

Investigating Factors Affecting Knowledge Sharing Intentions among Islamic Banking Employees: A TRA Perspective

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Keywords

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Abstract. This study investigates knowledge sharing in Islamic banks. Fishbein's Theory of reasoned action (TRA) has been used as a theoretical framework. Close ended questionnaire was used to gather data from employees of Islamic banks. This study examined the effect of independent variables i.e. anticipated extrinsic rewards (AER), sense of self-worth (SSW), and organization-based self-esteem (OBSE) and anticipated reciprocal relationship (ARR) on variables i.e. knowledge share intention (IKS), knowledge sharing attitude (ATKS). The objective was to find out the strongest predictor. Structural equations modeling (SEM) has been applied to examine the hypothesized relations. Analysis shows strong association between IKS and ATKS. Hypotheses relating SSW and OBSE were endorsed. While ARR and AER did not influence knowledge sharing attitude, yet the OBSE was found to have strongest impact on knowledge sharing attitude. In the light of results, it is suggested that Islamic banks should focus on other ways to encourage knowledge sharing rather than investing in reward systems. They should also focus on relationship improvement and also ensure support to employees by means of carrier planning and job security.

KAUJIE Classification:

JEL Classification:

INTRODUCTION

The significance of knowledge sharing has been widely recognized by several researchers (e.g. Alavi & Leidner, 2001; Berman, Down, & Hill, 2002; Bock, Zmud, Kim, & Lee, 2005 and Irma Becerra-Fernandez, 2001). It has been recognized as a most critical element of knowledge management (Casimir, Lee, & Loon, 2012; Huang & Huang, 2012; Javernick-Will, 2011). Many organizations are focusing on knowledge management and apprehending its importance for competitive advantage (Wang, Sharma, & Cao, 2016). According to Yeh, Wu, and Hung (2012), knowledge sharing comprises generating new ideas, transfer of ideas, sharing of information, articulating experiences, and developing best practices amongst employees. Individuals are sole owners of the knowledge (Nonaka & Konno, 1998), and sharing of knowledge depends on their intentions. Ethically, Organizations cannot force employees to share their knowledge and there is no consensus on factors that encourage employees to share their knowledge. It is hence, utmost essential to know that what motivates employees to share knowledge (Ozlati, 2012).

Some researcher found that individuals exchange their knowledge for personal benefits (Hsu, Ju, Yen, & Chang, 2007) whereas, Chiu, Hsu, and Wang (2006) found contrary results. Some studies found that people share knowledge with the expectation to receive respect, being viewed as skilled, knowledgeable, and for improving self-worth and self-esteem (Butler, Sproull, Kiesler, & Kraut, 2002; Chiu et al., 2006; Zhang & Hiltz, 2003). Zhang et al. (2009) found, on the other hand, that individuals do not exchange knowledge due to reputation. Therefore, more exploration is required to explore key motivational factors behind knowledge sharing (Sharma & Singh, 2012). Specifically, researchers may examine the impact of factors on different sectors and industries (Seba, Rowley, & Lambert, 2012).

Knowledge sharing attitude and intention have been studied extensively in developed countries that have strong infrastructure with transparent organization system whereas limited researches have been conducted in developing countries, specifically in Islamic banking sector. This research study's target population is from Islamic banks. Islamic banks have gained enormous popularity in both Muslim and Non-Muslim world. The total assets of all Islamic banks across the world were about US\$ 2 trillion in 2017, and so far 755 Islamic banks registered across the world (Edbiz, 2015). In Pakistan as well, Islamic banks are flourishing at significant rate, Total Islamic bank branches till end of March 2018 were 2589 in Pakistan (Islamic Banking Bulletin, March, 2018).

The increase in awareness of Islamic values has resultantly increased the demand for Islamic banks' interest free products (Khir, Gupta, & Shanmugam, 2007). The demand of Islamic banks' interest free products is also increasing in Pakistan. This requires improvement in the products as well as awareness about Shariah-compliant products. These days, clients are well educated and are highly informative about banking services and products; therefore, demand advanced and customized products and services (Arshad et al. 2011). In adapting to bank customers' requirements, it is crucial whether the employees of Islamic banks have sufficient knowledge of Islamic banking products. Zainol, Shaari, and Ali (2009) found that the Islamic bank staff had limited knowledge of Islamic banking products, they did not exactly comprehend the distinction amongst Islamic and conventional banking systems (Harun, Rashid & Hamed, 2015). One of the reasons behind this is that most of the Islamic banks' personnel are recruited in the conventional banks, and they have shifted for better opportunities without having sufficient orientation about Islamic banking. It is essential, however, that the Islamic banks' employees might have a broader understanding of Islamic banking products so that the emerging system could have a competitive advantage among banking industry. This understanding could be achieved by sharing knowledge. It is only possible if employees are encouraged to share knowledge and

experiences. Hence, there is need to investigate what motivates Islamic bank employees to share knowledge. In this perspective, present study is the need of the time.

Several factors regarding knowledge sharing behavior have been studied by different authors among different sectors. Bock and Kim (2001) examined the factors like expected rewards, expected contribution and expected association among public sector employees. Kwok and Gao (2005) studied extrinsic motivation, channel richness and absorptive capacity among university students. Bock et al. (2005) studied anticipated extrinsic rewards, reciprocal relationship and sense of self-worth among Korean private sector employees. Likewise Lin (2007) selected a sample from Taiwanese private companies and studied perceived organizational rewards, reciprocal relationship, enjoyment in helping others and knowledge self-efficacy. Palo and Charles (2015) studied expected organizational benefits, reputational enhancement, loss of knowledge power and organizational commitment among sales persons. Recently, Fullwood and Rowley (2017) investigated several beliefs and organizational culture among UK academics. It implies that different factors show significant association with knowledge sharing in different sectors. However, the question here is that whether and to what extent these factors will influence knowledge sharing among Islamic banks employees. In answering the above question, this study is to develop a model appropriate in the context of Islamic banks to investigate the motivational factors that significantly influence Islamic bank employees.

REVIEW OF LITERATURE AND HYPOTHESES

Knowledge Sharing (KS) and Motivational Factors

Different researchers and authors have defined knowledge sharing differently (Earl & Scott, 1999). Wai Ling, Sandhu and Kishore Jain (2009), have explained knowledge sharing as the distribution of knowledge. Dyer and Nobeoka (2000) are of the view that knowledge sharing is the combination of activities that include knowledge exchange and helping others by improving their learning capacity. Whilst, Wang and Noe (2010) define KS as generating new ideas, solving problems together and employing policies and procedures.

