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A FRAMEWORK DESIGN FOR IMPLEMENTING HIGHER EDUCATION SYSTEM USING KNOWLEDGE MANAGEMENT

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ABSTRACT

Knowledge Management System (KMS) is a process for managing knowledge in institutions for supporting creation, capture, storage and dissemination of information. The higher education institutes (HEIs) in India is in huge number. The competition among different HEIs has been increased. Every HEI's is demanding to improve their key performance, for that they are required an approach that evaluates the efficiency in the field of knowledge and also calculate the lacking area to improved. Knowledge Management is one of the promising approaches in this field. The challenge to Knowledge Management implementation in HEIs is the lack of systematic procedures for developing and applying KMS. We are presenting the barriers in the institutional level that stop the knowledge sharing, creation between the individuals.

KEYWORDS: Higher Education, Data Structure, Knowledge, Knowledge Management, Representations.

INTRODUCTION

A knowledge management approach is integration of inhabitants, methods and technology involved in scheming, confining and employing the academic infrastructure of an institute [16]. It cannot be possible with the work of one. It is possible only when different stakeholders (like parents, teachers and others) shares their knowledge in the benefit of an organization through which people within the organization will lead to improve the process and services of the organization. The people technical, intellectual and inter and intrapersonal skills will achieve some better changes in the organization. KM plays an important role in the improvement of organizational bloodthirsty advantage through sharing of best practices, achieving better decision making, and faster response to key institutional issues, better process handling and improved people skills. In turn this means less reinvention of the wheel, relevant and focused policies in compliance with institutional goals and objectives, the ability to access information more quickly, improved academic and administrative services, reduced costs and prevention of mistakes and failures.

RELATED WORK

Significant work has been accomplished in the area of KM in higher educational system and many new contributions have been made by the researchers in this field.

- A. **Kidwell, J.J. "Applying Corporate Knowledge Management Practices in Higher Education":** The author discussed about the role of knowledge management. The focus of the author is to find the approach through which we can improve the higher education system. In this paper, author discussed about the improvement in curriculum, technology and how we can improve the technical and managerial skills of the employee.
- B. **Ranjan, J., Khalil, S. "Application of Knowledge Management in Management Education :** Presented the KM multi-modeling framework to propose four organizational strategies for higher education – culture, leadership, technology and measurement and three academic KM strategies – individual, institutional and network. The paper presented that how we can robust the organization so that it will be more efficient.
- C. **Huveida, R., Shams, G., Hooshmand, A. 2008, "Knowledge Management Practices in Higher Education Institutes: A Different Approach":** presented the facts through which we can assess the organizational activities using knowledge management.
- D. **According to Ashish, Arun, 2006, "IT Based KM in Indian Higher Education System: Addressing Quality Concerns and Setting the Priorities Right":** This paper focuses upon the IT needs for higher education system. This paper also tells the industry-institution interaction so that we can improve the academic as well as technical curriculum of organization.

- E. Nagad, W., Amin, G., “Higher Education in Sudan and Knowledge Management Applications”: Concluded that in order to apply KM, knowledge and capability must be voluntarily reachable, comprehensible and retrievable. The paper helped us to understand the importance of efficient accessibility of institutional knowledge for effective knowledge management. A KM system in higher educational institutions is necessary to identify, capture, transform, consolidate, evaluate and disseminate the institutional knowledge [20].
- F. Butler, T., Murphy, C., 2007, “Implementing Knowledge Management Systems in Public Sector Organizations: A Case Study of Critical Success Factors”: Discussed the critical success factors for KM accomplishment in institutes. The study of the paper helped the authors to take into consideration the factors that influence the KM implementation in developing their framework.

PROPOSED FRAMEWORK

The framework comprises of determining the existing gap in the knowledge needs of the organization and proposes an iterative process for closing the gap. It focuses on the identification of the strategic needs of the higher educational institutes based on the organizational goals and objectives, organizational hierarchical structure, stakeholders and the processes. Once this has been achieved it is important to determine the degree of the existing KM in the organization- what and how much useful knowledge is efficiently captured and reused in the forms required. The next step is to determine the knowledge gap and the factors that create this gap. The need is to close the gap for the efficient use of organizational knowledge towards goals and objectives. The principal knowledge sources in higher educational institutes are the faculty, students, section heads, staff, administration, registrar and the training and placement services. They create tacit and explicit knowledge in the areas of academics, development and planning as a result of the activities performed. The organizational knowledge is captured and encapsulated to be stored as a central institutional resource for use by all stakeholders. The storage of knowledge is facilitated by a central knowledge base called the knowledge repository.

