

## Test of the Model

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This paper reports how well the preliminary model fits the experiences represented by the case data. Specifically, we investigated how well the preliminary model accounts for key environmental influences surrounding the collaboration; for key structural characteristics; for participants' motivations, objectives, and contributions; for the role and effect of technology; for critical success factors; and for key dynamics of the collaboration. Most important, we tried to determine whether the model provides a conceptual structure that is flexible enough to account not only for the similarities among the cases but also accommodates the differences in their experiences and cultural settings.

Table 2. Summary of the fit between the preliminary conceptual model and the case data		
Dimension	Model adequately accounts for	Model does not account for
<b>1. Political, social, economic and cultural environment</b>	<ul style="list-style-type: none"> <li>Political, social, and economic context</li> <li>Fundamental cultural factors</li> </ul>	<ul style="list-style-type: none"> <li>The pervasive influence of cultural factors on all other dimensions</li> </ul>
<b>2. Institutional, business and technical environment</b>	<ul style="list-style-type: none"> <li>Specific legal authority</li> <li>Absence of specific of legal authority to form the cooperative</li> <li>Specific legal barriers</li> <li>Status &amp; nature of technology infrastructure &amp; applications</li> <li>Nature of a specific business domain</li> <li>History of issues preceding the project</li> </ul>	<ul style="list-style-type: none"> <li>Political commitment in lieu of legal authority</li> </ul>
<b>3. Characteristics and objectives of the participants</b>	<ul style="list-style-type: none"> <li>Characteristics of each type of organizational partner at project start</li> <li>Motives of each type of organizational partner at project start</li> </ul>	<ul style="list-style-type: none"> <li>Changes in participant characteristics, roles, and motives over time</li> </ul>
<b>4. The collaboration process</b>	<ul style="list-style-type: none"> <li>Collaboration-building, problem-solving, and collaboration processes employed</li> <li>CSFs predicted by research literature</li> <li>Management philosophy &amp; processes</li> </ul>	<ul style="list-style-type: none"> <li><b>Hypothesized stages are not discernible</b></li> <li><b>Expected association of specific CSFs with specific stages was not found</b></li> <li>Other CSFs not predicted by the literature</li> <li>Learning and adaptation over time</li> <li>Role of key individual actors re: informal leadership and personal commitment</li> </ul>
<b>5. Modes of collaboration</b>	<ul style="list-style-type: none"> <li>Governance, risk &amp; resource sharing, authority structures, interorganizational management</li> </ul>	<ul style="list-style-type: none"> <li><b>Organizational structure of the collaboration is not discernible</b></li> <li>Dynamics of changing circumstances and roles</li> </ul>
<b>6. Project and collaboration performance</b>	<ul style="list-style-type: none"> <li>Collaboration expectations and performance from organizational</li> </ul>	<ul style="list-style-type: none"> <li>Personal &amp; professional performance expectations and</li> </ul>

	<ul style="list-style-type: none"> <li>point of view</li> <li>• Service expectations and performance from the point of view of external users</li> </ul>	<ul style="list-style-type: none"> <li>impacts on individual participants</li> <li>• Independence of collaboration performance from service performance</li> <li>• Ongoing effects of performance throughout the relationship</li> </ul>
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Table 2 summarizes our findings on the adequacy of the preliminary model. It lists the main focus of the variables of each dimension and indicates where the model does and does not account for them when compared to the complete set of interviews and documentary evidence. The model adequately accounts for most of the hypothesized variables but it failed to fit well with the data in two ways: (1) some variables were identified in the data that were not present in the preliminary model, and (2) some variables were present in the model, but were not discernible from the data. Type 2 variables are presented in the table in **italics** for ease in identification. In addition, the relationships among variables and dimensions were inadequately addressed by the preliminary model.

As Table 2 indicates, the model does fit the data reasonably well for many aspects of the five dimensions, but it does not fit some of the cultural aspects, changes in participants' involvement over time, the collaboration structures, critical success factors, the dynamic elements of the collaboration process, or the pervasive effects of performance.

## Cultural influences

The model fits the data adequately for the main factors of the political, social, and economic environment, as well as the next level of environmental factors (legal, technological, and business domain). However, it does not allow us to discern the general political philosophy or the cultural elements that underlie it. Because the model deals with culture only at the macro level (i.e., in Dimension 1), it does not account for its effects on the other dimensions. Unlike the model, the case data demonstrate that culture is evident in every aspect of the projects, embedded in the way people think, perceive, and act. We identified important cultural factors by comparing responses to the same interview questions in different countries. For example, we found that leadership is viewed differently in the United States and French-speaking Canada. Although leadership was identified as a critical success factor by interviewees in both places, what they meant by leadership was not the same. The Americans referred to a personal style, skill, or ability to trigger trust among participants, whereas the Canadians referred to the authority attached to the formal position that a leader occupies. Similarly, different cultures assigned different meanings to another key concept, stakeholders. In the French-speaking cases, stakeholders were defined as those involved in operating the service program. Clients or customers were not considered stakeholders because they are external to the collaboration. By contrast, Americans included clients among their most important stakeholders.

