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KNOWLEDGE SHARING, KNOWLEDGE MANAGEMENT STRATEGY AND PERFORMANCE
A Knowledge Based View

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Abstract. This study turns to investigate the impact of knowledge sharing (KS) practices on banks' performance in the presence of mediating mechanism of system-oriented strategy and human oriented strategy. Survey method (amended instrument) is used to collect the data from 810 middle level managers from a sample of 42 banks. Structural equation model (SEM) and confirmatory factor analysis (CFA) are employed to evaluate the overall fitness of the model. The results of CFA postulate that all the indices in the models satisfactorily meet the standardized cut off values, thus suggesting well fit of the models. However, results of standardized path coefficients reveal that all the hypotheses are supported except H3b, which implies that explicit KS practices are not significantly related with human oriented strategy. Furthermore, findings of the study shed light that system and human oriented strategy significantly mediates the relationship for both explicit and tacit KS driven performance, thus encouraging the mangers to emphasize more on KM strategies because it helps them to align the KM initiatives for better sharing of knowledge which may lead to sustainable performance. Nevertheless, this study finds that tacit KS practices more significantly contribute to the performance of banks than explicit KS practices which indicates that managers need to emphasize more on explicit knowledge sharing.

Keywords: Knowledge sharing, Knowledge management strategy, Performance

JEL classification: D23, D83, L25

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I. INTRODUCTION

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, 2005). 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. It 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 leads to superior organizational performance (Wang *et al.*, 2012; Lee and Sukoco, 2007). In addition, KS practices are 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, 2007; Gold *et al.*, 2001; Liu *et al.*, 2005).

Knowledge management (KM) strategies can capture and identify strategic procedures in managing knowledge base activities in organizations (Choi and Lee, 2003). The purpose of such strategic initiatives is to encapsulate the appropriate equilibrium of internal and external knowledge that are paramount firm's prerequisites or needs which turn to capitalize its resources most effectively (Bierly and Chakrabarti, 1996). However, there is still lack of consensus to adhere the concept of knowledge and knowledge management strategy in KM circles. Zack (2002) argues that term knowledge strategy is a competitive strategy which comprises of intellectual resources and capabilities of firms. The purpose of this strategy is to find out which knowledge is strategically most important for long term performance of business (Zack, 2002). In contrast, KM strategy encompasses strategic plans in order to define and formulate the processes, tools and infrastructures required to manage the knowledge gaps and its flow more effectively (Zack, 2002). The growing importance of KS practices has encouraged the mangers to emphasize more on KM strategies because it helps to align the organization processes, structure and culture for better sharing of knowledge which may lead to better performance outcomes. Previous studies point out that KS practices significantly determine firms' performance in terms of reduction of production and operation cost, improve the innovative capability of organization for production of new products and services, sales growth and better completion of projects (Wang and Wang, 2012; Huang and Wu, 2010). However, the following questions are unaddressed by prior studies

whether the KS directly influence the performance of organization or any mediating mechanism is over there which influence KS-driven performance. Keeping in view, this study attempts to explore the mediating role of KM strategy for evaluating the KS-oriented performance.

Extant of research has identified various KM strategies and its impact on performance: "Codification and personalization" (Hansen *et al.*, 1999), "Cognitive and community" (Swan *et al.*, 2000), "Innovators, explorers, exploiters, and loners" (Bierly and Chakrabarti, 1996), "Explicit-oriented and tacit-oriented" (Jordan and Jones, 1997), "Conservative and aggressive" (Zack, 1999), "Pure procedure and pure expertise" (Bohn, 1994), "Codification and experience accumulation" (Singh and Zollo, 1998), and "Systems-oriented and human-oriented" (Choi and Lee, 2002). However, the present study attempts to focus on system and human oriented strategy in order to find which one strategy more significantly influences the relationship between KS practices and performance of banks. Under the dynamic classification of KM strategies, this study adopts the Choi and Lee (2002) typology which views that both system and human oriented are most aligned KM strategies, which is not used in context of financial institutions.

