



Why Do BI Software Implementations Fail?

Re-Staging a Troubled or Failed BI Implementation



Data Meaning

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Overview

This article describes what might go wrong in complex Business Intelligence (BI) software implementations and offers advice on how to avoid problems. It also offers advice on how a troubled or failed implementation might be re-staged to salvage sunk value.

Difficulties encountered while implementing complex BI systems can require unanticipated expenditure of many millions of dollars; outright failure can result in writing off the entire investment.

Five major causes of derailed implementations should be noted:

- **Incomplete Planning**
- **Poor Change Management**
- **Poor Expectation Management**
- **Altered Internal or External Conditions**
- **Problems with Consultants**

Incomplete Planning

Any significant packaged software implementation project should plan to employ a structured methodology that specifies activities, tasks, deliverables and assigned human resources. This will minimize the chance of missing key steps.

When it is not as thoroughly planned, the result can be a series of unpleasant surprises during execution that cause political capital with both management and key personnel to disappear.

Some key areas in which methodological rigor is particularly important in planning an implementation include the following:

Project Organization

Highly collaborative cultures and organizational structures that are too highly matrixed can cause problems, because the real objective is effectively controlling thousands of interrelated tasks, many requiring little or no broad consensus.

Structures that are too highly matrixed can result in serious slippage in schedules and budgets, as time is wasted trying to forge broad consensus in all areas.

Tip

- Spend enough time during planning to adequately describe authority at each level of the organization, and then spend the time necessary to sell the idea throughout the company, explaining the reasons for the rules.

Business Process Management (Engineering/Re-Engineering)

The need to re-engineer business processes as part of a complex software implementation is very often underestimated, which can add so much cost and time to the implementation that failure could seem to be a blessing.

Tip

- During product selection, spend time identifying the business process areas that may contain unique elements, and particularly areas where the company has interest in improving processes. Compare these conclusions to package limitations and plan accordingly.

Incomplete Planning

Report Definition, Interface Development and Historical Data Conversion

These also are often underestimated activities whose impact to the project can be particularly severe because it usually is felt close to the end of the ordeal, when these activities, if not performed to schedule, could cause the roll-out to halt.

Tips

- **Report Definition:** Make clear to management that this is a moving target, since users will approach the team many times over the course of a long implementation to add or complicate reports. Identify consulting resources that can perform the commodity tasks of report definition and development, and have them ready to appear as needed. Do not give management hard estimates as to the cost of this activity; rather, provide a range of most likely cost.
- **Interface Development:** Often, the complexity of the interfaces, rather than their number, is underestimated. Assume for estimating purposes that major interfaces require some re-design of the interfaced elements, which should result in safer over-estimation overall.
- **Historical Data Conversion:** When a problem arises, it typically is caused by the same data entities having different meanings. This often depends on the year the software was enhanced, which can cause an entity's meaning to change from one year to the next. Assume for estimating purposes that five percent of the data entities will require "leveling", which should result in safer overestimation of the activity.

Equipment Sizing

When this is done ineffectively, the need to upgrade processor, memory or disk at very short notice to support an implementation can be an expensive and time-consuming surprise.

Tip

- While modeling throughput characteristics and implications, require software vendors to introduce you to at least one, preferably several, customer(s) with similar transactional volume and other sizing-sensitive characteristics. Ask why they sized equipment requirements as they did, and what experiences they had with sizing at implementation. Plan accordingly.

Poor Change Management

Change Management is primarily the discipline that seeks to identify barriers to change in an organization and to formulate remedial programs that lower the barriers, thereby maximizing chances for success of the implementation. Such barriers can include major cultural attributes, unwillingness by key people to participate, or even simple fear of change.

Effective planning requires that Change Management be taken seriously, in order to identify potential barriers to successful implementation and develop programs to lower the barriers. Failure to do this often can cause complete failure of an implementation.

Inability to understand that people who feel threatened by change can derail an implementation—in ways that are not easily identified or countered—can result in barriers that become so high they cannot be countered except in a planned manner.

Tips

- Communicate early with employees regarding the goals of the change, how those goals will be secured, what their participation will need to be, and what roles they will have in the new environment.
- Be ruthlessly honest with management about what effect the change will have on employees. They are probably intelligent and, sooner or later, will figure it out themselves. If they are forced to do that, they may very well panic and seek other employment.

If their active participation in the company's operations is key—at least through implementation—then such a reaction could pose serious danger to those operations.

Poor Expectation Management

This problem comes in two flavors: **1) poor expectation setting**, which involves the goals of the implementation, and **2) poor expectation management**, which is an on-going implementation challenge. If unaddressed, either can derail the implementation.

If, in an attempt to secure management backing of an expensive and difficult project such as an ERP, SCM or CRM implementation, potential benefits are too aggressive are sold, then expectations have been poorly set. When it becomes evident that the benefits will not be generated, management will regard this as a failure; an investment that did not produce anticipated benefits. This could cause the project to be scrapped even though it might be on budget and on time.

The most important factor in managing expectations is usually project scope. Initial expectations of the implementation may have been set reasonably, however over time, additional goals may be added without subjecting them to the same achievability tests as the initial objectives. If management is led to believe that additional goals are reasonable, and then realizes at some point that they will not be achieved, the same problems described above could develop.

Tips

- Management should take great care to assure that the rational underpinnings of expectations arguments are tested thoroughly, particularly if consultants or software vendors set such expectations.
- Program management should create a “phase awareness” in corporate management’s collective mind, to better manage expectations. In other words, when additional goals are presented, they should be tested to determine that they can reasonably be added to the program. If they cannot, creation of subsequent implementation phases should be considered to deal with them.

