Strategic Re-repositioning in a Dynamic Environment

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Abstract

Purpose – The main purpose of this paper is to discuss the strategic repositioning of an academic library using the dynamic capability framework.

Design/methodology/approach – The discussion is based on the re-organizational process of the Hong Kong University of Science and Technology Library. Three stages are focused illustrating how the Library managed to be dynamically capable including (1) sensing the environmental impacts, (2) realigning and reconfiguring its resources, and (3) implementing effective strategies to respond to these challenges.

Findings – The Library adopted a multitude of channels and media in sensing environmental challenges. By going through a strategic reorganization, the Library has realigned and redeployed its staff resources to better prepare for incoming changes. The reformed organization moved ahead with renewed culture and values, including better internal communication, team spirit, collective learning mechanisms, and effective user communication.

Research limitations/implications – Reorganization is complex and can be highly stressful. Participative culture and effective communication seem to be successful mechanisms.

Practical implications – Cross training on work procedures and routines in other units provided organizational learning mechanisms. This collective learning broadened staff's work knowledge, enlightened their understanding of complex processes, fostered good team spirit, and improved overall effectiveness as more staff become aware of the overall performance implications of their actions.

Originality/value – The paper shares various reorganization concerns and how they were handled. The benefits of a large scale cross training program are outlined.

Keywords: Dynamic capability, Reorganization, Realignment, Training, Learning, Libraries

Article type: Case study

Introduction

Today, our academic and library environment is in a state of unceasing dynamics driven by mega trends in information technology, teaching pedagogies, educational reforms and institutional changes. On top of these fundamental shifts, unexpected events also cause shocks through our highly interconnected socio-economic environment and educational institutions. Within the last few years, outcome-based teaching and learning, benchmarking exercises, quality assurance audits and budgetary constraints are some of the notable examples in Hong Kong.

University libraries are challenged to find ways to cope with these changes. We need to develop and maintain our competence and consistently upgrade our performance with fewer resources. In the business literature, a firm with dynamic capabilities is defined as one with the ability to integrate, build and reconfigure competences to address rapidly changing environments (Teece 1997, 2007, Winter 2002). Borrowing and integrating this strategic management framework into the library world, our libraries are urged to be dynamically capable, that is, equipped with abilities that can (1) sense environmental impacts, (2) realign and reconfigure our resources, and (3) implement effective strategies to respond to these incoming threats (Teece 2007). How university libraries are managed in this dynamic environment is a topic of key concern for library managers. In the following we are sharing the repositioning experience of an academic library in Hong Kong.

Background on HKUST Library

The Hong Kong University of Science and Technology (HKUST), founded in 1991, is a research-intensive university. It has a student body of 9,200, of which 3,300 are postgraduate students. Despite its short history, it has gained international reputation for its strong educational and research programs and performance. The University received consistently high ranks in recent years (e.g., *Times Higher Education Supplement* ranked HKUST at 35th among the top universities in the world in 2009).

Driven by a strong mission and a team of dedicated staff to be service-oriented and user-focused, the HKUST Library is considered as one of the finest university libraries in Hong Kong and in the region. In its modern facilities, the Library houses a strong research collection of digital, print and multimedia formats. Through its staff, it provides quality user services with continuous application of innovative approaches. Like other university libraries, the HKUST Library provides a strong support to teaching, learning and research activities at the University.

Changing environment and heightening user expectations

However libraries do not operate in a static environment with abundant resources. University libraries in Hong Kong have witnessed a spectrum of dynamic environmental changes in recent years. Several areas of changes at the HKUST Library are highlighted below.

Technological changes

Since its founding in 1991, the HKUST Library has been a leader and pioneer in many aspects of information technology development and implementation. For instance, the Library established the first digital institutional repository and the first digital university archive in Hong Kong, among other pioneering implementation of leading-edge technologies. The Library has not only continued to implement new technology focused on enhancing user services, but has also developed and shared with other libraries a wide range of software programs to support library activities and operations, including AuthFix for CJK Authority

Records, Automated Batch Update for Scriblio (next-generation library catalog), and Top 20 Most Accessed Documents (through digital institutional repository).

