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MANAGING THE IPACS PROJECT AT GREEN VALLEY HOSPITAL

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1. LEARNING OBJECTIVES

By reviewing and analyzing the facts in this discussion case, the students should

- be able to understand the relationship between business needs, information systems (IS) planning, and IS implementation;
- become aware of the role of politics, social relationships, and other non-technical reasons in the selection of vendors and the management of projects;
- become more sensitive to “red flags” that are exhibited during the course of a failing project;
- gain an understanding of the critical role of user involvement and support in IS projects; and
- understand and apply key crisis management concepts in effectively managing the failure of an IS project.

2. CASE OVERVIEW

Green Valley Hospital (GVH) is a large teaching hospital situated in a major Canadian city. It has an annual budget of \$180 million and employs about 3,200 individuals. As a public hospital, GVH provides care to patients under provincially administered health plans, which afford universal coverage to all Canadians and determine the governmental fund allocations to the various health care providers.

Due to the adverse economic conditions in the health care sector, and the Canadian economy in general during the late 1980s, GVH was facing strong pressure from the provincial government to cut its costs and improve patient care. Its administration realized that the lack of information systems, especially in the clinical operations of the hospital, severely impeded its ability to strategically respond to the demands of the government. To rectify the situation, GVH hired Datacom, a small consultancy firm, to help formulate a strategic information system (SIS) plan. As part of this plan, a hospital-wide, integrated patient administration and care system (IPACS) was to be implemented by 1995. The primary goal of this system was to enable GVH to reengineer and tightly integrate its operations so that it could reduce costs, remove duplication, and improve care quality.

To implement IPACS, GVH issued a request for proposals and reviewed a number of responses from interested vendors. The president of the hospital selected a \$5.9 million proposal by Baxter Systems and IBM that recommended the installation of a set of U.S.-made financial and clinical applications. Many users attributed the president’s strong support for the Baxter proposal to a prior working relationship that he had with both Datacom and Baxter at his previous job at a different hospital. The president’s selection was met with strong opposition by almost all user departments. The users questioned the limited capabilities of the proposed systems and were not convinced that the U.S.-made software (which was primarily designed for smaller, for-profit hospitals) could satisfy the unique demands of a large teaching hospital such as GVH, and those of the Canadian health care sector in general. Despite this resistance, the president sought the approval of the hospital’s board and the provincial ministry of health. Due to its large scale and potential cost-saving impact, the project received the needed approval and funding and was initiated in 1990. In response to this decision, the manager of the MIS department left the hospital.

As GVH had virtually no existing clinical systems (i.e., systems to support the activities of medical staff, such as the monitoring of patients, administration of treatments, etc.), the development of the clinical applications was postponed and the project begun with the implementation of the financial modules. The reason for starting off with the financial applications was because they required fewer Canadian adaptations than the clinical programs. Even though the first couple of financial applications were installed with moderate success, when the project team attempted to implement additional applications, the users strongly resisted their introduction due to the lack of critically needed functionality. The subsequent implementation of the first clinical applications faced similar difficulties due to user rejection and technological problems. Initially, the involved senior managers, who were over-committed to the project because of its high political importance and visible support from the president, ignored the problems with the applications and their rejection by the users. This prolonged denial of the early warning signs was interrupted by the arrival of a newly hired MIS director who had no prior involvement with the project.

After a rapid review of the status of the project, the new MIS director approached the senior management of Baxter asking it to explain how they were planning to rectify the situation by modifying the systems to address the functionality issues raised by the users. Furthermore, to prevent the materialization of a major failure, the director placed the project on hold before any legacy systems were converted to IPACS. After lengthy negotiations between the involved parties, Baxter indicated that, due to profitability concerns, it could not deliver the promised applications and customization. GVH formally abandoned the project and signed a termination agreement with Baxter, which dictated that Baxter was to refund almost all monies spent on software development. Under this agreement, IBM allowed GVH to modify its hardware order to fit the needs of future projects. Six months after the termination agreement was signed, Baxter shut down its Canadian operations.

Because of the abandonment of IPACS, GVH faced a predicament. The hospital operations were still suffering from the lack of computerization and the rigidity of aging, stand-alone legacy systems. More importantly, the hospital had spent over two years and millions of dollars on the implementation of the SIS plan with no results. Due to the high political support and visibility given to this project, GVH was under a lot of pressure to manage the situation, deliver the promised results, and provide accountability about the overall success of the plan.

3. TEACHING GUIDE

The recommended approach for discussing this case consists of two phases:

- (1) **Understanding and evaluating the project's dynamics and implementation process.** To understand the factors that influence the outcome of MIS projects, it is recommended that the history of the project be analyzed using one of the project planning/evaluation methods found in IS textbooks, such as the contingency project management approach described in Applegate, McFarlan, and McKenney (1996, chapter 11). Alternatively, the discussion of the project's history can be structured around the critical success/failure factors that are identified in *The Chaos Report* (The Standish Group 1996). While using these frameworks, the instructor should highlight comments by students who address the following key issues:
 - Importance of the project to the whole organization.
 - Risk factors.
 - Role of politics and social networks in vendor selection and other project management activities (this is important and should be contrasted to the "rigid, formalized" development methods that are typically described in MIS textbooks).
 - The magnitude of the present predicament.
- (2) **Managing the crisis caused by the project's failure.** To effectively manage a crisis caused by a project failure, a firm must (1) promptly detect and prepare for the failure, (2) manage its consequences to limit their negative impacts, and (3) incorporate the lessons learned from the experience into its organizational memory (Iacovou and Dexter, 1998). The students should be asked to address each of these issues:
 - Did GVH promptly recognize the early warning signs and react accordingly to avoid the failure?
 - How should GVH manage the current situation? At this point, the students should be asked to brainstorm and provide specific recommendations for rectifying both the *operational crisis* (what should be done to develop the needed

systems?) and *legitimacy crisis* (how should GVH avoid a public embarrassment if it is unable to fulfil the requirements of the SIS plan in timely fashion?).

- How should GVH ensure that similar incidents will be avoided in the future?

4. REFERENCES

- Applegate, L.; McFarlan, F. W.; and McKenney, J. L. *Corporate Information Systems Management*, Richard D. Irwin, Chicago, 1996.
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- The Standish Group, Inc. *The Chaos Report*, available at <http://www.standishgroup.com>, 1996.