



E-BUSINESS PROJECT RISK

Report on SIRCA / KPMG Industry Focus Group

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Please address any comments about the findings in this report to the authors.

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In March 2001, as part of a major research project to assess the impact of e-business on Australia's wholesale financial markets, SIRCA, in conjunction with KPMG and AFMA, launched a joint report¹. The report provided a summary of the current status of e-business in the wholesale financial markets and identified a number of industry and research imperatives. The management of risks associated with e-business and e-business development projects were identified as areas of particular concern. In March 2002, representatives of key market participants attended a think tank session to explore these concerns further. The major objective of these round table discussions was to obtain an industry perspective on the nature of, and strategies for, managing e-business project risk. The round table discussions focused on three areas:

- ▶ the extent to which e-business development projects differ from other IT development projects
- ▶ the nature of e-business project risk, and
- ▶ strategies for mitigating e-business project risk

This report presents a generalised set of outcomes from the think tank session and their implications for industry.

¹ Elliot, S. and Briers, M. E-business Challenges for Australia's Wholesale Financial Markets, Sydney: SIRCA, Nolan Norton Institute, AFMA, 2001

THE NATURE OF E-BUSINESS DEVELOPMENT PROJECTS

E-business development projects were initially treated differently to other IT development projects. Some organisations made separate arrangements for e-business development projects by creating and funding separate e-business project groups within the organisation. This was done as a means of enabling organisations to quickly enter and be seen as players in this emerging area of business activity.

"twelve months to fifteen months ago ... there was a clamour to get into that space because there was a perception that if you weren't in there you were history"

However, e-business development projects are now viewed and managed in the same way as other IT development projects and the separate e-business project teams are being re-absorbed into the main IT function within the organisation. As a consequence e-business projects are now subject to the same project management and governance methods as any other IT project, and are likewise expected to demonstrate their contribution to organisational value.

"most people ... are a little bit more questioning in terms of how much revenue they are going to create ... the return to sobriety .. better investment and governance around these projects so today it's very, very different from 12 months ago ... at the grass roots its an IT project"

However, a number of key differences in the nature and context of e-business development projects were identified. These differences can be summarised in terms of *project reach and scope* and *stakeholder involvement*.

Project Reach and Scope

IT systems arising from e-business development projects have a greater reach and scope than traditional IT development projects. These can be summarised in terms of two main themes, organisational context and project development requirements.

Organisational Context

E-business development projects tend to be more outward facing, have a wider span of use and impact a wider range of users. The time frames for developing e-business applications and the lifespan of the resulting product/service are generally shorter.

"... ten or fifteen years ago projects were major projects with multiyear delivery times where the scope wasn't moving, nowadays ... you must be very reactive to your client demands"

Brand and reputation are also more prominent as e-business projects tended to be highly visible to people outside the organisation. There is greater emphasis on delivering functionality and performance and a requirement for "24/7" availability of e-business systems and services.

"there is a lot more pressure now-a-days on delivering a lot of functionality, technology is being used more and more for daily processes, so people expect a lot more at a quicker rate of knots"

Project Development

There are also differences in the approach to the development of e-business projects. They tend to be more modular and component driven, to rely less on traditional systems development methods and more on iterative prototyping methods. There is also greater need to partner with a wider range of external companies for the supply of these components and the co-development of e-business systems and applications. This increases problems associated with the coordination of e-business development projects.

"it is becoming more component driven in the technology environment and that's being driven by needing to be more flexible and manoeuvrable in business"

The extensive range of technology options facing the IT manager presents challenges when identifying emerging market standards and selecting appropriate technologies.

Another major difference is the skills and competencies expected of project managers and systems developers. Developers are expected to have up to date technical skills but also to understand the business context within which they are operating; to bridge the gap between technology and business. Project managers are similarly required to have a range of business and technology skills, but most importantly to be able to communicate effectively with business managers.

"one thing that has changed is that we are looking for more mature project managers with a greater breadth of skills [who] can actually talk to the business"

Whilst many of these changes in development approach can be linked directly to differences in the organisational context of the e-business project, others appear to be related to the affordances of new technologies.

Stakeholder Involvement

Stakeholder involvement also emerged as an area where differences between e-business development projects and other IT development projects were identified. Stakeholders can be divided into two groups: project *sponsors* and systems *users*.

Users

There is greater diversity in the range of user groups; these include internal users and external users such as customers, suppliers and business partners. This raises challenges such as: understanding user requirements, handling conflict between the needs of different user groups, and dealing with groups of users who are relatively unknown.

"[with e-commerce applications]... you typically have an unknown number of users using an unknown product in an unknown way. Whereas with more traditional products you've got a known group of users using a known product in a relatively known way"

Sponsors

Sponsors were also seen as being more diverse, with projects having multiple groups of sponsors. Understanding sponsor requirements was seen as problematic and was exacerbated by sponsors' sometimes unrealistic perceptions of the capability of technology to provide the desired level of functionality.

