

“AN EMPIRICAL STUDY ON KNOWLEDGE MANAGEMENT IN EDUCATIONAL ORGANIZATIONS VIA INNOVATIVE TEACHING TECHNIQUES FOR ACHIEVING TOTAL QUALITY MANAGEMENT”

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Abstract

In today's competitive scenario, business houses are continuously enlarging and rapidly developing with the help of technology and management. Technology either can be developed, hired or purchased. The management indicates management of quality in professionals. These professional can be made in the educational organization that offers school education to higher degree, any professional course like certification, diploma, artistic, personality development or correspondence course that generate skill sets. The cycle goes on like a process. Here knowledge management initiative in educational organization plays a vital role in holistic development of a student so that he/she can be a quality professional to contribute in total quality management process.

Knowledge management based Innovative Teaching Techniques not only provides students with important knowledge but also lends support in applying theory in a practical situation where they can contextualize information in order to acquire highly cognitive skills for professional development.

It is important that students learn how to think creatively to develop solutions that may not be in the text book and may not have been seen before for gaining excellence in their quality. Business world is increasing by its size so as its complications. The level of complexities, nature of obstacles must be known to students while they are being transformed into a quality professional. They should know the controlling and handling such situations. Therefore, there is need for a new approach that is knowledge management in developing innovativeness in teaching system. This will enable and empower new graduates or quality professionals.

This paper focuses on the requirement and importance of knowledge management based innovative teaching techniques in building holistic development of quality professionals so that total quality management can be achieved nationwide and eventually worldwide.

To fulfill the requirement of research design survey method has been adopted for gathering primary data. Primary data has been collected via questionnaires from teachers and academicians of schools and undergraduate-postgraduate colleges of Bhopal. Also secondary data has been acquired by already published resource. The data and information collected has been statistically processed and conceptual model has been developed.

Keywords : Knowledge Management, Innovativeness, Innovative Teaching Techniques, Total Quality Management, Holistic Development, Education, Organization

INTRODUCTION

Concept of knowledge management is widely used in today's era of educational society. This is the collection of linking activities for achieving the great developmental pattern in the students. Here knowledge play a key resource. It built and improve the overall behavior, capability, innovativeness, personality, confidence and learning of one student so that he/she can be a qualified professional. One educational organization be it college, school or other institute engaging in educational program needs to develop a strong innovative teaching

techniques based on Knowledge management so that total quality management of all students can be done and eventually the overall performance of educational institute can be achieved. When knowledge management is done effectively, it enhances the innovative teaching techniques and the success rate of total quality management increases.

Educational organizations pay a key driving role in building societal foundation of any nation. These organizations nurture the future of any nation. This is the core responsibility of any educational organization to timely introduce the updated worldwide practices in teaching methodologies for total quality improvement. The knowledge management initiative may be one among these (Choi Sang Long and others, 2016).

Knowledge Management (KM) & Innovative Teaching Techniques (ITT)

Innovativeness in every corner of the world is increasing its pace continuously. The intensification of highly upgraded technology, methodology, tools and techniques are the advent of knowledge management initiatives in the educational organization and made it a core of total quality management. Execution of sound knowledge management practices and system needs incorporation of some key elements constituting the dimensions of knowledge management. These are ethics, culture and technology.

Ethics are code of conducts, **Culture** represents the norms, traditions and customs of any religion/nation/state/region and **Technology**. Paying attention to organizational culture to improve the knowledge management is a subject that has recently attracted many researchers. Cultural learning in education makes a sound base of future professionals. Some of these cultures are knowledge-oriented organizational culture, flexibility, support, cooperation, trust, learning, power and reliability (N Seyedyousefi, 2016). Technology represents the application of scientific knowledge for practical purposes, especially in industry. It uses machinery and equipment developed from the application of scientific knowledge. It is the branch of knowledge dealing with engineering or applied sciences (Cambridge Dictionary). These three are key factors of knowledge management initiatives for innovative teaching techniques and total quality management in all systems, processes in educational organizations. Student must be aware of the ethics and culture like work ethics and transnational ethics, transnational and national culture so that they will be able to adjust with it in their work/business life. A sound incorporation of knowledge management initiatives leads a sound system of innovative teaching techniques.

