

Study on Knowledge Sharing and Job Satisfaction: A Systematic Review

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Abstract

The purpose of this study was to systematically collect and review the english language studies that provided empirical evidence for the existence of relationship between knowledge sharing (KS) and job satisfaction (JS) and their impact on each other.

Keywords: Relationship; Knowledge Sharing; Literature review; Job Satisfaction; Knowledge transfer; Systematic review.

INTRODUCTION

Knowledge becomes a source of competitive advantage when it is shared among employees (Sveiby, 2001).⁵⁸ Knowledge sharing (KS) is a key element of knowledge management which plays a vital role in the learning and development of individuals working in organizations by donating and collecting their information, experience and knowledge (Bock and Kim, 2002)⁶ Lichtenthaler and Ernst, (2006).¹⁶ KS occurs when a knowledgeable worker supports his/her coworker by developing new capabilities and experience. The ultimate objective of KS is to transfer the knowledge

of organizational resources and assets among the employees (Dawson, 2000)¹⁴ providing organizations with a sustainable competitive advantage in the highly competitive economy (Wang and Noe, 2010).⁶⁶ It is the key for managing tacit knowledge. Therefore, organizations should also encourage face-to-face communication and the creation of shared learning experiences, as well as build a K Sculture (Carpenter and 51 Rudge, 2003; Nonaka and Takeuchi, (1995)⁴⁷ Stähle and Grönroos, 2000). KS activities include informal communication, brainstorming sessions, mentoring and coaching (Filius et al., 2000).¹⁶

KS involves two parties. One is called knowledge supplier and the other is knowledge demander (Javadpour and Samiei, (2017).²⁵ These are also known as knowledge source and knowledge receiver (Weggeman, 2000)⁶⁹ or knowledge carrier and knowledge requester Oldenkamp, (2001).⁴⁸ For KS, both the parties should be willing to send or receive knowledge. If one party is hesitant to share knowledge, the other will suffer and ultimately team, department and organization will suffer too. Thus, organizations should encourage their employees to share and receive new knowledge for

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over all development (Rehman et al., 2014).⁵⁰

Empirical evidences revealed that there were a number of antecedents of KS behavior Ipe (2003)²² categorized the main to four main groups, namely, the nature of knowledge, motivation to share, opportunity to share and the culture of the work environment.

For instance, explicit knowledge would be easier to share than implicit / tacit knowledge. Concerning the motivation to share knowledge, empirical studies have identified the factors stimulating KS which were enjoyment, helping others and self-efficacy (Lin, 2007).³⁵ However, motivation to share knowledge is subjected to the availability of opportunity to do so. Cabrera et al. (2006)¹⁶ explored that information and communications technology in the form of electronic knowledge repositories were being used to facilitate KS. The culture of the work environment plays an important role such as communication climate and organizational justice affect KS (Kim and Lee, 2006)²⁹

KS and job satisfaction (JS) are critical elements for employees that play an active role in attaining the organizational objectives at micro and macro level. Generally, JS is the attitude of individuals about their work (job). The concept of JS clearly aroused 75 years ago after the work done by Hop pock (1935).¹⁹ Its importance can be analyzed from the findings of Granny et al. (1992) in which they stated that more than 5,000 studies had been published on this topic. Practitioners and academic ians believed that satisfied workers were more productive and dynamic as compared to dissatisfied ones (Sarker et al., 2003)⁵³

A plethora of definitions was proposed by several researchers to identify multiple aspects of JS. This concept has received a considerable attention of various researchers in the fields of human resource management, business and psychology. This concept refers to positive or negative emotional state resulting from appraisal of an employee's job or work (Locke, 1976)³⁷ which comes from the evaluation of its characteristics (Hodson, 1991)⁸¹ Mowday et al. (1982)⁴⁶ argued that it was the relative strength of identification and involvement of employees in a certain organization. Spector (1997)⁵⁵ argued that JS was part of an employee's personal attitude or trait which was influenced by managing and balance eingemployees 'work life experiences and challenges at their work place. In another detailed definition, JS has been explained as a concept that includes all characteristics of job and work environment that is rewarding, satisfying and fulfilling for employees (Rutherford et al., 2009)⁵¹

