

Title:

“Towards a Model of Transformation: Manager’s Perceptions of Transformation in an ebusiness Environment”

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‘Place to ‘Space’ transformation, transformation models, transformation process, electronic business, electronic business enablement, electronic business transformation, marketing channel innovation

Audience: Academics/Managers/Consultants

Abstract

In the Entrepreneurial Millennium, companies and industries must come to terms with change. When change is radical, they must manage a metamorphosis by way of transformation. Here industry structures and relationships may change radically where new rules and guidelines are needed to manage the business and its customers in the transformed dimension. Some studies have conducted research and analysed findings according to the transformational impact on the organisations showing that early adopters of ebusiness show a trend towards cost reductions and administrative efficiencies while more mature users focus on strategic level change and advantage (Ash and Burn 2003). Other researchers have studied the challenges that major organisations have encountered while expanding their ebusiness transformation strategy (Ranganathan, Shetty and Muthukumaran 2004).

Managers therefore need to develop a better understanding of the theory and processes associated with transformation in an ebusiness context. This paper reviews the findings of field research and uses it as a basis to propose a new model of transformation which may guide future research and lead to a better understanding of what is involved in the process.

Background

An earlier study of our research group (MSAT 1997) probed the dimensions of perceived transformation of senior managers. From this research, components of the transformation process were identified in the form of triggers, change enablers, drivers, inhibitors and outcomes. Using these components, a model was developed in an attempt to conceptualise the dynamics of transformation (See Figure1). As one of the catalysts of the transformation process was perceived to be information technology and telecommunications, the transformation model in Figure 1 was used as a guiding framework to design this most recent exploratory research into the perceived impact of electronic business on certain organisations and industries.

The term transformation has been used liberally in recent times to generally describe the nature of change occurring both within organisations and collectively, at an industry level.

Interest in the subject of transformation has intensified with the explosive interest in the Internet and electronic business generally. A better understanding of the processes and dimensions of transformation could assist managers in coping with the considerable changes which will take place in moving the traditional bricks and mortar business, into the emerging electronic cyberspace. Indeed, it has been suggested that the time is ripe to study how electronic technologies and the ebusiness approach have affected the organisation and how organisation have reacted to such technologies (Gale and Abraham 2005).

Although the term '*transformation*' is frequently cited in the literature, there have been few attempts to develop theory around the concept. Our earlier field research among managers showed that there was considerable confusion surrounding the process and consequences of transformation (MSAT 1997). New theory would lead to a better understanding of the process of transformation and guide future research efforts. It may also be useful in prescriptive terms as managers are forced to come to terms with the impact of industry transformation.

A generic definition of transformation is, '*the change in form or appearance or condition or function etc, of esp. considerably*' (Oxford Dictionary 1993). Hence transformation would need to be observable, and the results measurable in order to understand the degree and rate of change over time. Some researchers have developed frameworks incorporating steps or stages of transformation (Venkatraman 1995, Nolan and Croson 1995, Gouillart and Kelly 1995, Kilmann 1995, Pascale/Goss/Athos 1993).

Transformation may be perceived from an industry or an organisational level. It may also be perceived by other external stakeholders such as customers of organisations of firms in an industry. How a customer sees transformation of an industry or organisation will be fundamental to an organisations future status and progress.

At the organisation level transformation has been described as '*a fundamental change in how all employees perceive, think and behave so that they satisfy the diverse needs of all key stakeholders for an extended period*' (Kilmann 1995). Product and market

transformation has been described as the first critical dimension of creating E-economy value (Hartman and Sifonis 2000, p149).

Other researcher's defined transformation as process ' *the sequence of events attending the shift between cohort sets of management principles, technologies and organisation* ' (Nolan and Croson 1995).

At the industry level transformation is seen to take place according to defined criteria, ' *a company must; 1) change in some fundamental way the rules of engagement in a long-standing industry, 2) redraw the boundaries between industries, and /or, 3) create entirely new industries. The point is that the organisational transformation agenda must be driven by a point of view about the industry transformation agenda* ' (Hamel and Prahalad 1994).