Like other academic libraries across the globe, the HKUST Library is faced with an increasing challenge of using limited funds to acquire both electronic and other resources needed by its users. In addition to delivering full-text digital documents to faculty and student desktops through various ILL programs and electronic means, the Library has continued to improve its systems and tools, including RSS feeds, SmartCat and other web 2.0 applications, link-resolvers (WebBridge and SFX), and federated search engine (Metalib) to help users to get optimal usage of electronic content.

334 changes

Hong Kong currently has an educational system similar to the British one. A new scheme, or a "3+3+4" academic structure, will be implemented in 2012. As a result of this education reform, four-year degree programs will be implemented at all government-funded universities in Hong Kong and about 1,850 additional undergraduate students will be enrolled at HKUST.

Planning for curriculum, courses, new regulations and procedures, orientation, student learning and development, and implementing capital projects and building enhancements already have significant work implications for many people at the University, including the Library staff. To ensure that HKUST's international standing for research excellence is continuously complemented with a reputation for excellence in undergraduate education, all teaching and service units will need to be well prepared for the major changes in 2012 and beyond. Library staff have been mobilized to participate in various initiatives concerning the 334 changes.

OBE/quality assurance

Internationally and locally, there is an increasing interest in outcome-based education, or student learning outcomes. The Hong Kong government has been encouraging outcome-based approaches in student learning at government-funded institutions. To give strategic consideration to these approaches and to take corresponding actions, the Library will need to assess whether the library activities and its deployment of staff resources are effective in enabling students to achieve intended learning outcomes.

At the same time, there is also an increasing emphasis on quality assurance. The Hong Kong government believes, through institutional quality audits and other programs, its funded universities should be encouraged to consider deploying best practices and processes to ensure teaching and learning quality. Placing an emphasis on quality assurance certainly helps universities and libraries focus their efforts on achieving goals and objectives, but it also has considerable performance implications, especially when staff and other resources are limited. The Library has employed user surveys, measurement of key performance indicators and quality assurance related activities to gather external input and service data to help the Library to ensure and maintain service quality.

Learning Commons

Using new space added to the HKUST Library, a learning commons is being planned and created in the Library as a means to better support student learning when and after the four-year undergraduate program structure is implemented. This Learning Commons (LC) is conceived to be a multi-faceted facility that serves and supports multifold aspects of learning outside of the classroom.

Services of the Learning Commons will be provided and delivered in a way that builds on the strength and competencies of various academic support units (e.g., Center for Excellence in Leaning and Teaching, Language Center, Library, Student Affairs Office, etc.) After its creation, the LC facility will be managed and maintained by the Library drawing on its good and useful experiences of running the Information Commons. Although it is recommended that the LC will be funded separately as a campus-wide strategy for supporting and enhancing student learning, it will still have significant management implications in a rapidly evolving environment.

How do libraries cope in this changing environment characterized also by increasing user expectations and limited resources? In the following we discuss three stages on how the HKUST Library managed to be dynamically capable including (1) sensing the environmental impacts, (2) realigning and reconfiguring our resources, and (3) implementing effective strategies to respond to these challenges.

Sensing the environmental challenges

The first key competence of a dynamically capable organization lies in its ability to decode, assess and filter incoming environmental challenges of an organization and effectively communicate these threats with its internal senior management and be amply responsive. In addition to being responsive, Teece (2007) proposes that a dynamically capable institution needs to be proactive, that is, to also sense new opportunities in the changing context. Thus, this process includes scanning, searching, and exploring in technological and user spheres (March and Simon 1958, Nelson and Winter 1982). When an organization has the ability to scan the environment, to evaluate markets and competitors, and to quickly accomplish reconfiguration and transformation ahead of threats and competition, it has dynamic capabilities.

Translating to our Library context, this sensing process is very important and is conducted by all twenty professional librarians and led by different administrative heads and various library committees. Administrative heads together with their staff do environmental scanning to learn of changes in technology, user needs, library applications and market trends. Subject librarians reach out to faculty, students, liaisons and different user groups in the sensing process. In various library committees, the senior management team meets regularly to discuss the changing environment and how they impact corresponding library functions and services. We often develop alternatives to meet these changes within the constraints of our university context.

