



#### RESEARCH PAPER

### Knowledge Management Components and its effect on Organizational Performance

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#### ABSTRACT

The main objective of this research is to investigate the effect of knowledge management components on organizational performance of commercial banks in hyderabad Sindh. Recognizing knowledge as a valuable asset the research focuses on organizations invested in knowledge management components which substantially improved organizational performance. Using quantitative research approach, structured survey method is used to collect primary data. Target population was managerial staff working in commercial banks and one hundred questionnaires were distributed among different managerial cadres. Data was analyzed using composite reliability, Average variance extracted, Fornell Larcker criterion for discriminant validity, Standardized root mean square residual and Normed Fit index for model fitness and Beta, P value and T statistics for Hypotheses testing. All components of knowledge management have significant effect on organizational performance. This research is guiding tool for financial institutes looking for better organizational performances because knowledge management is a fuel of right decision making.

**KEYWORDS** Knowledge Management, Organizational Performance, Banking Sector

#### Introduction

Global economy is undergoing a major change from industrial to knowledge-based which require organizations to integrate knowledge management into corporate strategy as well as to invest in knowledge management assets to sustain competitive advantage. Knowledge management (KM) is more valuable asset in any organization therefore it is more difficult to manage too. The long term growth and survival of businesses depend on sizable investment in knowledge management assets (Alvarenga, 2020). Growing competition require persistent efforts of organizations to create, acquire, maintain and share meaningful information which is a great source of innovation and sustainable competitive advantage. The investment in knowledge management initiatives require KM performance evaluation by which organizations must assess changes of implementing KM processes and initiatives. These review reports of knowledge management identify deficiencies, overcome barriers in KM and set new goals and future directions which are essential for improvised decision making and problem-solving capabilities of a particular organization. In addition, review process assists in developing best practices or benchmarks which lead organizations to new heights of success (Fletcher, et al, 2021).

The global management system is characterized by continuous change in technological, economic, social, and environmental spheres which require organizations to adapt new economic trends marked by cutthroat competition and consistent change in external environment (Kuzior, et al., 2019). Customers are more aware about environmental deterioration, global warming or climate change which induce companies to make green products and adopt green marketing practices. Therefore, knowledge management is essential to utilize in parallel with changes in the external environment (Abbas, 2020). Sustainability is often referred in Triple Bottom Line such as social, economic

and environmental considerations while company is making profits. Sustainable development refers meeting present needs while preserving the ability of future generations to fulfill their own needs by taking corporate social responsibility, green production and eco-friendly practices into consideration (Moldavanova & Goerdel, 2021). Achieving all these milestones in triple bottom line necessitates the timely utilization of knowledge management practices which further develop corporations and increase their capabilities to achieve vision and mission successfully.

Organizations survive in competitive age with efficient utilization of tangible resources and effectiveness in achieving goals via human capital. As businesses compete with innovative ideas and creative outcomes therefore it is pivotal for entrepreneurs to invest more in KM factors for upbringing businesses from embryonic stage to boom or prosperity. Business owners are vigorously engaged in creating, acquiring, organizing and disseminating innovative knowledge which convert their dreams into reality, setting new benchmarks in relevant industry and achieving unprecedented growth which optimize businesses to gain sustainable competitive advantage (Shujahat, et al., 2019). Innovative capability is the transformation of novel ideas into new product offers, customer care, selling practices and solving problems of customers and organizations. This effort improves individual and organizational performance because all product or service related activities were accomplished with proper utilization of KM processes (Santoro, et al., 2018).