Employees seek information and knowledge to accomplish their tasks and remain responsive for the completion of numerous routine needs. Bontis et al. (2011)⁷ depicted that employees were more engaged and motivated with their job when they were more satisfied with their work. KS and JS have a connection with each other and, therefore, these have been discussed together in the literature (Jacobs and Roodt, 2007).²⁴ Over the decades, KS has connections with JS, and intra-organizational KS is the key knowledge management (KM) job satisfaction process, promoting JS for most employee groups (Braun and Avital, 2007). Several researchers have theorized the relationship between JS and KM in the previous literature (Saeed, 2016)⁵² For instance, Teh and Sun (2012)⁶⁰ found that there was positive association between JS and KS behavior of employees. Some studies explored the Relationship between these variables with the mediating effect of organizational and/ or personal variables 5 (Becerra-Fernandez and Sab wal, 2014) such as de Vries et al. (2006)¹⁵ confirmed that JS was associated with KS because of the mediating effect of willingness to share knowledge and enthusiasm. However, prior studies have not provided adequate evidence of the association between JS and KS and their impact on each other (Hsu and Lin, 2008; Michailova 20 and Minbaeva, 2012).⁴¹

RESEARCH OBJECTIVE AND FOCUSED QUESTION

Enough literature is available that determines the nature of relationship between KS and JS (Rehman et al., 2014)⁵⁰ thus, there is a need to theoretically, systematically and empirically explore the literature determining the nature of relationship between these two factors (Almahamid et al., (2010)² The refore, the objective of the current study is to systematically collect and review the English languages tudies that provide empirical evidence for the existence of relationship between KS and JS.

The question the authors wish to address with this researchis:

Q1. What kind of relationship exists between KS and JS in studies that determined correlation nor causal relationship between these variables?

METHODS

Conducting a systematic review usually comprises upon the formulation of a focused research question, searching from different databases and retrieving the relevant studies, applying the

predefined inclusion and exclusion criteria to select the studies, quality evaluation and data extraction, presentation of results and analysis (Khan et al., 2011)²⁷ McKibbin, (2006)³⁸ Preferred Reporting Items for Systematic Review and Meta-analysis (PRISMA) guidelines (Moher et al., 2015)⁴⁵ were followed in this study. These guidelines help reviewers to improve the reporting of systematic reviews and meta-analyses, to focus on randomized trials and evaluations of interventions and to critically appraise published literature (Moher et al., 2009)⁴⁵

SEARCH STRATEGY

A systematic search of literature was carried out using following search query limiting to title and abstract.

“knowledge sharing” AND “job satisfaction”.

The literature was found from one specialized database LISTA (Library, Information Science and Technology Abstracts) using EBSCO platform; three general data bases i.e. Google Scholar, Scopus and Web of Science; and one dissertation database Pro Quest Dissertation and Theses using University Library portal in December 2016. The search was updated in March 2017. Literature was also found by manual searching from review articles and some key studies using backward and forward citation from Google Scholar.

INCLUSION AND EXCLUSION CRITERIA

Studies determining causal relationship or correlation between KS and JS were included in this review. No limit for year (time frame) of publication and type of study were applied. Therefore, journal articles, book chapters, conference papers, dissertations, reports etc. Were included. Furthermore, those studies that reported all types of respondents (professionals, employees, teachers etc.) were added. Further more, books were not included in this review because the authors felt that longer monographs might not be directly comparable to short monographs (journal articles, book chapters, conference papers, dissertations, reports, etc.) depending up on the assessment tools and various research methodologies.

STUDY SELECTION AND DATA EXTRACTION

The PRISMA diagram (Fig. 1) indicates the selection of eligible studies, the process of screening and reasons for exclusion. Screening at two stages, title /abstract and fulltext, resulted with 28 studies for inclusion in this review. A data extraction table was completed for each eligible study to collect information on the name of author (s), publication year, country, population, sample size and technique, type of KS and JS variables, scale used, other variables (dependent and independent) discussed and statistics calculated to determine the relationship between KS and JS.