Take the development of Learning Commons as an example; it can be a threat as well as an opportunity. Librarians conducted environmental scanning on the emerging user demands, design requirements and latest developments on our own institution, as well as peers in the regional and international arena. A variety of sensing channels have been employed including listsery, RSS feeds, mailing lists, newsletters, meetings, seminars, conferences, published literature, Internet, library visits, etc. After much searching and exploring, librarians met in committee meetings decoding, assessing and filtering information and proposed design plans and made submission to the administration within the requirements and constraints of our university context.

This sensing process is our ability to absorb and understand the nature and extent of different environmental impacts to the Library. Two major outcomes resulted from this process. First, the meetings and discussions built consensus among the senior management team. While a number of issues on a particular impact were debated in meetings, all members of the senior management team understood the extent of the challenges and their potential consequences to the Library. Second, the sensing process enabled us to develop necessary

goals and legitimized strategies and proposals that help realign and reconfigure library resources to better prepare for new challenges and changes.

Strategic reorganization: realignment and reconfiguration of library resources

The ability to realign its resources in a dynamic world is the second key competence of a dynamic capability institution. As our environment continues to change, we not only need to continue to improve library services and enhance our service facilities, but also need to adjust our service strategies and ways of thinking and streamline our operations and procedures. Apparently making substantial adjustments or changes to existing organizational structure are not simple tasks, as they often generate anxiety and unrest among staff as well as causing confusion to users. Therefore, we think it is useful to share with you some of our recent experiences in our strategic reorganization.

HKUST Library had an organizational structure which existed for a good number of years. That operating structure had effectively assisted the management of the Library in the past. In light of a rapidly changing environment, the HKUST Library decided in 2008 to conduct an organizational review and to consider necessary adjustments to its organizational structure. The main purpose of this project was to re-position the Library strategically and realign our resources so that it can continue to provide users with best services in the coming years, in spite of staffing and funding constraints.

Dealing with reorganization concerns

Throughout this review and reorganization process, we used a rational and non-intimidating approach to help reduce the anxiety and uneasiness of library staff. We helped them to realize that the main goal of adjusting the organizational structure was to improve the readiness of the Library in meeting challenges ahead, including the many changes the 334 education reform in Hong Kong will bring to our campus.

A set of review criteria was put forward in the planning process. Reviewing the strengths and weaknesses of the previous organizational structure, with which all Library staff members were familiar with, provided a good start to the whole process. We provided the following specific directions or questions to help the Library staff to consider the merits or weaknesses of the previous structure.

Whether the existing organizational structure of the Library –

Facilitating decision making?

Facilitating communications within one's own unit and across different units?

Facilitating problem solving?

Increasing group and individual effectiveness?

Providing checks and balances regarding workloads?

Facilitating assessment of job performance of individuals?

Providing motivation to work hard?

Providing opportunities for cross-training?

Allowing staff to identify themselves closely with their own unit and the Library? Ideally the proposed reorganization structure should therefore satisfy some if not all of the above conditions.

Generating and discussion of alternatives

To assist this process, we also set up a special work group, the Task Force on Library Organization, chaired by the University Librarian. The Task Force was charged to facilitate the review process and to solicit suggestions on necessary adjustments and ideas on new organizational models. During the whole process, we encouraged Library staff to exchange views with each other, talk or send emails to any member of the Task Force. We also installed in the staff lounge a suggestion box to facilitate the submission of written comments or suggestions by some staff members who might prefer to remain anonymous. In addition, we encouraged the Library staff to consider and focus on the kind of changes that would be useful to the overall Library organization, rather than to be unduly concerned with or to worry about individual cases.

After considerable deliberations on various suggestions, the Task Force identified a number of good organizational models. We discussed the pros and cons of these models with all Library staff through open forums, before we selected one of the most promising organizational models. We again iterated that changes to our organizational structure would not downgrade the importance of various activities, but to give reorganized departments greater flexibility to meet new challenges.

Outcome of reorganization

Although we faced some challenging issues or questions during the process, we have successfully implemented organizational changes. Due to good approaches or methods used, we not only expanded, but also deepen staff participation in such a process, effectively maximizing the energy and capacity of our strategic deliberations.

