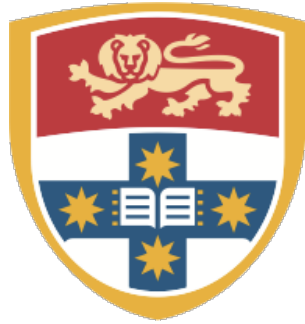




THE UNIVERSITY OF
SYDNEY

PMGT 5877
Management of Project-Oriented
Organizations

Assignment 3: Individual Case Study Report

Harvard Business School Case: Administrative Data Project

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Executive Abstract

The rates of project success have increased over time due to the new knowledge, practices, and standards that have contributed to professionalize the project management. However, an organization's structure, culture, technology and politics can greatly affect the result of its projects. Therefore, it is essential to identify these factors and then optimize them to make sure that the organization is able to develop its comprehensive skills and abilities for better project management result. This article documents and analyzes in detail Barker University's organizational structure, configuration, culture, technology and politics, and how these factors inhibited the effective management of the cross-faculty project - the Administrative Data Project (ADP). Change management and cost management will be discussed with the purpose of exploring a set of strategic methodologies which can help improve the efficiency and effectiveness of project management. At last, in order to enhance the university's ability to support the conduct of its projects, a realistic/suggested organizational form for Barker University will be proposed.

Key words: organizational design, structure, culture, technology, politics, inhibition

1. Introduction

Organization theory can be seen as social systems of co-operation that are designed to improve individual effort aimed at goal accomplishment (Van Der Merwe, 2002). This theory has been used by many professionals and institutions all across the world, in order to better support the project management. Jones (2009) gives us the concept of organizational theory - people and managers knowledgeable about organizational design and change are able to analyze the structure and culture of the organization for which they work, diagnose problems, and make adjustments

that help the organization achieve its goals. By applying this theory, organizational structure, culture, technological and political factors can thus be identified and analyzed.

When we are given a project-oriented organization for analysis, in the first instance we need to look at its organizational structure before any analysis can be done. Organizational structure is one of the most important factors in terms of project management in a project-oriented organization. For any single organization, an appropriate organizational structure is one that facilitates effective responses to problems of coordination and motivation - problems that can arise for any number of environmental, technological, or human reasons (Jones, 2009). It's like a human body's skeletal structure - it's the most fundamental component in our body's growth and change. So is an organizational structure. As organizations grow and differentiate, the structure likewise evolves to better adapt to the competitive global market. In order to manage organizational structure, organizational change and design theory should be employed. A robust organizational structure is always an important contribution to the project success.

Organizational culture grows while organizational structure evolves. People are social animals, and when we work together, a set of shared common values and norms is formed to interact with people both inside and outside the organization. Organizational culture also plays an important role in project management, as it influences how people respond to a situation and how they interpret the environment surrounding the organization. A good project culture can fuel a company's rocket, while a bad project culture can fail the implementation of projects.

Organizational culture develops within the context of national culture and executive leadership. It can be defined as the shared perceptions of organizational work practices within organizational units. An organization can have several cultures at the same time - macro culture, micro culture,

and subculture, etc. It also represents the particular ways of conducting organizational business and is instrumental in establishing the competence of the organization (Shore, 2008).

Organizational technology is always inseparable from organizational effectiveness. When we think of an organization, we are likely to think of it in terms of what it does. We think of energy companies as places where people use their skills in providing better energy distribution and designing better power supplying grid. We view consulting organizations as places where people apply their skills in coordinating with clients and providing them with the best solutions to certain problems. Without technology - such as skills, knowledge, abilities, techniques, materials, machines, computers, tools, and other equipment - people cannot convert or change raw materials, problems, and new ideas into valuable goods and services. People use technology to bring about change to something and add value to it. The selection of the right technology can increase the probability of the project success. Also, successful implementation and deployment of a technology is as crucial as the selection of that technology. Therefore, in order to manage its projects skillfully and efficiently, organizations are keen to use the right technology.

Successful project management is directly linked to the ability of project managers and other key players to understand the importance of organizational politics and how to make them work for project success. While most of people view politics with distaste, there is no doubt that effective managers are often those who are willing and able to employ appropriate political tactics to further their project goals (Pinto, 2000). It is suggested for people to play politics. Also, given the many advantages that accrue to managers who use power to bring about change that resolves conflicts in their favor, it is not surprising that managers want to acquire as much power as they can and then use it to get what they want (Jones, 2009). One more brain, and one more idea. Employees are the biggest component in an organization. They might not have much power or

authority, but they can have more ideas than their manager does. Sometimes the ideas might be very good for the implementation of projects. However, as lack of power, these ideas cannot be expressed at all or forever. Imagine that those ideas may have great impact on the success of the project, and the project may not be conducted effectively or efficiently, or may fail, just because the manager doesn't know.

With these simple explanation of organizational design theories, Barker University's organization structure and configuration, culture, technology, and politics; and cost management and change management will be illustrated in the following paragraphs.

2. Barker University's Organizational Structure and Configuration

There are countless colleges and universities all around the world. However, their organizational structures and configurations vary distinctly, depending on institutional type, culture, and history, yet they also share much in common (AAUP, 1995). A sample university organizational structure is provided in the Appendix, which can be used to analyze Barker University's organizational structure.