Davenport and Prusak (1998) argued that sharing of knowledge solely depends on the owner of the knowledge, and sharing of it is habitually unnatural (Davenport, 1996). Sharing of knowledge can't be forced by organization, it is a personal choice of the employees. Naturally, people are hesitant to share knowledge and they can't be easily motivated to share (Staples & Webster, 2008). In accordance with Theory of Reasoned Action (TRA), human's attitude and intention can be influenced by several factors, and it can be opted to explain human behaviors (Fishbein, 1975).

Several models have been proposed that opted TRA to understand factors influencing knowledge sharing, employees attitude and intentions (Bock et al., 2005; Fu-ren & Hui-yi, 2013). These models were different from each other in respect of dependent and independent variables. Like, Bock et al. (2005) studied influencing factors like anticipated extrinsic rewards, reciprocal relationship, and self-worth with knowledge sharing attitude and intentions. Similarly, Fu-ren and Hui-yi (2013) studied knowledge sharing intention and attitude with self-efficacy and satisfaction in helping other employees. Whilst Seba et al. (2012) explored effect of leadership, trust, organizational structure, rewards, time and IT on knowledge sharing attitude and intentions. Palo and Charles (2015) studied influencing factors including perceived organizational incentives, reciprocal benefits, reputation enhancement, loss of knowledge power (superiority which one feels based on his / her knowledge), and organizational commitment with attitude and intentions. Similarly recently Fullwood and Rowley (2017) examined factors affecting knowledge sharing among UK academics. Despite several studies, there is lack of assent on the key influencing factors of knowledge sharing.

In current study, TRA is opted to understand effects of motivational factors on attitude and intentions of Islamic banks' employees. The influence of four factors has been explored in the current study namely anticipated extrinsic rewards (AER), anticipated reciprocal relationship (ARR), sense of self-worth (SSW) and

organization based self-esteem (OBSE); each factor has its own characteristics and is supposed to affect knowledge sharing attitude and intention.

Attitude towards Knowledge Sharing (AKS) and Intention towards Knowledge Sharing (IKS)

Intention towards knowledge sharing is a person's beliefs that he would actually share knowledge or not (Bock et al., 2005). In accordance with TRA, employee's intention is determined by their attitude. Several studies used both knowledge sharing attitude and intention as dependent variables. The relationship between attitude and intention has been investigated by several researchers who found strong positive relationship between the both. For example, Lin (2007) studied attitude and intention of employees of a Taiwanese's company and found positive strong relationship between both. Likewise Bock et al. (2005) studied knowledge sharing among employees of 27 Korean organizations and found positive relation between attitude and intention of knowledge sharing. Palo and Charles (2015) studied knowledge sharing among salespersons and found positive relationship between both attitude and intention. Several other researchers also found strong positive influence of attitude on intention (Chennamaneni, Teng, & Raja, 2012; Jeon, Kim, & Koh, 2011). In accordance with Islamic perspective it was argued that religion influences attitude, intention, behavior and plays a key role in modeling man's daily conducts (Alam, Janor, Zanariah, & Ahsan, 2012). The Islamic teachings provide that there is a strong relationship between individuals' faith and conduct. Thus, we propose that attitude towards knowledge sharing influences bank employees' intention to share knowledge. In the light of above assertion, it is hypothesized that:

H1: Attitude towards knowledge sharing (AKS) positively affects intention towards knowledge sharing (IKS) among employees of Islamic banks.

Anticipated Extrinsic Rewards (AER) and Attitude towards Knowledge Sharing (AKS)

Anticipated extrinsic rewards (AER) refers to the reward that one expects for sharing knowledge (Bock et al., 2005). Individuals expect to get extrinsic rewards for sharing tacit/explicit knowledge with others. Lamb (2001) and Liu (2008) have suggested that organizations should adopt reward system for knowledge sharing. Similarly, Ford and Staples (2010), argued that rewards and incentives play crucial role to highlight significance of knowledge sharing activities of the employees. For Vajjhala (2013), AER are positive for motivating employees to perform preferred behaviors.

Seba et al. (2012) maintained that the effect of rewards on sharing knowledge may vary with the kind of rewards given to employees. Ramirez et al., (2007) found that organizational rewards like bonuses, better job assignment, job promotions, were crucial for motivating employees to add knowledge to repositories. Similarly, Bock and Kim (2001) studied that employees who believe that they will get high incentives by sharing and using knowledge are more expected to support knowledge management system. Researchers explain that insufficient rewards might decrease knowledge sharing (Chen & Hung, 2010; Osterloh & Frey, 2000). Likewise, absence of incentives may cause individual's motivation level to diminish, or feel punished, which ultimately influences knowledge sharing attitudes negatively (Schiuma, Vuori & Okkonen, 2012; Zhang & Fai-Ng, 2012). Giving rewards and acknowledging shared knowledge not only improves the knowledge sharing level of the employees, but also decreases the probability for knowledge to be lost (Gupta, Joshi, & Agarwal, 2012; Vajjhala, 2013; Zhang & Fai-Ng, 2012).

Alam et al. (2012) argued that Islamic banks employees have very limited knowledge of Islamic banking. Baba and Amin (2009) found that some of the Islamic banks employees were unable to distinguish between Islamic banking system and conventional banking system, which may also increase confusion among customers. The limited knowledge is due to lack of knowledge sharing among Islamic banking employees and thus it is believed that by motivating employees through extrinsic rewards their attitude towards knowledge sharing can be changed.

In accordance with the TRA, employees' attitude is the result of beliefs and expectations. It is supposed that Islamic banks employees who believe to receive extrinsic rewards by sharing knowledge, will develop positive attitude towards knowledge sharing. So, it is hypothesized that:

H2: Anticipated Extrinsic Rewards (AER) will positively affect attitude towards knowledge sharing among employees of Islamic banks.

Anticipated Reciprocal Relationships (ARR) and Attitude towards knowledge sharing (AKS)

Anticipated reciprocal relationship (ARR) is explained as the extent to which employees believe that they can develop better reciprocal relationships with other employees through knowledge sharing (Bock et al., 2005). Researchers have found that reciprocal advantages can give compelling inspiration to encourage knowledge sharing, and ultimately support to achieve long-term common goals (Bock et al., 2005; Ramirez et al., 2007). Huang, Davison and Gu (2008) found that employees who wish to create good relationship with other employees or assume to get knowledge from different employees in the future, they usually share more knowledge with others. In a team context, ARR increases team spirit, which directly influences and raises the intrinsic motivation to cooperate and to share knowledge (Osterloh & Frey, 2000).

ARR has been studied in different settings of different countries. For example, Bock et al. (2005) examined ARR at managerial level in Korean organizations. They found that ARR have significant positive effect on knowledge sharing attitudes. Pai (2006) studied knowledge sharing in online communities and found that knowledge sharing is supported by a strong sense of reciprocity. Tohidinia and Mosakhani (2010) studied knowledge sharing behavior among employees of Iranian oil industry and found that ARR positively affects knowledge sharing attitudes. Palo and Charles (2015) studied knowledge sharing among salespersons working in different sectors like insurance, banking, manufacturing, and pharmaceutical; they found significant positive influence of ARR on knowledge sharing.

