Pakistan Journal of Life and Social Sciences
www.pjlss.edu.pk

RESEARCH ARTICLE

Impact of Motivation and Supervisory Support to Enhancing the Innovation Capability of Dairy Farms in Pakistan

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ARTICLE INFO	**ABSTRACT**
	This study investigates the impact of motivation and supervisor support on innovation capability with a mediating effect of knowledge sharing. Furthermore, the primary purpose of this study was how to enhance the innovation capability in dairy farms for the country growth. The data were collected from managers/owners of the dairy farms (n=254 questionnaires) by using the simple random sampling technique. This study was performed the SmartPLS 3 to analyze relationship between the exogenous and endogenous variables. The results revealed that motivation and supervisor support have a significant positive impact on innovation capability (P=0.028). On the other hand, motivation and supervisor support have positively influenced on the knowledge sharing (P=0.021). Furthermore, empirically test confirmed that the knowledge sharing partially mediates the relationship between motivation and supervisor support with the innovation capability. In conclusion, it is recommended that dairy farm managers/owners should focus on motivation and supervisor support to enhance the value of the innovation capability for rapid growth and development of dairy sector in the country.
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INTRODUCTION

The dairy industry is one of the main sub sector of the agriculture industry. In simple word, it is the main bone of the agriculture sector. In addition, the dairy industry has been considered as the most important sector of the employment producing, livelihood of the people and poverty reducing in the Pakistan. Dairy farms are the pinning hope for the dairy industry and for the country economic development. But unfortunately, in Pakistan, dairy farms face several problems like financial issues, technology adoption, infrastructure, marketing issues, unsupported activities by Government and lack of skilled workers. The dairy sector in Pakistan is below to the expectation due to mentioned problems. Innovation capability is the only single way to solve these problems (Anonymous, 2013; Khan et al., 2013; Baig, and Husain, 2011).

The meaning of innovation word is to introduce new ideas and new things. Innovation capability has been implemented from the history of human and used in the way of improving the human life. In the current era, innovation capability is the main source for a firm's survival. In today's business world, innovation capability has become the major foundation for the

growth of firms. In the veracity, the economic growth of the world is depending on the innovation capability with technology advancement (Jaakkola et al., 2015). Due to this reason, innovation itself has become a complex phenomenon based on the desired needs and wants of the customers (Kafetzopoulos and Psomas, 2015; Vicente et al., 2015). The operation of any firm in every industry relies on the firms' capabilities to produce innovations (Tidd and Bessant, 2013). Innovation alone can help the organization to increase its profitability and ensure its survival (Ibrahim et al., 2009). The connection between innovation capability, knowledge sharing, motivation and supervisor support are well established in the previous research. Indeed, there is a wealth of evidence in the academic literature indicating that innovation capability is most important for the success of the business (Vicente et al., 2015).

Knowledge sharing can be defined as the sharing of common purpose, exchange of ideas, information and experiences among the people for solving the problem. Managers and owners observe that knowledge sharing is the most important for the development and growth of a country. To acquire and maintain competitive power or edge, many firms allocate organizational resources to build knowledge management systems and

support knowledge sharing in their firms. However, mostly knowledge management systems have unsuccessful to assist knowledge sharing (Storey, 2001). Knowledge sharing is consisting of shared understanding of the employees related to the access to the relevant information and understanding the knowledge network within the organization (Hoegal et al., 2003).

Furthermore, knowledge management occurs at the organizational as well as on the individual level. At the individual level, knowledge sharing is sharing of information to solve the problem or to get done something better. At organization level knowledge sharing is transferring and capturing experienced-based information and transferring it and makes it available to other within the organization (Calantone et al., 2002). Moreover, knowledge sharing is consisting of both willingness of the employee to actively communicate with the co-worker (Darroch and McNaughton, 2002).

