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Impact of Knowledge Sharing on Job Satisfaction of University Librarians in Pakistan

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Impact of Knowledge Sharing on Job Satisfaction of University Librarians in Pakistan

Abstract

The objectives of this study were twofold. First, it investigated the impact of knowledge sharing (KS) on job satisfaction (JS), second, this study examined the role of demographic variables (gender, age, designation, qualification, and experience) between KS-JS relationship. A cross-sectional survey questionnaire was used to collect data from 274 currently working university librarians in Higher Education Commission (HEC) recognized universities of Pakistan. The collected data were analyzed using Statistical Package for Social Sciences (SPSS) version 22 by applying relevant descriptive and inferential statistics. The findings of this study observed a positive association between KS and JS, where KS significantly impacted JS of university librarians. Further, there was no significant findings indicating that the above mentioning demographic variables moderated the relationship between KS and JS except gender. However, conditional or marginal moderation role were observed between KS and JS relationship in presence of these demographic variables (age, designation, qualification, and experience). This study would help institutional management understand librarians' behavior towards their KS so that a collaborative sharing and cohesive learning environment could be established at micro and macro level for high JS. It will provide a pragmatic insight to librarians and universities in order to achieve overall organizational objectives by connecting KS and JS considering demographic factors.

Keywords: Knowledge sharing, Job satisfaction, University librarians, Demographic, Pakistan.

Introduction

The foundation of 21st century's organizations is no longer capital, money or even technology but it is knowledge. Knowledge has been recognized as one of a critically and strategically important source of value creation and sustained competitive advantage for both types of organizations (service-oriented and profit-oriented). The value of knowledge increases when it is shared among individuals, groups, and from one generation to another (Nguyen, Nham, Froese, & Malik, 2019). Thus, the value of knowledge sharing (KS) arises as it is a deliberate element yielding interactive benefits for both employees and organizations (Sitlington, 2012). It is a common notion in business and knowledge management (KM), if organizations want to gain sufficient benefits from its knowledge assets, they must involve its employees in KS processes (Longo & Mura, 2011). KS has been recognized as a significant and vital element of KM processes and it is also a useful and practical tool of KM facilitating organizations to gain their objectives through employees' mutual understanding and collaboration. Therefore, measuring KS behavior of employees has been a central focus of interest of many researchers and practitioners over past few decades (Farrukh, Sajid, Zreen, & Khalid, 2020).

To implement KM activities successfully, a number of individual and organizational factors has been identified in previous researches that influence and are influenced by KS (Amayah, 2011). These factors are generally grouped and discussed separately in literature (Bock, Lee, & Zmud, 2005; Gagné, 2009). Some important organizational factors include organizational culture (Kankanhalli, Tan, & Wei, 2005; Kucharska & Bedford, 2019), environment (Attar, Kang, & Sohaib, 2019), commitment (Curado & Vieira, 2019), structure (Walczak, 2005), information technology (Hislop, 2013), leadership (Bircham-Connolly, Corner, & Bowden, 2005) etc. Whereas, individual factors relate to beliefs, values, attitudes, trust, job performance, job satisfaction (JS), and behaviors of employees (Fullwood, Rowley, & McLean, 2019). Among many factors, JS and job performance have been recognized as the core individual factors that are related to KS. The empirical evidences have proved a strong positive association between KS and JS (Rafique & Mahmood, 2018). For instance, Almahamid, McAdams, and Kalaldehy (2010) pointed out that KS among employees increased employees' work-related capabilities and JS. Further, Kianto, Vanhala and Heilmann (2016)

found that KM practices including KS had a strong and positive impact on employees' JS. Similarly, Malik and Kanwal's (2018) results illustrated that KS practices in organizations boosted the satisfaction level of employees towards their job. Dalati and Alchach (2018) depicted that KS behavior was positively correlated with JS. However, the results of Koseoglu, Bektas, Parnell, and Carraher' (2010) study are somewhat different and they found a reciprocal relation between KM practices (including KS) and JS.

