

**EMPLOYEE OPINION ON DETERMINANTS OF KNOWLEDGE
MANAGEMENT SYSTEM IN BANKS-A CASE STUDY OF ICICI BANK**

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ABSTRACT

Knowledge is identified as a very important component of organization core competency. It reduces the amount of time spent in looking for the information and subject matter expertise. The Knowledge management can extract the employee knowledge and convert it into organization's knowledge for future benefit of the organization. Organizational knowledge is the sum and product of individual knowledge. The employee opinion on knowledge management system (KMS) practices tools and processes in a bank is highly needed to understand the challenges in implementation of it in the bank and to develop strategies for the strengthening the KMS in banks. This article focuses the employee opinion on importance, awareness, strategy, infrastructure, technology, resources, practices, constraints on KMS in a private sector commercial bank, ICICI bank. Through survey research and factor analysis the determinants of the KMS in banks are obtained as knowledge development factor, technological factor, knowledge resource factor, knowledge management initiative factor and HR practices factor. Using the regression analysis the relationship between the general opinion of employees in the bank on KMS and the determinants of KMS implementation is studied. The employee perception towards constraints on effective implementation of KMS and suggestions for strengthening the KMS in the bank are also discussed. Through the study it is observed that all determinants have a positive impact on participation of employee in the KMS implementation in the bank. This study provides the Indian commercial banks a bench mark for effective and efficient implementation of KMS.

KEYWORDS –Determinants Of Knowledge Management System, Employee Opinion, ICICI Bank, Indian Commercial Banks, Organization.

INTRODUCTION

Knowledge in the form of understanding is required to support decision making and innovation. In the present day competitive environment, knowledge is not static, it is need to be identified, evaluated, acquired, transferred, stored, used, maintained and disposed (Hamel. G and Prahalad (1996)). Knowledge management enables organizations to find new methods to share both their explicit and tacit Knowledge (Nonaka I and Hirotaka (1995)). The Knowledge management not only benefits the organizations but also benefit the employee. It also improves the productivity through accessing information and expertise. Effective decisions are based on collective knowledge through expanded Knowledge resources in the organization. It reduces stress on employees and add to their credibility and prestige (Bollinger A.S. and Smith R.D (2001)).

Knowledge management was made up of technology and cultural change. Efficient Knowledge management means providing attention to people's culture and organizational structure, as well as to the information technology. IT is an essential tool for Knowledge creation, storage, sharing and its use in the organization (Earl M and Scott I.A. (1999)). As a result managing Knowledge represents the primary opportunity of creating a zeal for knowledge. For achieving substantial savings, significant improvements in human performance and competitive advantage in the organization knowledge management is considered as an engine (Fareed Hussian, Caro Lucas and M.Asif Ali (2004)). Knowledge is identified as a very important part and core competency of an organization to utilize the resources more efficiently and effectively to achieve the set goals and targets.

Knowledge management was recognized by Peter F Drucker in 1969. He used the terms Knowledge worker, where he was discussing the role of Knowledge in the organization. Argyry and Schon (1978), Ducan Weiss (1979), HedBerg(1981) have lied foundations for the current Knowledge management. During 1980's the companies have tried to manage Knowledge through information technology. In 1990's the proliferation of IT and internet made Knowledge management as a key initiative in the organization. Simon (1991) mentioned that the organization learns in only two ways. Boland, R. and Tenkasi R.V (1995) have mentioned perspective making is the process whereby a community of knowledge develops and strengths its own knowledge domain and practices. Recognizing the importance of knowledge as capital and knowledge applications for processes

improvement was in the year 2002. The organizational learning was considered as the use of knowledge that was acquired through learning. The knowledge management identifies the importance of ICT, which is knowledge creation, sharing and application process. Knowledge based view of the firm holds that knowledge assets, resources, and capabilities are the strategic components in the organization in the knowledge Era. The basis of the knowledge based view is that competitive advantage comes from intangible assets such as knowledge (Gehani (2002)).

The Knowledge management initially started as a Human Resource Management (HRM) strategy in manufacturing and later become the most important strategic tool of the organization in both manufacturing and services. The utility of knowledge management has find place in service sector such as banking and insurance. To a large extent for many banks the knowledge management capabilities dictates the long time prosperity. There are several instances where knowledge management brought success in their performance. World Bank, Bank of Montreal, Reserve Bank of India and Deutsche Bank are some examples to mention the success of knowledge management in banking industry (Samir Baruah (2008), Chaminda Chiran Jayasundara (2008), Sudharani D. et al (2013)) Yogeswaren and Selvaraj (2011) mentioned that the knowledge management is human centric and has significant role in banks success or failure. All over the globe the banking sector has witnessed a drastic change during the last decade the performance of Indian commercial banks during the global recession have shown the commercial banks which adopted best methodologies and practices have sustained growth and development in their banking business. Rita Yi and Man Li (2012) reviewed knowledge management in banking sector and mentioned that ICICI bank is the first commercial bank in India which is implementing the knowledge management in a structured manner and more professionally since 2002.