Harun et al., 2015 have indicated that today's banking is not only to sell products and services, but also to provide knowledge to customers. Like other organizations, Islamic banks should also focus on knowledge sharing. In this regards, the most common methods used by banks include team-oriented brainstorming (Shih, Chang, & Lin, 2010), and forming communities of practitioners. Both methods could be beneficial for Islamic banks if their employees believe that they should develop better relationship by sharing knowledge. As argued in TRA, beliefs make attitude, so those Islamic bank employees who believe that knowledge sharing could be beneficial in the future for making better relationships are likely to share knowledge and thus have positive attitude towards sharing. So, it is hypothesized that:

H3: Anticipated reciprocal relationships (ARR) will have positive effect on attitude towards knowledge sharing among employees of Islamic banks.

Sense of Self-Worth (SSW) and Attitude towards knowledge sharing (AKS)

Employee's belief that he will support his organization by knowledge sharing behavior is known as "sense of self-worth" (Phan, 2013). For Bandura (1994), it is person's belief regarding his competence to produce desired results. Positive feedback is very vital in knowledge sharing environment and is important facilitator. Positive feedback ensures that employee's behavior is acceptable, and it encourages employee to continue knowledge sharing (Kinch, 1973). Appreciation and effectiveness of the knowledge shared improves employees' sense of self-worth. Individuals will likewise be additionally eager to contribute via knowledge sharing while they find that their shared knowledge is significant and practically helpful to employees working with them (Cabrera & Cabrera, 2002). Huber (2001) found that, the SSW impacts employees' behavior in the favor of organizational norms and prevailing employees. Those employees who get continuous feedback and also get understanding as to how their shared knowledge supported individuals to share more knowledge than others, and ultimately motivated employees to develop positive knowledge sharing attitude (Phan, 2013).

Bock et al. (2005) found that SSW not only helps in self-evaluations of employee's knowledge through knowledge sharing activity, but also influences employees' attitude towards knowledge sharing. Phan (2013) studied employees of Vietnam and supported that SWW has positive impact on knowledge sharing attitude. Similarly Tohidinia and Mosakhani (2010) confirmed that higher the SSW results in higher knowledge sharing attitude. Ye, Chen, and Jin (2006) argued that self-worth was among key antecedent of attitude towards knowledge sharing. **Likewise, managers' positive feedback about employees knowledge contribution and**

achievements may enhance Islamic banking employees' sense of self-worth which ultimately enriches knowledge sharing behavior (Shih et al., 2010). Theory of reasoned action (TRA) and above discussion conclude that beliefs are key factors for developing attitude and Islamic banking employees who are of the belief that they can contribute in organizational growth by sharing knowledge when they have positive attitude towards knowledge sharing. Thus, it is hypothesized that:

H4: Sense of self-worth (SSW) positively affects employees' attitude towards knowledge sharing among employees of Islamic banks.

Organization-Based Self-Esteem (OBSE) and Attitude towards Knowledge Sharing (ATKS)

The organization-based self-esteem (OBSE) concept was first coined by Pierce, Gardner, Cummings, and Dunham (1989). This concept has captured extensive attention ever since. OBSE is "the degree to which organizational members believe that they can satisfy their needs by participation in roles within the context of an organization" (Pierce & Gardner, 2004 p.265). It also expresses "an employee's evaluation of his or her personal adequacy and worthiness as an organizational member" (Pierce & Gardner, 2004 p.308). OBSE is conceptually different from self-esteem. It could be defined as one's belief about self-worth as an organizational member.

Several researchers have studied relationship between self-esteem and attitude and also between OBSE and employee attitudes (e.g. Brockner, 1988; Korman, 1970; Yang, 2007). It was found that self-esteem predicts employee's attitude and behavior (Brockner, 1988; Judge & Bono, 2001; Korman, 1970; Pierce & Gardner, 2004). They also found that employees who have high level of OBSE might probably share knowledge with other employees because they are of believe that they support their organization through knowledge sharing. Phan (2013) studied OBSE as an antecedent of knowledge sharing attitude among employees of Taiwanese company, whereas, he found no positive relationship between OBSE and attitude towards knowledge sharing. Banker's self-esteem is their perceived evaluation about themselves. Brown and Marshall (2006) found banker's self-esteem to be a key component to recognize banker's successful development, and positive feelings about themselves. Self-esteem is the combination of self-confidence and self-respect which could be achieved if employees are fully equipped with knowledge. Thus, it is hypothesized that:

H5: Organization based self-esteem (OBSE) positively affects attitude towards knowledge sharing among employees of Islamic banks.

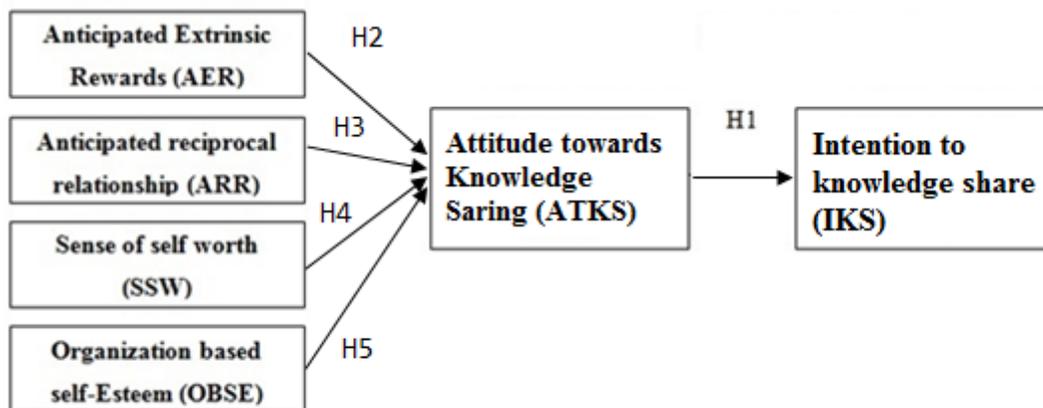


Figure 1: Conceptual Framework

METHODOLOGY

Population and sampling

The population for current study are the employees working in Islamic banks oprtaing in Pakistan. Total 500 questionnaires were distributed among employees, while 390 filled questionnaires were received back. After preliminary scrutiny, questionnaires having more than 10% missing values were discarded, remaining 313 questionnaires were selected in which 22 questionnaires were found having missing values. For imputation of missing values mean imputation method is adopted. The overall questionnaire response rate was 78%, and the usable questionnaire response rate was 62.60%.

