Developing of Knowledge and Technology for Higher Education

PoonamRajoria

Department of Management

Vivekananda Global University, Jaipur

Email ID:poonam.rajharia@vgu.ac.in

Abstract:The new institutions of higher education are battling for success and are trying to meet the expectations of people, organizations and social institutions in their external environments. Knowledge Management (KM) and Full Quality Management are among the most common tools implemented by these organizations on the basis of success stories of industrial organizations. Taking these dual paradigms into account in higher education, this paper focuses on the integrated approach which makes an attempt to combine KM into TQM processes / practices.The paper is oriented towards the perspectives on organizational success that can be accomplished by integrating KM principles into the TQM processes that shape a cycle of continuous improvement and growth. The article describes main parameters with suppliers and consumers as the external environment that works on device input and output linked to success in the organization. Furthermore, the viewpoints on the holistic approach to higher education tackle the demand and supply side of higher education.

Keywords: Knowledge Management, Total Quality Management, Organizational Excellence, Higher Education, Continuous Improvement, Integrative Model.

INTRODUCTION

In particular, higher education has undergone significant changes at local, national and global levels following the information revolution. In the last two decades, the number of higher education institutions, especially in the private sector, has risen exponentially. Today's higher education institutions are essentially creative technical beings trying to thrive in an era of exploration and destruction of knowledge. In the external world, higher educational institutions meet the aspirations of individuals, organizations, and organizations of civil society[1].

Curiously, KM has been a significant subject in both study and practise. Since the last decade, adoption by KM has risen unprecedentedly. For the transformation of intellectual properties into enduring value, KM exists. One of the primary functions of KM is to link the data available to individuals who most need it. In order to identify, capture, retrieve, exchange, and analyse their information assets, researchers are now seeking to apply KM principles to higher education to help gain a sustainable competitive advantage by using people, processes and technology properly[2].There are several different meanings of the word quality, the most common among which is,' meeting consumer needs. TQM and Continuous Quality Improvement (CQI) were initially developed for the systematic improvement of quality in the context of industrial processes. In the recent past, several attempts have been made to introduce TQM in the education industry, with a very positive outcome. The fundamental aim of TQM is to simplify the organizational processes in order to eliminate deviations from the norm. Since TQM generally focuses on customer satisfaction, on the continuous improvement and empowerment of workers, and on raising awareness among stakeholders of social education [3].

An integrated approach to related higher education processes is important, with both KM and TQM operating concurrently. The goal of this paper is to use the integrated higher education model of KM and TQM that has been successfully implemented in the business world. Thus, the suggested model is an attempt to link these two concepts in order to lead to organizational performance.

ROLE OF KM IN EDUCATION

Organizations have internalized the KM concept from their vision to the goals, plans, policies and practices to promote the path towards transformation into a learning organization. Knowledge is described as, according to the Oxford dictionary, an understanding that is acquired through experience, observation, or

research. KM was defined as "a fluid mix of experience, values, contextual information and expert insight that provides an evaluation framework and incorporates new experiences and information."

KM has already been accepted as the root of the solution to today's business problems. When KM is effectively implemented in educational institutions, it can lead to better decision-making skills, decreased product development time, such as curriculum development, review, and enhanced educational and administrative facilities, thus reducing costs. There is also implicit and explicit information in the form of textbooks, lecture notes, scientific journals, magazines, laboratory guides, technical reports and now many online learning resources.In addition to this knowledge, there is a need to harness institutional knowledge acquired by the faculty over a period of time, as it gathers experience through different sources. The dimension could be used to build decision making capability, interdisciplinary learning, cultivate the spirit of collaboration and openness, correct vision ,interaction with business, support for entrepreneurship ,and dedication to society[4].

ROLE OF TQM IN EDUCATION

In the concept of company organization, TQM seeks to minimize or eliminate waste and increase the quality of service or product. Attempts are already underway to reap the benefits of TQM in higher education; the challenge, however, was to identify the processes to be implemented by TQM. The reason for this is that intangible criteria are raised by an education system. TQM was implemented into education in the early 90s. Books such as-TQM for teachers and students and TQM for higher education reported that TQM could be seen as a model for improving any aspect of college functioning from tax administration to classroom instruction.It has been a continual endeavor since the implementation of TQM in the education sector[4][5].

