

Predictors of Knowledge Sharing Through a Mediating Role of Organizational Reputation and Willingness to Share: A Case of Banking Sector

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Abstract

Now a day, every organization strive for competitive advantage. Knowledge sharing promotes new ideas, critical thinking to attain competitive advantage. The prime objective of this study is to investigate the factors that influence knowledge sharing among employees of banking sector, Lahore, Pakistan. A combination of extrinsic and intrinsic factors was use to investigate the relationship with mediating effect of willingness to share and organizational reputation. A self-administrative questionnaire was use to for collecting data. There were 287 employees working in banking sector both public and private are participated in this study. For data analysis SPSS and AMOS was used. Work engagement, trust on colleague and organizational reward have significantly influence on knowledge sharing. Organizational reputation and willingness to share have also mediates the relationship between intrinsic and extrinsic factors. The limiting and future guidelines were also discussed in conclusion.

Keywords

Knowledge Sharing, Reputation, Reward System, Trust on Colleague, Intrinsic, Extrinsic

Received: May 28, 2016 / Accepted: June 6, 2016 / Published online: July 15, 2016

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1. Introduction

Plato (B.C 347) is known as a father of epistemology is first putative philosopher; who explain the significance and important of knowledge. Knowing is the first step for acquiring knowledge on any awareness and perception Welbourne (2001). The modern theories on knowledge aid as a bridge among knowledge and understanding. According to (Agrell, 2002; Polanyi & Sen, 1983) explain that knowledge is tool by which an organization use written martial and with the help of this written material they will produce new body of knowledge. Knowledge have tacit and explicit form. In knowledge theory a world is categories into three modules. Fist module is associated measureable objects, 2nd world is involves intelligence, and 3rd world based on products and

ideas in human minds (Karl Popper, 1902-1994). Knowledge creating process based on many factors. A study regarding this was conducted by (Bellinger, Castro, & Mills, 2004) assert that motivation, willingness to share and absorption technology involves in knowledge sharing process. Knowledge management is a process which helps to gather knowledge and it helps the organization to enhance their performance, increase competitiveness, and productivity (Bassi, 1997). Knowledge sharing influence by various factors both intrinsic and extrinsic. Many studies are conducted on knowledge sharing but on telecommunication, IT sector, and Education sectors (Lu, Leung, & Koch, 2006) So & Bolloju, 2005), A. Cabrera, Collins, & Salgado, 2006),

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(Khan & Dost, 2012b; Wangpipatwong, 2009). But a little literature is available in banking sector. However, researcher selected the banking sector to generalize the previous researcher's findings. In our current study we investigate the influence of intrinsic and extrinsic factors on knowledge sharing in banking sector. Hence, this study is a prime effect by investigate the willingness to share and organizational reputation as a mediator. This is the main contribution in the existing literature by the researcher.

2. Literature Review

2.1. Knowledge Sharing

Knowledge sharing is a process where participants mutually exchange their valuable ideas, experience and create a new body of knowledge (Van den Hooff & Huysman, 2009). Enhancement in knowledge is more effective and appreciated as to work with knowledge in job environment (Dignum & Van Eijk, 2005). Knowledge is the cup of individual's mind (Van Beveren, 2002). Knowledge sharing is the elusive and delicate in nature. Knowledge sharing is also not threatened by any hazard in the process of transformation but it enhance and more strengthen during sharing (Leng, 2009). According to the Cummings (2004) donor and receiver in knowledge sharing process develop and contributed in existing body of knowledge. Knowledge sharing have three dimensions; quantity means frequency of knowledge sharing, quality explains the excellence and focus to give proper attention in knowledge sharing (Usoro, Sharratt, Tsui, & Shekhar, 2007). Knowledge sharing behavior and habit to share with colleagues builds after effective and efficient knowledge management practices and also boosting workforces (Cabrera & Cabrera, 2002). The previous researcher explain that trust on colleague, and willingness to share much contributed between knowledge donor and receiver (Ramirez, Coakes, Søndergaard, Kerr, & Clegg, 2007)

2.2. Trust on Colleague

Trust was explained as mutual process in which one person has an ability to resolve the problem and other person server for some monetary benefit (Khan & Dost, 2012b). "The American Psychological Association explained as: According to APA "reliability" relationship between words and actions, "concern" is define as having inner consideration and feeling for someone, "integrity" means as honest in acts, "benevolence" can explain sympathy for someone and "ability" is assert as competencies. The researcher assert that trust has a facilitator for knowledge sharing process (Szulanski, 2000). Trust makes easy and facilitate decision making process (Argote, McEvily, & Reagans, 2003).