Measures

The current study used questionnaire consisting of 29 total questions measuring 6 constructs. Each construct had multiple items, scales were adopted from previous studies that were pre-validated measures in literature. Table 1 shows scales along with their respective author’s reliabilities. Items were measured by 5-point Likert Scale where 1= “Strongly disagree” and 5=”Strongly agree”. Questionnaire also included categorical questions such as age, gender, educational level, designation, experience with current organization and total professional experience.

Anticipated Extrinsic Rewards (AER) Measures: The AER was measured by using three (3) items scale develop by Bock and Kim (2001), In his study Cronbach’s α for AER was 0.83. Example item: “I expect to receive monetary rewards in return for my knowledge sharing”.

Anticipated Reciprocal Relationship (ARR) Measures: The study measures ARR by using five (5) items scale develop by Bock et al. (2005). In their study, Cronbach’s Alpha for ARR was $\alpha = 0.71$. Example item: “My knowledge sharing would strengthen the ties between existing members in the organization and myself”.

Organization Based Self-Esteem (OBSE) Measures: Scale having six (6) items developed by Pierce et al. (1989) was used to measure an employee’s OBSE. In their study Cronbach’s Alpha for OBSE was $\alpha = 0.91$. Example item: “If I share the knowledge, I will feel that I count around here”.

Sense of Self-Worth (SSW) Measures: SSW was measured by using 5-items of scale developed by Bock et al. (2005). In their study, Cronbach’s Alpha for SSW relationship was $\alpha = 0.95$. Example item: “My knowledge sharing would help other members in the organization to solve their problems”.

Employees’ Attitude Towards Knowledge Sharing (ATKS) measures: Employees’ knowledge sharing attitude was measured by five 5-items scale adopted from Bock et al. (2005). In their study Cronbach’s Alpha for anticipated reciprocal relationship was $\alpha = 0.92$. Example item: “My knowledge sharing with other organizational members is good”.

Employees’ Intention Towards Knowledge Sharing (IKS) measure: Employees intention towards knowledge sharing was measured by five 5-items scale, adopted from the study of Bock et al. (2005). In their study Cronbach’s Alpha for anticipated reciprocal relationship was $\alpha = 0.93$. Example item: “I will share my work reports and official documents with members of my organization more frequently in the future”.

TABLE 1
Sources of measurement constructs

Variables	Items	Measures adapted from	Cronbach alpha (α)
AER	3	(Bock & Kim, 2001)	0.83
ARR	5	(Bock et al., 2005)	0.71
OBSE	6	(Pierce et al., 1989)	0.91
SSW	5	(Bock et al., 2005)	0.95
ATKS	5	(Bock et al., 2005)	0.92
IKS	5	(Bock et al., 2005)	0.93

Sample Profile

Demographic summary of sample is shown in Table 2 below. According to table 2, majority of the respondents were male 245 (78.3%), while in terms of age, the respondents were dominated by young age group i.e. 21-30 years. In respect of education, it was found that minimum education of respondents was bachelor's degree while 202 (64.5%) respondents held master's degree. For recording of experience level, three categories were made for uniformity of the responses; results shows that most of the respondents were of officer level - 123 (39.3%). Further, in respect of experience, on average, respondents' experience with their current banks is 5.9 years (min = 1, max = 23) and total professional experience is on average 7.5 years (min = 1, max = 24).

TABLE 2
Participant Demographics(n=313)

Statement	Frequency	Percentage (%)
Gender		
Male	245	78.3%
Female	68	21.7%
Ages (Years)		
21-30	166	53.0%
31-40	127	40.6%
41-50	15	4.8%
51-Above	5	1.6%
Education (Numbers)		
Bachelor's degree	106	33.9%
Master's degree	202	64.5%
MS/M.Phil degree	5	1.6%
Experience Level (Numbers)		
Junior Officer	96	30.7%
Officer	123	39.3%
Manager	94	30.0%
Experience with this organization		
0-3	132	42.2%
4-7	104	33.2%
8-11	40	12.8%
12-15	19	6.1%
16 Above	18	5.8%
Experience with this organization		
0-3	79	25.2%
4-7	112	35.8%
8-11	63	20.1%
12-15	32	10.2%
16 Above	27	8.6%

Factor Analysis

Exploratory Factor Analysis was performed through SPSS 21. Results show that all items have higher loading

than recommended value. Therefore, no item is excluded. It shows that AER have 3 factors, ARR is defined by 5 factors, SSW by 5 factors, OBSE by 6 factors, ATKS by 5 factors, and IKS by 5 Factors.

TABLE 3
Factor Loading

	1	2	3	4	5	6
AER1	.874					
AER2	.896					
AER3	.766					
ARR1		.623				
ARR2		.698				
ARR3		.597				
ARR4		.597				
ARR5		.400				
SSW1			.528			
SSW2			.781			
SSW3			.710			
SSW4			.551			
SSW5			.663			
OBSE1				.601		
OBSE2				.779		
OBSE3				.767		
OBSE4				.596		
OBSE5				.792		
OBSE6				.705		
ATKS1					.567	
ATKS2					.509	
ATKS3					.651	
ATKS4					.632	
ATKS5					.755	
IKS1						.674
IKS2						.629
IKS3						.837
IKS4						.889
IKS5						.860

Descriptive Measures

Table 4 gives understanding into the relationship of the factors for this study. This table displays items number of each construct, Composite reliabilities, Cronbach's alpha, Average Variance Extracted (AVE), means, standard deviations, and correlations between all variables used in this study.

There are no convergent and discriminant validity issues. Reliability is measured by Cronbach's alpha and all values are found above the recommended threshold, i.e. 0.60 (Gliem & Gliem, 2003; Hair, Black, Babin, Anderson, & Tatham, 1998; Kline, 2011). Reliability is also measured by composite reliability (CR); all values

have been found above the recommended value of 0.70. Average Variance Extracted (AVE) is above 0.4, but it is acceptable as Fornell and Larcker argued that if AVE is below 0.5, while CR is higher than 0.6, the construct is yet considered to have established convergent validity (Fornell & Larcker, 1981).

