Journal of Quality and Technology Management
Volume XI, Issue II, December 2015, Page 53 - 90

DO KNOWLEDGE MANAGEMENT CAPABILITIES MEDIATE THE RELATIONSHIP FOR KNOWLEDGE SHARING DRIVEN PERFORMANCE: EVIDENCE FROM KNOWLEDGE MANAGEMENT VIEW?

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ABSTRACT

This study seeks to empirically examine the impact of knowledge sharing (KS) practices on overall performance of banks within the framework of intermediate measures(i.e. knowledge infrastructure and process capabilities).The study adopted the amended instrument and collected the data from 810 middle level managers through questionnaire from a sample of 42 banks. Structural equation model (SEM) and confirmatory factor analysis (CFA) were applied to assess the nature of relationship and overall fitness of the measurement model among the constructs using the AMOS software. The results of confirmatory factor model reveal that all the indices satisfactorily meet the thresholds which indicate a well fit of the models. Although, results of standardized path coefficient reveal that KS practices and components of knowledge management (KM) capabilities (i.e. knowledge infrastructure and process capabilities) significantly contribute overall banks performance in terms of improved product and service quality, customer intimacy (e.g. customers' satisfaction in terms of improve product quality and services) and operational and financial performance. The findings of study support that all the proposed hypotheses are statistically significant ($p<0.001$) except H3d and H4d and further indicating that all the components of KM capabilities significantly mediate the relationship between KS driven performance, thus corroborating the argument that KM initiatives are imperative to leverage the performance based activities. This study provides valuable insight for academicians and practitioners and suggests that managers need to build effective knowledge management (KM) mechanisms and should take more initiatives to speed up investment on KM resources because that will help to consolidate KS-oriented performance of banks. Further both KS practices and KM capabilities will produce significant impact on overall performance when they are aligning together which will enable the organization to respond rapidly in ever changing environment.

Keywords: *Knowledge sharing practices, Knowledge management capabilities and Performance*

1) INTRODUCTION

In current era with dynamic marketplace, knowledge and learning play an explicit role to enhance organizational performance and competitiveness (Prieto & Revilla, 2004). Managers are continuously emphasizing that how sharing of knowledge and learning can influence organization's performance. They are attempting to use knowledge sharing practices for sustainable organization's performance and competiveness. In general, organizations are realizing the importance of knowledge sharing practices as a key source of competiveness, value creation, and strategy formulation for decision making (Tiwana, 2001; Keskin, 2005). It is imperative for organizations to manage knowledge effectively because organization's performance relies on knowledge base resources and its effective deployment (Perez & Pablos, 2003).Knowledge sharing (KS) practices has got lot of significance because it provides potential benefits to individuals and firms in terms of employees and organization performance (Davenport and Prusak, 1998; Jonsson and Kalling, 2007). These practices among individuals, groups and units are essential for organizations, to create, share, capture and application of knowledge that enables organizations to improve resource structuring and capacity building, which have positive and significant effect on organizational performance (Wang et al., 2012; Lee and Sukoco 2007). In addition, KS practices is regarded as synchronization, collaboration and sharing of existing knowledge and expertise within the organization (Haas and Hansen, 2007) which encompasses a set of shared meanings and understandings of related knowledge to employees with access to relevant information and knowledge (Lin, 2007b; Gold et al. 2001; Liu et al 2005).

According to knowledge based view (KBV) which is the extension of resource based view (RBV), has attracted much of attentions of academicians, policy makers and practitioners. Both KBV and RBV argue that knowledge management (KM) and knowledge resources are considered as valuable strategic assets for determining the firms' competitiveness and performance (Barney, 1991; Karkoulian et al., 2013; Decarolis and Deeds1999). RBV is an emerging phenomena and its

theoretical mechanism suggests numerous definitions. According to RBV organization resources are valuable, rare and imitable which can be controlled to obtain superior performance and competitiveness (Barney, 1991).

However, knowledge capabilities also refer to KM capabilities which consist of knowledge infrastructure capability and knowledge process capability (Alavi and Leidner, 2001; Gold et al., 2001; Mills and Smith, 2011).Knowledge infrastructure capability includes technological infrastructure, organizational structure and culture, whereas knowledge process capability includes knowledge acquisition, conversion, application and protection. Such composite nature of firm's KM capabilities are generally referred to as abilities of a firm to assist knowledge sharing and utilization through a series of managerial processes (Lee and Choi, 2003; Tanriverdi, 2005). Both knowledge assets and knowledge management capabilities are the valuable knowledge resources for a firm sustainable competitive advantage and strategy implementation. Prior research found that both knowledge infrastructure and process capabilities have strong connection with organizational performance (Grant, 1996; Gold et al., 2001; Lee and Sukoco, 2007; Zaim et al., 2007; Zack et al., 2009; Wang et al., 2014).

Numerous studies have examined the impact of such composite nature of KM capabilities (i.e. knowledge infrastructure and process capability) on organizational performance (Gold et al. 2001; Grant, 1996; Nonaka and Takeuchi, 1995; Mills and Smith, 2010). However, there is a scarcity of research in the extant of literature to examine the mediating role of KM capabilities in view of KS-driven performance. So, this study attempts to bridge this significant gap in context of South Asian perspective more especially in context of Pakistan. While some studies have explored that organizational performance and effectiveness can be achieved by knowledge related practices through effective deployment of knowledge infrastructure and process capability which could be used to build resource restructuring, thus enabling employees to make their jobs bit relax due to sharing of best knowledge related practices like continuous learning, development of innovative and supportive culture for R&D to foster KS practices (Gold et al., 2001; Wang and Wang, 2012; Marques and Simon 2006;Mills and Smith 2010).

2) LITERATURE REVIEW & THEORETICAL FRAMEWORK

2.1) Knowledge Sharing and Performance

KM Literature explains two broad categories of knowledge known as explicit and tacit knowledge (Nonaka and Takeuchi, 1995). Tacit knowledge refers as implicit knowledge which is non-documented, unarticulated, non-expressible, based on cognitive thoughts and perceptions (i.e. embedded in minds of individuals in form of experiences and obtains from other people) and difficult to share (Polanyi, 1966; Wang et al., 2006) whereas explicit knowledge refers as visible, documented, articulated, constructible knowledge which can be stored independently (Junnarkar and Brown 1997; Nonaka and Takeuchi, 1995). However, Skyrme and Amidon (1997) argue that explicit knowledge is a formal and systematic knowledge easy to measure and codified in words or numbers. Explicit knowledge is formal knowledge, therefore, it can be obtained from various sources of organization including, company procedures, policies, written manuals, internal and external data forms. Polanyi, (1958) provided the detailed description of tacit and explicit knowledge. Polanyi's in this study defines tacit knowledge as intangible and non-verbal knowledge, difficulty to express or externalized and resides in the mind of people which provides the bases for decision making, whereas explicit knowledge is a formal knowledge, easy to express and communicate and which is available in form of company's symbols, procedures, business processes and manuals. Similarly, Beijerese (1999) defines that explicit knowledge has ability to express in words, numbers, available in structured information, procedures and policies that constitutes a set of standardized of practices which can be easily transmitted and shared among individuals. In contrast, tacit knowledge is informal, difficult to express and transfer that exists in people minds therefore it is also known as "people-bounded knowledge".

