



QUALITY CONCERNS IN HIGHER EDUCATION: KNOWLEDGE MANAGEMENT AND DISSEMINATION

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ABSTRACT

A structured education framework goes a long way in creating a smart human capital, skilled enough to build solutions for handling next-generation problems and making a long-lasting societal impact. The higher education sector plays an important role in building the right set of skills and establishing a global force to be reckoned with.

Several universities and affiliated colleges have been established across cross-functional streams to cater to the needs of the burgeoning student group in India. These wide-ranging educational opportunities have been accompanied by some critical challenges concerning quality in higher education. Addressing these concerns should assume the topmost priority across the higher education framework. In this regard, the role of Knowledge Management (KM) and its proper dissemination assumes critical importance in redressing and transforming the current higher education scenario and cannot be understated.

With the availability of disaggregated knowledge chunks in various forms across the educational framework, it is imperative to establish streamlined processes, forums, frameworks and policies to both promote existing KM practices and establish new processes and tools with the help of technology. This paper discusses KM in higher educational institutions, opportunities and challenges in undertaking initiatives for the professional development of teachers in higher education, and how initiatives like Academic Performance Indicators (API) and Career Advancement Scheme (CAS) can socialise knowledge practices and tools among the greater community. This would go a long way in promoting sustainable knowledge-sharing practices.

This paper critically analyses how initiatives like API can be instrumental in establishing a broad assessment framework to improve the overall quality of services and propel quality education to the fore. The CAS scheme was established by the University Grants Commission (UGC), vide regulations dated 30.6.2010. If implemented in the right spirit, it can act as a catalyst for the professional development of teachers across multiple levels and make organic knowledge dissemination a reality.

Finally, the paper proposes recommendations for establishing particular KM and dissemination practices to maintain a productive and efficient higher education framework across India.

INTRODUCTION

Massa and Testa (2009) note that knowledge is an important source of value creation in an organization and needs to be managed carefully. In the rapidly changing face of society and the global economy, knowledge is the 'fuel' that advances society to greater accomplishments. It is embedded at each level of an organisation across functional areas and streams and is the life breath for the organic growth of the society and nation as a whole.

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education sector plays an important role in building the right set of skills and establishing a global force to be reckoned with.

Every academic institution contributes in a big way to creating a knowledge repository. This gathered information goes a long way in disseminating knowledge among the greater society. Several universities and affiliated colleges have been established across cross-functional streams to cater to the needs of the burgeoning student group in India. These wide-ranging educational opportunities have been accompanied by some critical challenges concerning quality in higher education. The humungous volume of disorganised information available from process documents, training materials, sheets, reports, project findings, etc. needs proper management with a robust dissemination model for addressing some of the quality challenges corresponding to higher education and allowing professional development of faculty members through Academic Performance Indicators (API).

QUALITY CONCERNS IN HIGHER EDUCATION - CHALLENGES

With multifarious sources of knowledge generation across educational institutes and diverse stakeholders at stake, it is important to take note of challenges to streamline Knowledge Management (KM) and disseminate the required knowledge effectively. Kidwell (2000) observed how an organisation's generated information – implicit, tacit, and explicit knowledge needs to be aggregated at a centralised repository, processed through business rules, harvested to intelligently connect data coming from different sources, and then adequately disseminated to all intended stakeholders based on need and purpose.

According to Aswath and Gupta (2009), one of the major challenges surrounding KM is the way knowledge is disaggregated and is not captured effectively. There are innumerable ways a knowledge item can get generated, and evolve into informational assets. Hence, capturing all knowledge-generating sources in their entirety is indispensable to having an accessible KM in place.

Storing/capturing and aggregating the disaggregated knowledge items is another major challenge. An academic environment is often a beaming treasure of knowledge, but a lack of an organised approach and objective evaluation often results in redundant, disorganised pieces of segregated knowledge. This serves as an antithesis to KM and dissemination, especially in the context of API. The intellectual output from educational institutes can be truly measured through a robust KM, with streamlined processes for retrieval and storage helping in API improvements across faculty.

Another challenge is the relative difficulty in maintaining tacit knowledge vis-à-vis explicit knowledge. Biloslavo, R. & Trnavcevic. (2007) observe that technology can help in capturing the tacit knowledge from the individual level and make it available at the organisation level to help develop the knowledge, skills, and capabilities arising from each such knowledge construct and contribute towards professional development in the long run.

The examination-driven curriculum and memory-based pedagogy exacerbate the challenges further. Inadequately trained faculty results in poor teaching methods, deviant from the state-of-the-art pedagogical interventions driven by technology. Inadequate infrastructure and funds allocation makes the situation more daunting for educational institutions to formulate an efficient, equitable, accessible knowledge-driven system that can be both economical and sustainable in the long run. This is indispensable for developing rational thinking in the young population and engaging them positively in the nation-building process.