With this reorganization, the original five separate departments were replaced by three realigned departments, i.e. "Collection and User Services Department", "Systems and Digital Services Department", and "Technical Service Department." Shortly after that, we also made necessary adjustments to Library Committees and Working Groups to better support the new Library operational structure.

This reorganization is a process to realign and reconfigure staff resources in order to achieve the maximum effectiveness and efficiency in management, operation and service provision.

Take in Figure 1: HKUST Library Organizational Chart

Take in Figure 2: Library Committees and Working Groups

Implementation strategy

The final stage of the dynamic capability model concerns with how to execute the chosen alternatives or strategies that were agreed upon. This also involves moving the new "reformed" organization ahead into the implementation stage. The new Library organizational structure has brought a new organizational culture and renewed some of our values.

In the following we concentrate on a newly formed "Collection and User Services (CUS)" Department to serve as an illustrative example for the Library as a whole. The department was formed in September 2009 when a new department head was recruited. In the discussion below we focus on three dimensions in our implementation strategy. They include the management dimension, the operational staff dimension and the user interface dimension.

Management dimension: communication of new goals among the units
The CUS Department is composed of 47 staff members (10 librarians and 37 support staff) who work in four units, including "Reference and Research Services", "Access Services", "Collection Development", and "Archives and Special Collections". Its collection and user

services responsibilities include collection development, university archives, special collections, circulation, reserve, stack maintenance, media and microform services, reference, document supply service, information commons, institutional repository, and user education.

At the management level we are concerned how the unit heads align our departmental goals with the Library mission and assume responsibilities co-operatively and effectively. These departmental goals, including those in collection, publicity, services, user education and staff development, were set for the next three years. Staff were consulted as we aligned the departmental goals.

While communication among staff within each unit is relatively easy, communication across units is harder. To facilitate this, CUS Connection, a monthly informal meetings of 15 librarians and supervisory staff, serves as the key communication vehicle. These informal meetings are held in the staff lounge of the Library with snacks. They give members a chance to get connected with other units or peers in the department. Due to the group size, each member usually shares information on their recent projects or important activities concisely. The meetings have no secretary to take minutes as each member records one's report in the departmental wiki site, which is open for posting and access by all Library staff. This co-creation process empowers the staff involved and facilitates effective communication within and across the Library departments. More importantly, collegial spirit was further enhanced through this format.

Operational dimension: staff re-deployment and cross-training
A major challenge at the operational level concerns with effective realignment and redeployment of staff and how their newly assigned roles be fulfilled and internalized as learned operating system and knowledge within the Library. In these cases training and coaching are indispensable.

In our context, a number of staff re-deployment was made, allowing the units to effectively execute their new or revitalized duties. Re-deployment is also a realignment process to relocate staff resources from areas of decreasing demands to functions of increasing needs. There was consolidation of counter services in three areas. Circulation and Reserve Counters were combined to provide one service point. Responsible staff on duty need to be familiarized with routines of both counters. Reference and Information Counters were combined with some support staff manning the non-busy hours at the Reference Desk. Some support staff were re-deployed to staff the Information Commons Help Desk. A small work group was formed to be responsible of designing and developing posters for external publicity. Those who were redeployed, selected from different units, were given training sessions on hardware, software, technical support and customer relations. Additional meetings were arranged and detailed coaching was provided when needed.

Cross-training

In addition, a large scale cross-training was launched to CUS staff in January 2010 during the one-month winter break to further enrich our staff's job skills and expose them to different functions and services. Two types of training were organized to improve collection knowledge and to enhance service delivery. The department head, unit heads and supervisors held several meetings to set the direction, objectives and identify potential training programs. The department head conducted two briefing sessions to better prepare all CUS staff before the training.

