Measuring the Impact of Knowledge Management on the Effectiveness in the Classroom Delivery using Multiple Regression

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Abstract: *Knowledge management is considered as the integrated approach which involves in identifying, managing and sharing the critical know-how, enable in enhancing the experiences of the individual and increasing the intellectual capital of the human resources in the education sector. Knowledge management is considered as the critical fields which enable in guiding the educational institutions and the students in generating new knowledge, storing them and apply when required. Hence, to apprehend the effect of knowledge management, a clear picture of the approach and framework needs to be determined. Knowledge management possess greater impact on the effectiveness in the classroom delivery, the knowledge generation is considered as the critical factor in the KM model which was stated earlier. Hence, educational institutions tend to focus on the three specified critical areas: Knowledge generation; Knowledge storage and Knowledge application. These aspects will enable the trainers to enhance the effectiveness of classroom delivery in educational institutions.*

Index Terms: *Knowledge management, Knowledge generation, Multiple regression.*

I. INTRODUCTION

Knowledge management is considered as the integrated approach which involves in identifying, managing and sharing the critical know-how, enable in enhancing the experiences of the individual and increasing the intellectual capital of the human resources in the education sector. Through the assistance of managing the knowledge, the tutors enable in improving the efficiency of the students in the classroom, allow them to learn and understand more effectively and efficiently which enable in providing a clear and better foundation for their future. (Friesl, 2011). The knowledge management systems tend is mainly designed with a purview in managing the knowledge of the individuals, the educational institutions which effectively manager and leverage the overall knowledge of the individuals tend to create more value to the individuals and achieve superior competitive advantage for the future. Human resource training is considered as the primary approach which enable in eliciting and reinforcing the knowledge of the individuals and expertise which the student's requires. Also it can be

noted that the KMS tend to support the overall management of knowledge through the creation of network inside the educational institutions among the students and teachers. There are two main approaches which is involved in creating and implementing the knowledge management system, the process approach and the other is the generic approach. (Bhatt,2000). The process approach focuses applies the knowledge by the participants in the process, task or project so as to enhance the effectiveness of learning in the class room. This approach focuses in enhancing the information and knowledge of the process which are mainly located and is being provided who needs them. Furthermore, this approach requires the KMS to capture the minimal context because the users are mainly assumed to understand the knowledge which is being provided by the teachers.

II. REVIEW OF LITERATURE

Every healthy educational institution creates knowledge. In collaboration with other environments and educational institutions, they absorb information gathering their experiences, values and internal rules, converted into knowledge and acting accordingly. KG contains all activities that create new knowledge for the individual, team or world. Knowledge coding and registers are knowledge that can be reused by a person or educational institution. (Tan, 2011)

KG's activities within a university department are scientific research, creativity and innovation. The process of knowledge creation requires no generation of new knowledge. In many cases, educational institutions may prefer to acquire knowledge from other sources and apply it on their own use. Educational institutions acquire knowledge in many ways. Counterfeiting, benchmarking, reproduction, replacement purchases, outsourcing and discoveries are ways to acquire knowledge. (Dessler, 2010)

KS procedures include keeping knowledge and maintaining, maintaining, organizing and facilitating access and recovery. This process represents the organizational memory of educational institutions. Knowledge must be available in a timely and appropriate manner, in a language that is understandable to employees in order to reduce value and research efforts. Organizational knowledge can be stored in three basic ways: First, you choose valuable maintenance skills. Second, preserve, document and archive the knowledge. Third, load this memory from time to time. (Davis, 2009). Knowledge storage and codification is important not only for the effective use of knowledge, but also for the recovery of this knowledge to educational institutions and not for those who use it. They know. This is

the final process in knowledge management processes and the most important. Without the application, KA is useless. The value of shared knowledge has increased. KA refers to the actual use of the collected or generated knowledge. Sufficient attention should be paid to the effective use of the knowledge available to those who need it. In addition, the translation of knowledge should strive to achieve the goals of educational institutions that develop and adapt. (Seleim, 2007)

III. RESEARCH METHODOLOGY

The researcher intends to apply descriptive research methodology for performing the research, the method will enable the researcher to observe and describe the overall behaviour of the subject without influencing them in any manner. The researcher uses survey method for performing the research activity, the researcher intends to collect the data using the convenience sampling method. Due to the time constraint, the sample population is considered as 115.

A. Review Objective

The main purpose of the research is to analyse the impact of knowledge management on the effectiveness in classroom delivery. The research objectives can be stated as
- To understand the impact of knowledge management process in supporting the effectiveness in classroom delivery
- To apprehend the key factor of knowledge management process in contributing the effectiveness.

