

## **Knowledge Sharing and Innovation Capabilities: The Moderating Role of Organizational Learning**

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### **Abstract**

The main purpose of this research is to analyze those factors that affect the knowledge sharing and can lead the conventional banking sector towards enhancing the innovation capabilities by creating the culture of organizational learning. The model of this research paper is tested using a sample of 300 employees occupying the position of officer grade I, II and III in conventional banking sector of Bahawalpur. Researchers have used the simple random sampling technique for the collection of data with the help of questionnaire. SPSS version 21 is used to analyze data collected for this research paper. The result shows that out of nine factors, seven factors namely individual personality, individual attitude, reward and recognition, competence based trust, benevolence based trust, ICT infrastructure and availability and ICT know how are all significantly and positively related with the innovation capabilities as well as knowledge sharing and thus knowledge sharing also mediates between them. But the two factors centralization and formalization have an insignificant relationship with the innovation capabilities and knowledge sharing. Hence, no mediation takes place between them. Moderator; organizational learning also plays a significant role between knowledge sharing and innovation capabilities. This research paper has a significant managerial implication that it helps the managing bodies of conventional banks to pay an attention on these factors like individual personality, individual attitude, reward and recognition, competence based trust, benevolence based trust, ICT infrastructure and availability and ICT know how in order to enhance the innovation capabilities. The incorporation of individual personality, individual attitude, reward and recognition, competence based trust, benevolence based trust, ICT infrastructure and availability and ICT know how in order to enhance the

innovation capabilities. Model offers a new theoretical lens and an alternative explanation for the determinants influencing the knowledge sharing that leads to innovation capabilities.

**Keywords:** competence based trust, benevolence based trust, ICT know how, organizational learning, innovation capabilities, banking sector.

## 1. Introduction

### *1.1 Background of the Study*

The banking sector in Pakistan with an average growth rate of 15.18% has been rapidly flourished during the period of 2002 to 2008 while the highest growth of 19.4% has been seen in the year 2007. In the same year, the highest asset contribution of 72.7% and 53.9% of the Gross Domestic Product has been contributed by the banking sector. The State Bank of Pakistan after setting the challenging capital adequacy benchmarks to nourish a stable banking system, the banking sector in Pakistan is facing the tough competition. The survival of the banks left in only two options either attracting the foreign investment or winning out the profitable customers (Financial Stability Review 2007-08.).

Now-a-days, innovation capabilities have become a major problem for the organizations. Due to the intense global competition and the boom of information everywhere, organizations are allowed to coordinate themselves with the changing environment, demand of market and customer through innovation. Therefore, now a days innovation is considered as the most important and crucial issues for the firms. It is universally accepted that innovation is a key to the future growth and survival for the firm (Tran, 2008). Therefore, only those firms can survive in a highly competitive environment that can add some value to their products, services and processes and their products are highly differentiated and superior to their competitors (Cumming & Brian, 2014).

In the today's global and international economic context, many research scholars have found out that many developing countries of the Southeast Asia , such as Vietnam, Pakistan, India, Bangladesh, Thailand and Malaysia are facing the serious threats of technological backwardness and the survival of their firms in the global market place is completely endangered. In order to survive in the global markets as well as to develop themselves as economically strong, there is a need that a firm must increase the innovation capabilities of their employees as well as an organization (Hana, 2013).

### *1.2 Significance of the Study*

Innovation capabilities can be considered as the major problem in the conventional banking sector. As the banks are backbones of any economy. In the recent years, banks have started to develop new and innovative products for their customers and along with increases the amount of publicity campaigns. For banks the most important success indicator is the innovation. It has become a great topic of discussion for the banks that what should they do to become innovative. The aim of this research paper is to measure the innovative capabilities of conventional banks.

The firms that cannot learn anything will continuously lose the power against their competitors due to the lack of learning capability (Lynn et al., 2012). The learning processes for any organization is deep rooted in the culture of any organization so an

organizational learning can be considered as the unique process (Henderson et al., 2010). It is considered that the firms that have the capability of organizational learning must also have the capability to adapt themselves to the environmental changes. Therefore, we can say that the one of the key factor for the development of innovation capabilities can be done only through the organizational learning (Naktiyok & Atilhan, 2007).

At the individual and the organizational level, more knowledge sharing takes place. At individual level, it is like employee is talking to a colleague to help or get something done better, more effectively and more efficiently while at organizational level, knowledge sharing is the capturing, using, organizing and transferring the experience based knowledge that is present inside the organization and that knowledge can be made available to the others in the business (Hogel et al., 2003).

Furthermore, significant challenge that has been faced by organizations now-a-days is to find out the ways for promoting the effective sharing of knowledge between the employees in order to enhance the innovation capability through the organizational learning process. One reason for this is that “In any organization the knowledge sharing behavior is highly composed of complex social interactions” (Dalkir & Wiseman, 2004), which is highly influenced by 9 factors (individual personality, individual attitude, formalization, centralization, reward & recognition, competence based trust, benevolence based trust, ICT infrastructure and availability, ICT know how).

Therefore, the problem statement of this study is that, “What factors should be examined out that affect the knowledge sharing and can lead towards improving or enhancing the innovation capabilities by creating the culture of organizational learning in Conventional Banking Sector?”

### *1.3 Gap of the Study*

Various researches have just studied the impact of only individual, organizational (Noor & Salim, 2012) and technological factors (Abdallah, Khalil, & Divine, 2012) on knowledge sharing and innovation capabilities but the trust and motivational factors are unaddressed in those studies. Hence this study is done to make a contribution in this regard.

Additionally, in this study the knowledge sharing can be taken as mediator in the relationship between the 9 factors (individual personality, individual attitude, formalization, centralization, reward & recognition, competence based trust, benevolence based trust, ICT infrastructure and availability, ICT know how) and innovation capabilities. This is one of the important contribution.

Another contribution in this study is the introduction of organizational learning as a moderator in the relationship between the knowledge sharing and innovation capabilities. Many studies have largely focused on the developed world but a very few studies have focused on the developing nations (Han, Chiang, & Chang, 2010). The current study is carried out in a developing country Pakistan. And this provides a platform for comparing it with the existing literature of the researches done for developed countries. This is also a major contribution. Another contribution is that this study has been conducted on Conventional Banks.

## **2. Literature Review and Hypothesis Development**

### *2.1 Innovation Capabilities*

Innovation capability refers to the generation and exploration of new concepts and ideas (MENSAH, 2016). One of the important strategy to achieve the competitive advantage and to increase the survival in the global market is the innovation capability. Innovation capability can be defined as, “the organization’s ability to attract and utilize the external information in order to transfer new knowledge” (Huang, 2009). Organizations can achieve the competitive advantage only if they are able to develop the innovative capabilities that are highly appreciated by the customers in a way that competitors find it difficult to copy (Kusiak, 2009). The innovation capability is a result of not only one ability but it is a result of collection of abilities that means it is an internal potential for the generation of new ideas, finding out of new market opportunities, products and services with the help of capabilities and resources of the firm (Momeni et al., 2015). Study have shown that superiority , satisfaction, speed of innovation, differentiation, simplicity, sociability, product fit and internal marketing are some of the successful drivers of banking sector innovation (Donnelly, 1991). Another driver of innovation in banking and financial sector is the cultural factors that include style of management, structure of an organization, innovative vision, leadership and idea generation (Thwaites, 1992).

