



Australian Government

Department of Communications,  
Information Technology and the Arts

## ENGAGING TRADING PARTNERS IN E-BUSINESS





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Information Technology and the Arts

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# Abstract

*Engaging trading partners in e-business* has been funded by the Australian Government through the Information Technology Online (ITOL) program of the Department of Communications, Information Technology and the Arts (DCITA). It contains the results of research conducted into the engagement of trading partners in collaborative e-business systems in Australia.

The research spanned 12 e-business systems and 54 organisations. Experiences of both system owners and their trading partners were recorded in an extensive series of interviews. An analysis was then conducted to produce insights into factors impacting the speed and success with which trading partners were engaged, with the intention of helping other practitioners facing these challenges.

## About S2 Intelligence Pty Ltd

S2 Intelligence helps executives make more effective technology decisions through the application of timely information, research and independent analysis. Bruce McCabe is an industry analyst and has researched the intersection of information technology and business since 1995. More information can be found at [www.s2intelligence.com.au](http://www.s2intelligence.com.au) or by emailing [info@s2intelligence.com.au](mailto:info@s2intelligence.com.au)

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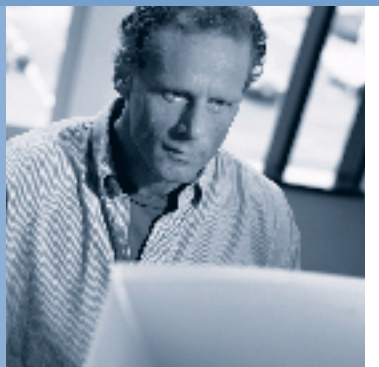
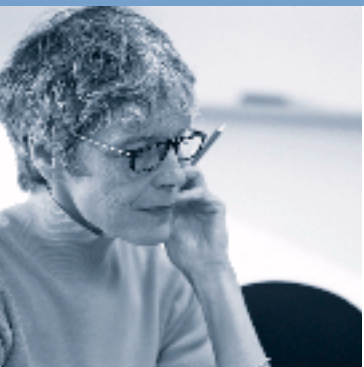
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# 1

## Executive summary







# 1 Executive summary

## Overview

Between May and October 2005, S2 Intelligence conducted research to establish a deeper understanding of how trading partners are engaged in collaborative e-business systems.

The research was conducted in stages, with a cross-industry study followed by two in-depth case studies. The analysis was designed to identify non-technical enablers impacting the speed and success with which trading partners are engaged, with the intention of helping practitioners deploying e-business systems.

The experiences of system owners and their trading partners were recorded in an extensive series of interviews spanning 12 e-business systems and 54 organisations. A total of 72 respondents were interviewed and 52 hours of recordings transcribed.

## Using this document

Practitioners preparing their own engagement strategy are encouraged to read the key findings below and the checklists on page 9, then scan the tactics and ideas employed in the individual cases outlined in sections 6, 7 and 8.

Managers, academics and researchers with a deeper interest in the subject are encouraged to read through the sections in sequence and to explore the additional references provided in the appendix.

## Key findings

A very strong link existed between process duplication and successful engagement of trading partners. This was a particularly important finding. Trading partners were much less likely to be engaged when a system resulted in duplication of existing processes and procedures. Trading partners were much more likely to be engaged when they could see that the system helped them reduce duplicated processes and procedures, or eliminated them altogether.

Providing a system that streamlined or eliminated processes for trading partners, or rationalised multiple alternative systems into one, was a strong enabler, while having to re-key data into an e-business system represented a fundamental barrier to engagement.

E-business systems were more likely to result in duplicated processes in small trading partners because this was where systems were most often designed in a non-integrated fashion (e.g. using web portals) and also because smaller organisations had less capacity to undertake systems integration.

A very strong link was observed between the way benefits and costs were distributed and successful trading partner engagement. As expected, trading partners that had taken up a system were more likely to see substantial benefits for their organisation, and owners of systems that had achieved more traction were more likely to be able to articulate substantial benefits for their trading partners.

It was also critical, however, that benefits and costs were seen to be fairly distributed between owners and trading partners. Adjusting the distribution of benefits to achieve fairness was a powerful enabler.

Benefits and costs did not need to be equally distributed to be considered fair. Trading partners accepted that system owners usually gained greater benefits, but also expected them to bear a proportionally greater part of the associated costs, and risks. A high degree of asymmetry in cost and benefits impeded both initial take-up and ongoing routinisation of an e-business system.

Allowing trading partners to produce higher quality outcomes for their own customers was a stronger enabler of system take-up than delivery of internal, efficiency-related benefits.

Simplifying, prepackaging and removing complexity were strong enablers. Prepackaging solutions, aspects of the implementation process, communications, and demonstrations all increased engagement effectiveness, as did reducing the number of solution options available.

These principles were especially important when dealing with very small trading partners because of more rapid decisions made over take-up/non-take-up.

Hiding complexity and exaggerating how easily a system could be implemented greatly reduced engagement effectiveness.

Decreasing the organisational and procedural changes asked of trading partners increased the likelihood of successful engagement. Successful strategies included customising systems to accommodate existing norms, and simplifying or breaking down projects so that only small changes were requested in the early phases of engagement.

Identifying personnel within trading partners that were especially critical to the engagement decision, as well as people that would actively promote the system and those most resistant to it, and then adapting tactics accordingly, was a significant enabler. Critical targets were more often business managers than IT managers.

Packaging systems so IT involvement in the decision-making process could be minimised, or eliminated altogether, was a significant enabler.

Selecting staff to engage trading partners on the basis of compatibility and rapport with targeted personnel, and congruence with existing job goals, was a significant enabler. Regular account managers often did not represent the best choice.

The appointment of a single owner and internal 'champion' of the engagement project increased the likelihood of successful outcomes.

Trading partners placed very high importance on advice and information received from peers. Trading partners prepared to act as reference sites for the e-business system were significant enablers, as were tactics to promote dialogue between trading partners successfully engaged and those yet to take it up.

Increased effectiveness was achieved when an initial 'pilot phase' could be run with a small group of trading partners. These were used to facilitate testing and fine-tuning of solutions and engagement tactics, and were also successfully employed as 'proof of concepts' for other trading partners.

Pursuing different tactics, timing and prioritisation for different sub-groups of targeted partners was a significant enabler. Useful factors for categorisation included: technical capability, volume of transactions expected to flow through the system, opportunity to benefit, cost differences, e-business awareness, management interest in pursuing technologically-driven change, and readiness of organisational data.

Creating easily accessible feedback channels for trading partners, and taking an iterative approach to both systems development and making adjustments to the engagement strategy, was a significant enabler.

Identifying conflicting priorities quickly and early, and accommodating them by re-engaging those trading partners at a later date, rather than expending resources trying to change their priorities, was a significant enabler.

The provision of technical resources to assist trading partners in implementing complex systems was a significant enabler.

Training, and post implementation technical assistance, were likely to accelerate routinisation and ongoing take-up within trading partner organisations already using a system, but did not tend to accelerate initial engagement.

Reducing implementation complexity represented a more effective enabler compared to the provision of technical assistance or training.

When concerns existed about an e-business system increasing the owner's market power and/or making it more difficult to dismantle a trading relationship in future, then transferring ownership of the system to an intermediary organisation, or redesigning the system to be demonstrably more 'open' and accommodating of future trading partner relationships, were significant enablers.

Coercion could produce strong inhibitive effects, especially by discouraging an active partnership to develop and progress e-business systems after initial adoption. This had the potential to offset some or all of the intended outcomes.

Direct subsidies were best employed as an occasional tactic, to accelerate engagement with partners already sold on the merits of the system but with lingering concerns over costs. They were a poor enabler when trading partners still harboured non-cost-related concerns about the system.

If performance issues were not quickly addressed, they had the potential to severely reduce take-up and routinisation of a system after initial acceptance. Even apparently minor performance issues had a high impact. A significant enabler was ensuring actual performance met expected performance and factored for expectations to change over time.

Different trading partners often engaged with a system for quite different reasons, depending on their circumstances and organisational priorities. An enabler was incorporating flexibility into the engagement strategy to customise communications and negotiations accordingly.

Eliminating uncertainties from the trading partner business case, and actively working with larger trading partners to develop their business case, were significant enablers.

In addition to examining the organisational readiness of trading partners, it was important that the system owner considered the readiness of their own organisation, recruiting the support of senior executives, addressing outstanding concerns in business units and securing appropriate IT resources, before commencing engagement.

Small business trading partners often made very rapid decisions over whether or not to engage. This made it much more critical for practitioners to get their message across quickly and effectively, and to tightly package system demonstrations.

Creating and maintaining an overall engagement plan, detailing objectives, roles, responsibilities, activities and tactics, was a significant enabler.

Trial-based engagement strategies were generally impractical.

Figure 1 on page 6 lists the primary enablers identified in the cross industry study and those reinforced by the in-depth case studies.

In the MSA Australia case study, eliminating the need to duplicate processes, fair distribution of benefits and costs, prepackaging the message and the system implementation, choosing the right messengers, and providing implementation assistance were strongly reinforced themes. Support also existed for the need to target the right people in trading partners, the use of direct subsidisation and the need to meet performance expectations. Minimising organisation change was a strong theme where MSA's larger distributors were concerned, but not for smaller distributors.

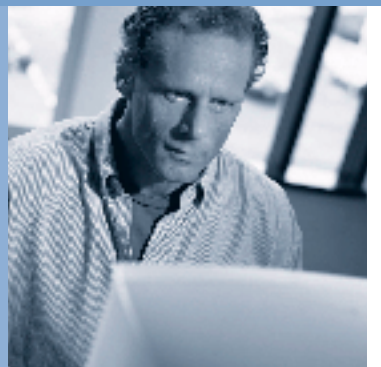
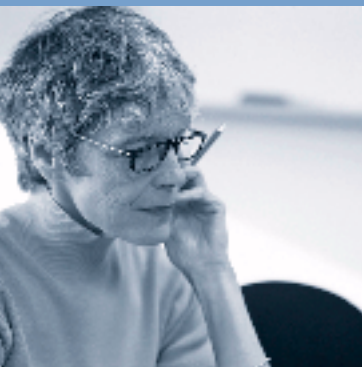
In the Sunrise Exchange study, fair distribution of benefits and costs, reducing process duplication, maintaining performance expectations and coercive pressure were the strongest enablers. Using other organisations as messengers, segmenting the engagement strategy, prepackaging aspects of the engagement and migration process, implementation assistance and technical support were also prominent. Training and targeting the right people were minor themes.

*Figure 1: Primary enablers identified in cross-industry study; presence in MSA Australia and Sunrise Exchange case studies*

Enabler	MSA	Sunrise
Simplifying processes, and acting to avoid the duplication of existing business processes	*	*
Acting to achieve a fair distribution of benefits and costs	*	*
Prepackaging aspects of the system, its implementation and the engagement process	*	*
Reducing the organisational change required of trading partners	*	
Targeting specific people/job roles within trading partners	*	*
Using the most appropriate staff to engage trading partners	*	
Using other organisations as messengers/engagement partners		*
Segmenting the engagement strategy for different categories of trading partner		*
Creating, and acting upon, effective feedback channels		*
Identifying competing priorities in trading partner organisations		
Providing implementation assistance and technical support	*	*
Training		*
Addressing independence and lock-in concerns		
Coercion		*
Direct subsidisation	*	
Meeting initial and ongoing performance expectations	*	*
Adjusting to the value propositions important to different trading partners		
Removing uncertainties from the trading partner business case		
Securing support within system owner organisation		*

# 2

## Checklists for practitioners





## 2 Checklists for practitioners

The checklists can be used by practitioners as they prepare to engage trading partners in a new e-business system.

It is presented in the form of a series of questions built from the conclusions and observations in this study. As such, it is not exhaustive and concentrates on organisational enablers (technical aspects of engagement such as data standards and systems integration issues are excluded).

The checklist should be treated as a subset of all the issues that need to be considered before project commencement.

The questions are grouped into four broad categories.

- Considerations within the organisation that owns the system
- System considerations
- Benefit cost and risk considerations
- Trading partner considerations
- Considerations for when engagement gets underway

For each one, an affirmative answer represents a better prospect of successful engagement.

### CHECKLIST: SYSTEM OWNER

- Has an assessment of organisational readiness been conducted for your own organisation?
- Does the project have senior executive support within your own organisation?
- Has sufficient support been secured for the project from the IT department?
- Have steps been taken to identify and address any concerns in business units impacted by the system?
- Will trading partner engagement be a project in its own right?
- Has a single person been appointed to own the engagement project?
- Will an engagement plan be created detailing objectives, deadlines, roles, responsibilities, communications and tactics to be used to engage trading partners?
- Is your organisation committed to act on feedback and make regular adaptations to both the system and the engagement process?
- Is this commitment shared by the solution partners involved in developing and deploying the system?

### CHECKLIST: SYSTEM

- Will the system streamline or eliminate business processes or procedures for trading partners?
- Has the system been designed to avoid the duplication of processes and procedures? (e.g. to avoid trading partners having to re-key data or learn multiple interfaces)
- Will the system replace more than one existing system?



- Is the system as simple as it can be while still accomplishing its objectives?
- Has every effort been made to accommodate (to the extent practical) existing procedural norms within trading partners so that minimal organisation change is required to use the system?
- Will the system readily work with other systems (e.g. financial software) installed within trading partners?
- Has the solution been designed to minimise the involvement necessary from IT management within trading partners?
- Have steps been taken to understand system performance expectations of trading partners?
- Will the system meet both initial and future performance expectations, and factor for load increases as take-up progresses?
- Where significant organisational and procedural changes will be required, can take-up of the system be broken down into a series of more manageable steps?
- Has allowance been made for the lower capacity of small trading partners to accommodate process duplication?

## CHECKLIST: BENEFITS, COSTS AND RISKS

- Has a careful account been made of the costs and benefits that will apply to both trading partners and the system owner?
- Will the system deliver significant benefits to trading partners as well as the owner? Does a plan exist to communicate these benefits effectively?
- Can the system be linked directly to better outcomes for trading partner customers (as opposed to just producing internal benefits for trading partners)?
- Have steps been taken to ensure any costs borne by trading partners are kept in proportion to the benefits they will receive from the system?
- If the system unavoidably adds new processes and complexity will it deliver sufficient benefit to trading partners to make this worthwhile?
- Will the distribution of benefits and costs between trading partners and system owner be perceived as fair?
- Are risks distributed fairly, and have trading partner risks been minimised as far as possible?
- Is there room for further adjustment of benefits and/or costs should it be necessary during the project?
- Have steps been taken to discover if the system introduces new concerns regarding lock-in/dependence on the system owner?
- If lock-in concerns exist, can the system be made more open and flexible through redesign and/or by transferring ownership to a neutral third party?
- Has every effort been made to minimise uncertainties/unknowns in the trading partner business case?
- Will costs and risks be communicated openly and accurately to trading partners?

## CHECKLIST: TRADING PARTNERS

- Has an assessment of organisational readiness been conducted for targeted trading partners?
- Have trading partners been categorised into any obvious sub-groups based on factors such as technical capability, transaction volumes, expected benefit, cost differences, e-business awareness, disposition towards technologically-driven change and/or readiness of organisational data?
- Have personnel/job roles been identified within trading partners that are most critical to the take-up decision or can act as internal champions for the project?
- Have organisations and individuals been identified that are especially influential in the trading partner community?
- Have trading partner organisations been identified that can act as reference sites for others?
- Has an effort been made to identify any conflicting organisational priorities within trading partners? Can the project accommodate a deferment of such organisations until a later time?

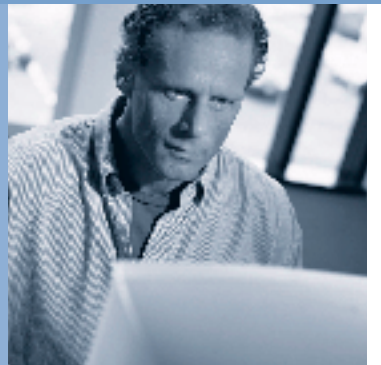
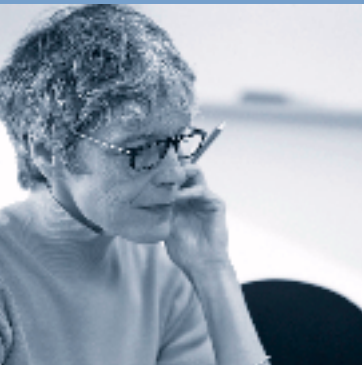
## CHECKLIST: IMPLEMENTATION

- Have tactics, timing and prioritisation been optimised for best effect in each of the groups identified in the Trading Partners checklist above?
- Has every step been taken to prepackage the implementation experience, communications about the system and demonstrations of the system?
- Is there an opportunity to conduct a pilot with a group of trading partners to improve the solution and/or engagement strategy before engaging others?
- Will the staff selected to engage trading partners have the following?
  - The strongest compatibility and rapport with the people being approached
  - Technical and business knowledge appropriate to the task
  - No conflicts between making the e-business system a success and achieving their regular job goals
- Have plans been made to promote dialog between take-up candidates and trading partners that are successfully using the system?
- Have mechanisms been put in place to collect continuous feedback from trading partners and to capture feedback coming in through informal channels?
- Will technical implementation assistance be available to trading partners?
- If the system is relatively complex, will adequate training and post-implementation technical support be made available?
- If the system is relatively complex, will it be feasible to work individually with larger trading partners to assist in preparing their business case?
- If technical assistance appears necessary from the outset, has every effort definitely been made to address the points raised in the Systems checklist and the first question in this list?
- Is the messaging realistic, avoiding the possibility of creating expectations that will not be met?
- Does the communication strategy incorporate a degree of sensitivity to detect and adapt to differences in trading partner priorities and what they individually value in the system?