TABLE 4
Descriptive Statistics

Variables	Items	Composite Reliability (CR)	Cronbach's alpha (α)	AVE	Mean	Std. Deviation	AER	ARR	SSW	OBSE	ATKS
AER	3	0.732	0.847	0.414	2.91	1.09	-				
ARR	4	0.858	0.712	0.670	4.03	0.591	.325**	-			
SSW	5	0.819	0.898	0.405	3.52	0.836	.346**	.529**	-		
OBSE	6	0.728	0.820	0.477	3.62	0.808	.328**	.579**	.655**	-	
ATKS	4	0.904	0.717	0.612	3.83	0.591	-.001	.336**	.269**	.376**	-
IKS	5	0.856	0.866	0.547	3.53	0.873	.242**	.345**	.344**	.375**	.165**

Results

The research model was analyzed by SEM using AMOS version 21. For validity and reliability of model, CFA (confirmatory factor analysis) has been performed, whereas structural model has been used to access the direction and strength of the proposed relationship

Measurement model evaluation

For measurement model assessment, confirmatory factor analysis (CFA) has been used. Measurement model analysis confirms the reliability and validity of the adopted scales in new setting. Segars and Grover (1998) recommend that initial model must be modified to get best fit model. After initial testing, 2 items ARR5 and ATKS2 were removed having standardized regression value lower than recommended 0.5 (Kline, 2011). The proposed model was also improved by adding covariance between error terms using Modification Indices (MI), as recommended by Hair, Anderson, Babin, and Black (2010).

TABLE 5
Summary of goodness of fit model

Fit Index	Initial Model Results	Single Factor Model	Final Model Results	Recommended Criteria	Suggested by authors
χ^2	1133.59	1647.86	755.26	-	-
Df	362	310	295	-	-
χ^2/df	3.13	5.3	2.56	<3	Bentler & Bonett 1980
GFI	0.78	0.72	0.85	>0.8	Scott 1995, sey al 2002
TLI	0.80	0.65	0.87	>0.9	Hu & bentler 1999
CFI	0.83	0.69	0.90	>0.9	Bentler & Bonett 1980
RMSEA	0.083	0.118	0.071	<0.08	Hair et al 1998
AGFI	0.73	0.65	0.80	>0.8	Scott 1994
NFI	0.77	0.65	0.84	>0.9	Bentler & Bonett 1980

Goodness of fit is evaluated by using GFI (goodness-of-fit-index), TLI (Tucker–Lewis Index), CFI (an incremental fit index of improved NFI), RMSEA (root-mean-square error of approximation), AGFI (adjusted goodness-of-fit index), (the ratio between χ^2 and the degree of freedom = $\chi^2/d.f.$), and NFI (normalised fit index). Table 4 shows the results of fitness measurement, it implies that initial model and single factor model

show poor fit, whereas after recommended modification modified model, results fell into threshold range. Hence, confirming that proposed model had proper fit.

Common Method Bias

Following strategies were adopted to evaluate the common biased variance: Harman’s one-factor method; one-factor CFA and common latent factors. Harman’s one factor method was performed using SPSS version 21. The results show only a 29.22% variance. The results of principal component analysis on all variables formed six dissimilar factors; only 14.43% of total variance is represented by first factor, while 68.94% is represented by all factors together. Single Factor CFA was performed using AMOS version 21 (See table 4). Similarly, Common latent factor was also performed using AMOS version 21 by taking difference between standardized regression weight with latent factor, and without latent factor for each item shown in table 6. Result for all three methods show that there was no variance in data.

TABLE 6
Common Latent Factors

			Estimate With CLF (A)	Estimate Without CLF (B)	Difference (A-B)
AER1	<---	AER_MAIN	0.799	0.759	0.04
AER2	<---	AER_MAIN	0.826	0.934	-0.108
AER3	<---	AER_MAIN	0.575	0.75	-0.175
ARR1	<---	ARR_MAIN	0.544	0.544	0
ARR2	<---	ARR_MAIN	0.618	0.65	-0.032
ARR3	<---	ARR_MAIN	0.601	0.58	0.021
ARR4	<---	ARR_MAIN	0.604	0.752	-0.148
SSW1	<---	SSW_MAIN	0.562	0.611	-0.049
SSW2	<---	SSW_MAIN	0.577	0.722	-0.145
SSW3	<---	SSW_MAIN	0.691	0.779	-0.088
SSW4	<---	SSW_MAIN	0.279	0.656	-0.377
SSW5	<---	SSW_MAIN	0.663	0.675	-0.012
OBSE1	<---	OBSE_MAIN	0.574	0.687	-0.113
OBSE2	<---	OBSE_MAIN	0.686	0.847	-0.161
OBSE3	<---	OBSE_MAIN	0.721	0.837	-0.116
OBSE4	<---	OBSE_MAIN	0.804	0.708	0.096
OBSE5	<---	OBSE_MAIN	0.589	0.782	-0.193
OBSE6	<---	OBSE_MAIN	0.798	0.817	-0.019
ATKS1	<---	AKS_MAIN	0.619	0.56	0.059
ATKS3	<---	AKS_MAIN	0.621	0.629	-0.008
IKS1	<---	IKS_MAIN	0.617	0.641	-0.024
IKS2	<---	IKS_MAIN	0.566	0.624	-0.058
IKS3	<---	IKS_MAIN	0.853	0.83	0.023
IKS4	<---	IKS_MAIN	0.81	0.819	-0.009
IKS5	<---	IKS_MAIN	0.742	0.758	-0.016
ATKS4	<---	AKS_MAIN	0.766	0.83	-0.064
ATKS5	<---	AKS_MAIN	0.585	0.509	0.076

Hypotheses Testing

Hypotheses between variables were tested using structural equation model (SEM) (see Fig. 2). The results show that employees' knowledge sharing attitude (ATKS) has significant effect on employees intention to share knowledge (IKS) ($\beta=0.41$, $p<0.03$), whereas anticipated extrinsic rewards (AER) ($\beta=-0.05$, $p<0.083$) and anticipated reciprocal relationships (ARR) ($\beta=0.04$, $p<0.526$), have no significant effect on attitude towards knowledge sharing. Sense of self-worth (SSW) ($\beta=0.14$, $p<0.007$), organization-based self-esteem (OBSE) ($\beta=0.41$, $p<0.001$) had significant effect on employees' knowledge sharing attitude.

TABLE 7
Results of hypothesis testing

Hypothesis	Research Proposed Paths	Coefficient
H1	ATKS → IKS	(0.41***)
H2	AER → AKS	(-0.05)
H3	ARR → AKS	(0.04)
H4	SSW → AKS	(0.14**)
H5	OBSE → AKS	(0.41***)