Moreover a huge amount was essential to bring near the involved knowledge sharing parties but trust on colleague decline the amount of cost (Nooteboom, 2003). Trust enhance knowledge sharing activities in learning organization and also facilitates the communication process (Tsai, 2001). Trust has non-financial detached of the organization. (Smith et al., 2006). Sveiby and Simons (2002) assert that trust is vigorous factor in for collaboration between knowledge sharing process. "The decision to share the information or not based on trust in following conditions, the involving persons are unknown for each other, now case of using information or publish information by using internet" (Dignum & Van Eijk, 2005). Trust on colleague has stronger effect in intergroup knowledge sharing activities and trust in management has stronger effect in external knowledge sharing activities (B Renzl, Matzler, & Mader, 2005). Trust recognize as a stronger enabler in knowledge management (Usoro et al., 2007). Trust reduced the fear of losing within management (Birgit Renzl, 2008).

H1: Trust has a positive impact on knowledge sharing.

2.3. Willingness to Share

Knowledge sharing is the mutual process for knowledge sharing and enhance the existing body of knowledge (Devi, Oldenkamp, London, & Iversen, 2002). The knowledge sharing process have a two way process of receiving and taking (Ardichvili, Page, & Wentling, 2003; Devi et al., 2002). Willingness to share shows that the individual is ready for sharing among his sub ordinate. Individual share willingly due to appreciation and more valuable (Jacobs, Brown, Baikie, & Strong, 1959). Willingness to share has a bridge to share the information fairly, repeatedly and honestly (Lee, So, & Tang, 2000). Willingness to share has a supportive role in knowledge sharing. The knowledge sharing habit and motivation have stronger association in telecommunication sector. The individual is willing to share the information and knowledge because of intrinsic and extrinsic motivation (Croom et al., 2007). Knowledge sharing has dual aspect the first intrinsic motivation is due to eagerness and extrinsic motivation is due to willingness (Susanty & Wood, 2011). In his study they assert that willingness to share has a significant relationship between the knowledge sharing (Khan & Dost). In above mentioned argument researcher develop below hypothesis.

H2: Willingness to share has positive impact on knowledge sharing.

H3: WS mediates the relationship between TC and KS.

H4: WS mediates the relationship between WE and KS.

H5: WS mediates the relationship between OR and KS.

2.4. Reward System

Reward is defined “as the benefits that workers collect from their tasks and jobs” (Kalleberg, 1977). Reward system has significantly influence on job related attitude like motivation, commitment and job satisfaction (Porter, Bigley, & Steers, 2003). Reward system developed commitment among the employees which leads to maturity and high level of workforce (Yingyan Wang, 2004). According to Deeprose (1994) that “Good managers recognize people by doing things that acknowledge their accomplishments and they reward people by giving them something tangible.” In knowledge sharing process. Effective and efficient reward system motivate and engage the employees for knowledge sharing among departments as well as themselves. Employees are not willing to share the knowledge due to lack of reward system and motivation. This reward may be in monetary and non-monetary shape.

Monitory reward motive the employees for short run and non-monitory reward encourage the employees to participate in knowledge sharing for long run (Cabrera, Collins, & Salgado, 2006). The previous researcher also found that the reward system has significant impact for enhancing knowledge sharing. Top management and reward system promoting knowledge sharing environment (Davenport & Prusak, 1998; Hsu, Ju, Yen, & Chang, 2007). Management should take necessary steps in development of reward system (Ismail Al-Alawi, Yousif Al-Marzooqi, & Fraidoon Mohammed, 2007). According to Omar Sharifuddin Syed-Ikhsan and Rowland (2004) assert that employees participate in knowledge sharing process due to reward system.

H6: Organizational reward has positive impact on knowledge sharing.

2.5. Work Engagement

Work engagement define as constructive state of mind to accomplish work at job comprises vigor, dedication and absorption. The vigor explained as “high level of energy and mental resilience when working and the ability to invest efforts in one’s work, persisting even a challenging time”. Dedication means that the sense of pride. The absorption means that “a state of being fully concentrated and absorbed in one’s work such that one has difficulty disconnecting from work” (Bakker & Bal, 2010; Bakker, van Emmerik, & Euwema, 2006; Schaufeli, Salanova, González-Romá, & Bakker, 2002). Work engagement comprises commitment, enthusiastic about the work (Macey & Schneider, 2008).