In the era of global marketplace, management of intangible resources is very critical and important to survive in a global dynamic environment (Teece *et al.*, 1997; Subramaniam and Youndt, 2005a). The knowledge based view (KBV) suggests that managing knowledge base resources are more likely to contribute in obtaining sustainable superior performance and competency for organizations than tangible resources. KBV postulates that knowledge sharing (KS) practices among individuals, groups and units are essential for organizations, to create, share, capture

and application of knowledge that enables organizations to improve resource structuring and capacity building, which have positive and significant effect on organizational performance (Wang *et al.*, 2012; Lee and Sukoco 2007). In addition, KS practices is regarded as synchronization, collaboration and sharing of existing knowledge and expertise within the organization (Haas and Hansen, 2007) which encompasses a set of shared meanings and understandings of related knowledge to employees with access to relevant information and knowledge (Lin, 2007b; Gold et al. 2001; Liu et al 2005).

H1: There exists a positive relationship between explicit knowledge sharing practices and performance of banks.
H2: There exists a positive relationship between tacit knowledge sharing practices and performance of banks.

2.2) Knowledge Sharing, Knowledge Management Capabilities and Performance

2.2.1) Knowledge Management Capability and Performance

For linking the knowledge sharing practices with firm's performance, the resource based view (RBV) provides a constructive lens to understand the underlying relationship (Mills and Smith 2010). RBV postulates that firms have bundle of knowledge resources facilitate to achieve competitive advantage and sustainable performance (Wernerfelt, 1984). Sanchez et al., (1996) and Gold et al., (2001) suggest that term "resource" and "capabilities" are composite in nature and used as interchangeable. However, Grant (1996) advocates that resources are intangible phenomena provide input to commence the knowledge production process whereas capabilities are abilities to employ the knowledge potentially. Based on above discussions, it may be concluded that knowledge management enablers are used to integrate knowledge resources into capabilities (Maier and Remus, 2002). Various resources are used to structure the knowledge potential within a firm. These are organizational culture, structure and technological infrastructures are linked to a firm's knowledge infrastructure capability; knowledge acquisition, knowledge conversion, knowledge application and knowledge protection which are linked to a firm's knowledge process capability. These resources structure the knowledge management

capability (KMC) which are linked with different organization's performance of measure (Lee and Sukoco, 2007; Zack et al., 2009).

Knowledge management capability is composite in nature (like knowledge enablers and processes) and most firms posses' different levels and combinations of these resources (Mills and Smith, 2011). Composite natures of KM capabilities are unique and contribute to knowledge management capability which varies across firms to ascertain organizational performance and competitiveness (Zack et al., 2009). Prior research also reveals that knowledge capabilities influence organizational performance (Zaim et al., 2007) and tends to construct the bunch of knowledge capabilities for organizational performance (Gold et al., 2001). This study is based on Gold et al. (2001) typology and divides the knowledge management capabilities in knowledge infrastructure capability or knowledge management enablers and knowledge process capability.

2.2.1.1) Knowledge Sharing, Knowledge Infrastructure Capability and Performance

Knowledge infrastructure capabilities are composite in nature and different constituents are used to build it e.g. technology, organizational culture, organizational structure (Gold et al., 2001). Earlier research identifies the eminence of knowledge infrastructure capability to support the KM initiatives (Paisittanand et al., 2007; Davenport and Volpel, 2001; Gold et al., 2001). So, present study is based on Gold et al (2001) framework where technology, organizational culture and structure are considered as key determinants to exploit the knowledge infrastructure capability for KS-driven performance.

2.2.1.1.1) Technology

Lee and Choi (2003) argued that information technology performs a critical role in removing limitations to communication and collaboration between different parts of the organization. The imperative role of IT is its ability to facilitate communication, collaboration and knowledge interactions that brings collaborative learning (Ngoc, 2005). Devenport and Prusak (1998) recognized information technology as a strategic contributor and an enabler in the field of KM initiatives. Marwick (2001) views that IT mechanisms like communication technologies (e.g.

encompass e-mail, video conferencing, electronic bulletin boards, and computer conferencing etc.) and decision-aiding technologies (e.g. decision-support systems, expert systems, and executive information systems) are integral parts for knowledge creation and sharing effectively both in terms of explicit and tacit knowledge(Song et al., 2001;Kendall, 1997). These IT's mechanism provide ways to increase the interactions among organizational actors and more specifically facilitate them to save time and cost, provide information accessibility and stimulate the knowledge to be share more promptly and expediently (Marwick, 2001). Further, technology helps enhance the capacity building, develop models and formulate alternatives and solutions for effective decision making.

H3a: There exists a positive relationship between explicit knowledge sharing and technology.
H4a: There exists a positive relationship between tacit knowledge sharing and technology.

Gold et al., (2001) view that technology is one the important knowledge infrastructure capability for knowledge creation, integration and dissemination. It is indispensable infrastructure for knowledge sharing and application. Previous research indicates that IT is important source competitive advantage and sustainable performance (Powell and Dent-Micallef, 1997; Seleim and Khalil, 2007; Clemons and Row, 1991).

H5: There exists a positive relationship between technology and performance.

2.2.1.1.2) Organizational Culture

Organizational culture is regarded another important knowledge infrastructure capability, impacting KM initiatives. It refers to set of values, beliefs, norms, meanings and shared practices Clemons, E.K. and Row, M.C. (1991), ''Sustaining IT advantage: the role of structural differences'', MIS to rheostats people communications within an organization (Robbin, 2004). The success of 40321organization is based upon these diverse values and norms that make organizational culture more effective (Schein, 1990; Kotter and Heskett, 1992). As organization culture is determined by attitudes, norms and beliefs of people that lead to strong knowledge sharing among employees of organization and to respond in a complex situation (Mavondo & Farrell, 2004). Therefore, it is

deeply interlinked with knowledge creation process (Kotter and Heskett, 1992). Janz & Prasarnphanich, (2003) suggested that an effective organizational culture provide support and encourage knowledge-related initiatives in forming suitable atmospheres for knowledge conversation and accessibility. Such strong cultural norms, values, openness, and sociability stimulate people's communications and knowledge sharing (Ngoc, 2005). Detienne et al., (2004) discussed the collaboration, trust, and incentives are the three critical components of organizational culture. Above discussion postulates that organizational culture is knowledge-embedded and important source to foster KM initiatives like development and protection of knowledge, encourage continuous learning and R&D in the organization and improve the abilities of employees through knowledge sharing (Marques and Simon 2006;Zack, Mckeen and Singh 2009; Mills and Smith 2010). Moreover, the positive cultural changes provide significant momentum to organizational performance (Richert, 1999; Bhatt, 2001; Sin and Tse 2000). Research has admitted that there are inherent benefits of knowledge sharing (Davenport and Prusak, 1998; Jonsson and Kalling), but still people are reluctant to share knowledge where organizational culture is one the major obstacle (McDermott and O'Dell, 2001; Davenport and Prusak, 1998; Al-Alawi et al., 2007).

H3b: There exists a positive relationship between explicit knowledge sharing and organizational culture.
H4b: There exists a positive relationship between tacit knowledge sharing and organizational culture.
H6: There exists a positive relationship between organizational culture and performance.