KNOWLEDGE MANAGEMENT SYSTEM – AN OVERVIEW

Addressing these concerns should assume the topmost priority across the higher education framework. In this regard, the role of the KM System and its proper dissemination assumes critical importance in redressing and transforming the current higher education scenario and cannot be understated.

It is important to bring about innovative knowledge models, customised according to the needs of the target audience with the quality of delivery as a major focus area. The development of a well-networked knowledge base with an overarching architecture to include all communications, activities, discussions, and publications can be the starting point. Each knowledge base will be specific to the institute, catering to the needs of the students. Also, the database should be maintainable, so that it evolves with time and is not a siloed repository.

Knowledge Management (KM) at its core involves identifying, organising, storing, and disseminating information. Nonaka (1995) observes how KM creates an organisational memory, aids in operational efficiencies, and identification of skill gaps. Having an accessible KM system is very important for a dynamic enterprise like an educational institution to sustain and grow, and not having one can be detrimental to its very existence. Hence, for enabling organic growth and to cater to the contemporary

quality issues faced by educational institutions, this disaggregated knowledge needs to be harvested and stored properly.

Cavell (2002) considered knowledge acquisition to include complex cognitive processes with the following stages often in multiple feedback loops – perception of the item, learning to get acquainted with the knowledge piece, association in the mental model to make connections in the cognitive memory and reasoning. This model helps in developing a knowledge model which is flexible and adaptable, making necessary linkages to similar knowledge items easier. This is essential for research and innovation studies to facilitate API improvement.

BENEFITS OF HAVING A CONNECTED, INTELLIGENT, TECH-DRIVEN KMS

It would be pertinent now to critically analyse the benefits of utilising a modern, technology-driven Knowledge Management System over the traditional siloed approach, especially for addressing quality concerns arising in educational institutions. This reinforces the need for well-oiled KM machinery. Biloslavo and Trnavcevic (2007) push this message succinctly.

Connected communication sources and enabling real-time collaboration are one of the stand-out features of a tech-driven KMS, supported by a knowledge base. It is very important to capture all three types of knowledge – tactical, implicit, and explicit - to have a comprehensive database in place. KMS makes available the right tools and processes to enable the capture of all these knowledge types from multiple sources. Explicit knowledge can be captured easily in manuals, guides, publications, reports, white papers, and various case studies. The KMS should also facilitate the capture of more difficult tactical and implicit knowledge.

Knowledge sharing is another feature enabled by a KMS essential for a research orientation. Content Management Systems help manage and publish content, including multimedia. Similarly, Document Management Systems (DMS) act as a centralised storage system to manage various documents, grouped according to metadata and public distribution. Cloud-based solutions go a step further in enabling anywhere, anytime, secure, equitable access to informational assets, and hence provide a competitive advantage for all stakeholders and return a high cost-benefit ratio.

In the era of tech-driven innovations to focus on the big picture, the engagement platform enabled by the KMS helps in transferring knowledge between faculties and gets departments to work together towards a common goal through a spirit of cross-collaboration.

Since KMS fosters knowledge sharing as a basic tenet, it would be far much easier for faculty to draw upon experiences from different qualitative and quantitative data available and develop customised modules according to the end audience, as mentioned by Barbara Friehs (2003). This circumvents the need to start from scratch and helps build courses from the already available data and reduces the delivery time.

Viewed from the lens of professional development of teachers in higher education, KMS plays a critical role, coming with a lot of opportunities as well as focus areas through API and the Career Advancement Scheme (CAS). The core vision around these schemes is to socialise best knowledge practices and tools among the greater community and goes a long way in promoting sustainable knowledge-sharing practices across institutes.

According to Parekh (2009), knowledge sharing ultimately results in improved training shortens faculty's learning curve considerably, and empowers them to imbibe best practices from day one, rather than re-inventing the wheel again. All the lessons learned from previous workshops are kept at a single location, which can be retrieved, and organised into information nuggets backed by data to help create a win-win situation for all. This helps bridge the gap in the quality of services by fostering a culture of innovation.

ACADEMIC PERFORMANCE INDICATORS (API) AND KMS

API has been introduced by UGC to promote quality academic research potential in higher educational institutions in India and produce quality research. An API score is issued for each faculty, with weightages for teaching, research, and co-curricular activities. This assumes significance to inculcate a scientific mindset among the teachers and is instrumental in establishing a broad assessment framework to improve the overall quality of services and propel quality education to the fore. This is also used as a primary metric to revamp promotion and recruitment procedures in higher education institutions.

The CAS scheme was established by the University Grants Commission (UGC), vide regulations dated 30.6.2010. If implemented in the right spirit, it can act as a catalyst for the professional development of teachers across multiple levels and make organic knowledge dissemination a reality. API forms a major criterion for CAS implementation.

According to Kanagaraj (2019), there have been diversifying opinions on how effective API has been in improving the quality of higher education in India. A study was done to gauge the effectiveness of the program and its overall usefulness to make the research ecosystem in India more fluid, participatory, and effective. Though API has led to the emergence of fake journals and publications in some cases, the study concluded that redressing the flaws would render the scheme more effective and contribute to establishing a quality-driven higher education ecosystem throughout India. The study reinforced API as one of the major criteria to evaluate the performance of faculty.