All benefits directly or indirectly contribute in organization goal. The previous studies asserts that engagement in work has a significant impact on citizenship behavior (Chen & Chiu, 2009). Moreover, many studies asserts that work

engagement increased individuals behavior like helping, citizenship behavior, learning behavior and personal initiative in knowledge sharing (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008; Saks, 2006; Sonnentag, 2003). Knowledge sharing positively affect with work engagement in various reasons. At first, dedication with work to perform a specific task the employees are willing to share. Second “for employees to share their task-related knowledge, it is necessary for them to care about their task and to regard investing the extra effort as being worthwhile”. At third argument is engagement in work encourage the employees to share the job related knowledge to achieve the organization goals. Therefore, employees are engagement in work they are like to share their thinking, experience.

H7: Work engagement has positive impact on knowledge sharing.

2.6. Reputation in Organization

Reputation explained as reputed, well-known personality and admirable person. The competencies of individual for work in knowledge sharing activities are also considered as reputation. Reputation of individual evaluated by prior experience and information for third party (Allen, 1984; Fombrun & Shanley, 1990; v Weizsacker, 1980). Reputation encourage the employees to take participate role in knowledge sharing activities (Yonggui Wang, Lo, & Hui, 2003). The research finding of Teigland (2000) shown that “that frequent visits by personnel from the provider enhances their reputations and increases the likelihood that knowledge transfer efforts will be successful”. Reputation is the magnitude to achieve the goals and perform work in organization in response of the targeted objectives (Shenkar & Yuchtman-Yaar, 1997). In previous studies researcher found that reputation is important and to knowledge “provider and receiver”. Reputation occupies the employees without monitoring in knowledge sharing process. The knowledge “acquirer and provider” protects and handle difficulties honestly. However, the reputation of both “acquirer and provider” has positive association in knowledge sharing process.

H8: Reputation has positive impact on knowledge sharing.

H9: RU mediates the relationship between TC and KS.

H10: RU mediates the relationship between WE and KS.

H11: RU mediates the relationship between OR and KS.

3. Research Methodology

An adoptive questionnaire technique is use to collect the date. This questionnaire is adopted from trust on colleague (B Renzl *et al.*, 2005), knowledge sharing (Khan & Dost,

2012b), organizational reputation and organizational reward from (Tan & Ramayah, 2014), and work engagement from (Seppälä, 2013). This study was conducted under the quantitative approach to check the impact of intrinsic and extrinsic factors on knowledge sharing in banking sector of Pakistan. Deductive method of investigation was used. A correlational and causal research designed is used. A self-administrative survey method is to collect the data consist of 21 closed ended items from employees working in banking sector of Lahore, Pakistan. The time horizon of this study is cross-sectional. The unit of analysis is individual's employees working in banks. Banking sector of Pakistan comprises both public and private banks but almost 80% of resources are held by the private banks working. According to State Bank of Pakistan list 25 private sector, four specialized, seven foreign banks and four public banks operating in Pakistan. Round about 9087 number of branches relating to various banks including 6850 braches, 80 branches, and 536 banks branches are hold and mange under private ownership, foreign investors, and specialized respectively. Under current study both public and private banks in Lahore, Pakistan are target population because almost 750 branches of different banks working in this city. In 2008 Lahore was classified as Gamma World City, almost 13% contribution in national economy, second largest economy and it's a hub of IT, telecommunication, manufacturing, and steel and construction companies. Sample size of this current study is 10 banks are selected both private and public banks. The 2 banks are public and remaining are private. Under current study data is collected from 25 different branches of Lahore, Pakistan. It took almost 1.5 months to approach 300 respondents. The response rate of this study is 83%.

4. Findings & Results

4.1. Descriptive Statistics

In current study 287 questionnaires was used which consist

of 49 percent male and 51 percent are female. Mostly respondents have contractual nature job which are 48.6% and remaining are permanent employees which is 51.4%. Majority of the respondents 55% have educational level of masters 32% belongs to graduation level and remaining are above masters. The highest percentage of the respondents 71.5% are lower level of designation and 24.5% belongs to lower level of designation. The majority of respondents are have experience level is 2 years which is 56% and 24% respondents have more than 3 years working experience. The employees having more than 4 years' experience are 7.5%. The remaining employees have more than 4 years' experience which is 12.5%. In current study 60% respondents were married while 40% respondents were single.