A knowledge repository is a structured collection of the knowledge generated in an organization. This includes the documents generated and the tacit knowledge available with the stakeholders, explicitly codified. The knowledge repository ensures the availability of related knowledge quickly and efficiently at the same place. The knowledge in the knowledge repository is mapped to different processes and disseminated to the users or stakeholders. [9] have discussed that storing knowledge in a central repository ensures the following –

- a) Maintenance of shared context, thus improving the means of exploration of knowledge.
- b) Ease of access as the knowledge is well structured and available at a central place
- c) Ease of transfer to and fro from the stakeholders and processes.
- d) Enhanced validity of knowledge as only validated knowledge makes its way to the central storage.
- e) Easy identification of the source of knowledge.

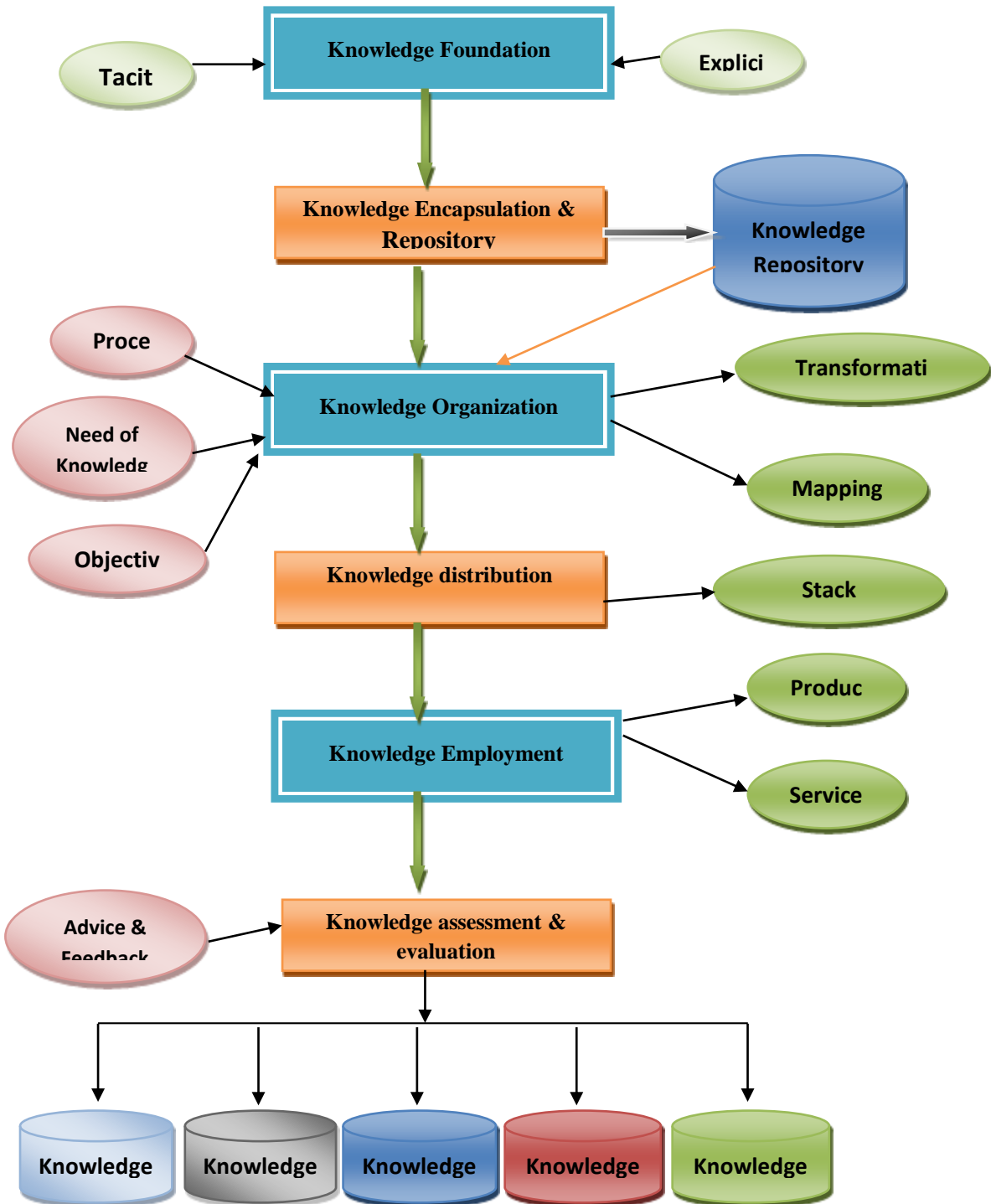


Figure1: Knowledge creation Framework

CONCLUSION

Today higher educational institutions need to be efficient to tackle problems from cross functional, cross organizational, ethical and cultural perspectives and equipped with tools to achieve excellence. For this they need to develop a thriving knowledge sharing culture and look beyond just technology to achieve their goals and objectives. From the results of the survey as discussed in the paper the authors conclude that IT based KM intervention in HEIs can prove to be a promising techno management tool to enhance performance in the vital areas of teaching and learning, research and administrative services. Based on the results the authors have presented a conceptual framework for the development and refinement of knowledge management systems in higher educational institutions. The authors feel that if implemented, the framework will yield more benefits to improve the quality of knowledge sharing and use. The approach will enable higher educational institutes to proactively respond to the needs of the stakeholders and acquire enhanced capability to plan and develop.

REFERENCES

- [1] Ashish, Arun, "IT Based KM in Indian Higher Education System: Addressing Quality Concerns and Setting the Priorities Right", Journal of Knowledge Management Practice, in the year 2006.
- [2] Brown, J.S., Duguid, P., "The Social Life of Information" Harvard Business School Press in the year 2000.