II. THEORETICAL JUSTIFICATION AND HYPOTHESES

KNOWLEDGE SHARING (KS) AND PERFORMANCE

Knowledge sharing practices has got lot of significance, as it provides potential benefits to individuals and organizations (Yi, 2009; Davenport and Prusak, 1998; Jonsson and Kalling, 2007). KM literature explains two broad categories of knowledge known as explicit and tacit knowledge (Nonaka and Takeuchi, 1995). KBV argues that explicit and tacit knowledge provides solid foundation for firms to attain and sustain competitive position (Reus *et al.*, 2009; Felin and Hesterly, 2007). Explicit knowledge refers as visible, documented, articulated and constructible knowledge which can be stored independently (Junnarkar and Brown, 1997; Nonaka and Takeuchi, 1995). Whereas, 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). However, Skyrme and Amidon (1998) argue that explicit knowledge is a formal and systematic knowledge easy to measure and codified in words or numbers. This formal knowledge can be obtained from various sources of organization including, company procedures, policies,

written manuals, internal and external data forms. So, explicit and tacit KS practices help to integrate the scattered knowledge to enhance the creativity and innovation which results better firms' performance (Gao *et al.,* 2009).

Explicit KS Practices and Performance

Explicit KS practices help to integrate the scattered knowledge, increase firm's innovativeness, and creativity to achieve superior performance outcomes (Gao *et al.,* 2009). In a broad spectrum many KS practices such training and development, technological support, sharing of official documents and reports are few examples to integrate the knowledge across the organization to enhance products quality and services in terms of operational optimization and customer intimacy (Wang and Wang, 2012). Organizations integrate explicit KS practices together to improve operational performance which constitutes the primary source for financial performance. Lawson *et al.* (2009) also advocate that organizations integrate explicit KS practices which are also referred to formal practices to improve products, services and business processes. However, studies also suggest that these formal practices within the organization and between the organizations enable the management to identify crucial issues regarding the product quality improvement and innovation which lead the way towards better firms performance (Carr and Kaynak, 2007; Wang and Wang, 2012).

H_1: There exists a positive relationship between explicit KS practices and banks' performance.

Tacit KS Practices and Firms' Performance

Tacit knowledge is an experimental and context specific interpersonal knowledge which enables the organizations' employees to share their experiences, intuitions and cognitions together for problem solving. It may provide massive benefits to organization (Down, 2001; Akbar, 2003; Matthew and Sternberg, 2009) in the form of product quality and services, improvement in existing processes, reduction in transaction cost, first mover advantage in case of earlier lunch of products and technological innovation which lead to superior performance (Law and Ngai, 2008; Sher and Lee, 2004). Harlow (2008) argues that tacit knowledge in terms of technical and non-technical know-how resides in the minds of engineers, marketers and operational managers bring competitiveness as a source of value creation for firms. Du *et al.* (2007) point out that sharing of tacit knowledge is an important determinant of firm's performance. Likewise, Wang *et al.* (2014) also state that tacit KS practices enhance firm's financial performance when it is linked to cost reduction, customer management, sales and outsourcing.

H_2: There exists a positive relationship between tacit KS practices and banks' performance.

KNOWLEDGE SHARING, KM STRATEGY AND PERFORMANCE

KM has attracted much of executive's interests as a corporate business strategy due to its capability to innovate, competitiveness, and ability to generate profit and value for the organization. In beginning era of KM, it was bit difficult to objectively determine the value of KM for organization. However, now we have number of KM maturity models which define and clarify the role of KM for value creation such as model of Tan *et al.* (1998), CRAI Model (Oluikpe, 2012), SECI model (Nonaka and Takeuchi, 1995) and Intellectual Capital Concepts (Edvinsson and Malone, 1997). Carrillo *et al.* (2003) claim that KM has deepened concern with organization performance. Further, Du Plessis (2007) also discusses the positive benefits of KM as the corporate business strategy and needs to emphasize for awareness of knowledge resources and its role for value creation. KM literature defines that developing KM strategies facilitate to identify the strategic assets that may yield positive business results, leveraging competitive advantage and sustainable performance (Nonaka, 1994; Sharp, 2006; Du Plessis, 2007). KM strategy is imperative for successful KM plan (Yu, 1999; Parlby and Taylor, 2000; Robertson, 2005). This argument is not simple as it could be realized because complexity of organizational factors and institutional forces are major obstacles for the implementation of KM strategies which is not in the scope of this study. Nevertheless, studies also suggest that firms need to align the KM as corporate strategy through KM maturity models in order to bring out superior business results (Greiner *et al.*, 2007).