#### **2.1.1 Innovation Capabilities through Resource Based Theory (RBV)**

The Resource Based-View (RBV) theory was proposed by Birger Wernerfelt. The purpose of this is that it provide the basis for the differentiation of companies in the market. All the resources are very important but the employment and deployment of these resources by an organization is equally important. To understand the innovation capabilities, the emphasis is on how and what type of these resources exists (Johnson et al., 2008).

### *2.2 Knowledge Sharing*

Knowledge sharing can be viewed as the sharing and exchanging of ideas in an order to create new knowledge (Bartol & Srivastava, 2002). And this exchange generally takes place between the individuals and groups (Ford & Chan, 2003). The flow of knowledge are either through an emails, intranet web pages or meetings (Ford & Chan, 2003). The transfer of knowledge from one individual to another individual can create the new knowledge (Van den Hooff & Van Weenen, 2004). Knowledge sharing can also be regarded as the supply and demand of a new knowledge. The critical knowledge of an organization is held by an employees and can be available only to the organization as long as the employees are willing to release and share it with the organization (Riege, 2005).

The two sub categories of knowledge sharing are: Knowledge donating is defined as, “The communication that takes place between an individual that is based upon on the individual’s own wishful transfer of its intellectual capital”. Whereas, knowledge collecting can be defines as, “An attempt to convince the other members of an organization to share what they know” (Van den Hooff & de Ridder, 2004). Knowledge that can be shared is either explicit or tacit. Tacit knowledge is also called as implicit knowledge that knowledge which lives and sticks out in an individuals mind (Markus,

2001). Explicit knowledge is a systematic knowledge that is often in the written form such as reports, documents and books, stored out and transferred across space and time (Girard, 2006).

### 2.2.1 Knowledge Sharing and Innovation Capabilities

Those organizations have a much chance of increasing their innovation capabilities in which the knowledge sharing is in practice. Study of (Wang & Wang, 2012) indicates that innovation capabilities are totally dependent of the skills, knowledge and experiences in the process of value creation. Rehman et al., (2018) Knowledge is supposed to be the part of the innovation process (Bock & Kim, 2002). Organizations can lead themselves to the superior firm innovation capability if there is a culture of knowledge donating and knowledge collecting (Jantunen, 2005). Thus from the above study, the hypothesis proposed is as follows:

- **H<sub>1</sub>**: Knowledge sharing significantly influences the innovation capabilities.

### 2.3 Individual Factors

According to Usman et al., (2018) Individuals are heart of any organization in the knowledge sharing process. Creation of knowledge is the core responsibility of every individual which can be possible only by the sharing of knowledge created (Coleman, 1988). Two components of individual factors that need to be addressed here are individual personality (Bakhari & Zawiyah, 2008) and individual attitudes (Wang & Yang, 2007).

#### 2.3.1 Individual Personality

Allport (1937) defined personality as the dynamic organization that exists within the psychophysical system of an individual that determines out his unique adjustment to the internal and external environment. A primary role is played by the trait or characteristics in evaluating the personality of a person (John, 1990). A comprehensive personality model of personality traits came into existence. These traits are extraversion, conscientiousness, emotional stability, neuroticism, agreeableness (Wortman et al., 2012). Individuals having the agreeableness personality are helpful, cheerful, courteous, co-operative, decent and generous (Barrick & Mount, 1991). Individuals having the conscientiousness personality are more reliable, dutiful, dependable, persistent, hardworking, achievement oriented and organized (Barrick & Mount, 1991). Individuals that have neuroticism personality generally have negative mood like anxiety, facing periods of depression, over stress and are usually the sad people (Wang & Yang, 2007). Openness to experience people are artistic, open-minded and curious (Constant et al., 1996).

#### 2.3.2 Individual Personality and Innovation Capabilities

Patterson et al. (2009) in his study has found out that source of innovations are the individuals, and innovation mostly occur in isolation. Employees must need to relate and interact with each other individual either inside or outside the organization in order to innovate. Several studies of (Hsieh et al., 2011) have shown that communication, articulation, social networking and interaction among employees are required for the

successful innovations. Thus from the above studies, the hypothesis proposed is as follows:

- **H<sub>2a</sub>:** Individual personality significantly influences the innovation capabilities.

### 2.3.3 Individual Personality and Knowledge Sharing

A study conducted by (Witt et al., 2002) shows that an employees whose personality is a mixture of helpfulness, collaboration and cooperation with the other coworker, forming the good interpersonal relationship with them are more likely to involve themselves in the knowledge sharing behavior. (Matzler et al., 2008) in his study of personality traits and knowledge sharing among 600 mechanical, electrical and civil engineers as his respondents have found out that personality traits have a significant correlation with the knowledge sharing behavior. Thus, from the above study, the hypothesis proposed is as follows:

- **H<sub>2b</sub>:** Individual personality significantly influences the knowledge sharing.
- **H<sub>2c</sub>:** Knowledge sharing mediates the relationship between individual personality and innovation capabilities.

## 2.4 Individual Attitude

Ajzen and Fishbein (1980) define attitude as a positive or a negative feeling towards a certain behavior. Pickens (2005) define attitude as how we observe the certain situations, as well as how we behave towards any object or circumstances. It is a physical tendency in which a specific factor is assessed by some level of favor or disfavor (Kanchanatane et al., 2014). Formation of attitudes is a lifetime process that takes place through an individual socialization process.

### 2.4.1 Attitude and Knowledge Sharing through Theory of Reasoned Action (TRA)

Theory of Reasoned Action (TRA) was first introduced by (Fishbein & Ajzen, 1975). According to Theory of Reasoned Action, intentions are affected by the individuals' attitude and subjective norms which consequently affects the actual behavior of an individual. Attitude can be defined as the sum of a person's total belief about a particular behavior. The subjective norms are opinions of a people in a particular environment. And behavioral intention is the cumulative function of both the attitudes and the subjective norms. All these three factors according to the theory are the predictors for the actual behaviors (Miller, 2005). A positive relationship has been found between attitude and intention to share knowledge as suggested by Theory of Reasoned Action (TRA) (Huang et al., 2008). If an individual evaluates the knowledge sharing positively then he or she will have a more tendency to share knowledge.

### 2.4.2 Attitude and Knowledge Sharing through Theory of Planned Behavior (TPB)

The Theory of Reasoned Action (TRA) is extended into Theory of Planned Behavior. The Theory of Planned Behavior postulates that individual's behavior is determined both by behavioral intention and perceived behavioral control. The more the favorable the attitude and the subjective norms, the greater will be the perceived control, the stronger will be the intention of a person. When a sufficient degree of actual control is given over the behavior, the more likely is the chances that people are expected to carry out their intentions; when the opportunity arises (Ajzen, 2010). Any individual if has a positive

attitude towards knowledge sharing can engage him-self or her-self in knowledge sharing behaviors. The peers are so meaningful to him or her that they are willing to obey their opinion and believe themselves as competent to deliver that behavior.