Due to an increased importance of KS and JS in both profit and non-profit organizations, many researchers gave a great deal of attention towards measuring the relationship of KS and JS in presence of some mediating and moderating factors (Kakhki, Rajabi, Naji, AsemanDoreh, & Harati, 2020). It is evident that the relationship of KS and JS is mediated and moderated by various factors that consist of emotional intelligence (Thiptanamanee & Ussahawanitchakit, 2016), positive and negative affective tone (Lin, 2015), organizational citizenship behavior (Jacobs & Roodt, 2008; Mogotsi, Boon, & Fletcher, 2011; The & Sun, 2012), organizational commitment (Heo & Cheon, 2007; Sang, Xia, Ni, Cui, Wang, & Wang, 2020), employees' learning commitments & employees' adaptability (Almahamid et al., 2010), and willingness & eagerness to share knowledge (de Vries, Hooff, & Ridder, 2006). Moreover, many studies are and have been using demographic variables such as gender, age, income, race, ethnicity, level of experience, etc. as moderators while investigating the relationships between different variables in research. However, the search of published literature consulting LISA (Library and Information Science Abstract), LISTA (Library, Information Science and Technology Abstract), ISI web of knowledge, and Google Scholar indicated that neither a single study was conducted to determine the role of demographics between the relationship of KS and JS nor selected university librarians as a unit of analysis. Therefore, keeping in the view the importance of this highly service oriented population, present study was designed with an aim to explore the impact of KS on their JS in presence of their demographic information. This study would be a significant contribution in the extant literature on information & knowledge management, library and information sciences, and organizational behavior. It would also open new horizons towards the role and importance of human capital during KS-JS relationship in libraries.

Review of the Literature

Knowledge Sharing

KS is considered one of a core and pragmatically important activity among KM processes that encompasses social interaction and interpersonal relationship where individuals exchange their knowledge, ideas, and experiences with others (Rafique, 2014). Ipe (2003) defines KS as “the process by which knowledge held by an individual is converted into a form that can be understood, absorbed, and used by other individuals” (p. 341). Cabrera, Collins, and Salgado (2006) suggested that KS process included the seeking of information and ideas of others; and providing ideas and insights to others. Javadpour and Samiei (2017) assert that KS is a two-way process involving two parties; where first one is called *knowledge receiver/demander* and the other one is known as *knowledge supplier*. KS among two parties is usually voluntarily and depends on how one interacts with other formally or informally (Filius, de Jong, & Roelofs, 2000) to support him/her by transferring the knowledge of organizational resources and assets (Dawson, 2000). If one party is reluctant to share knowledge, other party will suffer and thus organizations will suffer too. Therefore, organizations spend a lot of resources to overcome knowledge hoarding among workers for achieving competitive advantages through benefits of employees’ collaboration.

In library perspective, KS is the sharing of tacit and implicit knowledge by and for LIS professionals (Kumaresan, 2010). Libraries can get multiple benefits from KS such as penetrating innovation culture in libraries, helps expand the healthy and effective utilization of library resources, and improves library operations (Awodoyin, Osisanwo, Adetoro, & Adeyemo, 2016). A number of studies are carried out to determine the KS behavior of librarians and library staff, for instance, Kumaresan and Swrooprani (2013) carried out a study and revealed that library and information science (LIS) professionals were involved in a number of activities related to KS with their co-workers and other library staff members. They found language and lack of sharing culture big barriers in the way of KS in libraries. Omotoso and Popoola (2019) explored that librarian shared their knowledge on service matters, reference services, issues faced during delivery of services, and information literacy. Further, they found that library higher management supported them in sharing their knowledge with each other and with library personnel as well. The study of Khoro (2019) found that special libraries’ staff shared knowledge with each other and with other libraries’ staff members using different kinds

of platforms like WhatsApp and Facebook. He further pointed out that special library staff shared knowledge to keep their knowledge up-to-date. Kacunguzi (2013) conducted a study on Makerere University library and concluded that library had installed various IT tools to implement and perform library tasks but the utilization of these IT tools for KS, knowledge acquisition, retention, and storage was not as enough as it could be. He emphasized the importance of collaboration between library and IT staff in harnessing KS culture using IT tools in university libraries. Khan (2014) proposed a model plan for KS among library and information science (LIS) professionals and found that several factors such as education, experience, reward & incentive system, staff commitment, trust, leadership style, team work, and collaboration stimulated LIS professionals to share their knowledge. Further, he proposed some sort of skills as prerequisite skills for KS that included communication skills, team working skills, negotiating skills, leadership skills, networking skills, ICT skills, and management skills.