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## **Literature Review**

This section deals with literature review and hypotheses development of proposed research. Knowledge is the information, awareness or understanding which is created through study, experiments and experiences as well as research findings which is merged with other organizational resources to build capabilities (De Plessis, 2007). Knowledge management is an integrated process that acquire, organize and share knowledge within an organization. The task of knowledge sharing among employees is challenging but encouraged too (Jasimuddin, 2011). Employees seek knowledge from different sources to make innovative products and better services because different HR practices bound employees to engage in KM Practices and show desired results. The effective methods of human resources management create learning environment where each employee finds it flexible in sharing valuable information which make it an integrated approach to share valuable ideas and insights. Therefore, it is utmost important to streamline knowledge sharing mechanisms through different technologies which is significant for knowledge discovery (Santoro, 2018).

## **Knowledge Management Process**

In many organizations external and internal committees of knowledge management are constituted to build networks and communicate within organization which will spur boundaries and foster the process of sharing and transferring knowledge. Knowledge management processes, methods and tools should be systematically evaluated to opt effective ones and eliminate ineffective to streamline KM process in organizations (Cader, et al, 2013). The methods of knowledge management are originated from structure and culture of organization which represent norms and values in corporate culture and strategic priority (Mehmoudsalehi, et al., 2012). The effective utilization of knowledge management requires sound strategy for corporation. Because proper implementation of appropriate strategies will result innovative outcomes and better organizational performance (Nikabadi, et al., 2016). Knowledge transfer must be ensured at all departmental levels throughout the organization rather than centralized to one department or one person only.

This is pertinent to IT professionals who have expertise in technical knowledge but less known about organization policies and rules for which knowledge sharing will help them to solve problems and develop new systems for effective functioning. This system empowers employees to share acquired knowledge in their domains and they feel more confident being part of supportive teams and social interactions at the workplace (Borges, 2012). Knowledge management has been challenging in many corporations where leadership style is contrary to KM activities. Managers should realize the importance of transformational leadership style which is prerequisite for effective utilization of knowledge management activities (Novak, et al., 2020). Effective leadership develops trust and optimize implementation of KM activities which directly affects individual and organizational performances. Management should also focus on leadership training for managers which help to achieve success in knowledge management initiatives (Koochang, et al, 2017). Knowledge management process has four factors;

### **Knowledge Creation**

The process of creating new knowledge or updating existing knowledge which is basis for generating novel ideas. It depends on organizations' capability to maintain database, extract relevant information and make it meaningful which optimize processes and improve organizational performance (Alavi & Leidner, 2001). Factors which affect knowledge creation are motivation, opportunity and capacity which must be addressed to ensure effective creation of knowledge (Shujahat, et al. 2017). Providing collaborative environment engage employees in decision making process which lead to knowledge creation. Managers must reward good ideas because financial compensation motivate employees to share ideas in meaningful way. This process engages employees in proper way and make task of knowledge creation more effective (Kim, et al. 2021).

The shared knowledge in an organization provides opportunity to learn and adapt, bridge gap between problem and solution as well as develop links between good ideas to achieve better performance. Knowledge sharing has mutual benefits; it not only benefits employer but also participating employee too. In the perspective of employees there are two aspects of knowledge sharing, supply side and demand side. The task of motivating employees for sharing knowledge and gain benefits represent supply side and the behavior of knowledge sharing among employees show demand side, both enhance organizational performance (Mansingh, et al, 2009).

### **Knowledge Sharing**

The process of disseminating knowledge among individuals and organizations can facilitate work processes, developing new skills and enhance knowledge (Lee, et al., 2005). Multiple ways are used for knowledge sharing like trainings, workshops, teamwork environment, and use of information and communication technologies (Ahmad & Karim, 2019). Different factors affect knowledge sharing like organizational culture, environment and structure. As employees believe that knowledge sharing is adequately rewarded, they will be motivated enough to participate in decision making process. Organizations give extrinsic or intrinsic rewards to employees so they can foster knowledge sharing culture and share valuable information with colleagues. Another advantage of preventing critical knowledge as if they would leave organization so important information and ideas will be lost (Eaves, 2014).

