

PROJECT MANAGEMENT FOR E-BUSINESS INITIATIVES

Project Framework, Proven Practices, Coordinated Work, Focused Sub-Teams

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Abstract: Corporate success in the 21st century requires business adaptability and durability. So, e-Business initiatives will need to go beyond their current strategic importance to one of enabling corporate survival. Some executives see this importance. In response, they are undertaking a four-part strategy: a) Exploit the Internet to achieve adaptability. b) Rapidly develop, change and outsource non-core business process. c) Develop modular e-Commerce Platforms. d) Tightly manage e-Business projects to implement on time, on budget and on scope. But many current e-Business initiatives, their project plans, and their project executions, do not provide the management support required to fulfil the four-part strategy. This tutorial identifies specific shortcomings, offering project management practices to support key e-Business initiatives. These practices are: a) a formal project management framework, b) proven practices for tight project control, c) coordinated work activities to ensure system-to-system integration points do not fail, and d) use project sub-teams.

1 NEEDS & SHORTCOMINGS

Corporate success in the 21st century requires business adaptability²³ and durability¹. e-Business initiatives are thus going beyond their current strategic importance to one of enabling corporate survival. Some executives see this importance². In response, they are undertaking a four-part strategy: a) Exploit the Internet to achieve adaptability¹. b) Rapidly develop, change and outsource non-core business process³. c) Develop modular e-Commerce platforms⁴. d) Tightly manage e-Business projects to implement on time, on budget and on scope⁵. But many current e-Business initiatives, their project plans, and their project executions, do not provide the management support required to fulfil the four-part strategy⁶. This tutorial identifies shortcomings and offers specific project management practices and anecdotes to support key e-Business initiatives.

1.1 TECHNICAL ORIENTATION

Today's e-Business initiatives are technically oriented. Requirements are technical, not business, not process, and not social⁷. They emphasize transactional workflows and transaction codes⁸. However, workflows and transactions may or may not fully address system integration points. Their

designs addresses how the e-Business solution will operate, but they often do not address organizational change issues or stakeholder and teaming complexities⁹. Even though their solutions are holistic and often contain a number of complex system integrations, e-Business projects often lack a distinct deployment stage, a comprehensive training plan, and a post-implementation learnings stage¹⁰.

1.2 LACK OF CONTROLS

Today's e-Business plans also lack robust planning, tracking, and control throughout the entire solution development life cycle¹. The complexity of an e-Business solution requires its project plan to be based on constraints, assumptions, and risk, a work breakdown structure (WBS) instead of just a task list, and time or cost estimates based on the WBS¹¹. The plan also needs to define specific change control activities to occur in each project phase, with project earned value computations at phase end points, and regular project status meetings and reports²⁵. In addition, an e-Business project needs a set of well-defined change control procedures – one procedure for each of its key elements: scope, schedule, cost, quality, and risk, with defined closure points for project phase¹². Since change control must work “first time, every time,” the proven change control practices of the PMBOK™ are recommended.

1.3 OVERLOOKED ESSENTIALS

The success of an e-Business initiative depends on many key factors. Solution scope must be defined before project planning begins¹³. The project must tightly manage each area where errors can cause failure: requirements, design, technology integration, testing, training, and deployment¹⁴. Requirements must come from the steering committee and stakeholder communities, resulting in a customer-solution footprint alignment¹⁵. The design must have comprehensive rules for intermediary operation, plus a well-defined data architecture and data migration plan¹⁶. The implementation must include review and signoffs of scope and plans at each system-to-system integration point¹⁷. Due to these complexities, the project plan must define a distinct deployment stage with daily formal project tracking²⁴.

1.4 WHAT IS NEEDED TODAY

Since 1997, the author has participated in dozens of e-Business initiative projects in the industries of staffing and electronic component manufacturing¹⁸. Firms lacking e-Business project experience have found the following project management practices to improve project success rate: a) Use a management framework for tight coordination among the many participating organizations to reduce risk¹⁹. b) Manage project uncertainty and organization impact via structured and disciplined quality and learning methods²⁰. c) Manage the implementation effort so it produces a complete, correct and usable e-Business solution²¹. d) Use a multi-team approach that is capable of managing all the formal and informal relationships among project constituencies^{1,22}.