- Have communications and system demonstrations been streamlined to suit the more rapid, 'first-impression' engagement decisions made by small trading partners?
- Does the engagement plan avoid dependence on subsidisation as a strategy?
- If subsidisation is employed, will it be used sparingly, to get trading partners 'over the line' where cost is a remaining hurdle?
- Has every effort been made to employ 'positive' enablers for engagement before applying coercive pressure?

# 3

## Introduction





## 3 Introduction

Australian organisations are expending considerable resources pursuing collaborative e-business with their trading partners.

This applies in every industry sector. In manufacturing, retail and fast-moving consumer goods, for example, many substantial projects exist with the objective of building electronic connections between trading partners to create new production efficiencies. In insurance, projects are being pursued with the objective of eliminating cumbersome paper based transactions between insurers and brokers and thus streamlining sales and claims processes. We see emerging networks to facilitate the electronic exchange of business documents and data in healthcare, hospitality, construction and agriculture.

Such projects come with a multitude of different labels including supply-chain, e-commerce, customer portals, B2B and e-procurement. They target different types of trading partners: customers in some cases; suppliers, channel partners, brokers or agents in others. Each has its own, unique set of objectives.

All of them, however, share a common challenge in needing to engage trading partners, and all must do so in a manner timely enough such that the return on the investment is not compromised, and substantive enough to ensure a long-lasting outcome.

This engagement process is non-trivial. To be successful means convincing trading partners of the benefits, achieving technical connectivity to their systems and having them accept adjustments to their established business processes. When we use the term 'successful engagement' in this report it means achieving a steady progression through each of these steps without rejection (disengagement) by the trading partner.

For an IT project owner, driving change within their own organisation is often difficult enough. Driving organisational change in trading partners can be many times harder, but is equally critical to make a collaborative e-business project successful. A respondent in this study described the challenge:

*It's not just your own organisation and culture you've got to deal with, it's the others as well. It's like a double whammy.*

The significance of this 'double whammy' has been a recurring theme in S2 Intelligence research conducted over the last four years. Its scale appears to have diminished little, if at all, over this period. Very often, including for some of the systems studied in this project, respondents have named it as the greatest single e-business challenge they face.

The challenge is typically even greater when working with small business trading partners, which are naturally more constrained in the resources available to engage in e-business.

This research is designed to provide more insight into how Australian businesses successfully engage trading partners in e-business. The focus is organisational rather than technical—a considerable body of work is already dedicated to progressing standards and technologies that help business systems interoperate.

By examining real and substantial e-business systems in Australia, and capturing experiences from both sides of the engagement process (both project owners and their targeted trading partners), the objective was to produce practical, actionable insights for practitioners. It is hoped that these insights will improve the chances of success for any business pursuing collaborative e-business with trading partners in Australia, regardless of industry or context.

It is further hoped that this research will inspire additional studies into collaborative e-business systems, organisations and strategies for practitioners.

The research is built upon qualitative data gathered from an extensive series of in-depth interviews conducted between May and November 2005. It was conducted in three stages.

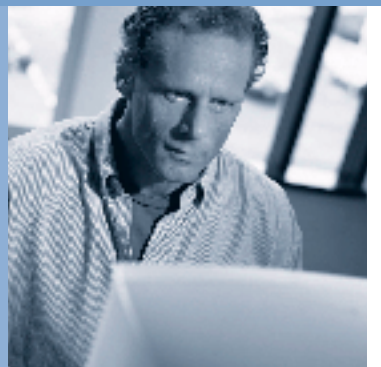
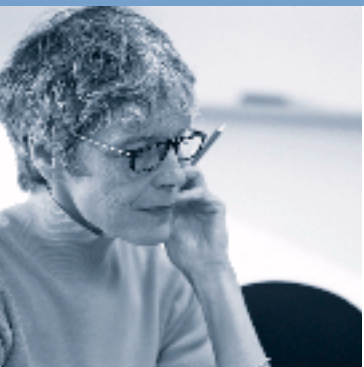
1. A cross-industry study of 10 e-business systems spanning a variety of industries
2. An in-depth case study of an e-business system in the manufacturing sector
3. An in-depth case study of an e-business system in the insurance sector

Subsequent sections of this report are structured accordingly.

The analysis was undertaken in stages, with analysis of cross-industry data completed first, then data collection and analysis for each of the in-depth case studies. Lastly, the executive summary and practitioner checklists were written to draw the sections together and produce a combined analysis.

# 4

## Useful DCITA publications







## 4 Useful DCITA publications

A number of other DCITA publications can be used to help plan collaborative e-business projects. These documents and their relevance to the focus of this report are discussed below, along with mechanisms for engaging trading partners in such systems.

A series of DCITA research publications present case study insights that are relevant to this context, including descriptions of individual project strategies which achieved very good results for the system owners.

Three studies were conducted by the author in 2003 and deal with e-business systems in supply-chain scenarios. The first of these, *Berri Limited—a supply chain case study*, describes a project undertaken by Berri to integrate its systems with suppliers, distributors and major Australian retailers. Several of the enabling themes summarised in figure 1 are identifiable in the strategy including a careful segmentation of targeted trading partners based on criteria such as size, predicted returns and where Berri had most influence, and the drive to simplify processes for the trading partners involved.

*Visy Industries—a supply chain case study* describes the e-business project aimed at integrating systems between Visy, customers of its packaging products and suppliers of inputs such as tinplate and cardboard. Themes that can be identified in the Visy strategy include trading partner segmentation, reducing the organisational change required of trading partners and a strong focus on removing duplicated processes. The importance of support from within the system owner organisation is also highlighted.

The third study, *Komatsu Australia—a supply chain case study* describes the project undertaken to move to electronic transactions with customers for spare parts procurement and for oil analysis and information services. Identifiable themes in the Komatsu strategy include trading partner segmentation and reducing the organisational change required of trading partners.

Separately, *Collaborative B2B for SMEs in the mining industry* describes outcomes in relation to a project, funded by DCITA's Information Technology Online (ITOL) program, to develop a solution enabling SMEs to trade electronically with larger trading partners. This document provides a detailed description of the technologies underpinning the system in the in-depth case study on MSA Australia on page 51, as well as the development philosophy behind these technologies and their deployment in other organisations.

Case study material that is useful for e-business practitioners can also be found in many other DCITA reports. Taking just one example, the 2003 report *Productivity and organisational transformation: optimising investment in ICT* includes a case study describing how Hanimex used the web and a wide area network to progressively roll out full digital services to photo-processing outlets, and later in the same report another case study details the online provision of services between veterinary health services and graziers.

Practitioners looking for a deeper analysis of the contribution of information and communications technologies to firm productivity and performance are directed to the following comprehensive and valuable series of research studies commissioned by DCITA.

- *Achieving value from ICT: key management strategies*
- *Estimating aggregate productivity growth for Australia, the role of information and communications technology*
- *Forecasting productivity growth: 2004 to 2024*
- *Productivity growth in service industries*

All are available from DCITA online and in hardcopy (without charge).

Frequent references to the role of e-commerce in firm productivity and performance can be found within these reports, which can be downloaded from the DCITA website (click on 'publications' on the home page).

Finally, the practitioner is directed to DCITA's online guides and resources for e-business.

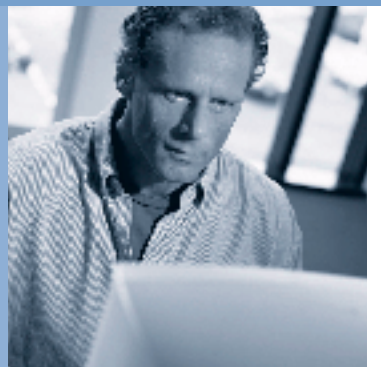
- The e-businessguide website ([www.e-businessguide.gov.au](http://www.e-businessguide.gov.au)) is aimed at small businesses practitioners. It provides practical guidance on areas such as e-business principles, the potential benefits, working with web developers, security issues and marketing. A further 80 SME e-business case studies, spanning a range of industries, are accessible from this website.
- The Information Technology Online program ([www.dcita.gov.au/ie/ITOL](http://www.dcita.gov.au/ie/ITOL)), a funding program administered by DCITA and designed to accelerate the national adoption of e-business solutions, especially by SMEs.
- BizDex ([www.bizdex.com.au](http://www.bizdex.com.au)), a collection of open infrastructure components that, together with a commercial and governance framework, is designed to promote collaboration and B2B interoperability between organisations.

Links to these and other e-business resources (including historical publications) can be found at [www.dcita.gov.au/ie/ebusiness](http://www.dcita.gov.au/ie/ebusiness)

An overview of other theoretical and empirical research relevant to the challenge of engaging trading partners in collaborative e-business can be found in the appendix on page 73. Full references for the publications described in this section are included in the references section on page 77.

# 5

## Methodology





# 5 Methodology

## Overview

### Cross-industry study

Forty-two respondents were interviewed, and approximately 30 hours of recordings were subsequently transcribed. Seventeen of these interviews were with executives in organisations owning and/or promoting the e-business systems, and 25 interviews were with respondents in targeted trading partners.

Ten systems were included spanning building and construction, telecommunications, manufacturing, agriculture, business services, insurance and financial services. The trading partners targeted included customers, suppliers, agents, distributors, contractors and joint venture partners.

### MSA Australia case study

Nine respondents were interviewed, including two MSA executives, six respondents working for distributors targeted by MSA, and one executive at XML Yes, the major technology provider involved in the project. Formal interviews were supplemented by additional telephone calls and e-mails with respondents, as well as secondary documentation.

Approximately eight hours of recordings were taken and transcribed. The transcripts were then coded against themes identified in the cross-industry study.

### Sunrise Exchange case study

Twenty-three respondents were interviewed, including eight executives at Telstra E-Business Services, 10 working within insurance brokers targeted to use Sunrise Exchange, and five at insurance companies participating in Sunrise exchange. Formal interviews were supplemented by additional telephone calls and e-mails with respondents, as well as secondary documentation.

Approximately 14 hours of recordings were taken and transcribed. The transcripts were then coded against themes identified in the cross-industry study.

## How organisations were selected

Candidate organisations were initially identified by conducting searches of online news databases, magazine archives and previous S2 Intelligence research to identify Australian organisations thought to be pursuing substantial collaborative e-business systems with their trading partners. Representatives of major software and services companies providing collaborative e-business platforms were also approached and asked to identify likely candidates.

Minimum criteria were applied when selecting candidates. They had to be (a) involved in a collaborative e-business system operating in Australia today and (b) have already attempted to engage multiple trading partners in that system. An attempt was made to select from the available candidates so as to span as many industries as possible.

In selecting candidates for in-depth case studies, preference was given to systems where (a) small business trading partners had been targeted and (b) a spread of engagement experiences was more likely (e.g. where some trading partners appeared to have accepted the system and others appeared to have had difficulty accepting it, or had rejected it). The MSA and Sunrise Exchange e-business systems fulfilled these criteria. A final, practical consideration applied in that candidate organisations were restricted to those willing and able to make executives available for the more extensive study.

## Respondent selection

Targeted respondents in the first instance were executives identified as having overall responsibility for the collaborative e-business system within the organisation that owned it. When not identified in initial searches, the senior IT officer for the organisation was approached and asked to identify the most appropriate person. All approaches were made by telephone.

Respondents from the organisation owning the system were asked to nominate trading partners, and executives within those trading partners, that had been asked to use the system. These were then also approached directly by telephone.

During the course of interviews for the in-depth case studies, each respondent was asked to identify other relevant respondents and these people were also approached to participate.

## Data collection

Interviews ranged from 15 minutes to 140 minutes, but most interviews were approximately 30 minutes long. They were carried out over the telephone and face-to-face.

Respondents were asked to narrate the history of their organisation's involvement with the e-business system, including how the system, their organisation and take-up of the system had progressed and evolved over time. During the narrative they were prompted for key changes, turning points, and factors that helped or inhibited take-up.

All interviews were recorded and transcriptions generated from the recordings.

Interviews were supplemented by secondary data in the form of documents, emails, data relating to trading partner take-up, and information from company websites.

## Analysis

For the cross-industry study, a thematic analysis was conducted on the data. Transcripts were hand coded to classify content according to themes, a list of themes being constructed as the coding progressed. After the first pass was completed two more passes were then conducted over the data to ensure each theme in the list was properly considered in the coding of each transcript. Related themes were then grouped and drawn together.

For the in-depth case studies, a project history was built by drawing together the key events described by respondents and referencing secondary data. All interview transcripts were then hand coded against the themes constructed from the cross-industry study. The analysis and subsequent write-up focused on the cross-industry themes that were also identified as important themes in the in-depth study, and the relevant analysis sections of this report have been structured accordingly. Both the chronological narrative and thematic analysis were used to draw conclusions.

The analysis was sent to representatives of the organisations owning the systems for review, and minor change requests to improve accuracy and/or accommodate confidentiality concerns were incorporated into the text prior to publication.

Data from the cross industry study were used to make adjustments and improve the relevance and effectiveness of questioning for the in-depth case studies.

## Anonymity

In all cases except for the two in-depth case studies, where system owners provided permission for their organisation and system to be named, the identities of e-business systems, organisations and respondents have been removed to preserve anonymity and to encourage frank and open dialog with respondents.

Throughout this report, where a specific reference has been made to a person or organisation, the actual name has been replaced by a generic substitute ('respondent', 'trading partner', etc).

## Terminology

### System

Inter-organisational e-business system, for the purpose of sharing business information or exchanging business transactions (such as purchase orders, invoices, inventories, deliveries, supply/demand data, materials specifications, designs or contracts) electronically between trading partners.

### Owner

Organisation promoting the system to trading partners. This organisation was not always an 'owner' in the strictest sense of the word—some systems, for example, were designed to be owned and hosted by an intermediary—but the term is used throughout for consistency.

### Trading partner

Customer, supplier or business partner organisation asked to adopt the e-business system.

### Enabler

Factor in achieving more rapid and successful engagement of trading partners in an e-business system.

### Small and medium sized businesses

Australian Bureau of Statistics (ABS) derived conventions are used in this paper: small businesses employ between one and 19 people; medium businesses employ 20 to 199 people; large businesses employ 200 or more people. The first two categories combined are referred to as small and medium sized enterprises (SMEs). Very small businesses are small businesses employing one to four people.

### Respondent

Person interviewed, from either an owner or trading partner organisation.

### Practitioner

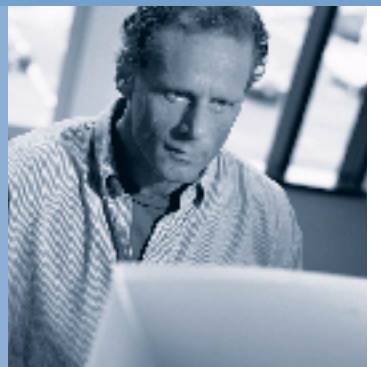
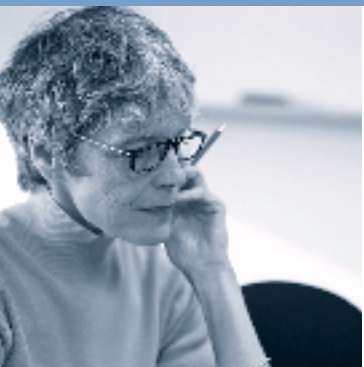
Any person with responsibility for implementing a collaborative e-business system in practice.





# 6

## Analysis of trading partner engagement in 10 e-business systems





## 6 Trading partner engagement in 10 e-business systems

### Duplicated processes

A very strong theme, with references by respondents in nine of the 10 cases, was that of duplicated processes. The most frequent example cited was where trading partners had to enter the same data twice, in both an internal system (finance, project management, customer, etc) and in the new e-business system.

The link between duplication of business processes and successful engagement of trading partners was demonstrated in two different ways.

Trading partners were less likely to be engaged when a system duplicated existing business processes instead of altering or replacing them.

Trading partners were more likely to be engaged when they could see that the system helped them avoid duplicating processes, or helped reduce existing duplication of business processes.

The first point also relates to the discussion of minimising required organisational change (see 'Minimising required organisational change' on page 34).

A typical comment from a trading partner concerned about additional processes:

*We had reservations because then we would virtually be double handling, having to enter into our database and then into the on-line system.*

And from an owner respondent on the challenges it faced trying to engage its smaller trading partners:

*I don't think we'd ever have much support from a group like that, that's got their own in-house system and having to also interact with the e-business system simultaneously. For them it becomes a bit of doubling of resources.*

In three cases, engagement of trading partners was accelerated by reducing duplication because the e-business system displaced two or more alternative systems. Management within respondent companies had become very aware of the inefficiencies of using different systems with different trading partners, each attempting to achieve the same thing but each with its own unique procedures. The disadvantages of going down the multiple system path had hitherto limited engagement and commitment, and seeing a concept that rationalised or consolidated such systems had been a key enabler.

A trading partner respondent described this thinking succinctly.

*I went "no way! If I am dealing with three companies I am not doing this three different ways, let's talk standards" and they all said "yes, that's a great idea", so that is how it happened.*

And in another case:

*What I was focusing on really was, and one of the reasons I went with [system] is, it provided me with one single gateway to a number of trading partners.*

The system owner had an identical view.

*And if they have five different systems they have to do the project five times...and so you end up with an economic item that doesn't really stack up as well as our system.*

In four cases systems produced duplication of existing processes but had still been accepted. Increased process duplication does not, therefore, necessarily eliminate the chances of successful engagement. In each of these, however, duplication was described by trading partners as a negative that reduced their motivation to further routinise and develop the system. In one case this was only offset by a high degree of coercion from the system owner (see 'Coercion' on page 43).

One trading partner respondent had found it impractical to rationalise duplicated processes because it had already made a significant investment in its internal systems and it was unwilling to become too dependent on a system owned by another organisation. The respondent described the situation in the following terms.