This culture of knowledge sharing will become part of organizational environment which make employees more knowledgeable and skilled. It has dual impact which not only let employees to perform better but also improves organizational performance (Kremer, et al., 2019). There are two aspects of knowledge sharing; supply side and demand side. The supply side motivate employees to share knowledge with expectation of gaining benefits. Organizations also get benefit of sharing knowledge in the form of improved performance

and profitability. The demand side focuses on behavior or pattern of acquiring and sharing knowledge among employees which creates a learning culture in organization (Mansingh, et al., 2009).

### **Knowledge Storage**

It is an organizational memory formation process in which knowledge is stored in storage systems and finally retrieved as cultural values and beliefs of organizational structure (Alavi, et al., 2001). Organizational knowledge is stored in many forms include documentation, procedural recording systems, codified input of employees and tacit knowledge acquired by individuals and others stored in electronic databases (Wong, et al., 2015). Acquiring new knowledge is not useful in many situations so organization needs current or past data stored in databases. This data is regularly updated and maintained in data repository systems which is inter-linked with systems and support in data retrieval (Ranjbarfard, et al., 2014). As the knowledge is stored in organized and effective manner it can reduce redundancy and can easily be accessed to users particularly employees who need it to perform their job effectively. This approach of knowledge storage makes it more accessible and distributable (Chang & Lin, 2015).

Employees perform different activities which make them first drivers of knowledge storage but it lacks novelty because repetition of task does not generate any new knowledge as compare to activities which give opportunity to learn and experience new directions and add valuable information to database of corporation. The access and retrieval of knowledge mean identification of knowledge that is more relevant and needed for a particular task or work as solution of the problem. This includes two iterative efforts; first is related to finding sources of knowledge and second is determining the relevancy of specific knowledge source which may help in handling the task complexity (Carlie & Rebentisch, 2003).

### **Knowledge Application**

Knowledge application is the effective and efficient utilization of created or acquired knowledge in problem solving, innovative ideas, decision making and changing organizational behavior. It attempts to improve performance via transformation of prevailing practices into an organization (Cheng & Lee, 2016). Knowledge application enables organization to actively respond swift changes in the company's micro and macro environment by implementing and utilizing knowledge into processes and activities (Ha, et al. 2021). The knowledge application processes have positive and significant influence on organizational performance constructs, i-e financial performance, innovation and quality enhancement. Knowledge application improvised firm's competitiveness and with the mediation of technology and human resources, firm optimized core competencies. Empirical analysis further confirmed that human resources, technology users and processes are key factors in utilizing knowledge which will improve organizational performance (Bayari, et al, 2022).

### **Knowledge Management and Organizational Performance**

Organizational performance is known through timeline and at what extent organization achieve its objectives. The main indicators of organizational performance are financial outcomes, change in market share, extent to which customers are satisfied and new product performance are affected by creation, acquisition and storage of knowledge as well as policies and strategies of knowledge management. Research study was conducted in Isphahan universities of Iran where it was analyzed that knowledge management tools like organizational structure and knowledge application are positively associated with organizational performance (Fattahian, et al, 2012). Knowledge management elements include communication skills, ability to create novel ideas and training of employees in KM practices enhance organizational abilities to improve financial performance, increase

customer satisfaction leads to higher market share and success rate in new product penetration. Close association of KM elements with indicators of organizational performance demonstrate growing importance of knowledge management in achieving long term objectives and sustain competitive advantage (Kharabsheh, et al, 2012).

### Hypotheses Development

Considering discussion explained in literature above, four alternate hypotheses are developed as;

H1 Knowledge creation as a component of knowledge management is positively associated with organizational performance.

H2 Knowledge sharing is positively associated with organizational performance.

H3 Knowledge storage positively affects organizational performance.

H4 Knowledge application has positive and significant influence on organizational performance.