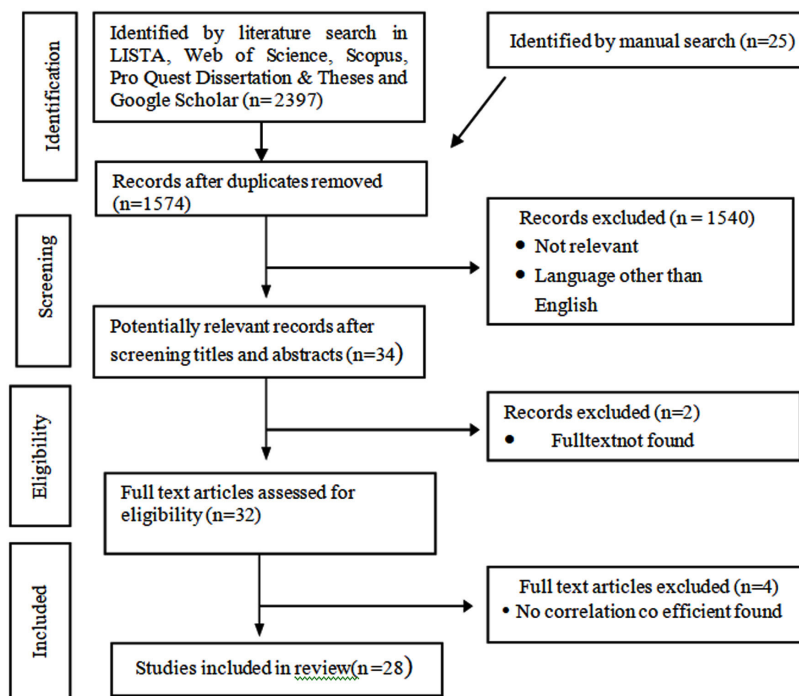


Fig. 1: Four phased flow diagram of studies' selection procedure

QUALITY APPRAISAL

It is essential to assess the quality of manuscripts used in systematic review to determine the risk of bias of studies. As Petticrew and Roberts (2008).⁵¹

Several quality assessment checklists (QACs) were used for this purpose and mostly were developed and published in health care literature (Khan et al., (2011).²⁷ The QACs can be modified according to the need of the study (Khan et al., 2011)²⁷ as most of the guidelines were developed in health care setting. The methodological quality of each included study in this review was independently assessed by the review ersusing "Quality Checklist for Questionnaire Survey" (Table 1) developed by Boynton and Greenhalgh (2004). This check list has been widely used in the systematic eviwing process to specifically evaluate the quality of surveys studies.

It was difficult to check the quality of included studies. Based on checklist of Boynton Greenhalgh, quality appraisal was performed from five perspectives, i.e. research question and design, sampling, instrument, response, coding and analysis and presentation of results. There are 13 questions in this scale; thus, the perfect score for a study evaluated would be 13 if it meets all the criteria (Table I). Instrument and response were the two categories of the checklist on which the studies scored lowest. Many authors failed to report the pilot version of the instrument and its modification accordingly, the number of participants lost to follow-up and the response rate of the receiving questionnaires. Scores of instrument might be low because most of the studies used pre-tested and validated instrument for data collection. Response section of the checklist lost the score because mostly studies did not mention the response rate of the respondents and not accounted for the non-responders.

Table 1: Quality assessment of studies

Studies	Research question and design score (Out of 2)	Sampling score (Out of 2)	Instrument score (Out of 4)	Response score	Coding and analysis score (Out of 2)	Presentation of results score (Out of 2)	Total score (Out of 13)
Kondaki et al (2017)	2	2	3	0	2	2	11
Hu and Zhao (2016)	1	2	3	0	2	2	10
Kianto et al (2016)	2	2	3	1	2	2	12
Tarigh and Nezhad (2016)	1	2	2	1	2	1	9
Thiptanamaneend and Usahawantchakit (2016)	2	2	3	0	2	2	11
Saeed (2016)	2	2	2	1	1	2	10
Lin (2015)	2	2	3	0	2	2	11
Trivellas et al (2015)	2	2	3	0	2	2	11
Kuo et al (2014)	2	2	3	1	2	2	12
Leung et al (2014)	2	2	2	1	2	2	11
Suliman and Al-Hosani (2014)	2	2	3	1	2	2	12
Reman et al (2014)	2	2	3	0	2	2	11
Wu et al. (2013)	2	2	3	0	1	2	10
Varshney and Damanhour (2013)	1	2	4	1	2	2	12
Temitope (2013)	2	2	3	1	1	2	11
Misuraca (2013)	2	2	4	0	2	2	12
Master (2013)	2	1	3	0	2	2	10
Dawley and Munyon (2012)	2	2	2	1	2	2	11
Tehand Sun (2012)	2	2	3	1	2	2	12
Walker (2012)	2	2	4	1	2	2	13
Mogota eral (2011)	2	2	4	0	1	2	11
Balon et al (2011)	2	2	3	1	2	2	12