*We still have our own internal process and everybody is trying to maintain two systems. We found it better just to try and corral the pain of jumping between two systems to only a few people...it has probably cost us a lot of money in terms of just having to employ people almost full time just for doing that.*

The same respondent was aware that the e-business system had been a much bigger success in another similar company that had not faced these constraints and had been able to eliminate duplicated processes.

*They were able to effectively have everything go through the one door...and they thought that was fantastic, and it really was.*

System owners were almost always aware of process duplication and the need to avoid it, but tended to underestimate how much of an issue it really was with their trading partners. One owner respondent seemed to be right in the middle of realising that it was a more substantial factor than he initially thought in accounting for poor engagement of a particular group of trading partners.

*It is a very cheap solution. It is fairly labour intensive of course, because it means they may have to enter the documents once into their own internal systems and then again the same data into the e-business system...maybe that is what it is, and perhaps in thinking about it, it is something we have not followed up that hard because we have been focused on the bigger trading partners.*

In another case the owner described the tradeoffs between adding new benefits and duplicating procedures for its targeted trading partners.

*And so that's why they just looked at it and said "hate it, don't want to do it" because straight away they could see... "we are going to have to re-key everything that was just keyed into our CRM" so they weren't too happy, but like I said, once they used it and saw the advantages, then even though it did impact their processes and did require them to spend a little bit more time keying in stuff twice, the benefit at the end of it far outweighed the extra few minutes that it took.*

One of the two trading partner respondents interviewed in this case corroborated the view that, on balance, the benefits did outweigh the additional workload costs, but process duplication was an issue that, if removed, would very significantly contribute to their willingness to further routinise the system. The other respondent was unsure if there was enough benefit to outweigh the additional workload costs.

There is a relationship between this theme and that of asymmetric costs and benefits, discussed in 'Distribution of benefits and costs' on page 31. While the e-business systems often resulted in process duplication, and therefore additional workload costs, in targeted trading partners, they almost never did so in the owner organisation, where they were designed to integrate with, streamline, or eliminate internal processes altogether, outcomes that were typically a major motivation for undertaking the projects in the first place.

There was also a link between this issue and the size of trading partner organisations, in that systems were more likely to produce duplicated processes in smaller trading partners. This was partly because larger trading partners have more resources to undertake systems integration. It was also due to system owners being more willing to be flexible and to fit in with established processes and internal systems for their larger and more important trading partners. In the words of one owner respondent:

*You have basically got to find those trading partners where the transactions are a significant enough volume to make it worthwhile to make the extra investment.*

This is in contrast, of course, with the capacity for smaller organisations to absorb process duplication. In the case of very small businesses with only a few employees that capacity can easily be nil, eliminating any chance for successful engagement. A common approach when engaging a large number of small business trading partners is simply to build a web-based portal and ask all of them to undertake their transactions through that portal (See ‘Segmenting the engagement strategy’ on page 38. This, however, almost always represents a duplicated process as the small business operator must still separately record the transactions somewhere internally. In three cases this approach had been tried and produced disappointing results for the owner.

*They are happy to key it into their spreadsheet, but not happy to go onto the website as well.*

For practitioners, the strong link between process duplication and engagement has a number of implications. First and foremost, offering a system that streamlines or eliminates processes in trading partners will be a strong enabler. Similarly, where multiple systems are being considered, any initiative that promises to rationalise them into one is likely to be well received.

Creating duplicated processes will make engagement more difficult, although it will not necessarily preclude engagement if trading partner benefits are strong enough. The impact can be mitigated by allowing the trading partner to stay in familiar territory (their spreadsheet instead of going to a web-portal, in the above example).

Practitioners need to maintain an especially keen awareness of this when dealing with smaller trading partners, where the issue is less likely to be addressed properly and more likely to be a critical factor.

## Distribution of benefits and costs

Perceived benefits were a strong theme in every one of the systems studied. Almost every respondent discussed the engagement process in terms of what the system did for their organisation or would do for them when it was implemented. Trading partners that had taken up a system were more likely to see substantial benefits for their organisation, and owners of systems that had achieved more traction were more likely to articulate substantial benefits for their trading partners as well as for their own organisations.

That tangible benefits are important is unsurprising and does not in itself provide new insight for the practitioner. The data did, however, produce deeper insights into this enabler in the e-business context. A strong sub-theme, surfacing in interviews in eight of the ten systems, was the importance of distributing benefits and costs fairly between owners and trading partners. Trading partner respondents frequently mentioned adjusting the distribution of benefits as a mechanism that accelerated engagement, or would speed up engagement if it was addressed.

*[Owner] has gone door-knocking so to speak, coming around to us and saying “hey we want to do e-business” and now we are at the stage where [our company] has to ask itself what do we get out of it? [Owner] must be getting some benefit by us dealing with them electronically, so if we can accommodate them good, but my personal opinion is that we should be receiving more.*

Central to this theme was the issue of perceived fairness. Fairness did not necessarily mean equal distribution of benefits and costs. In seven of the cases in this study the author estimated the owner received significantly greater benefit from a system than any one of its trading partners, but trading

partner respondents did not have a problem with this, tending to the view that owners deserved some additional reward for their innovation. A difference in benefits significant enough to be perceived as unfair was what slowed engagement.

Where owners were expected to reap greater benefits, their trading partners also expected them to bear a greater part of the associated costs. If trading partners felt they were being asked to bear an unfair part of the cost it also a major factor in slowing engagement.

*The costs for them are actually relatively low but it is a major investment on our part. If they really wanted us to jump on board they should have been here with their cheques.*

The distribution of risk, which can be viewed as the potential cost if things go wrong multiplied by the probability of things going wrong, was part of this thought process. For one trading partner it was the critical issue:

*I said to them right up front "if you can make this easy and risk free for us we will do it" and they couldn't do it. Simple as that...everyone is sort of saying "look if you want to do this, you are going to have to take the risk" but neither [owner A] nor [owner B] were prepared to carry, or even partially carry some of the risk.*

Costs were not restricted to those related to the initial implementation. They could also relate to operations after the system was in place. In two cases respondents reported dissatisfaction in the ongoing overheads borne by their organisation when compared to those borne by the system owner, and in both cases take-up had slowed as a result.

*The uploading process is an enormous headache, from [our] point of view. They don't really care about it because we are the ones having to feed this machine...it adds a big load on us and it has probably cost us...*

Generally speaking, owner respondents were well aware of the need to distribute benefits and costs fairly. The following comment on the importance of a strong value proposition for trading partners was typical.

*A focus for management would be that there is a saving in it for them, as opposed to a saving in it for us...I don't know that any amount of selling the capabilities is going to work unless you've got a very strong story about what is in it for them.*

But awareness of the issue did not translate into sensitivity to actual trading partner concerns. In four cases where trading partners explicitly identified unequal distribution of benefits as a key problem, slowing their engagement, only one of the owner respondents saw it as a factor that had to be addressed.

*The attitude in the SMEs is, correctly so, "it's all in it for you guys. You are trying to cut your costs, but what's in it for me?" And the answer is, truthfully, there is not a lot in it for them. Unless we change they are not going to be interested.*

For the practitioner, a very important link exists between the way benefits and costs are distributed and successful trading partner engagement. A high degree of asymmetry is to be avoided as it will be seen as unfair and will impede both initial take-up and ongoing routinisation of an e-business system.

Perfect symmetry is not a prerequisite: benefits and costs need not be equally distributed to be considered fair. Imbalances should, however, take careful account of what trading partners will perceive as fair.

Practitioners will frequently promote e-business systems on the basis of partnerships and mutually beneficial outcomes. To maximise the chances of successful engagement they need to ensure that the actual distribution of benefits and costs closely matches the expectations they set.

## Prepackaging

Simplifying, prepackaging and generally removing complexity was a theme in six cases. It was applied to system design, information and communications relating to the system, demonstrations of the system and the implementation process for the system.

In three of these cases, the importance of prepackaging communications and demonstrations was linked to how quickly trading partners grasped what the system did and the benefits it delivered, ensuring, as one respondent put it, that you did not leave partners 'bewildered'.

*One mistake has been to promote technology in excess of what they can get their minds around... we should have taken a simple message to them. If we had not worried about the cute stuff then we would have been much more successful from the beginning.*

In two cases there was a strong belief by owners that the specific act of reducing the number of available choices/options had helped lead trading partners to more rapid decisions.

*The amount that we are configurable or the flexibility is a great differentiator; it's also the biggest pain...we are now in the process of putting together what we call 'standard packs'.*

*What we were expecting to do was go in and say "right, this is what the tool is and this is how you could use it. Now how do you want to use it?" And they had no idea, so we really had to focus on saying "right, this is what we recommend you use, start with that".*

In neither of these cases did trading partner respondents express these same sentiments, but it was also unlikely they were aware of the reduction in choices that had been undertaken by the owner.

The prepackaging theme was stronger where smaller trading partners were concerned. The respondent in the owner organisation for one system summarised what he had learned this way.

*It is next to impossible to get the SME into the e-world without delivering it to them on a plate. You really need to demonstrate to them that the cost of getting there is not much...It must be an automatic process.*

A successfully engaged small business trading partner vividly described the impact of a tightly packaged demonstration and overview of the system.

*The thing that they did do well, that, you know, that basically sold it for me was to come to where I was and put it on the computer in front of me and say "look, this is all you have to do". In my position I don't have a lot of time to go looking into things...and they came—didn't take very long—came in and said "look, this is it, this is how simple it can be, there you go!" and that pretty much sold me right there.*

These observations do not exclude practices such as extensive consultation/involvement of trading partners in solution design. In both of the above cases, owners had already been through several iterations of solution design and development that had been highly consultative (but had not themselves led to rapid take-up). In most cases, practitioners will get better results from developing and piloting solutions with a small group of trading partners before incorporating enhancements to take to the rest of its trading partners (see 'Feedback mechanisms' on page 39).

It was a mistake to hide complexity or exaggerate how easy it was to implement the system and accomplish the associated organisational change. As one trading partner complained:

*Simplicity is often overstated, timeframes are often understated, and costs are always understated.*

This did nothing for the credibility of the owner and made the trading partner much more cautious about evaluating new e-business initiatives. Practitioners will be more effective by being realistic with messaging while they look for opportunities to further simplify life for trading partners.



We can also infer a relationship between these observations and the way small businesses made decisions about engagement more rapidly than their larger counterparts (See 'Minor themes' on page 47). Practitioners will greatly improve the chances of success by prepackaging demonstration and implementation aspects of their proposed system when dealing with small trading partners.

## Minimising required organisational change

Minimising organisational change was a theme raised in interviews in five of the cases, in which it was an especially strong theme, singled out as an important enabler for successful engagement, in three. A comment neatly capturing these sentiments was:

*They [trading partners] love it because they don't have to go and change anything!*

Many references related to the difficulty of changing processes built around established financial systems. Comments along these lines were made by both very large and very small trading partners.

*When that happens [the ERP system needs to be changed] I've had to go around it or we just don't implement that part of their project.*

*So if, somehow we are going to get this through, somehow it has to be developed as a tool off MYOB.*

References were also directed at changing workplace habits and practices more generally, and the need to fit in with existing practices as much as possible rather than ask for unnecessary change.

*They said "we've got a fantastic solution, why aren't you using it?" but they missed the point: the point was we didn't want to change our own internal processes.*

This was something that had obviously been learned the hard way by some respondents from owner organisations, and they had subsequently modified their engagement strategy with more success.

*Very quickly we realised that for [the system] to grow, we had to accommodate what the existing communication models of choice were. So instead of trying to revolutionise, basically evolutionise the process.*

*We don't go in there and say "right, we've got this system, now let's see how your processes have to change to use it." We go in there and say "right, let's see how we can match the system to your process." So I think that has made it easier to some extent for us to engage those sorts of companies.*

In one case all respondents described breaking down the change process into manageable steps as having been an important factor in the rate of engagement. The strategy here had been to select and work with a subset of all the transactions they hoped to make electronic and to progress to other transactions only when the first set was working smoothly. The owners felt that had they not taken the approach they would never have gained the support necessary from trading partners to make it a success.

*If we had come out and said well look...we've got to implement 10 different document types straight away, this would never have happened.*

From the practitioner's perspective these findings tell us that decreasing the organisational and procedural changes asked of trading partners will increase the likelihood of successful engagement, and that potential strategies include customising the system to accommodate existing norms, and simplifying or breaking down the project so that only small changes are requested in the initial engagement.

The desire to minimise unnecessary organisational change must, however, be balanced against the need to ask for organisational changes that are fundamental to producing new benefits for the trading partner. Leaving existing procedures untouched at the cost of introducing duplicate procedures is a tactic best avoided altogether (see 'Duplicated processes' on page 29).

## Targeting the right people

The need to target the right people within trading partners was referenced by respondents in seven of the 10 case studies, and was strongly linked to successful take-up.

References were made to a range of specific job roles (examples included chief financial officers, chief executive officers, marketing managers, billing managers, project directors, purchasing officers, content managers, e-commerce managers and designers) depending on the specific industry and purpose of the system.

The task was easier for very small trading partners where the business owner was generally the main target (albeit not always the only one).

A typical comment was made by a trading partner respondent when he described the importance of ensuring project directors supported the system, which was designed to manage documents for complex multi-organisational construction projects.

*The success of the adoption of the system was driven by the project directors saying “we are going to use this and not use anything else”.*

Targeting the wrong job role was a sure way to impede progress. In one system the initial effort had been directed at account managers working for its trading partners, where the existing relationships centred.

Upon getting unsatisfactory results, the owner investigated and found that these personnel generally held no interest in process improvement and tended to dismiss the system as unimportant because it offered nothing in the way of new sales. Subsequent adjustment of the targeting to logistics managers and managers of back-office accounting functions yielded far better results.

In several cases there was a more general need to identify and engage people that could be project ‘champions’ and/or own the decision to go ahead with the system. These could also come from a range of job functions. In one case an owner respondent described the transformation when a champion was appointed in a trading partner, midway through a long and so far unsuccessful engagement effort.

*The one thing that changed the whole scenario there was when the guy who we were dealing with...he was given the right to make the final decision...all of a sudden they just said “You’re accountable!”*

When this champion was interviewed he identified the same event as the key turning point.

*It wasn’t until we put our hand up and said “well, [our department] will own this project. We will source it, we will find our way through the mire of IT, we’ll unearth that” that we started to get traction.*

In another case an owner respondent described the need to engage with the person, if any, that was the ‘e-business visionary’ within the trading partner. It was this person that was most likely to grasp the potential for the system and move things forward.

In each of the seven cases where targeting the right people was discussed, IT management was not considered the primary target to achieve successful engagement. IT management was sometimes acknowledged as an important target, and in one case the initial approach was always made through IT to facilitate introductions and recruit support before moving on to other parts of the organisation, but in every case IT managers were considered secondary to other managers in securing take-up of systems. A typical remark was:

*I go out, or one of my team goes out, and its really about process management improvement, you don’t have to talk about technology to start with. Usually the IT person from their business isn’t even there.*

In two cases IT managers were seen as creating serious roadblocks to engaging trading partners, even when chief executive officers and other senior managers were keen to progress take-up. In both cases the issue was described as having little to do with technology and much more to do with internal politics and/or a desire by IT managers to control projects they perceived lay within their domain. The outcome was a sharp application of the brakes to further progress. One owner put it like this.

*Any organisations where you've got the old-guard, where IT drives things...anywhere where you've got the IT department that has any sort of power, you can forget anything ever happening. It's their job, it's their baby—keep away!*

A trading partner respondent in another case described how this issue delayed the engagement of his organisation.

*I kept pushing back saying "well, hang on, you know it is not really an IT project, it is a business project, it is a partnership". So anyway, with this to-ing and fro-ing, the project didn't go anywhere...*

In both of these cases owners developed tactics to reduce or avoid the involvement of IT management. For some trading partners, the only option had been to wait for a change of chief information officer.

Similar tactics were also employed when other (non-IT) personnel were identified as creating barriers to organisational change. One owner respondent described the challenges associated with personnel in a particular job role.

*A lot of people in that job are older guys [and] there is really a great deal of resistance to it. Strong resistance. They feel like they are giving away their intellectual property.*

In this case the tactic was to go around them and recruit support from their immediate managers instead. Where outflanking tactics were employed, care and diplomacy was necessary to preserve existing relationships.

From the practitioner's standpoint we can see there are often complexities associated with who must be targeted to maximise the chance of engagement. Practitioners will improve their results by making an effort to identify key personnel and by developing separate procedures and tactics for each. The most important targets will almost always be in business management rather than IT management, and IT management will sometimes play a secondary role in the engagement process. Where it is practical to do so, packaging systems carefully enough for IT involvement in the decision-making process to be minimised, or eliminated altogether, is a powerful enabler.

## Choosing the right messengers

Identifying and selecting the right personnel to introduce the system and engage trading partners was an important enabler in six cases.

People with the right combination of personal qualities made a difference, just as particular qualities help make more effective sales people. Four trading partners in three cases commented that they became much more engaged and moved forward with the system following the appointment of a new account manager or new project owner, for no other reason than they had better rapport with this person.

The job role itself could also be important. In one case using sales staff to promote the system was later considered a mistake as, in the absence of an explicit financial incentive, these personnel placed the system well down on their list of priorities. This mirrors the experience of targeting sales personnel, as described in 'Targeting the right people' on page 35.

Appointing a specialist to own the engagement process and take the message to trading partners, with or without assistance from other staff, was mentioned as a valuable enabler in four cases. As well as being focused on the task fulltime, one person could get an overall view of what was working and could better tune the message or modify the approach. Trading partners also responded to this.

*I am assuming he is like an e-business, I don't know what you'd call it, manager? Anyway, having him as a focal point for us is very good.*

Better results were also achieved when people were used with the same professional background as personnel targeted within the trading partners. In one case, in the building and construction sector, this was an especially important factor mentioned by every one of the respondents interviewed.