Job Satisfaction

Almost 85 years ago, Hoppock (1935) presented the concept of JS, and its importance can be realized from the findings of Granny, Smith, and Stone (1992) who claimed that more than 5,000 research studies were carried out by various researchers and practitioners on determining JS of employees working in different organizations. Due to an amplified importance, this concept received a considerable attention of various researchers in the field of Human Resource Management (HRM), Business, and Psychology. A plethora of definitions are available to describe various aspects of JS (Rafique and Mahmood, 2018). Generally, JS is the extent of positive and negative feelings of an employee about his/her work (job) (Spector, 1985). Further, he argued that JS was a critical part of an employee's personal attitude or trait which was influenced by managing and balancing employees' work-life experiences and challenges at their workplace. Saeed (2016) comprehensively defined JS as:

The difference between what an employee expects from job and what he/she actually gets from job. When an employee's expectations from job are less or equal to what job actually delivers in return, employee is satisfied. On the contrary, job dissatisfaction results when individual's expectations are higher from what the job actually delivers to him/her. (p. 16)

Bontis, Richards, and Serenko (2011) confirmed that more satisfied employees with their work did their job more dedicatedly. The studies of JS on librarians date back to late 1970s with mixed results. The librarians who worked with users and engaged in service delivery are more satisfied with their job as compared with those who don't (Berry, 2007; Gordon & Nesbeitt, 1999). The studies found that librarians with opportunities of promotion and sufficient pay were positively correlated with JS (Lim, 2008; Mirfakhrai, 2008). Moreover, librarians working in a good environment, with good bosses and co-workers, and had a variety of job autonomy having high level of JS (Horenstein, 1993). Experience of job is also an influential factor of JS, meaning that highly experienced librarians are more satisfied with their jobs as with those who has less experience (Galbraith, Fry, & Garrison, 2016; van Reenan, 1998). Neville and Henry (2017) found that academic librarians were more satisfied with their job, however, another study by Morgan (2014) depicted that academic librarians were not satisfied as much as other kind of libraries' librarians were. A study of Ikolo (2018) on medical librarians revealed they were satisfied with their health information duties and had shown satisfaction with their colleagues. However, they dissatisfied with the pay and chances of promotion they had. A recent study by Martin (2020) unveiled that librarians were no more or no less satisfied with their job. He further explored that the core influential factors of librarians' JS that were: *strength of identification with current library, culture & work environment; colleagues; leadership; pay; diversity & inclusivity; workload; meaningful work; external recognition of the value of the library; and being personally valued & appreciated.*

Knowledge Sharing and Job Satisfaction

There is a plenty of empirical evidences that have proved a strong association between KS and JS (Hu & Zhao, 2016; Rehman, Mahmood, Salleh, & Amin, 2014; Suliman & Al-Hosani, 2014; Teh & Sun, 2012). As Kianto et al. (2016) infer that highly satisfied employees willingly share knowledge with co-workers. Misuraca (2013) is in view that employees sharing knowledge can get more chances to grow faster, explore information, develop new ideas, satisfy with their work, and contribute effectively in achieving overall organizations' objectives. As a result, these employees cause the overall success of organizations. In library perspective, Hussin and Mokhtar (2018) explored the role KM practices in predicting librarians' JS. They concluded that, among other KM practices, KS was a strong influential factor of librarians' JS.

Khan (2014) proposed a model of KS for LIS professionals and concluded that library employees working in public and private sector universities considered attitude towards KS an essential motivational factor for JS. Another study by Alyoubi, Hoque, Alharbi, Alyoubi, and Almazmomi (2018) was conducted on Saudi library employees suggesting that implementation of KM approaches and process in libraries were the key antecedents of JS. They further precisely explored that KS was mostly likely influential factor for JS and job performance of employees working in Saudi libraries. Haque, Karim, Muqtadir, and Anam (2012) also stated that lack of sharing information and knowledge with each other was a potential factor of library employees' dissatisfaction. Therefore, they suggested that knowledge dissemination should be incubated in each level of library employees for achieving overall organizational objectives.

Research Objective

Despite an increased interest of researchers towards exploring the relationship between KS and JS, it is quite surprising that there is a dearth of literature discussing KS-JS association in the field of LIS considering demographic factors. Therefore, this study was designed with an aim to examine the role of demographic variables (gender, age, designation, qualification, and experience) of university librarians in Pakistan between the relationship of KS and JS.

Hypotheses

Demographic variables are proposed as moderators to describe its effect between KS and JS (Figure 1). Therefore, following research hypotheses are framed out in this regard.

- H1. The relationship between KS and JS is moderated by gender.
- H2. Age of the respondents has significant impact on the relationship between KS and JS.
- H3. The relationship between KS and JS is moderated under the influence of designation.
- H4. Qualification significantly moderates the relationship between KS and JS.
- H5. Experience of respondents exerts significant effect on the relationship between KS and JS.