The acceptance and involvement of employees is important for the success of knowledge management system. The studies made by KPMG stated that lack of users uptake, owing to insufficient communication, failure to implement KM into every day working practices, lack of time to know how to use the system, a feeling of the system was too complicated, lack of training and sense that there was a little benefit are the reasons for the failure of KMS to meet the expectation of the organizations. Organizations need to study the opinion of the employees on importance and effectiveness of the system in various dimensions to understand comprehensively the employee point of view of the system. In this paper we study the opinion of the employees of the bank on importance of effectiveness of implementation of knowledge management system, suggestive measures for the

further strengthening of the knowledge management system in the ICICI bank. The findings of the study will help the management of the ICICI bank to strengthen the KMS further and all stakeholders of banking sector to understand KMS implementation strategy and also fill the literature gap.

DATA COLLECTION AND RESEARCH METHODOLOGY: The data is collected through survey research using a structured questionnaire. The objective of this paper is to analyze the opinion of the respondents from executive category who constitute the integral part of knowledge management system in ICICI bank. 13 parameters were identified and a set of questions were developed to have an assessment of each parameter from the point of view of the respondents. Five point Likert scale is used. The parameters are 1) Importance, 2) Awareness and commitment, 3) Strategy, 4) Culture, 5) Knowledge resources, 6) Incentives, 7) KM portal (the wise guy), 8) Other knowledge management initiatives, 9) Information technology, 10) Maintenance and protection, 11) Ongoing assessment, 12) Organizational structure and 13) HRM Practices. Based on these parameters a questionnaire consisting of 86 questions is prepared. Another questionnaire consisting of 18 statements on general perception towards KM practices, tools and processes, 8 statements on constraints for effective implementation of KMS, and 10 statements on suggestions for strengthening the KMS system in ICICI Bank is also prepared and used. The data is collected from 316 persons who are actively associated with knowledge management in ICICI bank, along with the data on five variables namely, designation, place, sex, education and experience. Using SPSS 21 the mean and standard deviations of the scores of the 13 parameters are computed. Through factor analysis the determinants of the KMS in bank are determined. The mean scores of overall rating of employees on KM practices, tools and process in the bank are computed. The variation of employee perception on determinants of KMS with respect to profile variables are studied through Z-Tests and ANOVA. The relationship between overall rating and determinants of KMS is studied through regression analysis.

SAMPLING DISTRIBUTION OF RESPONDENTS: The sampling distribution relating to the Different variables is presented in Table 1. Out of the total of 316 the respondents 157 belongs to the Junior Management category and 36.4% and 13.9 % of respondents belong to Middle Management and Senior Management respectively. It is observed that 58.5% of respondents are Males and 41.5 % of respondents are Female. It is observed that the out of 316 respondents 215 are post graduates and 101 are graduates. It is observed that the majority of the respondents 46.5% are in the age group of 30 to 35 years. The age of 37.3% of respondents is between 35 and 40 years. Respondents of the group greater than 40 years are 7%. It is observed that 9.5 % of respondents are having experience less than

2 years. The other periods of service intervals of 2-5 Years accounts to 18 %. The remaining respondents of 16.8% and 55.7% belong to the experience groups of 5-10 years and above 10 years respectively.

Table1: Sampling Distribution of Respondents

Variable	level	Frequency	Percentage
Designation	Junior Management	157	49.7
	Middle Management	115	36.4
	Senior Management	44	13.9
Gender	Male	131	41.5
	Female	185	58.5
Education	Graduation	101	32.0
	Post Graduation	215	68.0
Age	<30	29	9.2
	30 - 35	147	46.5
	35 - 40	118	37.3
	>40	22	7.0
Experience	<30	29	9.2
	30 - 35	147	46.5
	35 - 40	118	37.3
	> 40	22	7.0

GROUPING OF PARAMETERS USING FACTOR ANALYSIS

The employee perception towards knowledge management in any organization is needed for efficient utilization and management. It is needed to study the influence of the parameters associated with the employee profile on employee perception towards knowledge management parameters. In the study 13 parameters are 1) Importance, 2) Awareness and commitment, 3) Strategy, 4) Culture, 5) Knowledge Resources, 6) Incentives, 7) KM Portal, 8) Other Knowledge Management initiatives, 9) Information Technology, 10) Maintenance and Protection, 11) Ongoing assessment, 12) Organizational structure and 13) HRM practices. The descriptive statistics regarding the mean and standard deviation of scores of these 13 parameters is shown in Table 2.