A different perspective on this was the ineffectiveness of using technical people to introduce the system to business people. A respondent, in a reference to the technologists that created his system, said:

*I didn't have confidence in their being able to present it properly because they didn't have the industry background...I don't think I would let them go near our clients!*

The implication for practitioners is that they should invest time and effort in the selection of personnel responsible for engaging trading partners. Important considerations will be congruence with their normal job goals and compatibility with the personnel they will be targeting. Regular account managers will frequently not be the best choice. If practical, the appointment of a single owner for the engagement process is also likely to be a valuable step.

## Other organisations as messengers

Related to the preceding theme was the impact when trading partners were introduced to a system, or heard about the merits of a system, through peers that were already using it. A positive assessment from a trusted peer with no axe to grind had considerable impact on trading partners in four of the cases.

A trading partner respondent described a typical scenario.

*I then spoke to a couple of other contacts to just find out what their experience with taking on the system was like, and I got some pretty good reports.*

Owners were well aware of this process.

*They [trading partners] will say "well, who else in the industry is doing it?" They just want to know who is doing it.*

In two of these cases trading partner respondents described how they did not want to be 'first movers'. As one put it:

*I am a great believer that critical mass is important in these things, and a 'go it alone' involved a hell of a lot of commercial risk and development.*

An owner respondent in the same case mirrored this observation.

*They have to see that it has been successful elsewhere first, before they take the plunge.*

Good results were achieved in one case by exploiting an initial 'pilot phase' with a very small group of trading partners as a proof of concept for others. In another case, the owner found an enabler in identifying and going after especially influential members of the industry, then using their involvement to motivate others. This was described by a respondent as securing 'anchor' trading partners. It was often difficult to secure one of these organisations, but when successful, the effect on others was significant. In this case a competitive element was present in that trading partners were motivated by not wanting to be left behind when key competitors began to take advantage of the system.

In one case an especially powerful enabler was when trading partners encountered the system being used by peers working with them on joint projects.

Quite complex relationships were sometimes involved, with information about a system spreading through a group of trading partners and recommendations arriving from more than one source.

The following description, of an organisation being approached both by the system owner and one of its own trading partners, is a good example.

*So [company A], once they had implemented with us two years ago, then turned around to [company B] and said let's implement what we have just done with you. And then we approached [company B] and said let's do the same with you as our customer.*

This had a positive impact. A trading partner that had been sufficiently impressed with the system that it decided to build a similar one to connect to its own customers represented a big endorsement.

Similarly, a respondent in a different case described how conversations with its materials suppliers, customers and logistics providers, all of whom were preparing quite similar e-business systems to meet their own objectives, had helped prepare the ground for deciding to move forward with a system.

Trading partners prepared to act as reference sites for an e-business system are powerful enablers. Practitioners should incorporate information about successful implementations into communications, and look for opportunities to promote dialogue between those trading partners successfully engaged and those yet to take it up. Practitioners should remain aware that both positive and negative trading partner experiences will impact take-up when communicated to other trading partners.

## Segmenting the engagement strategy

A strong theme was the benefit of splitting the engagement strategy into two or more parts so that different priorities, and different methods, were applied to different types of trading partners. Engagement strategies that had been segmented in some way were evident in five of the 10 cases, and in three other cases owner respondents made general references to a need to customise the approach for different types of trading partner.

Respondents had learned the hard way that one blanket approach to all trading partners produced unsatisfactory results.

*I guess a milestone for us would have been the realisation that it wasn't 'one size fits all' and to have iterations of the solution that can fit small suppliers.*

Segmenting engagement strategies in this way was undertaken using a variety of criteria, and usually more than one. The technical capability of trading partners was the most common consideration. Owner respondents frequently mentioned the need to deal with trading partners differently if they did not have an IT department or had limited technical resources to integrate the e-business system with other internal systems.

Segmenting purely on the basis of business size, without assessing technical capabilities, was not useful. Occasionally very big businesses, for example, were found to have extremely limited technical capabilities, on a par with what might be expected from a small business.

In one case the owner had created, as part of its engagement strategy, a specific procedure to assess the skill set and experience of the technical personnel working for each trading partner.

Segmenting this way led to alterations to the engagement strategy around pre packaging (see 'Prepackaging' on page 33), onsite technical assistance (see 'Implementation assistance and technical support' on page 41), and subsidisation (see 'Direct subsidisation' on page 44). In more than one case owners had built portal based options to address trading partners with limited technical capability, but it should be noted that this had an undesirable consequence in introducing process duplication (see 'Duplicated processes' on page 29).

In two cases the main criterion was transaction volume, on the basis that where the largest numbers of transactions existed would be where trading partners would gain the most value (and also where the owner would gain most value).

In one case the owner had spent time categorising the different business models used by its trading partners and considered this had been valuable.

*We actually identified that there were five models. One model was absolutely suited to online ordering because all they did was sell [service A] but then there were other models where [the system] is of no real value to them or their business.*

In another case the owner had decided to segment trading partners based on estimates of the benefits and costs that would apply to each.

Segmenting by transaction volume, business model and cost/benefit estimate were used more to adjust the prioritisation and timing of engagement than to alter the tactics to be employed.

For practitioners there is a strong message that, to maximise effectiveness, the engagement strategy will in almost every case benefit from pursuing different tactics, timing and prioritisation for different groups of targeted partners. In most cases it will be desirable to consider more than one criterion in this segmentation.

Using business size alone as a criterion should be eschewed in favour of a combination of factors such as technical capability, the volume of transactions expected to flow through the system, opportunity to benefit and cost differences, as well as other organisational readiness factors such as e-business awareness and the disposition of management towards technology-driven change (see 'Other organisational readiness themes' on page 46). Identifying competing priorities (See 'Competing priorities' on page 40) also related to the theme of prioritising and segmenting the engagement strategy.

## Feedback mechanisms

A theme spanning all cases was the need to solicit feedback from trading partners and incorporate this into adjustments to the system and/or modifications to the engagement strategy.

*Very important in this process is having a very well defined implementation plan and process, and constantly feeding back into it the lessons learned.*

Trading partners very frequently cited the availability of a feedback channel, and the willingness of the owner to listen and act upon it, as having been a critical factor in their engaging with the system.

*They consulted us before they released it and they have consulted us ever since. They have taken all our issues on board and generally have been able to improve the system with our suggestions.*

Conversely, the absence of adequate feedback channels was reported by two trading partners as an important factor in delaying their engagement.

Successful system owners had all implemented many changes (some had released five or more major revisions to their system) and rethought aspects of their strategy along the way.

In all cases feedback mechanisms included informal channels such as receiving feedback via account managers or trainers, ensuring that trading partners had good access to the project team to e-mail or telephone through any concerns, and reviewing problems reported through technical support.

In three cases feedback mechanisms had been developed in the form of user groups that met at regular intervals. In one case owner respondents considered the user groups had actually slowed the rate of take-up because members not serious about the system had consistently wasted the group's time discussing minor technical issues. For the other two there was no data to suggest user groups had made the engagement process any more or less successful.

In two cases owners had pursued an initial 'pilot' phase to engage a select few trading partners, incorporating their feedback into the system before engaging others. In both cases owner respondents reported the strategy had been very valuable.

*Start with a pilot because that way you can beg a bit of forgiveness if things are not quite as they should be, plus you use it as an opportunity to get feedback, to get a small release quickly out to deliver improvements.*

A trading partner respondent reported, on the other hand, that with hindsight and given the challenges, they would have preferred not being part of the above pilot.

*The frustration builds up. It did fall over quite a lot, they were doing a lot of patches...the system was being ironed out on us.*

The findings tell us it is critical for the practitioner to create easily accessible feedback channels for trading partners, and that they must be prepared to take an iterative approach in developing the e-business system and adapting their engagement strategy.

Practitioners should assess the suitability of a pilot phase based on how helpful it will be in addressing any unknowns, and the availability of trading partners willing to be active participants.

## Competing priorities

The timing of the attempt to engage trading partners, especially with respect to competing organisational priorities within the target, emerged as a theme in four cases. In circumstances where other priorities dominated management thinking, any new e-business project, despite being recognised as valuable and viable, could not gain traction. The impact was always expressed as delayed engagement, rather than removing it entirely from the agenda.

Three respondents described how projects to upgrade financial and operations management systems postponed any involvement in the e-business initiative. The existing projects involved as much organisational and process change as the organisations could handle.

*When they first approached us we were in the middle of trying to make a decision about [an operations system] and that was a huge project for us, and we didn't really want to take on something else to distract us from the main event, so to speak.*

*Management aren't going to pay attention until they have to. Now I am getting attention because they are getting a focus on costs and are no longer distracted by the SAP rollout.*

In another case all three respondents spoke at length about how multiple competing organisational priorities had kept the e-business initiative off the management agenda. In this case industry changes, competitive pressures and business initiatives that promised faster payback for less effort were seen to be dominant factors.

An owner respondent described the thinking in these trading partners along the following lines.

*"Why now? I can always find some other things that will generate more revenue tomorrow" or "I can always find some cost savings that I can pull out of the business in other ways that are probably easier to achieve"...ultimately it is not "should we do it or shouldn't we do it?" it is "when should we do it?"*

Trading partner respondents used identical language in their interviews. One described the background to his organisation's delayed engagement in the following way.

*They [senior management] had much higher priorities, and I respect that... the last thing you want to do is have to devote some time to something you don't see as important in the grand scheme of things. They were supportive of it, don't get me wrong, they were just working on much bigger issues.*

In our case studies owners had attempted to change timing and move e-business projects up the priority list within trading partners, but they had not been successful. Engagement was either yet to occur, or had occurred only when the natural course of events led to the trading partner being ready, with the owner having no impact. It was also evident that the timing issues had been identified at an early stage in the project, and they were equally visible to both owner and trading partner.

The findings suggest practitioners should be careful not to overestimate their influence over the organisational priorities of their trading partners. Serious conflicting priorities need to be identified quickly and early, and will generally be best accommodated by re-engaging the trading partner at a later date, rather than wasting valuable resources trying to change them. This relates to the need to segment the engagement strategy, discussed in 'Segmenting the engagement strategy' on page 38.

## Implementation assistance and technical support

In three cases owners had taken the decision to provide proactive technical assistance to partners implementing the system, with experts capable of going out to the trading partner premises and doing some or all of the necessary work. In all of them this represented an adaptation to the strategy made to overcome early disappointments, and in each case it produced positive results by accelerating the engagement process.

*Take-up has increased a lot in the last 12 months. We have in that period ramped up our services to go onsite and help implement, help them get this going.*

*It's one of the really important things I have found within the community to speed the process up and make sure things keep moving. You have got to be able to go in and fill the gap and help the new, confused user, fill the gaps of their capabilities. Otherwise it will grind to a halt.*

Related to this theme was the issue of providing appropriate post-implementation technical support (e.g. a helpdesk facility). Rather than being described in terms that suggest technical support accelerated engagement, it was more a 'must have' when systems were more complex or difficult to use, or had outstanding technical glitches. A lack of appropriate support in those circumstances greatly inhibited engagement.

Expectation setting was a factor here. In one case, where an owner had gone to the trouble of nominating help desk staff as experts in the system, and had then heavily promoted this service to its trading partners, a trading partner had been frustrated by the difficulties of getting hold of one of these experts in practice. The respondent reported that an expert had been available 'about 10 per cent of the time' when they were sought. This had cost the owner goodwill, and reduced the trading partners' interest in enhancements to the system or future e-business projects.

From the practitioner's standpoint, dedicating technical staff to the engagement process is potentially an expensive exercise and is likely to be used judiciously with selected partners, based on the financial value of engaging them more rapidly. Prepackaging and simplifying the system, and therefore reducing implementation complexity (see 'Prepackaging' on page 33) will offer better alternatives where practical.

## Training

Training as a method of increasing take-up was identified in four cases. It took the form of pre-implementation seminars, post implementation workshops and, in one case, ongoing training services for new trading partner employees and for employees that needed to freshen their skills. In this last case, the re-training could also be viewed as an extension of the technical support being provided. Short briefings or demonstrations of the system by relationship managers, without hands-on activity, were not included in our definition of training.



In only one of the cases did an owner respondent express enthusiasm for training as an enabler (neither of the trading partner respondents mentioned it). In two of the other cases training was not associated with any outcomes relating to take-up and in the third, where a significant effort had been put into developing training, the owner was disappointed with the results and thought they had been a waste of time, an observation supported by the trading partner respondents.

It is possible that training was offered in more cases, but it was not commented on with respect to engaging trading partners. There were frequent comments, on the other hand, linking engagement success with how straightforward a system had been to explore and self learn.

For practitioners, these observations do not imply training is unnecessary, or that it should be ignored, but they do imply that training is not a strong enabler in its own right, and is a poor substitute compared with enablers such as prepackaging and simplifying systems (See 'Prepackaging' on page 33) especially when trying to engage trading partner executives with limited time to learn, a situation frequently encountered in smaller businesses.

## Independence and lock-in

Concerns about how the e-business system could increase dependence on a particular owner, increase the owner's market power and/or make it more difficult to dismantle a trading relationship should the need arise in future, were expressed by four trading partner respondents. Each was a participant in a different system, so it was not an especially strong theme in any one case. Nevertheless, for these organisations, the issue was important in delaying or slowing take-up. Typical comments were.

*If it becomes a critical channel for communication, and they control it, they actually control a large amount of the value...it is hard to negotiate with suppliers like that...it's uncomfortable.*

*As a customer of [owner], I want to leverage it as much as possible, but at the same time I'm very conscious not to hand over my key processes to a third party...at the end of the day if we needed to switch it off, we would need to be able to do so without any grief, and I think most businesses would think like that.*

Reinforcing this, two owners had transferred their e-business system to an intermediary organisation specialised in e-business hosting and connection services, for the specific reason of making it more open and independent and reducing trading partner concerns over lock-in. Both reported that take-up had increased following this step and it was an important success factor in their project.

*I think that the fact that we had a third party provider, that it was available to everybody, regardless of where they fit in the supply chain...it is not us trying to get a competitive advantage. I think that has been tremendous.*

There is something of a contradiction in that e-business systems are typically built to make the links between two organisations richer and more powerful, but at the same time they can produce concerns relating to dependency and lock-in. The existing level of commitment between organisations will be a factor, with concerns more likely when reasonable trust has not yet been established.

Practitioners may need to work hard to determine the extent of any problem, as many trading partners will not be predisposed to voicing such concerns directly.

In cases where this is a big factor, enabling tactics will most likely relate to involving a third party intermediary and/or designing the system in such a way as to be more 'open' and accommodating of future changes in trading partner relationships.

## Coercion

Coercion was a theme in two cases. In one of these it was a strong theme referenced multiple times in each interview. The data provided several insights about the nature of coercion as an enabler.

In the case where coercion was a stronger theme it clearly produced some resentment among the trading partners. While it was certainly a key factor in initial take-up it also appeared to act as an inhibitor to further routinisation by the trading partners: they quickly accepted the necessity for using the system but were predisposed to keeping it at arms length in the organisation. They saw themselves as passive recipients rather than partners likely to look for opportunities to enhance or expand upon the system. When asked about how the system might progress and grow, one of these respondents said:

*Not with [owner], no...anyway we have to follow, we have no choice...if they put this away and give us something else...then we will have to follow it, no matter how un-user friendly it is.*

This is despite the fact that each of the trading partners could articulate benefits that the system delivered to their own organisations and also had positive things to say about support that had been provided by the system owner.

In the second case, where coercion was a weak theme, one of the trading partner respondents referred to their usage of the system in the following terms.

*We'll use it only on a project basis, we certainly don't use it internally...We have to use it. I suppose they [the system owner] have got to have a system like this as it makes sense for them. We just didn't like it but what does it matter? We're just the junior partner. We just have to try and limit our exposure to the effort of it really.*

Once again the last sentence tells us the trading partner was not interested in actively working with the owner to expand the system and make it a success.

The coercion theme was revisited from a different perspective in a third case, where two owner respondents discussed how they had explicitly decided not to use coercion because of the likelihood of negative consequences, even though the market power held by their organisation made coercive tactics an option.

*We tried to avoid any sense of a stand-over, and I think that maybe coercion is a common practice. I don't know, it's the sort of thing that you hear from suppliers, that they feel a little bit bullied into it you know...I think if we tried to use sticks, then I think that the average supplier would just back off and say well, not really interested...It [the choice not to use coercion] has been a success.*

*That was key...we didn't want to be dictatorial, and I think they would feel the same way, because it doesn't do the relationship any good, so it had to be an agreeable thing...*

Coercion was not a theme in the other cases studied (significant differences in market power did not exist in the other cases either, so in each of them coercion may not have been an option). It is worth noting, however, that enablers at the opposite end of the spectrum, such as sharing more benefits (discussed in 'Distribution of benefits and costs' on page 31) were much stronger themes.

A deliberate effort was made to select systems for this study where market power was not an overwhelming factor lest it mask other enablers, so we cannot directly extrapolate from the data to draw conclusions about the frequency of coercion as a tactic for engaging trading partners. It would be reasonable to assume that coercion is generally more common in industry than it is in the systems in this study.

The conclusion for practitioners is that they should be aware that coercion has the potential to produce inhibitive effects, especially in discouraging an active partnership to develop and progress e-business systems, which can offset some or all of the intended outcomes.

## Direct subsidisation

Direct subsidies were used extensively in one case and mentioned briefly by a single trading partner in another. In the case where this was a strong theme the owner had pursued a strategy of establishing a 'development fund' and made access to the fund open to any partner that signed up by a certain time. The funding available was non-trivial and could go a long way towards offsetting the partner's implementation costs. The results, however, were not clear-cut, and the owner expressed doubts about the merits of the approach and the message it sent.