Table I: Continued..

Al-Hosani (2011)	2	2	3	1	2	2	12
Almahami et al (2010)	2	2	3	1	2	2	12
Mogotai (2009)	2	2	4	0	1	2	11
Jacobs and Rood: (2008)	2	2	4	0	2	2	12
Bewan and Avital (2007)	2	2	3	0	1	2	10
de Vries (2006)	2	2	3	0	1	2	10
Category Score (Quality Obtained)	53	56	86	14	49	55	312
Max Score by Category (Quality expected)	56	56	112	28	56	56	364

RESULTS

The literature was searched in five databases resulting in 1,574 studies. After an initial scanning of titles and abstracts, 34 studies were collected. Finally, 28 studies met the inclusion criteria depending upon the availability of full text and the existence of relationship between and/or impact of KS on JS and vice versa. The summary of the extracted data among selected studies is shown in Table II. The year of publications of the studies ranged from 2006 to 2017. Most of the studies were published in business and management science journals, but some were published in other disciplines' literature. Four studies were conducted in the USA; three studies in China; two each in

Turkey, Malaysia, UAE, Botswana and Taiwan; and one each were published in Finland, Iran, Thailand, Libya, Central Greece, Saudi Arabia, Nigeria, Hong Kong, Jordan, South Africa and The Netherlands. The participants of 22 studies were the employees, team members or people working in various organizations. Of four studies, participants were teachers; while the respondents of remaining studies were nurses and library personnel. These participants belonged to a variety of public and private organizations such as automobile industry, oil and gas companies, finance and accounting firms, laboratories and stock exchange; while some participants belonged to educational and health-care institutions.

Table 2: Characteristics of studies and statistics calculated for correlation between KS and JS

Study	Country	Population	Sample size; Sampling technique	Type of KS variable	Aspect of KS covered	Type of JS variable
Kondaki et al (2017)	Turkey	Public primary and secondary school teachers	1649 from 327 schools; Two-stage cluster sampling	KS	Independent	Independent
Hu and Zhao (2016)	China	Employees and their supervisors working for five companies	320, N/R	KS	Independent	Moderating
Kiato et al (2016)	Finland	Employees in a municipal organization located in south-eastern Finland	824, N/R	KS	Independent	Dependent
Tarigh and Nezhad (2016)	Iran	790 employees of 16 companies	286, Simple random sampling	Moderating	KS Behavior	Independent
Thiptanamane and Usahawantchalt (2016)	Thailand	Employer 980 limited companies in the automobile industry	241, N/R	Independent	Interpersonal KS	Dependent
Saeed (2016)	Libya	Employees of Mellkah Oil Company MOC)	100, Convenience sampling	Independent	KS practices	Independent
Lin (2015)	China	Employees and supervisors of a work units enrolled as MBA students at a university in Shanghai	364 employees from 63 work units, N/R	Dependent	KS	Dependent

Table Cont....