### Conceptual Framework

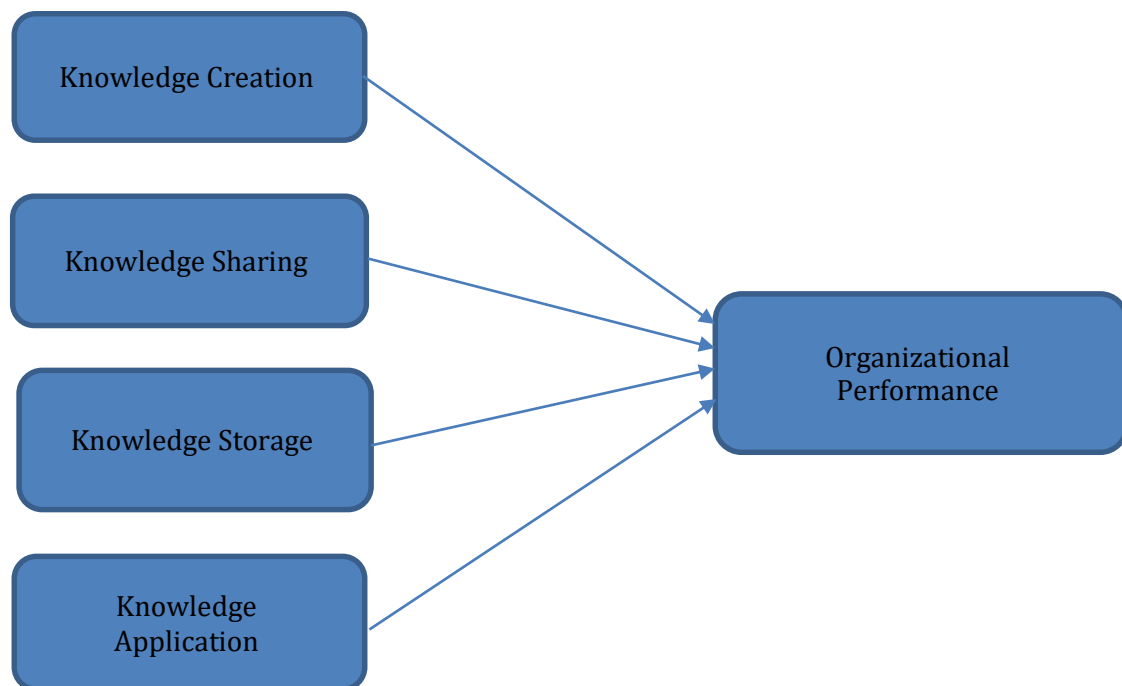


Fig-1 Conceptual Framework

### Material and Methods

#### Research Design

This research is quantitative in nature and uses survey method for data collection and analysis. (Bryman, 2015) discussed that quantitative research involves numerical data collection and empirical analysis. In addition, he discussed in survey method the researcher uses closed ended questionnaire as a research tool for data collection. This research attempts to examine the relationship between four components of knowledge management,

i-e knowledge creation, knowledge sharing, knowledge storage and knowledge application on organizational performance.

### Population and Sample

This research includes five private commercial banks working in Hyderabad region. One hundred questionnaires were distributed among employees working at different managerial positions. Three managerial positions were taken as target respondents, i-e Branch Managers, Operation Managers and Relationship Managers. Five commercial banks named as; Muslim Commercial bank, United Bank Limited, Bank Alfalah, Habib Bank Limited and Allied Bank Limited were taken as target population. Details of the sample is tabulated below:

**Table 1**  
**Sample size and Questionnaire distribution Table**

Bank	Branch Managers	Operation Managers	Relationship Managers
HBL	08	04	08
UBL	06	06	08
ABL	05	08	07
MCB	06	08	06
Bank Alfalah	05	05	10

### Questionnaire Design

This research uses closed ended questionnaire prepared on five points Likert scale. Four constructs of an independent variable, i-e knowledge creation adopted from (Andreeva & Kianto, 2011), four constructs of another independent variable, i-e Knowledge sharing adopted from (Donate and Sanchez, 2015), Five constructs of knowledge storage adopted from (Saeed, 2017), Five constructs of knowledge application adopted from (Saeed, 2017) and four constructs of organizational performance from (Olakunle & Odunladi, 2023).