2.2.1.1.3) Organizational Structural

According to Herath (2007), organization structure refers to hierarchical levels which comprises of rules, procedures and reporting relationship among organizational members. It is important source of communication and collaboration among organizational actors to improve the organizational effectiveness. KM literature posits that structural changes in organizational structure such from centralization to decentralization or hierarchical to flatter are important for effective flow of knowledge within and outside of organization (Nonaka and Takeuchi, 1995; Grant, 1996;Gold et al., 2001).Such flow of information improves the overall

performance of firms in terms of operational, customer intimacy and financial. Schminke, et al., (2000) define formalization as a written documents, rules and procedures, guidelines and policies in organization that influence the flow of knowledge. Generally, centralization inhibits interdepartmental communication, sharing of ideas, and knowledge application within organization (Kohli & Jaworski, 1990; Woodman, Sawyer, & Griffin, 1993). On the other hand, decentralization is an important factor that supports the interdepartmental communication through frequent sharing of ideas and application of knowledge that empowers the employees to share relevant information with each other (Hurley & Green, 2005). However, Adler (1999) suggested that it may difficult to avoid inconsistency, disorder and repetition of efforts due to decentralization. Thus, based on above discussion, it can be expected that:

H3c: There exists a positive relationship between explicit KS practices and formalization.
H4c: There exists a positive relationship between tacit KS practices and formalization.
H7: There exists a positive relationship between formalization and performance.
H3d: There exists a positive relationship between explicit KS practices and decentralization.
H4d: There exists a positive relationship between tacit KS practices and decentralization.
H8: There exists a positive relationship between decentralization and performance.

2.2.1.2) Knowledge Sharing, Knowledge Process Capability and Performance

Gold et al., (2001) suggest that knowledge process capability refers to storing, transforming and transporting of knowledge in organizations' processes. Gold et al., (2001) and Lee and Choi, (2003) suggest that knowledge process capabilities which comprise of knowledge creation, knowledge capture, knowledge sharing and knowledge transformation are the core competencies of organization while in managing knowledge assets. Consequently, organization's knowledge process capability which comprise of knowledge acquisition, conversion, application and protection become the source of competitive advantage through exploiting knowledge assets in such a way which is difficult to imitable for competitors (Gold et al., 2001; Felin and Hesterly, 2007). Literature

have acknowledged and identified many key facets of the knowledge management process capability and categorized into creation, transfer, and use (Skyme & Admidon, 1998; Spender, 1996).DeLong, (1997) classified the knowledge process capability into capture, transfer, and use of knowledge. Knowledge process capabilities improve organization processes through innovation, collaborative decision making and collective learning. As result, improved processes enhance the organization's outcomes that include better decisions for problem solving, improve products and services and better external relationships (Mills and Smith, 2011). These, in turn, collectively lead to better organizational performance.

2.2.1.2.1) Knowledge Acquisition

Knowledge acquisition refers to process of developing new knowledge and replacing the content of existing knowledge with new tacit and explicit knowledge (Pentland, 1995). It also refers to firm's capability to identify, acquire, and accumulate the knowledge from external and internal environment. Prior studies suggest that term acquisition refers to a firm's ability to create, acquire and accumulate knowledge (internally and externally) that is useful for its business operational activities (Gold et al., 2001; Spender, 1996; Skyme & Admidon, 1998). Knowledge creation and acquisition both are considered as an important source of developing new knowledge within the organizations. So, it is expected that more the tendency to create the new knowledge (i.e. explicit and tacit) will influence the KS within the organization in terms of explicit and tacit knowledge which may lead to superior firm performance.

H3e: There exists a positive relationship between explicit KS practices and knowledge acquisition.
H4e: There exists a positive relationship between explicit KS practices and knowledge acquisition.
H9: There exists a positive relationship between knowledge acquisition and performance.

2.2.1.2.2) Knowledge Conversion

According to Lee and Suh, (2003) when the knowledge created and acquired from both internal and external sources, needs to be converted into productive or final knowledge for effective utilization of knowledge

within the organization. It indicates that for effective sharing of knowledge, knowledge conversion is very essential to direct the business operations (Suh, 2003).This conversion process is very crucial to convert the raw information into final information and knowledge in terms of explicit and tacit knowledge. It refers to knowledge transmission from point creation to point of use, thus enables the organizational members to share knowledge which positively influence firms' performance (Bhatt, 2001; Shin et al., 2001).

H3f: There exists a positive relationship between explicit KS practices and knowledge conversion.
H4f: There exists a positive relationship between explicit KS practices and knowledge conversion.
H10: There exists a positive relationship between knowledge conversion and performance.

2.2.1.2.3) Knowledge Application

Knowledge application refers applying knowledge to products and services (Bhatt, 2001). It indicates that knowledge which is acquired and converted needs to make more relevant to products and services for creating value (Bhatt, 2001). This indicates that for creating value which leads to competitive advantage needs to apply knowledge related to product and customers in order to make knowledge more effective for customers and others. Firms generate value through applying knowledge e.g. training and organizational learning to enhance individual's creativity. Organizational learning and training enable the organizational actors to employ created knowledge in terms to new product development with ultimate purpose to improve firms' performance (Sarin and McDermott, 2003).This process brings innovation and increase market penetration. Further, applying knowledge means sharing of knowledge in the form of new product development at lower cost to create competitive advantage. Therefore, it can be expected;

H3g: There exists a positive relationship between explicit KS practices and knowledge application.
H4g: There exists a positive relationship between explicit KS practices and knowledge application.
H11: There exists a positive relationship between knowledge application and performance.

2.2.1.2.4) Knowledge Protection

Knowledge protection from illegal or inappropriate use is very essential for effective functioning of knowledge within the organization (Mills and Smith, 2011). This includes intellectual property rights (IPRs) and use of information communication technology (ICT) which assist the users' to secure the knowledge by user name, file name and password, thus provides the access to only authorized users (Lee and Yang, 2000). Such knowledge's protection from inappropriate or illegal users helps the organization to maintain competitive advantage which leads to superior performance outcomes (Mills and Smith, 2011; Lee and Sukoco, 2007). Notwithstanding, it may be expected that extensive protection help to share only relevant knowledge among employees.

H3h: There exists a positive relationship between explicit KS practices and knowledge application.
H4h: There exists a positive relationship between explicit KS practices and knowledge application.
H12: There exists a positive relationship between knowledge application and performance.

3) METHODOLOGY

3.1) Data and Instrumentations

This study uses the survey instrument (questionnaire) to collect the data from the respondents. A random sample was drawn from banking sector in the province of Punjab which is the most developed and populated province of Pakistan. This sampling choice of study was based on this consideration that banking sector is one of the most knowledge oriented sectors of Pakistan where KS practices play important role for knowledge production to bring innovation to survive in a competitive environment. Further, this adopts key informant approach which advocates that the middle and senior managers are the best source of information providers. We distributed 1250 questionnaires among banks' employees and 965 questionnaires were received from respondents. Moreover, 810 questionnaires were considered for analysis and remaining were discarded due to the incomplete or selecting the same response for each question. This represents 64.8% response which is quite comprehensive response for this study. The instrument used in the study comprises of

five parts see in appendix. First part of instrument provides the basic information of respondents at nominal scales and remaining parts of instrument attempts to capture the respondents' response about independent (KS practices), mediating (KM capabilities) and dependent variables (overall performance). Notwithstanding, all the measurement items were adapted from existing literature to ensure the reliability and content validity of instrument, especially for measuring the latent constructs. The KS practices were identified and adapted from the work of (Wang et al., 2014; Wang and Wang 2012; Liebowitz and Chen 2001) and among others. All the dimensions of intermediates measures were adopted from the work of Gold et al. (2001), Choi (2002) and Park's (2006) frameworks who viewed that both knowledge infrastructure and process capabilities played important role for KS-driven performance. The overall organizational performance is measured based on four value disciplines i.e. operational excellence, customer intimacy, product leadership and financial achievement and adapted from the work of Treacy and Wiersema (1995), Kaplan and Norton (2001a), Rai et al. (2006), Bowersoxet al.(2000), Zack et al. (2009),Inman et al. (2011), Vaccaroet al., (2010) and among others