Innovative teaching techniques like newness in terms of syllabus, examination pattern and evaluation pattern etc. For effective implementation of innovativeness in education focuses on providing 360° exposure to students. It can be achieved by not only changing class room teaching methodologies but by providing scope of experiential learning in holistic personality development of the student. In short newness, experiential learning, class room methodology and personality development are the four basic variables on which the monument of innovative teaching techniques is based.

TOTAL QUALITY MANAGEMENT

Total quality management emphasizes to continuous improvement process and practices within organizations to provide higher customer value and meet customer requirements (Choi Sang Long and others, 2016). If we apply this concept in education so schools and colleges being an organization have students as a customer. This is the responsibility of educational organization to provide value for money to students. Total Quality Management (TQM) can be a way to satisfy students or customers of the education organization. TQM is a quality based technique invented and developed by Japanese post world war second. This paper is intended to explore importance of Knowledge management based innovative teaching techniques to achieve total quality management in the educational organizations.

Knowledge management involves management of knowledge, technology, ethics, culture and implication of innovative teaching techniques in converting students into quality professional in the education. Without approaching KM and ITT, development of one human is difficult for facing workplace challenges.

Quality management applies knowledge management as one of its core components. Understanding these two vital organizational processes will enable HRD practitioners to develop and design effective programs and services that fully utilize both processes in the organization. Considering knowledge management as a key

element in the quality management process can help increase knowledge creation and utilization within the organization (M Akdere, 2009)

OBJECTIVES OF THE STUDY

- To explore relationship between knowledge management and innovative teaching techniques in the educational organizations.
- To investigate upon role of innovative teaching techniques in total quality management in the educational organizations.
- To establish a relational model on knowledge management, innovative teaching techniques and Total quality management.

HYPOTHESIS OF THE STUDY

- **H₀₁**: There is no significant relation between Knowledge Management and Innovative Teaching Techniques in the educational organizations.
- **H_{01a}**: There is no significant relation between Knowledge Management and Newness in Innovative Teaching Techniques in the educational organizations.
- **H_{01b}**: There is no significant relation between Knowledge Management and Experiential Learning in Innovative Teaching Techniques in the educational organizations.
- **H_{01c}**: There is no significant relation between Knowledge Management and Personality Development in Innovative Teaching Techniques in the educational organizations.
- **H_{01d}**: There is no significant relation between Knowledge Management and Class Room Methodology in Innovative Teaching Techniques in the educational organizations.
- **H₀₂**: There is no significant relation between Innovative Teaching Techniques and Total Quality Management in the educational organizations.
- **H₀₃**: There is no significant relation between Knowledge Management and Total Quality Management in the educational organizations.

DATA COLLECTION

In this study is primary data is gathered with the help of structured questionnaire. Here questionnaire was distributed and administered personally by the researcher.

SAMPLE SIZE

A sample of 150 respondents has been used in the study.

SAMPLE UNIT

Teachers from schools, colleges and other educational institutes have been qualifies for representing sample unit of the study.

SAMPLING METHOD

Multi-stage Systematic random sampling has been used in this study.

LIMITATIONS OF THE STUDY

- The study is limited to Bhopal city only.
- The accuracy of responses purely depends upon un-biasness of respondents.
- Money been a constraint in the research.
- Time been a constraint in the research.

AREA FOR FURTHER RESEARCH

- The study can conducted any other geographical area.
- The study can be conducted with changed sample size.

- The study can be done in comparative mode.
- Students based study can be conducted.

DATA ANALYSIS: DESCRIPTIVE SECTION

Table 1: Statistics

Sample		Gender	Age	Occupation	Level of Education	Experience
N	Valid	150	150	150	150	150
	Missing	0	0	0	0	0
Mean		1.4867	2.6067	1.5	2.5	3.28
Std. Deviation		0.5015	1.07377	0.50168	1.26252	1.16504

Table 2: Frequencies of Gender

Sample		Frequency	Percent
Valid	Male	77	51.3333
	Female	73	48.6667
Total		150	100

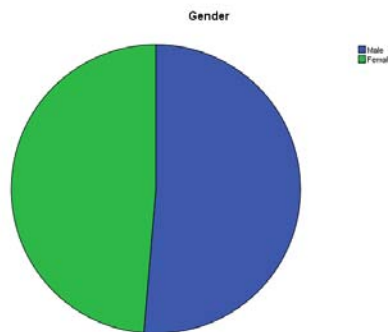


Table 3: Frequencies of Age

Sample		Frequency	Percent
Valid	18-25 Year	29	19.3333
	26-35 Year	40	26.6667
	36-45 Year	42	28
	46 & above	39	26
Total		150	100