In total, 21 training programs on operational procedures were organized through 30 sessions. They covered overviews of workflows in areas such as basic circulation,

course-reserve articles processing, book mending, repairing damaged VHS tapes, Octopus data loading, e-theses processing, book mending, Special Collections, University Archives, Institutional Repository, and ILL cycle. Each session lasted 30-45 minutes. A pleasant surprise is that all staff volunteered and participated in 30 training sessions with many in multiple programs. Three common comments by the participants were that these trainings broadened their work scope, helped them understand workflows in other units, and further increased their interests in the work of other units. As staff could attend multiple programs, the total attendance had reached 332. In the post-training surveys, overwhelming positive results were received with 92% response rate. All participants found the sessions met their stated learning objectives and 99% agreed that the sessions were delivered effectively. Many written comments were received with positive support to the training. These illustrate that a byproduct of the cross-training enhances team-building and fosters positive spirit in the department.

The program organizers and trainers also found this initiative beneficial and enjoyable. The organizers were supervisors who identified training requirements and programs, planned the logistics, scheduled the events and used Google Docs in running the post-training surveys. In total there were 13 trainers (10 were support staff) who took the training assignments very seriously. Training materials were carefully planned and prepared. Trainers took ownership and pride in sharing tasks and procedures they were familiar with and good at. For example a trainer demonstrated in detail how one can construct phase boxes to protect rare items in the special collection. He live-demonstrated the skills and techniques involved and shared his working knowledge on collection preservation, which he accumulated over time.

Another example is the Octopus data loading in the photocopying service. While Octopus card is a popular debit card in Hong Kong accepted in most transportation modes and convenient stores, few of us understand its operational details. In our library, users use Octopus cards to pay for photocopying and printing services. The trainer demonstrated the steps and procedures in recording meter readings from photocopiers and printers using a PDA and a card reader. She further showed the workflow in loading the data to the Octopus vendor online. Her sharing enlightened most participants in this highly efficient and commonly used payment system.

A third example is the ILL Out of the Usual session. The trainer shared several untypical ILL requests which required extra behind-the-scene detective work. Through the story telling, participants learned how information was uncovered from the hidden web, what extra channels were used to obtain foreign language materials and rare items, how incomplete or wrong citations were traced. Library staff already knew the high 95% fill rate of our document supply service. Yet this sharing gave us a glimpse on their level of professionalism and connected us to the high fill rate and the positive feedback from users. As one of the most interesting and last sessions, the cross training ended in a high note.

Take in Figure 3: Cross-training Programs
Take in Figure 4: Post-training Survey Results

Cross training and organizational learning mechanisms

Dynamic capability is a learned and stable pattern of collective activity through which the organization systematically generates and modifies its operating routines in pursuit of improved effectiveness (Zollo and Winter 2002). In short, dynamic capabilities arise from learning.

Conceptually these cross-training sessions are key learning mechanisms. They enrich and reinforce library routines that are stored as procedural memory of an organization (Cohen and Bacdayan 1994). In a way, these routines are key management processes that the Library and its staff have accumulated over time (also labeled as knowledge accumulation). This knowledge is experiential in nature learned through trial-and-error as the staff build up the library's collective wisdom in these tasks (Gavetti and Levinthal 2000).

In these crossing training sessions, the trainers were engaging in a knowledge articulation process in which experiential wisdom on the execution of particular library tasks was shared. Through their sharing and constructive discussions, collective learning happened (Argyris and Schon 1978, Duncan and Weiss 1979).

Staff were also introduced to manuals, guidelines, and patterns in the execution of a complex task. These manuals are the explicit knowledge of understandings of the performance implications of internal routines, or the outcomes of knowledge codification (Zollo and Winter 2002). All these manuals are online, updated regularly, and accessible to all staff.

Library staff have their normal learning mechanisms in day-to-day work. Moreover, through the multiple intensive cross training sessions the "collective" competence is enhanced as more staff become aware of the overall performance implications of their actions. In addition, a thorough understanding of steps and underlying principles in various functions enable staff in different units to cooperate more effectively in the future. Improvements in overall effectiveness will be achieved through these collective learning.

User dimension

User interface is the final and inevitable step of all service operations. Its outcome provides the core and unbiased benchmark on how effective the implementation is. Without an overstatement, if users are not convinced of the change or they disapprove of the changes made, we may regard the entire reform ineffective.

Recognizing its eminence, the Library has created a new committee to be responsible of different aspects of user communications in the following ways. The two main goals of the User Communications Committee are (1) to promote the awareness of library resources and services, and (2) to collect feedback among the various user groups within the University community.