*One of the learnings we have got is historically I think a lot of people will always say cash incentives don't really work because it sometimes is belittling the value proposition. If you've got to pay me to do this, then surely it should stand on its own.*

There was also concern that subsidies would always be accepted regardless of whether they were necessary or not.

One of the trading partner respondents interviewed in this case did, in fact, nominate subsidies as a factor, describing them as a way to achieve a more equal distribution of costs and benefits between the two organisations. This was related closely to the symmetry theme discussed in 'Distribution of benefits and costs' on page 31. It was not a primary consideration, however, and was described as a factor that would bring forward the timing of engagement rather than affect the decision to engage.

From the practitioner's standpoint, this case tells us that direct subsidies should be used with care and will not be an effective mechanism for achieving engagement where other issues are found wanting: certainly subsidies will not bring partners to take-up systems that offer no lasting value. Furthermore, if the number of trading partners is large enough then the cumulative costs of subsidies might easily make them financially unsustainable.

Direct subsidies are better employed to accelerate engagement with partners already sold on the merits of the system but with lingering concerns over the costs in the business case. In these circumstances, however, onsite implementation assistance ('Implementation assistance and technical support' on page 41), simplifying and reducing the cost of implementation ('Prepackaging' on page 33), or finding a way to boost ongoing benefits to the trading partner ('Distribution of benefits and costs' on page 31) would appear to offer strategies more likely to get results without sending the wrong message.

## Maintaining performance expectations

Performance of the e-business system was a strong theme in one case, where it was mentioned by five out of six respondents. The actual response times for the system appeared to be reasonable relative to the complexity of the system, but they had evidently not met expectations of trading partner respondents, and had resulted in frustration.

It was evident in this case that both performance expectations and actual system performance had changed over time. Independently of the project, there was a feeling that when end-users saw a new online system they expected it to be at least as fast and responsive as anything they had previously experienced. One respondent wryly commented that:

*People now want everything instantaneously.*

At the same time, as this system was taken up by more trading partners, the increased usage had caused the performance to deteriorate. The owner was aware of this issue and had taken steps to boost system performance through hardware and software upgrades.

Frustration with performance had not been a big enough problem to cause trading partners to disengage or reject the system after implementing it, but it had most definitely slowed down the rate of acceptance by personnel within trading partners. There was a general view that teething problems could be expected in new systems and were a fact of life, but respondents did not think it would be acceptable if the performance problems continued over the life of the system.

*It has been very slow at times, as the project has grown and...it took [the system owner] a while to appreciate the slowness of our system and respond to some of the capacity things, but that aside, I think the general reaction has been quite a good relationship.*

In the other nine cases, the issue of performance was mentioned only once, by a trading partner respondent frustrated by system outages. Once again it had not stopped engagement altogether, but it was an inhibitor to further exploiting the system within the business.

For practitioners, the findings suggest the need to not only ensure adequate initial performance, but to also ensure performance expectations are met on an ongoing basis to sustain engagement. This may require a proactive effort to monitor performance and ensure it does not deteriorate as take-up progresses. Over longer projects it may also be valuable to monitor changes in the expectations of users within targeted trading partners.

## Adjusting to different value propositions

The nature of benefits varied greatly between systems. Sometimes they were quantified in direct financial terms (additional revenues or dollars saved) but most often they were expressed in qualitative terms. More rapid business processes, time savings for personnel, reduced errors, reduced workload, reallocating personnel to other tasks, better quality of information and deeper relationships between the organisations were all reported as benefits in multiple systems.

Given the widely different nature of the systems included in the study, the variation in reported benefits between systems was only to be expected. More interestingly, however, they very often varied between trading partners engaged in the same system. Different trading partners often engaged for quite different reasons depending on their circumstances and organisational priorities. As one respondent said:

*No two trading partners have the same reason for using it. They are all different. Reasons change too—the reasons they use us now are not necessarily the same as the ones when they adopted.*

From the practitioner's perspective these findings suggest they should be careful not to assume all trading partners will be motivated by the same value proposition. The engagement strategy will ideally incorporate a degree of sensitivity to detect these differences, and a degree of flexibility to adjust communications and negotiations accordingly.

## Removing uncertainties from the business case

Although respondents frequently mentioned uncertainties about quantifying the value a system delivered to their organisation, they were almost always able to express a definite view as to whether the system was, weighing up the costs and benefits, a good thing for the organisation. In two cases, however, multiple respondents reported not being able to form a view and cited this as a reason they had not participated. In both, open-ended costs were described as the main problem. For one, the issue was an inability to put a ceiling on implementation costs and for the other it was an inability to confidently predict the operational costs once the system was in operation. In both cases the owner was seen as not having done enough to address the problem.

In a third case the owner was seen as having successfully engaged trading partners explicitly because of its efforts to remove cost/benefit uncertainty. In this case the owner had dedicated time and personnel to developing individual business cases for each of the most important trading partners.

*We often go out and work with them on the business case, then present [the business case] to their marketing management team to get agreement.*

We can speculate that the efforts made by many owners to simplify and prepackage aspects of the e-business system (See 'Prepackaging' on page 33) also contributed towards eliminating uncertainties in the business case.

For the practitioner, the findings suggest care should be taken to eliminate uncertainties, to whatever extent is possible, from the business case as seen from the perspective of trading partners. For more complex systems, or for partners where the returned value makes the additional effort especially worthwhile, consideration should be given to actively working with the partner to develop and present the business case to management.

## Support at home

In three cases the engagement process was interrupted by interdepartmental conflicts within the organisation that owned the system, reminding us again that successfully implementing a collaborative e-business system is predicated on a commitment to organisational change across two organisations, and that the speed with which that change occurs in the owner can also impact system acceptance by the trading partner.

In two cases conflicts were between the business unit committed to making the system a success and the IT department. Getting the necessary IT resources allocated to the task was an issue.

*We have had a fair bit of 'kick back' on that...we were expected to believe they had been allowed to resource up, and that is proving still to be an issue. I don't know whether we underestimated the expected impact on our IT section.*

Another issue was conflict over who owned the project, a mirror image of similar conflicts seen in trading partners (See 'Targeting the right people' on page 35).

*We should be 18 months further down the track than we are. We had an internal 'brick wall'.*

In one case the internal conflicts within the owner were highly visible to a trading partner respondent. This had led to concerns about the commitment of the owner to the project, and future viability of the system. The trading partner organisation remained supportive but was likely to end its involvement if the situation was not addressed reasonably quickly.

In discussing ways to overcome these barriers, respondents talked about the need to recruit support from the most senior management at the earliest stages, and making sure senior executives played a bigger role in promoting the system. One respondent pointed to the importance of communicating the achieved benefits of the system, many of which were not highly visible, back into the company to ensure ongoing support.

*We haven't sold it well internally...we haven't broadcast the number of transactions we have moved off people's desks and that my team remains the same size as it was when the business was one quarter the size and so we have seen genuine savings.*

Another respondent described having to overcome fears in the customer service department where staff were worried about the impact the system would have on their jobs. A significant effort had to be made to involve them in all aspects of the project to ensure they were comfortable and would play their role in engaging trading partners.

In addition to examining organisational readiness for trading partners, practitioners also need to assess readiness within their own organisations, addressing any outstanding issues in business units impacted by the system before commencing an external engagement strategy.

## Other organisational readiness themes

At a basic level assessing organisational readiness meant, for most owners, having an appreciation for the technical resource capabilities of trading partners, most especially being aware of which trading partners did not have an IT department at all (see 'Segmenting the engagement strategy' on page 38) but there were other factors mentioned beyond resources.

Respondents in three cases mentioned that better results came from trading partners that had already experimented with building their own e-business initiatives, or that had already developed an e-business strategy of some description. These partners were better positioned to grasp the advantages of the system under consideration and to make a quicker decision.

Three owners described a need to consider interest/lack of interest, by managers in targeted companies, in pursuing technologically driven change. This was directed both at small business owners, where the attitude of one person would certainly play a strong role in determining overall likelihood of engagement, and also at managers in large businesses. The point was made by one respondent that managers within some of Australia's largest corporations sometimes had a strong aversion to technological change that had to be taken into account.

General comments about the need for managers in trading partners to be reasonably up to speed with e-business developments to make a good candidate were also common.

Another owner respondent had discovered serious roadblocks were usually instigated by IT managers, and assessed its targets based on the power and influence of the IT department (See 'Targeting the right people' on page 35).

In another case a key issue was the readiness of organisational data. Many targeted trading partners had poorly maintained data in their internal systems, a situation that adversely affected the business case for adopting the e-business system.

Implicit in these findings, and many of the themes discussed in 'Segmenting the engagement strategy' (page 38), 'Competing priorities' (page 40) and 'Targeting the right people' (page 35), is the need for practitioners to complete some sort of assessment of the organisational readiness of trading partners, and to do this at a very early stage in the project.

## Minor themes

A general observation was that small business trading partners made more rapid engagement decisions. In some cases a decision had been made over whether a system was worthwhile/should be accepted within an hour of the first briefing (making that decision known to the owner, and commencing deployment of the system did not necessarily happen until much later). Conversely, large business trading partners almost always arrived at the engagement decision over a period of weeks or months, during which some form of cost/benefit analysis was attempted and a consensus sought across several managers.

For practitioners this finding reinforces the vital importance of getting their message across effectively from the outset, and the value of a tightly defined and prepackaged demonstration of their system, when dealing with their small business trading partners

The notion of offering trial periods to accelerate trading partner engagement was hardly mentioned. It is possible more trials were undertaken, but the lack of references suggests they were not an important factor in producing faster engagement. This would have been partly due to many of the systems being impractical to trial: they needed expensive procedural changes or software integration before they could be used, so a trial represented almost the same commitment as actually adopting the system.

*It's not one of those things you can trial, you either do it or you don't do it. You've got to physically do the technical integration before you trial anything.*

Trading partners clearly had to rely on other data when making their decisions.

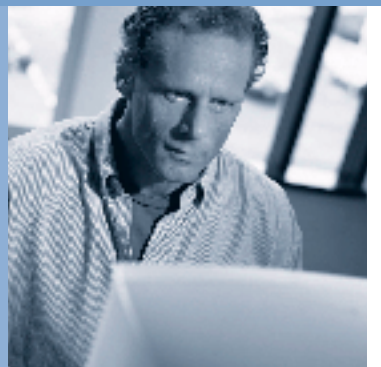
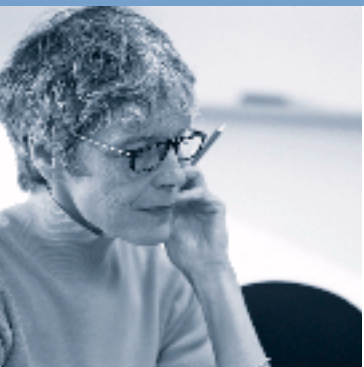
Based on this study, it appears that trial-based engagement strategies would be a poor option for practitioners in many scenarios. The finding reinforces the value of giving trading partners access to peers already using the system, as discussed in 'Other organisations as messengers' on page 37.

In this document the term 'engagement strategy' is frequently used to describe the basket of activities and tactics employed by a system owner to engage its trading partners, but a single, comprehensive engagement plan (for example a reference document for all managers, salespeople and technical personnel associated with the project) was specifically referred to in only two cases. Individual elements, such as communications plans and engagement kits for account managers, were described in three further cases.

Based on the very wide range of issues, considerations, tactics and potential enablers documented in this research, and given the critical importance of engagement as a success factor in collaborative e-business, creating and maintaining an overall engagement plan is a strong recommendation for practitioners.

# 7

## Engaging distributors in e-business at MSA Australia







## 7 Engaging distributors in e-business at MSA Australia

### Project history

MSA Australia Pty Ltd is a manufacturer of personal safety equipment such as protective clothing, hard hats, hearing protectors, respirators, safety harnesses and protective eyewear. It is a subsidiary of Mine Safety Appliances Company, a multinational company headquartered in the United States and operating in 25 countries.

In the fourth quarter of 1998, MSA began its first steps to move transactions with customers (distributors of its safety equipment) away from fax and telephone-based processes to more highly automated electronic channels. The key objectives centred on inbound processes relating to ordering. Getting orders in electronically would produce significant savings by cutting down manual re-keying by MSA staff.

The first system MSA trialled was building a series of websites for its customers in a 'virtual shopping mall' for safety equipment. MSA customers could advertise products at their own prices on individual websites within the mall and collect online orders from end-users (companies buying safety equipment from MSA's distributors). The orders taken via the web would then flow electronically back to MSA's systems.

The 'safety mall', as it was labelled, was found to be unworkable. MSA's customers also distributed products supplied by other safety equipment manufacturers and wanted to sell these through the same shop front. A second obstacle was that purchasing officers for end-user organisations did not want to navigate their way to multiple websites to do their buying. The safety mall was dropped in early 1999.

Discussions were then held between MSA management and XML Yes, an e-business software development company. A number of concepts were reviewed before the decision was taken to implement an e-business system called TradeRoute to route orders electronically between customers and MSA's financial systems.

MSA began with a focus on very large customers because senior management considered these especially important and because they each conducted high volumes of business. TradeRoute was installed successfully with one of these in the first quarter of 2002.

In late 2002, MSA began implementing TradeRoute with a second large customer. On this occasion a significant effort had to be made to accommodate the customer, where the management wanted to preserve existing procedures as much as possible. This approach turned out to be more difficult than anticipated. In late 2002 it was suspended temporarily, until system modifications could be introduced to accommodate the customer's specific requirements.

In mid-2003, a decision was taken to expand MSA's e-business strategy to include small business customers. Collectively, small distributors made up approximately 70 per cent of the business volume, so if a large slice of these transactions could be automated it might yield a cumulative benefit at least as significant as securing a few large distributors.

A new customer service manager, with strong technical and business skills, started at MSA in July 2003, and was asked to take overall responsibility for progressing the project and selling the system to customers.

Also in mid 2003, MSA asked XML Yes to develop an enhancement to assist with the production of export documentation. Existing manual processes were overloading staff and producing too many errors. A particularly common error was a mismatch between which part of the shipment was packed in which boxes, with the consequence that customers would become confused when labels did not match up with the contents of boxes. Work on the export documentation system was completed at about this time.

A catalyst for a switch in emphasis to SME customers was the availability of a new e-business solution from XML Yes, named TradeForms.

TradeForms was a software package installed at the trading partner site. It provided the user with current MSA part numbers and price lists which were updated each night and downloaded to the trading partner the next time they logged on. Users entered their orders into TradeForms and these were transmitted electronically into MSA's financial systems. This capability was later enhanced to include electronic purchase order acknowledgements, followed by backorder reports and advanced shipping notices. TradeForms generated e-mail alerts to MSA customer service staff when items were placed on backorder, prompting a call to the customer to discuss alternatives.

TradeForms was launched in April 2004 and met with initial resistance from SME customers who were approached. The fundamental objection was they had to enter their orders twice: once into their own financial system and a second time into TradeForms itself.

An enhancement was then developed which provided connectivity between TradeForms and the customer financial system. Orders entered into TradeForms would be sent electronically to the financial system to avoid re-keying. MSA offered to pay for this connection to be built for each customer.

The connectivity to financial software helped, but take-up continued to be inhibited and was not rapid. Customers wanted the purchase order to be generated by their own financial system first, then for this information to be transmitted electronically into TradeForms, not the other way around. This was important, for example, because other procedures depended on purchase order numbers being consistent.

In December 2003, after spending time onsite with customers to learn more about their procedural requirements, XML Yes and MSA began development on an enhancement to address this, which was to be named TradeConnect.

In late 2004, a change of strategy was tried with the customer service manager accompanying account managers on their visits to demonstrate the system. This had an immediate positive effect on take-up.

By May 2005, MSA had 12 of its distributors using the system and was receiving seven per cent of all orders electronically. This was producing substantial benefits to MSA in reduced call loads at the Customer Service Centre.

In May 2005, the TradeConnect package was completed and made ready for distribution to customers. This took the TradeForms system and connected it to the customer's financial software package such that, when an order was placed, it was first routed into the financial system. TradeConnect then collected the information and resulting purchase order number into TradeForms.

In June 2005, within a week of going out to customers to promote TradeConnect, nine more customers had indicated that they would take up the system, a rapid acceleration in take-up.

At this time, a series of further enhancements were under development, including a module to generate service quotes and work-orders when equipment was due for maintenance, electronic procedures for returning goods and generating credit notes, electronic transmission of export control numbers to the Australian Customs Service, and the ability for MSA account managers to input special pricing arrangements while onsite with customers.

The addition of a safety equipment knowledge base was also being considered.

MSA management aimed to have 30 per cent of all distributor purchase orders arriving in electronic form by the end of 2005. This was dependent on continued success with engaging small distributors<sup>1</sup> as well as the engagement of several larger distributors.

## Analysis

The analysis below is structured around the themes identified in the cross-industry study that were also identified as a theme in the MSA case study.

### Duplicated processes

Duplicated process represented a very strong theme in this case study. The early 'safety mall' initiative tried by MSA was abandoned because customers did not want to multiply their purchasing processes by logging into many websites. An MSA respondent summarised the lesson.

*Universally they hate websites. It's this idea that they have to log into 27 different web sites... that's not the way that B2B really should work. It's great for B2C.*

In its subsequent initiatives, MSA encountered considerable resistance from its trading partners on the basis that orders had to be re-keyed into two systems. The introduction of the TradeConnect enhancement represented an important enabler in overcoming that resistance, as demonstrated by the immediate jump in distributors wanting to come onboard. MSA managers described the re-keying factor as 'head and shoulders above everything else', and pointed to the elimination of re-keying as a critical enabler:

*They don't have to key their orders twice—that was the biggest concern and the biggest issue we had with our customers...the major problem is that a lot of customers didn't want to take it on because it was a "double basher".*

An MSA respondent said his organisation had 'underestimated SME customers'. By this he meant that they had not realised that SME customers wanted to avoid re-keying data just as much as larger organisations such as MSA did.