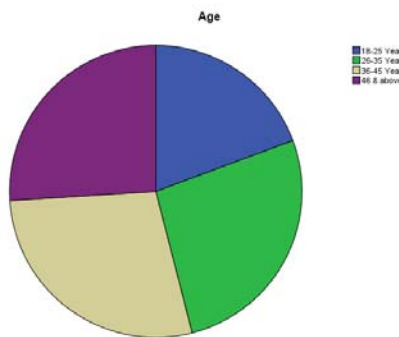
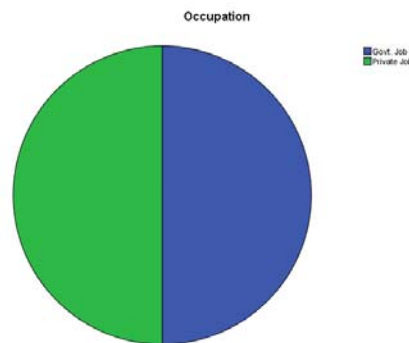


Table 4: Frequencies of Occupation

Sample		Frequency	Percent
Valid	Govt. Job	75	50
	Private Job	75	50
Total		150	100



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Table 5: Frequencies of Level of Education

Sample		Frequency	Percent
Valid	School	50	33.3333
	UG	25	16.6667
	PG	25	16.6667
	Other	50	33.3333
Total		150	100

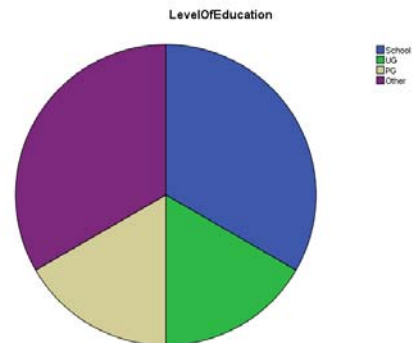
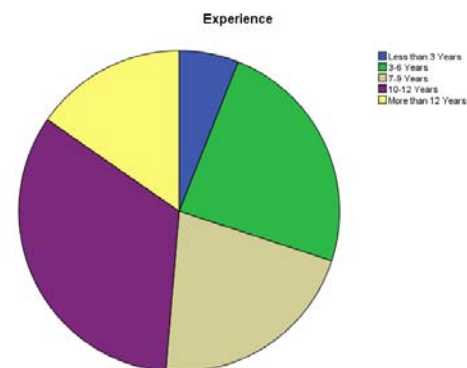


Table 6: Frequencies of Experience

Sample		Frequency	Percent
Valid	Less than 3 Years	9	6
	3-6 Years	36	24
	7-9 Years	32	21.3333
	10-12 Years	50	33.3333
	More than 12 Years	23	15.3333
Total		150	100



Data Analysis: Analytical Section

Table 7: Reliability Statistics of Questionnaire

Cronbach's Alpha	N of Items
0.708	9.0

Above tables shows the used 9 variables in the questionnaire are homogeneous internally. They are reliable at 70.08% (alpha = 0.708).

H_{01a}: There is no significant relation between Knowledge Management and Newness in Innovative Teaching Techniques in the educational organizations.

Table 8: Model Summary^a on Knowledge Management & Newness in Innovative Teaching Techniques

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.618	0.402	0.418	1.111	0.402	30.105	3	146	0.000

- a. Predictors: (Constant), Knowledge Management (Ethics, Culture, New Technology)
- b. Dependent Variable: Innovative Teaching Techniques (Newness)

From above table it has been seen that R Square is 0.402 which implies that the contribution of Knowledge Management (Ethics, Culture, and New-Technology) is 40.2% in predicting Innovative Teaching Techniques (Newness). F is used to exhibit model's ability to explain any variation in the dependent variable as a model of fitness. It exhibits that the hypothesis that all model coefficients are 0 is rejected at 1% as well as 5% level of significance which means that the model coefficients differ significantly from zero. From the table, it has been found that the calculated value of F is greater than the tabulated value at 0.000 significant levels. Hence, null hypothesis is rejected and alternate hypothesis is accepted.

