RESEARCH PROBLEMS: The Dynamics of Strategy Implementation

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Virtually all System Dynamics practitioners are dependent on the continued support of clients or sponsors. Achieving greater client satisfaction is of the utmost importance. It is not only a matter of good business, but also of professional satisfaction, the credibility of System Dynamics, and the field's ability to attract top people.

A private corporation that hires a consultant generally expects results of immediate value which can and will be implemented. In public policy analysis, too, projects that have a definite impact on people's thinking and actions are more valuable than those which don't. Implemented results are the key to client satisfaction.

Over the past decade, several System Dynamicists have attempted to structure the implementation problem[1]. These efforts have contributed useful experience-based insights into how to be more effective. Considerable progress has been achieved in the practise of System Dynamics, but the learning has been slow, inefficient, localized, and clearly incomplete.

We can, and should, do better. The means are so near at hand that one legitimately might ask: Why wasn't this done years ago? We should take a dose of our own medicine. System Dynamics should be applied to the implementation problem.

In my opinion, implementation success (or failure) is determined by a complex feedback system of relationships. Based on my personal experience and some selective literature review, I offer the preliminary conceptual model in Figure 1 as a starting point for further research. Because my experience is primarily in the area of corporate strategy consulting, my conceptualization admittedly is slanted in that direction. For example, it assumes a defined client, who has substantial power to implement and some ability to evaluate the effectiveness of actions taken.

For the remainder of this paper, I first shall review the relationships in Figure 1. Then I shall indicate several existent bodies of research which are relevant to the implementation problem and discuss how one might proceed to apply System Dynamics to this important issue.

Roberts[2] and Weil[3] have argued that success occurs only when all of the essential ingredients are present:

1. The results of a project must, in fact, be implementable;

2. Those who will have to take action must have a clear desire to implement; and

3. The environment must be properly receptive.

These factors lie at the centre of Figure 1, and are highlighted in Figure 1A.
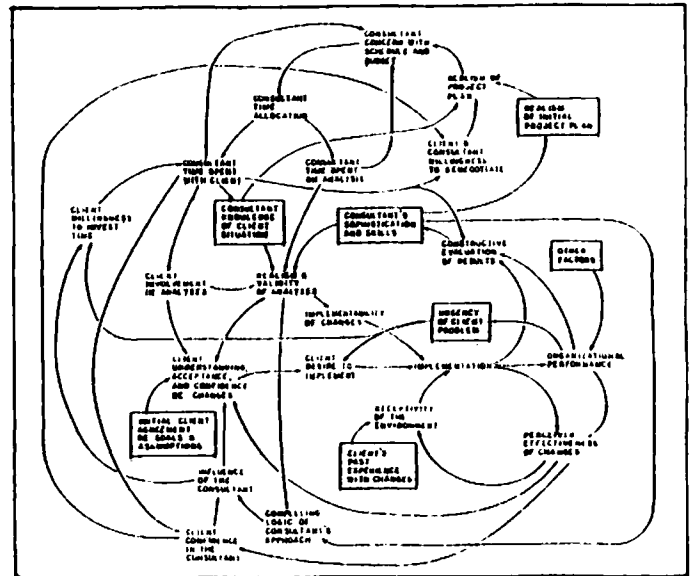
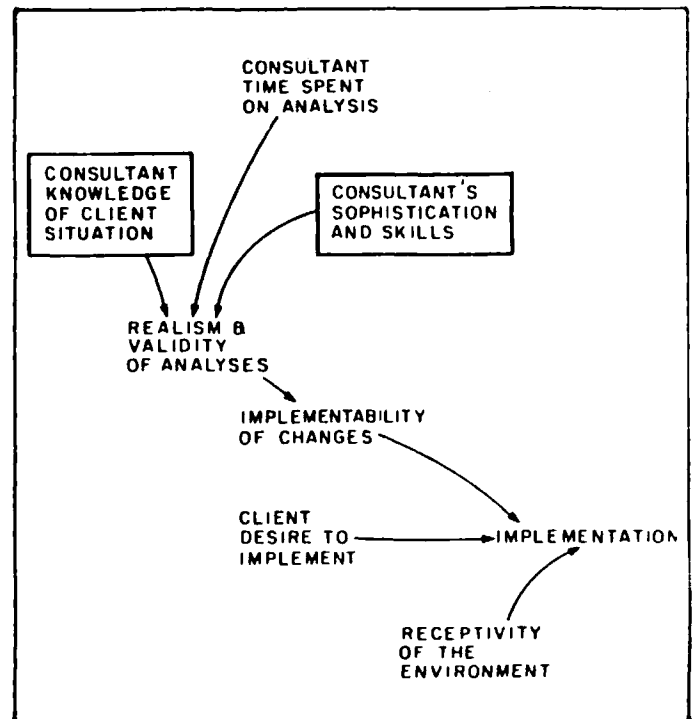

Figure 1: A Conceptual Model of Implementation.