Trivellata (2015)	Central Greece	Employees in accounting services firms (accounting offices)	84 employees, N/R	Independent	KS culture	Dependent
Kuo et al (2014)	Taiwan	Engineers in Taiwan's electronic information industry	895, N/R	Moderating	KS	Independent
Leung et al (2014)	China	Local Chinese employees from 60 companies selected by MBA students university in Shanghai	716, N/R	Dependent	KS	Dependent
Suliman and Al-Hosani (2014)	UAB	975 employees of ADNOC group of six oil companies located in UAB	488, Simple random sampling	Dependent	KD,KC	Independent
Rehman et al (2014)	Malaysia	CIS faculty members of University Teknologi PETRONAS (UTP), Universal Teknologi Mara (UTM), University Malaya (UM) and Multimedia University (MMU)	89, N/R	Dependent	Explicit KD, Explicit KC, Implicit KD, Implicit KC	Independent
Wu et al (2013)	Taiwan	300 employees of financial industry	194,N/R	Dependent	KS intention, Attitude towards KS	Moderating
Varshney and Damanhour (2013)	Saudi Arabia	260 employees of five mid-sized companies in Saudi Arabia	199,N/R	Independent	KS	Dependent
Temitope (2013)	Nigeria	507 library personnel in academic and research libraries in south-west, Nigeria	187, Random sampling method	Independent	KS	Independent
Misuraca (2013)	The USA	325 active paid members of a professional Association of knowledge workers	44, Random sampling	Dependent	Tacit KS behavior	Independent
Master (2013)	California, USA	Independent professional trainers and corporate trainers at one California American Society Training and Development Chapter	44,N/R	Independent	KS	Dependent
Dawley and Manyon (2012)	USA, Canada	Employees at FORESIGHT laboratories	798 participants from 10 forensic laboratories, 9 in the United States and 1 in Canada, N/R	Dependent	KS	Independent
Teh and Sun (2012)	Malaysia	Information Systems Personnel working in three multinational companies in Malaysia	240, Stratified random sampling procedure	Dependent	KS behavior	Independent
Walker (2012)	Hong Kong	5000 IT practitioners includes technicians, supervisors, manager,CEOs/ Directors	228, Random sampling	Mediating	KS	Dependent
Mogotai et al. (2011)	Botswana	720 teachers in senior secondary schools	720,N/R	Dependent	KS behavior	Independent

Table Cont...

Bakan et al (2011)	Turkey	Employees in Municipality, Special Provincial Administration and Governorship of city of Kahramanmaras	356,N/R	Independent	KS behavior	Independent
Al-Hosani (2011)	Abu Dhabi, UAE	975 employees of ADNOC group of oil companies, UAE	488, Simple random sampling	Dependent	KD,KC	Independent
Almahamid et al (2010)	Jordan	Entire listed Manufacturing companies (91 companies) in Amman Stock Exchange	273,N/R	Independent	KS practices	Dependent
Mogotai (2009)	Botswana	720 teachers in senior secondary schools	283,N/R	Dependent	KS behavior	Independent
Jacobs and Rood: (2008)	South Africa	Registered professional nurses working in five private hospitals and four provincial (government) hospitals in three different regions (provinces)	530, Convenience sampling	Independent		Mediating
Braun and Avkal (2007)	Ohio, USA	3000 team members across 15 industries	327,N/R	Dependent	KS behavior	Dependent
de Vries (2006)	The Netherland	2,499 people from a variety of organizations	424,N/R	Dependent	KC,KD	Independent

Study	Independent	Other variable(s) discussed Mediating	Dependent	Scale used		Statistics calculated for correlation between KS and JS	
				KS	JS		
Kondaki et al (2017)	Trust climate, Process	N/R	Readiness for change (RPC)	Adopted	Adopted	Pearson's R = 0.38**	
Hu and Zhao (2016)	N/R	Creative self-efficacy	Employer's innovation	Adopted	Adopted	Pearson's R = 0.573**	
Kiaro et al (2016)	K acquisition, K creation, K codification, K retention,	N/R	N/R	Adopted	Adopted	Pearson's R = 0.599**	$\beta=0.439^{***}$ ($\rho < 0.005$)
Tarigh and Nezhad (2016)	Work environment,	N/R	Services Innovation	Adopted	Adopted	Pearson's R = 0.056**	$\beta=0.034$ ($\rho < 0.1$)
Thipman and Usahawankchakit (2016)	Learning orientation	Emotional intelligence	N/R	Adopted	Adopted	Pearson's R = 0.268**	
Saeed (2016)	N/R	N/R	Employee performance	Developed	Developed	Pearson's R = 0.688**	
Lin (2015)	Procedural justice climate	Affective tone (Positive, Negative)	Turnover intention	Adopted	Adopted	Pearson's R = 0.03**	
Trivellas et al (2015)	N/R	General competencies	N/R	Adopted	Adopted	Pearson's R = 0.410**	$\beta=0.369^*$ ($\rho < 0.05$)
Kuo et al (2014)	Workplace friendship	N/R	Adopted	Adopted	Service innovation	$\beta=0.33^{***}$ ($\rho < 0.001$)	
Leung et al. (2014)	Trust climate	Comparative distributive injustice	Expatriate evaluation, Intention to quit	Adopted	Adopted	Pearson's R = 0.47**	