### Data collection and analysis

Using stratified sampling method one hundred questionnaires were distributed randomly among three sub groups or startas, i-e Branch Managers, Operation Managers and Relationship Managers. Ninety questionnaires were adequately responded and returned from five selected commercial banks mentioned above. Data will be analyzed through construct Validity and Reliability analysis, Discriminant validity analysis using Fornell Larcker criterion, Model fitness using standardized root mean square residual and Normed Fit index and hypotheses testing using Beta and P value. All these tests will be analyzed using Structured Equation Modeling (SEM) with the help of SMART PLS-3 software.

### Results and Discussion

**Table 2**  
**Construct Validity and Composite Reliability Analysis**

S #	Variables	Cronbach Alpha	Composite Reliability	Average Variance Extracted
1	Knowledge creation (KC)	0.745	0.812	0.755
2	Knowledge sharing (KS)	0.761	0.835	0.680
3	Knowledge storage (KST)	0.805	0.905	0.711
4	Knowledge application (KA)	0.854	0.890	0.655
5	Organizational performance (OP)	0.788	0.911	0.770

Table 2 Data is said to be reliable when its composite reliability values are >0.70. Composite reliability results are more accurate than Cronbach alpha values in measuring internal consistency among items or constructs (Bryman, 2015). The Alpha value of KC is 0.812>0.70 means internal consistency is good, likewise KS value is 0.835>0.70, KST value is 0.905>0.70 and KA value is 0.890>0.70 show good internal consistency in items of each

independent variable is good. Likewise Dependent variable OP value is  $0.911 > 0.70$  which show excellent internal consistency, henceforth data is reliable.

Average Variance extracted (AVE) measures validity and data is said to be valid if AVE is  $> 0.50$ . In above table, all four independent variables and one dependent variable AVE values are; KC  $0.755 > 0.50$ , KS  $0.680 > 0.50$ , KST  $0.711 > 0.50$ , KA  $0.655 > 0.50$ , OP  $0.770 > 0.50$  means all items are strongly correlated with their respected variables that confirms validity in the data.

**Table 3**  
**Discriminant Validity Analysis using Fornell Larcker Criterion**

S #	Constructs	KC	KS	KST	KA
1	Knowledge creation (KC)	<b>0.825</b>			
2	Knowledge sharing (KS)	0.788	<b>0.805</b>		
3	Knowledge storage (KST)	0.710	0.635	<b>0.855</b>	
4	Knowledge application (KA)	0.650	0.735	0.775	<b>0.845</b>

Multicollinearity analysis is measured through Discriminant validity analysis using Fornell Larcker criterion. Data is said to be statistically discriminant when the variance of each construct is supposed to be greater than variances of its respective row and columns. It is determining criteria using Fornell Larcker criterion (Bryman, 2015). The value of first construct KC is  $0.825 >$  variances of respective column, KS is  $0.805 >$  respective row and columns. Likewise KST and KA variances are  $0.855$  and  $0.845 >$  variances of other constructs. This analysis confirms no issue of multicollinearity in the observed data.

**Table 4**  
**Model fitness using Standardized Root Mean Square Residual and Normed Fit Index**

Fit Summary	Saturated Model	Estimated Model
Standardized Root Mean Square Residual (SRMR)	0.078	0.078
Normed Fit Index (NFI)	0.930	0.930
R Squared:	0.780	

SRMR value is suggested to be  $< 0.80$  and NFI rule of thumb is  $> 0.09$ , in above table the SRMR value is  $0.078 < 0.08$  and NFI value is  $0.930 > 0.09$  indicate that research model is best fit. R squared is observed to be  $0.780$  indicate 78% change in organizational performance is believed to be explained by four components of knowledge management.