Table 2: Descriptive Statistics of Mean Scores of Parameters

Parameter	Mean	Std. Deviation
Importance Score	3.6112	.56260
Awareness and Commitment Score	3.7228	.57602
Strategy Score	3.8563	.60558

Culture Score	3.7116	.73319
Knowledge Resources Score	3.7743	.66390
Incentives Score	3.7278	.69088
Knowledge Management Portal Score	3.8612	.54898
Other Knowledge Management Initiatives Score	3.8127	.65946
IT Score	3.8058	.50905
Maintenance & Protection Score	3.7633	.58677
Ongoing Assessment Score	3.7595	.66092
Organizational Structure Score	3.7590	.61119
Mean HRM Practices Score	3.7425	.60026

From Table 2, it is observed that mean score of the KM Portal is having maximum mean score with 3.8612 with a standard deviation of 0.54898. Among all parameters importance parameter is having minimum mean score of 3.6112 with a standard deviation of 0.56260. The correlation matrices of all parameters is computed. Since the parameters are highly correlated among themselves and the number of parameters is high, it is required to reduce these parameters in to a small number of factors using factor analysis with PCA. It is observed that the correlation coefficient between a single variable and every other variable is significant (KAISEN MAYER OLKIN) KMO statistics measures the sampling adequacy for conducting the factor analysis the statistics value is 0.867 which indicates other parameters. This also supported with Bartlett's test given in Table 3. This reveals that the relationship among the parameter is strong. And the correlation matrix is not identity matrices.

Table 3: Bartlett's Table

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.867
Bartlett's Test of Sphericity	Approx. Chi-Square	3214.964
	df	78
	Sig.	.000

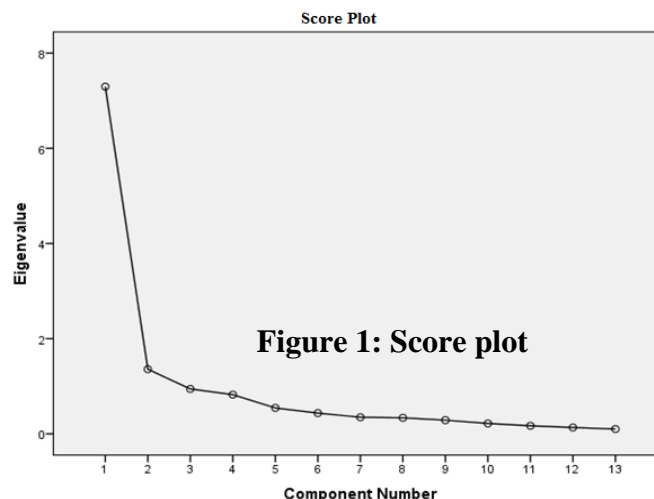
Table 4: Communalities of Various Parameters

Communalities		
Parameters	Initial	Extraction
Importance Score	1.000	.881
Awareness and Commitment Score	1.000	.809
Strategy Score	1.000	.826
Culture Score	1.000	.846
Knowledge Resources Score	1.000	.805

Incentives Score	1.000	.792
Knowledge Management Portal Score	1.000	.846
Other Knowledge Management Initiatives Score	1.000	.914
IT Score	1.000	.718
Maintenance & Protection Score	1.000	.875
Ongoing Assessment Score	1.000	.835
Organizational Structure Score	1.000	.887
HRM Practices Score	1.000	.933

Table 4 shows that the communalities of various parameters. These communalities values show how much of the variance in the variables has been accounted by the extracted factors. From Table 4 it is observed that 93.3% of the variance in HRM is accounted for total variance explained where as 82.9 of the variance in awareness score is accounted for by the extracted factors.

To reduce the number of parameters in to a small number of factors which are independent among themselves for conducting the study the screen plot, a graph of the Eigen values against all the factors is drawn and shown in figure 1.



From Figure 1, it is observed that the curve status to flatten from factor 5. Hence 5 factors have been retained for the study. The Table 5 shows the percentage of variance attributable to each factor and the cumulative factor and the previous factors.