Prior discussion in introduction part of study highlights the various types of KM strategies. However, this study only focuses on system and human oriented in context of research setting. Choi and Lee (2002) assert that organizations focus on system and human oriented KM strategies due to its more viability in knowledge base organizations like banks. Therefore, this study tends to focus that system orientation strategy which formally capture and store the codified knowledge in KM processes through IT whereas, human orientation strategy attempts to capture or acquire the tacit knowledge via social interactions or face to face discussions.

H_{3a}: There exists a positive relationship between explicit KS practices and system oriented strategy.

H_{3b}: There exists a positive relationship between explicit KS practices and human oriented strategy.

H_{4a}: There exists a positive relationship between tacit KS practices and system oriented strategy.

H_{4b}: There exists a positive relationship between tacit KS practices and human oriented strategy.

H_5: There exists a positive relationship between system oriented strategy and performance.

H_6: There exists a positive relationship between human oriented strategy and performance.

III. METHODOLOGY

INSTRUMENTATION

A survey method questionnaire is used to collect the data from respondents. This study adopts the random sampling technique drawing the sample from banking sector from the province of the Punjab which is relatively more developed. The choice for sample consideration based on that banking sector is more knowledge oriented sector in services sector and where KS practices extensively matter for sustainable performance of banks in terms of operational and financial performance, customers' satisfaction and product development. Further, using the key informant approach, this study realizes that middle and senior level managers are more relevant information providers. We distributed 1250 questionnaires among banks' employees and 965 questionnaires were received from respondents. Only 810 responses were considered for analysis and remaining were discarded due to the incomplete response or selecting same answer for each questions thus representing 64.8% which is quite good. The instrument given in Appendix is comprised of four parts. First part of instrument presents 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 strategy) and dependent variables (overall performance). All the measurement items were reused from existing literature to ensure the reliability and content validity of instrument, particularly for measuring the latent constructs. The KS practices were identified and adapted from the work of Wang *et al.* (2014), Wang and Wang (2012), and Liebowitz and Yan (2004), KM strategy was adapted from the work of Choi (2002), Choi and Lee (2002), and Hansen *et al.* (1999) and 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 (2001), Rai *et al.* (2006), Bowersox *et al.* (2000), Zack *et al.* (2009), Inman *et al.* (2011), and Vaccaro *et al.* (2010) among others. Little amendments are made according to setting of study. Pre-testing was based on little revisions 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 anticipants.

IV. FINDINGS OF STUDY

MEASUREMENT MODEL EVALUATION

The study employs the confirmatory factor analysis (CFA) through structural equation model to assess the fitness of overall measurement model. CFA is to measure the convergent and discriminant validity of constructs for further model examination (Fornell and Larcker, 1981; Hurley *et al.*, 1997). At first stage, we have estimated the convergent validity by assessing the value of factor loadings (λ) which should be statistically significant and larger than minimum threshold of 0.35 (Hair *et al.*, 1998). Bagozzi and Yi (1988) recommended the minimum thresholds for ($C\text{-}\alpha \geq 0.7$; $AVE \geq 0.5$) for further model investigation. However, Hair *et al.* (1998) suggest that loading items greater than 0.35 have practical significance.