Altered Internal or External Conditions

Changes in internal or external conditions can trouble or derail an implementation because such changes can invalidate the premises that justified the implementation.

For example, significant change in a company's management structure can fundamentally bring into question the validity of the premises underpinning the project justification, because a different set of perceptions and values may rule.

Another example of altered internal conditions is divestiture of a significant piece of the business that was to be automated by software, or acquisition of another company. Divestiture could invalidate cost/benefit expectations since a piece of the business that contributed the benefits is gone, while acquisition potentially introduces new requirements that could invalidate the software product selection, or the feasibility of the implementation plan.

Changed market or technology conditions are good examples of altered external conditions. For instance, a competitor might introduce a powerful new customer service feature that threatens to bind customers more strongly to them, and the service is application software based. Pressure could build to abandon the implementation to find and implement products that more effectively counter the competitive threat.

Tip

- It could be better to withhold approval of a major project until a new management team can take ownership of the effort, in the event that senior management is expecting to make changes.

On-going threat analysis is a useful technique for altered external conditions. As part of implementation planning, potential threats such as those described above could be identified and tracked through the implementation.

Contingency plans in the event of threat materialization could be developed and ready for use to mitigate the threat or change direction in an orderly manner. This approach will salvage as much investment as possible. Clearly, long implementation periods magnify the risk of these problems.

Problems with Consultants

Large consulting/integration teams can cause problems in a complex implementation, including:

- Unwieldy program management structure, where span of control at critical levels is insufficient, often due to inadequate complex program management skills on the part of consultant management. This results in patterns of missed deadlines, poor deliverable quality and inadequate translation of requirements into plans and deliverables.
- Revolving door consultant management can cause major disruptions in management continuity, which can be particularly damaging when the consulting team has a high proportion of junior personnel.
- Consultants can sometimes have agendas that are not precisely aligned with their clients' agendas, which might include keeping as many people billing as possible, rather than doing more with less. Poorly aligned agendas could extend project duration and cost to the point where pressure builds to abandon the effort.

In such cases the following tips can be useful:

- Closely examine all consultant team leaders for competency and experience, retaining the right to reject any that do not measure up.
- Treat potential revolving door consulting management very strictly by having alternative sources of consulting talent available, to replace the entire team or just the project management.
- Do not ignore management's responsibility to test the recommendations of consultants. "Sanity check" all recommendations in order to assure adoption of those that reflect company priorities and company interests.
- Determine how senior consulting personnel need to be in order to provide optimal value at a given activity. The more critical the activity to the success of the implementation, or the less commodity in nature the task, the more senior the consultant performing it might need to be.

Re-Staging a Troubled or Failed Implementation

A practicable re-staging usually begins with changing the faces, which means the consultants. This usually means the consultants. In this manner, internal acrimony can be channeled away from the plans and people on whom success of the re-staging must depend. Culpable internal personnel who are too valuable to the company to offend should be finessed into less directly-influential roles in the re-staging.

Then, re-validate the basic premise: either a successful implementation is possible if managed well, and worth the effort to achieve, or it isn't. Act accordingly.

The remaining steps to a re-staging are the following:

- Determine what went wrong with the implementation and remedy the problem(s).
- Determine the most sensible point of departure for the re-staging; this may require backtracking a significant distance from the point of implementation failure.
- Develop plans to manage the possibility of other major problems occurring;
- Approach all internal participants and prepare them for the re-staging.
- Re-commence the implementation at the determined point of departure.

Some additional context would be useful.

For instance, if the problem that caused failure was poor planning, management needs to understand why the implementation encountered difficulties, and how the new plans will avoid the same difficulties.

Similarly, selecting the point of departure for the re-staging is a delicate matter. It needs to be back far enough in the train of events that occurred to assure that work that contributed to the failure is avoided and redone. It also needs to be far enough back to reassure participants that management is serious in its commitment to success, not simply forcing a dubious re-staging at the expense (long hours, frustration, etc.) of participants. Yet, it also needs to salvage enough of the work performed to make a re-staging worthwhile.

Often, participants and management may perceive that a hard implementation failure was caused by a poor software product selection. This would suggest scrapping the implementation and beginning fresh with a more informed selection process. While this indeed may be the case, the perception might also be due to exhaustion on the part of participants and the conviction that only with a fresh start can this implementation succeed. This could be an expensive solution, and possibly unnecessary.

Re-Staging a Troubled or Failed Implementation

When such hard failures are initially ascribed to poor product selections, management should determine if the failure was due to an extensive and unanticipated need to re-engineer business processes or to modifications to the software, which are so extensive that the project spun out of control.

If poor change management was the cause of the trouble, a very extensive and careful change management effort will need to be mounted for the re-staging, because much political capital has been lost in the failure, with participants who believe their interests have been actively threatened or damaged. Problems with consultants are perhaps the easiest cause to rectify, because they can be replaced, or at least reorganized to operate more effectively in the re-staging.

About Our Group

Data Meaning utilizes cutting-edge technologies to build innovative and effective Business Intelligence and Data Warehousing solutions. Our experienced, professional staff can design and deliver pioneering reporting systems to give you a unique perspective to your data and an edge in your decisions.

Along with the world-class consulting services Data Meaning offers, they are also an official licensed reseller of the award-winning MicroStrategy Business Intelligence Reporting Suite, a fully integrated BI platform that makes Business Intelligence faster, easier, and more user-friendly. Data Meaning has MicroStrategy certified consultants available to help you deploy MicroStrategy with ease. For your BI and DW design, install and implementation and training needs please visit us at www.datameaning.com or email info@datameaning.com.