B. Research Scope

Knowledge management is considered as the critical field which enables in guiding the educational institutions and the students in generating new knowledge, storing them and applies when required. Hence, to apprehend the effect of knowledge management, a clear picture of the approach and framework needs to be determined. This research is focused in analysing the impact of knowledge management towards the effectiveness of classroom delivery in educational institution. The KM model tends to provide the overall framework so as to identify the different types of knowledge which is available in the educational institutions. (Neumann, 2011)

C. Conceptual Framework
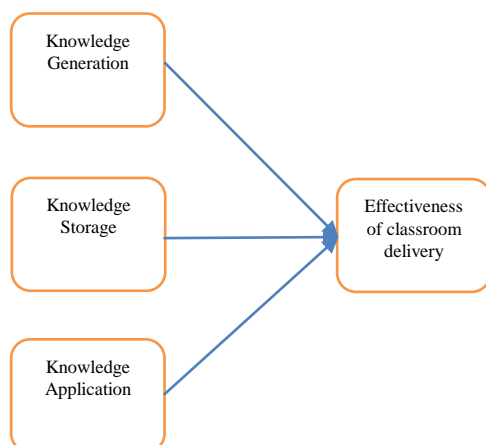
IV. DATA ANALYSIS

The following is the detailed descriptive analysis of the data

Gender	Frequency	Percent
Male	99	86.1
Female	16	13.9
Total	115	100.0

Age	Frequency	Percent
Less than 30 years	37	32.2
31 - 40 years	32	27.8
41 - 50 years	15	13.0
Above 50 years	31	27.0
Total	115	100.0

Marital status	Frequency	Percent
Married	73	63.5
Unmarried	42	36.5
Total	115	100.0

Type of family	Frequency	Percent
Nuclear Family	73	63.5
Joint Family	42	36.5
Total	115	100.0

Annual income	Frequency	Percent
Less than 4 Lakhs	85	73.9
4 - 8 Lakhs	29	25.2
Above 12 Lakhs	1	.9
Total	115	100.0

Years of experience	Frequency	Percent
Less than 3 years of experience	35	30.4
3 - 5 years	25	21.7
5 - 7 years	14	12.2
7 - 10 years	9	7.8
Above 10 years	32	27.8
Total	115	100.0

From the analysis it is noted that the 86.1% of the respondents are male, 32.2% of the respondents were in the age group of less than 30 years, 63.5% of the respondents were married and are living in a nuclear family, 73.9% of the respondents were earning less than 4 lakhs and 30.4% of the respondents were possessing an experience of less than 3 years of age.

Correlation analysis

Correlations

		Knowledge generation	Knowledge storage	Knowledge application
Knowledge generation	Pearson Correlation	1	.543**	.334**
	Sig. (2-tailed)		.000	.000
	N	115	115	115
Knowledge storage	Pearson Correlation	.543**	1	.501**
	Sig. (2-tailed)	.000		.000
	N	115	115	115
Knowledge application	Pearson Correlation	.334**	.501**	1
	Sig. (2-tailed)	.000	.000	
	N	115	115	115
**. Correlation is significant at the 0.01 level (2-tailed).				

From the above analysis it can be stated that the correlation between the knowledge generation and knowledge storage is at 0.543 showing they are moderately positive correlated, similarly the correlation between the knowledge generation and knowledge application is at 0.334showing they are less positive correlated. Also, it is identified that correlation between the knowledge storage and knowledge application is at 0.501showing they are moderately positive correlated

Multiple regression analysis

Null hypothesis: There is no significant relationship between knowledge management process and effectiveness of classroom delivery
Alternate hypothesis: There is a significant relationship between knowledge management process and effectiveness of classroom delivery

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.454	3	7.151	6.753	.000[b]
	Residual	117.538	111	1.059		
	Total	138.991	114			
a. Dependent Variable: Effectiveness						
b. Predictors: (Constant), Knowledgeapplication, Knowledgegeneration, Knowledgestorage						

From the above table it is noted that independent variables: Knowledge application, Knowledge generation, Knowledge storage possess a significant relationship on the effectiveness in the classroom delivery. The significance value is 0.000 which is less than 5% level of significance, hence the null hypothesis is rejected and alternate hypothesis is accepted.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.115	.854		.135	.893
	Knowledge generation	.602	.205	.307	2.945	.004
	Knowledge storage	.195	.211	.105	.924	.358
	Knowledge application	.070	.176	.040	.397	.692
a. Dependent Variable: Effectiveness						

From the above coefficients table, the regression equation can be stated as follows:
Y (Dependent variable) = Constant + a X1 (Independent variable 1) + b X2 (Independent variable 2) + c X3 (Independent variable 3)
Based on the analysis the regression equation is stated as
Y (Effectiveness of classroom delivery) = 0.115 + 0.602Knowledge generation + 0.195 Knowledge storage + 0.070Knowledge application
Therefore based on the above, knowledge generation is considered as the critical factor in the knowledge management process in effectiveness of classroom delivery

V. CONCLUSION

Thus from the above it can be stated that knowledge management possess greater impact on the effectiveness in the classroom delivery, the knowledge generation is considered as the critical factor in the KM model which was stated earlier. Hence, educational institutions tend to focus on the three specified critical areas: Knowledge generation; Knowledge storage and Knowledge application. These aspects will enable the trainers to enhance the effectiveness of classroom delivery in educational institutions.

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