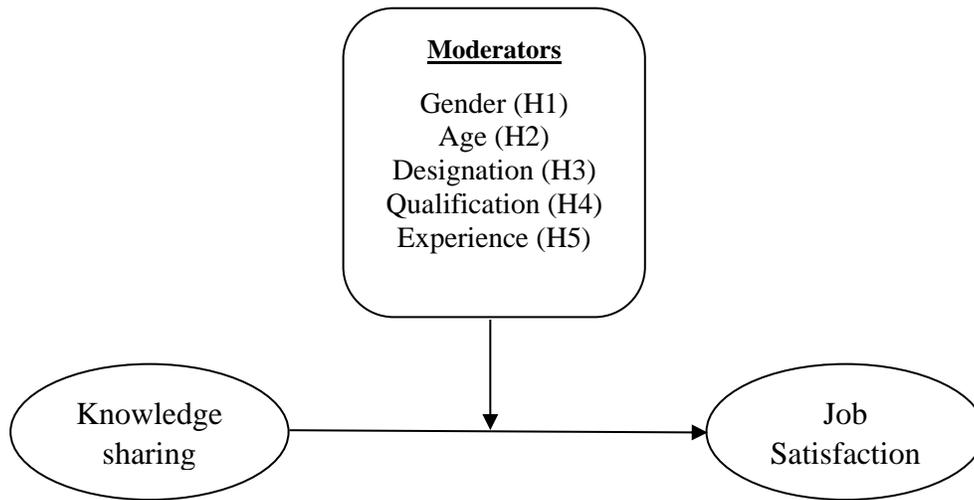


Figure 1: Conceptual Model

Research Methodology

To achieve research objective, this study used quantitative approach based on a cross-sectional survey method.

Population, Sample, and Data Collection – The population frame of this study was consisted on currently working university librarians at HEC recognized universities of Pakistan. There was no explicit list of currently working university librarians in Pakistan, therefore using following formula, the sample was drawn with 95% confidence level and 5% margin of error (Wrenn, Stevens, & Loudon, 2002). This formula has determined $n = 384$ as total sample size, the formula is:

$$n = \frac{Z^2(p \cdot q)}{(e)^2}$$

$$n = \frac{1.96^2(.5 \times .5)}{(.05)^2} = 384.16$$

Where;

n = Sample size,

Z = Value from normal distribution table for desired confidence level (i.e. corresponding to the chosen alpha level for 0.05 is 1.96)

p = Obtained population proportion (i.e. 50%) and $q = 1-p$

$e = \text{Error of sampling or desired precision} = \pm 0.05$

A total of 384 self-administered questionnaires were distributed among study participants. Some respondents were approached through email and social media for data collection who were far away from the researchers' location. A total of 280 questionnaires were received back after several follow-ups, out of which 06 incomplete and ill-filled responses were dropped out. Therefore, 274 (71%) useable questionnaires were entered into SPSS version 22 for data analysis.

Measures – For this purpose, a close ended questionnaire was used to collect data from intended population. The questionnaire comprised on three main sections which were further divided into sub-sections depending upon various areas of KS, and facets of JS. First section is based on demographic profile of the respondents, second section consisted on the items related to KS, while third section covered the items of JS. The detail of each scale used in this study is given below.

Knowledge sharing – To determine KS behavior of university librarians, a scale by Awodoyin et al. (2016) was adopted with permission. This scale measures: the areas in which knowledge is shared (08 areas), KS extent (08 items), perceived benefits associated with KS (05 items), KS channels (08 channels), and challenges (06 items). All the items in this scale were measured on a five-point Likert scale ranging from *strongly disagree* to *strongly agree* except KS channels that were measured through *never*, *seldom*, *sometimes*, *frequently* and *always*.

Job satisfaction – JS of the study participants was measured by a well-known and mostly used JS scale by Spector (1985) commonly known as JSS. JSS having 36 items covers nine facets: *pay (04 items)*, *promotion (04 items)*, *supervision (04 items)*, *fringe benefits (04 items)*, *contingent reward (04 items)*, *operating conditions (04 items)*, *co-worker (04 items)*, *nature of work (04 items)*, and *communication (04 items)*. The items were measured on a five-point Likert scale (*strongly disagree* to *strongly agree*). The reliability of overall JSS was 0.91 as reported by Spector (1985).