Table 5: Variance and Cumulative Variance Percentages of Factors

Factor	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	3.277	25.204	25.204
2	2.756	21.199	46.404
3	1.807	13.904	60.307
4	1.673	12.870	73.177
5	1.453	11.178	84.355

From Table 5 it is observed that the first factor accounts for 25.204 percent of the variance, the second 21.199 percent, third 13.904 percent, fourth 12.870 percent, and fifth 11.178 percent. All the remaining factors are not significant. The vary max method is adopted for determining the component matrix.

Table 6: Rotated Component Matrix

Parameters	Factors				
	1	2	3	4	5
Knowledge Resource Score	.858				
Incentives Score	.795				
Strategy Score	.769				
Culture Score	.757				
Ongoing Assessment Score		.853			
Maintenance & Protection Score		.841			
IT Score		.738			
Importance Score			.876		
Awareness and Commitment Score			.727		
Other KM Initiatives Score				.9	
KM Portal Score				.67	
HRM Score					.81
Organizational Structure Score					.64

From Table 6, it is observed that the parameters can be grouped into the five factors. They are:

Factor-1: consisting of Knowledge Resources, Incentives, Strategy and Culture parameters which represent knowledge development factor. Factor-2: consisting of Ongoing Assessment, Maintenance & Protection and IT parameters which represent technological factor. Factor-3: consisting of Importance and Awareness & Commitment parameters which represent Knowledge recognition factor. Factor-4: consisting of KM Portal and Other KM Initiatives parameters which represents Knowledge Management initiatives factor. Factor-5: consisting of HRM and Organizational Structure parameters

which represent Human resource practices factors. Table 7 shows the factor co-efficient matrix (factor loadings) of these five factors.

Table 7: Factor Score Coefficient Matrix

Parameter	Factor				
	1	2	3	4	5
Importance Score	-.124	.006	.743	-.183	-.15
Awareness and Commitment Score	-.154	-.108	.531	.169	-.03
Strategy Score	.304	-.141	.015	-.100	.09
Culture Score	.288	-.015	.014	-.104	-.04
Knowledge Resources Score	.461	-.134	-.173	-.015	-.10
Incentives Score	.384	.040	-.142	-.050	-.19
Knowledge Management Portal Score	.078	-.006	-.185	.487	-.09
Other Knowledge Management Initiatives Score	-.139	-.100	-.037	.805	-.14
IT Score	-.064	.389	-.039	-.047	-.09
Maintenance & Protection Score	.012	.524	-.047	-.098	-.33
Ongoing Assessment Score	-.170	.513	-.003	-.045	-.150
Organizational Structure Score	-.128	-.069	.140	-.134	.623
HRM Practices Score	-.085	-.184	-.177	-.075	.953

Using Table 7 the factor scores for each individual respondent is computed.

KNOWLEDGE DEVELOPMENT FACTOR: Knowledge development is influenced by effective strategy, incentives, and culture and knowledge resources through factor analysis. These four parameters are grouped and formed the knowledge development factor. The rationale behind formulation of knowledge management strategy is to create an environment for developing the organizations intellectual property and knowledge actionable, leveraging on organization knowledge demands action but not just a collection and a consideration of knowledge. Such action is strategy developing an environment for current and future competitive business is the important step of strategy formulation.

Culture is another important foundation of knowledge management infrastructure in the organization. The knowledge resources have significant influence on knowledge development. The knowledge can be acquired from external and internal environment of the organization. The capability of acquiring knowledge quickly and its utilization has competitive advantage. Organizations require to interact with external environment to respond the changes. With the pace of technological

development and raising competition, companies need to be faster than ever before in information processing and knowledge creation. The ability of firm to recognize and create knowledge from external sources depends on the communication system in the organization. Adoption of the information within the firm is dependent on the homogeneity of the knowledge base and organization culture.

TECHNOLOGICAL FACTOR: Using factor analysis and it is observed that the parameters: information technology, maintenance and protection, ongoing assessment combines a factor of knowledge management which can be called as a technological factor. Technology may be described as a foundation and a practical aspect of knowledge management. That can be employed to manage to knowledge effectively. It plays a key role in supporting knowledge management in the form of knowledge sharing. IT environment such as intranet and MIS can be effectively used to establish virtual meetings to facilitate dialogue and collaboration among employees involved in knowledge management. Another technological aspect for knowledge management system is periodic review of knowledge assets. The knowledge assets submitted by the employees in the organization are to be reviewed periodically to ensure their validity and the progress of it along with time. Continuous assessment of the progress in knowledge management system is required for organization to verify whether the initiatives and infrastructure are in right place as knowledge management programs are generally aligned to the business objectives and its performance. Through factor analysis the technological factor scores for all respondents are computed using factor loading matrix given in Table 7.