Motivation is the individual skill to represent the knowledge base related action (Rothschild, 1999). Past research indicated that motivation was encouraging the employee to generate novel ideas and sharing the knowledge for enhancing the innovation capability and performance of SMEs firms (Amabileet al., 1996). According to Shalley et al. (2004) motivation is the good predictor for creative performance. Empirical evidence suggests that the motivation is related to knowledge management and innovation capability (Shalley et al., 2004). Supervisory support is also one of the key factors to the progress of an organization. Limited research has indicated that supervisory support is necessary in creating a supportive climate with sufficient resources (Connelly and Kelloway, 2003; Lin and Lee, 2004; Lu et al., 2006). On the other hand, Kim and Ko (2014) singularly give credit to the positive relationship between a supervisor and his subordinate which they claim to be important factor in knowledge sharing and innovation capability.

The basic purpose the present study is to examine the implications of motivational and supervisory support services in enhancing the innovation capability through the knowledge sharing. The present research is important to the agricultural sector covered by small dairy farms operations because dairy farms and businesses in Pakistan compete in undifferentiated markets (Ullah et al., 2016a). More importantly, the prior research suggests that the dairy sector is exposed to the higher competitive rivalry and higher levels of risk (Ullah et al., 2016b). More specifically, the present research provides the best path to the managers and owner of the dairy farms to uplift their dairy business through the knowledge sharing and innovation capability.

MATERIALS AND METHODS

Figure 1 demonstrates the framework for the present study. After going through the available literature and theories such as diffusion innovation and resources based view (RBV), the framework of the present study was given. Figure1, showed the research framework based on the relationships between independent variables such as motivation, supervisor support. Innovation capability as dependent variable with mediation effect of knowledge sharing.

In the past literature, knowledge sharing includes, in the organizational context, communication technology (information communication technology) applications (Taylor and Wright, 2004; Lin and Lee, 2004). The knowledge sharing refers to "how employee at working place share their expertise, work related experience, contextual information and knowhow with other employees. Knowledge sharing is a process to entail the employee readiness to communicate with subordinates and also consult with employees to learn from them. To conclude, knowledge sharing is a big source of organization to promote their ideas, discipline, cultures and employee work style for the innovation capability (Darroch and McNaughton, 2002). So, the knowledge sharing is the most effective tool to achieve the innovation capability.

The past research investigates several effects on knowledge sharing activities i.e. technology, organizational and individual factors (Connelly and Kelloway, 2003; Taylor and Wright, 2004). Many researchers agree that knowledge sharing depends on values, experiences, beliefs and motivation. Motivation is also the source of knowledge sharing and motivation may have allowed employee to share their experience and expertise as a knowledge sharing (Wasko and Faraj, 2005). After motivation, employee feels that knowledge sharing behaviors are the best effort to help others. Therefore, benefits for motivation can insist employee to share the knowledge with other colleagues. In addition, supervisor support is another influential factor on knowledge sharing behavior. Supervisor support facilitates and provides benefits to employee for knowledge sharing and innovation supportive culture (Cabrera et al., 2006). Therefore, this article investigates the relationships of motivation and supervisor support on knowledge sharing for enhancing the innovation capability in the dairy industry of Pakistan for the economic development and living standard of the nation.
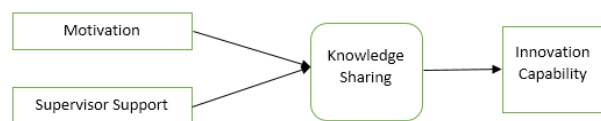

Fig. 1: The Research Model

Hypotheses of the study

The hypotheses developed for this study are discussed as below.

H₁: Motivation positively influences employee willingness to knowledge sharing.

H₂: Supervisor support positively influences employee willingness to knowledge sharing.

H₃: Knowledge sharing has positive effect on the innovation capability.

H₄: Knowledge sharing mediates the effects of motivation, supervisor support on innovation capability.

H₅: Motivation positively influences to innovation capability.

H₆: Supervisor support positively influences to innovation capability.