4.2. Correlation Matrix

The values of the standard deviation, mean, inter item reliability and person correlation is shown in below for all the variables Table 1. The values of the standard deviation and mean of Knowledge Sharing are (M = 4, SD = .716), the Trust on Colleague are (M = 3.62, SD = .622), Willingness to share values are (M = 3.82, SD =.710), Organizational Reputation (M = 3.22, SD = .692), Organizational Reward (M = 3.89, SD =.585) and Work Engagement (M=3.77, SD=.455). The highest mean value of knowledge sharing which is 4, demonstrating that employees are very corporative toward sharing the knowledge. Knowledge sharing helps to employees to make and innovate new ideas and methods to solve the job related problems The Pearson's product moment co-efficient of correlation between variables are also given in Table 1. the highest value to person correlation is .937** between knowledge sharing and Willingness to share the knowledge between employees This shows that employees have participated in knowledge sharing activities are willing hearty. The reliability values of all the variables are also shown in Table 1. The highest value of Cronback is.873 of organizational reputation.

Table 1. Pearson's moment co-efficient of Correlation.

Variables	Mean	SD	Reliability	KS	TC	WS	RU	OR	WE
Knowledge Sharing	4.0	.716	0.752	1					
Trust on Colleague	3.62	.622	0.742	0.71	1				
Willingness to Share	3.82	.710	0.701	.937**	.193**	1			
Reputation	3.22	.692	0.873	.284**	.792**	.312 **	1		
Organization Reward	3.89	.585	0.573	.312**	.702**	.376**	.607**	1	
Work Engagement	3.77	.455	0.756	.417**	.463**	.725**	.421**	.382**	1

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

4.3. Confirmatory Factor Analysis

Confirmatory factor analysis helps to evaluate the validity and reliability of measurement scale. CFA is used to check the fitness of model, to resolve the outliers, the check the missing data values and for instrument measurement.

Table 2. Model fit indices.

Index of Fit	Chi-Square /(df)	CMIN/DF	GFI	AGFI	P Close	CFI	RMSEA
Value	385.632/ 136	1.714	0.911	0.877	0.342	0.871	0.053

In current study Chi square value is 385.632 CMIN/DF, value is 1.714, the Goodness to Fit Index (GFI) is 0.911, Comparative Fit indices (CFI) is 0.871 Adjusted Goodness of Fit (AGFI) value is 0.877 Route Mean Square Error of Approximation (RMSEA) value is 0.053 and PCLOSE shows.342 explained that the overall model is Good fit according to the hypothesized model. The fitness model is developed by (Carmines & McIver, 1981).

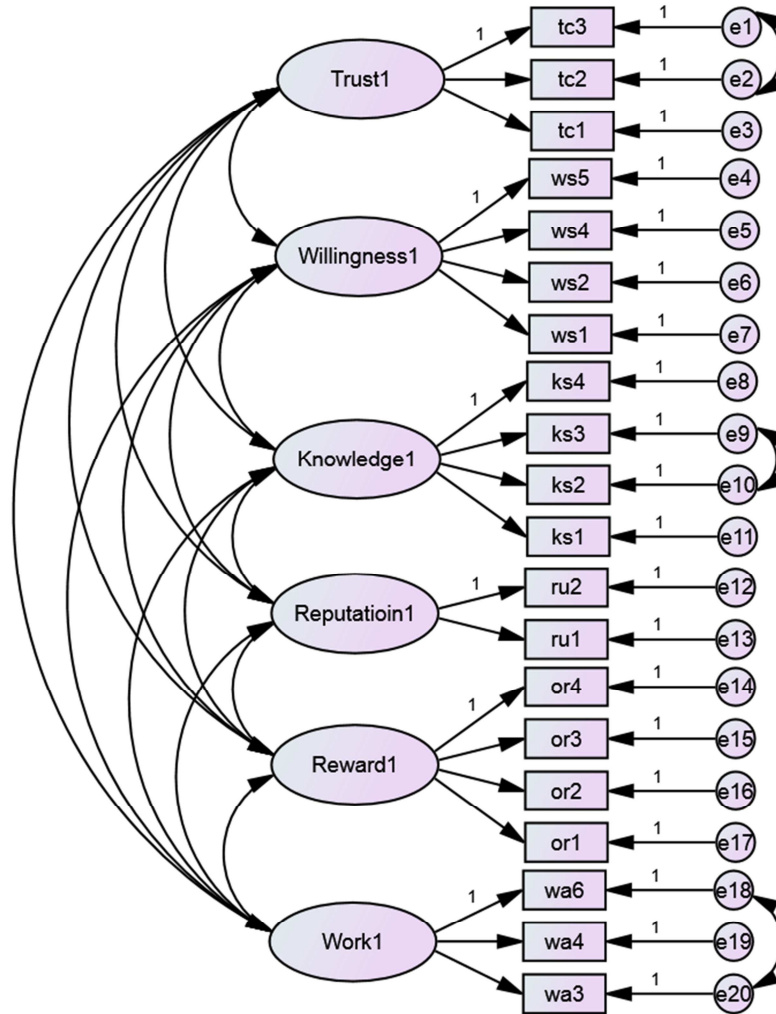


Figure 1. Confirmatory Factor Analysis.