- [3] Butler, T., Murphy, C., "Implementing Knowledge Management Systems in Public Sector Organizations: A Case Study of Critical Success Factors", *International Journal of Computer Applications (0975 – 8887) Volume 29– No.1, September 2011.*
- [4] Delen, D., Al-Hawamdeh, S., 2009, "A Holistic Framework for Knowledge Discovery and Management", Communications of the ACM June 2009.
- [5] Duffy, N., "Benchmarking Knowledge Strategy", Knowledge in Action WITS Business School, Johannesburg in the year 1999.
- [6] Eppler, M., Glossary definition: Knowledge Management.Net Academy: www.knowledgemia.org
- [7] Frappaolo, C., "Knowledge Management", West Sussex: Capstone Publishing Ltd. In the year 2006.
- [8] Huveida, R., Shams, G., Hooshmand, A., "Knowledge Management Practices in Higher Education Institutes : A Different Approach", published in IEEE in the year 2006.
- [9] Kevin, C.D., Evaristo, J.B., "Managing Knowledge in Distributed Projects", Communications of the ACM, published in the year 2006.
- [10] Kidwell, J., "Applying Corporate Knowledge Management Practices in Higher Education", Educause Quaterly, published in the year 2000.
- [11] Milam, John H., Jr., "Knowledge Management for Higher Education", ERIC Digest ED464520 in the year 2001.
- [12] Nagad, W., Amin, G., "Higher Education in Sudan and Knowledge Management Applications", IEEE in 2006.
- [13] Nakkiran, N.S., Sewry, D.A., "A Theoretical Framework for Knowledge Management Implementation", Proceedings of SAICSIT, in the year 2000.
- [14] Nakkiran, N.S., "Knowledge Management for the South African Motor Vehicle Manufacturing Industry", Proceedings of South African Institute of computer Scientists and Information Technologists Annual Conference, in the year 2001.
- [15] Nonaka, I., "Knowledge Creating Company", Harvard Business Review on Knowledge Management, Harvard Business School Publishing, Boston Vol. 2004.
- [16] Petrides, L.A., "Knowledge Management, Information Systems and Organizations", EDUCAUSE Center for Applied Research, Research Bulletin, in the year 2004.
- [17] Ranjan, J., "Knowledge Management in Business Schools", Journal of Information and Knowledge Management, in the year 2008.
- [18] Ranjan, J., Khalil, S., "Application of Knowledge Management in Management Education : A Conceptual Framework", Journal of Theoretical and Applied Information Technology, in the year 2007.