H_{01b}: There is no significant relation between Knowledge Management and Experiential Learning in Innovative Teaching Techniques in the educational organizations.

Table 9: Model Summary^B on Knowledge Management & Experiential Learning in Innovative Teaching Techniques

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.344	0.120	0.100	0.916	0.118	6.569	3	146	0.000

- a. Predictors: (Constant), Knowledge Management (Ethics, Culture, New Technology)
- b. Dependent Variable: Innovative Teaching Techniques (Experiential Learning)

From above table it has been seen that R Square is 0.120 which implies that the contribution of Knowledge Management (Ethics, Culture, and New-Technology) is 12.0% in predicting Innovative Teaching Techniques (Experiential Learning). From the above table, it has been found that the calculated value of F is greater than the tabulated value at 0.000 significant levels. Hence, null hypothesis is rejected and alternate hypothesis is accepted.

H_{01c}: There is no significant relation between Knowledge Management and Personality Development in Innovative Teaching Techniques in the educational organizations.

Table 10: Model Summary^B on Knowledge Management & Personality Development in Innovative Teaching Techniques

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.510	0.240	0.223	1.211	0.240	15.302	3	146	0.000

- a. Predictors: (Constant), Knowledge Management (Ethics, Culture, New Technology)
- b. Dependent Variable: Innovative Teaching Techniques (Personality Development)

From above table it has been seen that R Square is 0.240 which implies that the contribution of Knowledge Management (Ethics, Culture, and New-Technology) is 24.0% in predicting Innovative Teaching Techniques (Personality Development). From the above table, it has been found that the calculated value of F is greater than the tabulated value at 0.000 significant levels. Hence, null hypothesis is rejected and alternate hypothesis is accepted.

H_{01d}: There is no significant relation between Knowledge Management and Class Room Methodology in Innovative Teaching Techniques in the educational organizations.

Table 11: Model Summary^B on Knowledge Management & Class Room Methodology in Innovative Teaching Techniques

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.320	0.100	0.102	1.301	0.100	5.450	3	146	0.001

- a. Predictors: (Constant), Knowledge Management (Ethics, Culture, New Technology)
- b. Dependent Variable: Innovative Teaching Techniques (Class Room Methodology)

From above table it has been seen that R Square is 0.100 which implies that the contribution of Knowledge Management (Ethics, Culture, and New-Technology) is 10.0% in predicting Innovative Teaching Techniques (Class Room Methodology). From the above table, it has been found that the calculated value of F is greater than the tabulated value at 0.001 significant levels. Hence, null hypothesis is rejected and alternate hypothesis is accepted.

H₀₂: There is no significant relation between Innovative Teaching Techniques and Total Quality Management in the educational organizations.

Table 12: Model Summary^Bon Knowledge Management & Total Quality Management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.302	0.110	0.110	1.503	0.110	4.610	3	146	0.004

- a. Predictors: (Constant), Knowledge Management (Ethics, Culture, New Technology)
- b. Dependent Variable: Total Quality Management

From above table it has been seen that R Square is 0.302 which implies that the contribution of Knowledge Management (Ethics, Culture, and New-Technology) is 30.2% in Total Quality Management. From the above table, it has been found that the calculated value of F is greater than the tabulated value at 0.004 significant levels. Hence, null hypothesis is rejected and alternate hypothesis is accepted.

H₀₃: There is no significant relation between Knowledge Management and Total Quality Management in the educational organizations.

Table 13: Model Summary^Bon Innovative Teaching Techniques & Total Quality Management