TABLE 1

Factor Loadings and Internal Reliability Testing

Constructs	Measure-ment Items	Mean	SD	Standard Loading	Cronbach alpha's (C-α)	Average Variance Extracted (AVE)
Explicit KS Practices	EKSP1	3.470	1.021	0.706	0.887	0.6882
	EKSP2	3.601	0.974	0.835		
	EKSP3	3.694	1.023	0.884		
	EKSP4	3.541	0.951	0.862		
	EKSP5	3.493	1.038	0.861		
Tacit KS Practices	TKSP1	3.589	0.989	0.638	0.800	0.5015
	TKSP2	3.476	0.882	0.685		
	TKSP3	3.475	0.910	0.743		
	TKSP4	3.589	0.953	0.781		
	TKSP5	3.623	0.900	0.716		
	TKSP6	3.657	1.005	0.686		

Constructs	Measure-ment Items	Mean	SD	Standard Loading	Cronbach alpha's (C-α)	Average Variance Extracted (AVE)
System oriented strategy	SOS1	3.477	0.983	0.695	0.735	0.589
	SOS2	3.670	0.940	0.827		
	SOS3	3.689	0.895	0.782		
Human oriented strategy	HOS1	3.441	1.052	0.568	0.761	0.50
	HOS2	3.415	1.027	0.833		
	HOS3	3.421	1.005	0.716		
Overall Performance	OE1	3.707	0.997	0.806	0.873	0.5881
	OE2	3.680	0.920	0.846		
	OE3	3.707	0.997	0.809		
	CI1	3.681	0.921	0.854		
	CI2	3.674	0.939	0.860		
	PL1	3.753	0.946	0.757		
	PL2	3.784	0.924	0.799		
	FE1	3.785	0.937	0.724		
	FE2	3.754	0.998	0.781		
	FE3	3.693	0.975	0.739		

Table 1 presents results of factor loadings and internal consistency which suggests that loading items (λ) lie between 0.706 to 0.884 for explicit KS practices, 0.638 to 0.781 for tacit KS practices, 0.695 to 0.827 for system oriented strategy, 0.568 to 0.833 for human oriented strategy and 0.724 to 0.860 for overall performance of banks. However, reliability lies between 0.735 to 0.887 and AVE lies between 0.50 to 0.688. These results show that measurement model meets the criteria of convergent validity suggesting better internal consistency which exceeds the minimum threshold of 0.70 (Nunnly and Bernstein, 1994).

Table 2 presents the results of inter-correlations between the constructs. We used the 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 correlation between the same constructs and any other constructs" (Wang *et al.*, 2014, p.18). In Table 2, the diagonal values indicate that square root of average variance extracted is greater than correlation of constructions, hence, discriminant validity is established, so both convergent and discriminant validity lead to better construct validity to proceed for further analysis.

TABLE 2

Inter-Correlations Between the Constructs

Variables	EKSP	TKSP	HOS	SOS	OP
EKSP	0.58	—	—	—	—
TKSP	0.082*	0.253	—	—	—
HOS	0.071*	0.452**	0.767	—	—
SOS	0.125**	0.542**	0.427**	0.707	—
OP	0.201**	0.441**	0.382**	0.458**	0.766

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)

TABLE 3

CFA Results of Models Fitness for Explicit and Tacit KS Practices

Fit Index	Scores*	Score**	Standardized cut-off value
Absolute fit measures			
χ^2/df	1.803	1.422	$\leq 2^a$; $\leq 5^b$
GFI	0.911	0.931	$\geq 0.90^a$; ≥ 0.80
RMSEA	0.044	0.047	$< 0.08^a$; < 0.10
Incremental fit measures			
NFI	0.923	0.912	$\geq 0.90^a$
AGFI	0.913	0.924	$\geq 0.90^a$; $\geq 0.80^b$
CFI	0.917	0.920	$\geq 0.90^a$
Parsimonious fit measures			
PGFI	0.782	0.731	The higher, the better
PNFI	0.775	0.728	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)

This study proposes two measurement models explicit KS-driven performance and tacit KS-driven performance. The overall fitness of models is evaluated using confirmatory factor analysis (CFA) and values of absolute, incremental and parsimonious fit measures are compared with recommended cut-off. Table 3 represents the results of CFA models with scores and recommended cut-off value which indicates that all values meet satisfactory levels of fit indices thus confirmed that models were fit and hence suitable for testing the proposed hypotheses.