Organizational structure is the formal system of task and authority relationships that control how people coordinate their actions and use resources to achieve organizational goals (Jones, 2009). A university's organizational structure is the reflection of interactions between staff and students from different faculties and schools. Barker University had a long-standing tradition of decentralized administration. Therefore, individual units were almost always free to go their own way on almost any issue. No joint program or common effort was, or could ever be, undertaken without clear consensus (Applegate, 2003). Authority was delegated to managers at all levels in

the hierarchy (bureaucratic hierarchy), which would lead to the fact that there were many approaches to administration and operations, each with differing processes and procedures.

Each project team was advised by faculties and staff experts, as well as front-line systems users. Some 300 people contributed time to assisting one or more of the teams (see Figure 1). From the figure we can see that the main structure of ADP Organization was very functional. It had four different divisional task teams - Information Architecture, HR Process Team Leader, Financial Process, and Technical Architecture. Also, each divisional team had its own advisors and resource people, and core team members. These supporting teams worked coordinately and interactively to make sure that the project was on the right business track.

The ADP organization structure, in a way, was a reflection of the university's organizational structure. Like most R&D organizations, Barker's structural characteristics were organic structure, flat organization, decentralized decision making, and mutual adjustment. Barker chose decentralized administration for several reasons like most colleges and universities did.

Decentralization promotes flexibility and responsiveness by allowing lower-level managers to make on-the-spot decisions quickly, which can significantly improve the effectiveness and efficiency of the project management. Managers are accountable for their actions but have the opportunity to assume greater responsibilities and take potentially successful risks (Jones, 2009). Also, managers have the opportunity to demonstrate their personal skills and competences when authority is decentralized, and may be more motivated to perform well for the organization.

However, decentralization has certain disadvantages. If so much authority is delegated that managers at all levels can make their own decisions, planning and coordination will become very difficult. Thus too much decentralization may lead an organization to lose control of its decision-making process.

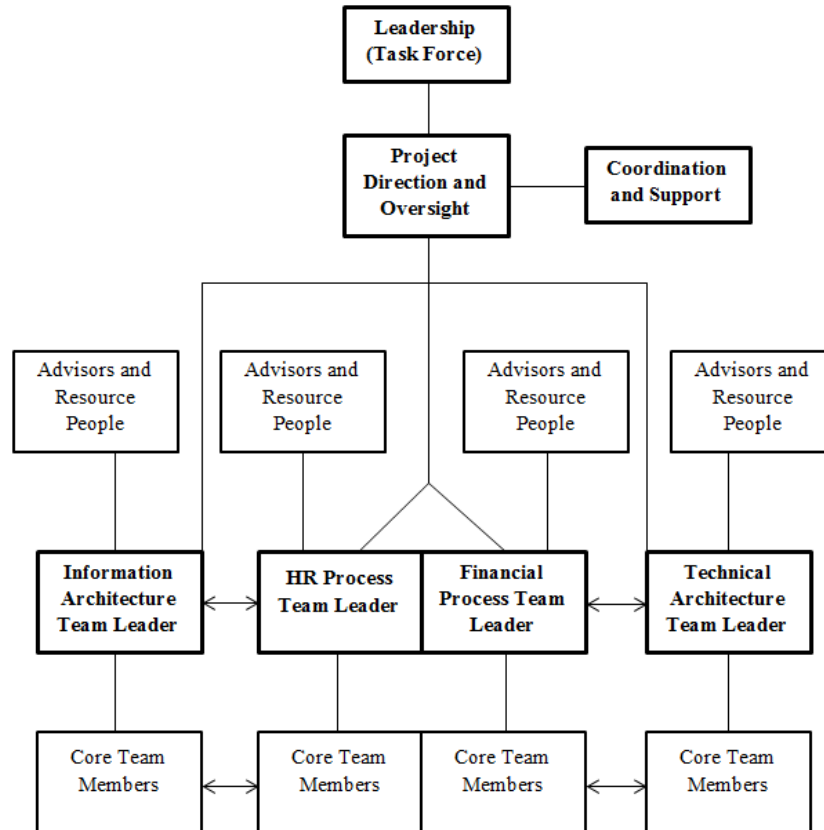


Figure 1 - Barker University's ADP Organization

The decentralization philosophy was also clearly evident in Barker's approach to information technology (IT). All schools at Barker, as well as the library and many administrative departments had their own IT staffs, computer and networking facilities, local applications, and approaches to funding IT investments (Applegate, 2003).