KNOWLEDGE RECOGNITION FACTOR: Knowledge recognition is one of the most important factors for implementation of knowledge management system. The factor analysis indicated the parameters, importance and “awareness and commitment” clubbed together as one factor. This factor can be viewed as KMS recognition factor. Human performance in knowledge management system is a complex activity influenced by many factors well structured business process, people capabilities and self motivation is the enabling components of employee performance in organization. Management support in terms of involvement and motivation along with the organization structure and environment affects employee capability. According Sveiby Knowledge is the “capability to act” knowledge is expected to achieve business performance for organizations. This can be possible only Knowledge management cannot be implemented with general perception. Employees can recognize the utility of knowledge management only when knowledge sharing is linked with the regular duties.

KNOWLEDGE MANAGEMENT INITIATIVES FACTOR: ICICI BANK has initiated knowledge management strategy as an operational initiative. The knowledge management initiative has a significant influence on the operational performance of the bank. Usually the knowledge management is to be adopted as a strategy of linking technology with infrastructure and human resource. Usually the knowledge management initiative can be grouped into two categories namely, creating a web portal for knowledge management and other knowledge management initiatives. Contents of the web portal are discussions, queries, edited contributions books, training calendar, vendor's information, internal and external events information, online lectures, presentations of experience. The web portal provides answers, standard templates, formats, agreements and guidelines. In addition to the web knowledge portal the ICICI bank had initiated several other knowledge management practices. They are web Wednesday, brown bag, daily dose, learning matrices and the corporate information bank. Another initiative of knowledge management in the bank is creation of a zeal towards learning across the groups. By delivering this information directly to the mail box the knowledge management team is able to disseminate and distribute knowledge to the bank employees in the morning itself. This became an important part of their work for all the employees associated with the knowledge management. This daily does lend high profile to the knowledge management initiatives. Another important initiative of knowledge management in the bank is news room.

HRM PRACTICES FACTOR: Organization achieves its goals if human resource management and knowledge management can go hand in hand. The human resource management practices can contribute towards knowledge management. Using the factor analysis the parameters HRM and Organizational structure are grouped together. These two parameters can be represented as HRM practices. Since organizational structure is closely related to the human resource. HRM strives to incorporate systems and processes in accordance with the strategic direction of organization. By interlinking HRM with knowledge management can create an intellectual property and knowledge capital.

GENERAL ASSESSMENT (OVERALL RATING) OF KM PRACTICES: An attempt was made to know the general assessment of knowledge management participants on KM practices, processes and tools that are applied in ICICI bank for knowledge management. As many as 18 statements are identified to elicit the opinion of the respondents on KM practices of ICICI bank in general. The opinion of the respondents was collected using Likert scale on agreement. The statements are of mixed bag in nature which normally entails the strategies, policies, tools and procedures of knowledge

management in the organization. The total score of each respondent on all the 18 statements is collected and mean scores are computed using SPSS 21. The analysis of overall rating (general assessment) of knowledge management is carried with respect to the employee profile variables such as designation, gender, age, education and experience.

It is observed that the middle management has given a mean score of 3.9 out of 5 scales for overall rating of KM practices, tools and implementation with the standard deviation of 0.438. For all the three categories of executives in ICICI bank are having more than 3.78 mean rating. An ANOVA is carried out to study the significant difference of mean scores on general perception of employees on KM practices in ICICI bank with respect to different designations with the following null hypothesis. H_0 : There is no significant difference between mean scores of general assessment of KM practices, processes and tools among differently designated employees in the bank. Against the alternative hypothesis H_1 : There is significant difference between mean scores of general assessment of KM practices, processes and tools among differently designated employees in the bank.