Initially, questionnaire containing all the questions were written in English and little amendments were made to modify the questionnaire as per the setting of study. Instrument was pretested by a panel of experts containing three professors, two senior managers were selected to ensure the face validity of the instrument as per the setting of the study. They were asked to examine the instrument, its each items and constructs including the format, wording and length. Pre-testation (pilot study) based on little revisions were made as per nature and setting of study and a final questionnaire was developed on five point likert scale (1=strongly disagree and 5=strongly agree) after re-modification as per the feedback of participants.

4) FINDINGS OF STUDY

4.1) Measurement Model Evaluation

The study employs the confirmatory factor analysis (CFA) through structural equation model to evaluate the fitness of overall measurement model. The purpose CFA is to judge the convergent and discriminant validity for further model examination (Fornell and Larcker, 1981; Hurley

et al., 1997). At first stage, the study has evaluates the convergent validity by assessing the value of factor loadings (λ) should be statistically significant and larger than minimum threshold of 0.35 (Hair et al., 1998). Bagozzi and Yi, (1988) stated that the minimum benchmark for (C-α≥0.7; AVE≥0.5) for further model investigation. In general, Hair et al., (1998) stated that all loading items (λ) should greater than 0.35 have practical significance. To test the convergent validity, in measurement model, all the loading items (λ) lie between 0.706-0.884 for explicit KS practices, 0.638 to 0.781, for tacit KS practices, 0.647 to 0.819, for technology,.767 to .815 for decentralization,.782 to .836 for formalization, 0.687 to 0.806, for organization culture,0.706 to 0.748, for knowledge acquisition, 0.727 to 0.837, knowledge conversion, 0.743 to 0.804, for knowledge application, 0.541 to 0.793, for knowledge protection, 0.619 to 0.792 and for overall performance, 0.709 to 0.854. However, reliability lies from 0.710-.887 and AVE ranges between 0.50-0 to 6882 So, these results indicate that measurement model meets the criteria of convergent validity and thus demonstrating better internal consistency exceeds the minimum threshold of 0.70 (Nunnly and Bernstein, 1994).

Table 1: Factor Loadings and Internal Reliability Testing

Constructs	Measurement Items	Mean	SD	Standard Loading	Cronbach alpha's (C-α)	Average Variance Extracted (AVE)
Explicit KS Practices	EKSP1	3.470	1.021	.706	0.887	0.6882
	EKSP2	3.601	0.974	.835		
	EKSP3	3.694	1.023	.884		
	EKSP4	3.541	0.951	.862		
	EKSP5	3.493	1.038	.861		
Tacit KS Practices	TKSP1	3.589	0.989	.638	0.800	0.5015
	TKSP2	3.476	0.882	.685		
	TKSP3	3.475	0.910	.743		
	TKSP4	3.589	0.953	.781		
	TKSP5	3.623	0.900	.716		
	TKSP6	3.657	1.005	.686		
Technology	T1	3.525	1.017	.867	0.710	0.73
	T2	3.516	0.913	.815		
	T3	3.674	0.931	.880		
Decentralization	D1	2.820	1.243	.782	0.836	0.60
	D2	2.991	1.121	.782		
	D3	2.863	1.222	.836		
	D4	3.336	1.115	.675		

Constructs	Measurement Items	Mean	SD	Standard Loading	Cronbach alpha's (C-α)	Average Variance Extracted (AVE)
Formalization	F1	3.674	0.994	.707	0.747	0.53
	F2	3.525	0.979	.806		
	F3	3.776	0.967	.712		
	F4	3.659	1.096	.687		
Organizational culture	OC1	3.365	1.037	.823	0.794	0.646
	OC2	3.635	0.901	.876		
	OC3	3.686	.948	.806		
	OC4	3.453	1.031	.717		
	OC5	3.759	0.919	.808		
	OC6	3.624	0.948	.735		
	OC7	3.604	0.936	.818		
	OC8	3.550	0.960	.848		
Knowledge Acquisition	KAC1	3.585	.9185	.811	0.775	0.700
	KAC2	3.561	.991	.879		
	KAC3	3.507	1.020	.852		
	KAC4	3.353	1.009	.827		
	KAC5	3.587	.913	.837		
	KAC6	3.502	1.025	.816		
Knowledge Conversion	KC1	3.675	0.952	.843	0.818	0.708
	KC2	3.628	0.932	.853		
	KC3	3.655	0.965	.804		
	KC4	3.721	0.987	.878		
	KC5	3.597	0.902	.829	0.799	0.840
Knowledge Application	KAP1	3.549	0.948	.914		
	KAP2	3.674	0.958	.918		
	KAP3	3.403	1.060	.941		
	KAP4	3.481	0.963	.913		
	KAP5	3.411	0.975	.855		
	KAP6	3.512	0.933	.959		
Knowledge Protection	KP1	3.525	0.983	.819	0.706	0.687
	KP2	3.609	1.039	.841		
	KP3	3.548	0.995	.892		
	KP4	3.406	1.003	.763		
Overall Performance	OE1	3.707	0.997	.806	0.873	0.5881
	OE2	3.680	0.920	.846		
	OE3	3.707	0.997	.809		
	CI1	3.681	0.921	.854		
	CI2	3.674	0.939	.860		
	PL1	3.753	0.946	.757		
	PL2	3.784	0.924	.799		
	FE1	3.785	0.937	.724		
	FE2	3.754	0.998	.781		
	FE3	3.693	0.975	.739		

At the second stage, we evaluated the discriminant validity which refers to that all items used to measure the constructs do not estimate the theoretically unrelated constructs (Kline, 2010). Likewise, other studies, we use Fornell and Larcker, (1981) typology to assess the discriminant validity. This approach suggests that "average variance extracted (AVE) for each constructs should be larger than squared correlation between the same constructs and any other constructs" (Wang et al., 2014, p.18). Table 2 suggests that square root of average variance extracted greater than correlation of constructions (square root of AVE> correlation of constructs), hence discriminant validity is established, so both convergent and discriminant validity leads to better constructs validity to proceeds for further analysis.