The quality of financial data about the schools available to central administrators was very poor. In order to solve "the data problem", the university needs to build a uniform and easily-operating IT system across the campus, so that all university staff can have access to the administrative information conveniently and efficiently. The ADP organization suggested a functional structure, and the four task teams were respectively specialized and horizontally differentiated. Similarly,

different faculties and schools at Barker were also specialized and differentiated. According to Jones (2009), functional structure is the bedrock or foundation of horizontal differentiation. An organization groups tasks into functions to increase the effectiveness with which it achieves its principal goal. On one hand, functional structure provides people with the opportunity to learn from each other and become more specialized and productive. At Barker, each task team was allocated special responsibilities and people with the right skills. People in each team could learn the most efficient techniques for performing a task, or the best way to solve problems. Also, people who were grouped together by common skills could supervise one another and control each other's behavior. On the other hand, functional structure may have certain control problems, such as communication problems, measurement problems, location problems, customer problems, and strategic problems. Task teams at Barker could find that the standards they tried to use to complete the project might be different, which would be obstacle for the system integration.

As Barker became more decentralized, it would be more difficult for the top managers to manage different teams. Managers from each school or subunit would have so much freedom that they could make their own decisions to build data accessing system in the way they liked. As a result, it was possible of the coexistence of several data accessing systems, and people in the university wouldn't have a standard on how to get the useful information that they needed.

Managing an organization is like building with LEGOs, and the best structure is the one that balances forces most gracefully (Mintzberg, 1991). Without a doubt, how to configure an organization is a challenging job facing lots of managers. According to Mintzberg's organizational configuration theory, Barker University's organizational configuration was professional bureaucracy (see Figure 2), where the prime coordination mechanism was the

standardization of skills, i.e., Barker University was trying to build a standardized IT system by which the staff could easily get access to information from the mainframe.

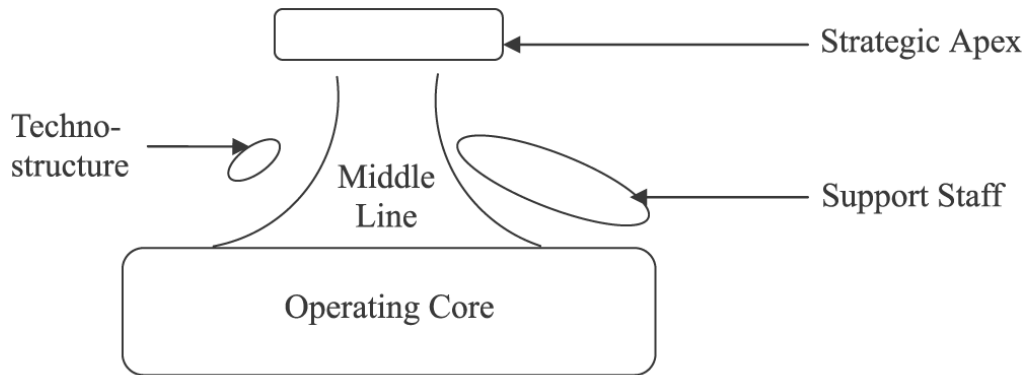


Figure 2 - Professional Bureaucracy (Mintzberg, 1979)

The key part of Barker University was the operating core - the administrative data access system. The main design parameters were training staff to use the new IT system, specializing different task teams, and vertical and horizontal decentralization. The type of Barker's decentralization was horizontal decentralization, which means the operating core had the most power. The contingency of factors were complex, as information technology was always regenerating. The stable environment at Barker might be an obstacle when implementing the new IT system. Non-regulating and non-sophisticated technical system would be the characteristics.

However, project management is often more difficult in decentralized organization than in the old-style centralized organization. It is important to consider these problems and risks that may affect the effectiveness of project management when decentralizing an organization, especially if the company is small or medium-sized (Selin, 1991). Selin also gives some risks that decentralization will bring about based on his experience. Although these risks are related to the division of business activities into smaller independent units, universities may compare their

administrative structure with business activities to generate the optimized course of actions when they do projects.

3. Barker University's Organizational Culture

Organizational culture refers to the pattern of beliefs, values and learned ways of coping with experience that have developed during the course of an organization's history, and which tend to be manifested in its material arrangements and in the behaviors of its members (Brown, 1995). There are two types of values that comprise an organization's culture. One is the end outcomes that the organization seeks – terminal value, e.g. morality, profitability, quality, excellence. The other is the mode of behaviors, instrumental value, e.g. hard working, employee's quality of life, respect for tradition and authority, being creative, being frugal, etc. Ideally, instrumental value helps in achieving the terminal values of the organization (Jones, 2009). Organizational culture gives identity to an organization. Notwithstanding the individuality of the staff members, their actions are collectively bound by the organizational culture (Cheung et al., 2010). As Barker University had a decentralized administration, the schools or subdepartments and smaller units, all had a culture of independence, local control, and self-sufficiency. Individual units worked independently and made their own decisions during the ADP.

The goal of the ADP was to develop a better data system that could enhance the access to the important and useful administrative data. IT system is one of the most important components in modern universities, and with its assistance, university staff and students can easily acquire news and information of the university, as well as communicate with each other. As the IT system was used by all members at Barker, it should have a standard that every unit could share the same IT system standard from anywhere in the campus.