Population and sample

Sample can be defined as the subset of a population required to ensure significant results (Sekaran and Bougie, 2010). The sample for the current study is drawn from the dairy farms, and owner and managers were the respondents. The current study consists of 254 managers and owners of the dairy farms located in the different areas of Pakistan. Simple random sampling technique was used to collect the data.

Measurement and instrumentation

A self-administered questionnaire was used to take the relevant data. The questionnaire for this study is divided into two parts. The first part is about the basic information of the respondents and the second part consists questions about innovation capability, knowledge sharing, motivation and supervisor support. All constructs were measured through the multiple items from different researches in the comprehensive literature. Specifically, motivation was measured with three items from the available studies (Rothschild, 1999; Siemsen et al., 2008). Five items were adopted from the study of Nisula et al. (2015) to measure the supervisor support. Six items from Bock et al. (2005) were employed to measure knowledge sharing. To measure innovation capability, six items were adopted from the study of Calantone et al. (2002). Responses to all items in motivation, supervisor support and knowledge sharing and innovation capability were rated on five-points Likert scale.

All the items for this study were prepared in English and the translated it into Urdu using the back-translation method (Sekaran and Bougie, 2010). However, in Pakistan, mostly participants are not able to understand the questions in English. Due to this, the questionnaire was translated into Urdu because Urdu is the native language in Pakistan. Sekaran and Bougie (2010) also suggested in their study that the instrument for research must be in the native language preferred by respondent to avoid errors from the respondents.

The measurement model analysis

Analysis of the current study was carried out through SMART PLS-SEM 3.0. The very first step in PLS-SEM is the measurement model (Fornell and Larcker, 1981). Reliability and validity were also performed before testing the model and results for the current study were mentioned in the following section.

Initially, PLS-SEM was used to evaluate the outer model and measurement model. The following facts argued by Anderson and Gerbing (1998) were followed. This procedure supported constructs validity. The construct validity measured by the content validity discriminate validity and convergent validity.

Based on the SEM literature, the concept of construct validity demonstrates that it is the set of items which mainly captures the concept of construct which subsequently helps in efficient performance of the study designs. In details, the questionnaire used to investigate a construct is generated through review of the literature to identify that generated construct were appropriate.

The measurement model was assessed through the confirmatory factor analysis. Factor loading of individual indicators was performed for the measurement model. The loading of each factor in Figure 2 indicates that all the values of the factor loading exceed the threshold value of 0.50, showing satisfactory contribution of the indicators to assigned constructs. Additionally, as argued by Hair et al. (2013), discriminant validity can be assessed by examining the indictors' outer loadings.

The second phase was connected with comparison of two models. In this article, it is noted that motivation, supervisor support was indicated as a second-order latent variables. The measurement models were compared based on the t-test with hypothesis path. Furthermore, in the current study, a systematic model analysis of the structural model was executed to give a whole picture of the outcomes and further to test the hypotheses 1 to 6 comprehensively. Evaluation of the inner model begins with an examination of the direct relationships between the independent variables and the dependent variable. The results of direct relationship of the independent variables with dependent variables are mentioned in Figure 2. The size of the path coefficients was examined through the PLS-SEM Algorithm which are specified in Figure 2, and the significance of the relationship of the variables were inspected through the PLS-SEM bootstrapping procedure in the Smart PLS 3.0. The prime number of cases was used as the number of cases, and 500 bootstrapping samples are used (Hair et al., 2013; Henseler et al., 2009).

RESULTS AND DISCUSSION

Table 1 indicates the discernment validity of the study construct. Discriminant validity was estimated by segregating the square root of the AVE for each

construct with the correlations. Table 1 indicated the results of Fornell-Larcker Criterion assessment with the square root of the constructs. Thus, the square root of AVE in bold is above its highest construct's correlation with other constructs. Such results fulfill the conditions for using a mediation analysis.