4.4. Structural Equation Model

Structural equation model is most developed statistical technique for Anova, association, independence and differences. It also confirms the factors, regression.

Table 3. Model fit Indices for Structural Equation Model.

Index of Fit	Chi-Square /(df)	CMIN/DF	GFI	AGFI	RMR	CFI	RMSEA
Value	385.632/ 136	1.508	0.909	0.878	0.045	0.81	0.009

The values mentioned in Table 3 for structural equation model. The value of Chi-Square is 385.632/136, the value of CMIN/DF is 1.508, the GFI is 0.909, and the value of AFGI is 0.878. RMR value is 0.045, CFI value is 0.81 and RMSEA value is 0.009 shows that the model fitness.

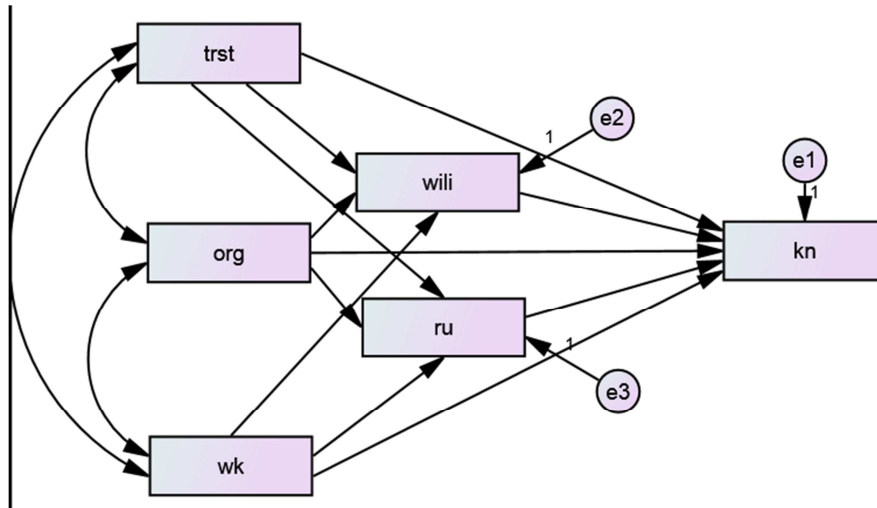


Figure 2. Structural Equation Model.

4.5. Mediation Analysis Through Online Soble test Calculator

To test the mediation between dependent and independent variables online Soble Test was used. The founder of Online Soble test Calculator was Michael E. Sobel in 1990.

Table 4. Online Soble test Values.

Model I	t-value	Mediation
Model I	0.3487	No Mediation
Model II	6.44317	Full Mediation
Model III	7.510	Full Mediation
Model IV	0.3364	No Mediation
Model V	4.334	Partially Mediation
Model VI	4.52	Partially Mediation

Model I

Regression results for willingness to share and trust on colleague was ($\beta = .206$, S.E = 0.59) and knowledge sharing and willingness to share results was ($\beta = .421$, S.E=.058). Online Soble test shows values of ($t=0.348749$, $P=0.72728$). Results asserts that WS not mediates the relationship between TC and KS.

Model II

Regression results for willingness to share and organizational reward was ($\beta = .352$, S.E = 0.054) and knowledge sharing and willingness to share results was ($\beta = 1.275$, S.E=.030). Online Soble test shows values of ($t=6.44317$, $P=0.00$). Results asserts that WS mediates the relationship between OR and KS.

Model III

Regression results for willingness to share and work engagement was ($\beta = .167$, S.E = 0.020) and knowledge sharing and willingness to share results was ($\beta = .189$, S.E=.011). Reseachar obtained values through Online Sobel test Calculator are ($t=7.510$ and $P=0.00103$). Results shows

that WS mediates the relationship between WE and KS.

MODEL IV

Regression results for organizational reputation and trust on colleague was ($\beta = 0.428$, S.E = 0.058) and knowledge sharing and organizational reputation results was ($\beta = .0167$, S.E=.020). Online Soble test calculator produced value ($t=0.3364$, $P=0.0000$). Reseachar assert that OR not mediates the relationship between TC and KS.