The independent culture in Barker University, in a way, was very like the environment where a stem cell grows. The stem cell should grow symbiotically with its surrounding tissues in that certain organ, following its growth law. It could be called a subculture, where people could develop their own norms and rules. However, the subculture should not deviate from the big culture. At Barker, as the project tasks were allocated to different force teams, the functional structure could accelerate the speed of culture independence - each unit could choose any hardware manufacturer, any software brand, and any network protocol, in terms of its specified task. Consequently, any “standard” could be found somewhere at Barker. The good thing of this independent culture was that each unit had the freedom to accomplish its project in its own way, which made the decision-making much more efficient. On the other hand, as the project initiated, the subculture in each unit might have the probability of overwhelming the whole organizational culture. As a result, the top manager would lose control of each department and future projects would be inhibited because of the culture conflicts. Moreover, the deployment of different “standards” of IT system across the campus would encumber the formation of university-level data access system. People from different disciplines might find that they couldn’t use the information system to get access to the data they need from other disciplines, because they didn’t share the same hardware manufacturer, or network protocol, etc. Although the mainframe of the university data system wouldn’t change, people did need extra time to get used to the different system outside their disciplines. It was not worth doing that, not only because was it time-consuming, but also it would bring unnecessary conflicts.

Local control, the opposite of macro control, is the manifestation of power empowerment. As mentioned before, organizational culture controls coordination and motivation; shapes behavior of people and the organization (Jones, 2009). Local control enhances the management of

multitasks projects, and develops the decision-making ability of line managers. At Barker, four teams were assigned different responsibilities, and because their different tasks, it was essential to establish different control mechanisms for different teams. Although the main goal of ADP was to launch a more advanced information system to solve the “data problem”, the subcultures of different disciplines could be very different. As far as the local control mechanism is concerned, each team leader could use his/her decentralized power to control and coordinate team members and their interaction with advisors and resource people, and core team members. Nonetheless, there were also certain problems in this functional structure at Barker. All organizations initially are organized by different functions because the development of separate functions allows organizations to manage an increase in specialization and the division of labor most efficiently. For example, in Amazon.com, functional structure breeds core competences and increases an organization’s ability to control its people and resource. However, as an organization continues to grow and differentiate, functional structure (or subculture) creates new problems that arise from the organization’s success: as an organization’s skills and abilities increase, the organization is able to produce a better or wider variety of goods or services, its ability to service the needs of its growing product line is strained (Jones, 2009). Similarly, at Barker, the ‘products’ of the ADP were: first, without threatening the autonomy of each school, information bridges among the various units required to be built; second, by examining Barker’s administrative structure and processes, a cost-containment committee was formed to cut indirect cost; third, rapid access to information was required to negotiate with the newly formed Barker Union of Clerical and Technical Workers. Because the localism of Barker University, as these ‘products’ are gradually produced, the pressure of staying at the same ‘production’ level will be increased - university staff won’t be satisfied with the range or sophistication of the ‘products’. It’s like running a new

machine - adjustments need to be made after its run-in period because the state of the machine won't be as the same as before.

Self-sufficiency means the state of being able to provide everything you need, especially food, for yourself without the help of other people (Cambridge, 2010). Therefore, it is a type of personal or collective autonomy. In terms of economy, it means that no trade with the outside world, or autarchy. On one hand, it's good for the organization to survive in such a competitive global environment. On the other hand, the isolation could end up bad communication and bad integration.

Universities are usually large institutions with more than ten or even twenty disciplines, so that it is very difficult for top managers to control the whole university administration in such a hierarchical bureaucracy. The decentralization of power to different disciplines and schools is essentially a good method for better autonomy. As a result, self-efficient management of each unit seems to be a necessity. Each unit is like a micro organization, it needs to develop its own culture and strategy to achieve the goals. At Barker, individual units would find their own problems and then their own solutions to these problems. However, as this self-sufficiency grew, it would be possible for the growth of autocracy. The communication with other units would decrease and gap between each individual would become bigger, as they could not reach clear consensus.

4. Barker University's Organizational Technology

Organizational technology is the combination of skills, knowledge, abilities, techniques, materials, machines, computers, tools, and other equipment that people use to convert or change raw materials, problems, and new ideas into valuable goods and services (Jones, 2009).

There were three levels of technology at Barker University: individual, functional or departmental, and organizational (see Table 1).

Table 1 - Different levels of technology at Barker University

Level of Technology	Definition	At Barker University
Individual Level	Personal skills, knowledge, and competences that people possess	Chancellor's management skills and leadership competence; professors' teaching ability and scope of knowledge; etc.
Functional / Departmental Level	Procedures and techniques that groups work out to perform their work create competences	Library borrowing regulations, computer and networking facilities, local applications, teaching methodologies, etc.
Organizational Level	The way an organization converts inputs into outputs	Lecturers and professors teach students knowledge to be competent in the field they are majoring; successful graduates would be the 'outputs' of this special 'company' by this special 'organizational technology'; etc.

Notes: at Barker, the Administrative Data Project aims that the university's business process, information, and technology architecture could be changed to benefit both the central administration and the schools.

Barker University had a very explicit organizational technology - every hardware manufacturer, every software brand, every network protocol, every electronic mail package, every “standard” could be found somewhere across the university. Some units are very sophisticated in their IT deployment and support, and there were more than 15,000 computers at Barker.