Table 2: Inter-correlations between the Constructs

Variables	EKSP	TKSP	Tech	Dec	Form	OC	KAC	KC	KAP	KP	OP
EKSP	**0.58**	--	--	--	--	--	--	--	--		
TKSP	0.082*	**0.253**	--	--	--	--	--	--	--		
Tech	.128**	.522**	**0.648**	--	--	--	--	--	--		
Dec	-.024	.033	0.79*	**0.427**	--	--	--	--	--		
Form	0.115**	.266**	.369**	.071*	**0.302**	**--**	**--**	**--**	**--**		
OC	0.115**	0.602**	.568**	.175**	.404**	**508**	**--**	**--**	**--**		
KAC	0.143**	.518**	.521**	.117**	.384**	.598**	**0.601**	**--**	**--**		
KC	.128**	.540**	.547**	.180**	.319**	.605**	.603**	**0.614**	**--**		
KAP	.091**	.514**	.500**	.162**	.395**	.554**	.625**	.712**	**0.812**		
KP	.104**	.392**	.476**	.056	.387**	.504**	.524**	.520**	.510**	**0.578**	
OP	.201**	.441**	.506**	.101**	.405**	.498**	.492**	.474**	.477**	.429**	**490**

Note: Diagonal value: Square root of the AVE, Non-diagonal value: Correlation
**Correlation is significant at the 0.01 level (2-tailed)
*Correlation is significant at the 0.05 level (2-tailed)

Actually this has two measurement models. At third stage, the study has evaluated the fitness of model I and II by estimating (1) absolute fit measures (2) Incremental fit measures and (III) Parsimonious fit measures. Table 3 demonstrates the overall fit indices of the CFA results of two models with scores and recommended cut-off value which suggests that all values met satisfactory levels of fit indices thus confirm

that models are fit and hence suitable for testing the proposed hypotheses.

Table 3: CFA Results of Models Fitness for Explicit and Tacit KS Practices

Fit index	Scores*	Score**	Standardized cut-off value
Absolute fit measures			
χ2/df	2.051	2.567	≤2a;≤5b
GFI	0.906	0.914	≥0.90a; ≥0.80
RMSEA	0.047	0.042	<0.08a; <0.1
Incremental fit measures			
NFI	0.910	0.902	≥0.90a
AGFI	0.913	0.904	≥0.90a; ≥0.80b
CFI	0.917	0.902	≥0.90a
Parsimonious fit measures			
PGFI	0.719	0.711	The higher, the better
PNFI	0.743	0.749	The higher, the better

Notes: Acceptability Criterion: [a]acceptable; [b]marginal.
*Presents the score fit indices of CFA model-I for explicit KS-driven performance)
**Presents the score fit indices of CFA model-II for tacit KS-driven performance)

Table 4 shows the results of structural model using standardized path coefficients which show the relationship among latent variables. It shows that both explicit and tacit KS practices significantly influence the overall performance of banks, thus hypothesesH1 and H2are supported. Similarly, table 4 exhibits that KS practices significantly influence the intermediate measures except decentralization, so all hypotheses are accepted except H3a and H4a. Likewise, all the composite nature components of knowledge infrastructure and process capabilities significantly impact the overall performance of banks, thus supporting hypotheses from H5 to H12.

Table 4: Standardized Path Coefficients

Hypothesis		Estimates	P-value	S.E	Remarks
H1	EKSP-->OP	0.175*	<0.001	.034	Supported
H2	TKSP-->OP	0.641*	<0.001	.064	Supported
H3a	EKSP-->Tech	0.115*	<0.001	.032	Supported
H3b	EKSP-->OC	0.067*	<0.01	.023	Supported
H3c	EKSP-->Form	.0111*	<0.001	.032	Supported
H3d	EKSP-->Dec	-0.028	>0.10	0.047	Not Supported
H3e	EKSP-->KAC	0.084*	<0.001	.021	Supported
H3f	EKSP-->KC	0.125*	<0.001	.033	Supported
H3g	EKPS-->KAP	0.081	<0.01	.029	Supported
H3h	EKSP-->KP	0.063*	<0.01	.022	Supported
H4a	TKSP-->Tech	0.121*	<0.001	0.033	Supported
H4b	TKSP-->OC	0.625*	<0.001	0.060	Supported
H4c	TKSP-->Form	0.339*	<0.001	.066	Supported
H4d	TKSP-->Dec	0.066	>0.10	0.073	Not Supported
H4e	TKSP-->KAC	0.514*	<0.001	0.054	Supported
H4f	TKSP-->KC	0.842*	<0.001	0.067	Supported
H4g	TKPS-->KAP	0.723*	<0.001	0.064	Supported
H4h	TKSP-->KP	0.342*	<0.001	0.052	Supported
H5	Tech-->OP	0.728*	<0.001	0.70	Supported
H6	OC-->OP	0.893*	<0.001	0.097	Supported
H7	Form-->OP	0.705*	<0.001	0.115	Supported
H8	Dec-->OP	0.111*	<0.001	0.031	Supported
H9	KAC-->OP	0.876*	<0.001	0.098	Supported
H10	KC-->OP	0.532*	<0.001	0.053	Supported
H11	KAP-->OP	0.631*	<0.001	0.063	Supported
H12	KP-->OP	0.771*	<0.001	0.117	Supported

Note: *significant at the 0.01 level (2-tailed), ** significant at the 0.05 level (2-tailed), ***significant at the 0.10 level (2-tailed).

4.2) Mediation Analysis

First, for analyzing the mediation analysis, the direct effect of independent variable on dependent variable and indirect effect of independent variable on dependent variable through mediating variables are examined. Table 5 presents the direct effect of independent variable (i.e. both explicit and tacit KS practices) on dependent variable (i.e. overall performance), which is statistically significant at ($p<0.001$) and thus confirms the first assumption of mediation (see Baron and Kenny 1986).

Table 5: Direct Effect (Before Mediating Variables)

Variables	Beta Estimate	S.E	C.R	P-value	Result
EKSP-->OP	0.175	0.034	5.143	0.000	significant
TKSP-->OP	0.641	0.064	9.974	0.000	significant

Table 6 to 9 present the indirect effect of explicit and tacit KS practices on performance of banks using KM capabilities as mediating variables. Table 6 and 7 show that while testing the mediating role of knowledge infrastructure capabilities(i.e. technology, organizational culture and organizational structure) and knowledge process capabilities (knowledge acquisition, knowledge conversion, knowledge application and knowledge protection)the effect of explicit KS practices on banks' performance reduced from 0.175 to 0.092, 0.175 to 0.088 and 0.175 to 0.115 respectively in case of knowledge infrastructure capability and further the effect of explicit KS practices reduced from 0.175 to 0.089, 0.175 to 0.104, 0.175 to 0.121, 0.175 to 0.118 respectively in case of knowledge process capability which still remained significant ($p<0.01$) and thus indicating that all the components of knowledge infrastructure and process capabilities partially mediate the relationship between explicit KS practices and banks' performance. Moreover, table 8 and 9 present the impact of tacit practices on both knowledge infrastructure and process capabilities reduced from 0.641 to 0.201, 0.641 to 0.398 and 0.641 to 0.211 respectively in case of knowledge infrastructure capability and further 0.641 to 0.201, 0.641 to 0.398 and 0.641 to 0.211 respectively in case of knowledge process capability which still remained significant, thus also indicating that knowledge infrastructure and process capabilities partially mediates the relationship between tacit KS practices and overall performance of banks.