2 PROJECT FRAMEWORK

e-Business projects are absorbing more of the IT budget¹, so firms are using disciplined programs to implement these initiatives², especially through the expert application of project management³. e-Business project success also requires balancing imagination and methodology⁴, while providing tight coordination and control among many participating organizations to reduce risk⁵. For contract labour management, project timelines are short and fixed, the project focus is the outsourcing agreement, and the implementation requires heavy coordination from a single person with external oversight responsibility. Such projects succeed or fail based on their framework. Here are some details:

2.1 RISK DEFINITION

Roughly half of all e-Business projects fail, even though 75% of all projects track risks. Successful e-Business projects keep a *very tight* watch on the risk factors, especially the project constraints and assumptions⁶. Part of this monitoring requires an analysis of project atmosphere, stakeholders, and centres of influence⁷. And because of the enterprise-wide nature of the project, the CIO has a distinct role to surface assumptions early⁸. Therefore, prior to project planning, define all project constraints and assumptions, plus the methods for monitoring them.

2.2 COMPREHENSIVE PLAN

Project risk is lessened with solid, up-front planning⁹ that produces: a) a project approach aligned to corporate objectives¹⁰, b) a comprehensive work breakdown structure (WBS)^{11,12}, c) a resource plan¹³, defined control points¹⁴, and d) a complete set of expected communications¹⁵. Therefore, prior to project commencement, define the project so that everyone clearly understands the goal, scope, messages, personnel, timeframe, cost and payback. Design communications before the project starts!

2.3 ADEQUATE RESOURCES

e-Business pressures projects to create a cohesive¹⁶, interdisciplinary¹⁷ team. e-Business pressures project managers to be flexible in light of the large number of project stakeholders¹⁸. e-Business forces project teams to attend to the project's relationship with the organization, and to how well the project manages itself¹⁹. Therefore, build a comprehensive project team. Assign one person to each critical area of the project. As part of those assignments, make each person the leader of a sub-team. Include all organizational stakeholders in the larger team³⁸.

2.4 ACCURATE ESTIMATES

When a very large project is successful, it often refines its estimates²⁰. Proposal estimates have a +/- 100% accuracy. Early planning estimates have a +/- 25% accuracy. Deliverable estimates have a +/- 5% accuracy. Good project managers maintain strong control over estimates²¹ by reviewing them weekly with the project team, and reviewing daily during the deployment phase. Therefore, thoroughly define and control all project estimates. Provide accuracy ranges in order to correctly set sponsor expectations.

2.5 ESTIMATE TRACKING

Tight control of results is accomplished via a project plan where estimates are fixed²¹. This baseline³⁹ plan becomes a visual control²² that enables regular evaluations²³ to show progress in order to identify variations²⁴, and to compute ROI^{25,26}. Without a baseline, project status reverts to people's opinions about due dates, which too often are optimistic and lack grounding in reality. Without a baseline, schedule slip is almost unavoidable. Therefore, establish a baseline by "freezing" all deliverables and their due dates. Use the baseline to track progress, at least weekly, and assess risk³⁹.

2.6 PROJECT REPOSITORY

The nature of an e-Business project requires it to constantly provide information to its team^{27,28}. This is best accomplished via a web-based project portal²⁹ that: a) gives people easy access to a project repository³⁰, b) centrally collects up-to-the-minute information³¹, and c) has project management tools³² for problem solving. Therefore, build and maintain a project repository with up-to-the-minute information and latest tools³⁷. Make access and use very easy⁴⁰.

2.7 PROACTIVE MONITORING

e-Business project managers and CIOs³³ proactively assess risk³⁴ such as: a) organizational resistance, b) integration complexity, and c) resource availability. Good project managers monitor solution compliance to expected policies, process, workflow, and data³⁵. Oversight of project strategy, project process and project information means the difference between success and failure³⁶. Therefore, proactively monitor all known project risks and periodically try to identify unknown risks. If needed, allocate extra resource for this work – at most 5% more resource.

3 PROVEN PRACTICES

Some companies consider e-Business initiatives to be different than traditional software development efforts¹. So, some e-Business solutions are pressed into service with insufficient capability or usability. However, some firms recognize that e-Business initiatives require more than the traditional planning, requirements, design and testing activities common to other software efforts²¹. They recognize that a project must use their management techniques on

initiatives that have varying degrees of uncertainty and organizational impact² – for example, the implementation of a new e-Business strategy may encounter unexpected organizational resistance, market barriers, and so on. And because of the high visibility and wide impact of an e-Business project, these firms also adopt structured and disciplined³ quality and learning methods to lessen project rework⁴. In short, they institute additional key management practices. Here are some details:

3.1 PROJECT PHASES

Especially for e-Business initiatives, the project manager must work against the natural tendency to overcomplicate its straightforward aspects⁵. An effective practice to counteract this force is to define formal project phases⁶. Each phase becomes an objective that represents a formal control point for: baselining the plan, reviewing project progress, and approving project go-ahead at the end of each phase. Therefore, during, or immediately after development of project scope, define those project phases that will focus people and act as explicit points of control.