#### 2.4.3 Previous Studies on Individual Attitude & Innovation Capabilities

A study conducted by (Patterson et al., 2009) has established the relationship that stronger the affection of employees are for their jobs, the greater the productivity level. The same can be said for the employees working in a research and development setting that for research and development work the positive affections would rise up the higher levels of innovative outputs. The favorable attitude of employees towards change can distinguish the early adopters of innovation from the late adopters (Frambach & Schillewaert, 2002). Thus, from the above study, the proposed hypothesis is as follows:

- **H<sub>3a</sub>**: Individual attitude significantly influences the innovation capabilities.

#### 2.4.4 Previous Studies on Individual Attitude and Knowledge Sharing

The study by Yang and Chen (2007) on the employees that are working in international tourism industry has concluded that individual attitude towards a knowledge sharing is affected by the behavior of knowledge sharing in an organization. A study conducted by Bock et al. (2005) to test a knowledge sharing model on thirty organizations shows a result that knowledge sharing attitude has a positive and significant influences on the behavioral intentions.

Thus, from the above study, the proposed hypothesis is as follows:

- **H<sub>3b</sub>**: Individual attitude significantly influences the knowledge sharing.
- **H<sub>3c</sub>**: Knowledge sharing mediates the relationship between individual attitude and innovation capabilities

### 2.5 *Organizational Factors*

Organizations are considered as social bodies, which act as the glue that is invisible and unites the individual into social structures collectively. The two main components of organizational factors are formalization and centralization (Lee & Choi, 2003; Kim & Lee, 2006).

#### 2.5.1 Formalization

Formalization can be defined as, “the degree to which the formal rules, procedures and standard policies can govern the working relationships and decisions” (Holsapple & Joshi, 2001). Formalization can also defined as, “the amount of written documentation present in any organization (Daft, 1995). Nugroho (2018) when the organization settings are highly formalized then employees will have a little choice of what needs to be done, when it has to be done, how it should be done. The result will always be output that are standardize, consistent and uniform (Robbins et al., 2001). In any organization these procedures and rules are written down to make the operations standardize (Hsieh & Hsieh, 2001). Formalization can ensure whether employees can complete their tasks and duties in a manner required or not. High formalization results in the increased manageability, efficiency and predictability of processes in an organization (Jones, 2013).

### 2.5.2 Formalization and Innovation Capabilities

A study by Damanpour (1991) has found a negative correlation between the formalization and organizational innovation. The main reason of this negative relationship is that formalized organizations are generally bureaucratic and employees are resistant to embrace new change in the technology and shifts in the trends of market (Hage, 1988). Dougherty & Hardy (1996) in a study have shown that formalized organizational structure can limit the employees for deviant approaches and create hindrance for maximizing their creative potential. It also put constraint on the collaborative work processes that are needed to develop the innovative products. The above study, thus proposes the following hypothesis:

- **H<sub>4a</sub>**: Formalization significantly influences the innovation capabilities.

### 2.5.3 Formalization and Knowledge Sharing

Park and Kim (2018) Greater the flexibility in the organizational structure, greater will be creation of knowledge. And more knowledge creation can leads to the greater knowledge sharing (Wilkstrom & Norman, 1994). Jarvenpaa & Staples (2001) in their study have shown that lack of formal structures in an organization can lead to the communication and interaction process between the organizational members in order to create knowledge. From the above study, the proposed hypothesis is as follows:

- **H<sub>4b</sub>**: Formalization significantly influences the knowledge sharing.
- **H<sub>4c</sub>**: Knowledge sharing mediates the relationship between formalization and innovation capabilities.

### 2.5.4 Centralization

Centralization can also be defined as, “the authority involved in decision making is concentrated at the upper level of an organizational hierarchy” (Jones, 2013). Centralization refers to the degree in which the decision making power is highly concentrated at the top level of management in an organization (Hage & Aiken, 1967). According to Wright et al. (1997) there are two levels of centralization. The first one is called as the degree of input in the decision making because it is the degree of input that is permissible among the employees in guiding and shaping the future of an organization. The second one is the degree of job autonomy in which an employee has control and input over the order and tasks of his or her job. In a highly centralized organization, there is a low level of both the degree of input and degree of autonomy.

### 2.5.5 Centralization and Innovation Capabilities

(Pertusa et al., 2010) in their research have indicated that more the members of an organization are involved in decision making processes, the greater will be the versatility of opinions and ideas that evolve. In highly centralized organizations, lower level employees have limited autonomy, more autonomy and more exchange of ideas will take place if an organization will have the decentralized structures (Chen et al., 2010). Individuals will have more tendency to come up with the new ideas in order to become more innovative (Andrews & Kacmar, 2001). Based on the previous literature, the hypothesis proposed is as follows,

- **H<sub>5a</sub>**: Centralization significantly influences the innovation capabilities.



### 2.5.6 Centralization and Knowledge Sharing

Chen & Huang (2007) through their studies have concluded that centralization can negatively affect the flow of knowledge among the individuals. The high degree of centralization prevent the frequency of interaction and communication among the different individuals in various units. It also obstruct in a way of creativity and sharing of ideas and knowledge between the individuals. Centralization will have a negative effect on the knowledge sharing process between the various units in an organization because of the embedded control system in a centralized organization (Tsai, 2002). Based on the above literature, the hypothesis proposed is as follows,

- **H<sub>5b</sub>**: Centralization significantly influences the knowledge sharing.
- **H<sub>5c</sub>**: Knowledge sharing mediates the relationship between centralization and innovation capabilities.

### 2.6 Motivational Factor

Human nature is reverberated by the motivation, which has a natural leaning towards hunt for challenges and innovation in order to enhance, expand and utilize human capacities to learn more and to discover more (NGAN, 2015). Reward and recognition can be considered as one of the main motivational factor that can contributes towards the knowledge sharing and can improve and enhance the capabilities of innovation.

#### 2.6.1 Reward and Recognition

According to Chiang & Birtch (2008) reward can be defined as, “The benefits that arise from performing out a task, discharging a responsibility or rendering a service”. Reward is broad term that represents anything that has some worth in an eye of employee and that an employer is willing to pay for the contribution of his or her employee. The main purpose of rewards is to attract and retain the talented employees, motivate them to achieve the higher targets and to achieve higher level of performances, in order to, reinforce or strengthen the desired behavior of an employees.

To encourage the high levels of performance, all the businesses use different types of reward systems like promotions, bonuses, pays or other types of rewards (Cameron & Pierce, 2000). Recognition is the non-financial award given to the employees selectively, in appreciation for a behavior or some sort of accomplishment. Recognition is so simple just like giving a feedback on someone who have done something rightly or by just saying a word of “thank-you”. It is merely just an acknowledgement of an effort, learning and a commitment, even though the outcomes does not come as planned. Recognition may be in the form annual organizational awards, giving status to those employees who exhibited the behavior of lending a helping hand to others (Sutton, 2006).

