.org/10.1007/s10551-006-9333-9

Gruen, T. W., Summers, J. O., & Acito, F. (2000). Relationship marketing activities, commitment, and membership behaviors in professional associations. *Journal of Marketing, 64*, 34–49. http://dx.doi.org/10.1509/jmkg.64.3.34.18030

Gutierrez, A. P., Candela, L. L., & Carver, L. (2012). The structural relationships between organizational commitment, global job satisfaction, developmental experiences, work values, organizational support, and person-organization fit among nursing faculty. *Journal of Advanced Nursing, 68*, 1601–1614.
http://dx.doi.org/10.1111/jan.2012.68.issue-7

Hake, R. R. (1998). Interactive-engagement versus traditional methods: A six-thousand-student survey of mechanics test data for introductory physics courses. *American Journal of Physics, 66*, 64–74.
http://dx.doi.org/10.1119/1.18809

Hassan, S., Wright, B. E., & Yukl, G. (2014). Does ethical leadership matter in government? effects on organizational commitment, absenteeism, and willingness to report ethical problems. *Public Administration Review, 74*, 333–343.
http://dx.doi.org/10.1111/puar.12216

Herbst, F., & Burger, C. (2002). Attributes used by young consumers when assessing a fashion product: A conjoint analysis approach. *Journal of Family Ecology and Consumer Sciences/Tydskrif vir Gesinsekologie en Verbruikerswetenskappe, 30*, 34.

Hirschi, A. (2012). Callings and work engagement: Moderated mediation model of work meaningfulness, occupational identity, and occupational self-efficacy. *Journal of Counseling Psychology, 59*, 479.
http://dx.doi.org/10.1037/a0028949

Hoarau, H., & Kline, C. (2014). Science and industry: Sharing knowledge for innovation. *Annals of Tourism Research, 46*, 44–61.
http://dx.doi.org/10.1016/j.annals.2014.01.005

Huang, C. C., You, C. S., & Tsai, M. T. (2012). A multidimensional analysis of ethical climate, job satisfaction, organizational commitment, and organizational citizenship behaviors. *Nursing Ethics, 19*, 513–529.

Imran, H., Arif, I., Cheema, S., & Azeem, M. (2014). Relationship between job satisfaction, job performance, attitude towards work, and organizational commitment. *Entrepreneurship and Innovation Management Journal, 2*, 135–144.

Jamal, M. (1990). Relationship of job stress and type-A behavior to employees' job satisfaction, organizational commitment, psychosomatic health problems, and turnover motivation. *Human Relations, 43*, 727–738.
http://dx.doi.org/10.1177/001872679004300802

Jamali, D. R., El Dirani, A. M., & Harwood, I. A. (2015). Exploring human resource management roles in corporate social responsibility: The CSR-HRM co-creation model. *Business Ethics: A European Review, 24*, 125–143.
http://dx.doi.org/10.1111/beer.2015.24.issue-2

Javed, F., & Cheema, S. (2015). The relationship between organizational resources and work engagement: The mediating role of service climate as a predictor of performance and loyalty in shopping malls of Pakistan. *Journal of Business Studies Quarterly, 7*, 11.

Jeon, K. D., & Koh, M. S. (2014). Comparative study of emotional intelligence, organizational citizenship behavior, organizational commitment and organizational performance of clinical nurses in Korea. *Journal of Korean Academy of Nursing Administration, 20*, 446–454.
http://dx.doi.org/10.11111/jkana.2014.20.4.446

Jimmieson, N. L., Terry, D. J., & Callan, V. J. (2004). A longitudinal study of employee adaptation to organizational change: The role of change-related information and change-related self-efficacy. *Journal of Occupational Health Psychology, 9*, 11.
http://dx.doi.org/10.1037/1076-8998.9.1.11

Judge, T. A., Cable, D. M., Boudreau, J. W., & Bretz, R. D. (1995). An empirical investigation of the predictors of executive career success. *Personnel Psychology, 48*, 485–519.

Kaptein, M. (2013). Business codes of multinational firms: What do they say? In *Citation Classics from the Journal of Business Ethics* (pp. 525–547). Springer.

Kim, K. Y., Eisenberger, R., & Baik, K. (2016). Perceived organizational support and affective organizational commitment: Moderating influence of perceived organizational competence. *Journal of Organizational Behavior, 37*, 558–583.

Lin, C. P., Baruch, Y., & Shih, W. C. (2012). Corporate social responsibility and team performance: The mediating role of team efficacy and team self-esteem. *Journal of Business Ethics, 108*, 167–180.
http://dx.doi.org/10.1007/s10551-011-1068-6

Linzer, M., Konrad, T. R., Douglas, J., McMurray, J. E., Pathman, D. E., Williams, E. S., & Bigby, J. A. (2000). Managed care, time pressure, and physician job satisfaction: Results from the physician worklife study. *Journal of General Internal Medicine, 15*, 441–450.
http://dx.doi.org/10.1046/j.1525-1497.2000.05239.x

Mache, S., Vitzthum, K., Wanke, E., David, A., Klapp, B. F., & Danzer, G. (2014). Exploring the impact of resilience, self-efficacy, optimism and organizational resources on work engagement. *Work, 47*, 491–500.

