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NORTEL: REINVENTING IS

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1. LEARNING OBJECTIVES

This discussion case presents various issues which arise when an organization must change the structure of the IS function to support a new (and, in this case, process-oriented) corporate structure. Students will

- (1) learn about different roles and structures for an IS group in an organization, and in particular,
 - consider the implications of centralizing versus decentralizing IS resources,
 - understand the need to balance business knowledge, responsiveness to clients, technological expertise, and cost-effectiveness of operations,
 - explore the possible roles for an IS group in the context of a corporate reengineering exercise.
- (2) discuss and analyze different alternatives for implementing the new structure, and in particular consider the implications of revolutionary versus evolutionary change.

2. CASE OVERVIEW

Nortel, a major player in the global telecommunication industry, had made significant changes to its corporate strategy. The company no longer viewed itself as a provider of discrete technical products such as switching systems or optical fiber transmission and cable products. Rather it wanted to become a provider of packaged “business solutions” for clients with broad networking needs. In the past, clients had to deal separately with a myriad of largely independent product divisions. The new corporate structure retained four separate SBUs, but also introduced cross-unit process management across the product-based divisions to provide customers with a single face for the company. The processes that were to be common across the company included market order management, order delivery, integrated product introduction, and global logistics, among others.

At the time of the case, the new structure had been broadly defined, but the details of the shared processes and the infrastructure to support them had not been developed. The IS function was not only expected to help with the re-engineering of these core processes, but also had to define its role in the new corporate environment, and determine how to organize itself to perform this role.

Nortel had structured the IS function in various ways in the past. Prior to 1990, and consistent with considering IS simply a support function, a small corporate IS staff reported to the executive VP. The rest of IS was highly decentralized, with small groups belonging to each division. This structure was also consistent with Nortel’s fragmented product structure and highly individualistic and entrepreneurial corporate culture.

By 1990, the various IS groups had been brought under a single CIO, but IS could not be considered a fully centralized function. It was still structured along line-of-business and location boundaries. The major change was to centralize funding, and to shift attention somewhat from individual client needs to broader corporate needs. Where divisions had previously paid for systems directly, they now paid through a corporate allocation and competed for IS attention. However because of the residual impact of the original structure, there were pressures to satisfy local “needs. Even “standard” systems were customized locally. Furthermore, when legitimate demand could not be met, business units set up their own independent IS groups.

The result of this change was a deterioration in client/IS relations, without the expected benefits of centralized oversight. In January 1995, financial responsibility for IS moved back to the client groups, and the CIO reported to the COO as well as the executive VP in order to promote a closer link between IS and the business.

In 1996, with the change in corporate strategy and structure to promote common processes across divisions, IS was handed a new role, namely to lead the reengineering initiative to develop the common processes and the supporting infrastructure. Keith Powell, the CIO and newly appointed VP of Process Engineering, was concerned that IS not be put in an untenable position, and moved to ensure that process changes would be “owned” by line managers. At the same time, he knew that yet another change to the structure of the IS function would be required. His main concern was to ensure that IS had close relations with its clients so that their business needs were fully understood and met, while still supporting the move to common processes.

The proposed IS structure matched the process-orientation of the new corporate structure with newly defined core processes for IS. These core processes were labeled client management, solution delivery, and business support. The client management process was focused on getting IS to work closely with the business to ensure that technology was being appropriately leveraged. This implied developing an intimate knowledge of the client’s business through carefully managed relationships and accountability for client satisfaction and success. Clients to be managed in this way included both the line managers with either product or operations responsibilities and the sponsors of the corporation’s common processes.

Client management, which was focused on understanding the needs of the business, was deliberately differentiated from solution delivery, which concerned itself with the more traditional IS tasks of constructing and modifying systems to meet requirements. The solution delivery group, however, were expected to earn the right to be considered the supplier of choice. The intention was to follow a software factory model with repeatable processes, reuse of all or parts of applications, and the development of a rich and standard environment of tools, techniques, and technologies. This group would be judged on delivery satisfaction and through competitive benchmarking.

The business support process focused on looking after client needs with respect to delivered products. Service level agreements with each client were to be used to spell out the expectations, including call management and problem identification and analysis.

The proposed new structure represented a radical change from the existing situation. The case concludes by raising the question of how best to proceed with implementation.

3. TEACHING GUIDE

Suggested assignment questions:

- (a) Given Nortel’s new strategic focus, what role should IS be playing in the future, and what does it have to do particularly well?
- (b) What are the strengths and weaknesses of the previous ways in which the IS function was structured?
- (c) Does the proposed structure fit the key tasks identified in (a)? If not, suggest an alternative.
- (d) How would you go about implementing the new structure?

One of the lessons students need to take away from this case is that the structure of an IS department cannot be designed in isolation from the strategic needs of the company. The class should start, then, with an examination of Nortel's new strategy and structure. As outlined explicitly in the case, the company is facing a very difficult transition as it attempts to integrate across its historically silo-based structure and culture. IS is expected to play a major role in implementing common processes.

In discussing the first question, students should appreciate that, while IS has an enterprise-wide perspective of the business, and might be considered an objective party in the negotiations to come, this is only part of what is needed to lead the change. What IS lacks is an intimate knowledge of the business and the credibility this would bring. It would also need to develop excellent change management skills. For these reasons, while IS needs to be a proactive partner in the changes to come, its role should be as expert and facilitator. To the extent that it has been given responsibility for the change, IS should "lead from behind." On the other hand, standing back in a traditional support role reduces the chance to bring IT expertise to a problem that depends on the creation of a new technical infrastructure. Through all this, IS will still have to perform its old role of building and supporting new systems, hopefully in a way that garners respect.

Three points can be made in the discussion of the second question. First, the original decentralized structure ensured good responsiveness to client needs. Unfortunately it benefitted the parts of the organization at the expense of the whole, as is demonstrated by the proliferation of non-standard systems. A fully centralized structure offers the reverse. Next, structure can be changed on paper, but history leaves traces—changing the reporting structure and the funding did not centralize IS, merely created a hybrid that lacked the advantages of either. Finally, reward structures and funding mechanisms have to be aligned with objectives. Centralized funding created excess demand, and cost/value trade-offs were not properly assessed. Further, because business knowledge was still compartmentalized, corporate objectives were not well served.

In response to the third question, the proposed structure looks good on paper. The solution delivery group is effectively centralized, and has incentives to keep quality high and costs low. At the same time, the client management structure should ensure that disparate business needs are being properly assessed and met. The new roles, however, are substantially different from existing ones, and good change management, acknowledging the shadows of history, is essential.

The implementation plan must address this problem. A useful framework to highlight the issues is Stoddard and Jarvenpaa's (1995) discussion of evolutionary and revolutionary change.

Reference

Stoddard, D. B., and Jarvenpaa, S. L. "Business Process Redesign: Tactics for Managing Radical Change," *Journal of Management Information Systems* (12:1), Summer 1995, pp. 81-107.