Investigating the Knowledge Sharing among students in Pakistan

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Abstract
This paper’s goal is to empirically examine the impact of trust, attitude, and ICT Use on knowledge sharing among degree students of universities in Vehari. Self-efficacy theory was used as an underpinning theory to test the suggested model. A sample size of 120 students was selected to collect the primary data through survey from respondents. Correlation and multiple regression analysis were performed to test the hypotheses drawn from this study. The findings show that trust, attitude and ICT Use are the key factors in order to boost knowledge sharing amongst students. The results show that ICT Use is highly significant and correlated predictor of knowledge sharing. The study also discussed implications, limitations and future research recommendation that can be helpful both universities and researchers for further study.

Keywords: Trust, Attitude, ICT Use, Knowledge Sharing, Pakistan.

Introduction
Knowledge sharing has become an increasingly important part of study in a digital world. It is no longer about whom you know or who they know but it is more important about how you know in reaching high performance in today’s digital world. By sharing brain, creates opportunities for students to impart what they are critically thinking real time. Further, it also creates opportunities for students to discuss problems, engage and debate on those thoughts using different platforms. Similarly universities can organize themselves to large knowledge sharing societies to produce real knowledge and solve real world problems. Today knowledge sharing plays a key role in students learning. Therefore, the main challenge to academia today is to retain their students in knowledge sharing (Rafique et al., 2017).

The knowledge sharing with thought provoking conversation and discussion among existing and new students is essential to contribute to a better world. These days, the ability of students in education system to share knowledge within them is considered as an important contributing factor for success. Today learning is now considered as a joint effort (Yuen et al., 2007). Not only it creates motivation and commitment, but also it builds relationships and identity that are essential for knowledge sharing and better performance (Georgiadou et al., 2006). The students should realize the certainty that world is now gradually becoming learning organization. It can increase the capabilities of students through incorporating knowledge in their daily life to transform Pakistan. Nowadays, knowledge sharing is also essential to keep a running and flourishing economy (Gremm et al., 2018).

In the past, although there has been plenty of research on knowledge sharing in organization and how to sponsor it among employees (Zhang et al., 2015). Yet, there has been lack of knowledge sharing among education environment, particularly among students (Boateng et al., 2017; Chikoore et al., 2013). Pakistan is very much aware that its improvement towards knowledge society with a specific end goal to compete in the worldwide economy is inescapable. In its Vision 2025, Pakistan recognizes that important issues need to be addressed (MoPD&R, 2014). In Pakistan, the students of higher education sector are the largest part of evolution of the country. However, there has been
seen less or no training or seminars on knowledge sharing to give the practical importance among students. In addition to, students are reluctant to share knowledge due to lack of awareness and mistrust on others. Students’ positive attitude towards knowledge sharing can enhance the motivation for it (Mahmood et al., 2011). Therefore, the education authorities need to develop an environment that allows students to network and correspond with each other without any limitations. There are students who do want to share their thoughts and expertise with others due to lack of understanding of the benefits of doing so (Agrawal et al., 2017), while some others like sharing their knowledge to facilitate others (McLure Wasko et al., 2000). Therefore, this study investigates the vital factors affecting knowledge sharing behavior among students, while execute the exact methods to persuade students to share their knowledge.

**Literature**

**Knowledge sharing**

It refers to an activity through which knowledge mainly information, skills or expertise is exchanged among people, friends, communities and families. According to (Wang et al., 2010) it is the arrangement of information and know-how to help other people and to work together with others to take care of issues, grow new thoughts, or execute approaches or strategies. It cannot be constrained, however must be empowered and encouraged (Gibbert et al., 2002). Knowledge sharing is viewed as an action including risk for the information supplier, as he or she risks losing a competitive advantage over the other by uncovering important information (Sankowska, 2012). Sharing infer a cognizant act by a person who takes an interest in the learning exchange despite the fact that there is no impulse to do so (Agrawal & Snekke, 2017). Similarly, (Gremm et al., 2018) argued that knowledge can be exchanged in front of each other or with the assistance of data and correspondence technologies. In a study finding by (Moghavvemi et al., 2017) the outcomes demonstrated that students perceived equal advantage, desired result and satisfaction to share their knowledge between different individuals while simultaneously expecting rewards and attractive results.