Also there was a universitywide IT service provider known as the IS Services unit. This unit provided telephone and networking services, sold desktop computers and software, operated a large mainframe computer, and provided a variety of IT-related services. IS Services also operated a high-speed computer network; a compuswide fiber-optic data network served most to the campus and linked most of the 200-plus independent local area networks (LANs) at Barker (Applegate, 2003). Like lots of universities around the world, such as Harvard, Stanford, and Sydney University, a well-developed and advanced information technological network is such an important component for the development of the universities, as well as their management of their projects, especially IT projects.

At Barker University, although the IT system around the campus had already reached a certain high level, the data access still remained a problem: administrative data were poorly integrated among multiple central and local systems, leading to inaccurate and inconsistent information; meaningful data were difficult to access for management and business needs; processes for capturing data and handling transactions were disjointed and inefficient; there was no overall plan or strategy for administrative information or for the systems and processes through which it was managed. In order to solve these problems, the Administrative Data Task Force was formed to formulate a vision for a coherent administrative information processing environment that would: address common information processing and data access needs at all levels; enable efficient administrative transaction handling; provide access to required administrative information at

every desktop through affordable, consistent tools; and be flexible and supportive of change in the way Barker conducted its business.

The whole Administrative Data Project at Barker could be seen as an IT project. When managing this kind of projects, many of the theories and concepts are not difficult to understand. What is difficult is how to implement them in various environments. Project managers must consider many different issues when managing projects, such as using a systems approach, understanding organizations, managing stakeholder, matching product life cycles to the project environment, understanding the context of information technology projects, and reviewing recent trends affecting IT project management (Schwalbe, 2009). At Barker, the weights for the success of the ADP should be based on the university's context for the implementation of an IT project. As mentioned before, to an extent, the whole IT system across the campus was already mature - it had mainframe, LANs, and satellites connections, etc. But why was it that Barker's schools still "couldn't understand the data produced by the central". Information technology always comes along with complexity; in order to handle complex situations effectively, project managers need to take a holistic view of the project and understand how it relates to the larger organization. Systems thinking could be a way of holistic view of carrying out projects within the context of the organization (Schwalbe, 2009). If ADP managers used systems thinking as one of their strategies, it would be very helpful for the success of the project. Another approach is the three-sphere model, which can be also used for systems management when dealing with IT projects (see Figure 3).

Issues in terms of business, organization, and technology could be raised in the ADP at Barker (see Table 2).

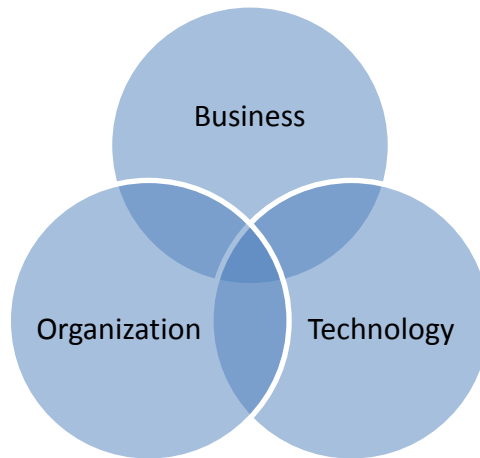


Figure 3 - Three-sphere model for systems management (Schwalbe, 2009)

Table 2 - Questions in terms of business, organizational, and technological issues

Issues	Possible Questions
Business	• What will ADP cost the university? • What will it cost students? • What will support costs be? • What will the impact be on enrollments?
Organization	• Will ADP affect all students and all staff? • How will ADP affect different schools? • Who will train faculty and staff? • Who will administer and support training?
Technology	• Should the IT systems hardware support both Windows and Macintosh? • Should the mainframe-based central administrative data be delivered to departments in batch and online modes? • What applications software will be loaded? • What will the hardware specifications be? • How will the hardware impact LANs and Internet access? • Will the staff be willing to change to the new UI?

In order to answer these questions, as well as to solve problem such as timeliness, accuracy, volume of paper, cost, and no encumbrances, which may cause many departments to develop

“shadow systems”, it is highly needed to examine the processes that used and produced data. Two architectures would be implemented in due courses - information and technology, and the increase of the efficiency of data access became the main purpose of the process redesign. After ADP started, issues in terms of technology arose gradually. For example, the old “legacy systems”, data duplication, and “out-of-sync”, etc. New technology architecture would be required to meet the needs of schools and departments.

5. Barker University’s Cost Management Issues

Technology is always linked to money. IT projects have a poor track record in meeting budget goals (Schwalbe, 2009). The more advanced the IT system of Barker University was, the more it would cost the university. Therefore, the cost or funding should be estimated before the project starts. Costs in terms of ADP were divided into three categories:

1. Costs associated with the ADP project itself;
2. Costs incurred locally, in schools and departments; and
3. Costs to upgrade central administrative applications.

Table 3 summarizes the cost estimates of the ADP. From the table we can easily conclude that after completing the two new architectures - information and technology, the cost of the university in terms of administration would be greatly decreased, and the saved money could be spent on updating the IT hardware and software, and on training staff to use the new developed user-friendly interfaces.