Reliability of the Measures – To check the internal consistency reliability of the studied variables, Cronbach's alpha (CA) value was determined. The resulting CA value for KS (.881) and JS (.777) indicated a good consistency between the items, which were in range of acceptable

reliability index as recommended by Frankfort-Nachmias and Nachmias (2008) i.e. ≥ 0.70 (Table 2).

Results and Findings

The collected data was thus entered into SPSS version 22 and checked twice by the researchers to ensure the accuracy in data entry and to avoid any typo mistakes.

Demographic Profile of the Respondents – The results showed that 198 (72.3%) respondents were male, while 76 (27.7%) were female. Results indicated that more than one third of the respondents (> 38%) fall in ages between 26 to 45 years, while 38 (13.9%) respondents fall in age bracket of up to 25 years. However, a small number of respondents (n = 21, 7.7%) were more than 46 years old. Table 1 showed that mostly respondents (n = 118, 43.1%) were designated as *librarian*; 103 (38.6%) were *assistant librarians*. Whereas, 36 (13.1%) respondents were *senior librarians*, 11 (4.0%) were *chief librarians*, and only 06 (2.2%) respondents had designation of *deputy chief librarian*.

Further, the results indicated that more than half of the respondents (n = 152, 55.5%) had 16 years of professional education in library and information sciences; 97 (35.4%) were *M.Phil.* qualified, while, a fewer respondent (n = 15, 5.5%) had bachelor's degree. Only 10 (3.6%) participants having Ph.D. degree were working in university libraries of Pakistan. With regard to experience of the respondents, it showed that most of the respondents (n = 105, 38.3%) had professional experience of up to 5 years, 102 (37.2%) had 6-10 years' experience, while 54 (19.7%) participants fall in experience bracket of 11-15 years. A small number of respondents 13 (4.7%) were senior professionals having experience of more than 15 years.

Table 1: *Respondents' profile*

Demographic variables		Frequency	Percent
Gender			
	Male	198	72.3
	Female	76	27.7
Age group			
	Up to 25 years	38	13.9
	26-35	110	40.1
	36-45	105	38.3
	> 45 years	21	7.7
Designation			
	Chief librarian	11	4.0
	Deputy chief librarian	6	2.2
	Senior librarian	36	13.1
	Librarian	118	43.1
	Assistant librarian	103	37.6
Qualification			
	Bachelor's Degree	15	5.5
	Master's	152	55.5
	M. Phil.	97	35.4
	Ph.D.	10	3.6
Experience			
	Up to 5 years	105	38.3
	6-10	102	37.2
	11-15	54	19.7
	16-20	11	4.0
	21 years and above	2	.7
	Total	274	100

Table 2 showed composite mean score with standard deviation of, inter-correlation between, and internal consistence reliability of the study variables. The results revealed that university librarians shared their knowledge with each other ($M=4.13$, $SD=.484$), however, about job satisfaction, their overall feelings were neutral ($M=3.09$, $SD=.298$). The results of Pearson's Moment Correlation indicated that KS and JS were significantly and positively correlated with each other at p level of ≤ 0.01 . Cohen's (1998) criteria was applied to determine the effect size between these two constructs. The correlation coefficient ($r = .352^{**}$) indicated that the strength of relationship between KS and JS were positively medium.

Table 2: *Descriptive Statistics, Correlation Matrix, and Internal Consistency Reliability*

Construct	M	SD	KS	JS	CA value
KS	4.13	.484	1		.881
JS	3.09	.298	.352**	1	.777

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree, SD* = Standard Deviation

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

a. n = 274

b. 0.10 = small, 0.30 = medium, and 0.50 = large (Cohen's criteria)

Impact of KS on JS

To measure the impact of KS on librarians' JS, a simple linear regression was applied. The results revealed that 2.4% ($R^2 = .124$) of the total variance in JS was explained by the predictor of the study. The results further showed that the regression model predicted JS significantly well ($p = .000 < .05$). The regression analysis indicated that JS was being significantly measured ($\beta = .352, p = .000$) by KS of the respondents (Table 3). The path coefficient value ($\beta = .352$) also explained that KS contributed 35.2% in measuring their JS. Thus, it can be depicted that KS significantly impacts participants' JS.