Table6: Indirect Effect of Explicit KS Practices on Banks Performance through Knowledge Infrastructure Capability as a Mediator

Variables	**Beta Estimate**	**S.E**	**C.R**	**P-value**	**Result**
EKSP-->OP	0.092	0.030	3.106	0.000	significant
EKSP-->Tech	0.116	0.032	3.590	0.001	significant
Tech-->OP	0.706	0.069	10.293	0.000	significant
Variables	**Beta Estimate**	**S.E**	**C.R**	**P-value**	**Result**
EKSP-->OP	0.088	0.032	2.797	0.005	significant
EKSP-->F	0.117	0.033	3.575	0.000	significant
F-->OP	0.719	0.088	8.153	0.000	significant
Variables	**Beta Estimate**	**S.E**	**C.R**	**P-value**	**Result**
EKSP-->OP	0.115	0.028	4.085	0.000	significant
EKSP-->OC	0.084	0.028	2.0950	0.003	significant
OC-->OP	0.675	0.068	9.897	0.000	significant

Table7: Indirect Effect of Explicit KS Practices on Banks Performance through Knowledge Process Capability as a Mediator

Variables	**Beta Estimate**	**S.E**	**C.R**	**P-value**	**Result**
EKSP-->OP	0.089	0.029	3.089	0.002	Significant
EKSP-->KAC	0.092	0.023	4.070	0.000	Significant
KAC-->OP	0.899	0.105	8.531	0.000	Significant
Variables	**Beta Estimate**	**S.E**	**C.R**	**P-value**	**Result**
EKSP-->OP	0.104	0.030	3.493	0.000	significant
EKSP-->KC	0.130	0.034	3.794	0.000	significant
KC-->OP	0.545	0.052	10.503	0.000	significant
Variables	**Beta Estimate**	**S.E**	**C.R**	**P-value**	**Result**
EKSP-->OP	0.121	0.031	3.967	0.000	Significant
EKSP-->KP	0.064	0.023	2.815	0.005	Significant
KP-->OP	0.820	0.102	8.050	0.000	Significant
Variables	**Beta Estimate**	**S.E**	**C.R**	**P-value**	**Result**
EKSP-->OP	0.118	0.029	4.078	0.000	significant
EKSP-->KAP	0.084	0.030	2.797	0.005	significant
KAP-->OP	0.639	0.062	10.261	0.000	significant

Table 8: Indirect Effect of Tacit KS Practices on Banks Performance through Knowledge Infrastructure Capability as a Mediator

Variables	Beta Estimate	S.E	C.R	P-value	Result
TKSP-->OP	0.201	0.073	2.752	0.006	significant
TKSP-->Tech	0.747	0.061	12.292	0.000	significant
Tech-->OP	0.583	0.080	7.311	0.000	significant
Variables	**Beta Estimate**	**S.E**	**C.R**	**P-value**	**Result**
TKSP-->OP	0.398	0.059	6.788	0.000	significant
TKSP-->F	0.369	0.053	7.007	0.000	significant
F-->OP	0.616	0.089	6.957	0.000	significant
Variables	**Beta Estimate**	**S.E**	**C.R**	**P-value**	**Result**
TKSP-->OP	0.211	0.077	2.733	0.006	significant
TKSP-->OC	0.585	0.058	10.104	0.000	significant
OC-->OP	0.704	0.117	6.013	0.000	significant

Table9: Indirect Effect of Tacit KS Practices on Banks Performance through Knowledge Process Capability as a Mediator

Variables	Beta Estimate	S.E	C.R	P-value	Result
TKSP-->OP	0.296	0.064	4.604	0.000	significant
TKSP-->KAC	0.509	0.053	9.546	0.000	significant
KAC-->OP	0.655	0.098	6.717	0.000	significant
Variables	**Beta Estimate**	**S.E**	**C.R**	**P-value**	**Result**
TKSP-->OP	0.335	0.068	4.958	0.000	significant
TKSP-->KC	0.799	0.064	12.472	0.000	significant
KC-->OP	0.374	0.057	6.512	0.000	significant
Variables	**Beta Estimate**	**S.E**	**C.R**	**P-value**	**Result**
TKSP-->OP	0.424	0.062	6.852	0.000	Significant
TKSP-->KP	0.344	0.045	7.616	0.000	Significant
KP-->OP	0.610	0.107	5.682	0.000	Significant
Variables	**Beta Estimate**	**S.E**	**C.R**	**P-value**	**Result**
TKSP-->OP	0.327	0.064	5.096	0.000	significant
TKSP-->KAP	0.683	0.060	11.417	0.000	significant
KAP-->OP	0.454	0.064	7.143	0.000	significant

Table 8 and 9 reveals the results of scale level fit indices for structural models of explicit and tacit KS practices with intermediate measures knowledge infrastructure and process capability to assess the fitness of measurement models using various fit indices. The study has evaluated the fitness of the structural models at scale with each mediating variable through estimating (1) absolute fit measures(2) Incremental fit measures and (3) Parsimonious fit measures. From table 10 to 13 present the overall fit indices of the structural models at scale level with scores and recommended cut-off values with each mediating variable thus suggesting that all values satisfactory meet the levels of fit indices and confirming that models are fit and hence suitable for testing the proposed mediating model as discussed above.

Table 10: Scale Level Fit indices for Structural Model of Explicit KS Practices with Knowledge Infrastructure Capability as Mediators (i.e. Technology, Formalization, Decentralization and Organizational Culture).

Fit Indices	Scores*	Scores**	Scores***	Scores****	Recommended Values
Absolute fit measures					
$\chi 2/df$	3.971	3.639	3.347	3.115	≤2a;≤5b
GFI	0.940	0.941	0.931	0.911	≥0.90a; ≥0.80
RMSEA	0.061	0.057	0.054	0.561	<0.08a; <0.1
Incremental fit measures					
NFI	0.936	0.933	0.922	9.11	≥0.90a
AGFI	0.912	0.914	0.906	901	≥0.90a; ≥0.80b
CFI	0.951	0.950	0.943	0.921	≥0.90a
Parsimonious fit measures					
PGFI	0.643	0.650	0.685	6.91	The higher, the better
PNFI	0.712	0.712	0.738	0.731	The higher, the better

Acceptability Criterion: [a]acceptable; [b]marginal

*presents score of fit indices for structural model of explicit KS-driven performance using technology as mediator

**presents score of fit indices the structural model of explicit KS-driven performance using formalization as mediator

***presents score of fit indices the structural model of explicit KS-driven performance using decentralization as mediator

****presents score of fit indices the structural model of explicit KS-driven performance using organizational culture as mediator

Table 11: Scale Level Fit indices for Structural Model of Explicit KS Practices with Knowledge Process capability as mediators (i.e. Knowledge Acquisition, Knowledge Conversion, Knowledge Protection and Knowledge Application).

Fit Indices	Scores*	Scores**	Scores***	Scores****	Recommended Values
Absolute fit measures					
$\chi 2/df$	3.518	3.388	3.442	3.467	≤2a;≤5b
GFI	0.933	0.941	0.935	0.944	≥0.90a; ≥0.80
RMSEA	0.056	0.054	0.055	0.055	<0.08a; <0.1
Incremental fit measures					
NFI	0.926	0.938	0.932	0.938	≥0.90a
AGFI	0.909	0.916	0.909	0.919	≥0.90a; ≥0.80b
CFI	0.945	0.956	0.950	0.955	≥0.90a
Parsimonious fit measures					
PGFI	0.690	0.664	0.669	0.656	The higher, the better
PNFI	0.749	0.728	0.730	0.721	The higher, the better

Acceptability Criterion: [a]acceptable; [b]marginal

*presents score of fit indices for structural model of explicit KS-driven performance using knowledge acquisition as mediator

**presents score of fit indices the structural model of explicit KS-driven performance using knowledge conversion as mediator

***presents score of fit indices the structural model of explicit KS-driven performance using knowledge application as mediator

****presents score of fit indices the structural model of explicit KS-driven performance using knowledge protection as mediator

Table 12: Scale Level Fit indices for Structural Model of Tacit KS Practices with Knowledge Infrastructure capability as mediators (i.e. Technology, Formalization, Decentralization and Organizational Culture).