To achieve the first goal, the Committee aims to gain greater awareness among various user groups of the library services, initiatives, and innovations in support of learning, teaching and research at the University. Acting as an advising body and a strategic resource on matters relating to outreach and external communications, the Committee develops ideas and programs to assist the various components of the Library in promoting resources, services and projects. It also collaborates with other Library staff to determine or prepare appropriate and relevant materials to raise or enhance awareness of Library services. These services have been regularly channeled through university communication system including promotional emails, library portals, blogs, RSS, and newsletter. In addition, the Committee is considering additional media such as LCD displays and E-board.

For the second goal, the User Communications Committee will organize or coordinate various activities that help the Library to understand how user groups differ in their information needs and service demands. As a central place on campus, the Library provides an environment conducive for individual learning and group interaction and collaboration. Challenged by these demand characteristics, the Committee is designing user focus groups,

surveys and satisfaction tracking. For new services, related usability/accessibility testing will be conducted.

Conclusion

Dynamic capability is a useful strategic management framework for libraries to conceptualize what needs to be done and how to respond to challenging environmental changes. Sensing the environment, realigning existing resources and implementing effective strategies are the steps HKUST Library have taken.

Be open, threats can also be transformed into opportunities. Though not fully discussed in this paper, our reform brings out university support and additional opportunities for cooperation.

Reorganization is complex and can be highly stressful. Supportive and participative culture, effective communication and spirit of co-operation seem to be successful mechanisms through which to accomplish such project.

At the operational level, cross training offers pleasant surprises. Staff were eager to learn, teach and share with others. These training sessions have broadened staff's work horizon, enlightened their overall understanding of complex routines and processes, fostered good team spirit, and provided a collective learning mechanism. Further training and cross-training will continue and may be expanded to the whole Library to enhance staff's work knowledge, skills and abilities. We will also consider job rotation in the future.

We want to emphasize that this discussion only serves as a baseline case for thoughts on how libraries may meet the challenges of a dynamic environment. Sister institutions will likely have other rich experiences, alternative approaches and insights that enable others to learn and benefit from.

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Figure 1: HKUST Library Organizational Chart

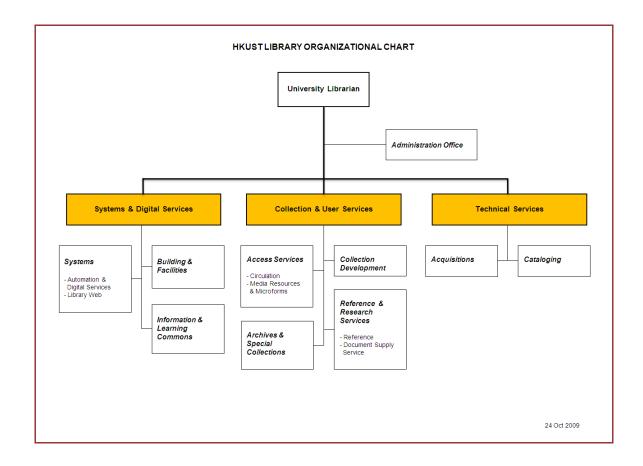


Figure 2: Library Committees and Working Groups

Library Administrative Committee
Access Services Committee
Automation and Technology Committee
Building and Facilities Management Committee
Collection Development Committee
Information Services Committee
Library Staff Committee
User Communications Committee
Library Newsletter Editorial Group
LIB-INFO Working Group
Library Web Working Groups

Figure 3: Cross-training Programs

Responsible Unit Training Programmer Training

Access Service Basic Circulation

Book Mending I & II

Course Reserves Article Processing

E-theses Processing

HKALL Processing I & II
Octopus Data Loading

Repair Damaged VHS Tapes

Archives & Special Collections Introduction to the University Archives

Digital Archives

Operations & Services of University Archives

Overview of Special Collections

Collection Development Introduction of Phase Boxes Making for Special Collections

Reference & Research Services Basic ILL Cycle, Part 1 Borrowing & Part 2 Lending

ILL Out of the Usual Collection Highlight

Institutional Repository Overview

Institutional Repository Data Input Demo

Figure 4: Post-training Survey Results