Table Cont....

Suliman and Al-Hosani (2014)	N/R	N/R	N/R	Adopted	Adopted	Pearson's R (KD)= 0.20** (KC)=028**	$\beta=0.20$ (KD), 0.27 (KC)($\rho < 0.01$)
Rehman et al. (2014)	N/R	N/R	N/R	Adopted	Adopted	$\beta=0.654$ (ExKD),0723 (ExKC), (ImKC) ($\rho < 0.05$)	0654 (Im KD)0856
Wu et al (2013)	Intrinsic and extrinsic motivation	N/R	N/R	Adopted	Adopted	$\beta=-.22^{***}$ ($\rho < 0.01$)	
Varshney and Damanhour (2013)	Recognition (Self Supervisor)	N/R	N/R	Adopted	Adopted	Spearman's $\rho=0.860^{**}$	$\beta=0.870^{**}$ ($\rho < 0.001$)
Temitope (2013)	Work motivation	N/R	Oriented-comment	Adopted	Adopted	Pearson's R = 0.291**	
Misura (2013)	N/R	N/R	N/R	Adopted	Adopted	Pearson's R = 0.713**	$\beta=0.71$ ($\rho < 0.01$)
Master (2013)	N/R	N/R	Self-efficacy	Adopted	Adopted	Pearson's R = 0.775**	
Dawley and Munyon (2012)	Embeddedness	N/R	Turnover intentions, Helping behavices	Developed	Adopted	Pearson's R = 0.21**	$\beta=0.13$ ($\rho < 0.05$))
Teh and Sun (2012)	Job involvement, Organizational commitment	Organizational citizenship behaviour (OCB)			Adopted	Pearson's R = 0.383**	$\beta=0.297^{**}$ ($\rho < 0.01$)
Walder (2012)	Organizational culture	N/R	N/R	Adopted	Adopted	$\beta = 0.429$	
Mogotai et al (2011)	Organizational commitment	Organizational citizenship behaviour	N/R	Adopted	Adopted	$\beta = 0.028$ ($\rho <$)	
Bakan et al (2011)	Extrinsic motivation, KS intention	N/R	N/R	Adopted	Adopted	$\beta = 0.34^*$ ($\rho < 0.1$)	
Al-Hosani (2011)	N/R	N/R	N/R	Adopted	Adopted	Pearson's R (=0.020** (KD) 028** (KC)	$\beta=020$ (KD),0.27 (KC) ($\rho < 0.01$)
Almahamid et al (2010)	N/R	Employees' learning commandments, Employees adaptability	N/R	Adopted	Adopted	Pearson's R = 0.413**	$\beta = 0.293$ ($\rho < 0.05$)
Mogotai (2009)	Organizational commitment	Organizational citizenship behavior	N/R	Adopted	Adopted	$\beta = 0.030$ ($\rho < 0.05$)	
Jacobs and Rood: (2008)	Organizational culture	Organizational commitment, Organizational citizenship behavior	Turnover intentions	Adopted	Adopted	Pearson's R = 0.549**	
Braun and Avital (2007)	Project manager practices	Team member social accountability	Individual learning. Individual team member	Adopted	Adopted	Pearson's R = 0.418	

Table Cont....

de Vries (2006)	Team agreeableness, Team extraversion, Self-rated performance	KS attitude (willingness and ageless)	N/R	Adopted	Adopted	$\beta = 0.27$ (KC).0.29 (KD)
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Notes: K = knowledge, KS = knowledge sharing, KD knowledge donating, KC = knowledge collecting, JS job satisfaction, N/R = information not available reported, **= significant at 0.01

All the studies under review used survey questionnaire to determine the relationship between KS and JS. In most of the cases, items were adopted and/or modified for the measurement of both the variables using rating scales ranged from five to seven points. Simple random sampling technique was used to select the sample in six studies, convenience sampling in two studies and stratified and cluster sampling each in one study.