Table 3 - Different estimated costs at Barker University

Names of the cost (in total)	Costs
Barker University Fiscal Year 1994 Expenditure	\$ 1,595.9 million
IS Service Fiscal Year 1994 Revenues by Service Type	\$ 13,316,787
IS Services Fiscal Year 1994 Budgets By School	\$ 13,316,787
Estimated ADP Costs as of September 1994 - Estimated Year 1 Costs	\$ 4,127,500
Estimated ADP Costs as of September 1994 - Estimated Total Costs for Years 1 through 5 (including Year 1 costs)	\$ 20 million - \$ 30 million
Costs on replacing the accounts payable, general ledger, benefits administration, and personnel/payroll systems	\$ 17.1 million
Estimated addition to the cost of the project to support both Windows and Macintosh client hardware	\$ 2.25 million
Estimated annual cost reduction resulting from the new procurement process alone	\$ 14 million
Estimated annual cost saving resulting from the new hiring process	\$ 1 million

Notes: 1. The estimated cost to develop the software for Macintosh computers was \$8.3 million in addition to the cost of developing a Windows platform. 2. Cost-saving estimates in terms of new procurement process included: the elimination of 178 positions universitywide due to streamlined processing (\$6.9 million); a reduction in other “nonvalue-added” activities related to procurement, enabling elimination of 75 positions (\$2.9 million); a reduction in the need of local units to copy and store source documents (\$1 million); and additional discounts that would be realized through prompt payment of invoices (\$2.3 million).

However, in order to reach the ideal and anticipated level of success of the project, the cost should be managed carefully. Although there are many tools and techniques to assist in creating project cost estimates, many IT projects’ cost estimates are still very inaccurate, especially those involving new technologies or software development (Schwalbe, 2009). Reasons for these inaccuracies and suggested ways are included in Table 4.

Table 4 - Reasons for inaccurate cost estimates and suggested ways

Reasons for Inaccuracies	Suggested methods
Estimates are done too quickly	Developing an estimate for a large IT project is a complex task requiring a significant amount of effort. ROM estimates and budgetary estimates could be created. To remember that estimates are done at various stages of the project, project managers need to explain the rationale for each estimate.
Lack of estimating experience	Use food project management techniques and develop a history of keeping reliable project information, including estimates. Get IT people trained and mentored on cost estimating.
Human beings are biased toward underestimation	Project managers and top management review estimates and ask important questions to make sure the estimates are not biased.
Management desires accuracy	Project managers help develop good cost and schedule estimates and to use their leadership and negotiation skills to stand by those estimates.

Without a doubt, cost management of the ADP would be a big challenge. Every step of the projects would cost money; therefore, it is important to be cautious with initial estimates. Top management should never forget the first estimate and rarely, if ever, remember how approved changes affect the estimate. It is a never-ending and crucial process to keep top management informed about revised cost estimates. It should be a formal process, albeit a possibly painful one (Schwalbe, 2009).

6. Barker University's Organizational Politics

All organizations are political places. Organizational politics involve power: Who gets what they want, how they get it and when they get it. Anyone who uses the informal network of an organization to get things done is using organizational politics (Addesso, 2010). Organizational politics comprises, in the words of Jeffrey Pfeffer, "activities taken within organizations to acquire, develop, and use power and other resources to obtain one's preferred outcomes in a situation in which there is uncertainty or disagreement about choices." (Jones, 2009)

According to Henry Kissinger, university politics are vicious precisely because the stakes are so small (Visentin, 2005). When people try to relate politics to universities, they always think about the decisions that are made about tenure and promotion. People always want to possess as much power as they can in such a hierarchical bureaucracy. Politics manifests itself at many levels in universities. It is always there when departments try to hire. There are student politics and the unseemly politics enshrouding university athletics. Where there are faculty and staff unions, there is a special brand of politics (Visentin, 2005).

Although the case study doesn't show Barker's politics explicitly (or at all), it is not difficult to guess its universitywide politics. For most universities, politics are a field of activity rather than of study, and are among the important activities of academic life (Ward, 1958). At Barker, the ADP would definitely involve power or politics in terms of decision-making. From the previous chapters about technology and cost, good university politics are necessity when dealing with IT projects that would involve such a large amount of money. Top management at Barker should have a clear overlook of the whole project in a high educational institution environment, and take into consideration of university staff, students, and connections between faculties and schools. In a way, a university's politics are a reflection of its culture. If we take a look back at the ADP Organization structure, we can easily come up with the idea that the top manager of task forces decentralized its power and authority to the different functional teams. In addition, the whole ADP organization employed project director, whose job was very similar to the steering committee, or the coordination and support unit. They had been assigned power to put forward feasible suggestion to the success of the project.

However, wrong views towards organizational politics will bring failure to the project. Most people tend to regard political activity with a sort of repugnance finding the conduct of politics to

be both personally distasteful and organizationally damaging. One of the most powerful but frequently overlooked influencers of successful project management concerns the roles played by knowledgeable personnel in using power and political behavior to promote successful implementation (Pinto, 2000). Thus, instead of avoiding politics, managers need to or are advised to take the advantage of politics and play politics, no matter covert or overt, and make them propellant to the success of the project.