Table 4 shows the results of structural model using standardized path coefficients which show the relationship among latent variables. Results of the study support the first two hypotheses (H_1 and H_2) thus suggesting a positive and significant relationship of both explicit and tacit KS practices with overall performance of banks. Likewise, hypotheses H_{3a}, H_{4a}, H_{4b}, H_5 and H_6 are supported. However, H_{3b} is not supported, thus, indicating that explicit KS practices are not significantly related with human oriented strategy.

TABLE 4

Standardized Path Coefficients

Hypothesis		Estimates	P-value	SE	Remarks
H_1	EKSP → OP	0.175*	< 0.001	0.033	Supported
H_2	TKSP → OP	0.641*	< 0.001	0.029	Supported
H_{3a}	EKSP → SOS	0.078*	< 0.010	0.027	Supported
H_{3b}	EKSP → HOS	0.019	> 0.100	0.045	Not Supported
H_{4a}	TKSP → SOS	0.547*	< 0.001	0.060	Supported
H_{4b}	TKSP → HOS	0.612*	< 0.001	0.064	Supported
H_5	SOS → OP	1.049*	< 0.001	0.059	Supported
H_6	HOS → OP	0.583*	< 0.001	0.074	Supported

NOTE: * significant at the 0.001 level (2-tailed), ** significant at the 0.05 level (2-tailed), *** significant at the 0.10 level (2-tailed).

MEDIATION ANALYSIS

We have used the Baron and Kenny (1986) typology for mediation analysis in Amos 16.0. 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	SE	CR	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

Tables 6 and 7 highlight the mediating role of system and human oriented strategy for determining the KS-driven performance. Table 6 shows that while testing the mediating role of both system and human oriented strategy, the effect of explicit KS practices on performance reduced from 0.175 to 0.104 and 0.175 to 0.123 respectively which still remained significant ($p < 0.01$), thus, indicating that all the system and human oriented strategy partially mediated the relationship between explicit KS practices-driven performance. Further, Table 7 represents indirect effect of tacit KS practices on organizational performance through mediating role of system and human oriented strategy. Results indicate that while testing the indirect effect of tacit KS practices on performance, the value of beta estimate reduces from 0.641 to 0.143 which does not remain significant thus confirm that system oriented strategy completely mediates the relationship between tacit KS practices and performance. However, in Table 7 results of mediation reveal that human oriented strategy partially mediates the relationship for tacit KS driven performance.

TABLE 6

Indirect Effect of Explicit Knowledge Sharing Practices on Banks' Performance Through System and Human Oriented Strategy as a Mediator

Variables	Beta Estimate	SE	CR	P-value	Result
EKSP → OP	0.104	0.030	3.438	0.000	Significant
EKSP → SOS	0.094	0.028	3.309	0.000	Significant
SOS → OP	0.756	0.084	8.973	0.000	Significant
EKSP → OP	0.123	0.032	3.859	0.000	Significant
EKSP → HOS	0.042	0.018	2.268	0.023	Significant at 5%
HOS → OP	1.232	0.215	5.753	0.000	Significant

TABLE 7

Indirect Effect of Tacit Knowledge Sharing Practices on Banks Performance Through System and Human Oriented Strategy as a Mediator

Variables	Beta Estimate	SE	CR	P-value	Result
TKSP → OP	0.143	0.099	1.451	0.147	Insignificant
TKSP → SOS	0.645	0.057	11.339	0.000	Significant
SOS → OP	0.759	0.139	5.469	0.000	Significant
TKSP → OP	0.355	0.078	4.531	0.000	Significant
TKSP → HOS	0.633	0.065	9.740	0.000	Significant
HOS → OP	0.445	0.092	4.829	0.000	Significant

TABLE 8

Scale Level Fit Indices for Structural Model of Explicit KS Practices with System and Human Strategy as Mediators