Table 3: *Impact of KS on JS*

Model	Unstandardized Coefficients		Standardized Coefficients	t	p-value	R ²
	B	SE	β			
(Constant)	2.190	.145		15.063	.000	.124
Knowledge sharing	.217	.035	.352	6.210	.000	

a. Dependent Variable: Job Satisfaction
Predictors (Constant): Knowledge sharing

Moderators' Analysis and Hypotheses Testing

To measure the role of demographic factors as moderators, PROCESS macro (as Model 1) version 3.5 of Andrew F. Hayes was used with 95% confidence interval and 5,000 iterations. It is a well-known and mostly practiced technique in organizational behavior and management sciences to measure mediating and moderator effects on the relationship between different variables either categorical or metrics. Further, it also helps calculate the partial mediation and conditional/marginal moderation effects. Because, all the demographic variables in this study were dealt as categorical variables, therefore, moderation effects were measured under the condition of 16th, 50th, and 84th percentiles as suggested by Hayes (2017). Confidence effects

calculating LCI (Lower Confidence Intervals) and UCI (Upper Confidence Intervals) were also measured for those demographics who had significant effects ($p \leq .05$).

H1: Gender and the relationship between KS and JS – For gender as a moderator, the results showed that overall model was significant on the relationship between KS and JS ($R^2 = .134$, $p = .000$) (Table 4). The unconditional interaction between KS and gender was not significant ($p = .8303 > .05$), however, in conditional effect, the relationship between KS and JS was significant in presence of both male ($\beta = .21$) and female ($\beta = .23$) participants, because the unstandardized beta value falls in between lower and upper confidence intervals. The slope lines also indicated that male and female participants were not interacting at any point while the relationship between KS and JS exist. Thus, H1 was accepted.

H2: Age and the relationship between KS and JS – The results in Table 4 indicated a significant role of two brackets of participants' ages (26-35 years and 36-45 years) as moderators if KS affected JS. Whereas, in presence of participants of up to 25 years of age ($p = 1.30 > .05$) and more than 45 years ($p = .053 > .05$), the impact of KS on JS was not significant. The PROCSS macro results showed that there was no statistically significant effect of interaction on the relationship between KS and JS ($p = .6547 > .05$). However, the results of conditional effect observed the moderating role of participants having ages between 26-45 years between KS-JS relationship. Hence, H2 was conditionally supported.

Table 4: *Moderating effect of demographic variables*

Demographic variables	Model	Unstandardized Coefficients		Standardized Coefficients	t	p-value	R ²	Confidence effects		
		B	SE	β				LCI	UCI	
Gender	Male	(Constant)	2.237	.165		13.532	.000	.126	.13	.29
		KS	.210	.040	.354	5.304	.000			
	Female	(Constant)	2.103	.300		7.015	.000	.117	.09	.36
		KS	.227	.073	.342	3.126	.003			
Age group	≤ 25 years	(Constant)	2.549	.386		6.612	.000	.062	-	-
		KS	.142	.092	.250	1.549	.130*			
	26-35	(Constant)	2.158	.231		9.324	.000	.121	.13	.29
		KS	.213	.055	.348	3.855	.000			
	36-45	(Constant)	2.021	.245		8.254	.000	.161	.15	.31
		KS	.261	.059	.401	4.443	.000			
	> 45 years	(Constant)	2.221	.449		4.941	.000	.184	-	-
		KS	.238	.115	.428	2.067	.053*			

Designation	Chief librarian	(Constant)	2.369	.986		2.404	.040	.060	-	-
		KS	.175	.231	.245	.757	.469*			
	Deputy chief librarian	(Constant)	3.042	.813		3.743	.020	.018	-	-
		KS	.052	.189	.135	.273	.799*			
	Senior librarian	(Constant)	1.829	.469		3.896	.000	.178	.13	.35
		KS	.294	.109	.422	2.712	.010			
Librarian	(Constant)	1.972	.253		7.809	.000	.150	.15	.29	
	KS	.270	.060	.387	4.527	.000				
Assistant librarian	(Constant)	2.431	.212		11.492	.000	.079	.10	.29	
	KS	.156	.053	.280	2.937	.004				
Qualification	14 years of education	(Constant)	2.759	.514		5.370	.000	.008	-	-
		KS	.042	.128	.091	.330	.747*			
	16 years of education	(Constant)	2.215	.201		11.037	.000	.116	.1342	.2877
		KS	.211	.048	.340	4.433	.000			
	18 years of education	(Constant)	1.799	.235		7.658	.000	.247	.1431	.3246
		KS	.319	.057	.497	5.576	.000			
Ph.D.	(Constant)	3.428	.940		3.645	.007	.023	-	-	
	KS	-.100	.230	-.153	-.437	.673*				
Experience	Up to 5 years	(Constant)	2.427	.221		10.991	.000	.081	.1601	.3514
		KS	.159	.053	.285	3.014	.003			
	6-10 years	(Constant)	1.657	.228		7.251	.000	.278	.1475	.2866
		KS	.342	.055	.527	6.198	.000			
	11-15 years	(Constant)	2.003	.326		6.154	.000	.187	.0690	.2878
		KS	.267	.077	.432	3.455	.001			
	16-20 years	(Constant)	4.238	1.034		4.100	.003	.132	-	-
		KS	-.318	.272	-.364	-1.172	.271*			
	> 20 years	(Constant)	4.590	.000		.	.	1.000	-	-
		KS	-.270	.000	-1.000	.	.			