In one case, a distributor had TradeForms for three months but only ever used it as a system to receive information, never to place orders, specifically because of the re-keying issue. MSA's customer service manager reported immediate take-up of TradeConnect by this organisation when it was released.

*I went out and met him for the first time yesterday, and sold him straightaway...I explained to him that we got the TradeConnect which is the ERP link, and they were jumping up and down for it.*

For one of the trading partner respondents, reducing duplicated purchasing procedures with other suppliers had become more important as direct result of the e-business engagement with MSA. This respondent was actively promoting the system elsewhere because he considered an ideal outcome would be further rationalisation of processes if more suppliers could work the same way as MSA.

*I have tried to get other companies to use this sort of system, because I would like to have one platform dealing with a number of suppliers...if I could get another three or four or five companies on the same platform then that has to be advantageous.*

### Rapid engagement decisions

In our cross industry study we noted that small business trading partners made more rapid engagement decisions. In the MSA study, all of the trading partners included were small businesses, and each of them had made take-up related decisions very rapidly indeed, sometimes within hours of seeing a product demonstration and sometimes during the meeting when the system was introduced.

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1 A follow-up call to check on progress confirmed 30 distributors were using the system in November 2005.

*I just made a split decision and said I want it...they sold me straightaway...I don't actually own this business, I just manage it down here, but I get to make the decision so I don't even have to run it through the owner or anything. I did it, showed the owner what it was and he went "Jeez, that is fantastic!"*

The managing director for another distributor described the take-up decision this way.

*The concept was good for us. I decided within five minutes of them leaving that we would put it in.*

And in a third example:

*One of the account managers came down and did a little demo and said "well, what do you reckon?" and I said "we'll get it up and see how it goes".*

There was never any quantified business case, only a rapid assessment of advantages and disadvantages made in the mind of the decision-maker.

The speed with which these respondents decided whether to accept or reject the system suggests that tightly packaging information about the system was especially important. This link was strongly evident in the MSA case where enablers were found in ensuring questions were better handled in the first meeting ('Choosing the right messengers' on page 56) and in employing a demonstration version of the system during the meeting (Outlined in 'Prepackaging' below).

## Prepackaging

MSA and XML Yes went to great lengths to prepackage various aspects of TradeForms and TradeConnect.

A demonstration version was created that could be taken out and installed in the course of an account manager visit. The 'demo' version was essentially identical to the full version but with send and receive functions disabled. An MSA respondent described the impact of effectively executed visits that included a demonstration of the system.

*All of a sudden our customers started saying "well, where's this coming from?"...and it was the way to go...They'd sit down, we would have a CD there, load it up, show him how it works...the guy would go "whoa, you beauty, terrific, and that's my price list!"*

The ability to quickly appreciate what the solution did was undoubtedly an important enabler given the rapid engagement decisions described in 'Rapid engagement decisions' above.

The product installation process was also kept as simple and painless as possible. Both TradeForms and TradeConnect could be installed and made operational in a few days, and sometimes within a day. This was achieved through a combination of careful design of the software and the provision of onsite technical support to assist with the installation (see 'Implementation assistance and subsidisation' on page 56). The interface was straightforward enough that only minimal instruction was required before distributors could begin placing their orders electronically.

## Distribution of benefits and costs

Both MSA and its distributors achieved healthy benefits from the system. In every case examined in the study the trading partner implemented the system because the decision-maker considered it good for their organisation. None were pressured to implement it, nor did any consider the benefits to be unfairly weighted towards MSA.

The benefits achieved by distributors extended well beyond achieving efficient transactions between themselves and a key supplier. In fact take-up was primarily driven by the ability to produce better service outcomes for their own customers. Receiving back order information more quickly from MSA, for example, allowed them to communicate delays to their customers much more quickly.

Also important was having all information correct, without errors, from the beginning of the ordering process through to the end. This eliminated costly time and effort following up MSA for corrections or returns when the wrong items were shipped, or credit notes when the wrong prices were charged. Once again this had an important flow-on effect in improving customer satisfaction for end-user organisations.

For distributors, benefits in the form of saved time for staff members were relatively unimportant. They did not financially quantify 20 minutes saved here and there for the purchasing officer. When internal efficiencies like this were achieved, these organisations looked to reallocate staff members to higher value tasks and did not see themselves cutting headcount to realise financial savings.

These benefits meant distributors were quick to adapt and make the system a part of their business, changing processes, for example, to take full advantage of electronic access to inventory information and to routinely pass this to end-user customers. As one distributor respondent described it:

*...the purchasing officer has embraced it, and we have run with it. It is definitely part of the business...if we go back to the way we are doing it, or we discard this process we are using at the present time, it would be a backwards step.*

An MSA respondent related similar comments made to him by another distributor.

*Oh I don't really even want to think about it [going back to the way it was before] because of the impact on my customers. My customers are now expecting something different and better and... won't accept [going back] now I have given them something else.*

For its part, MSA achieved a number of important benefits. It cut down errors, reduced the number of credit notes, and freed up staff to spend more time on higher value activities.

The customer service department, for example, was able to significantly reduce the number of inbound calls made to check pricing, stock availability, order status and what date goods were due to arrive. As an example, one distributor generated five to six telephone calls each week, and sometimes up to five calls per day, to MSA. This organisation placed only 10 calls in the 14 months following installation of TradeForms, a reduction of 96 per cent.

Reducing this call volume freed up staff members to concentrate on higher value activities. In July 2005, MSA allocated one of its customer service team to making outbound calls to distributors to discuss backorder issues, to suggest options and alternatives when stock was unavailable, and to provide information on new products and pricing deals.

Perhaps most importantly, by generating notifications about stock issues and backorders, the system greatly contributed to the satisfaction of MSA's key customers (the distributors). As an MSA respondent described it:

*If the customer [distributor] orders 50 times off you and gets every 50 orders and then finally he orders off you once and doesn't get half his order, that's the one he'll remember. That's the one he will come back at you and say "you didn't tell me! Now I've got customers [end-users] waiting and you didn't tell me!"...but if we tell them, they appreciate that, particularly if it is up front.*

Almost every enhancement to the system benefited both MSA and its distributors in this way. The export documentation enhancement, for example, allowed MSA to process more exports with the same resources, and once again to use a staff member for higher value activities. For their part, the distributors benefited because labelling errors were reduced significantly and four-day delays were replaced by same day shipments for 98 per cent of orders.

MSA ensured that distributors were not asked to bear an unfair proportion of the costs for its system. It did this by subsidising software licences and providing onsite implementation support (see 'Implementation assistance and subsidisation' below).

## Implementation assistance and subsidisation

MSA offered generous on-site implementation support and chose to pay for software licences instead of passing those costs on to the distributors. Indeed, throughout the project, MSA appears to have consistently weighted the costs towards itself.

When connectivity between TradeForms and customer financial systems was developed, for example, MSA's paid for this work to be conducted onsite at the distributor's premises. When the TradeConnect enhancement was made available, MSA again followed a policy of paying for the integration between the customer's financial system and TradeConnect installation (although this applied to the first instance only: if the customer changed its financial system or otherwise modified its IT environment down the track, then it would need to pay for the costs of any further integration work).

The relatively low cost of the XML Yes solutions greatly contributed to making subsidisation of the licences a practical option for MSA.

Distributor respondents confirmed these tactics made the take-up decision easier and minimised any possible objections on the grounds of cost.

At the time of this study, MSA planned a more extended subsidisation tactic in buying a computer, placing it onsite and paying for an Internet connection for selected distributors. This was designed to target a few distributors that had a reasonable volume of transactions with MSA, but absolutely no technology installed in their organisations: they continued to use handwritten order and invoice books or insisted that an MSA account manager come onsite to take down their orders.

## Choosing the right messengers

MSA initially asked its account managers to promote the system to customers. This was found to be ineffective. Account managers were well intentioned but did not have the skills and confidence required to promote the system effectively. An MSA respondent described it this way.

*None of these guys are technically minded...so we did that wrong, and we persisted with that and we banged our head against brick walls because they were just not getting the hang of it...some of them didn't understand the technology and some of the ones that did, were thinking "what am I getting out of it?"*

Additional training for account managers was conducted, but it was not possible to anticipate all the questions that customers would ask. Staff members that were not technically minded would frequently be caught out and unable to answer questions about the system.

*The customer asked them in-depth questions they can't answer and all the training in the world, and all the information packages, isn't going to allow them to retain that knowledge.*

The appointment of a project champion with the skills necessary to work with the sales force and to take the message to customers was a strong enabler.

The customer service manager played both a direct role in taking the message to distributors (going out with account managers on their visits), and an indirect role by providing support and leadership to account managers having difficulty promoting the system. He made sure that account managers were equipped with more information to anticipate questions and objections and were better able to articulate the benefits of the system to distributors. Another MSA respondent noted the impact.

*We have started to communicate benefits successfully now, and the customers are saying "yeah, this looks good. Terrific. Sign me up!"*

All of these observations reinforce our cross-industry findings with respect to the importance of selecting the right messenger.

## Minimising required organisational change

MSA's early attempts to conduct integrated e-business with larger trading partners were inhibited by their desire to preserve their existing business processes. While MSA made every attempt to accommodate this, the cost in system complexity and overheads for MSA proved too great. To this extent, minimising required organisational change was a theme.

This theme was not mirrored, however, for small distributors. The small business respondents interviewed gave the impression that their organisations were instead open to significant procedural changes, as long as the end result was a simpler and more manageable business. As one respondent put it:

*I have been doing this for 25 years and I accept change when it makes my job easier. I don't accept it [or] I dump it when it makes it harder.*

This was obviously not the case for every trading partner, as demonstrated by the technology averse business owners discussed in 'Implementation assistance and subsidisation' on page 56), but it does tell practitioners they should not assume small business trading partners will necessarily be more averse to organisational change compared to larger ones.

## Feedback mechanisms

As with every case in the cross-industry study, feedback mechanisms played an important role. MSA revised and refined its strategy continuously through the project based on feedback from distributors. This led to identifying re-keying as a fundamental barrier to engagement, and to the development of critical enhancements such as TradeConnect.

MSA's commitment to using feedback to drive adaptation was complemented by that of its technology partner, XML Yes. Both organisations contributed to the ongoing innovation process. An MSA manager described this in the following terms.

*They had their idea of what they wanted to do, I had what we as a business should be doing, and we came to a solution. If we do this, and this, and this, we will progressively build on and build on the solution until what we have now.*

The closeness of the relationship, and willingness for XML Yes to take input from MSA and adapt software to meet new requirements, was critical to achieving successful engagement outcomes.

## Maintaining performance expectations

Performance issues were a minor theme for two of the customer respondents interviewed. One was impacted because he placed all his orders on Saturday mornings. This meant that the daily price updates were queued up over the course of the week and he had to wait for up to ten minutes for them to download when he logged on, a wait he found annoying. The other had experienced a recent delay in order turnaround times from overnight to two to three days. These delays in fact had nothing to do with the system itself, but the respondent saw it as a system problem because turnaround times had greatly improved when the system had originally been installed. In both cases performance was a factor that, if not fixed, could reduce further usage of the system.

## Targeting the right people

Targeting the right people within trading partners was a minor theme. MSA management found it important to target the purchasing officer first to 'put the idea into their head to make their life easier'. Depending on where the decision process went from there within the customer organisation, subsequent interactions would be with the IT manager, IT consultant (if this function was outsourced) or the owner of the company. Given the small size of most of MSA's distributors, however, it is unlikely account managers ever found it difficult to determine who they needed to talk to.



## Conclusions

Of the themes identified in the cross-industry study, eliminating the need to duplicate processes, fair distribution of benefits and costs, prepackaging the message and the system implementation, choosing the right messengers, and providing implementation assistance were strongly reinforced by the MSA case study.

Support also existed for the need to target the right people in trading partners, direct subsidisation and maintaining performance expectations.

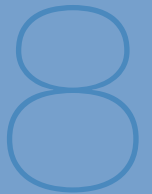
Minimising organisation change was a strong theme where MSA's larger distributors were concerned, but this was not the case for smaller distributors.

The MSA case strongly reinforced the notion, advanced in the cross-industry study, that small trading partners tend to make more rapid engagement decisions. The distributors made quick assessments of whether a system was worthwhile or not, based on the impressions taken away from the first briefing.

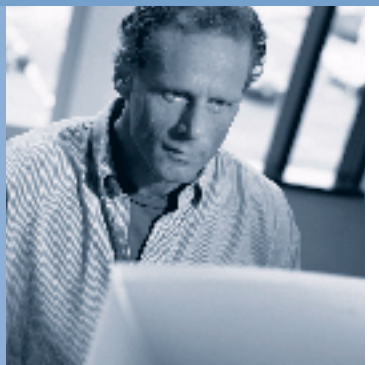
Other themes from the cross-industry study (training, coercion, etc) did not emerge as factors of any significance with respect to take-up of MSA's e-business system.

MSA stands out for the extent of its efforts to engage small business trading partners. MSA did not approach the task half-heartedly. It undertook to innovate and build processes that were fully integrated with the financial systems on both sides (the extent to which an integrated solution was pursued for small trading partners went beyond any of the 10 systems in the cross-industry study), and to ensure important benefits flowed to distributors as well as to itself. This journey was lengthy and challenging, and MSA showed extraordinary persistence in repeatedly adapting and refining its systems, and its engagement tactics, over time.

All of these attributes make it an especially valuable case study for practitioners attempting to engage small trading partners in e-business.



# Engaging brokers in e-business via Sunrise® Exchange





## 8 Engaging brokers in e-business via Sunrise<sup>®</sup> Exchange

### Project history

Sunrise Exchange is an e-business system owned by Telstra Corporation that allows insurance companies (underwriters) and insurance brokers (brokers) to transact in real time over a range of insurance products and services. It connects broker systems (used by brokers to manage their customer accounts and contracts) with various insurance systems (offered by underwriters to provide electronic access to insurance products). Transactions include the processing of quotes, new business, renewals, cancellations and lapses.<sup>2</sup>

The name Sunrise Exchange ('Sunrise') applies to a system that came into existence in 2001. The analysis focuses on the process of engaging brokers to use this system from 2002 to 2005. Sunrise, however, followed a series of earlier electronic systems and this history must be taken into consideration when analysing the engagement experience.

Predecessors to Sunrise go back to the early 1980s. One of these, The Royal Connection (TRC) was developed by Royal Insurance in 1981. Participation in this system was opened up to multiple underwriters and the name adapted to The Right Connection in 1983. TRC linked to the Microbeat and Pulse broking systems.

A second system, called BrokerLink, was developed in the late 1980s and operated by Insurance Network Services, or INS, a company jointly owned by four underwriters. INS also owned the broker system that BrokerLink connected to, called IBS, used by approximately 50 per cent of Australian brokers for customer and contract management. In 1993, INS acquired TRC.

A third system called BIMnet, was developed in 1996 by a company called BIMTECH.

In 2000, Telstra acquired both INS and BIMTECH, re-naming the combined venture InsNet. Telstra now operated all three systems—TRC, BrokerLink and BIMnet—alongside one another.

Telstra planned to combine all three products into a single replacement system called Sunrise Exchange. Telstra divested itself of IBS with the intention of making Sunrise more 'open' to any of the major broker systems used in Australia. Sunrise was to be Internet-centric and provide a platform for underwriters to migrate their electronic insurance products to richer, web-based versions over time.

A comprehensive engagement strategy was developed, collaborating with the six underwriters participating in Sunrise, to engage brokers and get them up and running over a 12 month timeframe.

A database of approximately 1100 brokers was targeted. For the vast majority of these the take-up would require a migration from one of the earlier generation systems.

The engagement of brokers began in April 2002. Almost immediately after commencement, performance issues were discovered that severely inhibited take-up. The rollout was halted while these issues were addressed.

The issues related to legacy, non web-based insurance products where response times were inhibited by individual keystrokes being transmitted back and forth between systems. An applet was developed and deployed in June 2002 to address this until insurers could develop web-based versions of their products. By the end of June, 54 brokers were using Sunrise.

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<sup>®</sup> Sunrise Exchange is a registered trademark of Telstra Corporation.

<sup>2</sup> Practitioners can find out more about Sunrise Exchange at [www.sunriseexchange.com.au](http://www.sunriseexchange.com.au).

Limited broadband availability in some parts of Australia was also identified as a challenge in this early period. The timing of engagement for affected brokers was subsequently adapted based on when broadband was expected to become available in their area.

Telstra made continuous enhancements to Sunrise based on feedback from brokers. Enhancements included the ability to handle referral processing (the flagging of policy applications that fall outside standard insurer guidelines so that additional information may be sought to complete the transaction), the ability to process insurance renewals on a 'batch' basis and the ability for brokers to set up customised design templates for insurance documents they wished to print off for customers.

Underwriters drove enhancements too. One of these was to provide 'access control' capabilities so that they could determine more precisely which brokers had access to what functions in their electronic insurance products.

By September 2002, 151 brokers were using Sunrise. The take-up rate accelerated sharply the following month with a further 104 brokers coming on board. By the end of 2002, 386 brokers were using it.

By March 2003, 552 brokers were using Sunrise, and by the end of July, 763 brokers were using it. This marked the end of the main engagement effort. At this point it was considered that all the brokers that could be migrated off the older systems had done so.

From August 2003 to 2005 the engagement effort was reduced in intensity and the focus was switched from 'conversions' to 'new connections' (i.e. connecting new broking firms and brokers that had not previously used any electronic system). Telstra also sought to extend the number of underwriters using Sunrise.

Driven by new financial service regulations, 2004 saw a significant increase in the number of mergers and acquisitions undertaken by brokers. This produced additional data migration challenges. To accommodate them Telstra developed enhancements, released in October 2004, to assist in the combining and separation of customer account data across broking firms.