It has been suggested that developments in electronic business have been driving organisational and industry transformation (Papows 1999). Transformation is predicted to most likely occur in seven areas;

1. *On-line delivery of products and services*
2. *Industry convergence*
3. *Value chain extraction- functions performed by other industries*
4. *Value chain insertion- including functions to facilitate electronic business*
5. *Changing industry concentration*
6. *Product transformation*
7. *Changes to the geographical mix*

The transformation phenomena was seen to be of particular interest in observing the changes occurring for organisations and industries moving from conventional ' *place* ' operations, into the emerging electronic channels such as the Internet, also known as ' *space* ' (Rayport and Sviokla, 1994). E-transformation has been defined at the company level as a company that has implemented a combination of aggressive deployment of ebusiness enablers and decapitalised itself of asset intensive, low margin, value destroying businesses and supply chain components (Praisie 2001).

E-business Transformation

Changes in the status quo brought about by developments in ebusiness have impacted on industries, firms and functions. These changes are often so substantial as to be perceived as transformational. For example at the industry level, banks have made a surge in the use of electronic supply chain activities such as vendor evaluation, procurement and logistics (Robertson 2002). In the chemical industry, ebusiness is having a big impact on the way business is being conducted so that new business models are emerging that could change business structures and redefine value chains (Bartels 2001). Some research shows the increased uptake of EB across supply chains leading to improved information sharing and visibility (Barlow and Feng 2007).

Convincing arguments have been made to suggest that successful electronic transformation represents the greatest value creation potential for the petroleum industry (Paisie 2001). The US Defence Department is reviewing several organisational, role and mission options that will emphasise ebusiness and accelerate the transformation of the Department's business processes (Lawlor 2002). The media industry see ebusiness applications for rich media management including content indexing and security, digital rights management, content transformation and delivery (Boeri 2002).

Functions across industries are also being impacted by ebusiness developments. For example ebusiness transformation in financial management of organisations is taking place as it connects all the parties involved in the process, enables information sharing and facilitates structured and controlled interactions through proper channels, connectivity, electronic information and workflow (Gundavelli 2002). Contrary to popular belief, one comprehensive study of 3100 businesses in eight European countries found that firms operating in high intensity countries tend to be more cautious in adopting EB (Zhu, Kraemer and Xu 2003).

Managers and Transformation

An original research project was undertaken by the MSAT Group at the University of Technology, Sydney (MSAT 1997). This Group of academic's research interests lies in the impact of electronic business developments on business and marketing strategy.

Specific objectives of this research were;

- A) To identify the characteristics of transformation from the perspective of senior managers
- B) To identify the causes, inhibitors and stages of transformation as perceived by senior managers

The research approach used in this original research included qualitative and quantitative methodologies in two phases. In an attempt to find out more about issues and perceptions of transformation, a first qualitative phase consisting of two group discussions was held with Sydney based senior managers from a broad range of industries including telecommunications, health care, banking, manufacturing, advertising, electronics, printing, airlines and transportation. There were a total of twelve managers at CEO or direct report level (chief operating officer, marketing director, chief financial officer etc) attending the two evening group discussion that were held in a Sydney city hotel. Qualitative research was chosen in the first instance as it is recommended where the key issues are not understood and need to be uncovered before any meaningful questionnaires can be prepared in the quantitative research phase (Hair, Lukas and Miller 2008, p12). Participants were selected from a response to a request to chief executive officers in leading companies that were operating in Australia. Senior managers were chosen because of their first hand knowledge of major change initiatives taking place both within their industries and within their own companies. Both group discussion attendees were asked about the nature and implication of key developments and changes that were likely to impact on their organisations in the foreseeable future. This line of enquiry was chosen in an attempt to gain senior manager's understanding of major change areas, potential triggers and perceptions of transformation. Future research initiatives may probe the opinions from other management levels in an attempt to better understand transformational change from another perspective.