Fit Indices	Scores*	Scores**	Recommended Thresholds
Absolute fit measures			
χ^2/df	3.949	4.003	$\leq 2^a$; $\leq 5^b$
GFI	0.939	0.939	$\geq 0.90^a$; ≥ 0.80
RMSEA	0.060	0.061	$< 0.08^a$; < 0.10
Incremental fit measures			
NFI	0.935	0.934	$\geq 0.90^a$
AGFI	0.911	0.910	$\geq 0.90^a$; $\geq 0.80^b$
CFI	0.951	0.949	$\geq 0.90^a$
Parsimonious fit measures			
PGFI	0.642	0.633	The higher, the better
PNFI	0.711	0.699	The higher, the better

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

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

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

Tables 8 and 9 exhibit the results of scale level fit indices for structural models of explicit and tacit KS practices with intermediates measure (*i.e.*

system and human oriented strategy) to assess the fitness of measurement models using various fit indices. The study has assessed the fitness of the structural models at scale level through estimating (1) Absolute fit measures, (2) Incremental fit measures, and (3) Parsimonious fit measures. Tables 8 and 9 reveal overall fit indices of structural model at scale level with scores and recommended cut-off values thus suggest that all values satisfactorily met the levels of fit indices, thus confirming that models were fit and hence suitable to test the proposed hypotheses as discussed above.

TABLE 9

Scale Level Fit Indices for Structural Model of Tacit KS Practices with System and Human Strategy as Mediators

Fit Indices	Scores*	Scores**	Recommended Thresholds
Absolute fit measures			
X^2/df	2.042	2.620	$\leq 2^a$; $\leq 5^b$
GFI	0.965	0.956	$\geq 0.90^a$; ≥ 0.80
RMSEA	0.036	0.045	$< 0.08^a$; < 0.10
Incremental fit measures			
NFI	0.959	0.945	$\geq 0.90^a$
AGFI	0.949	0.936	$\geq 0.90^a$; $\geq 0.80^b$
CFI	0.978	0.965	$\geq 0.90^a$
Parsimonious fit measures			
PGFI	0.662	0.660	The higher, the better
PNFI	0.727	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 SOS as mediator

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

V. DISCUSSION AND IMPLICATIONS

This study provides many valuable insights, first with respect to direct effect of explicit KS practices on KM strategy (*i.e.* system and human oriented strategy) and performance, the results indicate that explicit KS practices significantly ($\beta = 0.078$; $p < 0.01$) influence the system oriented and performance ($\beta = 0.175$; $p < 0.01$). However, explicit KS practices are not

significantly related with human oriented strategy. Further, with respect to mediating role of system and human oriented strategy, results indicate the system oriented strategy partially mediate the relationship between explicit KS practices and performance whereas human oriented strategy completely mediate the relationship for determining the explicit KS-driven performance. Nevertheless, results indicate that direct effect of explicit KS practices on performance is consistent with past studies (Carr and Kaynak, 2007; Wang and Wang, 2012). Further, based on theoretical lenses of RBV and KBV, this finds that explicit knowledge sharing not only directly influence the banks performance but also indirectly influence the banks performance through strengthening the knowledge management strategies.

The findings of study confirm the argument that business value is extensively based on explicit KS practices and two components of KM strategy (Choi and Lee, 2002; Carr and Kaynak, 2007; Lawson *et al.*, 2009; Wang and Wang, 2012). One possible explanation of above results may be that formal practices tend to help and encourage employees to share the knowledge related to business processes which enable the management to solve the identified crucial issues regarding the product quality improvement, reduction is operation cost and innovation. Therefore, it is expected that formal KS practices tends to improve the both operational and financial performance. These findings also underpin the arguments of Wang and Wang (2012) and Wang *et al.* (2014) who found that formal KS practices consolidated the financial and operational performance of organization through sharing knowledge relating to business processes which further helped to increase the productivity and quality of products and services (McAdam *et al.*, 2012) thus providing the competitiveness (Gao *et al.*, 2009; Reus *et al.*, 2009). Further, keeping in view the direct effect of explicit KS practices on system oriented strategy, human oriented strategy and performance of banks, this study also sheds light that explicit KS practices positively and significantly related with system oriented strategy ($\beta = 0.175$; $p < 0.01$) and performance ($\beta = 0.078$; $p < 0.01$) of banks. However, explicit KS practices are not significantly related with human oriented strategy. These findings are also consistent with Bierly and Chakrabarti (1996) and Choi and Lee (2002) who found that KM strategies helped to identify and capture the knowledge and then later its' sharing to improve corporate performance. Research suggests that knowledge processes and KM strategies are essential for knowledge management (Choi and Lee, 2002). KM strategies are also important because without them, implementation of knowledge processes and later knowledge sharing is difficult and costly (Soliman and Spooner, 2000).

