INTEGRATED SYSTEMS: MANAGEMENT APPROACHES TO ACQUIRING THEM IN AUSTRALIAN UNIVERSITIES

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This paper uses the case of Australian university to explain outsourcing decision within the university perspective. Analysis shown how the university value chain will be restructured and re-intermediated by the outsourcing process. And how this will bring dramatic new paradigms not just for the university but for the entire value chain supply partners.

The result of this study provide more integrative view on how to apply outsourcing strategies and have important implications for in-campus managers and software houses in the regional area.

BACKGROUND

This case is direct, real and happen in the late 1990's and was analyzed to thoroughly present and explain the relevant concepts. This background provides a short details on the chain of events that occur within 1989-1997.

In 1989, the Core Australian Specification for Management and Administrative Computing (CASMAC) initiative was formed by Australian Vice-Chancellors’ Committee (AVCC) and the council of Australia’s university presidents to answer these needs. The basic purpose of this initiative so that Australian universities can meet information requests from the Government by providing various statistics to enable a degree of public monitoring.

Following this initiative, several systems development projects by different consortia emerged. One of the universities, in this case CQU joined in the UniPower consortium, but eventually the project ran into problems and no useful system was developed. In 1997, it was realized by CQU management that the CASMAC-based project apparently proved to be going not hand in hand with the university and the government reporting needs. The new, Integrated System Project, then introduced that finally resulted in the adoption of PeopleSoft by the university.

PRELIMINARY ANALYSIS

A period from 1989 to 1997 was an example of collaborative IT projects in the particular industry. Collaboration refers to mutual efforts of two or more individual of industry that perform activities in order to accomplish certain tasks. These tasks may be designing products, documents, teach each other, and execute complementary tasks and decision-making. The objective is to improve productivity and competitiveness. It has several advantages and disadvantages. Their advantages are groups are better than individuals at understanding problems. People are accountable for decisions in which they participate. Groups also are better than individuals at catching errors. A group has more information (knowledge) than any one member and, as a result, more alternatives are generated for problem solving. Synergy can be produced, so the effectiveness and/or quality of group work can be greater than the sum of
what is produced by independent individuals. Working in a group may stimulate the participants and the process. Group members have their egos embedded in the decision they make, so they will be committed to its implementation.

Meanwhile, disadvantages of this collaboration need to be mentioned also. Social pressures to conform (group think) may eliminate superior ideas. Group process can be time-consuming, slow and costly. Work done in a group may lack appropriate coordination. Some members may dominate the agenda. Some group members (“free riders”) may rely on others to do most of their work. The group may compromise on solutions of poor quality. The group may be unable to complete a task. Unproductive time is spent socializing, getting ready, waiting for people, or repeating what has already been said. Members may be afraid to speak up.

Specifically, in the CASMAC project, there are various effects that make it advantageous and disadvantageous to some extent:

- **Cost-effective.** The universities will be sharing the total cost of investment. Instead of charging the whole amount to only one university, the total amount is divided into the different universities thus decreasing the cost of the project for each university.

- **Standardized format of reports.** Since the universities will have one system working for all of them, they will have the same reports required by the government.

- **Knowledge Management.** The universities will share information to gather the main requirements for the system.

- **Outsourcing.** Each university can share the best human resource they have to answer the information required for the development of the system. The consultants could be composed of “experts” in specific areas, thus resulting to a system from “best” minds.

- **Lack of Ownership.** Collaboration prohibits any form of alteration in the specifications or requirements of the system unless approved by the consortium. This may lead to delays in meeting immediate needs of the institution.

- **Competition.** Strategic differentiation of each consortium has led to compromise the major requirement.

- **Time-consuming.** IT managers and senior executives have wasted a lot of time conducting meetings towards development of the project.

- **Delayed Implementation.** There was no defined time frame to develop the system for some reasons.

An alternative outcomes may have emerged had the CASMAC initiative not occurred. The Australian universities could have just bought generic software that could be integrated in their existing system that can comply with the requirements of the government. Another possible action that could happen is for these universities to develop a system on their own addressing the needs of their organization at the same time adhering to the information needs of the government.

However, that is not the case during this period. Several initiatives was conducted during those period. One of them is an initiatives by Central Queensland University (CQU) to join the UniPower Consortium.

The determining factor in the decision to join this particular consortium was made because the consortium’s system would be developed by the software house which based their systems development on the Powerhouse 4GL language. And as there was already a strong Powerhouse presence with the existing Student Record application being written in the Powerhouse 4GL language it was hoped that the integration into the future system would be easier.

Other factor was also account for this decision as the comparative success of the PeopleSoft product in Australia was well known. The PeopleSoft has been successful in Australia for its known presence in the Enterprise Resource Planning (ERP) system market. They are known to have developed a University Student system that is being used in the USA and is also known to have adapted to the Australian and New Zealand requirements.