KNOWLEDGE APPLICATION FOR IMPROVING API PERFORMANCE – A FRAMEWORK

To redress the pitfalls which come with any scheme, it is imperative to have a critical analysis done to identify the loopholes through a root cause analysis and rejuvenate the scheme using a combination of process improvements, technology, and implementation of best practices. This should then be run as a proof of concept over a small study group to notice the impact and then scaled up to a larger audience basis the feedback and performance.

In connection to KMS, establishing standardised KM and dissemination practices is important to maintain a productive and efficient higher education framework across India. According to Gao, F., Li, M., & Clarke, S. (2008), the whole process can be grouped into the stages as described below.

Knowledge Identification – This stage involves identifying the source and value of the knowledge item and discerning opportunities to leverage the value of connected knowledge. This is essential for the proper management of knowledge, as it helps in the assessment and mapping of expertise levels to the skill gaps and enhances their skill levels and academic performance.

Knowledge Acquisition – After identification, necessary knowledge has to be acquired from relevant sources, in addition to exploring the internal resources/knowledge for connecting the dots, and/or accessing knowledge from external sources using technology. These may include scanning, focused research, and organisational learning itself through established best practices. This leads to a pathway of improving academic performance as a process, rather than as a one-time activity.

Knowledge Storage – To enable easy retrieval of acquired knowledge in the future, it is important to devise an overarching architecture to record the knowledge in an organised manner. This storage mechanism should be comprehensive, robust, secure, and reliable, with proper catalogue and metadata maintained to make sure disaggregated future data is put into proper buckets. The underlying knowledge base should facilitate research orientation and form knowledge connections to improve API and facilitate greater adoption of the CAS scheme.

Knowledge Sharing – Knowledge sharing is the sine qua non of a truly effective KM System. The exchange of information and knowledge from one source to another determines the effectiveness of knowledge sharing. One of the challenges is around sharing hidden/experiential knowledge. Facilitating this will bring out the real competitive advantage of the faculty, and hence the enterprise.

Knowledge Application – Knowledge does not serve any process until it resides in the knowledge base without being utilised for application. The dissemination should solve real-world problems, enhance faculty's research techniques and improve the academic performance of students. This requires coming together of all stakeholders and consensus to apply knowledge for an improved API.

All the above 5 stages – from knowledge identification, acquisition, storage, and sharing to application or dissemination are important for improving academic performance, and all these should work in synchronization to make sure that the end objective of having a streamlined CAS is achieved, with a feedback loop in place to make necessary corrections. Chen and Burstein (2006) note that these components, when put together, will enable a sustainable, self-thriving knowledge model to be in place, with proper business rules defining the workflow from capture to dissemination. This is characterised further by minimum human intervention, codification of new knowledge, and archival of not-so-relevant knowledge items, making research and innovation activities hassle-free.

Promotions under the CAS scheme will necessarily get more streamlined when KMS becomes a common denominator determining API improvement for faculty across educational institutions so that there is a real improvement on the ground. The opportunities to improve the Performance Indicator (PI) through networking and overall professional development are immense. According to Liaw, et.al (2008), knowledge sharing leads to improve problem-solving, a better quality of service, and maintenance of organisational assets for future learning. King, et.al, (2001) reinforces how adopting knowledge-sharing contributes to a dynamic, organic faculty rather than a monolithic, redundant organisation.

CONCLUSION

In today's evolving world, making use of tacit knowledge to convey information in real-time constitutes the real value creation by the faculty, and as a corollary by the institute as a whole. With the open access movement making knowledge accessible to everybody without any barriers, all higher education institutes should adopt KM best practices across their organisation. Such peer-to-peer knowledge tools help share knowledge and harvest new knowledge.

Data Mining, knowledge mapping, indexing, and metadata formulation, along with proper categorisation are some aspects that need to be given attention while developing a comprehensive KM System. A pan-organisation KM adoption requires adequate support from a plethora of stakeholders – management, technical experts, faculty, students, and KM experts - among others. A properly formulated KM facilitates collaborative practices among interested groups, dissemination of knowledge without barriers, and establishes a standardised way to research and publish.

In summary, the KM system and dissemination practices establish the overarching framework for API to work as an effective mechanism to promote and recognise faculty objectively under CAS. This also contributes to developing a knowledge society at large, allows a seamless exchange of relevant knowledge between educational institutes and industry, and plays a big role in scaling up research at the industrial-corporate level quickly without overheads.

A scalable, robust KM system thus acts as the critical linkage in addressing the quality concerns arising out of disaggregated information and propagating a research and innovation culture across departments. This eventually generates new business opportunities with strengthened corporate-academia linkage to establish an organic, vibrant, consolidated, and dynamic knowledge society.

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