In early 2004 the first redesigned insurer product (i.e. taking full advantage of the web-based platform to provide richer interfaces and greater flexibility) was launched on Sunrise. Further releases from participating insurers followed steadily through 2005. These were very well received by brokers.

Two additional underwriters were also engaged to participate in Sunrise during 2005, bringing the total to eight.

An online quoting system was developed and piloted with a small number of brokers by November 2005. This represented a new level of transaction design by making it possible for brokers to fill out a single electronic quote request to deal with multiple participating underwriters. Telstra's future plans included more enhancements of this kind to simplify the broker experience.

Approximately 880 brokers were using Sunrise at the time this research was completed in November 2005.

## Analysis

The analysis below is structured around the themes identified in the cross-industry study that were also identified as a theme in the Sunrise case study.

### Distribution of benefits and costs

The strongest theme to emerge in this case study related to the distribution of costs and benefits between participants in Sunrise Exchange. Almost all broker respondents and all underwriter respondents made multiple references to this as a key factor in the successful engagement of brokers.

There was a widespread recognition that Sunrise delivered benefits to both underwriters and brokers, especially from the perspective of reducing administrative overheads in an industry characterised by extensive documentation and regulatory requirements.

Benefits discussed by broker respondents included reductions in clerical staff, being able to continue accepting retail and small business insurance which would have otherwise not been worth the effort, a higher level of assurance that insurance cover communicated to clients was identical to that committed by underwriters, a reduction in errors, automatic management of renewals and significantly faster turnaround times on policies for customers.

It was widely accepted by respondents that when it came to efficiency-related improvements underwriters achieved a far greater benefit relative to brokers because the data entry burden was now largely borne by the latter (transactions were entered by brokers to pass electronically into underwriter systems instead of being sent by fax or mail to be manually entered by underwriter staff). This did not inhibit engagement, however, primarily because of alterations to the financial compensation received by brokers for using Sunrise (underwriters offered more favourable commissions to brokers placing transactions through the system). The following comments from broker respondents were typical.

*The point of underwriters supporting Sunrise is that we as the broker are actually doing a lot of the work for them, a lot of the processing work...what we expect in return is perhaps increased commissions for doing that work and that is what a number of insurers do.*

*The bottom line for brokers is that we get better commission for using Sunrise. They offer us more for doing it because they don't have to have a man sitting at the other end keying it in...they would rather give us the extra commission for us to key it into their system manually.*

Another respondent described the rationale from the underwriter's perspective.

*Our pricing was a factor in stimulating take-up of Sunrise. Because we were being more cost effective we could pass the pricing back onto the brokers. It would be silly of us not to pass the benefit onto those who have chosen to do business electronically.*

Not all underwriters offered more favourable commissions and different underwriters offered different levels of incentive, but respondents repeatedly emphasised the importance of this as an enabler. A comparison of take-up of insurance products offered through Sunrise mapped against the financial incentives offered would provide a useful test of its importance, but insufficient data were gathered to make that comparison.

These findings mirror those of the cross-industry study with respect to the importance of trading partners seeing benefits and costs fairly allocated, and how adjusting the distribution of benefits to achieve this can be a powerful enabler.

Although the distribution of benefits and its importance in getting brokers engaged was a pervasive theme, few respondents discussed distribution of costs in the same way. Migration costs were often discussed and had sometimes been quite substantial, especially when broker system upgrades were factored into the equation, but an unfair cost burden did not emerge as a significant inhibitor. An exception was small brokers doing very low transaction volumes, where costs were seen to be high relative to the anticipated benefits.

## Duplicated processes

As with our cross-industry study, rationalising or avoiding duplicated process represented a very strong enabler for engaging brokers at Sunrise Exchange. There were multiple aspects to this theme.

First, when Sunrise was introduced it replaced several existing systems in the market. Although this required brokers to migrate from the older systems, the rationalisation involved also defined Sunrise as a system of choice.

A respondent described Telstra's decision this way:

*Telstra said, what we really want to do is we want to get all these old systems, which means their old system and all of our old systems of which we had three...four of them, and then create a new one.*

Second, an especially important reason for using Sunrise was eliminating the double-keying of data. The following comments were typical:

*I mean the two big things for Sunrise was eliminate re-keying and it reduces your paper.*

*For us it gives us the ability to be more cost effective in terms of minimising the amount of double entering that we had to do in the past.*

An important enabler was seen to be the extent to which Telstra successfully involved more insurers and insurance products in Sunrise, further simplifying such processes (not all Australian underwriters participated in Sunrise). Respondents made multiple references to insurance products that still had to be accessed outside the system and where data still had to be entered twice.

As a strategy to reduce or eliminate this duplication, brokers sometimes chose to work with fewer underwriters (occasionally only one) but this also reduced the range of products they could offer their customers. Brokers catering for a diverse range of insurance products had to accept at least some persisting duplication.

The importance of this was reinforced by brokers actively lobbying underwriters to work through Sunrise. Lobbying was also directed at Telstra. A Telstra respondent described the recent interest in one underwriter:

*...the brokers want to get [underwriter] on board because at the moment they have to double key into the broking system which they hate...we get a lot of questions from brokers "Are you guys talking to [underwriter]?"*

Third, for brokers that had investigated it, the introduction of a new quotation system in Sunrise, which allowed data to be entered once to solicit simultaneous quotes from multiple insurers, and later to convert the preferred quote into new business (again without re-keying) was considered a powerful step forward. Although this played no role in early take-up of Sunrise, it will extend future utilisation of the system. The following comment was typical:

*Online quoting, that is excellent! You just go in, you fill out the page...and get quotes from five companies all at once. Stuff like that is really good.*

A broker respondent that used an alternative quoting system described how adopting the Sunrise version was inevitable as more underwriters and insurance products connected to it:

*They [the other quote system] will be gone. There will be no option. Because if we can process it once...well, everybody here now has access to Sunrise.*

Brokers wanted to see more enhancements like this. Products offered by different underwriters through Sunrise retain differences in look and feel and a high value was placed on the possibility of further uniformity and rationalisation. The online quoting enhancements, and the progressive transition of products from 'DOS-screens' to 'web-based' interfaces, were seen as important steps in this direction.

Underwriters were, however, expected to be cautious about moving to more uniform products and processes as they were keen to preserve competitive differentiation on product design, and would continue to differ on many business processes (such as the questions required to be asked of customers when making risk assessments).

## Maintaining performance expectations

Respondents made frequent references to performance problems experienced with the very first rollouts and how this severely inhibited initial take-up. As soon as this issue was addressed, take-up accelerated dramatically. Data provided on the monthly tally of brokers transitioning to Sunrise confirmed the sharp slowdown and corresponding acceleration.

The system performance experienced by brokers was the combined product of the performance of Sunrise, the underwriter products represented in Sunrise, and the public telecommunications network used by brokers to access the system. To drive take-up, Sunrise had to make a significant effort to ensure each of these delivered acceptable performance. Even small on-screen delays had big consequences:

*Slow might mean only three or four seconds turnover on every screen [but] one of our products had maybe nine screens...and just those extra couple of screens meant a lot of grief.*

The effect of poor performance could also be long-lasting. One respondent described the impact of the early performance problems on a colleague.

*This one particular broker refused to have any more downtime so made the decision to no longer use any Sunrise products whatsoever. None. That is it, no more Sunrise. That was five years ago.*

At the time this research was undertaken, all other brokers in this company were using Sunrise except for this person, who still insisted on processing everything manually.

In addition to technical enhancements to Sunrise, moving brokers to broadband was an important enabler. The engagement team at Telstra instituted a tracking program to regularly check the status of broadband rollout in areas where brokers were affected, then contacted each broker as local coverage became available. Not having access to broadband was a key factor for the few brokers that had not transitioned to Sunrise.

The importance of understanding performance expectations and then meeting them was further reinforced by the case of a particular insurance product represented through Sunrise. Its poor design caused brokers to move to other, competitive products until the issues were addressed. An underwriter respondent described it this way:

*[Their product] was very, very slow, even for the screen to paint...the brokers said "we can't do this; we are going to go and use somebody else's product" so [underwriter] went off and re-engineered it and sped it right up...and the broking staff absolutely loved that application and the business is flocking back to them.*

A broker respondent mirrored these comments:

*About two years ago with [underwriter] particularly, their product was slow, there was something wrong with it...I refused to use it. They tried to push you to use it, and I said no...then they had a roll out of a new version and now I am one of their most vocal supporters because it is by far the best.*

Tied into the performance theme was the way new web-based insurance products had altered broker expectations for how insurance applications should look and feel. After experiencing the flexibility and improved navigability of these newer applications, the 'DOS-based' interfaces that had previously been acceptable were no longer good enough for many brokers. A number of references were made to an underwriter that had delayed its transition to web-based products with the consequence that brokers were choosing to place business with its competitors.

## Coercion

Most respondents made references to the importance of underwriters placing pressure on brokers to use Sunrise as an enabler and, in this way, coercion was a relatively stronger theme than in cases examined in the cross-industry study.

*[Brokers] were being told by underwriters "if you want to continue dealing with me then you are going to deal with me electronically". The underwriters had a big, big influence on this happening.*

Often, the pressure was indirect and less explicit:

*Insurers were making veiled threats as to how you would have to deal with them.*



The retirement of previous generation electronic systems was seen by some brokers as being a part of a coercive strategy.

Interestingly, however, while some broker respondents used words such as “we were left with no decision” or “we had no choice”, other comments made it clear that underwriters did not have sufficient market power to mandate use of Sunrise. Broker respondents, on the whole, felt they held at least as much if not more power over the underwriters. As one described it:

*If you have a couple of million dollars with them then they are unlikely to throw that away. Occasionally you get pressure from insurers but...we are their client at the end of the day so the power is with the broker.*

And another:

*You can tell an insurer “I am not prepared to support your product”. You do have a choice. We feel we have the power over the Insurers to govern how we do business.*

Indeed, almost as many references were made to brokers pressuring underwriters to use Sunrise (especially in more recent times) as to underwriters pressuring brokers to use it. The following comment was made by a broker respondent referring to an underwriter that did not use Sunrise.

*We put pressure on their reps every time they come here. They come in looking for business, and we say “mate you gotta go on Sunrise, what the hell is going on?”*

Almost every reference to coercion was closely accompanied by references to the important role played by financial incentives and other ‘positive’ tactics in convincing the broker to make the transition. This further reinforced the notion that underwriter pressure was one factor, but not necessarily the dominant factor, in getting brokers to use Sunrise.

### Other organisations as messengers

The preceding section highlights the important role played by underwriters in taking the Sunrise ‘message’ to brokers. Underwriters ran their own engagement campaigns in concert with Telstra’s, dedicated their own e-business coordinators to the task and worked to similarly aggressive goals for broker take-up. Brokers were continuously asked to make the transition by both Telstra and the underwriters whose products they sold.

Brokers also placed high importance on advice and information received from peers. This communication took place through formal networks, such as the ‘cluster groups’ many brokers were members of, and via informal social networks. As a broker respondent described it:

You do tend to talk and share experiences. Especially in the early days it was really good because it was such a hard system to use. You would talk to other people just to find out how they were going with it.

This was an important consideration for Telstra during the project. As one Telstra respondent described it:

*It spreads like wildfire, believe me. They talk to each other, they all know each other and it is a very closely knit community out there. And, as you know, bad press spreads faster than good press!*

The initial performance problems, for example, were rapidly and widely communicated through the broker community, immediately reducing take-up.

Telstra achieved good results by identifying and targeting ‘the talkers’ among the broker community to reassure them on progress/fixes for any issues, and also by referring reluctant brokers to selected peers that had successfully made the transition. This latter tactic was particularly useful in smaller towns and regional locations.

## Feedback mechanisms

Formal and informal feedback mechanisms were an important enabler of successful engagement. A comprehensive effort was made to collect feedback from brokers and making adjustments accordingly. A Telstra respondent summarised:

*Anybody who was unhappy or had a bad experience, the relationship managers spoke to them and actioned it. Any negative thing at all was followed up with the broker by one of our team.*

Early pilot implementations were used as an opportunity to address teething problems and helped identify performance as a critical early issue. Informal feedback was continuously collected through Telstra representatives in touch with brokers, and formal surveys were used to gather feedback from brokers immediately after implementing Sunrise, after they had used it for a period of time, and after their staff had attended training sessions.

Broker respondents frequently talked about how they had provided feedback to Telstra, or sometimes to specific underwriters, and how that feedback had found its way into the system. One described how competing brokers talked to one another about Sunrise and ‘backed each other up’ by making sure to provide consistent feedback on the issues that affected all of them.

Telstra respondents frequently mentioned adaptations and adjustments to both its engagement strategy and the system that directly resulted from feedback. The training feedback questionnaire alone, for example, directly led to the development of troubleshooting documentation, quick reference guides and enhancements to Sunrise.

The feedback process was characterised by a commitment to transparency and continuous communication back to brokers, extending to frequent liaison with underwriters and the software companies selling broking systems. An underwriter respondent was particularly impressed by this:

*They became more transparent with the service being achieved...they sat down with the broking groups and the underwriters and transparently announced the results of those satisfaction surveys— this was unheard of at the time.*

## Segmenting the engagement strategy

As with many cases in the cross-industry study, Telstra found it useful to pursue different tactics, timing and prioritisation for different groups of its targeted trading partners.

Brokers selected for early engagement, for example, were smaller sized organisations to ensure transitions were more manageable while lessons were being learned. Also in this group were brokers that already had a stronger relationship with the Telstra team and those that had specifically registered a desire to transition to Sunrise straight away.

Later, preference was given to larger brokers over their very small counterparts because this was where the business case was most attractive.

Variations in tactics and/or timing were also developed for brokers identified as not having access to broadband, brokers requiring ‘double conversions’ (a major upgrade/change to their broking system was required before they could connect to Sunrise) and brokers that did not have a compliant broking system or had no system at all. A product variation called Sunrise Exchange Executive was developed specifically to help engage members of this last group.

## Prepackaging

Sunrise stands out for the extensive efforts made to prepackage aspects of the implementation process. Telstra developed comprehensive procedures for data preparation, network setup, system conversions and testing. For each and every broker, Telstra staff worked to a timetable for weeks leading up to the date fixed for migration.

Relevant underwriters were involved early, and as much preparation as possible was undertaken before the migration day. Because different broker systems were used in the industry, programs were written to automate the data extraction process for each so that transactional information could be pre-loaded into Sunrise.

All of this played an important enabling role by reducing pain and disruption in the migration experience and ensuring brokers were up and running with their day to day business as quickly as possible. It also helped Telstra to sustain the pace and momentum of the engagement program within its own organisation. A Telstra respondent described the results achieved for both Telstra and the brokers.

*We had it as automated as we could...we could have five or even six migrations running in a day. Probably 95 per cent or maybe more conversions actually finished the same day and some of the smaller brokers would have been over and done with within two hours.*

### Implementation assistance and technical support

Extensive implementation assistance and technical support was provided to brokers during the engagement process.

This was largely provided over the telephone via a support desk. Electronic channels were also important, with guides, training materials and utilities e-mailed out to brokers and, more recently, made available for download via the web.

Telstra created a team specifically to help with networking issues and setting up the virtual private networks (VPNs) necessary for brokers to use Sunrise. This was expanded when a third party consultancy was contracted to provide additional technical support. This was seen as important to ensure deeper technical capabilities were available to brokers if required (including the provision of networking hardware where necessary) and to ensure that Telstra's e-business team did not create long term commitments in services that lay outside its core business.

In some cases brokers needed to be on the latest version of a broker system to work with Sunrise and Telstra played a technical liaison role with broker system providers to track availability and incorporate those upgrades into its engagement plans, in much the same way as broadband rollouts were monitored and rural brokers contacted as it became available.

Broker respondents made only a few references to technical assistance as an enabler (this was possibly influenced by our sample, which did not include IT managers where value of technical support would have been most visible). Many general references were, however, made to the technical challenge of making the transition to Sunrise, and it is evident that extensive use was made of the technical support provided by Telstra. Had it not been available, take-up would have been severely inhibited.

### Training

Training was seen to be an important enabler by several Telstra respondents, although broker respondents did not mention training as a take-up factor.

A conscious effort was made to incorporate training into the engagement program, and to run training for broker personnel before they made the transition to Sunrise. In addition to the provision of onsite training courses, quick reference guides were created and training materials were developed to be emailed to brokers for self-learning. Telstra promoted its training very actively, following up attendees to offer further assistance just before migration to Sunrise, and registering broker contacts for the receipt of training updates in future.

Although brokers only attended training after the decision had been taken to use Sunrise, it played at least a minor role as an enabler in the initial take-up decision: training helped produce better experiences for early adopters which would have then been passed on to others in the manner described in 'Other organisations as messengers' on page 66.

Training materials also played an important role in the ongoing take-up and routinisation of Sunrise within brokers that already adopted it. Materials were used continuously to get new personnel up to speed. A Telstra respondent described the ongoing need:

*We get phone calls all the time for re-training. Some of them just require us to send the documentation, some enquire about having someone come out on site...basically changeover of staff is driving it. There is a really high turnover of staff in the industry.*

Although training was a minor theme relative to other enablers at Sunrise, it had a more important enabling role in this case compared to the cases examined in the cross-industry study.

## Targeting the right people

Targeting specific people or job roles within brokers to maximise the chances of engaging them was a minor theme.

Respondents from Telstra, underwriters and brokers pointed out that 'old hands' that had been in insurance a very long time were the least receptive to Sunrise, and typically resistant to technological change in general. The following comments, the first from a Telstra respondent and the second from a broker respondent, were typical:

*The hardest guys to bring on board were the principals that had been in the insurance business for over 30 years.*

*A lot of the older generation insurance brokers don't even know how to turn a computer on.*

For one broker that had not adopted Sunrise, this had been the primary barrier. A respondent there described how the recent departure of the 'old hand' in question, and subsequent handover to a younger manager, meant an immediate policy change with plans to adopt Sunrise as soon as practicable.