**Table 5**  
**Hypotheses Accepted/Rejected**

Hypotheses	Beta	T-Statistics	P-Value	Decision
Knowledge creation -> organizational performance	0.461	10.510	0.000	Accepted
Knowledge sharing -> organizational performance	0.510	9.510	0.002	Accepted
Knowledge storage -> organizational performance	0.688	12.840	0.000	Accepted
Knowledge application -> organizational performance	0.557	8.790	0.004	Accepted

H1: Knowledge creation is positively associated with organizational performance show positive Beta 0.461, P value  $0.000 < 0.05$  is accepted.

H2: Knowledge sharing is positively and significantly related with organizational performance with positive Beta 0.510, P value  $0.002 < 0.05$  is accepted.

H3: Knowledge storage positively and significantly affects organizational performance with positive Beta 0.688, P value  $0.000 < 0.05$  is accepted.

H4: Knowledge application has positive and significant influence on organizational performance with positive Beta 0.557 and significant P value  $0.004 < 0.005$ , henceforth it is also accepted.

## Discussion

Proposed research empirical analysis reveals growing importance of knowledge management in organizational performance of commercial banks undertaken as case study.

Knowledge is integral part of formulating and implementing corporate and business strategies in banks because ever increasing competition coupled with rapidly changing buying behaviors and customer preferences trigger the need to equip databases with updated and revised knowledge that will eventually help in taking right decisions on right time. Knowledge creation, first component of knowledge management involves creating and updating knowledge significantly affects organizational performance as its composite reliability and AVE values are significant as well as positive Beta and P value confirm its positive and significant influence. (Alavi & Leidner, 2001) research analysis endorsed that organization's capability to maintain databases, extract relevant information which further optimize processes and improve organizational performance. Second component of knowledge management is knowledge sharing which show positive beta and significant P value as well as good reliability and validity results reveal its importance and influence on organizational performance of commercial banks. (Ahmad & Karim, 2019) empirical analysis also endorsed that sharing knowledge through training, workshops and the effective uses of information and communication technologies will further improve individual and organizational performances. Third component of knowledge management is knowledge storage which has also shown positive Beta and significant P value as well as good reliability and AVE values indicate its influence on organizational performance. (Chang & Lin, 2015) also endorsed that if required knowledge is stored in effective and organized manner it can reduce delays in access for particular employees who need to perform their task on time and achieve assigned goals in effective manner. The forth component is knowledge application which also showed positive Beta and significant P value as well as good reliability and validity results indicate its positive effects on organizational performance. (Ha, et al. 2021) also endorsed that applying acquired knowledge in organizations made them able to respond sudden changes in external business environment.

## **Conclusion**

Knowledge management is imperative in context of improving and enhancing organizational performance of commercial banks in the country. Each component of knowledge management; knowledge creation, sharing, storage and application has its significant role in extracting relevant information, sharing this information via trainings and workshops to employees for achieving their assigned goals termed as management by objectives (MBO's), storing that created and acquired information in effective and organized manner which help employees to use information in the nick of time and applying that knowledge properly to optimize processes and improve overall performance, respectively. Commercial banks noticed rapid changes in consumer preferences and strategic move of competitors in the banking industry for which organization needs round the clock information for sustainable growth and improvement in organizational performance. (Fattahiyan, et al, 2012) findings endorsed that substantial increase in financial outcomes and market share, main indicators of organizational performance, were reported as a result of sizable investment in knowledge management.

## **Recommendations**

This research is guiding tool for financial institutes looking for better organizational performances because knowledge management is a fuel of right decision making. Knowledge management is not only limited in scope to improve organizational performance but it also help in maintaining smooth conduct of work activities. It also help organizations to find performance deficiencies in employees and overcome these with trainings, workshops and participatory discussions with management. Effective knowledge management enhances performance with increase in financial outcomes and growth in market share. Commercial banks acknowledge the worthwhile impact of managing database and consider it as an important asset for achieving goals and objectives.



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