Table 1: Discernment validity

Variables	IC	KS	MO	SS
IC	0.736			
KS	0.336	0.757		
MO	0.247	0.257	0.883	
SS	0.314	0.58	0.198	0.755

IC=Innovation Capability, KS=Knowledge Sharing, MO=Motivation, SS=Supervisor Support

Table 2: Factor analysis/Loading

	IC	KS	MO	SS	TE	IN
IC1	0.691	0.325	0.232	0.118	0.217	0.074
IC2	0.831	0.295	0.225	0.257	0.269	0.297
IC3	0.711	0.146	0.148	0.225	0.244	0.291
IC4	0.654	0.234	0.109	0.281	0.415	0.071
IC5	0.793	0.32	0.176	0.294	0.23	0.239
IC6	0.718	0.133	0.212	0.175	0.162	0.273
KS1	0.215	0.769	0.197	0.394	0.062	0.174
KS2	0.319	0.749	0.247	0.427	0.184	0.294
KS3	0.27	0.846	0.168	0.548	0.176	0.227
KS5	0.198	0.655	0.166	0.365	0.318	0.051
MO1	0.217	0.18	0.877	0.157	0.038	0.294
MO2	0.232	0.304	0.877	0.223	0.074	0.269
MO3	0.197	0.16	0.893	0.122	-0.019	0.329
SS1	0.25	0.57	0.178	0.812	0.224	0.256
SS2	0.165	0.406	0.159	0.778	0.128	0.284
SS3	0.207	0.392	0.004	0.743	0.285	0.103
SS4	0.237	0.404	0.062	0.742	0.345	0.045
SS5	0.316	0.378	0.326	0.693	0.182	0.189

IC=Innovation Capability, KS=Knowledge Sharing, MO=Motivation, SS=Supervisor Support

Table 3: The convergent validity analysis

Construct	Item	Loading's	CA	CR	AVE
IC	IC1	0.691			
	IC2	0.831			
	IC3	0.711	0.829	0.875	0.541
	IC4	0.654			
	IC5	0.793			
	IC6	0.718			
KS	KS1	0.769			
	KS2	0.749	0.75	0.842	0.574
	KS3	0.846			
	KS5	0.655			
MO	MO1	0.877			
	MO2	0.877	0.862	0.914	0.779
	MO3	0.893			
SS	SS1	0.812			
	SS2	0.778			
	SS3	0.743	0.811	0.868	0.57
	SS4	0.742			
	SS5	0.693			

IC=Innovation Capability, KS=Knowledge Sharing, MO=Motivation, SS=Supervisor Support, TE=Technology, IN=Industry Cluster Resources

Table 2 indicates that all the bold values of the factor loading exceed the suggested threshold of 0.50, showing the satisfactory contribution of the indicators to assigned constructs. "Additionally, as contented by Hair et al. (2013), discriminant validity can be measured by inspecting the indictors outer loadings. As discussed earlier, they debate that discriminant validity can be settled when the indicator's outer loading on each construct is over all its cross-loading with other constructs. Hence, Table 2 is about the discriminant validity and proved that the loadings of every factors are greater than the value 0.50 and no any other indicator has loading more than the one it intends to measure.

Furthermore, as depicted in Table 3, the composite reliability "(CR) and Cronbach's alpha (CA) values exceed the recommended standard value of 0.70 (Hair et al., 2013; Henseler et al., 2009). The CR values in the present study, ranged from 0.840 to 0.914 indicating the reliability of the measurement model. In order to identify an element of convergence in the measurements of the construct, average variance extract (AVE) is used with a standard of 0.50 and above (Hair et al., 2012; Henseler et al., 2009). AVE value of 0.50 indicates adequate convergent validity. The results in Table 3 reveal that the AVE value of all the constructs exceeds the standard value of 0.50 (Hair et al., 2012; Henseler et al., 2009). The result affirms that the AVE value of all variables in this paper ranges from 0.541 to 0.779; so, the convergent validity is established. Collectively, the result of this study demonstrated that all measure is reliable and there was strong evidence of convergent and discernment validity (Anderson and Gerbing, 1988; Fornell and Larcker, 1981).