Figure 1A:

In my experience. project results — to be implementable — must be sufficiently detailed that they can be acted upon within the client's established management system. By this I mean within the structure of managerial responsibilities, resource allocation and control processes, and corporate resources (e.g., personnel, facilities, technologies, customer relationships). Furthermore, if the recommended changes are too extreme, or too unconventional, or too inconsistent with the client's social/political structure, they do not have a high likelihood of being implemented.

The implementability of recommended changes depends on the "realism" and "validity" of analyses performed during the project. I use the terms as shorthand for the level of detail, practicality, sensitivity to client needs, thoroughness, completeness, and correctness inherent in the consultant's technical work. These characteristics are the consequence of:

1. The consultant's overall sophistication and skills, i.e., his professional experience, his technical competence (primarily brought to the project in question as the product of past work, but also enhanced by any constructive evaluation of this project's results as they are being achieved);

2. The consultant's knowledge of this particular client's situation (primarily the result of time spent with the client — either during the current project or its predecessors — but also aided by the consultant "having seen the problem before"); and

3. The amount of time the consultant spends on the project's analysis tasks.

Let us return to the center of Figure 1. Roberts[4] emphasizes that a client's desire to implement is strongly affected by the urgency of the consulting project's problem focus. Without this clear motivating force, implementation generally is thwarted by some combination of indifference, inertia, cost, and fear. An important feedback loop can exist here. To the extent that the project's recommendations (or other unrelated factors) improve organizational performance, the sense of urgency and, hence, the client's persistence in completing the job of implementation will lessen.

Given the necessary urgency, a client's desire to implement recommended changes is the result of his understanding of, acceptance of, and confidence in those proposals. In several papers, Weil[5] discusses the critical importance of two factors in this regard:

1. Active client involvement in all aspects of the project's analytical tasks (so that he understands the technical approach, agrees with all significant assumptions, sees "where the results came from", and takes the lead in formulating the strategy recommendations); and

2. A high level of realism and demonstrable validity in the analyses (i.e., model structure and behaviour which are highly consistent with all available data about the client system).

Frohman and Kolb[6] discuss the effect of power on the relationship between consultant and client. The consultant's influence on his client is a type of power that enhances the client's acceptance of and confidence in the recommended changes.

This influence derives from the consultant's technical/professional authority, and from the trust and confidence between client and consultant which develop during the project.

In my experience, the basis of a consultant's influence shifts over the course of a project. Initially, it is more a function of the compelling logic of the consultant's approach — his credentials, methodology, problem diagnosis, and project plan as presented in early meetings and documents. Later in a project, the consultant's influence (or lack thereof) is primarily the consequence of the client's confidence in him. That confidence arises from the time spent working together and, later on, from client perceptions of the effectiveness of the consultant's proposed changes.

The consultant's influence, along with the urgency of the problem focus, determine a client's willingness to invest time in the project. Here we have another important feedback loop: The self-reinforcing nature of client participation. Moreover, client involvement enhances the realism and validity of the consultant's analyses, thereby strengthening his technical authority with the client. These related feedbacks are shown on the left in Figure 1, and in Figure 1B.

Lyneis[7] and McPherson[8] emphasize the positive reinforcement wherein successful implementation feeds back to affect an organisation's receptivity to further changes. As depicted on the right side of Figure 1, the perceived effectiveness of changes recommended by a consultant depend on both:

1. The extent of implementation of these recommendations (i.e., to what extent can they claim credit for any performance improvements); and