In educational institutions in the US, UK, Australia and New Zealand, TQM is already part of the management philosophy. It was found in their survey that TQM is applicable irrespective of the institution's turnover, size and governance. The organizations implementing TQM have been shown to surpass the operational efficiency of non-TQM organizations. TQM seeks to achieve a higher quality standard of higher education and to create high-ranking global learners and innovators capable of introducing cutting-edge approaches to social and environmental issues. The American Supplier Institute (ASI) reveals TQM is about:

- Focusing more on customer satisfaction
- The contribution to the provision of reliable goods or services to the customer
- A continuous quality assurance plan
- Knowing that the greatest assets of any company are its employees.

Such values, which are unique to the manufacturing sectors. According to the authors both KM and TQM are input-output processes, a drastic transformation is taking place, and the transformation outputs meet the needs and expectations of the customer. While KM sees knowledge as a source of educational development and competitive edge, TQM relies on quality enhancement to achieve satisfaction among stakeholders[6].

INTEGRATION OF KM AND TQM

KM and TQM are two ideals that have had a lasting effect on the enterprises and organisations that have adopted them. There has been an ever-increasing stream of ideas and hypotheses that have been highly popular in industry and higher education now, as TQM is a quality-oriented theory. Many researchers have tried to incorporate the two concepts and this has led to the creation of several theoretical models.

This conceptual and theoretical system of integration of KM and TQM is built taking into account their similarities and differences. The very strength of the proposed model lies in the three learning forms that should be inculcated in the very framework of educational institutes, namely: analytical learning, creative learning, and adaptive education. The pro-posed model essentially has three parametric components, i.e.,

input and output parameters aligned in the form of a continuous cyclic process, to contribute to organizational excellence[7].

Input parameters in educational institutions can include information/information/expertise in books, journals, patents, teaching-learning systems, assignments, and projects. Production criteria which include aspects that meet industrial needs, societal needs, the creation of new products, infrastructure, research & development, and intellectual capital[8]. For the KM and TQM, the organizational requirements include procedures. Input requirements should be combined with advanced learning to enhance TQM and KM processes, thereby enhancing organizational efficiency.Likewise, the result parameters will contribute to refinement in the inputs in the form of existing data, information and expertise when combined with reflective learning. When the performance is related to adaptive learning, the efficiency of the organizational processes is further enhanced[9].

A positive contribution to improving system efficiency will be to take advantage of KM's new information learning capacity to trigger small and consistent improvements in TQM. Companies face vital challenges of adapting, prospering, and sustaining their companies in the current climate, marked by rapid change and strong competition[10]. It is possible to overcome these crucial problems and achieve a competitive advantage not only by gaining, incorporating and using the newly available information, but also by creating new knowledge with each other.Organizational efficiency can be accomplished by integrating the KM and TQM systems in conjunction. Customer knowledge and understanding of client requirements are the prerequisites for customer satisfaction. Therefore, to be successful, an integrated approach is needed in which TQM should tackle and deal with higher education reforms by improving KM capabilities and operational skills.Proposed model's salient features include self-reflective and adaptive processes affecting the following aspects:

- Current knowledge and inputs.
- Build on a comprehensive, complete academic, study and administrative cycle.
- Makes the required output which contributes to the development.
- Stimulate collective and individual reflection;
- Know and accept changes in inputs and outcomes

To implement this approach successfully, requirements are very similar to those required for individual implementation of KM and TQM, and include:

1. Continuous support and dedication from top ship-leader.
2. Proper allocation of human, financial, and physical resources.
3. Knowledge of the needs and expectations of the Stakeholders.
4. To harness existing knowledge and to co-create new knowledge.
5. Continuous work culture transparent and healthy.
6. Encourage interdisciplinary learning and individual / collective learning.