Fit Indices	Scores*	Scores**	Scores***	Scores****	Recommended Values
Absolute fit measures					
$\chi 2/df$	2.290	2.055	2.089	2.411	≤2a;≤5b
GFI	0.962	0.963	0.962	0.946	≥0.90a; ≥0.80
RMSEA	0.040	0.036	0.037	0.042	<0.08a; <0.1
Incremental fit measures					
NFI	0.953	0.952	0.952	0.932	≥0.90a
AGFI	0.945	0.947	0.947	0.928	≥0.90a; ≥0.80b
CFI	0.973	0.975	0.974	0.959	≥0.90a

Fit Indices	Scores*	Scores**	Scores***	Scores****	Recommended Values
Parsimonious fit measures					
PGFI	0.673	0.667	0.691	0.707	The higher, the better
PNFI	0.738	0.725	0.753	0.755	The higher, the better

Acceptability Criterion: [a]acceptable; [b]marginal

*presents score of fit indices for structural model of Tacit KS-driven performance using technology as mediator

**presents score of fit indices the structural model of Tacit KS-driven performance using formalization as mediator

***presents score of fit indices the structural model of Tacit KS-driven performance using decentralization as mediator

****presents score of fit indices the structural model of Tacit KS-driven performance using organizational culture as mediator

Table 13: Scale Level Fit indices for Structural Model of Tacit KS Practices with Knowledge Process capability as mediators (i.e. Knowledge Acquisition, Knowledge Conversion, Knowledge Protection and Knowledge Application).

Fit Indices	Scores*	Scores**	Scores***	Scores****	Recommended Values
Absolute fit measures					
$\chi 2/df$	3.518	3.388	3.442	3.467	≤2a;≤5b
GFI	0.933	0.941	0.935	0.944	≥0.90a; ≥0.80
RMSEA	0.056	0.054	0.055	0.055	<0.08a; <0.1
Incremental fit measures					
NFI	0.926	0.938	0.932	0.938	≥0.90a
AGFI	0.909	0.916	0.909	0.919	≥0.90a; ≥0.80b
CFI	0.945	0.956	0.950	0.955	≥0.90a
Parsimonious fit measures					
PGFI	0.690	0.664	0.669	0.656	The higher, the better
PNFI	0.749	0.728	0.730	0.721	The higher, the better

Acceptability Criterion: [a]acceptable; [b]marginal

*presents score of fit indices for structural model of tacit KS-driven performance using knowledge acquisition as mediator

**presents score of fit indices the structural model of Tacit KS-driven performance using knowledge conversion as mediator

***presents score of fit indices the structural model of Tacit KS-driven performance using knowledge application as mediator

****presents score of fit indices the structural model of Tacit KS-driven performance using knowledge protection as mediator

5) DISCUSSION AND IMPLICATIONS OF STUDY

Using the theoretical lens of KBV, this study proposes a mediating model to bridge the research gap that how KS practices contribute to performance of banks through mediating role of knowledge management capabilities. The findings of study underpins the arguments of Wang and Wang (2012) and Wang et al., (2014) who state that formal KS practices consolidate the financial and operational performance of organization through sharing knowledge relating to business processes which further help to increase the productivity and quality of products and services (McAdamet al., 2012) thus providing the competiveness (Gao*et al.*, 2009; Reus *et al.*, 2009). The results of the study also in align with van den Hooff and De Ridder (2004) who suggested that explicit flow of knowledge significantly affects financial performance through improving dependability of delivery processes. Similarly, this research also indicates that banks need to integrate and expand KS by investing in trainings courses, conferences, seminars, acquiring technologies and hiring professionals which assist in determining the future course of actions, thus enables employees' to improve their abilities through organizational engagement for superior organization performance (Wang et al., 2014). Therefore, the results suggest that banks extensively need to develop different KS mechanism just like sufficient training and development programs and establishment of IT mechanisms to improve the explicit flow of knowledge.

Consistent with expectation, findings provide value insights, postulating that tacit KS practices more significantly (β=.641) influence the overall performance of banks compare to explicit KS practices (see table 4).One of the possible reasons in context of the study may be that knowledge which comes through formal ways (i.e. meetings and official documents) and informal ways (i.e. experience, skills and expertise) resides in the minds of people and they share with each other when they have dialogues, social network and person-to-person contacts or interactions. Such informal sharing of knowledge tends to help the employees in problem solving through unique way, improves the product quality and service and as well reduces the operational cost. So, it may be postulated that tacit knowledge is a source for employees to share about past failures in order to improve their future of course of actions. This finding of the study is also consistent with previous studies who found that tacit KS practices significantly influence the performance outcomes (Down, 2001; Akbar,

2003; Matthew and Sternberg, 2009; Wang et al., 2014). The results of the study also support the KBV notion which assumes that tacit knowledge sharing bring the source of competiveness to support the daily management activities and consistent with the findings of (Gourlay, 2002).

This study provides strong empirical support that all constructs of knowledge infrastructure capability (i.e. technology, decentralization, centralization and organizational culture) significantly (β=0.728, $p<0.01$; β=0.893, $p<0.01$; β=0.705, $p<0.01$; β=0.111, $p<0.01$) influence in determining the overall performance of banks thus supporting hypotheses from H5 to H8. This research admits that effective and supportive deployment of knowledge infrastructure is essential for KM initiatives (Gold et al., 2001; Paisittanand et al., 2007). Further, results also indicate that all the components of knowledge infrastructure partially mediate the relationship both in context of explicit and tacit KS-driven performance. It provide strong implications and suggests that substantially investment on KM initiatives in terms of knowledge infrastructure capability is evitable for flow of explicit and tacit knowledge which leads to superior performance outcomes thus consistent with KBV notion (Gold et la., 2001; Mills and Smith, 2011). Further, findings also shed light that both explicit and tacit KS practices significantly related with technology, formalization and organizational culture except decentralization. However, prior research suggests that decentralization (i.e. empowerment or delegation of powers) assists in knowledge sharing (Hurley and Green, 2005). Researchers (e.g. Nonaka and Takeuchi, 1995; Grant, 1996; Gold et al., 2001; Beveren, 2003) also demonstrate that organizational structure, such as moving from formalization (hierarchical) to decentralization (flatter networked forms) are inevitable for knowledge creation and sharing. The findings of the study do not provide the support to the propositions of (Hurley and Green, 2005; Nonaka and Takeuchi, 1995; Grant, 1996; Gold et al., 2001). One of the possible reasons for this unexpected result may be that banks which are operating in Pakistan rigorously follow written rules and regulations covered by formal procedures. Therefore, decentralization might not be an effective tool for sharing of knowledge in case of banking sector.