Reward may be of various types: Extrinsic rewards are those tangible rewards that an organization can give to his or her employees (Yapa, 2002). Intrinsic rewards, in the scenario of knowledge sharing is that pleasure or satisfaction that employee feels after sharing the knowledge (Mahaney & Lederer, 2006). Monetary rewards are those extrinsic rewards that are related to the money (Bussin, 2011).

### 2.6.2 Reward and Recognition and Innovation Capabilities

According to (Metz et al., 2007) incentives can be considered as a common category for a general process of innovation. The adequate reward system for innovation is important to build up innovation in teams (Folkestad & Gonzalez, 2010). Study by Kaufman et al. (2013) indicates that fostering the significant improvements in the performance, employee engagement and recognition are found to be the key drivers of innovation. Thus, from the above study the hypothesis proposed is as follows:

- **H<sub>6a</sub>**: Reward and recognition significantly influences the innovation capabilities.

### 2.6.3 Reward and Recognition and Knowledge Sharing

Study by Kim & Lee (2006) shows that organizational emphasis on performance based pay system can contribute in the knowledge sharing behavior and process. (Ferrin & Dirks, 2003) has indicated that a cooperative reward system positively influences the knowledge sharing between the partners. So, the proposed hypothesis is as follows:

- **H<sub>6b</sub>**: Reward and recognition significantly influences the knowledge sharing.
- **H<sub>6c</sub>**: Knowledge sharing mediates the relationship between reward & recognition and innovation capabilities.

## 2.7 Trust Factors

Trust can be defined as the positive or favorable expectations one have about regarding the members of the organization based on their roles in organization, relationships, interdependencies on each other as well as their experiences (Shockley et al., 2000). The two main factors that needs to be explored for their either contribution in sharing of knowledge and enhancing or improving the innovation capabilities are competence based trust and benevolence based trust.

### 2.7.1 Competence Based Trust

Competence based trust defined by Lui & Ngo (2004) as, “An expectation one has over his partner that a partner possess the experience, technical skills and reliability that are needed to fulfill any obligation”. Competence based trust is also known as the ability based trust and it is rated high when the decisions of the management shows competency or when the management exhibits the skills required in understanding the issues and resolving the issued related to the employees work. (Cook & Wall, 1980). A partner in only situation can be perceived as trustworthy if sufficient logical grounds are present for believing that the front partner is capable, reliable and competent enough to perform a task (Hardin, 2004).

### 2.7.2 Trust and Knowledge Sharing through Social Capital Theory (SCT)

Coleman (1988) and Putnam (1993) have introduced the social capital theory also abbreviated as SCT. Social capital can be expressed in terms of five dimensions. These dimensions are: personal and collective efficacy, social norms, reciprocity-expectations, network associations and trust (Paxton, 2002). By looking at the dimensions of Social Capital Theory, Trust is one of the social mechanisms that can reside in the social relations structure. Social capital cannot improve without the foundation of trust. It is assumed that people having some reciprocal relationship with others are only able to build the social network (Thibault & Kelley, 1952). Therefore, trust can be considered as

one of the most important factor that influences the knowledge sharing intentions, attitudes and behaviors. In order to share knowledge one must have a trust on each other.

#### 2.7.3 Competence based trust and Innovation Capabilities

Soparnot (2011) in their study have shown that in order to get a non-threatening environment with a high change capacity or innovation capability there is a need that employees must have trust on their leadership and organization. Because the interpersonal trust allow the decision makers and employees to follow the more strategies of innovation. From the above study, the hypothesis proposed is as follows:

- **H<sub>7a</sub>**: Competence based trust significantly influences the innovation capabilities.

#### 2.7.4 Competence Based Trust and Knowledge Sharing

Competence based trust is considered to have a faith in another individual that he or she is knowledgeable about a particular subject or have competency regarding a particular area. The increase or decrease in trust is merely dependent on the presence or lack of evidence on the actual behavior and communication of parties (Blomqvist & Ståhle, 2004). Resultantly, trust is known to be the main factor by which the knowledge can flow further to support the knowledge sharing behavior or an attitude (Levin et al., 2002). The proposed hypothesis from the above relationship is as follows:

- **H<sub>7b</sub>**: Competence based trust significantly influences the knowledge sharing.
- **H<sub>7c</sub>**: Knowledge sharing mediates the relationship between competence based trust and innovation capabilities.

#### 2.7.5 Benevolence Based Trust

Benevolence can be defined as, “The degree to which an individual is believed to feel about the interpersonal cares and concerns for others and want to be “good” beside his egocentric motives for profit”. Over the long term, benevolence is especially important because it shows that over and above the specific circumstances or transactions in which a trust is mandatory, a trustee has some attachment with the trust or (Jarvenpaa et al., 1998). The trust will increase over the long term, if the trust or believes that trustee is benevolent (Mayer et al., 1995). Benevolence is basically a nature to do good or do an act of kindness. In this the trustee has a feeling of goodwill towards his associated interacting partner. It excludes the intention of harming an individual even if the opportunity is given so (Levin et al., 2004).

#### 2.7.6 Benevolence Based Trust and Innovation Capabilities

Maurer (2009) by conducting a study empirically found out that benevolence based trust plays an important role between project team members who are working on an inter-organizational project because it positively impacts the acquisition of external knowledge that ultimately promotes product innovation. Clegg et al. (2002) in his study found out that benevolence based trust is implicated in the innovation process as a main effect and ‘benevolence based trust that benefit’ is totally associated with the suggestion of ideas, whereas 'benevolence based trust that heard' is totally associated with the implementation of ideas between supervisors and subordinates. From the above studies, the hypothesis proposed is as follows:

- **H<sub>8a</sub>**: Benevolence based trust significantly influences the innovation capabilities.

### 2.7.7 Benevolence Based Trust and Knowledge Sharing

According to (Sarah, Flood, & Ramamoorthy, 2009), benevolence based trust can be identified as a belief in which an individual does not harm the other individual even if the opportunity is given to do so. For example, if a worker (trustee) have an urgent need of any information, then in order to acquire this information, trustee will seek a help from the co-worker (trustor), the worker must be able to trust that co-worker that he will not intentionally harm him by giving the wrong information even if he is provided the opportunity to do so. So the importance of trustworthiness by the top management and other employees is important for the process of knowledge sharing. The hypothesis thus proposed is as follows:

- **H<sub>8b</sub>**: Benevolence based trust significantly influences the knowledge sharing.
- **H<sub>8c</sub>**: Knowledge sharing mediates the relationship between benevolence based trust and innovation capabilities.

### 2.8 Technological Factors

Technology can be defined as, “hardware and software that people uses in an organizations to perform their tasks in a way to achieve the goal. This means an information and communication technology (ICT) (Van den Brink, 2003). The two main components in technological factor are ICT infrastructure and availability (Bakhari & Zawiyah, 2008) and ICT know how (Kim & Lee, 2006).