2. Recent changes in organizational performance (caused by a combination of the recommended changes and other factors).

Clearly, there is an attribution problem. Furthermore, the perceptions are made by several different groups, ranging from the immediate client, to less-involved members of the client organization, to significant external observers.
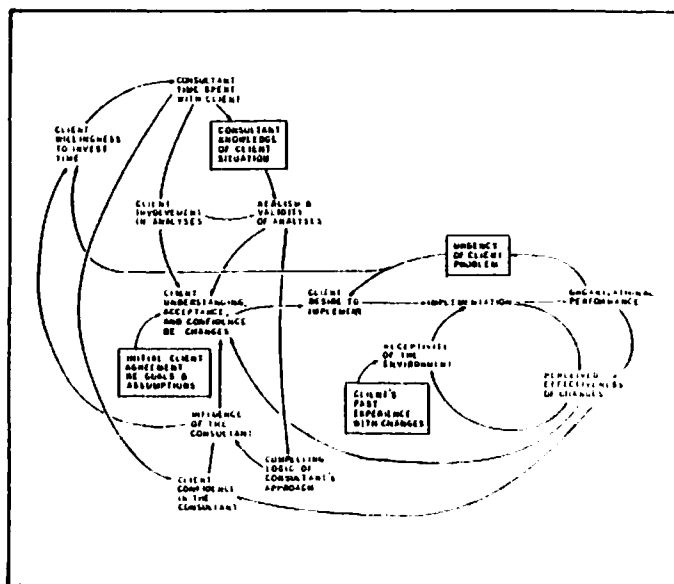

Figure 1B:

Three feedbacks relating to this positive reinforcement are shown in Figure 1. They affect client confidence in the consultant, client confidence in the recommended changes, and the general organizational environment's receptivity to changes.

The impact of management policies and pressures on project performance has been described by Cooper[9], Weil[10], and Roberts[11]. As shown at the top of Figure 1 and separately in Figure 1C, the amount of time allocated by the consultant to the project in question, and its split between working collaboratively with the client and working on analysis tasks, is strongly affected by the consultant's concern with project schedule and budgetary performance. If the project is over-running its budget, the consultant will cut back his time allocation in an attempt to contain the damage. Falling behind schedule generally leads to a greater time commitment, as the consultant tries to catch up. In my experience, either schedule or budget pressures usually cause a consultant to emphasize the accomplishment of the more tangible (and, hence, measurable) analysis tasks at the expense of working collaboratively with his client.

The realism of project plans have a lot to do with a consultant's concern with schedule and budget. Unrealistic plans may be the result of initial over-optimism, or the consultant's perceived need to "buy in" by quoting a low price and an ambitious schedule. A consultant's knowledge of his client's situation helps him to define the job to be done; his overall sophistication and skills determine what he reasonably can expect to achieve.

Of course, much can change during the course of a project. Frohman and Kolb[12] emphasize how mutual trust between client and consultant allows the open, honest renegotiation of project commitments. Time spent working together creates a feeling of joint responsibility for project performance. It also facilitates constructive (i.e., non-defensive) evaluation of how the project is going and the results thus far. These feedbacks are indicated in Figure 1.

The conceptual model presented above helps to explain several common patterns of implementation success and failure. One scenario is that of the inexperienced consultant
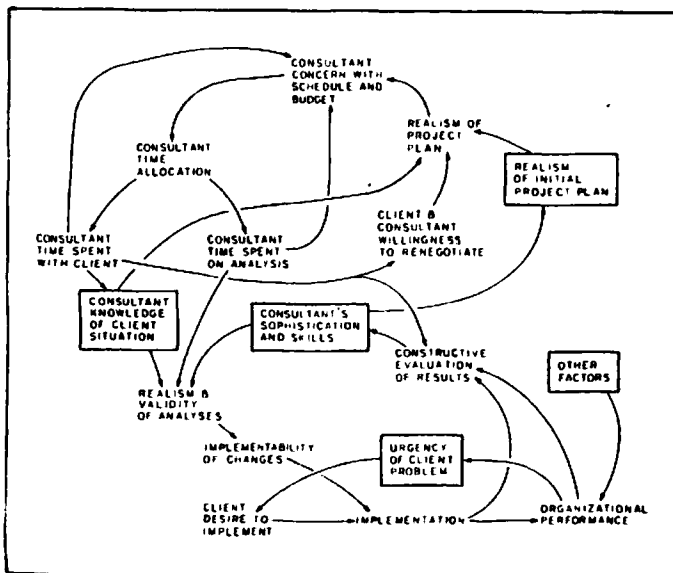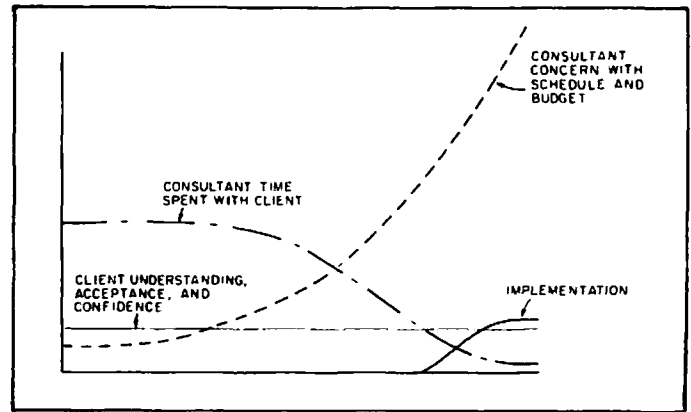