Majchrzak, A., Faraj, S., Kane, G. C., & Azad, B. (2013). The contradictory influence of social media affordances on online communal knowledge sharing. *Journal of Computer-Mediated Communication, 19*, 38–55.
http://dx.doi.org/10.1111/jcc4.2013.19.issue-1

Malik, M. A., Butt, A. N., & Choi, J. N. (2015). Rewards and employee creative performance: Moderating effects of creative self-efficacy, reward importance, and locus of control. *Journal of Organizational Behavior, 36*, 59–74.
http://dx.doi.org/10.1002/job.v36.1

Maslach, C., & Leiter, M. P. (2008). Early predictors of job burnout and engagement. *Journal of Applied Psychology, 93*, 498. http://dx.doi.org/10.1037/0021-9010.93.3.498

Meyer, J. P., & Parfyonova, N. M. (2010). Normative commitment in the workplace: A theoretical analysis and re-conceptualization. *Human Resource Management Review, 20*, 283–294.
http://dx.doi.org/10.1016/j.hrmr.2009.09.001

Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior, 61*, 20–52.
http://dx.doi.org/10.1006/jvbe.2001.1842

Michailova, S., & Minbaeva, D. B. (2012). Organizational values and knowledge sharing in multinational corporations: The Danisco case. *International Business Review, 21*, 59–70.
http://dx.doi.org/10.1016/j.ibusrev.2010.11.006

Moghadam, S. K., Mirani, S., Shirazi, S. M., & Boroujeni, M. H. (2016). Research paper observing the relation between the efficacy of personnel and organizational effectiveness (case study: Ertebat Sayar Hamgroh Telecommunication Company). *Organization, 4*, 238–244.

Mugisha, R., & Hrastinski, S. (2013). Towards understanding acceptance of using mobile devices for knowledge sharing in healthcare settings: A literature review.

Ngobo, P. V. (1999). Decreasing returns in customer loyalty: Does it really matter to delight the customers? *NA-Advances in Consumer Research, 26*, 29.

Nijman, D.-J. J. M., Nijhof, W. J., Wognum, A. A. M., & Veldkamp, B. P. (2006). Exploring differential effects of supervisor support on transfer of training. *Journal of European Industrial Training, 30*, 529–549.
http://dx.doi.org/10.1108/03090590610704394

Nissen, H. A., Evald, M. R., & Clarke, A. H. (2014). Knowledge sharing in heterogeneous teams through collaboration and cooperation: Exemplified through Public–Private-Innovation partnerships. *Industrial Marketing Management, 43*, 473–482. http://dx.doi.org/10.1016/j.indmarman.2013.12.015

Norris, P. (2001). *Digital divide: Civic engagement, information poverty, and the Internet worldwide*. New York, NY: Cambridge University Press. http://dx.doi.org/10.1017/CBO9781139164887

Paulin, D., & Suneson, K. (2015). Knowledge transfer, knowledge sharing and knowledge barriers–three blurry terms in KM. *Leading Issues in Knowledge Management, Volume Two, 2*, 73–94.

Pless, N., Maak, T., & Stahl, G. (2012). Promoting corporate social responsibility and sustainable development through management development: What can be learned from international service learning programs? *Human Resource Management, 51*, 879–903.

Posen, H. E., Martignoni, D., & Lang, M. (2013). *Is confucius wrong? Second-order knowledge and the efficacy of learning*. Paper presented at the Academy of Management Proceedings.

Rhoades, L. (2014). *Impact of work environment factors on organizational commitment across generational cohorts in the management consulting industry*. Malibu, CA: Pepperdine University.

Shih, S. C., Hsu, S. H. Y., Zhu, Z., & Balasubramanian, S. K. (2012). Knowledge sharing—A key role in the downstream supply chain. *Information & Management, 49*, 70–80. http://dx.doi.org/10.1016/j.im.2012.01.001

Stanley, L. J., & McDowell, W. (2014). The role of interorganizational trust and organizational efficacy in family and nonfamily firms. *Journal of Family Business Strategy, 5*, 264–275. http://dx.doi.org/10.1016/j.jfbs.2013.07.001

Thomas, K. (2014). *The influence of post-layoff perceived organizational support (POS) and organizational commitment (OC) on layoff survivors' turnover intentions (TOI): Layoffs in the government industry*. Minneapolis, MN: Capella University.

Top, M., Tarcan, M., Tekingündüz, S., & Hikmet, N. (2013). An analysis of relationships among transformational leadership, job satisfaction, organizational commitment and organizational trust in two Turkish hospitals. *The International Journal of Health Planning and Management, 28*, e217–e241. http://dx.doi.org/10.1002/hpm.v28.3

Vandenabeele, W. (2009). The mediating effect of job satisfaction and organizational commitment on self-reported performance: More robust evidence of the PSM—performance relationship. *International Review Of Administrative Sciences, 75*, 11–34.