An information system development is an instrument of change, as is in the ADP case study, and the larger the information systems project, the greater the number of people in the organization affected by the development. Therefore, the larger the information systems project, the greater the opportunity for organizational conflicts to occur and the more likely that these conflicts will impact on the success of the project (Warne, 1998). Consequently, by introducing an information system and changing the method of processing, the political structure of the organization is inevitably affected (Robey et al., 1989). This suggests that large or integrated systems development project, such as the ADP at Barker, would be the fertile ground for the kind of conflict born of protecting one's interests in an organization (Warne, 1998). At Barker, the expectation of the ADP was promising but unpredictable. First, the information system was too new to the staff and students, who might find it difficult to get used to it or and even couldn't be bothered to learn the new system; second, the task teams had completely different models which the university had never used before, and this would impede the process of the ADP. As a result, adverse feelings or actions would appear among university staffs and students.



Figure 4 - Conflict factors contributing to project success (Warne, 1998)

Figure 4 shows that the conflict factors contributing to project success, and starting from Conflict Type, the significance in determining project success increases clockwise. If organizations could not find good strategies to solve these conflicts, behaviors of blocking or thwarting the project goals would occur. Resistance to change would be one of them. Table 5 shows the three different misfits that would lead to the resistance to change (Flynn, 2010).

Table 5 - Different misfits that lead to resistance to change

Misfits	Manifestations	Feasible changes
Technology and technology-task misfit	Flaws or failure to fit the job	Change should be technically sound and fit the work that people do
Cultural misfit	Failure to fit organizational or national culture	Change should not conflict with major cultural values or belief systems
Political misfit	Failure to account for power bases	Change should not run afoul of the political system

Possible resistance to change at Barker would be that staff had already been familiar with the old IT user-friendly interface and they might not be keen to learn the new system. How to use politics to coordinate staff at Barker would be a challenge to the ADP managers. Thus, in order to avoid conflicts or to find strategies to solve conflicts, an organization should well identify its organizational political factors and take advantage of the power to help the success of its projects.

7. Change management when implementing ADP at Barker

In the process of IT project implementation, project managers have to face a series of challenges. A most frequent and troublesome problem is changes (Enzhao and Yang, 2008). The ADP could be seen as an IT project across Barker University, the unavoidable project change would lead to increased costs, declining quality of the software, delays of the development process, or even complete failure of the project.

Although the prototype had been launched at Barker, it still remained a problem that whether it could fit into the original administrative data system. The possible types of changes in terms of developing new software could be summarized as follows:

1. Functional changes. Should Barker University add or delete some functions in its original administrative data system. If this change would cost Barker more, it should weigh the pros and cons. Staffs and students from different faculties should reach an agreement on whether this change should be implemented, as functional changes often come along with the problem of additional costs.
2. Bug fixing. How could Barker make sure that once the project completed, the system could run smoothly without any breakdowns? This would happen in the later period of the

project. It is recommended that Barker must document such change formally, and all documents affected by this change need to be modified.

Considering all the factors above, it is very necessary for the project managers to fully realize the facts of project change. In addition, they should analyze the reasons, and take relevant measurements according to the actual situation. Good change management not only can avoid the failure of the project, but also improve the quality of projects and ensure the successful completion of the project.

8. A realistic organizational form for Barker University

As all those factors inhibiting Barker to implement its projects have been identified, measures should be taken to form a better organizational structure, in order to enhance its ability to support the conduct of the projects.

New organizational structure means new organizational changes. Consequently, the new organizational culture, politics, and technology will have come along. Although the university had never had a cross-functional or self-directed work team before, it was worth revolutionizing the original organizational structure and form a brand new one.

Establishing a hierarchy of authority is supposed to improve the way an organization functions because people can be held accountable for their actions. In addition, the ideal situation is a balance between centralization and decentralization of authority so that middle and lower managers who are at the scene of the action are allowed to make important decisions, and top managers' primary responsibility becomes managing long-term strategic decision making. The result is a good balance between long-term strategy making and short-term flexibility and

innovation as lower-level managers respond quickly to problems and changes in the environment as they occur (Jones, 2009).

A matrix organizational structure is also recommended for Barker during the implementation of its projects. First, the use of cross-functional teams is designed to reduce functional barriers and overcome the problem of subunit orientation. With differentiation between functions kept to a minimum, integration becomes easier to achieve. In turn, the team structure facilitates adaptation and learning for the whole organization. At Barker, a matrix team system can make the university flexible and able to respond quickly to changing the administrative data system and staff needs. Second, it opens up communication between functional specialists and provides an opportunity for team members from different functions to learn from one another and develop their skills. Especially for Barker, the matrix structure facilitates technological progress because the interactions of different specialists produce the innovations and improve its core competences. Third, the matrix enables the effectiveness of using the skills of its specialized project team as needed. At the beginning of a project, basic skills are needed, but after early innovation, the skills of different design teams are needed to design their specialized tasks. Fourth, the dual functional focus promotes concern for both cost and quality. As the cost factor is imperative for Barker, it is indispensable to make sure the design of the system is within budget and in good quality. The primary goal of functional specialists is likely to be technical: regardless of cost, designing the highest quality, most innovative administrative data system (IT system) possible. On the contrary, the primary goals of managers are likely to concern cost and speed of development - doing whatever can be done given the amount of time and money available. This built-in focus on both quality and cost keeps the team on track and keeps technical possibilities in line with commercial

realities. As a whole, the matrix structure will avoid unnecessary cost for Barker and enhance the conduct of its future projects significantly.