**Relationship between Trust and Knowledge sharing**

Trust is one of the most crucial factors in the formation of a knowledge sharing environment. A study defined it as a magic ingredient that is vital for a flourishing knowledge sharing (Okyere-Kwakye et al., 2012). It has also the capability of encouraging knowledge sharing, particularly among students (Yuen et al., 2007). Another study found that credibility of the trustee performs a middle role in helping knowledge sharing among students. Therefore to access knowledge for students there must be trustworthiness in the educational environment (Boateng et al., 2017). More study argued that trust is a spearheading strategy that have emerged as a segment for the improvement of knowledge sharing society in an organization (Marmol et al., 2011). Many previous studies have confirmed that trust is an important factor in any circumstances which encourage knowledge sharing among students (Ali Jolaee, 2014; Chong et al., 2013; Yaghi et al., 2011).

\[ H_1: \text{Trust has significant and positive relationship with knowledge sharing}. \]

**Relationship between Attitude and Knowledge sharing**

Attitude refers to the views an individual has about things, people, groups and problems (Ayub, 2017). In another definition attitude is the level to which an individual has a positive or negative evaluation or assessment of the behavior in question (Ajzen, 1991). Positive attitude always creates an innovative environment and encourages sharing knowledge (Gremm, 2018). A study proved that students’ attitude always motivates them to share knowledge among each other (Yaghi et al., 2011). Many researchers have investigated the relationship between attitude and knowledge.
sharing. Usually, university students believe that it is good to share with others, because they do it gladly and sharing is caring for them (Wei et al., 2012). Similar study was conducted in UK universities and the result confirmed that respondents thought that knowledge sharing will help us to make our relationship stronger (Fullwood et al., 2013). On the other side, study found that merrily sharing knowledge could cause loss in competition among peers (Yaghi et al., 2011). But Gagné (2009) argued that positive attitude for knowledge sharing can be attained without any interest keeping or personal interests. Therefore, strategies should be implemented among all the educational institutions so that student can develop the attitude of knowledge sharing and share it (Boateng et al., 2017).

H2: Attitude has significant and positive relationship with knowledge sharing.

**Relationship between ICT Use and Knowledge sharing**

Nowadays a large no of studies have confirmed that ICT (Information and communication technology) plays a pivotal role in catching knowledge through real time process. ICT is considered as one of the significant factors in knowledge sharing (Podrug et al., 2017). A study defined it as the particular arrangement of PC based activities that the organization executes keeping in mind the end goal to classify, sort out, store and recover knowledge (Sáenz et al., 2012). It is expanding step by step because of numerous developments including the tremendous expansion of ICT (Navimipour et al., 2016). Lack of ICT in government sector University has limited the knowledge sharing among university students (Zawawi et al., 2011). IT can complete significantly something other than putting away and retrieving information (Tsui, 2005). By enhancing access to knowledge and removing any barriers between knowledge workers, ICT can improve knowledge sharing levels (Hendriks, 1999). Many of the studies have proved that ICT is a tool assisting in the process of knowledge sharing (Podrug et al., 2017). Therefore, role of ICT is not only to share of knowledge but also share meta-knowledge.

H3: ICT has significant and positive relationship with knowledge sharing.

**Underpinning Theory**

Many researchers believe that self-efficacy is a perfect theory to know more about sharing knowledge in a few settings and not in others (Hu, 2010). Bandura defined it as someone belief in its own ability to perform in specific situations or finish a task (Bandura, 1978). Therefore, the supporting theory in this study is self-efficacy theory.

**Research Framework**
Methodology
This study was performed using quantitative approach in which survey method was used. The sample size was selected of 120 students from population studying in educational institutions of Vehari. Both undergraduate and graduate degree students participated in this study. Primary data was collected using questionnaires to find the information of the variables. Multi-item five point Likert scale was used for instance strongly disagree (1), disagree (2), Neutral (3), Agree (4) and strongly agree (5) to rate respondents answers. The collected data was analyzed using SPSS software v 24.0. Frequency analysis was tested to discuss the percentage of demographic factors in this study. Correlation analysis was measured to check the strength of relationships among variables. Multiple regression analysis was also used to test the significance of hypotheses.