In addition, Table 4 indicates the path co-efficients, standard deviation, t-statistics, and p-values. With respect to H_1, the result suggests that there is a positive impact of MO on IC (y=0.137; t=1.919; P<0.05) hence, H_1 is supported. However, H_2 is supported because the result indicates the significant impact of MO on KS (y=0.124; t=2.034; P<0.05). While considering H_3, the result provides that there is a positive impact of SS on IC (y=0.085; t=0.835; p>0.05). Hence, H_3 is not supported. In addition, H_4 is also supported because the result indicates that significant impact of SS on KS (y=0.518; t=8.057; P<0.01). With respect to H_5, the result suggests that there is a positive impact of KS on IC (y=0.156; t=1.582; P<0.01). Hence, H_5 is supported. Finally, in Table 5, the mediation test was examined. After applying the bootstrapping confidence interval method, the MO and SS have significant partially mediation. Thus, MO and SS have mediated effect.
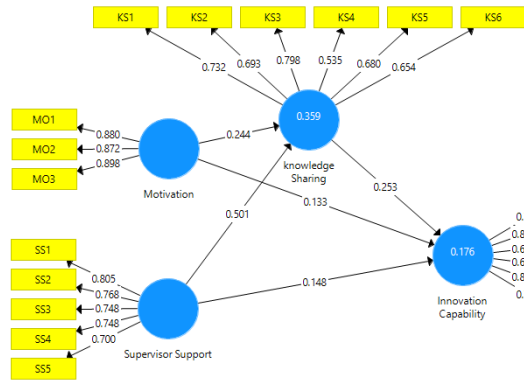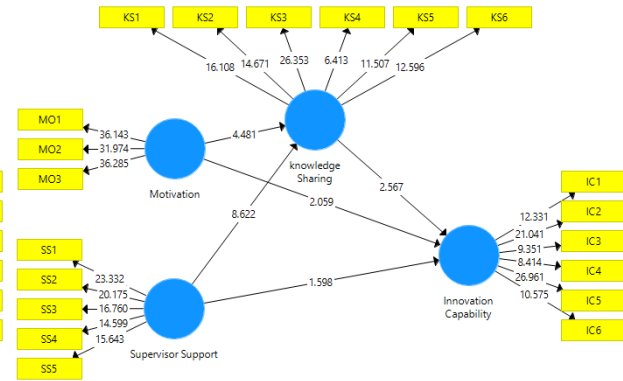
Fig. 2: Measurement of model

Fig. 3: PLS Algorithm Direct Relationship

Table 4: Hypothesis Path

Hypothesized-Path	Path co-efficient	S. E	t-statistic	P-Value	Decision
MO ->IC	0.137	0.071	1.919	0.028	Supported
MO ->KS	0.124	0.061	2.034	0.021	Supported
SS -> IC	0.085	0.101	0.835	0.202	Not-Supported
SS -> KS	0.518	0.064	8.057	0.000	Supported
KS -> IC	0.156	0.099	1.582	0.057	Supported

IC=Innovation Capability, KS=Knowledge Sharing, MO=Motivation, SS=Supervisor Support

Table 5: Mediation Test

Variables	Path a	Path b	Indirect Effect	SE	t-statistic	95% LL	95% UP	Decision
Mo	0.133	0.359	0.047747	0.0224	2.129358	0.003798	0.091696	Mediation
SS	0.511	0.359	0.183449	0.0391	4.691848	0.106814	0.260084	Mediation

The current study is much interesting from practical and theoretical views. This study proposed a theoretical research model to investigate through the knowledge sharing and innovation capability.

The current study examined the effects of motivation and supervisor support on knowledge sharing and innovation capability. These all are significant except supervisor support on IC. Motivation, supervisor support are the most important indicators of IC (Lin, 2007).