*** $p<0.001$, ** $p<0.05$

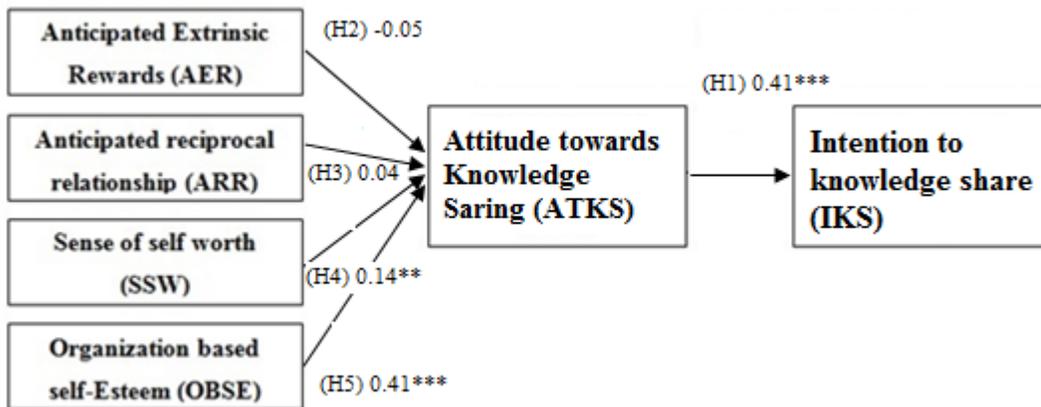


Figure 2: Results of SEM

Discussion and Conclusion

A model has been proposed in this study to investigate the factors that affect knowledge sharing attitude and intention of knowledge sharing among employees of Islamic banks, while the TRA has been selected as the theoretical perspective. It has been found that all the proposed relationships are accepted except the two. Results were consistent with TRA (Fishbein, 1975) and other previous studies (Bock et al., 2005; Lin, 2007; Palo & Charles, 2015).

Results show positive relation between attitude and intentions. It is found that the organization-based self-esteem and sense of self-worth have positive significant influence on attitude. Further, by using Dominance Analysis (DA) it is found that OBSE has the most strong positive influence on knowledge sharing attitude, among all others, with the path coefficient of $\beta=0.41$. It means that Islamic banks support is highly appreciated by employees working there and they feel that they have esteem based on the Islamic banks. Therefore, Islamic banks should pay special focus on their support for employees which ultimately boost their knowledge sharing feature. Similarly, SSW results are consistency with previous studies (Kankanhalli, Tan, & Wei, 2005; Phan,

2013). Results support that employees are encouraged to sharing knowledge when they get positive feedback regarding their shared knowledge and find their knowledge to be useful for other employees and organization. Continuous feedback management system could be helpful for encouraging employees by showing usefulness of their shared knowledge.

Remaining two factors i.e. anticipated reciprocal relationship and anticipated extrinsic rewards have no effect on attitude. Results for anticipated reciprocal relationship contradict with previous studies (Bock et al., 2005; Palo & Charles, 2015; Phan, 2013). The negative result could be due to cultural differences as previous studies were conducted in western culture and this study is conducted in Pakistani culture. Organization culture and relationship among colleagues can influence employees knowledge sharing behavior (Razmerita, Kirchner, & Nielsen, 2016). Likewise, results of anticipated extrinsic rewards also contradict with previous studies which found anticipated extrinsic rewards negatively influencing attitude (Bock et al., 2005; Fullwood & Rowley, 2017; Seba et al., 2012). It means that AER could change employee's attitude for short period only, it works just as a trigger (Kohn, 1993). Therefore, reward system is not necessary for increasing knowledge sharing. The inconsistent results of AER show that there might be possibility of moderators like contextual condition or personality, etc.

Theoretical Implications

This study investigates the relationship between factors affecting attitude towards knowledge sharing and intention to share knowledge among employees of the Islamic banks. Islamic banks have so far created their separate identity among financial institutions. The rapid growth and innovation of financial products to cater the needs of customer in the light of Islamic rules made Islamic banks not only popular, but also made it a contributor to growth of economy as the people are increasingly adopting Islamic banking. However, despite growing importance of Islamic banks, researchers pay little attention to Islamic banks specifically on knowledge sharing which is key element for the growing institutions or organizations. Keeping an eye on importance of Islamic banks in modern world, the unique contribution of this research is investigating factors that affect knowledge sharing among Islamic banking employees. Previously, researchers had confirmed the relationship in other industries, this study specially focused on Islamic bank to test the relationship.

The proposed model investigated the factors affecting knowledge sharing attitude and intention. The study empirically confirms the relationship between motivational factors, attitude and intention. It finds that SSW and OBSE have significant positive effect on attitude, while AER and ARR have no effect on attitude. Result of SSW and OBSE are similar to that of the previous studies, while that of AER and ARR, are contradicting to previous studies. Further, it finds that knowledge sharing attitude has positive effect on intention to share knowledge. Difference in results may be due to difference of culture, organization structure, etc.

Practical Implications

Following recommendations can be made for Islamic banking industry on the basis of the results of the study:: Firstly, the study found that AER had no effect on attitude. It shows that Islamic banks should not go for the rewards system, they should adopt alternative methods to improve knowledge sharing. Secondly, result of ARR shows no effect on attitude; hence, Islamic banks should pay more attention on relationship building to encourage knowledge sharing. Orientations, communities formation, informal gathering should be conducted to improve knowledge sharing. Thirdly, to further improve knowledge sharing, efficient feedback system may be developed to improve knowledge sharing. Further, special motivational seminars should be arranged to improve self-efficacy, which ultimately enhances knowledge sharing. Last, but not the least, Islamic banks can boost knowledge sharing by ensuring proper career plans and educational support.

Limitations and Future study

For this study, Sample of 313 was drawn from Islamic banking industry. However, larger sample size could give more appropriate results. Further, to confirm the generalizability of the proposed model, it can be tested in different settings. To confirm the effect of factor, long term longitudinal data might be analyzed. Second, the study used TRA as base theory; in future theory of planned behavior (TPB) might be adopted for investigating sharing of knowledge. Third, current study only focused on some of the preceding factors; however, to get better picture it is suggested that future studies should also include other factors like 'loss of power', 'organizational commitments' etc. Forth, in future studies, researcher may pay attention to other influential and moderator variables, like trust, technology, loss of power, organizational commitment, time, organizational structure, gender, etc.