Along with other variables, 14 studies used KS as dependent, 11 studies as independent and three studies as mediating variable. Like wise, 14 studies dealt JS as independent, 12 as dependent and two as mediating variable accompanied by other variables. Depending up on the various aspects of KS variable, different types of KS such as KS behavior, KS attitude, KS practices, knowledge collecting, knowledge donating and KS intention were discussed in these studies.

CORRELATION BETWEEN KNOWLEDGE SHARING AND JOB SATISFACTION

Ten studies used the parametric Pearson's product-moment correlation coefficient (γ) to find the relationship between KS and JS. In eight studies, beta (β) regression coefficient value was calculated to see the impact of KS on JS and/or conversely. Both Pearson's coefficient correlation (γ) and beta (β) regression coefficient value were computed to measure the relationship and impact between two variables (KS and JS) in nine studies. Only one study used non parametric Spearman's rank correlation coefficient (ρ) and regression coefficient (beta, β) to find relationship.

The values of both Pearson and Spearman coefficients show the direction and strength of correlation between -1 and +1 where 1 is perfect positive linear correlation, 0 is no linear correlation and -1 is perfect negative linear correlation. Coefficient correlations are observed in 20 studies in which Pearson's coefficient correlation (γ) value was found in 19 studies ranging from 0.03 to 0.775, whereas Spearman's rho was computed in one study having value 0.860. Cohen (1988) proposed the most well known criteria ("rule-of-thumb")

to interpret the strength of correlation effect size (correlation coefficient) as 0.10 (small), 0.30 (medium) and 0.50 (large) correlation strength. But some other statistic iansopposed this criterion and suggested a larger value as a stronger effect, starting from 0.60 and sometimes from 0.80. The Cohen's criterion was used in this study for correlation effect size and it was found in eight studies that the value had exceeded the border of the large correlation strength group, seven studies fell in medium group while six studies in small group. Only one value shows that there is no correlation. The ρ -statistics calculated for these coefficients show that 18 relationships were found significant at $\rho < 0.01$, two at $\rho < 0.001$ while the remaining one was not significant.

The beta (β) regression coefficient was computed to make comparisons and to assess the strength of the relationship between each predictor variable to the criterion variable to see how strongly each predictor (independent) variable influenced the criterion (dependent) variable. The value of the beta (β) regression coefficient ranges from +1 to -1, i.e. if beta (β)value is positive, the relationship of predictor variable with the dependent variable is positive; if it is negative, the relationship is negative; and if it is equal to 0, there is no relationship between the variables.

In five studies, beta (β) regression coefficient values ranged from 0.293 to 0.870 where KS (predictor) influenced JS. The p-statistics value for these coefficients show that these relationships were found significant at $\rho < 0.1$, $\rho < 0.001$, $\rho < 0.05$ and $\rho < 0.005$ levels. Various aspects of KS such as KS behavior, attitude, practices and culture were studied along with its different types, i.e. explicit and tacit KS and knowledge donating and collecting. In these studies, other independent variables were also discussed, i.e. knowledge acquisition, knowledge creation, knowledge codification, knowledge retention, learning orientation and self and supervisor recognition.

In 11 studies, beta (β) coefficient value was found having the impact of JS (predictor) on KS with a range from 0.028 to 0.856 at $\rho < 0.1$, $\rho < 0.01$, $\rho < 0.05$ and $\rho < 0.001$ levels. Two dependent variables,

i.e. turnover intentions and helping behaviors, were also found in these studies. In one study, KS variable was dealt as mediating variable, and service innovation was the dependent variable in this study. All beta coefficient values were positive in the studies, and JS was found to be a strong predictor that influenced the KS.