#### 2.8.1 ICT Infrastructure and Availability

The term Information Communication Technology abbreviated as ICT can be referred to as technologies that are related to new science of obtaining, collecting, processing, storing and transmitting the information. And this involves the convergence of information, computing and telecommunications. ICT can be defined by (Beckinsale & Ram, 2006) as, “Any technology that can be used to support the gathering, processing, distribution and further use of this information”. A prominent role is played by ICT on knowledge management in an organization. Organization effectiveness have been achieved and knowledge assets can be managed with the help of ICT (Chadha & Saini, 2014). With the help of ICT infrastructure and availability, knowledge can be easily shared by the use of software and hardware and will also help the employees in obtaining, creating and transferring the knowledge effectively. The provision of ICT infrastructure can be costly but can be a good support in the sharing of knowledge (Phang & Foong, 2010).

#### 2.8.2 ICT Infrastructure and Availability and Innovation Capabilities

The study by (Arvanitis et al., 2013) has examined that firm’s processes, service and product innovation is under the strong influence of ICT tools. Anon Higgon (2011) in his research has pointed out that impact of ICTs is highly dependent on the applications of ICT, innovation performance and characteristics of a firm. New way of organizing the business can be presented by the innovation and this can be significantly improved by the ICTs usage (Haseeb, 2015). Thus, from the above studies, the hypothesis proposed is as follows:

- **H<sub>9a</sub>**: ICT infrastructure and availability significantly influences the innovation capabilities.

### 2.8.3 ICT Infrastructure and Availability and Knowledge Sharing

Sher & Lee (2004) in a study have shown that with the help of ICT, knowledge searching, its creation and diffusion can be improved which further increases the transmission and the speed of response. ICT also facilitates in the storage and sharing of organizational knowledge. With the help of ICT tools, knowledge and expertise both are easily captured by the knowledge workers and are thus available to the society (Chadha & Saini, 2014). Information technology can be used as a medium for the flow of information and knowledge into the organization (Allameh & Zare, 2011). Thus, from the above studies, the hypothesis proposed is as follows:

- **H<sub>9b</sub>**: ICT infrastructure and availability significantly influences the knowledge sharing.
- **H<sub>9c</sub>**: Knowledge sharing mediates the relationship between ICT infrastructure and availability and innovation capabilities.

### 2.8.4 ICT Know How

ICT Know How can be defined as, “The literacy about the information communication technology tools in order to achieve the organizational goals and to achieve the competitive advantage over with the competitors”. Firms in response to their internal resources and the external technological environment are expected to engage in a variety of knowledge sourcing strategies (Lai & Weng, 2016). Due to the accelerated technological changes and increase in the internal competition, firms unsurprisingly utilize the external sources as a means of improving and increasing the innovative performance in order to reinforce the competitive advantage (Kang et al., 2015).

### 2.8.5 ICT Knowhow and Innovation Capabilities

Innovations can help in organizing the business that can be significantly improved by the usage of ICTs (Haseeb, 2015). Therefore, the most developed and well organized innovative organizations are those that facilitates the use and knowhow of ICT and drive the innovations in business process and in products and services (Arvanitis et al., 2011). The progress in ICT can provide greater opportunities for research and development in an organization which in turn leads to the innovation (Kleis et al., 2012). Thus, from the above study, the hypothesis proposed is as follows:

- **H<sub>10a</sub>**: ICT know how significantly influences the innovation capabilities.

### 2.8.6 ICT Knowhow and Knowledge Sharing

Kim & Lee (2006) has indicated that knowhow and use of effective ICT support and user friendly IT systems can significantly affect the capabilities of knowledge sharing and help in enhancing the practice of sharing knowledge. (Ryan *et al.*, 2010) in a study have concluded out the knowhow and availability of ICT can support in encouraging the social interactions among various people belonging to the different organizational hierarchies within and outside the organization which leads to the knowledge creation and knowledge sharing. Thus, from the above studies, the hypothesis proposed is as follows:

- **H<sub>10b</sub>**: ICT know how significantly influences the knowledge sharing.

- **H<sub>10c</sub>**: Knowledge sharing mediates the relationship between ICT know how and innovation capabilities.

### 2.9 Organizational Learning

Organizational learning can be defined as, “collaborative learning process of an individuals”(Song et al., 2009). Organization learning can also be defined as, “the process in which new information and knowledge is applied with the aim of continuous improvement in performances and routines” (Simon, 1991). On how to meet the objectives of performance, improvement in internal communication, engagement, cooperation along with the motivation and commitment can all be done by organizational learning by increasing the knowledge and decision making (Caemmerer & Wilson, 2010). A climate that stimulates the learning process has the capacity to create new skills and knowledge in the firm. These new skills and knowledge enables the firm to be innovative and adaptive, thereby increasing its performance and hence competitiveness (Ghavifekr et al., 2016).

#### 2.9.1 Organizational Learning Theory (OLT)

Garvin (1993) has defined organizational learning as, “The skills required for creating, acquiring and transferring the knowledge and modifying or transforming the behavior in order to reflect new knowledge and insights”. The organizational learning theory emphasizes that organizational learning totally depends on the individual learning but also on the cumulative result of an each individual employee’s learning. Organizations cannot acquire knowledge, not only through their own employee but it can also acquire knowledge through consultant and also through the informal and formal environmental scanning. The process of learning enables the one to get new knowledge and information relevant to both the internal and external environment, objectives and goals of the organization.

#### 2.9.2 Knowledge Sharing and Organizational Learning

As learning is a process of creating the new knowledge and constantly revising and combining those knowledge in response to the changes (Moustaghfir & Schiuma, 2013). The key factor for the organization performance is the knowledge and by sharing the knowledge organizational learning is facilitated (Suveatwatanakul, 2013). Organizations learn continuously from the knowledge they captured by the process (Liedtka, 1999). Thus, from the above study, the hypothesis proposed is as follows:

- **H<sub>11</sub>**: Knowledge sharing significantly influences the organizational learning.

#### 2.9.3 Organizational Learning and Innovation Capabilities

Learning capacity must be embedded in the employees so that a firm can put new ideas into practice during the process of an innovation (Bouwen & Ve Fry, 1991). Exploration of new knowledge to make scientific enhancements in the existing market, to create new ideas/products or to enter the new markets. New ideas, ability to discover new opportunities and creativity is strengthened by the process of learning that shows the presence of an innovation capabilities. The main reason why some firms are better innovators than others because the culture of learning is prevalent in the firm (Tran, 2008). Thus, from the above study, the hypothesis proposed is as follows:

- **H<sub>12</sub>**: Organizational learning significantly influences the innovation capabilities.
- **H<sub>13</sub>**: Organizational Learning moderates the relationship between the knowledge sharing and innovation capabilities.