3.2 BUILT-IN COORDINATION

Due to its enterprise-wide scope and large number of stakeholders⁷, an e-Business initiative requires its team to be cohesive⁸ and very efficient in how it functions⁹. Successful practices include: a) project execution oversight, b) daily coordination meetings, c) strict adherence to a system development life cycle (SDLC), and d) one person dedicated to project repository maintenance¹⁰. Therefore, invest in resources for project oversight, coordination, adherence to development standards, and project repository population and maintenance.

3.3 CHANGE CONTROL

When the e-Business and its value chain are highly complimentary (i.e. e-Business technology strongly supports the value chain's operation and efficiency), comprehensive project planning is required¹¹. Such planning includes formal change control on project scope, strategy, and stages. The solution cannot drift, even in the slightest, from its objectives. It also requires meetings to ensure conformance to plan, reviews of all project plan changes and formal end-of-stage project signoffs. Therefore, institute formal practices to control changes to the project, to the plan, and to how the team must execute the plan²¹.

3.4 PROCESS MIGRATION

e-Business operational complexity¹² and scope of impact¹³ requires definition of process improvement prior to project initiation¹⁴. The resulting process map¹⁵ must span the entire workflow, include the required fulfilment geography, and cover the whole value chain¹⁶. While process relocation may be done to gain efficiencies^{17,18}, care must also be taken to significantly decrease the likelihood of process variations¹⁹. Therefore, tightly manage the process change across the whole value chain in order to reduce overall cycle time without adding variations.

3.5 INTEGRATION DESIGN

Since an e-Business is highly visible, its errors have strong competitive implications¹. Also, it is currently hard to get technology integration correct²⁰. So, the chance that a failure at an integration point will cause solution failure can often be high. Thus, extra planning, design and oversight of implementation should be done for both sell-side and buy-side technology integration activities¹⁸. Over-engineer all integration points to correctly: capture transactions (in ERP), retain customer knowledge (in CRM), and analyze buy-supply trends (in data warehouse).

4 COORDINATED WORK

Instituting a management framework and formal management practices will help alleviate some common project mistakes, such as ineffective senior managem

4.6 INTEGRATION POINTS

Due to its ability to reach customers and suppliers, to transact immediately, and provide visibility into operations³⁸, business survival relies on e-Business. Companies needing to be more transparent are now redesigning their technical infrastructures¹⁴. Such transitions are more often successful when done iteratively as opposed to being reengineered (i.e. radical change)²². Therefore, follow a method that configures and integrates technology so the infrastructure migration can occur smoothly. Avoid radical replacement. Thoroughly plan the migration.

4.7 DATA TRANSITION

Today's e-Business solutions rarely start up their operations with an empty database²³. They acquire data elements from existing transactional systems, and they may redefine that data using XML²⁴. This not only enables data standardization, but it also enables up-to-the-minute business information updates²⁵. Especially nowadays, a method capable of defining all e-Business data using XML so that migration to Web services is possible is needed. Plan, schedule, and monitor the execution of how all data will migrate from legacy to e-Business.

4.8 COMMUNICATION DESIGN

Due to often wide geographic scope, large user populations and many stakeholders, e-Business projects sometimes fail or do poorly without solid communications^{30,31}. Successful projects comprise: a strategy and plan just for communications³², a project manager who is a good change agent³³, and tracking to ensure consistent understanding across organizations³⁴. Therefore, a plan that defines each project communication, when each will be delivered, and that each did get delivered, is a must.

4.9 COMPLETE TRAINING

An e-Business solution, like all software, requires end user training²⁶. Experience shows that having and following through on a training strategy and plan will yield good results²⁷. Whether training is face-to-face or done online²⁸, making it personally relevant is crucial to end user learning^{29,35}. Thus, dedicate resources to develop, maintain and execute a training strategy and plan. Design the training to be relevant to all segments of the user population.