The positive relationship among tacit KS practices, KM strategy and performance of banks is a unique finding in the arena of KM. The results postulate that tacit practices more significantly influence the intermediate measures and performance. One of the possible reasons in context of the study may be that knowledge which comes through informal ways (*i.e.* experience, skills and expertise) which is embedded in the minds of people through social network and interactions. Such informal sharing of knowledge tends to help the employees in problem solving through unique way, improves the product quality and services and as well reduces the operational cost. So, it may be postulated that tacit knowledge is a source for employees to share past failures in order to improve their future course of actions. However, positive relationship of tacit KS practices with human oriented strategy set the evidence that human oriented strategy is suitable for sharing tacit knowledge. However, this research supports the argument and suggests that more the informal conservation or socialization among employees, the more will be tendency to share the tacit knowledge (Nonaka and Takeuchi, 1995; Polanyi, 1997) which may eventually enhanced the performance. Moreover, results also provide the considerable support to the findings of Choi and Lee (2002) who found that system oriented strategy (*e.g.* video conferences, virtual reality, telecommunications and intranet) could be employed for facilitation of tacit knowledge.

Focused view advises that organization should use one strategy (Hansen *et al.*, 1999; Swan *et al.*, 2000). In contrast, balanced view intends that organization should maintain a right balance between two strategies (Bierly and Chakrabarti, 1996; Jordon and Jones, 1997; Zack, 1999). Whereas, dynamic view proposes that selection of KM strategies depend upon nature of knowledge and its' characteristics (Bohn, 1994; Singh and Zollo, 1998; Choi and Lee, 2002).

This study uses the Choi and Lee's (2002) typology of system and human oriented strategy as important mediator for KS-driven performance. Results of the study indicate that both system and human oriented strategy significantly mediate the relationship between KS practices and banks performance therefore, this study recommends that dynamic view may be more suitable particularly in context of this study. Moreover, system and human oriented strategy are more significantly related and mediates the tacit KS-driven, thus suggesting systems oriented support (*e.g.* telecommunications and intranet and video conferences etc.) and social interactions among organization actors tends to help to share tacit knowledge among them.

VI. CONCLUSION AND IMPLICATIONS

The objective of study is to uncover how the KS practices improve the banks' performance in the presence of KM strategy. Recently, many studies have invested the impact of KS practices on firms' performance in the presence of critical success factors of KM. However, very few studies attempted to examine the impact of KS practices on firms' performance in the presence of KM strategy as the mediator variable. To bridge up this gap, we tested the mediating model and found that both explicit and tacit KS practices not only directly influenced the performance of banks, but also indirectly influenced the performance of banks through encouraging KM strategy. The results of study postulates that KS practices significantly augment the overall performance of banks in terms of better delivery of product knowledge to customers which turns to improve the customer services, operational performance, and financial achievement (*i.e.* sales growth, profitability etc.) thus validating the findings of Wang and Wang (2012) and Wang *et al.* (2014). Moreover, this study finds that system oriented strategy partially mediates the explicit KS-driven performance and human oriented strategy completely mediates the explicit KS-driven performance. Similarly, this research finds that both human and system oriented strategy partially mediates tacit KS-driven performance. Our findings related to tacit KS practices' relationship with KM strategy and banks performance provides intriguing insights. It indicates tacit KS practices more substantially contribute to performance of banks where both human and system oriented strategy are significant mediators for tacit KS driven performance.