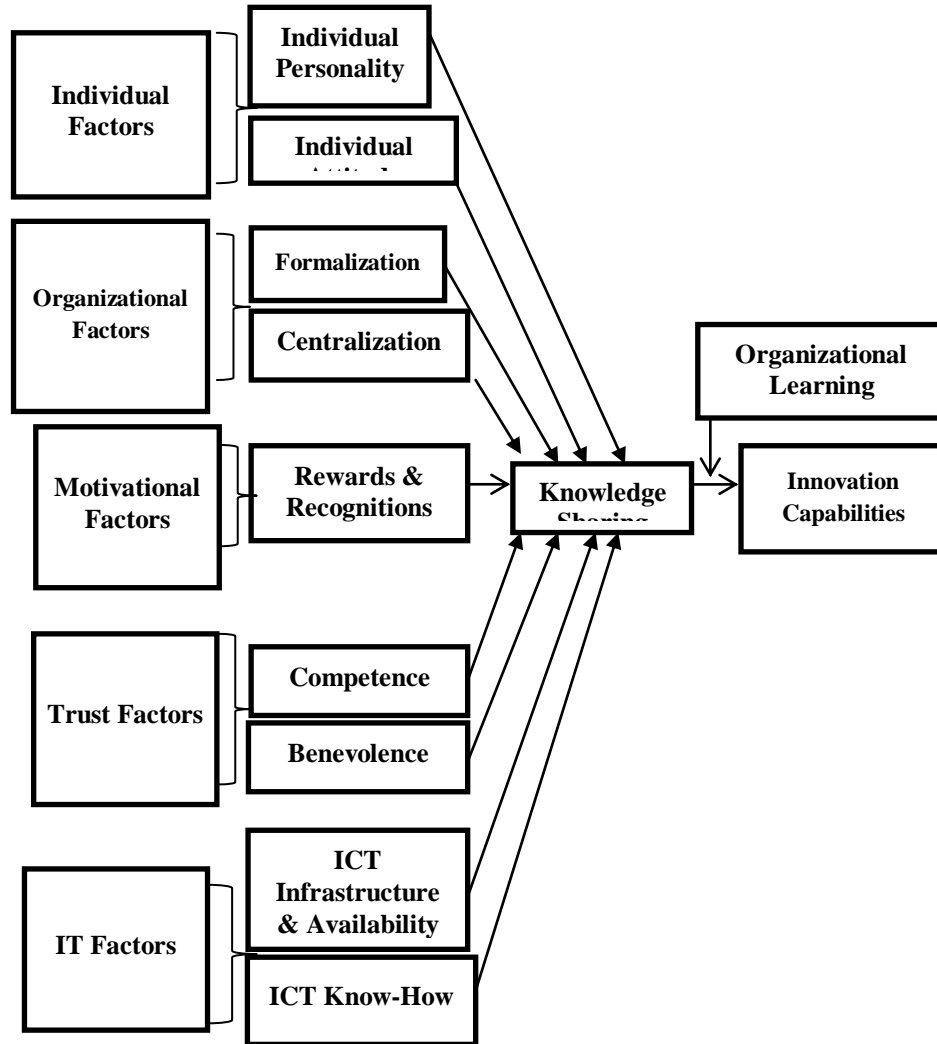


Figure 1: Proposed Model

### 3. Research Methodology

The respondents for this study are employees working in Conventional Banks of Bahawalpur at OG-I, OG-II, OG-III positions. There are total 30 Conventional Pakistani banks with 12,983 branches (Khattak, December 2017). This research has only considered 41 branches of Conventional Banks which are located in Bahawalpur city. The population of this study is unknown. In order to produce a reliable result for the study, the appropriate sample size could be determined as suggested by (Hair et al., 2014), the required sample size is 10 to 20 times more than the variables of the study needed. Hence the required sample size of the present study is 240 which appears to be appropriate for the statistical analysis as 12 variables are present which include 9 independent variables, one moderating variable, one mediating variable and one dependent variable. This sample size of 240 is obtained from the rule of thumb, that is, “multiplying the number of variables with the 20 ( $12 \times 20 = 240$ ).

Practically, a bigger sample size is preferable to avoid the likelihood of non-response bias (Sekaran, 2003). So in order to get the required sample size of 240, current study has distributed 350 questionnaires to get the desired sample. As, we get more than the desired, i.e. 300. Therefore, we can consider the sample size for this study as 300. Out of the 350 distributed, 15 were totally unfilled, 21 were lost, 14 were half filled. So, out of 350, 300 were completely filled and were returned back. Out of the three hundred and fifty (350) questionnaires distributed, three hundred were answered. And this represents a response rate of 85.71%.

For statistical analysis, the main data collection techniques employ the use of questionnaire. SPSS 21 has been utilized for the quantitative data analysis methods. Majority of the respondents (60%) are males, are between the ages 20-30(54.7%), hold master level degrees(59.3%), have 0-5 years of experience(50.7%), occupying OG-III position in banks(42.3%).

#### *3.1 Reliability Analysis and Factor Analysis*

According to (Hair et al., 2009), In order to check the consistency of the questions/statements to reflect the variable or construct it measures, Cronbach's alpha is computed. The Cronbach's alpha measures the statistical reliability in order to ensure the precision of the statistical analysis. According to (George & Mallery, 2003), If the Cronbach's alpha is:  $> 0.9$  (excellent),  $< 0.8$  (good),  $< 0.7$  (acceptable). The reliability of all the variables are within the range of 0.7 to 0.9 which shows the internal consistency of each item. All the variables are reliable and lies within the range of 0.7 to 0.9.

Factor analysis can be used to assess the validity of the scale (Pallant, 2010). The factor loadings that are under the 0.50 were excluded. The items with the loadings higher than the value of 0.50 were retained (Götz et al., 2010). None of the item is removed. As all the items have greater than 0.50 loading so, none of the item is removed.



**Table No. 1: Reliability Analysis and Factor Analysis**

<b>Name of Variables</b>	<b>No of items</b>	<b>Factor loading</b>	<b>Cronbach's alpha</b>
<b>Individual Personality</b>	5	IP1 = .783 IP2 = .849 IP3 = .501 IP4 = .677 IP5 = .785	0.75
<b>Individual Attitude</b>	4	IA1 = .790 IA2 = .869 IA3 = .893 IA4 = .826	0.867
<b>Formalization</b>	5	F1 = .854 F2 = .858 F3 = .885 F4 = .872 F5 = .862	0.916
<b>Centralization</b>	5	C1 = .736 C2 = .782 C3 = .752 C4 = .818 C5 = .740	0.824
<b>Reward &amp; Recognition</b>	4	RR1 = .744 RR2 = .865 RR3 = .753 RR4 = .683	0.757
<b>Competence Based Trust</b>	5	CBT1 = .887 CBT2 = .858 CBT3 = .871 CBT4 = .841 CBT5 = .821	0.908
<b>Benevolence Based Trust</b>	5	BBT1 = .762 BBT2 = .834 BBT3 = .777 BBT4 = .779 BBT5 = .621	0.812
<b>ICT Infrastructure &amp; Availability</b>	5	ICTIA1 = .757 ICTIA2 = .841 ICTIA3 = .840 ICTIA4 = .843 ICTIA5 = .758	0.865
<b>ICT Know How</b>	4	ICTKH1 = .767 ICTKH2 = .795 ICTKH3 = .830 ICTKH4 = .792	0.806

## Knowledge Sharing and Innovation Capabilities

<b>Knowledge Sharing</b>	4	KS1 = .724 KS2 = .695 KS3 = .739 KS4 = .727	0.75
<b>Organizational Learning</b>	5	OL1 = .713 OL2 = .827 OL3 = .855 OL4 = .822 OL5 = .788	0.867
<b>Innovation Capabilities</b>	4	IC1 = .852 IC2 = .835 IC3 = .853 IC4 = .513	0.916

### 3.2 Pearson Correlation

Pearson correlation can be used to measure the relation among the variables. Correlation value ( $r$ )  $> 0.70$  shows very strong relation; if ( $r$ ) = 0.50 to 0.70, it shows the strong; if ( $r$ ) = 0.30 to 0.50, it shows moderate relation; if ( $r$ ) = 0.10 to 0.30, it shows a very weak relationship (Pallant, 2010). The highest correlation of 0.752 exists between the individual attitude and individual personality. And the lowest correlation exists between the knowledge sharing and centralization which is 0.127.