REFERENCE

- Alam, Syed Shah, Janor, Hawati, Zanariah, CACW, & Ahsan, Mst Nilufar. (2012). Is religiosity an important factor in influencing the intention to undertake Islamic home financing in Klang Valley. *World Applied Sciences Journal*, 19(7), 1030-1041.
- Alavi, Maryam, & Leidner, Dorothy E. (2001). Review: Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS quarterly*, 107-136.
- Arshad, Madiha, Aslam, Samina, Razi, Amir, & Ali, Syed Atif. (2011). A Comparative Analysis Of Bankers' perception On Islamic Banking In Pakistan. *International Journal of Economics and Research*, 2(4), 1-12.
- Baba, Ricardo, & Amin, Hanudin. (2009). Offshore bankers' perception on Islamic banking niche for Labuan: an analysis. *International Journal of Commerce and Management*, 19(4), 293-308.
- Bandura, Albert. (1994). Self-efficacy. In. VS Ramachaudran. *Encyclopedia of human behavior*, 4, 71-81.
- Berman, Shawn L, Down, Jonathan, & Hill, Charles WL. (2002). Tacit knowledge as a source of competitive advantage in the National Basketball Association. *Academy of management Journal*, 45(1), 13-31.
- Bock, Gee-Woo, & Kim, Young-Gul. (2001). Breaking the myths of rewards: An exploratory study of attitudes about knowledge sharing. *Pacis 2001 proceedings*, 78.
- Bock, Gee-Woo, Zmud, Robert W, Kim, Young-Gul, & Lee, Jae-Nam. (2005). Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. *MIS quarterly*, 87-111.
- Brockner, Joel. (1988). Self-esteem at work: Theory, research, and practice. *Lexington, MA: Lexington Books*, 159-163.
- Brown, Jonathon D, & Marshall, Margaret A. (2006). The three faces of self-esteem. *Self-esteem issues and answers: A sourcebook of current perspectives*, 4-9.
- Butler, Brian, Sproull, Lee, Kiesler, Sara, & Kraut, Robert. (2002). Community effort in online groups: Who does the work and why. *Leadership at a distance: Research in technologically supported work*, 171-194.
- Cabrera, Angel, & Cabrera, Elizabeth F. (2002). Knowledge-sharing dilemmas. *Organization studies*, 23(5), 687-710.
- Casimir, Gian, Lee, Karen, & Loon, Mark. (2012). Knowledge sharing: influences of trust, commitment and cost. *Journal of knowledge management*, 16(5), 740-753.
- Chen, Chih-Jou, & Hung, Shiu-Wan. (2010). To give or to receive? Factors influencing members' knowledge sharing and community promotion in professional virtual communities. *Information & Management*, 47(4), 226-236.
- Chennamaneni, Anitha, Teng, James TC, & Raja, MK. (2012). A unified model of knowledge sharing behaviours: theoretical development and empirical test. *Behaviour & Information Technology*, 31(11), 1097-1115.

- Chiu, Chao-Min, Hsu, Meng-Hsiang, & Wang, Eric TG. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decision Support Systems*, 42(3), 1872-1888.
- Davenport, Thomas H. (1996). Some principles of knowledge management. *Strategy & Business*, 1(2), 34-40.
- Davenport, Thomas H, & Prusak, Laurence. (1998). *Working knowledge: How organizations manage what they know*: Harvard Business Press.
- Dyer, Jeffrey H, & Nobeoka, Kentaro. (2000). Creating and managing a high-performance knowledge-sharing network: the Toyota case. *Strategic management journal*, 345-367.
- Earl, Michael J, & Scott, Ian A. (1999). Opinion: what is a chief knowledge officer? *Sloan management review*, 40(2), 29.
- Edbiz, C. (2015). Global Islamic Finance Report Retrieved 10 May 2015, from www.gifr.net
- Fishbein, Martin. (1975). i Ajzen, I.(1975). Belief, Attitude, Intention, and Behaviour: An Introduction to Theory and Research: Addison-Wesley.
- Ford, Dianne P, & Staples, Sandy. (2010). Are full and partial knowledge sharing the same? *Journal of Knowledge Management*, 14(3), 394-409.
- Fornell, Claes, & Larcker, David F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 39-50.
- Fu-ren, Lin, & Hui-yi, Huang. (2013). Why people share knowledge in virtual communities? *Internet Research*, 23(2), 133.
- Fullwood, Roger, & Rowley, Jennifer. (2017). An investigation of factors affecting knowledge sharing amongst UK academics. *Journal of Knowledge Management*, 21(5), 1254-1271.
- Gliem, Joseph A, & Gliem, Rosemary R. (2003). *Calculating, interpreting, and reporting Cronbach's alpha reliability coefficient for Likert-type scales*.
- Gupta, Bindu, Joshi, Sahil, & Agarwal, Mohit. (2012). The Effect Of Expected Benefit And Perceived Cost On Employees'knowledge Sharing Behavior: A Study Of It Employees In India. *Organizations and Markets in Emerging Economies*, 3(1), 8-19.
- Hair, Joseph F, Anderson, Rolph E, Babin, Barry J, & Black, William C. (2010). *Multivariate data analysis: A global perspective* (Vol. 7): Pearson Upper Saddle River, NJ.
- Hair, Joseph F, Black, William C, Babin, Barry J, Anderson, Rolph E, & Tatham, Ronald L. (1998). Multivariate data analysis . Uppersaddle River. *Multivariate Data Analysis (5th ed)* Upper Saddle River.
- Harun, Tengku Wasimah Raja, Rashid, RA, & Hamed, Abu Bakar. (2015). Factors Influencing Products' Knowledge of Islamic Banking Employees. *Journal of Islamic Studies and Culture*, 3(1), 23-33.
- Hsu, Meng-Hsiang, Ju, Teresa L, Yen, Chia-Hui, & Chang, Chun-Ming. (2007). Knowledge sharing behavior in virtual communities: The relationship between trust, self-efficacy, and outcome expectations. *International journal of human-computer studies*, 65(2), 153-169.

- Huang, Eugenia Y, & Huang, Travis K. (2012). Investigating the antecedents of users' knowledge sharing intention. *Journal of Computer Information Systems*, 53(2), 93-102.
- Huang, Qian, Davison, Robert M, & Gu, Jibao. (2008). Impact of personal and cultural factors on knowledge sharing in China. *Asia Pacific Journal of Management*, 25(3), 451-471.
- Huber, George P. (2001). Transfer of knowledge in knowledge management systems: unexplored issues and suggested studies. *European Journal of Information Systems*, 10(2), 72-79.
- Irma Becerra-Fernandez, Rajiv Sabherwal. (2001). Organizational knowledge management: A contingency perspective. *Journal of management information systems*, 18(1), 23-55.
- Islamic Banking Bulletin. (Mar, 2018). *Islamic Banking Bulletin*. State Bank of Pakistan Islamic Banking Department, Lahore.
- Javernick-Will, Amy. (2011). Motivating knowledge sharing in engineering and construction organizations: Power of social motivations. *Journal of Management in Engineering*, 28(2), 193-202.
- Jeon, Suhwan, Kim, Young-Gul, & Koh, Joon. (2011). An integrative model for knowledge sharing in communities-of-practice. *Journal of knowledge management*, 15(2), 251-269.
- Judge, Timothy A, & Bono, Joyce E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A meta-analysis. *Journal of applied psychology*, 86(1), 80.
- Kankanhalli, Atreyi, Tan, Bernard CY, & Wei, Kwok-Kee. (2005). Contributing knowledge to electronic knowledge repositories: an empirical investigation. *MIS quarterly*, 113-143.
- Khair, Kamal, Gupta, Lokesh, & Shanmugam, Bala. (2007). *Islamic banking: A practical perspective*: Institut Bank-Bank Malaysia.
- Kinch, J. W. . (1973). *Social Psychology*. San Francisco: McGraw-Hill Book Company.
- Kline, RB. (2011). Principles and Practice of Structural Equation Modeling, 3rd edn Guilford Press. *New York*.
- Kline, RB. (2011). Principles and practices of structural equation modeling. 60–63: The Guilford Press.
- Kohn, Alfie. (1993). Why incentive plans cannot work. *Harvard business review*, 71(5).
- Korman, Abraham K. (1970). Toward an hypothesis of work behavior. *Journal of applied psychology*, 54(1p1), 31.
- Kwok, Sai Ho, & Gao, Sheng. (2005). Attitude towards knowledge sharing behavior. *Journal of Computer Information Systems*, 46(2), 45-51.
- Lamb, Ellen Clair. (2001). Knowledge management: how to mine the information treasures inside your bank. A tale of measuring and managing the potential within. *Community Banker*, 10(9), 24-26.
- Lin, Hsiu-Fen. (2007). Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions. *Journal of information science*, 33(2), 135-149.
- Liu, Chung C. (2008). The relationship between Machiavellianism and knowledge sharing willingness. *Journal of Business and Psychology*, 22(3), 233-240.