Vogel, A. L., Hall, K. L., Fiore, S. M., Klein, J. T., Bennett, L. M., Gadlin, H., … Patrick, K. (2013). The team science toolkit: Enhancing research collaboration through online knowledge sharing. *American Journal of Preventive Medicine, 45*, 787–789. http://dx.doi.org/10.1016/j.amepre.2013.09.001

Vrontis, D., Thrassou, A., & Melanthiou, Y. (2007). A contemporary higher education student-choice model for developed countries. *Journal of Business Research, 60*, 979–989. http://dx.doi.org/10.1016/j.jbusres.2007.01.023

Wang, H., Sui, Y., Luthans, F., Wang, D., & Wu, Y. (2014). Impact of authentic leadership on performance: Role of followers' positive psychological capital and relational processes. *Journal of Organizational Behavior, 35*, 5–21. http://dx.doi.org/10.1002/job.1850

Wang, Z., & Wang, N. (2012). Knowledge sharing, innovation and firm performance. *Expert Systems with Applications, 39*, 8899–8908. http://dx.doi.org/10.1016/j.eswa.2012.02.017

Wayne, J. H., Casper, W. J., Matthews, R. A., & Allen, T. D. (2013). Family-supportive organization perceptions and organizational commitment: The mediating role of work–family conflict and enrichment and partner attitudes. *Journal of Applied Psychology, 98*, 606. http://dx.doi.org/10.1037/a0032491

Williams, E. S., Konrad, T. R., Scheckler, W. E., Pathman, D. E., Linzer, M., McMurray, J. E., … Schwartz, M. (2001). Understanding physicians' intentions to withdraw from practice: The role of job satisfaction, job stress, mental and physical health. *Health Care Management Review, 26*, 7–19. http://dx.doi.org/10.1097/00004010-200101000-00002

Willow, A. J. (2015). The shifting topology of environmentalism: Human-environment relationships and conceptual trends in two North American Organizational Histories. *Nature and Culture, 10*, 157–177.

Zhou, K. Z., & Li, C. B. (2012). How knowledge affects radical innovation: Knowledge base, market knowledge acquisition, and internal knowledge sharing. *Strategic Management Journal, 33*, 1090–1102. http://dx.doi.org/10.1002/smj.1959

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Appendix 1

Questionnaire

Dear Madam/Sir

We are studying "Predictors of Knowledge sharing in the Pakistani educational sector: A moderated mediation study". The following statements ask about the way you feel, think, or act in your life/organization. For each statement, please encircle the number that most appropriately matches your answer, by using the scale given below.

Please note that your responses will be kept confidential and are for research information purposes only.

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

1. Personal information

Gender () M () F	Marital status		Total work experience (years)
	() Single	() Married	
Age: () 21–30	() 31–40	() 41–50	() 51–60+
Educational Degree:	() Graduation	() Master	() Up to Masters
Employment Status:	() Lecturer	() Assistant Professor	() Professor
	() Associate Professor		

2. Organizational commitment items

Affective commitment

1. This organization has a great deal of personal meaning for me	1	2	3	4	5
2. Right now staying with the organization is a matter of necessity	1	2	3	4	5
3. I feel that I have too few options to consider leaving the organization	1	2	3	4	5

Normative commitment

4. I really feel as if the organization's problems are my own	1	2	3	4	5
5. I would not leave my organization because I have a sense of obligation to its people	1	2	3	4	5
6. This organization deserves my loyalty	1	2	3	4	5

Continuance commitment

7. I would be very happy to spend the rest of my career with this organization	1	2	3	4	5
8. If I had not already put so much of myself into this organization I might consider working elsewhere	1	2	3	4	5
9. Even if it were to my advantage, I do not feel it would be right to leave my organization now	1	2	3	4	5

3. Knowledge sharing

10. Co-workers in our department are a source of diverse task-specific knowledge	1	2	3	4	5
11. The knowledge provided by department co-workers is very useful for students service delivery	1	2	3	4	5
12. Co-workers in our department provide critical knowledge to solve task-related problems	1	2	3	4	5

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4. Career satisfaction

13. I am satisfied with the progress that I have made for income when compared with co-workers	1	2	3	4	5
14. I am satisfied with the progress that I have made for advancement	1	2	3	4	5
15. I am satisfied with the progress that I have made for rank position when compared with co-workers	1	2	3	4	5

5. Organizational efficacy

16. At work, we coordinate efforts to complete difficult tasks as best as possible	1	2	3	4	5
17. Employees can mobilize efforts to accomplish difficult and complex goals for organizational efficacy	1	2	3	4	5
18. During duty, everyone works very effectively together	1	2	3	4	5