Model V

Regression results for organizational reputation and organizational reward was ($\beta = 2.146$, S.E = 0.176) and knowledge sharing and organizational reputation results was ($\beta = .102$, S.E=.022). With the help of online Soble calculator in Model V reseachar produced ($t=4.3363$, $P=0.0000$). Reseachar conclude that OR partially mediates the relationship between ORU and KS.

Model VI

Regression results for organizational reputation and work engagement was ($\beta = 1.116$, S.E = 0.054) and knowledge sharing and organizational reputation results was ($\beta = .102$, S.E=.022). With the help of online Soble calculator in Model VI the reseachar produced ($t=4.523917$ and $P=0.000$) value. Reseachar conclude that OR partially mediates the relationship between WE and KS.

5. Conclusion and Future Recommendation

In current study reseachar price focus is to investigate the mediation effect of willingness to share and organization reputation with knowledge sharing and other factors. The reseachar found that there is a positive association between trust on colleague and knowledge sharing as the previous

researcher shows the relationship similar results are proposed by (Khan & Dost, 2012a; Birgit Renzl, 2008; B Renzl et al., 2005; Staples & Webster, 2008; Usoro et al., 2007) while in mediation effect trust have no mediation effect through willingness to share and organizational reputation with knowledge sharing due to employees are not award by reputation in banking sector. The work engagement shows a positive relationship between the employees of banking sector with knowledge sharing as asserts by (Seppala (2013) while regarding the mediating effect the work engagement also mediates the relationship between knowledge sharing and willingness to share and organizational reward. Organization Reward also has significant relationship with KS and also mediates the relationship (Tan & Ramayah 2014). Willingness of employees and organizational reputation has direct relationship between knowledge sharing. To achieve the desired level of satisfaction and also meets the organizational goals in banking sector, management should emphasis on proper recognition, and reward system in banking organization. The current study was done only in Punjab Lahore, banking sector due to time and money constraints to generalize the research future researcher also collects the respondents date all over the Punjab. Future researcher also used mixed method in place of probability convenience sampling.

References

- [1] Agrell, W. (2002). When everything is intelligence-nothing is intelligence: DTIC Document.
- [2] Allen, F. (1984). Reputation and product quality. *The RAND Journal of Economics*, 311-327.
- [3] Ardichvili, A., Page, V., & Wentling, T. (2003). Motivation and barriers to participation in virtual knowledge-sharing communities of practice. *Journal of Knowledge Management*, 7(1), 64-77.
- [4] Argote, L., McEvily, B., & Reagans, R. (2003). Introduction to the special issue on managing knowledge in organizations: Creating, retaining, and transferring knowledge. *Management science*, 49(4), v-viii.
- [5] Bakker, A. B., & Bal, M. P. (2010). Weekly work engagement and performance: A study among starting teachers. *Journal of Occupational and Organizational Psychology*, 83(1), 189-206.
- [6] Bakker, A. B., van Emmerik, H., & Euwema, M. C. (2006). Crossover of burnout and engagement in work teams. *Work and occupations*, 33(4), 464-489.
- [7] Bassi, L. J. (1997). Harnessing the Power of Intellectual Capital. *Training and development*, 51(12), 25-30.
- [8] Bellinger, G., Castro, D., & Mills, A. (2004). Data, information, knowledge, and wisdom.
- [9] Cabrera, A., & Cabrera, E. F. (2002). Knowledge-sharing dilemmas. *Organization studies*, 23(5), 687-710.
- [10] Cabrera, A., Collins, W. C., & Salgado, J. F. (2006). Determinants of individual engagement in knowledge sharing. *The International Journal of Human Resource Management*, 17(2), 245-264.
- [11] Carmines, E. G., & McIver, J. P. (1981). Analyzing models with unobserved variables: Analysis of covariance structures. *Social measurement: Current issues*, 65-115.
- [12] Chen, C.-C., & Chiu, S.-F. (2009). The mediating role of job involvement in the relationship between job characteristics and organizational citizenship behavior. *The Journal of social psychology*, 149(4), 474-494.
- [13] Croom, S., Fawcett, S. E., Osterhaus, P., Magnan, G. M., Brau, J. C., & McCarter, M. W. (2007). Information sharing and supply chain performance: the role of connectivity and willingness. *Supply Chain Management: An International Journal*, 12(5), 358-368.
- [14] Cummings, J. N. (2004). Work groups, structural diversity, and knowledge sharing in a global organization. *Management science*, 50(3), 352-364.
- [15] Davenport, T. H., & Prusak, L. (1998). *Working knowledge: How organizations manage what they know*: Harvard Business Press.
- [16] Deeprouse, D. (1994). How to Recognize & Reward Employees. (p. 11) New York. NY: AMACOM, American Management Association.
- [17] Devi, G. R., Oldenkamp, J. R., London, C. A., & Iversen, P. L. (2002). Inhibition of human chorionic gonadotropin β -subunit modulates the mitogenic effect of c-myc in human prostate cancer cells. *The Prostate*, 53(3), 200-210.
- [18] Dignum, V., & Van Eijk, R. M. (2005). *Towards a model to understand the influence of trust in knowledge sharing decisions*. Paper presented at the Workshop on Trust AAMAS.
- [19] Fombrun, C., & Shanley, M. (1990). What's in a name? Reputation building and corporate strategy. *Academy of Management journal*, 33(2), 233-258.
- [20] Hakanen, J. J., Perhoniemi, R., & Toppinen-Tanner, S. (2008). Positive gain spirals at work: From job resources to work engagement, personal initiative and work-unit innovativeness. *Journal of Vocational Behavior*, 73(1), 78-91.
- [21] Hooff, B., & Hendrix, L. (2004). Eagerness and willingness to share: the relevance of different attitudes towards knowledge sharing. *Amsterdam School of Communication Research*, ND.
- [22] Hsu, M.-H., Ju, T. L., Yen, C.-H., & Chang, C.-M. (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.
- [23] Ismail Al-Alawi, A., Yousif Al-Marzooqi, N., & Fraidoon Mohammed, Y. (2007). Organizational culture and knowledge sharing: critical success factors. *Journal of Knowledge Management*, 11(2), 22-42.
- [24] Jackson, S. E., Chuang, C.-h., Harden, E. E., & Jiang, Y. (2006). Toward developing human resource management systems for knowledge-intensive teamwork.
- [25] Jacobs, P., Brown, W. C., Baikie, A., & Strong, J. (1959). The somatic chromosomes in mongolism. *The Lancet*, 273(7075), 710.