- Nonaka, Ikujiro, & Konno, Noboru. (1998). The concept of "ba": Building a foundation for knowledge creation. *California management review*, 40(3), 40-54.
- Osterloh, Margit, & Frey, Bruno S. (2000). Motivation, knowledge transfer, and organizational forms. *Organization science*, 11(5), 538-550.
- Ozlati, Shabnam. (2012). *Motivation, Trust, Leadership, and Technology: Predictors of Knowledge Sharing Behavior in the Workplace*. CGU Theses & Dissertations. (Paper 56)
- Pai, Jung-Chi. (2006). An empirical study of the relationship between knowledge sharing and IS/IT strategic planning (ISSP). *Management Decision*, 44(1), 105-122.
- Palo, Sasmita, & Charles, Linu. (2015). Investigating Factors Affecting Knowledge Sharing Intention of Salespeople. *Management and Labour Studies*, 40(3-4), 302-324.
- Phan, Thi Ha Lam. (2013). An Empirical Study on Factors Affecting Knowledge Sharing Intention in Vietnam. 樹德科技大學資訊管理系碩士班學位論文, 1-97.
- Pierce, Jon L, & Gardner, Donald G. (2004). Self-esteem within the work and organizational context: A review of the organization-based self-esteem literature. *Journal of management*, 30(5), 591-622.
- Pierce, Jon L, Gardner, Donald G, Cummings, Larry L, & Dunham, Randall B. (1989). Organization-based self-esteem: Construct definition, measurement, and validation. *Academy of Management Journal*, 32(3), 622-648.
- Ramirez, Alex, Coakes, Elayne, Søndergaard, Susanne, Kerr, Micky, & Clegg, Chris. (2007). Sharing knowledge: contextualising socio-technical thinking and practice. *The Learning Organization*, 14(5), 423-435.
- Razmerita, Liana, Kirchner, Kathrin, & Nielsen, Pia. (2016). What factors influence knowledge sharing in organizations? A social dilemma perspective of social media communication. *Journal of Knowledge Management*, 20(6), 1225-1246.
- Schiuma, Giovanni, Vuori, Vilma, & Okkonen, Jussi. (2012). Knowledge sharing motivational factors of using an intra-organizational social media platform. *Journal of Knowledge Management*, 16(4), 592-603.
- Seba, Ibrahim, Rowley, Jennifer, & Lambert, Sian. (2012). Factors affecting attitudes and intentions towards knowledge sharing in the Dubai Police Force. *International Journal of Information Management*, 32(4), 372-380.
- Segars, Albert H, & Grover, Varun. (1998). Strategic information systems planning success: an investigation of the construct and its measurement. *MIS quarterly*, 139-163.
- Sharma, BP, & Singh, MD. (2012). Knowledge sharing barriers: An approach of interpretive structural modeling. *IUP Journal of Knowledge Management*, 10(3), 35.
- Shih, Kuang-Hsun, Chang, Chia-Jung, & Lin, Binshan. (2010). Assessing knowledge creation and intellectual capital in banking industry. *Journal of intellectual capital*, 11(1), 74-89.

- Staples, D Sandy, & Webster, Jane. (2008). Exploring the effects of trust, task interdependence and virtualness on knowledge sharing in teams. *Information Systems Journal*, 18(6), 617-640.
- Tohidinia, Zahra, & Mosakhani, Mohammad. (2010). Knowledge sharing behaviour and its predictors. *Industrial Management & Data Systems*, 110(4), 611-631.
- Vajjhala, Narasimha Rao. (2013). Key barriers to knowledge sharing in medium-sized enterprises in transition economies. *International Journal of Business and Social Science*, 4(14).
- Wai Ling, Chen, Sandhu, Manjit S, & Kishore Jain, Kamal. (2009). Knowledge sharing in an American multinational company based in Malaysia. *Journal of Workplace Learning*, 21(2), 125-142.
- Wang, Sheng, & Noe, Raymond A. (2010). Knowledge sharing: A review and directions for future research. *Human Resource Management Review*, 20(2), 115-131.
- Wang, Zhining, Sharma, Pratyush Nidhi, & Cao, Jinwei. (2016). From knowledge sharing to firm performance: A predictive model comparison. *Journal of Business Research*, 69(10), 4650-4658.
- Yang, Jen-Te. (2007). Knowledge sharing: Investigating appropriate leadership roles and collaborative culture. *Tourism management*, 28(2), 530-543.
- Ye, Shun, Chen, Huaping, & Jin, Xiaoling. (2006). An empirical study of what drives users to share knowledge in virtual communities. *Lecture notes in computer science*, 4092, 563-575.
- Yeh, Ryh-Song, Wu, Wei-Li, & Hung, Hao-Kai. (2012). Knowledge sharing and work performance: A network perspective. *Social Behavior and Personality: an international journal*, 40(7), 1113-1120.
- Zainol, Zairani, Shaari, Rohaya, & Ali, Hafizi Muhamad. (2009). A comparative analysis on bankers' perceptions on islamic banking. *International Journal of Business and Management*, 3(4), 157.
- Zhang, Chen, Zhenjiao, Vogel, Doug, & Guo, Chuanjie. (2009). Exchange ideology as a moderator of knowledge sharing in virtual teams: A social exchange theory perspective. *International Journal of Internet and Enterprise management*, 6(2), 143-163.
- Zhang, Peihua, & Fai-Ng, Fung. (2012). Attitude toward knowledge sharing in construction teams. *Industrial management & Data systems*, 112(9), 1326-1347.
- Zhang, Yi, & Hiltz, Starr Roxanne. (2003). Factors that influence online relationship development in a knowledge sharing community. *AMCIS 2003 proceedings*, 53.