Analysis

Table 1. Respondents’ Profile

<table>
<thead>
<tr>
<th>Demographic Classification</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>72</td>
<td>60</td>
</tr>
<tr>
<td>Female</td>
<td>48</td>
<td>40</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 20</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>20-30</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Greater than 30</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>84</td>
<td>70</td>
</tr>
<tr>
<td>Graduate</td>
<td>36</td>
<td>30</td>
</tr>
</tbody>
</table>

Table 2. Reliability result, Descriptive statistics, and Pearson Correlation of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha(α)</th>
<th>Mean Standard Deviation</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Knowledge Sharing</td>
<td>.830</td>
<td>3.97 .515</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.Trust</td>
<td>.811</td>
<td>3.67 .702</td>
<td>.331**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Attitude</td>
<td>.921</td>
<td>4.18 .470</td>
<td>.564**</td>
<td>.495**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4. ICT Use</td>
<td>.796</td>
<td>4.09 .481</td>
<td>.779**</td>
<td>.423**</td>
<td>.450**</td>
<td>1</td>
</tr>
</tbody>
</table>

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

Table 3. Multiple Regression Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Beta</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>.142</td>
<td>.001</td>
</tr>
<tr>
<td>Attitude</td>
<td>.291</td>
<td>.000</td>
</tr>
<tr>
<td>ICT Use</td>
<td>.329</td>
<td>.000</td>
</tr>
</tbody>
</table>

| R²        | .462 |
| Adjusted R² | .448 |
| F value   | 33.2041 |
| P value   | .000 |

a. Dependent Variable: Knowledge Sharing
Results and Discussion

Table 1 shows the summary of the respondents’ demographic information. As the result shows that male respondents are 72 (60%) in numbers and females are 48 (40%) who participated in this study. Maximum age group less than 20 years participated with 53 (44%) in data collection. Similarly, the researcher gathered information from undergraduate degree students with ratio of 84 (70%) which are highest in this study and following by graduate degree students 36 (30%). Table 2 shows the general internal consistency or reliability for the variables studied is within 0.7 to 0.9. This result shows that items used in this study related to questionnaires are reliable and acceptable to evaluate. The statistical summary of reliability test is mentioned table2. Descriptive test is also conducted in order to explain the mean and standard deviation of the variables in this study. The attitude has value of (mean = 4.18, S.D =.470) and ICT Use has value of (mean = 4.09, S.D =.481). These both variables are considered high in mean while trust has moderate value of (mean = 3.67, S.D =.702). This finding for ICT Use indicates that universities’ management encourages and facilitates the use of ICT applications among students as a source of knowledge sharing. The summary of result is given in table 2. Table 2 shows the medium positive correlation between attitude (r = .564) and knowledge sharing. Similarly next medium positive correlation is found between attitude (r = .331) and knowledge sharing. In this study the high positive correlation is found between ICT Use (r = .779) and knowledge sharing among universities’ students. In multiple regression analysis, test results are given in table 3. The R square value indicates that the 46.2% of the variance in knowledge sharing is due to the variation in other independent variables. In addition to the result depicts that more factors are needed to explain 53.8% of knowledge sharing among students. Next the value is significant (p = 0.000 or less than < 0.05) with F-value at 33.2041. The result also shows the strongest predictor of knowledge sharing is ICT Use (β = .329). Then second strongest predictor is attitude (β = .291) followed by trust (β = .142). In this research all the tested hypotheses (H1, H2 and H3) are significant predictors of knowledge sharing with p < 0.05.

This study showed the significant relationship of trust with knowledge sharing. The result is also in line with the finding of previous studies (Khesal et al., 2013; Samadi et al., 2015). This result specifies that students trust their class fellows and respect them in education, making assignments and knowledge sharing. Next attitude has also significant relationship with knowledge sharing. The finding is also consistent with previous study results (Islam et al., 2013; Bock et al., 2001). The final finding of ICT Use has also significant relationship with knowledge sharing and has the support of previous study (Muda & Yusof, 2015; Nguyo et al., 2015).

Implications

The findings from this investigation can be helpful in improving university policy towards knowledge sharing programs within campuses. Precisely, this study can make a good contribution in the current literature. In this way, it can expand the gathering of knowledge sharing practice in Pakistan setting because of the absence of study on this point recently. This study can also help the readers to develop their awareness, indulgent, and magnetize readers to do research on the knowledge sharing area in the future.

Limitations and directions for future research

This study is restricted to the students and therefore it cannot be generalized to all other organizations. This research only focused on graduate and undergraduate students from Vehari. However, it would be possible to get more data from both public and private universities in other cities to generalize this study. The study needed more 53.8% other factors to explain the knowledge
sharing for instance, culture, sincerity, android applications, and age which might be related to knowledge sharing. Future study can also be made in other countries or different cultures for further validity.

References


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