#### 3.1.1 Direct Hypothesis Testing through Regression Analysis

**Table No. 2: Regression between KS and IC**

	<b>B</b>	<b>T</b>	<b>Sig.</b>	<b>Relation &amp; Sig</b>	<b>Hypothesis Testing</b>
KS → IC	0.564	10.718	0.000	+ve (sig)	H <sub>1</sub> Accepted
$R^2 = 0.278$ , $F = 114.870$ , $p < 0.05$					

Our first hypothesis, H<sub>1</sub> is accepted as (B=0.564, t=10.718, p=0.000) which shows that knowledge sharing has a significant relationship with the innovation capabilities.

**Table No. 3: Regression between Independent and Dependent Variables**

	B	T	Sig.	Relation & Sig	Hyp Testing
IP → IC	0.093	1.909	0.047	+ve (sig)	H <sub>2a</sub> Accepted
IA → IC	0.310	2.610	0.010	+ve (sig)	H <sub>3a</sub> Accepted
Form → IC	-.077	-.545	0.586	-ve (insig)	H <sub>4a</sub> Rejected
Cent → IC	0.193	1.650	0.100	+ve (insig)	H <sub>5a</sub> Rejected
RR → IC	0.262	4.618	0.000	+ve (sig)	H <sub>6a</sub> Accepted
CBT → IC	0.140	2.720	0.007	+ve (sig)	H <sub>7a</sub> Accepted
BBT → IC	0.128	2.782	0.006	+ve (sig)	H <sub>8a</sub> Accepted
ICTIA → IC	0.133	2.717	0.007	+ve (sig)	H <sub>9a</sub> Accepted
ICTKH → IC	0.399	6.531	0.000	+ve (sig)	H <sub>10a</sub> Accepted
$R^2 = 0.365$ , $F = 18.506$ , $p < 0.05$					

Our hypothesis H<sub>2a</sub>, H<sub>3a</sub>, H<sub>6a</sub>, H<sub>7a</sub>, H<sub>8a</sub>, H<sub>9a</sub>, H<sub>10a</sub> are accepted because the value of B is positive which shows the positive relation,  $p < 0.05$  which shows that the relationship is significant between individual personality and innovation capabilities, individual attitude and innovation capabilities, reward and recognition and innovation capabilities, competence based trust and innovation capabilities, benevolence based trust and innovation capabilities, ICT infrastructure and availability and innovation capabilities and ICT know how and innovation capabilities. While our hypothesis H<sub>4a</sub>, H<sub>5a</sub> is rejected because  $p > 0.05$  which shows formalization and innovation capabilities, centralization and innovation capabilities have an insignificant relationship.

**Table No. 4: Regression between Independent and Dependent Variable (KS)**

	B	T	Sig.	Relation & Sig	Hyp Testing
IP → KS	.161	2.984	.003	+ve (sig)	H <sub>2b</sub> Accepted
IA → KS	.119	2.823	.005	+ve (sig)	H <sub>3b</sub> Accepted
Form → KS	-.006	-.125	.886	-ve (insig)	H <sub>4b</sub> Rejected
Cent → KS	-.008	-.136	.892	-ve (insig)	H <sub>5b</sub> Rejected
RR → KS	.189	3.927	.000	+ve (sig)	H <sub>6b</sub> Accepted
CBT → KS	.292	5.616	.000	+ve (sig)	H <sub>7b</sub> Accepted
BBT → KS	.262	4.618	.001	+ve (sig)	H <sub>8b</sub> Accepted
ICTIA → KS	.152	2.661	.008	+ve (sig)	H <sub>9b</sub> Accepted
ICTKH → KS	.301	5.792	.000	+ve (sig)	H <sub>10b</sub> Accepted
$R^2 = 0.475$ , $F = 29.513$ , $p < 0.05$					

Our hypothesis H<sub>2b</sub>, H<sub>3b</sub>, H<sub>6b</sub>, H<sub>7b</sub>, H<sub>8b</sub>, H<sub>9b</sub>, H<sub>10b</sub> are accepted because the value of B is positive which shows the positive relation,  $p < 0.05$  which shows that the relationship is significant between individual personality and knowledge sharing, individual attitude and knowledge sharing, reward and recognition and knowledge sharing, competence based trust and knowledge sharing, benevolence based trust and knowledge sharing, ICT infrastructure and availability and knowledge sharing and ICT know how and knowledge sharing. While our hypothesis H<sub>4a</sub>, H<sub>5a</sub> is rejected because  $p > 0.05$  which shows formalization and knowledge sharing, centralization and knowledge sharing have an insignificant relationship.

3.1.2 Mediation Analysis through Hayes Process

In SPSS, using the Process Macro, the mediation analysis was performed. This process is introduced by Andrew F. Hayes to test the mediation. A model 4 is run out in Hayes process to conduct the mediation analysis. All the tables below of mediation shows knowledge sharing between the individual personality and innovation capabilities, individual attitude and innovation capabilities, reward and recognition and innovation capabilities, competence based trust and innovation capabilities, benevolence based trust and innovation capabilities, ICT infrastructure and availability and innovation capabilities, ICT know how and innovation capabilities. Knowledge sharing does not mediate the relation between formalization and innovation capabilities, centralization and innovation capabilities.

**Table No. 5: Mediation of Knowledge Sharing between Individual Personality and Innovation Capabilities**

	<b>B</b>	<b>t</b>	<b>Sig.</b>	<b>Relation &amp; Sig</b>	<b>Hyp Testing</b>	<b>Mediation</b>
IP → IC	.2502	4.5566	.0000	+ve (sig)	H <sub>2c</sub> Accepted	Full Mediation
IP → KS	.3016	6.0157	.0000	+ve (sig)		
(KS IP→IC)	.5320	9.5764	.0000	+ve (sig)		
(IP KS→IC)	0.0898	1.7629	0.0789	+ve (insig)		t reduces P insig.

**Table No. 6: Mediation of Knowledge Sharing between Individual Attitude and Innovation Capabilities**

	B	t	Sig.	Relation & Sig	Hyp Testing	Mediation
IA → IC	.2460	5.4952	.0000	+ve (sig)	H <sub>3c</sub> Accepted	Full Mediation
IA → KS	.3105	7.7502	.0000	+ve (sig)		
(KS IA→IC)	.5182	9.0236	.0000	+ve (sig)		
(IA KS→IC)	0.0851	1.9534	0.0517	+ve (insig)		t reduces P insig.

