

Title of Case:

Enabling Knowledge Management in Large Decentralized Organizations: A Case Study of NUS.

Presenter's Name, Position, and Organization:

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The Background and Purpose of the KM Effort

NUS is a leading university in the Asia-Pacific region. It has more than 23,000 undergraduate and 9,000 graduate students from over 90 countries. It also employs around 3,000 academic and research staff and 3,500 general and administrative staff to support its teaching, research, and administrative functions. Other than cross-faculty collaborations, the university also works closely with more than 100 external teaching and research institutes and centers world-wide.

The importance of knowledge as a critical resource in NUS is reflected in its vision, “towards a global knowledge enterprise - unrelenting pursuit of excellence in education, research, and service”. In carrying out its teaching and research functions, large volumes of multi-disciplinary expertise and administrative knowledge relevant to different communities are generated at both university-wide and faculty levels. The key challenge was to consolidate documents, knowledge, and information scattered across various faculties, departments, staff, and students. Therefore the purpose of the KM initiative was to retain and improve access to knowledge resources residing at dispersed locations, facilitate collaboration, and leverage on various knowledge assets within the university to improve operational efficiency and organizational effectiveness.

What NUS Did

In response to the above challenges, the plan for a KM initiative started in 2001. Various KM technologies such as the Electronic Document Management System (EDMS), Enterprise Portal, Web Content Management System (WCMS), and Collaboration Management System (CMS) were implemented in 2002 to 2003. To further exploit existing knowledge to improve strategic decision-making, a university-wide business warehousing system was commissioned in 2006.

The Computer Centre (CC), which is responsible for building the university's IT infrastructure and deploying campus-wide IT services, played a leading role in the adoption of KM-related tools and practices in NUS by incorporating them into the university's IT infrastructure and making them available to various faculties. Each faculty is supported by its own IT unit, which caters to the specific IT needs of the faculty. The CC worked with different faculties to implement and promote adoption of KM tools and practices. However, the faculties also customized or used their own systems as needed e.g., some used open source software for their specific needs to reduce costs. This resulted in different KM capabilities across faculties.

Lessons Learned

Overcoming the human barrier to knowledge sharing was the major problem faced. For sharing general knowledge such as financial or HR policies, this problem did not

surface. However, for more proprietary knowledge, e.g., programming in the developer's corner, some developers were less willing to share because of ownership concerns as well as additional effort involved. Overcoming such hurdles involved persuasion from higher management mainly in the form of informing staff about the benefits of the system. Also reinforcement of encouragement for knowledge sharing on a regular basis was found useful. Another hurdle was to facilitate non IT savvy users to utilize the KM tools. Basic training and helpdesk support was useful for this purpose.

There are still several unresolved issues. Particularly in an university context, academics consider themselves quite autonomous in their work. They do not like to be told to what to do e.g., to use a particular system/ format to share their knowledge. Currently academics share knowledge within their research groups through seminars, emails, meetings, and other individual mechanisms. Therefore, a future plan is to develop platforms for academic knowledge sharing. Another agenda item is to develop a knowledge taxonomy for the university.

Impact and Benefits

KM is found to benefit the organization in many aspects such as providing ease of access to content, knowledge continuity, and consistency. Having an enterprise wide portal was found beneficial in several ways e.g., whenever there is staff turnover. Also, a new employee can be quickly oriented by showing them the repository where they can find most of the content they need. Through the EDMS, existing documents e.g., previous tenders, can be reused to shorten the time to develop a new tender. The system was thus able to reduce paper flow, allow easy search and access, permit document reuse, and improve operational efficiency. In this way, specific systems used their own operational measures to assess the benefits of KM.

Also, different faculties and departments have found differing KM benefits depending on the system, culture, and type of knowledge shared. As mentioned before, different faculties often developed their own systems to cater to their specific needs, e.g., the School of Design and Environment manages images of area and building maps and drawings, while the Faculty of Law focuses more on administering and providing access to knowledge repositories such as LawNet. Therefore this case provides insights into how KM can be implemented in a large organization with fairly autonomous and disparate sub units.