CONCLUSION

The current system of higher education has adopted many different ways of disseminating information through distance learning, online education, virtual colleges, massive open online courses, flipped classrooms etc. Co-education and collective growth shared experience, consisting of traditional and modern cultures, has created cohesion among global citizens.In this context, it is necessary to improve the quality of education, to provide flexibility, to nurture the spirit of innovation, to support multiculturalism, to promote laboratory work and to encourage entrepreneurship. The integrative model proposed in this paper, with the right combination of people, processes and technology, has the potential to meet those requirements. While industries have adopted KM and TQM as survival tools, the institutions of higher education still need to reap the rich benefits of immersing these time-tested techniques. The proposed model has the potential in that direction to pave the way for success.

REFERENCES

[1] W. Lambrechts, I. Mulà, K. Ceulemans, I. Molderez, and V. Gaeremynck, "The integration of competences for sustainable development in higher education: An analysis of bachelor programs in management," in *Journal of Cleaner Production*, 2013.

[2] J. W. Pellegrino and E. S. Quellmalz, "Perspectives on the integration of technology and assessment," *J. Res. Technol. Educ.*, 2010.

[3] Z. A. Shaikh and S. A. Khoja, "Role of ICT in shaping the future of pakistani higher education system," *Turkish Online J. Educ. Technol.*, 2011.

[4] S. Bano and J. Taylor, "Universities and the knowledge-based economy: perceptions from a developing country," *High. Educ. Res. Dev.*, 2015.

[5] A. Rhema and I. Miliszewska, "Towards E-Learning in Higher Education in Libya," *Issues Informing Sci. Inf. Technol.*, 2010.

[6] M. Webb, "Beginning teacher education and collaborative formative e-Assessment," *Assess. Eval. High. Educ.*, 2010.

[7] L. A. Raub, N. A. Shukor, M. Y. Arshad, and M. S. Rosli, "An integrated model to implement contextual learning with virtual learning environment for promoting higher order thinking skills in Malaysian secondary schools," *Int. Educ. Stud.*, 2015.

[8] R. Saxena and A. Srinivasan, "Business intelligence," in *International Series in Operations Research and Management Science*, 2013.

[9] J. Khlaisang and N. Songkram, "Designing a Virtual Learning Environment System for Teaching Twenty-First Century Skills to Higher Education Students in ASEAN," *Technol. Knowl. Learn.*, 2019.

[10] C. Okereke, "Business," in *Research Handbook on Climate Governance*, 2015.

- Vishal Assija, Anupam Baliyan and Vishal Jain, "Effective & Efficient Digital Advertisement Algorithms", CSI-2015; 50th Golden Jubilee Annual Convention on "Digital Life", held on 02nd to 05th December, 2015 at New Delhi, published by the Springer under ICT Based Innovations, Advances in Intelligent Systems and Computing having ISBN 978-981-10-6602-3 from page no. 83 to 91.

- Vishal Jain and Dr. S. V. A. V. Prasad, "Analysis of RDBMS and Semantic Web Search in University System", International Journal of Engineering Sciences & Emerging Technologies (IJESET), Volume 7, Issue 2, October 2014, page no. 604-621 having ISSN No. 2231-6604.

- Vishal Jain and Dr. S. V. A. V. Prasad, "Evaluation and Validation of Ontology Using Protégé Tool", International Journal of Research in Engineering & Technology, Vol. 4, No. 5, May, 2016, page no. 1-12 having ISSN No. 2321-8843.

- RP Shermy, S Balamurugan, "Certain Investigation on Context Aware Knowledge Discovery Strategies for Healthcare Systems", Asian Journal of Research in Social Sciences and Humanities, Volume : 6, Issue : 8, 2016

- S Balamurugan, RP Shermy, Gokul Kruba Shanker, VS Kumar, VM Prabhakaran, "An Object Oriented Perspective of Context–Aware Monitoring Strategies for Cloud based Healthcare Systems",Asian Journal of Research in Social Sciences and Humanities, Volume : 6, Issue : 8, 2016

- S Balamurugan, P Anushree, S Adhiyaman, Gokul Kruba Shanker, VS Kumar, "RAIN Computing: Reliable and Adaptable Iot Network (RAIN) Computing", Asian Journal of Research in Social Sciences and Humanities, Volume : 6, Issue : 8, 2016