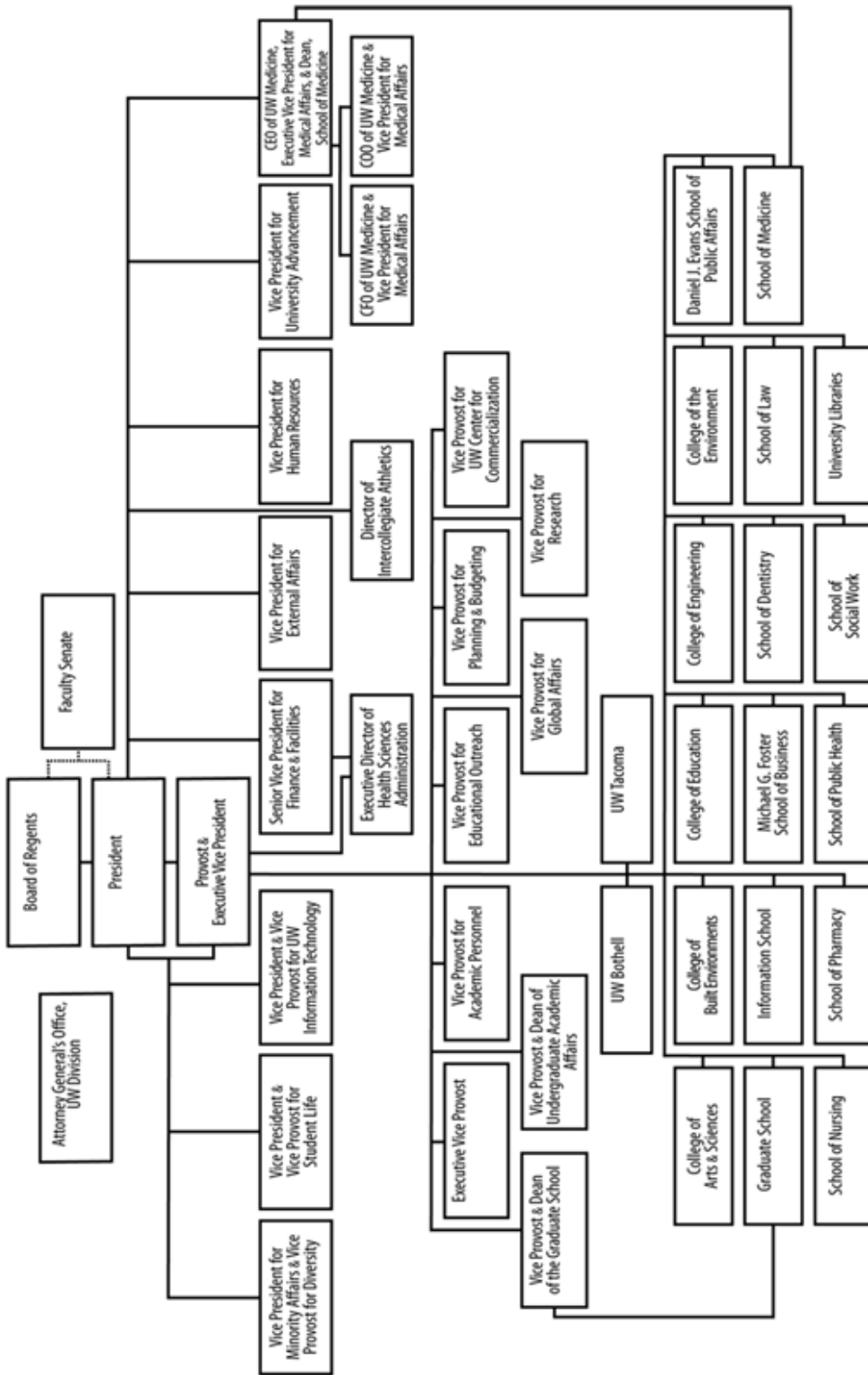
9. Conclusion

From what has been discussed above, we could safely draw the conclusion that as the ADP at Barker started, certain problems would arise which would inhibit the whole process of the project. It is obvious that to establish better project strategies was difficult for the managers, as organizational structure and control are inextricably linked. A better organizational design at Barker is highly demanded in order to solve the structure, culture, technology, and politics problems.

To achieve this, use is made of a matrix organizational structure to better and more effectively coordinate staffs at Barker. From this, Barker's projects could be supported, and the project managers could set up proactive strategies much more easily.

For the future projects at Barker, no matter it is information related or not, this matrix structure will benefit the university in different aspects in terms of project management.

Appendix



University Organization Chart

This chart reflects the organization and reporting relationships of the University of Washington's administrative offices, schools, and colleges. It can be used as a sample to analyze Barker University's organizational structure (UOW, 2010).

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