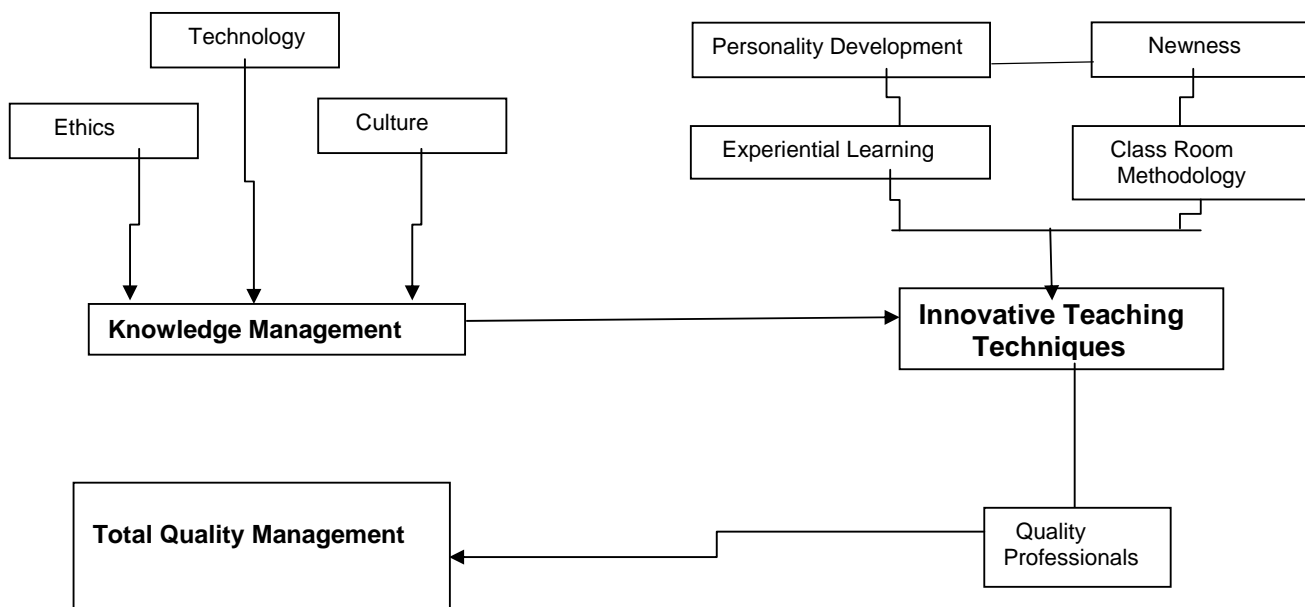
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.502	0.223	0.202	1.400	0.223	10.440	4	145	0.000

- a. Predictors: (Constant), Innovative Teaching Techniques (Newness, Experiential Learning, Personality Development, Class Room Methodology)
- b. Dependent Variable: Total Quality Management

From above table it has been seen that R Square is 0.502 which implies that the contribution of Innovative Teaching Techniques (Newness, Experiential Learning, Personality Development, and Class Room Methodology) is 50.2% in Total Quality Management. From the above table, it has been found that the calculated value of F is greater than the tabulated value at 0.004 significant levels. Hence, null hypothesis is rejected and alternate hypothesis is accepted.

Model of the Study

Fig. 1 - Model for Achieving Total Quality Management in Educational Organization



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FINDINGS

Total 77 male and 73 female took part in the survey. Out of which most are 7-9 years experienced as the mean value lies around 3.3. Questionnaire was 70.8% reliable as Reliability statistic found 0.708. After testing the hypothesis, the relation between knowledge management and innovative teaching techniques in the educational organizations has been found significant. The relationship between Innovative Teaching Techniques and Total Quality Management in the educational organizations has also been signified by test results. It has also been proved with the test statistics that Knowledge Management and Total Quality Management in the educational organizations are significantly related.

SUGGESTIONS

- Educational organizations must start knowledge management initiatives like incorporation of updated technology, transnational culture and ethics for maintain sound innovative teaching techniques and total quality management.
- Educational organizations must incorporate innovative teaching techniques like newness in teaching, experiential learning, personality development and class room methodology for achieving total quality management.
- Educational organizations must start knowledge management initiatives like incorporation of updated technology, transnational culture and ethics for contributing total quality management.
- The model of the study suggests that knowledge management initiatives, innovative teaching techniques and total quality management are related. Educational organizations may adopt the model for achieving total quality management.

CONCLUSION

Knowledge management (KM) comprises a range of strategies and practices used in an organization to identify, create, represent, distribute and enable adoption of insights and experiences. Such insights and experiences comprise knowledge, either embodied in individuals or embedded in organizations as processes or practices. KM focuses on processes such as acquiring, creating and sharing knowledge and the cultural and technical foundations that support them. These practices are pivotal on the success of TQM implementation (Choi Sang Long and others, 2016). This study contributes in the field of total quality management in the educational organization and suggests that knowledge management initiatives and innovative teaching techniques are two strong pillars for a strong foundation of total quality management. Educational organizations may start.

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