It is observed that the P value of F statistic is 0.003 which is less than 0.05. This reveals that the null hypothesis is rejected at 5% level of significance. Therefore there is significant difference among differently designated employees in ICICI bank regarding general assessment of KM practices, processes and tools implementation. A Post Hoc test is carried to analyze which tool grades of employees differ significantly with respect to general assessment of KM practices. It is observed that the junior management and middle management mean scores regarding general assessment towards KMS in ICICI bank differ significantly. There is no significant difference between the mean scores of middle management and senior management employees with respect to KMS implementation in the ICICI bank. The influence of gender variation on general assessment of KM practices, processes and tools in ICICI bank is studied through Z-Test. The null hypothesis formulated here is H_0 : There is no significant difference between the mean scores of general assessment of male and female employees in the ICICI bank against the alternate hypothesis, H_1 : The mean scores of general assessment towards KMS of male and female employees differ significantly. It is observed that the Z value is not significant at 5% level of significance. Hence, we accept H_0 . This implies that there is no significant difference between mean scores of general assessment of KM practices of male and female employees in ICICI bank. The age has significant effect on perception and opinion of employees towards any phenomenon. The association of age on general assessment of employees towards KM practices, processes and tools is studied. It is observed that the employees below the age group of 30 years are

having a mean score of 3.97 towards general assessment for KM implementation strategy in ICICI bank. The employees above 40 years are having a mean score of 3.45 with a standard deviation of 1.143. The variation regarding general assessment of KM practices, processes and tools in this age group of employees is high. This also reveals this age group of employees is having differences in rating the overall KMS implementation in the ICICI bank. Among all age groups of employees, the employees above 45 years are having minimum mean score. ANOVA is carried to study the variation among mean scores of different age groups of employees towards general assessment of KMS in the ICICI bank. The null hypothesis used here is H_0 : There is no significant difference among mean scores of different age groups of employees towards general assessment of KM practices, processes and tools in ICICI bank against the alternative hypothesis H_1 : There is significant difference among mean scores of different age groups of employees towards general assessment of KM practices, processes and tools in ICICI bank.

Since the significant value of F statistics is 0.001 which is less than 0.05. Therefore, the F value is significant at 5% level of significance. Hence, we reject the null hypothesis. This reveals there is significance difference among the mean scores of general assessment of KMS in ICICI bank of different age groups of employees. To understand which age groups of employees differ significantly, we carried Post-Hoc test. It is observed that the mean score of general assessment of above 40 years age group employees differ significantly from that of below 30 years and 35- 40 years age groups of employees. It is also further observed that the mean scores of 30 and 35 years age group of employees differ significantly from those of other age groups of employees. Therefore, it is to be observed age has significant influence on rating the KMS implementation in ICICI bank considering KM practices, processes, tools and implementation. The influence of education levels of employees on general assessment of KM practices, processes and tools is studied by conducting the Z-test. It is observed that the P value of z-statistic is 0.234 which is greater than 0.05. Therefore we accept the null hypothesis. Hence, there is no significance difference between the general assessment of graduate and post graduate and above employees with respect to KMS implementation in ICICI bank. The influence of experience on general assessment of KM practices, processes and tools in ICICI bank is studied through conducting ANOVA. It is observed that the employees having less than 2 years are having a mean score of 3.83 in general assessment of KMS in ICICI bank which is higher than all other groups of experienced people. This also correlate with the mean scores obtained for below 30 years age group employees in general assessment of KMS in the ICICI bank. It is also observed that the employees having experience between 5-10 years are having a mean score of 3.83 with a standard deviation of

0.54. The variation of mean scores with respect to differently experienced groups of employees is analyzed with the following null hypothesis and using ANOVA. H_0 : There is no significant difference between mean scores of general assessment of KMS implementation in ICICI bank of differently experienced employees against the alternative hypothesis H_1 : There is significant difference between mean scores of general assessment of KMS implementation in ICICI bank of differently experienced employees. It is observed that the P value of F statistic is 0.54 which is greater than 0.05. Therefore, we accept H_0 which reveals that there is no significant difference among the mean scores of general assessment of differently experienced employees in ICICI bank towards KMS implementations. To study the relationship of influencing factors of knowledge management system on the overall rating (general assessment) of knowledge management practices, processes and tools regression analysis is carried. Here the mean score of the overall rating (general assessment) is considered as dependent variable and the factors which are identified by grouping the parameters influencing the knowledge management system in ICICI bank namely, 1. Knowledge development factor, 2. Technological factor, 3. Knowledge resources factor, 4. Knowledge management initiatives factor and 5. HRM practices factor are considered as independent variables. The Table 8 and 9 show the summary statistics of regression analysis and its ANOVA.

Table 8: ANOVA of Regression Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	125.193	5	25.039	658.024	.000
Residual	11.796	310	.038		
Total	136.989	315			

From Table 8, it is observed that the P value of a F-Statistic is significant. Therefore the linear regression gives a good fit to the data i.e., the independent variables and dependent variable are having linear relationship.