As discussed earliest, the statistical analyses of this study show that six hypotheses were supported and only one hypothesis was not in the favor of this study. Furthermore, the first hypothesis of the impact of MO on KS was established to be significant at the 0.05 level of significance. The result of H_1 is supported and is similar with past study (Hau et al., 2013). The second hypothesis of the impact of SS to KS was established to be highly significant at the 0.01 level of significance. Hence, the result of H_2 is supported. The third hypothesis of the impact of SS to IC was established to be insignificant at the 0.10 level of significance. Thus, the result of H_3 is not supported. The fourth hypothesis of the impact of KS to IC was established to be significant at the 0.10 level of significance. So, the result of H_4 is supported. The fifth hypothesis of the impact of MO to IC was established to be significant at the 0.05 level of significance. Therefore, the result of

H_5 is also supported. The sixth hypothesis is related to mediation test which indicated that KS mediates between MO, SS and IC.

In this article, a research model has tested that examined KS as mediating between MO, SS and IC. The result indicated that the availability of MO and SS led to KS. The KS, in turn, enhanced the IC in technical terminology, KS fully mediated the effect of MO and SS on IC under these circumstances, dairy form manager should devote in MO and SS to retain a pool of KS that can demonstrate high IC in the dairy form. In the current business environment, deeper and wealthier understandings of several factors and indicators that may be connected to KS and IC outcomes will stay to be significant and important.

Recommendations

It is hoped that the findings of the current study can motivate other researchers to concentrate on the mediating impact of KS in the relationship with MO, SS and IC using data attained from different sources. Furthermore, the findings of this research can increase the understandings and practices of dairy farm in term of their knowledge sharing and innovation capability with motivation and supervisor support. More specifically, this research is helpful for the owner and managers of dairy farms in the growth and success in the business.

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Authors' contributions

MIU conceived the research idea, collected the data and wrote this manuscript. KBAH helped in study design and writing the Manuscript. AS analyzed the data. All the authors proof read and finalized the manuscript.

REFERENCES

Anderson JC and DW Gerbing, 1988. Structural equation modeling in practice: A review and recommended two-step approach. Psychological Bulletin, 103: 411-423.

Amabile TM, 1996. Creativity in context: Update to the social psychology of creativity. Avalon Publishing, West view press, USA.

Baig FN and S Husain, 2011. Impact of PDDC in Promoting Entrepreneurship in Pakistan: A Case Study of Dairy Farmers. The 6th European Conference on Innovation and Entrepreneurship held on September 15-16, 2011, pp: 104-111. Academic Conferences Limited.

Bock GW, RW Zmud, YG Kim and JN Lee, 2005. Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate. MIS quarterly, 29: 87-111.

Cabrera A, WC Collins and JF Salgado, 2006. Determinants of individual engagement in knowledge sharing. The International Journal of Human Resource Management, 17: 245-264.

Calantone RJ, ST Cavusgil and Y Zhao, 2002. Learning orientation, firm innovation capability, and firm performance. Industrial Marketing Management, 31: 515-524.

Connelly CE and KE Kelloway, 2003. Predictors of employees' perceptions of knowledge sharing cultures. Leadership and Organization Development Journal, 24: 294-301.

Darroch J and R McNaughton, 2002. Examining the link between knowledge management practices and types of innovation. Journal of Intellectual Capital, 3: 210-222.

Fornell C and DF Larcker, 1981. Structural equation models with unobservable variables and measurement error: Algebra and statistics. Journal of Marketing Research, 18: 382-388.

Hair JF, CM Ringle and M Sarstedt, 2013. Editorial-partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. Long Range Planning, 46: 1-12.

Hair JF, M Sarstedt, CM Ringle, and JA Mena, 2012. An assessment of the use of partial least squares structural equation modeling in marketing research. Journal of the Academy of Marketing Science, 40: 414-433.

Hau YS, B Kim, H Lee and YG Kim, 2013. The effects of individual motivations and social capital on employees' tacit and explicit knowledge sharing intentions. International Journal of Information Management, 33: 356-366.

Henseler J, CM Ringle and RR Sinkovics, 2009. The use of partial least squares path modeling in international marketing. Advances in International Marketing, 20: 277-319.

Hoegl M, KP Parboteeah and CL Munson, 2003. Team-level antecedents of individuals' knowledge networks. Decision Sciences, 34: 741-770.