DISCUSSION

It is the first study of its nature which has systematically collected and reviewed English language studies providing empirical evidence for the existence of relationship between KS and JS. The results based on 28 studies clearly reveal that these two variables have a significant positive relationship with and are influenced by each other. These studies came from various geographic locations and subjects and were conducted on different respondents.

Previous studies have proved positive association between JS and KS (Bontis et al.,⁷ 2011; Rehman et al., (2014)⁵⁰ Suliman and Al-Hosani, (2014)⁵⁷ Trivellas et al., 2015; Yunuset al., 2014). As Kianto et al. (2016)²⁸ and Saeed (2016) imply that higher the JS, higher will be employees' intention 68 identified that when employees were encouraged to share knowledge with each other, the ygotmoreop port unities to develop new ideas, explore in formation and contribute effectively in attaining organization's objectives. Consequently, the satisfied workers might cause the overall success of the organizations.

In most of the studies, JS was a strong predictor influencing the KS among the employees of various organizations, becau seen hancing the JS level of organizational members helps KS (Wu et al., 2013)⁶⁸ It will also be beneficial for promoting KS culture inoriginations, if employees give opportunities to participate in decision making and proper working environment (Jones, 2002)²⁶ Former research studies also revealed that JS was significant and positive related with KS intentions, so JS was higher and sharing intentions would also behigher 1(Al-Hosani, 2011; Bakan et al., (2011)³ de Vries et al., 2006; Mogotsietal.,(2011)⁴³ Teh and Sun, 2012).

This finding has contributed to a greater understanding of the importance of JS of workers in organizations and has certain managerial implications. As the importance of JS is evident from the results obtained in this study, the responsibilities of managers and HR departments to create such a working environment suitable for KS

are extremely important²³ (Jacobs and Roodt, 2008). As JS directly and positively affects KS, therefore, if managers have desire to improve KS, they must enhance employees' satisfaction on their own work. Findings also suggest that top management needs to cultivate KS culture that will not only provide employees with greater JS but will ultimately increase the organizations' competitive advantage as Walder (2012)⁶⁵ asserts. The management can also expand the scope and effectiveness of industries by KS.

The findings of this study also depict that KS has influenced JS of the employees in organizations. The key finding is that the existence of KM processes such as KS, knowledge donating and knowledge collecting in the working environment are directly linked to high JS of the employees which are aligned to the finding of Kianto et al. (2016). KS is a core of KM that facilitates the employees to willingly share their knowledge with each other (King and Marks, 2008)³⁸ as well as, to exchange the relevant information with members across the organization (Bartol and Srivastava, (2002)⁴ KS culture also enables employees to develop new general competencies or to sharpen existing ones, such as communicating, inventing new ideas, prioritizing, interpersonal relationships, planning, creativity, team working and problem solving. These values ultimately cause the JS of employees (Zhang et al., 2001).⁷¹

Collection and analysis of a large amount of evidence in this study may have implications for both theory and practice. KS (intrinsic or extrinsic) and self-recognition dimensions can be enhanced through creating a motivating and collaborative working environment. Varshney and Damanhour (2013)⁶⁴ also identified that individuals felt satisfied in an open KS platform. Another implication of this effect is that managers should encourage their employees to implement KM activities such as sharing their personal information, experiences and tacit knowledge, both to improve knowledge workers' performance and their well-being at work.

CONCLUSION

This review has analyzed systematically collected studies that provided empirical evidence for the presence of relationship between KS and JS and their influence on each other. The findings clearly reveal that there was a strong positive association between KS and JS. Based on the results, it can be concluded that KS has a positive impact on JS and, on the contrary, JS has strong effect on KS among

the individuals working in different organizations. Inter-organization or intra-organization sharing of knowledge among employees may lead to an overall development of organizations and helps achieve the desired objectives. Organizations must provide their workers a sufficient environment for exchanging their ideas and personal skills which, in turn, might cause the satisfaction level of their workers. This study demonstrates different advantages of KM practices and JS for organizations, strengthening the argument that KM and JS are important drivers of value creation, organizational competitiveness, micro and macro collaboration and success⁵⁴ (Schiuma et al., 2012; Zack et al.;(2009)).⁷⁰

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