## Participants' Motivations, Objectives and Contributions

In this area the preliminary model was quite effective for the initial phase of the projects. It matched well with data about why each partner participated, what they hoped to accomplish, and how they contributed to the collaboration and its results. However, the preliminary model did not fit well with changes in objectives, motivations and contributions over time. We found in the case data that some participants were originally quite reluctant and joined actively only after a project was well under way. Often, this change in willingness to participate was triggered by a phenomenon that one interviewee from the New York case called "me too-ism," i.e., once the project began to generate benefits for the initial participants, others decided it was safe and desirable to join. In the Quebec cadastre case, a traditional customer-supplier contractual relationship rapidly evolved into a more collaborative mode in the face of imminent failure due to serious technological problems and policy challenges. In order to overcome those challenges, the Ministry of Natural Resources and DMR shared staff, work processes, and offices, revised roles, and engaged in an intensive joint effort to develop an innovative technological and managerial solution. These important developments cannot be accounted for by considering only the objectives and motives of the partners at the beginning of the project.

## Structural Characteristics of the Collaboration

The preliminary model allowed us to capture adequate information about the structure of the individual organizations involved and about the formal agreements among them about roles and responsibilities. However, the model did not always lead us to a coherent picture of the structure of the collaboration efforts themselves. While some of the cases had clearly delineated organizational structures (generally those with fewer partners), most tended to be combinations of formal and informal arrangements that changed over time. These combinations would be quite difficult to describe in an organization chart depicting structure, or a process diagram that outlines the key interactions. The model represents formal agreements well, but not the informal relationships and interactions. We regard this as a serious weakness in the preliminary model because the case data show that these informal factors often influenced the performance of the collaboration as much as, or more than, the formal ones.

For example, Cadastre Quebec was initiated as a second attempt with the same partner to create a provincial tax map system. The Ministry began its renewed relationship with DMR with the express agreement that the project goals would be achieved without any up front government funding. However, the emergence of unexpected technological and managerial problems made it clear that their project could not succeed on a pay-on-receipt basis. On the verge of failure, the government agreed to pay some of the funds during development. This change in the formal agreement was accompanied by significant changes in resource commitments, working relationships and communication methods. These combined changes in authority, structure, and process kept the project on schedule and on budget.

FirstGov began life with the personal endorsement of President Bill Clinton and a very unusual gift of technology from the private sector that was essential to quick implementation, but also a target of criticism from government watch dogs and would-be competitors. After two years of very intense effort, and politically savvy and creative management, the public-private partnership dissolved into a traditional set of contracts. However, at the same time a robust and long-lasting public-public collaboration emerged among federal agencies which brought about immense improvements in FirstGov coverage and content. In short, projects did not assume a fixed structure, but evolved in an ongoing series of adjustments that are not contemplated by the preliminary model.

## Critical Success Factors

Our preliminary model identified specific CSFs and associated them with specific hypothesized stages of the collaboration process. One problem with this conceptualization is that the cases do not appear to evolve in predictable stages but evolve in an iterative process of feedback, learning, and change. Moreover, by trying to identify only a specific set of CSFs, we risked ignoring other factors that may be more relevant to our area of study. Fortunately, the open-ended nature of the interview questions allowed interviewees to describe success factors that were not predicted by the literature. For example, in some cases participants emphasized the importance of a mutual “need to succeed.” In the Cadastre Quebec case, that need was based on the desire to regain the mutual and external credibility of the two participants after a public failure. In the New York GIS case, this need reflected an acknowledgment by an informal community of practice that their goal of a statewide spatial data program would not be achieved unless they cooperated informally, relentlessly, and without compensation to keep the issue in front of policy makers. In Hotjob, the sponsoring organization changed its name as well as its operation in order to disassociate itself from previous public dissatisfaction. Other CSFs included the value of networks of personal and professional relationships for working through the problems that were not addressed by formal agreements or fixed work processes, as well as “agreements to disagree” about certain issues whose resolution was not essential to the early success of the collaboration. Some interviewees pointed out how voluntary personal leadership, regardless of formal position, led to important progress toward their goals. Willingness to accept risks and manage them skillfully for the mutual benefit of all partners constituted another critical success factor in a number of cases.

## Key Dynamics of the Collaboration

The preliminary model is weakest in its treatment of temporal factors and the collaboration process itself. The model’s use of highly structured relationships among key variables was not supported by the interview data. We learned that participants sometimes shifted roles and responsibilities as the projects developed and matured and as their needs changed. In several projects, trust and participation expanded gradually, moving from contract-like arrangements to more equal partnerships. Work practices within the collaborations often began with formal procedures and then either shifted to or added extensive informal communication and problem-solving mechanisms. Participants adjusted their expectations and their relationships as they learned more about their mutual capabilities and needs. For example, in both Access Indiana and Partners in Change in New Brunswick,

confusion over roles and conflict among expectations and work styles stymieed traditional processes and problem-solving mechanisms. In New Brunswick, the private partner was completely unprepared for the media scrutiny that accompanied the project and the government partner for the extent of organizational and professional change that were required. Often unsure how to divide responsibility at the detailed working level, the staff participants in Access Indiana made little early progress and frustrated their political and corporate leaders. In response, both projects adopted a “war room” strategy in which staff from all partners were co-located both physically and psychologically in intense working sessions to solve problems. Over time, the war room activities led to close personal working relationships among the staff and substantively successful projects. However, these benefits did not automatically make for organizational satisfaction. The private partner in New Brunswick reported it would not undertake another project of this kind in the future. Despite the success of the project itself, Accenture found it too costly (financially, organizationally, and culturally) to work without a traditional contract in a politically-charged environment under the spotlight of media attention and public scrutiny.