An underwriter respondent described a similar situation at another broker:

*As soon as that gentleman left there was a complete change of attitude...they are obviously going "well what in the heck are we double keying for?"...so one person in a brokerage can make such a difference.*

One underwriter successfully developed tactics to target the most receptive people within brokerages. Once these people were on board, other staff in the broker would see the advantages of the system and be won over more quickly.

*If they had younger employees within their group, they were the guys we tended to target [and] we focused on the data entry guys because they were the guys who had to do it day in and day out... the principal has ownership of the brokerage but it is his data entry people that actually do the business. If you focus on making their life easier then you can get the business.*

## Conclusions

Sunrise stands out for the sheer scale and comprehensive nature of the engagement effort, far larger than for any other system examined in the course of this research.

The results speak for themselves. Telstra, with the assistance of insurance companies, successfully engaged the majority of Australian insurance brokers to adopt the system, and Sunrise represents an e-business initiative that has transformed procedures across an entire industry sector.

Of the themes identified in the cross-industry study, fair distribution of benefits and costs, reducing process duplication, maintaining performance expectations and coercive pressure from underwriters were most strongly reinforced by the Sunrise case study.

Using other organisations as messengers, segmenting the engagement strategy, prepackaging aspects of the engagement and migration process, implementation assistance and technical support were also prominent enablers. Training and targeting the right people were minor themes.

Many of the other themes identified in the cross-industry study were present to at least some degree. Subsidisation, for example, was occasionally employed as a tactic by underwriters (offering to pay Sunrise licence fees for a period) as a way to get specific brokers 'across the line'. Tying in with the 'support at home' theme was the very strong commitment from senior executives at Telstra. This commitment was present from the beginning of the project and demonstrated repeatedly in the steps taken to address problems, adapt the engagement strategy and modify the Sunrise product.

Beyond these themes, the following additional conclusions may be drawn about enablers at Sunrise Exchange.

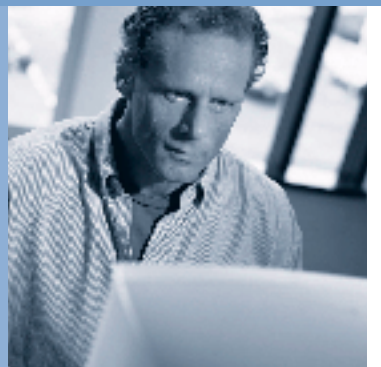
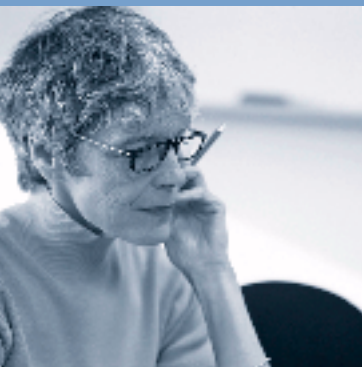
Engaging brokers was undertaken as a major project in its own right. The strategy embodied a very extensive and long term communications effort to promote the benefits of Sunrise both directly and indirectly, and it covered everything from data migration and technical assistance through to training and post implementation follow-ups.

The project incorporated fixed deadlines that were aggressively pursued by Telstra management. The focus on deadlines was mirrored by the executive management of participating underwriters, and extended all the way down to target migration dates generated for each and every broker engaged.

The establishment of Sunrise as a dominant electronic transaction service in Australian insurance was important. Although other electronic systems were developed by individual underwriters to transact with brokers, the absence of competitive systems attempting to directly duplicate the capabilities of Sunrise helped simplify the take-up decision for brokers.

# 9

## Appendix





## 9 Appendix

### Other research

#### Relevant literature

Extensive treatment of factors impacting the adoption of simple forms of e-business can be found in the literature, providing further clues about potential enablers in the interorganisational e-business context.

Scholars attempted to tackle the issue of engaging trading partners in electronic data interchange (EDI) systems, precursors to today's e-business systems, in the early 1990s (Bouchard 1993; Saunders & Clark 1992; Swatman & Swatman 1991). The relative difficulty of engaging small business trading partners in EDI was also recognised and singled out for specific research (Chau 2001; Iacovou, Benbasat & Dexter 1995).

Perceived benefits, organisational readiness, and external pressure have frequently been cited as factors impacting take-up of both EDI and e-commerce (Iacovou et al 1995; Ihlström & Nilsson 2003; Mehrtens, Cragg & Mills 2001; Scupola 2002; Sensis 2004; Telstra 2003). Chau (2001) researched the case of adoption inhibitors by small business and found the three most significant inhibitors all related to the degree of organisational readiness, and that actual and perceived 'ability to adopt' is more important than 'benefits of adoption' as a factor. He concluded that lack of knowledge, skills and organisational resources are overarching reasons why small businesses were not adopting EDI. Wong & Turner (2001) found the most important drivers of B2B adoption came from the external business environment, such as business partner encouragement, financial institution activities and competitive pressures.

Previous research by the author provides additional evidence of the importance of addressing process duplication when recruiting trading partners to e-business systems (McCabe, 2002a) and highlights technical integration with trading partner systems as a critical issue (McCabe 2003). Scholars such as Al-Naeem, Rabhi, Benatallah & Ray (2005) have proposed frameworks to help practitioners navigate many alternative approaches, models, standards and protocols in B2B integration.

Scupola (2002) found fear of putting a product portfolio on the internet and the risk of having it exposed to competitors to be a major barrier to the adoption of business-to-business e-commerce. This is supported by survey data revealing security issues to be the strongest concerns among small and medium sized business owners considering e-business (Sensis 2004; Telstra 2003). 'Lack of time' has been identified as a strong factor for not taking up e-commerce, after the combination of 'lack of knowledge' and 'lack of staff with IT skills' factors (Stansfield & Grant 2003).

Recent data showing 84 per cent of Australian businesses receiving orders via the Internet or web have no automated links between those systems used to receive orders and other business systems, such as accounting or logistics packages (Australian Bureau of Statistics 2004), suggests that the level of internal systems integration may be an important factor.

Contradictory findings exist with respect to the importance of cost as a factor. In some studies (Telstra 2003) it is cited as a strong factor while in others it is identified as a smaller factor (Australian Bureau of Statistics 2004) or not a significant factor at all (Scupola 2002).

Despite the large quantity of empirical research, deep insights into the nature of e-business systems are elusive. The global acceleration in new e-business projects across every industry sector tells us that such insights are more important than ever and scholars have called for more research to be undertaken along organisational and supply chain dimensions (Grieger 2003; Gunasekaran, Sarkis, Sundarraj & Burn 2004).



A weakness of much of the existing literature is that it concentrates on relatively simple Internet adoption by businesses (getting connected to the Internet, building a company website). Furthermore, studies that concentrate on buying and selling online (e-commerce) rarely make a distinction between whether e-commerce is conducted through integrated systems or via manual purchases from websites using a credit card. Factors important to the latter form of e-commerce may be vastly different from the factors important to engaging in e-business through interorganisational systems.

A reasonably extensive body of literature examines the subject of interorganisational systems using a variety of theoretical perspectives, but very little deals with the specific context of interorganisational e-business systems and none has so far been identified by the author that directly tackles the problem of identifying enablers for the successful engagement of participants in such systems.

Institutional theory has been applied, for example, to look at how organisations must orchestrate the interdependencies between technologies-in-use, organizational structures, processes, and incentive and reward systems for the successful assimilation of web technologies (Chatterjee, Grewal & Sambamurthy 2002) and to examine the role of coercive, mimetic and normative pressures in influencing adoption of interorganisational systems (Teo, Wei, & Benbasat 2003).

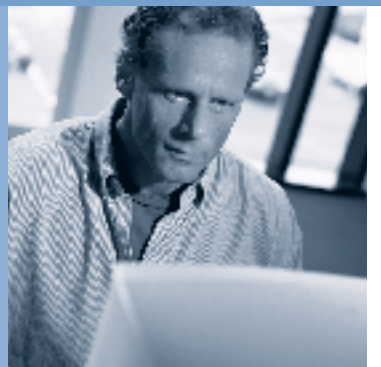
Resource dependence theory has been used to examine decision-making in inter-firm networks as a political-process (Elg & Johansson 1997) using the case study of a computer based system for organisations in the Swedish food industry. Electronic networks and virtual organisations in several industries have been examined from the perspective of the role played by interpersonal relationships (Kraut, Steinfeld, Chan, Butler & Hoag 1999) and scholars have studied the interplay between organisational change and more general forms of computer-mediated communications (Pickering & King 1995).

Interorganisational systems have also been examined from the perspective of trust, in the context of telecommunications supply chains (Ibbott & O'Keefe 2004), from the perspective of managing cooperation and conflict between organisations (Kumar & van Dissel 1996) and from the perspective of the priorities and power of individual actors in organisations (Finnegan, Galliers & Powell 2003).

Closer to the context of our study, Li and Williams (1999) undertook six case studies of interfirm networks in the Scottish electronics industry, Munkvold (1998) conducted longitudinal studies of two systems where collaborative technology was being implemented between small and medium-sized businesses, and Subramani (2003) studied the distribution of benefits in a supply-chain system between a large Canadian retailer and its suppliers.

Innovation diffusion theory (Rogers 1983) has been widely used to examine how technologies in general are communicated and taken up through communities, including the case of take-up of e-commerce (eg Kendall, Tung, Chua, Ng & Tan 2001). The emphasis on extended social networks, communications channels and change agents makes it potentially relevant for e-business systems featuring large numbers of trading partners and complex and diffuse communication channels between them, but ill-suited to systems spanning only a few organisations.

## References and further reading





## References and further reading

- Al-Naeem, T, Rabhi, FA, Benatallah, B & Ray, PK 2005, 'Systematic Approaches for Designing B2B Applications', *International Journal of Electronic Commerce*, vol. 9, no. 2, pp. 41-70.
- Australian Bureau of Statistics 2004, *Business Use of Information Technology 2002–2003* 8129.0, Canberra.
- Bastos, P 2001, 'Inter-firm collaboration and learning: The case of the Japanese automobile industry', *Asia Pacific Journal of Management*, vol. 18, no. 4, pp. 423-440.
- Bouchard, L 1993, 'Decision Criteria in the Adoption of EDI', *Proceedings of the Thirteenth International Conference on Information Systems*, Orlando, Florida, pp. 365-376.
- Chatterjee, D, Grewal, R & Sambamurthy, V 2002, 'Shaping Up For E-Commerce: Institutional Enablers of The Organizational Assimilation of Web Technologies', *MIS Quarterly*, vol. 26, no. 2, pp. 65-89.
- Chau, P 2001, 'Inhibitors to EDI Adoption in Small Businesses: An Empirical Investigation', *Journal of Electronic Commerce Research*, vol. 2, no. 3, pp. 78-88.
- Department of Communications, Information Technology and the Arts 2004, *From Paper to Procurement: Effective Catalogue Creation and Management for Engaging Buyers and Suppliers*, Canberra.
- Department of Communications, Information Technology and the Arts 2005a, *Collaborative B2B for SMEs in the Mining Industry*, Canberra.
- Department of Communications, Information Technology and the Arts 2005b, *Estimating Aggregate Productivity Growth for Australia, the Role of Information and Communications Technology*, Canberra.
- Department of Communications, Information Technology and the Arts 2005c, *Productivity Growth in Service Industries*, Canberra.
- Department of Communications, Information Technology and the Arts 2006, *Forecasting Productivity Growth: 2004 to 2024*, Canberra.
- Elg, U & Johansson, U 1997, 'Decision Making in Inter-firm Networks as a Political Process', *Organization Studies*, vol. 18, no. 3, pp. 361-384.
- Finnegan, P, Galliers, R & Powell, P 2003, 'Applying triple loop learning to planning electronic trading systems', *Information Technology & People*, vol. 16, no. 4, pp. 461-83.
- Gregor, S, Fernandez, W, Holtham, D, Martin, M, Stern, S, Vitale, M & Pratt, G 2004, *Achieving Value from ICT: Key Management Strategies*, Department of Communications, Information Technology and the Arts, Canberra.
- Grieger, M 2003, 'Electronic marketplaces: A literature review and a call for supply chain management research', *European Journal of Operational Research*, no. 144, pp. 280-294.
- Gunasekaran, A, Sarkis, J, Sundarraj, R & Burn, J 2004, 'E-commerce enabled manufacturing operations: issues and analysis', *Information Systems Journal*, vol. 14, pp. 87-91.
- Iacovou, C, Benbasat, I & Dexter, A 1995, 'Electronic Data Interchange and Small Organizations: Adoption and Impact of Technology', *MIS Quarterly*, no. December 1995, pp. 465-485.
- Ibbott, CJ & O'Keefe, RM 2004, 'Trust, planning and benefits in a global interorganizational system', *Information Systems Journal*, vol. 14, pp. 131-152.
- Ihlström, C & Nilsson, M 2003, 'SMEs adopting eBusiness - prerequisites and attitudes of SMEs in a Swedish network', *Journal of Organizational Computing and Electronic Commerce*, vol. 13, no. 3, pp. 211-223.
- Kendall, J, Tung, L, Chua, K, Ng, C & Tan, S 2001, 'Electronic commerce adoption by SMEs in Singapore', *Proceedings of the 34th Annual Hawaii International Conference on System Sciences*, Hawaii.
- Kraut, R, Steinfeld, C, Chan, AP, Butler, B & Hoag, A 1999, 'Coordination and Virtualization: The Role of Electronic Networks and Personal Relationships', *Organization Science*, vol. 10, no. 6, pp. 722-740.

- Kumar, K & van Dissel, H 1996, 'Sustainable Collaboration: Managing Conflict and Cooperation in Interorganizational Systems', *MIS Quarterly*, September 1996, pp. 279-300.
- Li, F & Williams, H 1999, 'Interfirm collaboration through interfirm networks', *Information Systems Journal*, vol. 9, pp. 103-115.
- McCabe, B 2002a. *Supplier Enablement in Australia: Projects Using Smart Supplier*, S2 Intelligence Pty Ltd. Sydney.
- McCabe, B 2002b. *Critical Success Factors for Indirect-Supply Intermediaries*, S2 Intelligence Pty Ltd. Sydney.
- McCabe, B 2002c. *E-Business Engagement of Suppliers Revisited*, S2 Intelligence Pty Ltd. Sydney.
- McCabe, B 2003a, *Supplier Relationship Management in Australia & New Zealand*, S2 Intelligence Pty Ltd, Sydney.
- Mehrtens, J, Cragg, PB & Mills, AM 2001, 'A Model of Internet Adoption by SMEs', *Information & Management*, vol. 39, no. 3, pp. 165-176.
- Munkvold, BE 1998, 'Adoption and diffusion of collaborative technology in interorganizational networks', *System Sciences, 1998, Proceedings of the Thirty-First Hawaii International Conference on*, vol. 1, pp. 424-433.
- National Office for the Information Economy 2003a, *Berri Limited—A Supply Chain Case Study*, Canberra.
- National Office for the Information Economy 2003b, *Visy Industries—A Supply Chain Case Study*, Canberra.
- National Office for the Information Economy 2003c, *Komatsu Australia—A Supply Chain Case Study*, Canberra.
- Ovum 2003, *Productivity and Organisational Transformation: Optimising Investment in ICT*, Department of Communications, Information Technology and the Arts, Canberra.
- Pickering, JM & King, JL 1995, 'Hardwiring Weak Ties: Interorganizational Computer-mediated Communication, Occupational Communities, and Organizational Change', *Organization Science*, vol. 6, no. 4, pp. 479-486.
- Rogers, EM 1983, *Diffusion of innovations*, 3rd edn, Free Press, New York.
- Saunders, C & Clark, S 1992, 'EDI Adoption and Implementation: A Focus on Interorganizational Linkages', *Information Resources Management Journal*, vol. 5, no. 1, pp. 9-19.
- Scupola, A 2002, 'Adoption Issues of Business-to-Business Internet Commerce in European SMEs', *Proceedings of the 35th Hawaii International Conference on System Sciences*, IEEE Computer Society, Hawaii.
- Sensis 2004, *Sensis e-Business Report: The Online Experience of Small and Medium Enterprises*, Sensis Pty Ltd.
- Stansfield, M & Grant, K 2003, 'An investigation into issues influencing the use of the internet and electronic commerce among small-medium sized enterprises', *Journal of Electronic Commerce Research*, vol. 4, no. 1, pp. 15-33.
- Subramani, MR 2003, 'How Do Suppliers Benefit From IT Use in Supply Chain Relationships?' *MIS Quarterly*, vol. 28, no. 1, p. 45.
- Swatman, PMC & Swatman, PA 1991, 'Electronic Data Interchange: Organisational Opportunity, Not Technical problem', *Databases in the 1990's*, eds B Srinivasan & J Zeleznikow, World Scientific Press, Singapore, pp. 354-374.
- Telstra 2003, *2003 Yellow Pages E-Business Report: The Online Experience of Small and Medium Enterprises*, Telstra Corporation Limited.
- Teo, H, Wei, K & Benbasat, I 2003, 'Predicting Intention to Adopt Interorganizational Linkages: An Institutional Perspective', *MIS Quarterly*, vol. 27, no. 1, pp. 19-49.
- Tyre, M and Orlikowski, W 1994, 'Windows of Opportunity: Temporal Patterns of Technological Adaptation in Organizations', *Organization Science*, vol. 5, no. 1, pp. 98-118.
- Wong, M & Turner, P 2001, 'An Investigation of Drivers/Activators for the Adoption and utilisation of B2B Electronic Commerce amongst Small to Medium Sized Suppliers to the Tasmanian Pyrethrum Industry', *3rd Information Technology in Regional Areas Conference*, Rockhampton, Qld.

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