From these group discussions, senior manager's perceptions of transformation included the following respondent definitions;

- *‘Transformation means- substantially changed both internally and externally’
- *‘A zone paradigm shift’
- *‘Industry convergence is a form of industry transformation as businesses get closer across industry boundaries and form new industries’
- *‘Complete transformation is where you don’t recognise the organisation or industry’
- *‘If you don’t see the cocoon, then you may not realise that it has turned into a butterfly’
- *‘Who decides whether transformation has taken place – customers or the organisation?’

The senior management focus groups identified key transformation issues which were used as the basis for planning a quantitative phase consisting of a survey mailed to the CEO’s of the largest 1000 Australian companies. This list was chosen because of access to the knowledge of the most senior person of the largest companies regarding major changes impacting upon their own companies and the industry group to which they belonged. This non probability sampling method is recommended where the research findings are focused on the sample and the research objectives do not include the need to generalise results (Hair, Lukas and Miller 2008, p 162). A questionnaire was mailed to their business address. From the response base of 111 CEO’s (11% response rate) respondents identified the significant catalysts or triggers of industry transformation. These were perceived to be the most significant factors initiating the transformation process;

<i>Catalyst/Trigger</i>	<i>Percent of respondents</i>
Industry competition	78%
Customers	77%
Globalisation	67%
Information Technology, telecommunications	66%
The economy	65%

Respondents also reflected on the degree of industry transformation that had taken place;

- 62% defined their industry differently over a six year time span
- 48% attempted a different definition of their industries forward to the future
- 64% of those indicating change over a six year period attempted to redefine their industry for the future
- 83% of respondents indicated a medium to significant change when asked to define the degree or level of transformation that had occurred in their industry

The research demonstrated the significance of customers in the transformation process. A total of 48% of respondents felt that customers had significantly changed or completely transformed in terms of type and characteristics, and 77% indicated that customers were a significant to highly significant trigger or cause of industry transformation

The link between industry and organisational change has been observed to be critical as the rate and direction of change towards transformation of an organisation should be driven from an industry perspective (Hamel and Prahalad 1994). Others have seen that firms are able to move forward successfully by setting the pace of innovation in their industries (Tushman and O'Reilly 1997).

Towards a model of Transformation

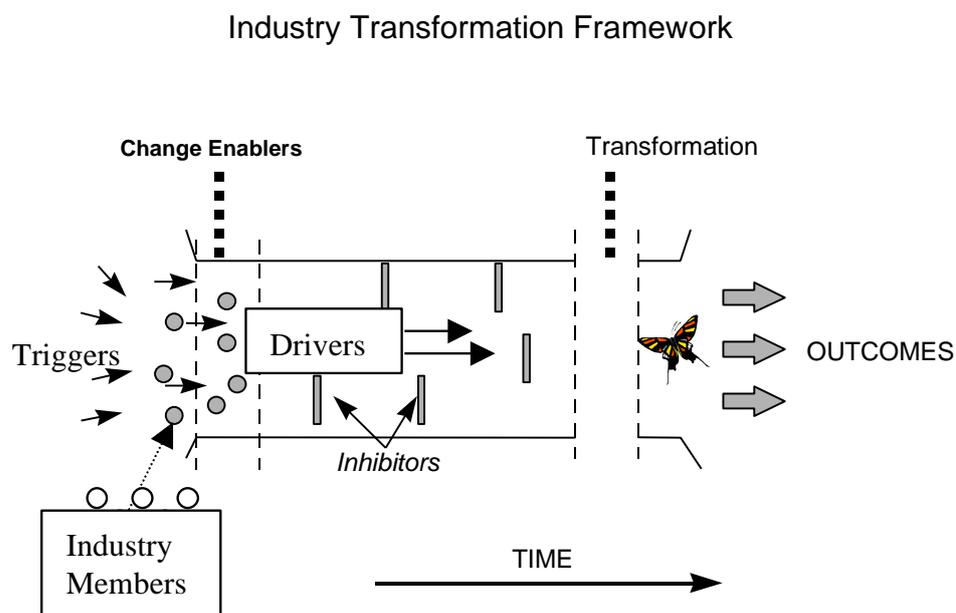
Transformation is not restricted to high technology industries although the rate of change was perceived to be much faster in those industries where electronic business changes are having considerable impact. These include; telecommunications, finance, banking, computers and software.