5 FOCUSED SUB-TEAMS

Due its scope and number of stakeholders, a project must carefully manage its relationship¹. This relationship spans: the sponsoring organization², the larger company³, the value chain⁴, and the user community⁵. Therefore, the project should have an approach to teamwork that supports customer focus, continuous improvement, total participation, and social networking⁶. Its structure should comprise a set of sub-teams; each one capable of managing the relationship between the project and a specific project constituency. Here are some details:

5.1 TEAM STRUCTURE

A project often has several distinguishing attributes: distributed membership⁷, collaboration across geography⁸, strategic intent⁹, skill and culture diversity¹⁰, organizational learning¹¹, and dispute resolution¹². Therefore, a project team requires a framework that supports cohesion, collaboration, geography, and stakeholders^{13,14}. Therefore, create a project environment of collaboration, coordination, communication, and learning among a number of highly specialized sub-teams.

5.2 STEERING COMMITTEE

Despite the history of software project failure due to a lack of, or ineffective, steering committees¹⁵, many projects still operate without one. This sub-team can be effective at project selection¹⁶, formulation¹⁷ and oversight¹⁸. And when comprised of sponsors and key stakeholders who are kept informed of project status, it can be an effective issue resolution body. Therefore, first create a steering committee, that comprises sponsors and stakeholders that have business authority for oversight and issue resolution.

5.3 BUSINESS TEAM

The e-Business is a business entity in and of itself. And so, business relationship management is a key to e-Business success¹⁹. The next project sub-team to establish is the business relationship team. Its responsibility is the contractual definition (in XML²⁰ if possible) of the e-Business itself. It must govern: intent, strategy, speed, quality and cost^{21,22}. Therefore, create a dedicated sub-team to define and govern the intent, strategy, speed, quality and cost of the e-Business' relationship with its environment.

5.4 INTERMEDIATION TEAM

After formulation of the e-Business intermediary, the program office²³ sub-team is created to own the intermediation policies and artefacts. Office staff are special, in that they must think and work from multiple perspectives: customer²⁹ and supplier³⁷, strategic²⁴ and tactical²⁴, service^{25,26} and process^{27,28}, and quality²⁹. Therefore, create a dedicated sub-team to own the day-to-day business operations that is conducted by the e-Business. Create this team as soon as possible so they can participate in the design and construction of the intermediary.

5.5 VALUE CHAIN TEAM

Due to value chain scope and complexity, each project needs a dedicated value chain sub-team. It must comprise experts in supplier: niches³⁰, tiers^{31,32}, variability³³, qualification^{34,35}, consolidation^{36,37}, coordination²⁵ and performance³⁸. Members come from procurement or from the company that will own the intermediary. Therefore, create a dedicated sub-team to interview, qualify, and sign on those suppliers that will satisfy the e-Business demand and perform satisfactorily within the e-Business master agreement. Ensure contract “flow down” provisions are defined to ensure a fair competitive environment.

5.6 FRONT OFFICE TEAM

The front office should be the first service-oriented²⁶ sub-team created after the intermediation team. This team is responsible for the day-to-day service environment³⁹, strategic and tactical operations²⁴, intermediary help desk, and end user training. In other word, this team owns all operations that touch the end user population. Distinguishing “front” (i.e. users) from “back” (i.e. systems) is a success factor for the resulting solution, as well as the project.

5.7 BACK OFFICE TEAM

The back office sub-team arises during the project to create integration strategy⁴⁰ that defines: a) invoicing and payment rules/procedures, b) ERP integration, c) transaction standards⁴¹, d) how to simplify integration complexity⁴², e) how to reduce esoteric and proprietary integrations⁴³, and f) how to integrate offline and external data⁴⁴. Success relies on this team’s ability to simplify complexity. So, it employs a proven, non-proprietary, B2B architecture for integrating all members of the value chain.

6 SUMMARY AND CONCLUSION

Corporate success in the 21st century requires business adaptability and durability. e-Business initiatives are thus going beyond their current strategic importance to one of enabling corporate survival. However, e-Business project success has, up to this point in time, been hampered by: a focus on technology, a lack of controls throughout the entire SDLC, and an omission of organizational, intermediation, and informational success factors. Based on the author’s 10 years of experience in managing e-Business projects in several industries, the following anecdotes can improve the likelihood of e-Business project success: a) a formal project management framework, b) proven practices for tight project control, c) coordinated work that ensures system-to-system integration points do not fail, and d) the use of specialized project sub-teams.

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