- [26] Kalleberg, A. L. (1977). Work values and job rewards: A theory of job satisfaction. *American sociological review*, 124-143.
- [27] Kenny, D. A., & McCoach, D. B. (2003). Effect of the number of variables on measures of fit in structural equation modeling. *Structural equation modeling*, 10(3), 333-351. doi: 10.1207/S15328007SEM1003_1
- [28] Khan, M. M., & Dost, M. K. B. Effects of Dynamics Persuading and Nurturing the Professional Learning Behaviour of the University Students: A Knowledge Management Approach.
- [29] Khan, M. M., & Dost, M. K. B. (2012a). *Effects of Dynamics Persuading and Nurturing the Professional Learning Behaviour of the University Students: A Knowledge Management Approach*.
- [30] Khan, M. M., & Dost, M. K. B. (2012b). Effects of Dynamics Persuading and Nurturing the Professional Learning Behaviour of the University Students: A Knowledge Management Approach.
- [31] Lee, H. L., So, K. C., & Tang, C. S. (2000). The value of information sharing in a two-level supply chain. *Management science*, 46(5), 626-643.
- [32] Leng, W. (2009). Study on knowledge sharing mechanism in open virtual learning communities. *International Journal of Business and Management*, 4(1), 104.
- [33] Lu, L., Leung, K., & Koch, P. T. (2006). Managerial knowledge sharing: The role of individual, interpersonal, and organizational factors. *Management and Organization Review*, 2(1), 15-41.
- [34] Macey, W. H., & Schneider, B. (2008). The meaning of employee engagement. *Industrial and organizational Psychology*, 1(1), 3-30.
- [35] Nooteboom, B. (2003). *The trust process in organizations: Empirical studies of the determinants and the process of trust development*: Edward Elgar Publishing.
- [36] Omar Sharifuddin Syed-Ikhsan, S., & Rowland, F. (2004). Knowledge management in a public organization: a study on the relationship between organizational elements and the performance of knowledge transfer. *Journal of Knowledge Management*, 8(2), 95-111.
- [37] Polanyi, M., & Sen, A. (1983). *The tacit dimension*: Peter Smith Gloucester, MA.
- [38] Porter, L. W., Bigley, G. A., & Steers, R. M. (2003). Motivation and work behavior.
- [39] Ramirez, A., Coakes, E., Søndergaard, S., Kerr, M., & Clegg, C. (2007). Sharing knowledge: contextualising socio-technical thinking and practice. *The Learning Organization*, 14(5), 423-435.
- [40] Renzl, B. (2008). Trust in management and knowledge sharing: the mediating effects of fear and knowledge documentation. *Omega*, 36(2), 206-220.
- [41] Renzl, B., Matzler, K., & Mader, C. (2005). *Impact of trust in colleagues and management on knowledge sharing within and across work groups*. Paper presented at the CD-Proceedings of the 6th European Conference on Organizational Knowledge, Learning, and Capabilities, Bentley College, Boston/USA.
- [42] Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of managerial psychology*, 21(7), 600-619.
- [43] Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness studies*, 3(1), 71-92.
- [44] Seppälä, P. (2013). Work engagement: psychometrical, psychosocial, and psychophysiological approach.
- [45] Shenkar, O., & Yuchtman-Yaar, E. (1997). Reputation, image, prestige, and goodwill: An interdisciplinary approach to organizational standing. *Human relations*, 50(11), 1361-1381.