Table 9: Summary Statistics of Regression Analysis

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	P Value
.95	.914	.913	.19507	.914	658.0	5	310	.00

From Table 9, it is observed that the R Square value of the model is significant. The adjusted R Square value is 0.913 which implies that 91.3 % of variation in the general assessment (overall rating) of KMS practices, processes and tools given by the employees is due to the joint effect of the five

factors. Table 10 present the estimates of the coefficients and their significant values of the regression analysis.

Table 10: Estimates of the Regression Coefficients and Their Significant Values

Independent Variable	Regression Coefficients		t	P value
	B	Std. Error		
(Constant)	3.813	.011	347.44	.00
Knowledge Development factor	.393	.011	35.792	.00
Technological factor	.073	.011	6.643	.00
KM Resources factor	.423	.011	38.479	.00
KM Initiatives factor	.230	.011	20.912	.00
HRM Practices factor	.075	.011	6.853	.00

From Table 10, it is observed that the P values of all regression coefficients and constants are significant. Therefore, the regression model representing the relationship between the overall rating (general assessment) of KMS and the factors influencing the KMS is as follows,

$$Y = 3.813 + (0.393) X_1 + (0.073) X_2 + (0.423) X_3 + (0.230) X_4 + (0.075) X_5$$

Where Y - General Assessment of KMS, X_1 – Knowledge Development factor , X_2 - Technological factor, X_3 - KM Resources factor, X_4 - KM Initiatives factor, X_5 - HRM Practices factor.

The Table 10 and the equation given above reveals that the knowledge resources factor is having highest influence on the general assessment of knowledge management practices, processes and tools compared to all other factors. Next important factor is knowledge development factor. The third important factor is KM initiatives factor. It is interesting to note that all these factors are having positive impact i.e., increase in rating of one factor increases the general assessment rating. This coincides with the natural phenomenon.

CONSTRAINTS FOR INCREASE IN PARTICIPATION OF EXECUTIVES IN KMS:

Organizational constraints like lack of infrastructure facilities, lack of motivation, personnel perceptual on knowledge management will act as constraints for active participation of employees in KMS. Addressing these factors is needed for fostering the growth of organization. To know the most possible causes that are acting as constraints for employees active participation in KM in ICICI bank, eight statements were identified and given to the executives to collect their opinion using Likert Scale.

The mean response score of each statement is computed and presented in table 11.

Table 11: Mean Response Score on Constraints for Increase in Participation of Employees in Knowledge Management System

Statement	1	2	3	4	5	Score	Mean Score	% to Max Score
Knowledge utility value is not clear	105 (33.2)	77 (24.4)	90 (28.5)	27 (8.5)	17 (5.4)	722	2.28	45.70
Insufficient reward scheme to motivate towards KMP	109 (34.5)	110 (34.8)	65 (20.6)	19 (6.0)	13 (4.1)	665	2.10	42.09
Lack of intention to share individual knowledge	102 (32.3)	100 (31.6)	50 (15.8)	45 (14.2)	19 (6.0)	727	2.30	46.01
No pressure from supervisors/subordinates to contribute knowledge	109 (34.5)	114 (36.1)	48 (15.2)	31 (9.8)	14 (4.54)	675	2.13	42.72
Wise guy portal is not user friendly	116 (36.7)	111 (35.1)	54 (17.1)	19 (6.0)	16 (5.1)	656	2.07	41.52
Notable to operate with browser based applications	118 (37.3)	97 (30.7)	53 (16.8)	26 (8.2)	22 (7.0)	685	2.16	43.34
Lack of clarity on ones knowledge	118 (37.3)	112 (35.4)	38 (12.0)	38 (12.0)	10 (3.2)	658	2.08	41.65
Lack of confidence ones know how/experience qualifies as knowledge resource	106 (33.5)	115 (36.4)	37 (11.7)	38 (12.0)	20 (6.3)	699	2.21	44.24
Average							2.1	43.40

From the Table 11, we can infer about the respondents views on constraints for increasing the participation of executives in KMS. The mean value for constraints is varied between 2.07 and 2.30. The highest rating awarded in the constraints is the statement “Lack of intention to share individual knowledge” with a mean value of 2.30 and 46.01% score. The second constraint is “Knowledge utility value is not clear” with a mean value of 2.28 and 45.7% score. The third constraint identified is “Lack of confidence ones know how/experience qualifies as knowledge resource” with a mean score of 2.21 and 44.24% score. The last constraint is “Wise guy portal is not user friendly” with a mean score of 2.07 and 41.52% score. The mean value for all the nine statements is registered at 2.17 and 43.40% score. It is inferred that the mean score values are having less variation and the opinion of the respondents is consistent with respect to the constraints for increasing participation of employees in KMS.