Further, results of study indicate that system oriented strategy significantly related with explicit KS practices and performance of banks, thus suggesting that documented and codified knowledge in terms of manuals, meetings and procedures are easy to share among organizational members which positively influence the performance of firms'.

Further, this study reveals that explicit KS practices are not significantly related with human oriented strategy which suggests that managers should increase the human interactions in terms of formal conservations and meetings etc. that are important ways to share the explicit knowledge (*i.e.* documented and codified knowledge) to support the daily management activities which may provide the unique way to solve the problems. These findings are somewhat consistent with Bierly and Chakrabarti (1996) and Choi and Lee (2002) who have found that KM strategies help to identify and

capture the knowledge and then later its' sharing to improve corporate performance.

Managers who are more concerned with KM initiatives know significance of stock and flow of knowledge, knowledge processes and KM strategies because without these KS is difficult and costly. Further, this study implies that for transforming corporate vision into operationalized business units or physical products, the tacit knowledge transformation into explicit knowledge and as well human oriented strategy such as person to person interaction are imperative for knowledge transformation. Finally, based on findings, it may be concluded that for effective KM and its' sharing is guided by KM strategies which positive influence the KS-driven performance.

VII. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

No doubt, this study substantially contributes to existing literature. Besides that it also restricts the implications of study. First, this study considers KM as important mediator for KS-driven performance however future researchers may consider other important factors of KM such as KM capabilities and intellectual capital (IC) for KS-driven performance. Second, this study is based on cross-sectional research design however future researchers may adopt longitudinal design to draw better causal inferences. Finally, this study considers the banking sector as one of the knowledge oriented sector out of services sector. However, future researchers may test this mechanism in other high-tech manufacturing sector like software, pharmaceutical, chemical and power etc.

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APPENDIX I

Measurement Items

1 = Strongly disagree; 2 = Strongly agree; 3 = Neutral; 4 = Agree; 5 = Strongly agree

Knowledge Sharing Practices						
	A. Explicit Knowledge Sharing Practice	1	2	2	3	5
1	Employees in my organization frequently share existing reports and official documents with colleagues.					
2	Employees in my organization frequently collect reports and official documents from others in their work.					
3	Employees in my organization are frequently encouraged by knowledge sharing mechanisms.					
4	Employees in my organization are frequently offered a variety of training and development programmes.					
5	Employees in my organization are facilitated by IT systems invested for knowledge sharing.					
	B. Tacit Knowledge Sharing Practices					
1	Employees in my organization frequently share knowledge based on their experience.					
2	Employees in my organization frequently share knowledge of know-where or know-whom with others.					
3	Employees in my organization frequently collect knowledge of know-where or know-whom with others.					
4	Employees in my organization frequently share knowledge based on their expertise					
5	Employees in my organization frequently collect knowledge from others based on their expertise.					
6	Employees in my organization will share lessons from past failures when they sense that it is necessary.					
	Knowledge Management Strategy					
	A. System Oriented Strategy					
1	In our company, knowledge like know-how, technical skill, or problem solving methods is well codified.					
2	In our company, results of projects and meetings are documented.					
3	In our company, knowledge is shared in codified forms like manuals or documents.					

	B. Human Oriented Strategy					
1	In our company, knowledge can be easily acquired from experts and co-workers.					
2	In our company, informal conversations and meetings are used for knowledge sharing.					
3	In our company, knowledge is acquired by one-to-one mentoring.					
	Overall Performance					
	A. Operational Excellence					
1	My organization performs well in improving efficiency of products.					
2	My organization performs well in improving dependability of delivery processes.					
3	My organization performs well in cost management than that of key competitors					
	B. Customer Intimacy					
4	My organization performs well in improving customer satisfaction.					
5	My organization performs well in improving quality of customer service.					
	C. Product Leadership					
6	My organization performs well in improving quality of products.					
7	My organization performs well in improving functionality of products.					
	D. Financial Achievements					
8	My organization performs well in improving revenue growth.					
9	My organization performs well in improving profit margins.					
10	My organization has better Return on investment than that of key competitors.					
11	My organization has better Return on assets than that of key competitors.					

APPENDIX II

Structural Models