Note: Dependent Variable: Job Satisfaction; Predictors (Constant): Knowledge sharing

*. Not significant ($p > 0.05$)

LCI = Lower Confidence Interval; UCI = Upper Confidence Interval

H3: Designation and the relationship between KS and JS – The value of overall interaction ($p = .59 > .05$) showed that there was no impact of KS on JS under the influence of participants' designations. On the basis of PROCESS macro results, there were conditional effects of three of the designations i.e. senior librarian ($\beta = .24$), librarian ($\beta = .22$), and assistant librarian ($\beta = .20$) on the relationship between KS and JS. Therefore, H3 was marginally approved.

H4: Qualification and the relationship between KS and JS – For qualification as a moderator, the overall interaction value ($p = .6267 > .05$) specified no significant effect. However, the conditional effects of participants having 16 years ($\beta = .211, p = .000$) and 18 years ($\beta = .234, p = .000$) of education was observed on the relationship between KS and JS. Thus, H5 was conditionally confirmed.

H5: Experience and the relationship between KS and JS – The results on the moderating role of experience revealed that overall, there was no significant interaction on the relationship between KS and JS. Whereas, the conditional interaction results indicated a significant effect on participants' experience of up to 15 years. More than that experience (> 15 years), it showed no moderating role (Table 3).

Discussion

This is the first study of its kind that explored the impact of KS on JS and provided empirical evidences for the role of different demographics of university librarians on the relationship between KS and JS. The findings revealed that KS and JS were mutually and positively interrelated with each other. This finding is in line with the previous studies (Rafique & Mahmood, 2018; Saeed, 2016), who determined that KS and JS were positively correlated with each other. As KS among employees enhances, their satisfaction level with their jobs will also increase. The satisfied workers usually cause the success of overall organizations (Iqbal, Latif, Marimon, Sahibzada, & Hussain, 2019; Kinato et al., 2016). Wu, Liu, Lin, and Chou (2013) asserted that when employees were encouraged to willingly share their knowledge, ideas, and even experiences with their co-workers, they got more opportunities to develop themselves in order to perform operations/duties well, and consequently overall organization's objectives vigorously met.

KM processes in working environment such as KS, knowledge collecting, knowledge donating, knowledge creation, and knowledge dissemination play a vital role to increase JS of employees (Kucharska & Bedford, 2019). The findings of this study unveiled that KS had significant and positive impact on JS of university librarians. This finding supported the results of Hussin and Mokhtar's (2018) research who found that, among other KM practices, KS was the most dominant factor impacting JS of academic librarians. They further suggested that this

could be achieved through establishing a proper sharing culture and ensuring the learning process within the libraries. Workers solve their problems, enhance their existing knowledge, and seek new knowledge by exchanging and combining their ideas with their colleagues, and found new ways and solution without getting panic which ultimately resulted in a high level of JS. Further, Cabrera et al. (2006) depicted that KS culture enabled workers to develop new working capabilities and to sharpen existing general competencies by innovating new ideas, solving task-based issues, and prioritizing the interpersonal relationships; and thus, these values caused the JS of employees.

The findings of moderating role of demographic variables divulged that gender of university librarians significantly moderated the relationship between KS and JS. However, other demographics such as age, designation, qualification, and experience conditionally or marginally moderated this association. The findings of gender's role as moderator, this inquiry suggested that there was a significant role of gender between the relationship of KS and JS. To further explain the relationship, a simple slope was run and found that an increase in KS for both male and female university librarians was likely related to increase in their JS level. It means that gender of university librarians in Pakistan effected the relationship between KS and JS. For both of the genders, it is concluded that as they shared their information, knowledge, and experiences; their satisfaction level with job increased. This finding echo with the finding of Sheerin, Hughes, and Garavan (2020) who depicted that the role of gender could not be ignored in shaping the KS culture of any organization that lead towards JS of employees and improvement in individual and organizational performance.