"typically the sponsor of these projects is quite vague and it tends to come often from a very broad base within the organisation where as the more traditional project would typically have a clear sponsor from within one business area. What I've found is the e-commerce projects have a sort of vague level of sponsorship, it always seems that the requirements are relatively unclear"

Major Challenges

The differences in the nature of e-business development projects identified above highlight a number of challenges:

- dealing with multiple stakeholder groups
- understanding stakeholders and stakeholder requirements
- meeting/managing stakeholders expectations of systems functionality and availability
- finding systems developers and project managers with appropriate skill sets
- maintaining current awareness of technology options and emergent industry standards
- managing a wider range of external partners in the co-development of e-business systems

Each of the differences noted above could give rise to a change in e-business project risk. However, it was felt that the risks associated with e-business project development did not differ significantly from traditional projects, although the e-business environment exacerbated them. They were seen to suffer from the usual increases in project risk found in the early stages of adoption of any new technology, such as those associated with availability of skills in the early stages of take up. As the technology has matured, these risks receded. Three key exceptions were noted:

- ▶ risks relating to branding and reputation
- ▶ risks relating to the integration of e-business components
- ▶ risks relating to the management and coordination of the multiple parties now involved in the development of e-business systems

Branding and Reputation

The risks to branding and reputation concern the “damage” that can be done to the good name of the businesses products (Branding) and the good name of the business itself (Reputation). Branding and reputation risk has a number of aspects. Firstly, it is a risk not previously considered to be within the sphere of IT project risk, as it is generally considered a business risk. The disintermediation of the business processes, allowing the customers/external users to interact directly with the businesses system means that system developers now need to manage the risks associated with using the system, a risk that was formerly carried by the business units responsible for interacting with customers.

“if you are going to look [at] the risks, the big difference between traditional technology and e-commerce is its reach. When you normally develop applications for 5 to 50 odd people, now you want to be able to access about 50 thousand people so its more a branding risk as [...] this is your shop front.”

Secondly, branding and reputation risk is an amalgam of the risks associated with not meeting customers’ expectations in terms of functionality and risks associated with compromised or diminished operation.

“I think one of the things which is a bigger risk is actually not [providing] what our customers want in terms of functionality and that means that the projects we are doing now have two separate risks, an internal risk and also a customer based risk”

“....[If] all your infrastructure falls apart on you, you've now got a branding risk as well, which is a corporate risk rather than just an internal processing risk”

“one key difference is reputational risk, you know particularly 12 months ago every body was announcing, we are going to have this site out, [...] you’re laying yourself open [...] there are major reputational risks, if you do get it there and its unreliable, [...] what are you going to do about non-repudiation and failure of transactions? You know, all these things that previously you could keep relatively well contained”

Integration Risks

A key difference found in e-business projects related to the disaggregation of the projects into small, quickly developed components. There is a risk associated with integrating all these components efficiently and making them work together effectively.

Project Management Risks

The management of e-business projects includes coordinating a greater number of development stakeholders, both internal and external (vendors and consultants). Coordinating and integrating the efforts of these stakeholders to ensure a smooth development process was seen as more difficult and consequently higher risk.

MITIGATING E-BUSINESS PROJECT RISK

Given these three additional areas of project risk associated with e-business development projects some change in the mitigation strategies used to address and control development project risk might be expected. However, this was not the case; as one think tank participant noted:

“project risk is not managed well generically, let alone in [e-business projects] that have a faster ... more ambitious timeframe. Risk doesn't really factor into it, risk management should but it doesn't”

Few organisations indicated any form of formal project risk assessment was being undertaken.

“there has also been a bit of a tendency to just do it, you know if you get it wrong you just do it again, so it's like we won't worry too much about the risk, we'll just have a crack and if ... it didn't work then we've learnt a lesson ... so I think there was a tendency to say we'll just accept the risk, we won't manage it, we won't assess it, we'll just accept it and get on with it”

Instead it appears that e-business project risk mitigation strategies are still emerging. It was felt that many of the additional risks associated with e-business development projects are currently addressed through the choice of systems development methods and techniques. These include:

- ▶ developing the system in small “chunks”, over shorter time frames in order to deal with the risks associated with managing the unclear requirements and expectations of users
- ▶ distributing the responsibility for e-business system development between the IT department and the functional areas of the business serves to share the responsibility for project risk
- ▶ attracting employees with appropriate IT and business skills to the project

These practices have evolved, and continue to evolve *in situ* rather than as an outcome of a formal risk assessment process. There was very little evidence of formal assessment processes being used or the involvement of the corporate risk assessment group in the appraisal and management of e-business development project risk.

Two areas of difference between e-business development projects and traditional IT development projects were identified. E-business development projects have greater reach and scope, and involve a more extensive and diverse group of stakeholders. These differences were the source of new forms of project risk associated with branding and reputation, the integration of product components, and the coordination of the various stakeholders in the development process. Of these, branding and reputation risk was seen as the most significant and the least familiar to IT project managers. Risk mitigation strategies designed to address these new risks are currently emerging. Evaluation of the role and effectiveness of these methods and their relationship to more conventional risk assessment methods is required.

Development Methods as Mitigation Strategies

Many of the noted differences in the methods used to develop e-business systems appear to be implicit strategies that have evolved to manage and mitigate the risks associated with e-business development. If explicit changes are being considered to these methods, then consideration should be given to how the proposed changes will impact upon the risk mitigation qualities of the existing methods.

Assessment of Effectiveness of Current Mitigation Strategies

The current strategies were considered adequate by the participants in addressing most of the risks associated with the development of e-commerce. However, as branding and reputation risks have not typically been a risk considered by developers, the extent to which these risks are addressed, or more importantly, what other unmitigated risks exist, is not clear. Further attention needs to be paid to the nature of branding and reputation risk and its impact on e-business development projects.

If these emergent and embedded strategies are effective, then opportunity for further refinement may exist. If, however, the various strategies are not as effective as thought, or are yet to be shown as ineffective, then additional or alternative strategies will need to be developed and adopted.