**Table No. 7: Mediation of Knowledge Sharing between Formalization and Innovation Capabilities**

	B	t	Sig.	Relation & Sig	Hyp Testing	Mediation
Form → IC	.1285	3.1779	.1016	+ve (insig)	H <sub>4c</sub> Rejected	No Mediation
Form → KS	.1772	4.7835	.0670	+ve (insig)		
KS Form→ IC	.5518	10.0974	.0900	+ve (insig)		
Form KS→ IC	.0307	.8471	0.3976	+ve (insig)		P insig.

**Table No. 8: Mediation of Knowledge Sharing between Centralization and Innovation Capabilities**

	B	t	Sig.	Relation & Sig	Hyp Testing	Mediation
Cent→ IC	.1182	2.4808	0.0537	+ve (insig)	H <sub>5c</sub> Rejected	No Mediation
Cent→ KS	0.0988	2.2131	0.1276	+ve (insig)		
(KS Cent → IC)	0.5538	10.4591	0.0801	+ve (insig)		
(Cent KS → IC)	0.0635	1.5436	0.1238	+ve (insig)		P insig.

**Table No. 9: Mediation of Knowledge Sharing between Reward & Recognition and Innovation Capabilities**

	B	T	Sig.	Relation & Sig	Hyp Testing	Mediation
RR → IC	.4554	9.6661	0.0000	+ve (sig)	H <sub>6c</sub> Accepted	Partial Mediation
RR→KS	.4763	11.2676	0.0000	+ve (sig)		
(KS RR→IC)	.3972	6.5743	0.0000	+ve (sig)		
(RR KS→IC)	.2662	5.0555	0.0000	+ve (sig)		t reduces P sig.

**Table No. 10: Mediation of Knowledge Sharing Between Competences Based Trust and Innovation Capabilities**

	B	T	Sig.	Relation & Sig	Hyp Testing	Mediation
CBT → IC	.2591	6.0408	.0000	+ve (sig)	H <sub>7c</sub> Accepted	Full Mediation
CBT → KS	.4073	11.5256	.0000	+ve (sig)		
(KS CBT→IC)	.5321	8.4038	.0000	+ve (sig)		
(CBT KS→IC)	.0424	.9136	.3617	+ve (insig)		t reduces P insig.

**Table No. 11: Mediation of Knowledge Sharing between Benevolence based Trust and Innovation Capabilities**

	B	t	Sig.	Relation & Sig	Hyp Testing	Mediation
BBT → IC	.2863	5.3737	.0000	+ve (sig)	H <sub>8c</sub> Accepted	Full Mediation
BBT→KS	.4564	10.1468	.0000	+ve (sig)		
(KS BBT→IC)	.5424	8.8747	.0000	+ve (sig)		
(BBT KS→IC)	.0388	.7050	.4814	+ve (insig)		t reduces P insig.

**Table No. 12: Mediation of Knowledge Sharing between ICT Infrastructure & Availability and Innovation Capabilities**

	<b>B</b>	<b>t</b>	<b>Sig.</b>	<b>Relation &amp; Sig</b>	<b>Hyp Testing</b>	<b>Mediation</b>
ICTIA → IC	.3233	6.5084	0.0000	+ve (sig)	H <sub>9c</sub> Accepted	Partial Mediation
ICTIA → KS	.3809	8.5676	0.0000	+ve (sig)		
(KS ICTIA→IC)	.4941	8.4966	0.0000	+ve (sig)		
(ICTIA KS→IC)	.1351	2.7117	.0071	+ve (sig)		t reduces P sig.

**Table No. 13: Mediation of Knowledge Sharing between ICT Know How and Innovation Capabilities**

	<b>B</b>	<b>t</b>	<b>Sig.</b>	<b>Relation &amp; Sig</b>	<b>Hyp Testing</b>	<b>Mediation</b>
ICTKH → IC	.4648	9.7966	0.0000	+ve (sig)	H <sub>10c</sub> Accepted	Partial Mediation
ICTKH → KS	.5128	12.3708	0.0000	+ve (sig)		
(KS ICTKH→IC)	.3885	6.2193	0.0000	+ve (sig)		
(ICTKH KS→IC)	.2655	4.8288	0.0000	+ve (sig)		t reduces P sig.

### 3.1.3 Moderation Analysis through Hayes Process

In SPSS, using the Process Macro, the moderation analysis was performed. This process is introduced by Andrew F. Hayes to test the moderation. A model 1 is run out in Hayes process to conduct the moderation analysis.

**Table No. 14: Moderation of Organizational Learning between Knowledge Sharing and Innovation Capabilities**

	B	t	Sig.	Relation & Sig	Hyp Testing	Moderation
<b>KS → OL</b>	.700	12.528	0.000	+ve (sig)	H <sub>11</sub> Accepted	t reduces P sig. Moderation occurs
<b>OL → IC</b>	.112	2.069	0.039	+ve (sig)	H <sub>12</sub> Accepted	
<b>Interaction Term</b>	.1564	3.2121	0.0015	+ve (sig)	H <sub>13</sub> Accepted	

This shows that organizational learning act as a moderator between knowledge sharing and innovation capabilities.

**4. Conclusion**

The results of our study shows that in order to create culture of innovation capabilities in the conventional banking sector it is important that managing bodies should play special attention to the factors like individual personality, individual attitude, reward and recognition, competence based trust, benevolence based trust, ICT infrastructure and availability and ICT know how because these are those seven factors that have a significant and positive relationship with the innovation capabilities. These seven factors play a critical role in enhancing and improving the innovation capabilities of a bank and an employee as well. While formalization and centralization are those two factor that don't contribute to the innovation capabilities in a bank setting and thus they have an insignificant and negative relationship with the innovation capabilities. The results also shows that individual personality, individual attitude, reward and recognition, competence based trust, benevolence based trust, ICT infrastructure and availability and ICT knowhow are those seven factors that can highly affect the knowledge sharing in a conventional banking sector and thus have a significant and positive relationship with the knowledge sharing. While formalization and centralization are those negative and insignificant factors that don't contribute or affect the knowledge sharing behavior. Thus their relationship with the knowledge sharing is insignificant and negative. Organizational learning also plays a vital role along with the knowledge sharing on the innovation capabilities of an individual and bank. Thus, we can say that organizational learning plays a moderating role in the relationship between the knowledge sharing and innovation capabilities.

**5. Practical Implications**

Managers in order to make themselves creative and imaginative must overlook upon on these seven factors and superimposed a culture of knowledge sharing so a culture of learning also came into being, as a result, the survival of banks becomes easier and



employees will go for new ways and ideas to enhance their innovation capabilities. And make the survival of banks easier in the global market.

Management should also keep an eye on the other two factors centralization and formalization. Attention must be given on both the formalization and centralization factors in a way that individuals ideas and opinions should also be consider as a part of decision making process. Individual are more likely to influence the organizations when they are consider as an active member of the organization and are likely to involve in the decision making processes. In this way they can share up to the best of their knowledge with other members. More exchange of knowledge will create more environment for learning. And as result, the innovation capabilities of banking sector as well as employees will be improved and enhanced.

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