Insights provided by this phase one research (MSAT 1997) prompted the preparation of a tentative generic model of industry transformation as shown in Figure 1. This attempts to embrace the fundamental elements of the transformation process as perceived by senior managers in the phase one research. The process begins with catalysts or *triggers* which cause a cycle of change to begin. This process needs to have change *enablers* in place which allow the process to continue eg enabling legislation, sufficient funding, shareholder support etc. *Drivers* or driving forces will

continue to drive the process. These may be internal or external to the organisation eg competitive forces, need to reduce operating costs, customer demands etc. During the change cycle sequence there may be a number of *inhibitors* that may impede the process or the rate at which transformation continues.

The process of change may continue to the point at which metamorphosis occurs with complete transformation whereby a new entity is created, *'If you don't see the cocoon, then you may not realise it has turned into a butterfly'* (phase one research group discussion respondent). As transformation has occurred, there will be certain *outcomes* which impact upon industry stakeholders. These could include mergers, acquisitions, rationalisation, restructuring etc.

Figure 1; Tentative Industry Transformation Model



Phase Two Research Project

A new research project was undertaken by the Marketing Strategy and Technology Group at UTS, Sydney. The research was industry funded with the objective of seeking the opinions of senior managers in a selection of Australian based

organisations regarding issues that could have considerable potential impact and possible transformation arising from developments associated with electronic business (EB) and electronic commerce (EC). Electronic commerce has been defined as; “technology-mediated exchanges between parties (individual or organisations) as well as the electronically based intra- or interorganisational activities that facilitate such exchanges’ (Rayport and Jaworski 2002, p4). Electronic business is usually referred to as the digital enablement of transactions and processes within a firm involving information systems under the control of the firm (Laudon and Traver 2002, p7).

Two industry groups were chosen on the basis of their potential susceptibility and exposure to changes brought about by EB and EC developments. The first sampling frame was the telecommunication industry (companies are referred to as Telcos). Organisations in this industry are closely involved with providing the infrastructure, network and platform applications necessary for EB and EC to operate and expand. These managers are consequently aware of the current and critical issues fundamental to future growth and change. They also have insights into the change issues that managers face in other organisations and industry groups, which are likely to be affected by the introduction of electronic business approaches.

The second sampling frame included two large organisations in the banking industry. Retail banking services were chosen as they have the potential to be transformed away from the traditional bricks and mortar branch network to a virtual or electronic based service for banking customers.

Respondents in the phase one research identified ‘Information Technology and Telecommunications’ as being one of the significant catalysts or triggers of industry transformation. These technologies are critical to the architecture and dynamics of electronic business. Developments in electronic business have also shown that they have the potential to make considerable impact on how business is transacted and processed. Individual organisation interrelationships may also be affected thus impacting on the structure and dynamics of an industry. For these reasons the Transformation model shown in Figure 1 was used as a basis to structure this research project.

Research Methodology

As the phase two research objective was to uncover manager's perceptions of issues relating to developments in electronic business potentially leading to transformation, qualitative research methodology was used. Qualitative research was chosen in the first instance as it is recommended where the key issues are not understood and need to be uncovered (Hair, Lukas and Miller 2008, p12). The research approach was through semi-structured in-depth interviews of about one hour duration. Senior managers in the selected companies were chosen on the basis of their high level knowledge of the likely effect of EB and EC on their functional responsibilities. One or two researchers present at each interview gathered data via note taking and audio recording of the interview. Data analysis was undertaken using the software program NUDIST Power version, revision 4.0.