With respect to direct and indirect impact of knowledge process capability for KS-driven performance, the results highlight that all

component of knowledge infrastructure capability significantly related with overall performance and partial mediate the relationship for both explicit and tacit KS driven performance (see direct and indirect effect) thus supporting hypotheses from H9 to H12. These results are consistent with Gold et al. (2001) and partially consistent with Mills and Smith (2011).However, with respect to relationship of explicit KS practices with knowledge acquisition, the results uncover that explicit KS practices are significantly associated with knowledge acquisition. This positive relationship indicates that knowledge acquisition is very important to replace the existing content of explicit knowledge thus supporting hypothesis (H3e) and consistent with the notion of (Pentland, 1995). Nevertheless, this study is the prime effort to test the mediating role of knowledge process capability in KS-driven performance, therefore results validate the proposition of Nonaka and Takeuchi (1995) and implying that knowledge acquisition partially mediates the relationship of explicit knowledge sharing practices and performance. Banks acquired knowledge through external sources (e.g. customers, suppliers, competitors, market channels etc.) consistent with the concept of (Turner and Makhija, 2006). Therefore, it can be viewed as banks 'absorptive capacity' to use its knowledge to create competitive advantage (Gold et al., 2001). Consistent with expectation of Sony (2008) who viewed that knowledge creation process significantly related to organizational improvement. More importantly, formal knowledge acquisition (both internal and external source) and later its sharing improves the problem solving capabilities of the banks that tends to provide the foundation for knowledge construction which leads to superior performance outcomes. Similarly, research suggests that knowledge creation and accumulation (i.e. embedded in minds of people) is based on firm's ability or absorptive capacity to facilitate the operations of firms (Gold et al., 2001). People acquire knowledge from both internal and external sources at work sites and reside in their minds for sharing. A key to acquire tacit knowledge and sharing is to access to a wide range of banks' routine activities, to take ideas of other people and opportunities to get in involved. Given that the findings of the study, it may be expected that formation of trust and employees' proximity tends to involve them to acquire tacit knowledge and sharing among organization actors. Such initiatives motivate the employees to share tacit knowledge thus creates excellent capability for problem solving and ability to make effective decisions to harvest the better performance.

Basically knowledge is transient in nature, difficult to transform into organizational knowledge, therefore, Bhatt (2001) postulates that knowledge (e.g. in raw form) acquired from various sources must be readily converted into information and information into organizational knowledge (i.e. explicit knowledge) to take benefits from this conversion process. Results reveal that knowledge conversion is positively linked with performance of banks (See Appendix E) consistent with (Lee and Suh, 2003; Bhatt, 2001) and inconsistent with the agreement of (Smith and Mills, 2011). Thus findings provide considerable support to the agreement of (e.g. Lee and Suh, 2003; Bhatt, 2001) and may be implied that banks have sufficient knowledge conversion mechanisms (e.g. competitive intelligence into actions plans, individual knowledge into organization knowledge which is acquired from internal and external sources), thus providing numerous benefits in the form of performance of banks. Consequently, it may be expected that acquired knowledge transform into explicit knowledge, which is very critical for KS oriented performance. Nevertheless, the results are also contended with Nonaka and Takeuchi (1995) who propose that social interaction enables to convert tacit knowledge into explicit knowledge specifies that systematic transformation such as transformation of tacit knowledge through socialization, conversion of tacit knowledge into explicit knowledge through externalization. These practices assist to convert the tacit knowledge into explicit knowledge and later into action plans, individual knowledge embedded in minds of people into organization and well partners knowledge into organization. Tacit knowledge conversion into rational knowledge tends to improve the production processes, product quality and customer satisfaction that turns to give momentum to financial performance of banks.

The results postulate that knowledge protection is essential for effective functioning of banks, thus source of competitive advantage which leads to superior performance, therefore consistent with (e.g. Lee and Yang, 2000; Liebes kind, 1996). Banks have integrated IT systems (e.g. soft wares) to execute accounting and financial transactions, therefore, protection of knowledge include copyrights, patients, user name, passwords. Such protecting of knowledge (i.e. intellectual property rights) from illegal or inappropriate use may provide the source of competitive advantage (Liebeskind, 1996; Droge et al. 2008). Consequently, results are also consistent with (Lee and Sukoco, 2007) who found that protecting knowledge from inappropriate use is the source of

value creation in terms of better performance outcome (Mills and Smith, 2011; Gold et al., 2001).Finally, the study suggests that applying explicit knowledge to products and services by various ways such as product development and innovation, training and motivating employees for better customers' services, increasing understanding regarding business processes. Nevertheless, this may be anticipated that banks effectively apply knowledge to improve their course of actions and strategic directions, vital to improve the efficiency of banks (i.e. operational performance), customer intimacy (i.e. positive relations with customers) which in turns improve the performance of banks.

6) CONCLUSION

The purpose of this research is to examine the impact of KS practices on overall performance of banks and further to examine the mediating role of knowledge management capabilities (i.e. knowledge infrastructure and knowledge process capability) to boost the KS-driven performance. The results of study postulate that KS practices significantly influence the performance of banks consistent with (Wang et al., 2014; Wang and Wang, 2012; Zangoueinezhad and Moshabaki 2009). Findings also indicate that all the constituents of intermediate measures of knowledge management capabilities significantly contribute the overall performance of banks in term of improve operational excellence through lowering production cost, customer intimacy (e.g. customers' satisfaction in terms of improve product quality and services) and financial performance. These results are consistent with Gold et al., (2001) and partially consistent with Smith and Mills (2011). Further, results present that both explicit and tacit KS practices significantly related with intermediate measures except decentralization. However, prior research suggests that decentralization (i.e. empowerment or delegation of powers) assists in knowledge sharing (Hurley and Green, 2005). Researchers (e.g. Nonaka and Takeuchi, 1995; Grant, 1996; Gold et al., 2001; Beveren, 2003) also stated that organizational structure, such as moving from formalization (hierarchical) to decentralization (flatter networked forms) are inevitable for knowledge creation and sharing. The findings of the study do not provide the support to the propositions of (Hurley and Green, 2005; Nonaka and Takeuchi, 1995; Grant, 1996; Gold et al., 2001). One of the possible reasons for this unexpected result may be that banks which are operating in Pakistan rigorously follow written rules and regulations covered by formal procedures. Therefore, decentralization might not be

an effective tool for sharing of knowledge in case of banking sector. Moreover, indirect effects of KS practices reveal that all components of knowledge infrastructure and process capability partially mediate the relationship for KS-driven performance. This suggests that effective and supportive deployment of knowledge management capabilities is essential for KM initiatives (Gold et al., 2001; Paisittanand et al., 2007). This indicates that banks' should realize regarding substantial investment on KM initiatives to achieve better KS-driven performance because the stock and flow of knowledge within and out of the organizations positively influence the performance outcomes in knowledge intensive industries whether these are manufacturing or services concerns (Decarolis and Deeds 1999).

7) LIMITATIONS & FUTURE RESEARCH IMPLICATIONS

This study has strong theoretical and practical implications consistent with existing literature and calls for future research. Besides that this study is also not free from limitations. Primarily, this study is based on cross-sectional research design whereas future research may employ longitudinal design to drawn causal inferences. Secondly, this considers the banking sector as a sample which is one the knowledge incentive to draw inference from the results. However, future researchers should consider the high-tech sectors like software, pharmaceutical and chemical etc. These sectors may provide more strong relationship among KS practices, KM capabilities and performance than financial sector. Finally this research makes a significant contribution in the context of study through exploring the underlying relationship. However, it does not consider the role of other critical success factors of KM like KM strategy and knowledge resources. Future researchers may explore more insights through investigating these success factors to draw strong inferences.

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