Ibrahim AR, AHS Zolait, S Subramanian and AV Ashtiani, 2009. Organizational innovative capabilities: An empirical study of Malaysian firms. Journal of Innovation and Business Best Practices, 1: 9-18.

Jaakkola M, J Luoma, J Frösén, H Tikkanen and J Aspara, 2015. Complementarity of Innovation Capability and Customer-Linking Capability: A Configurational Approach. In Marketing Dynamism & Sustainability: Things Change, Things Stay the Same, 131-134. Springer International Publishing, NY, USA.

Kafetzopoulos D and E Psomas, 2015. The impact of innovation capability on the performance of manufacturing companies: The Greek case. Journal of Manufacturing Technology Management, 26: 104-130.

Khan HAA, W Akram, SA Shad, M Razaq, U Naeem-Ullah and K Zia, 2013. A cross sectional survey of knowledge, attitude and practices related to house flies among dairy farmers in Punjab, Pakistan. Journal of Ethnobiology and Ethnomedicine, 9: 1-10.

Kim YW, and J Ko, 2014. HR Practices and Knowledge Sharing Behavior Focusing on the Moderating Effect of Trust in Supervisor. Public Personnel Management, 43: 1-22

Lin HF, 2007. Knowledge sharing and firm innovation capability: an empirical study. International Journal of Manpower, 28: 315-332.

Lin HF and GG Lee, 2004. Perceptions of senior managers toward knowledge-sharing behavior. Management Decision, 42: 108-125.

Lu L, K Leung, and PT Koch, 2006. Managerial knowledge sharing: The role of individual, interpersonal, and organizational factors. Management and Organization Review, 2: 15-41

Nisula AM and A Kianto, 2015. The Antecedents of Individual Innovative Behaviour in Temporary Group Innovation. Creativity and Innovation Management, 25: 431-444

Anonymous, 2013. Economic Survey of Pakistan. Ministry of Finance, Govt. of Pakistan, Islamabad, Pakistan.

Rothschild ML, 1999. Carrots, sticks, and promises: A conceptual framework for the management of public health and social issue behaviors. The Journal of Marketing, 63: 24-37

Sekaran U and R Bougie, 2010. Research Method for Business, A Skill Building Approach. John Wiley ad Sons Inc., USA.

Shalley CE, J Zhou and GR Oldham, 2004. The effects of personal and contextual characteristics on creativity: Where should we go from here? Journal of Management, 30: 933-958.

Siemsen E, AV Roth and S Balasubramanian, 2008. How motivation, opportunity, and ability drive knowledge sharing: The constraining-factor model. Journal of Operations Management, 26: 426-445.

Storey J and P Quintas, 2001. Knowledge management and HRM. Human Resource Management: A critical text. 3rd Edition, Cengage Learning EMEA Publishers, USA, pp: 339-363.

Taylor WA and GH Wright, 2004. Organizational readiness for successful knowledge sharing: Challenges for public sector managers. Information Resources Management Journal, 17: 22-37

Tidd J and J Bessant, 2013. Managing innovation: integrating technological, managerial organizational change. 5th edition. Wiley Publishers, New York, USA.

Ullah MI, KBA Hamid and A Shahzad, 2016a. The determinants of knowledge sharing to enhancing the innovation capability: An empirical study of Dairy Farms in Pakistan. Pakistan Journal of Social Sciences, 36: 49-62.

Ullah MI, KBA Hamid and A Shahzad, 2016b. Impact of transformational leadership on knowledge sharing of employees and innovation capability in the Dairy Sector of Pakistan. Pakistan Journal of Social Sciences, 36: 87-98.

Vicente M, JL Abrantes and MS Teixeira, 2015. Measuring innovation capability in exporting firms: the Innovscale. International Marketing Review, 32: 29-51.

Wasko MM and S Faraj, 2005. Why should.lo I share? Examining social capital and knowledge contribution in electronic networks of practice. MIS Quarterly, 29: 35-57.