The phase two research included 16 in-depth senior management interviews in 5 telecommunication related organisations, including the largest operators in Australia, Telstra and Optus, and in New Zealand; Clear, Telecom NZ, EFSPOS. On the user side, 10 in-depth interviews were conducted in the two largest Australian banks (Westpac and NAB).

Interview prompt questions were created to probe opinions of the impact of electronic business developments on organisations and the industries they were associated with. This paper reviews the responses to key questions probed during the in-depth interviews.

Effects of EB on the Organisation

Two specific questions were asked on this topic. Open responses were noted and recorded.

“What are the effects of EB on your organisation?”, and

“What other comments do you have on EB and how it relates to your organisation?”

Rationale for probing this topic was to better understand manager's perceptions in the following areas;

- How developments in EB are affecting the structure and dynamics of an

organisation

- Identification of important issues which impact on the efficiency and effectiveness of an organisation
- Identify different approaches to actioning EB direction
- To contrast different opinions of the how EB is impacting on organisations

Consolidated Responses; Telecommunication companies and Banks:

<i>Issue mentioned by respondent</i>	<i>Response Pattern</i>
Market pressures are forcing EB adoption	11 out of 26 interviewees
EB as a new way of doing business	12 out of 26 interviewees
New Processes are needed to manage EB	11 out of 26 interviewees
Levels of success in implementing EB	6 out of 26 interviewees
Staff capabilities for EB	7 out of 26 interviewees
Speed to market through EB	4 out of 26 interviewees
Cost Reduction/profit/revenue from EB	3 out of 26 interviewees
Customer impact	3 out of 26 interviewees

Researchers Comments and Observations

The three most critical issues when looking at the consolidated responses for both telecommunication companies and the banks were;

- Seeing EB as a new way of doing business (mentioned in 12 out of 26 combined responses)
- New business processes were needed to manage EB effectively (mentioned in 11 out of 26 combined responses)
- Market pressures were forcing companies to become EB enabled (mentioned in 11 out of 26 combined responses)

In an effort to better understand the different priority issues of telcos and banks, the leading issues are contrasted below in order of frequency of mention by respondents;

<i>Priority Issue for Telcos</i>	<i>Priority Issue for Banks</i>
<ul style="list-style-type: none"> • Seeing EB as a new way of doing business 	<ul style="list-style-type: none"> • Market pressures were forcing companies to become EB enabled
<ul style="list-style-type: none"> • New business processes were needed to manage EB 	<ul style="list-style-type: none"> • New business processes were needed to manage EB
<ul style="list-style-type: none"> • Market pressures were forcing companies to become EB enabled 	<ul style="list-style-type: none"> • Need changes to staff capabilities to handle EB successfully
<ul style="list-style-type: none"> • Levels of success needed in implementing EB strategies 	<ul style="list-style-type: none"> • Need to share knowledge between people to gain advantage

The notable difference between the two groups was that the banks have felt the need for EB enablement because of market pressures by way of competitive pressures from other banks as they race to reduce operating costs and improve customer reach and service standards with emerging EB strategies. Telcos primary focus was on seeing EB as a new way of conducting business. There was agreement between telcos and banks on the second listed priority of developing new processes to manage EB.

From qualitative comments, some of the more significant issues included the following;

a) From telcos;

- The incentives to embrace EB included the reduction of operating costs and hence enhance profit margins, and the opportunity to improve market reach and penetration by providing improved customer value
- That the life of assets would be reduced as accelerated redundancies occur with the rapid changes in technologies supporting EB enablement.
- In order to survive, companies had no choice other than to progressively and urgently follow and EB enablement path. The nature and pace of EB change is often set by key competitors in an industry.