**FURTHER ANALYSIS**
The background and the preliminary analysis give hints on why outsourcings have been done in the CASMAC era and the PeopleSoft era. Based on this findings, our understanding of CQU and the industry, the focus of this section is on evaluating the implications of IT outsourcing to the university’s general value chain. For this reason, the CQU value chain is shown in Figure 1. The next several figure was adapted and modified from Higher Education: Up for Grabs by Ken Laudon, Stern School of Business, New York University, USA.

The analysis on CQU value chain can be further explained by looking at the way outsourcing process have been initially started in 1989 by CASMAC initiative and then in 1999 by the adoption of the ERP systems of PeopleSoft. The era from CASMAC to PeopleSoft is marked by major improvements in value delivered.

Cost reduction stems from consolidation and rationalization in the outsourcing process as better concepts or bigger players (PeopleSoft) drive out marginal or small players (CASMAC). Cost of developing new software can be very high and this can be one of the reason why CASMAC initiative failed at the first time. Because as we know, CASMAC project was intended to build new software system from the scratch. In the other hand, PeopleSoft with their experience in this industry can provide the final product with less cost.

The bigger players use their market knowledge, cost advantage and critical mass to reduce prices and often to improve service, variety, and convenience. Critical mass concept is one of the important concept behind the success of major software company, e.g. Microsoft success. In this concept, software need to have a higher number of consumers used it in order to be more valuable and thus attract more market share.
Afterwards, outsourcing process continues to evolve in the form called “online reintermediation”. In this phase, outsourcing is focused on meeting the needs of specific student segments by using the Web as the media. Outsourcing functions are unbundled and restructured into more efficient or more appealing formats for defined groups of students. Student value is further enhanced through lower prices, better service or greater variety as we can see in Figure 3.

These online reintermediation will bring about major changes in education patterns and practices:

1. Multiple channels and formats will coexist to satisfy different student market segments. Channels are distinct paths between an education provider and a student market through similar economic
entities (in offering courses, for example, traditional university vs. fully online university). Formats are distinct combinations of course offerings and deliverable processes within a general channel definition (for example, the Classroom based teaching versus the Web based teaching). Much more variation in channels and formats are expected. Undoubtedly, the traditional university channel will continue to play a major role as the infrastructure is already in place, although most of the innovations and volume growth will occur elsewhere.

2. The six separate primary production function (teachers, library, classrooms, research, labs, clerical) under the roof of the traditional education provider will be unbundled. The integrated primary production model was established early on when education was still a traditional university. In today’s world it makes little sense to keep it that way. Thus, different operational structures will be required to serve a variety of student needs and economics.

3. The cost of distributing and offering courses will be cut significantly. New formats and channels will discipline the current system to drive out non-value adding cost. Supply chain partner consolidations may unlock substantial economies of scale in the university clerical functions.

4. Course offering and deliverable will concentrate on establishing durable student relationships. Student acquisition costs are high and going higher. It is logical for education provider and their channels to work harder to hold on to the student they have as students can change institution and/or course more easily.

5. The education provider will seek and attain much closer contacts with students. Internet technology enables more effective and efficient direct contact with the students. If, however, the education provider fail to exploit this and other technologies to establish meaningful relationships with students. More powerful supply chain partners or intermediaries will gain the upper hand and end up dictating student needs to them – the education provider.

CONCLUSION & RECOMMENDATION

Essentially, this paper enforces our understanding of the outsourcing process in the university-level and provides a good example that can be considered in the future for other university. The result of this study provide more integrative view on how to apply outsourcing strategies thus, the findings have important implications for in-campus managers and software houses in the regional area.

While it is true that in the last few years, distinction between public and private organisation starting to blur. However, public institution such as those from the educational sector including university generally based the process of making the decision to invest in IT systems quite different than that of private organizations. Private organizations give more emphasis on cost-benefit analysis - the ROI and how much money they would have in return. For public organizations, the concern is not on the cost-benefit analysis alone but they also consider the benefit in transform technology and public services.

Thus, it is recommended that the following criteria be used during the selection process at an university-level respect to the need to choose between various software packages in the future:

- Cost saving (cost-benefit analysis)
- Maintenance and implementation
- Platform (software base use)
- Company background (experience/expertise)
- To understand the requirement and company warranty
- Featuring product (product quality)
- Introducing new the different business process which lead to effective and efficient process

The role of an IT department must also be defined clearly in the situation when all of the significant administrative systems operated by
the organization are packaged software products. The role of an IT department is to create the opportunity to introduce new business processes that are more efficient – it is reorganization and restructuring. The department will also be in charged of knowing what the new system can offer for the organizations’ competitive advantage.

Finally based on the findings of this paper it is recommended that individual IT managers in universities need to be aware of the following impact of any collaborative software project in the future:

- The collaborative project will affect the current role of IT managers
- It will take time before managers to adjust to the new system with the existing system they are using
- The managers have to design a new plan to comply with the new system requirement

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