Figure 2: An Unsuccessful Project.

who commits to an unrealistic project plan; schedule and budget pressures cause him to become increasingly task oriented and not allocate sufficient time to collaborating with his client; whatever expert authority he had at the outset is dissipated, as the emerging analysis fails to impress the client with respect to its realism and validity; the client never develops much understanding of, acceptance of, or confidence in the results of the project; little (if any) implementation is achieved; the consultant over-runs his budget, and a dissatisfied client refuses to pay the extra cost. This behaviour mode is shown in Figure 2.

A more desirable scenario involves the successful consultant who makes all the right moves. His substantial technical/professional credentials and in-depth experience with the problem in question give him enough influence with the client to obtain a large commitment of client time to the project; significant client involvement adds to his knowledge of the situation and builds client understanding, acceptance, and confidence; his emerging product is on target, enhancing the client's confidence in him; the critical ingredients for implementation are there; positive reinforcement accelerates implementation; the high level of mutual trust between consultant and client permits appropriate renegotiation of project scope, schedule, and budget; open, non-defensive evaluation of initial results makes the project a useful learning experience for the consultant; he gratefully accepts a follow-on project from his satisfied client. Figure 3 depicts this alternative behaviour mode.
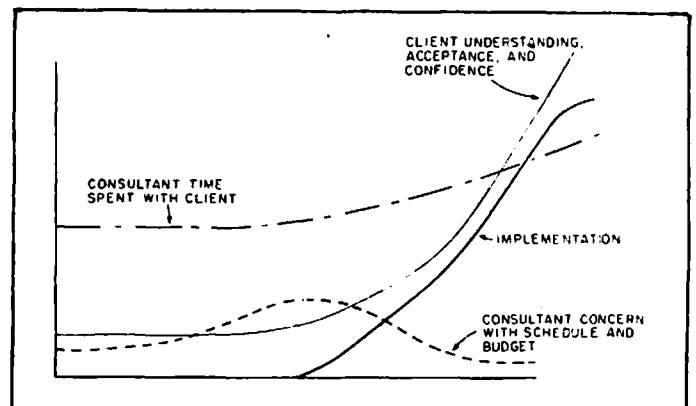

Figure 1C:

Figure 3: A Successful Project.

The preceding scenarios indicate the importance of certain initial conditions. My experience suggests that the following characteristics of the consultant and his client (which are highlighted in Figure 1) set the stage for success or failure:

1. The consultant's overall sophistication and skill level;

2. The consultant's knowledge of the client's specific situation (either from previous assignments for this client or from "having seen the problem before" elsewhere);

3. The realism of the initial project plan;

4. The urgency of the problem on which the project will be focused;

5. The extent to which other factors, not included in the project's terms of reference, are either aggravating poor performance or masking the true impact of the problem to be addressed;

6. The client's past successes or failures with attempts at strategy changes (this experience strongly colors the client organization's receptivity to further change); and

7. The extent of agreement among relevant client managers about strategic goals and assumptions (which determines how difficult it will be to obtain consensus about the changes to be implemented).

My intention with these observations is to stimulate a more complete conceptualization of the implementation problem, followed by a model-based analysis of how to be more successful. In proceeding with this research, I recommend drawing upon and synthesizing from several bodies of literature:

1. Organizational change;

2. Technology transfer;

3. Project and program management;

4. Social services delivery; and

5. Implementation.

Some suggested starting points for a literature review are listed at the end of the paper.

I further propose that several actual projects be modeled. This is necessary to validate the formulation and calibrate the strengths of casual relationships. Realistic case studies would allow useful diagnoses of actual problems. It would then be possible to recommend how similar projects could be managed more effectively in the future.

The proposed research would make a major contribution to the field of System Dynamics. It could be of great value to the entire consulting profession. "There is a widespread feeling that many consultants are ineffective helpers. Their work is all too often seen as irrelevant and therefore not worth the price in time of money"[13]. Sadly, those words are at least as true now as when they were written nearly thirteen years ago.

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