As far as age concerned, the findings revealed that up to 25 years and more than 45 years old university librarians did not moderate the relationship between KS and JS. Whereas, the results of conditional effect suggested that in presence of university librarians having ages between 26-45 years, the relationship between KS and JS was significant. These findings are anticipated because in this age period, generally called *young adulthood/ Middle age*, the individuals are more courageous & enthusiastic, physically & cognitively strong, and are ready to accept the change. This stage of life span is also called *developmental stage*, where individuals especially workers seek new trends by sharing their ideas with colleagues for self-development purpose (Erikson & Erikson, 1998). Rafique and Mahmood (2018) in their

comprehensive systematic review concluded that the employee sharing more knowledge was more satisfied with his/her job which leads towards high individual and organizational performance. The results concluded that 26-45 years old university librarians moderated the KS-JS relationship.

Out of five, the study observed a significant role of three of designations (assistant librarians, librarians, and senior librarians) as moderators between KS and JS relationship. The findings revealed that when university librarians in Pakistan deployed to higher designations e.g. *Deputy Chief* and *Chief Librarian*, they did not moderate the KS-JS relationship. Similarly, the results of moderation analysis on experience indicated that more than 15 years of experienced university librarians did not influence KS-JS relationship. These results were not aligned with the previous researches' results (Beyerlein, Collins, Jeong, Phillips, Sunalai, & Xie, 2017; Slagter, 2007), who depicted that as designation and experience improved, employees usually shared their knowledge with their colleagues for sustained work environment. Seniors are considered a crucial asset of any organization with high level of JS; therefore, leading organizations are and have been adopting a range of tools to encourage the sharing of experienced employees' knowledge with junior ones. This practice facilitates learning and drives innovation by adopting a proactive social interaction among each level of employees with diverse nature of work and working environment. This approach leads towards a sustainable organization.

Concerning with qualification as a moderator, the findings confirmed that masters and M. Phil/MS degrees of university librarians effected the relationship between KS and JS significantly. Basis on this finding, it can be concluded that university librarians obtained 16 and 18 years of education are more likely to willingly share their knowledge with their co-worker and thus are more satisfied with their jobs as compared with those who have PhD degree and 14 years of education. It seems logical because 16 years education is becoming the most common education in Pakistan, where almost 70% of currently working professionals have qualification of MLIS or equivalent (16 years) (Qutab & Shafique, 2011). It is also noteworthy that 18 years education is also trending in Pakistan now-a-days due to high chances for jobs on the basis of high qualification. Second, to appoint in Pakistani university libraries as a professional librarian, minimum qualification is 16 years of library education and above as per

set criteria of HEC, Pakistan and Services and General Administration Department of Government of Punjab, Pakistan (2014), and Pakistan Public Administration Research Centre (2013). Surprisingly, an inverse relationship was observed by university librarians having PhD degree. The slope results indicated that KS of PhD qualified university librarians decreased gradually as their JS increased.

Limitations of the Study

This study has certain limitations. First, this study used a questionnaire survey containing self-reported measures, there might have been some participants who did not answer truthfully. Therefore, the data may not be an accurate reflection of their beliefs, behaviors, or satisfaction levels. Second, the study used only five demographics (gender, age, designation qualification, and experience) to determine their moderation role between relationship of KS and JS, however other important demographics such as university sector (public and private), income, area of living (rural & urban), etc. would be worthy to explore these roles as moderators.

Conclusion

The study was conducted with an aim to examine the impact of KS on JS of university librarians, and to explore the potential role of their demographic variables on the KS-JS relationship. The study found that there was a positive correlation between KS and JS while KS impacted JS significantly well. All the proposed hypotheses were not significantly confirmed but conditionally. Furthermore, there was no significant findings indicating that the above mentioning demographic variables moderated the relationship between KS and JS except gender. However, conditional or marginal moderation role were observed on other demographics (age, designation, qualification, and experience). The findings suggested that highly qualified, designated and experienced university librarians did not moderate the KS-JS relationship. This study would add to the existing body of knowledge on KS and JS. The study findings could prove useful to higher management of universities to indulge all librarians in KS process by implementing KM practices at micro and macro level in order to achieve organizational objectives. For this purpose, different formal and informal KS sessions should be arranged in which senior and experienced librarians with more qualification share their knowledge, experiences, and ideas with their staff members for a sustainable working

environment. It will result in a high level of JS among all participants as KS increases the possibility of JS (Trivellas et al., 2015).

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