- [46] Smith, P. A., Bakker, M., Leenders, R. T. A., Gabbay, S. M., Kratzer, J., & Van Engelen, J. M. (2006). Is trust really social capital? Knowledge sharing in product development projects. *The Learning Organization*, 13(6), 594-605.
- [47] Sonnentag, S. (2003). Recovery, work engagement, and proactive behavior: a new look at the interface between nonwork and work. *Journal of applied psychology*, 88(3), 518.
- [48] Staples, D. S., & Webster, J. (2008). Exploring the effects of trust, task interdependence and virtualness on knowledge sharing in teams. *Information Systems Journal*, 18(6), 617-640.
- [49] Susanty, A. I., & Wood, P. C. (2011). The motivation to share knowledge of the employees in the telecommunication service providers in Indonesia. *International Proceedings of Economics Development & Research*, 5(2), V2159-V2162.
- [50] Sveiby, K.-E., & Simons, R. (2002). Collaborative climate and effectiveness of knowledge work-an empirical study. *Journal of Knowledge Management*, 6(5), 420-433.
- [51] Szulanski, G. (2000). The process of knowledge transfer: A diachronic analysis of stickiness. *Organizational behavior and human decision processes*, 82(1), 9-27.
- [52] Tan, C. N.-L., & Ramayah, T. (2014). The Role of Motivators in Improving Knowledge-Sharing among Academics. *Information Research: An International Electronic Journal*, 19(1), n1.
- [53] Teigland, R. (2000). Communities of practice in a high-technology firm. *The flexible firm: Capability management in network organizations*, 126-145.
- [54] Tsai, W. (2001). Knowledge transfer in intraorganizational networks: Effects of network position and absorptive capacity on business unit innovation and performance. *Academy of Management Journal*, 44(5), 996-1004.
- [55] Usoro, A., Sharratt, M. W., Tsui, E., & Shekhar, S. (2007). Trust as an antecedent to knowledge sharing in virtual communities of practice. *Knowledge Management Research & Practice*, 5(3), 199-212.
- [56] v Weizsacker, C. (1980). *Barriers to entry: A theoretical treatment*: Springer-Verlag.
- [57] Van Beveren, J. (2002). A model of knowledge acquisition that refocuses knowledge management. *Journal of Knowledge Management*, 6(1), 18-22.
- [58] van den Hooff, B., & De Ridder, J. A. (2004). Knowledge sharing in context: the influence of organizational commitment, communication climate and CMC use on knowledge sharing. *Journal of Knowledge Management*, 8(6), 117-130.

- [59] Van den Hooff, B., & Huysman, M. (2009). Managing knowledge sharing: Emergent and engineering approaches. *Information & Management*, 46(1), 1-8.
- [60] Wang, Y. (2004). Observations on the organizational commitment of Chinese employees: comparative studies of state-owned enterprises and foreign-invested enterprises. *The International Journal of Human Resource Management*, 15(4-5), 649-669.
- [61] Wang, Y., Lo, H.-P., & Hui, Y. V. (2003). The antecedents of service quality and product quality and their influences on bank reputation: evidence from the banking industry in China. *Managing Service Quality: An International Journal*, 13(1), 72-83.
- [62] Wangpipatwong, S. (2009). *Factors influencing knowledge sharing among university students*. Paper presented at the Proceedings of the 17th International Conference on Computers in Education.
- [63] Welbourne, M. (2001). *Knowledge*. Chesham: Acumen Press.