SUGGESTIONS FOR STRENGTHENING KMS IN ICICI BANK: To fine tune the organisational objectives, it is needed to strengthen the KMS in the organisation. The feedback from a cross section of employees to improve the KM practices, procedures and implementation strategy in different dimensions is certainly a prerequisite for organisation growth. Implementing possible suggestions will certainly improve the efficiency of the KM system and provides competitive advantage of the organisation. Ten statements are identified to collect the suggestion for strengthening the KMS in ICICI bank. The Likert scale on agreement of the statements is used.

Table 12: Mean Scores on Suggestions for Strengthening KMS in ICICI Bank

Statement	1	2	3	4	5	Score	Mean Score	% to Max. Score
KMP should have a candid slogan to emotionally bind employees	15 (14.7)	89 (28.2)	14 (4.4)	65 (20.6)	133 (42.1)	1160	3.67	73.4
There should be a schedule of K-Time in working time	25 (7.9)	20 (6.3)	41 (13.0)	197 (62.3)	33 (10.4)	1141	3.61	72.2
Superior's motivation is expected to contribute in big way	29 (9.2)	30 (9.5)	39 (12.3)	113 (35.8)	105 (33.2)	1182	3.74	74.8
Communication on recent developments should reach every employee	20 (6.3)	30 (9.5)	47 (14.9)	140 (44.3)	79 (25.0)	1176	3.72	74.4
Open environment should be created to experiment in- employee interested area for at least 2 Hrs in a week	20 (6.3)	30 (9.5)	61 (19.3)	102 (32.3)	10.3 (32.6)	1185	3.75	75
Encourage integrative Cops(Communities of Practices)	20 (6.3)	30 (9.5)	73 (23.1)	105 (33.2)	88 (27.8)	1157	3.66	73.2
Revive reward system for effective contribution to KMP	20 (6.3)	30 (9.5)	31 (9.8)	106 (33.5)	129 (40.8)	1242	3.93	78.6
Create an exclusive department for KMP	20 (6.3)	28 (8.9)	36 (11.4)	107 (33.9)	125 (39.6)	1236	3.91	78.2
Formation of Quality Circles are needed	20 (6.3)	30 (9.5)	40 (12.7)	118 (37.3)	108 (34.2)	1210	3.83	76.6
Performance reviews are to be conducted regularly	20 (6.3)	30 (9.5)	49 (15.5)	103 (32.6)	114 (36.1)	1207	3.82	76.4
Average							3.76	75.2

Table 12 present the distribution of respondents scoring on suggestions for strengthening KMS in ICICI bank and their mean values. Respondent's opinion on suggestions for strengthening the knowledge management in ICICI Bank revealed that the mean value of the suggestion statement varied between 3.61 and 3.93. The suggestion statement "Revive reward system for effective contribution to KMP" secured the first position with a mean value of 3.93 and 78.6% score. The

suggestion “Create an exclusive department for KMP” secured second position with a mean value of 3.91 and 78.2% score value. The suggestion “Formation of Quality Circles are needed” secured the third position with a mean value of 3.83 and 76.6% score value. The Suggestion “There should be a schedule of K-Time in working time” secured the least mean value of 3.61 and 72.2% score value. Over all the respondents’ opinion on ten suggestion statements is consistent.

CONCLUSIONS: This paper deals with the novel and new dimension of extracting determinants KM initiatives in Indian commercial banks. A case study on ICICI bank which has implemented the KM initiative since 2002 is considered. Through structured questionnaire and survey method the information on 13 parameters associated with the KM such as Importance, Awareness and commitment, Strategy, Culture, Knowledge resources, Incentives, K.M portal (the wise guy), Other knowledge management initiatives, Information technology, Maintenance and protection, Ongoing assessment, Organizational structure and HRM Practices. Since these parameters are highly correlated and large in number, the determinants of the KM initiatives are obtain through factor analysis using SPSS21. The factor analysis reveals that there are five determinants namely knowledge development factor, technological factor, knowledge recognition factor, knowledge management initiatives factor, HRM practices factor. These determinants are independent and characterized the KM initiative of the bank with respect to opinion of its employees. The general assessment of KM initiative in the bank is highly influenced by these five factors which are studied to a regression analysis. The constraints on the effective implementation of KM in bank are also studied and found lack of information to share individual knowledge is a major obstacle. The suggestions for effective implementation for KMS in banks are also discussed. This study is very useful for Indian commercial banks to strengthen the KMS initiatives in order to improve its performance and business.

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