- It is usually difficult to assess the financial returns that EB projects will yield. This creates a problem in allocating funds between EB investments and other business investment opportunities where the returns can be assessed with greater certainty.

b) From Banks

- EB is seen to present the opportunity for greater transfer of knowledge between staff as they discuss implications of EB developments.
- EB may change the structure and nature of the banking industry as competitors may emerge from non-traditional sources.
- It is usually difficult to assess the financial returns that EB projects will yield. This creates a problem in allocating funds between EB investments and other business investment opportunities were the returns could be assessed with greater certainty.
- There is a need for a change in staff skills in order to embrace EB effectively
- There is executive fear of the unknown in trying to come to terms with EB
- There is a need for more middle management commitment in accepting and expediting EB change
- Time to implement EB change is critical as there is competitive urgency

Vision for Electronic Business

The specific research question asked in the interviews was;

“Does your organisation have a clear vision for EB?”

Rationale for probing this topic was to better understand managers perceptions in the following areas;

- To find out if managers have a clear vision for EB
- Gain insights as what managers visions are for EB
- Observe managers ability to articulate an EB vision

Observed pattern in the responses demonstrated three key groupings.

a) Telecommunication companies, from 16 interviews

NO (no clear vision)	6 managers
YES, BUT (we do, but it is a little vague)	8 managers
YES (we do have a clear vision for EB)	2 managers

b) Banks from 10 interviews

NO (no clear vision)	2 managers
YES, BUT (we do, but it is a little vague)	6 managers
YES (we do have a clear vision for EB)	2 managers

Examples of statements of EB vision

Telcos

- “ *X (our company) aims to provide the best tools for people to communicate- the superstore selling shovels to people on the way to the gold rush*”
- “*X (our company) must be flexible and responsive to the market and prepared to take a punt, particularly while the new model is taking shape*”
- “*The vision is quite clear, that is to get engaged (in EB)- in a whole range of activities.... almost too many initiatives. There will some fall out, some will splash and some will fly, but we cant sit back and come second- early dominance and capture of market will be the only thing that dictates, there is no room for strong followers, only aggressive innovators*”

Banks

- “*We know we need a new pyramid that has a wide base- we have a roadmap and know if things are moving us in that direction*’
- “*EB is one of the core strategic tenets of operation going forward as well as the flavour running through them*”
- “*Yes. Formation of this subsidiary Z, signals of top level commitment-*

clear business strategy and actions focused around 'e' opportunities"

Vision for EB: Researchers Observations

There were few examples of managers being able to express a clear vision for EB;

- 88% of telecommunication company managers said that there was either no clear EB vision, or that there was a qualified vision for EB (“Yes, But”).
- 80% of bank managers said that there was either no clear EB vision, or that there was a qualified vision for EB (“Yes, But”).

Only four respondents (15%) stated that their organisations had a clear vision for EB.

Implications of the research findings regarding a vision for EB are summarised as follows;

- Constant changes to EB strategy, inhibits the ability to formulate of a clear vision
- As EB is a relatively new phenomena, it may be premature and presumptuous to hold a clear vision for EB
- Visions of EB held by senior managers are not usually shared with other managers and staff
- There is a considerable variation between managers about what the EB vision may be for the organisation- there was consistent difficulty in articulating an EB vision or strategy
- Those managers who believe that their organisation's had a clear vision for EB, held it as confidential, presumably for competitive reasons
- Many managers acknowledge that there needs to be a major commitment/involvement even without a clear vision and that the vision will evolve over time- there appears to be increasing awareness of commitment to the

process of EB development rather than a rigid EB vision of the final destination

- Companies appear to be working to develop an EB vision and what it means in terms of impact on the business

Internal Drivers and Inhibitors to the Adoption of Electronic Business

Two specific questions were asked to which open responses were noted and recorded;

“In your organisation, what are the factors driving the move to EB?”, and

“In your organisation, what are the inhibitors/restrictions on moving toward EB?”

Rationale for probing this topic was to better understand manager’s perceptions in the following areas;

- *What are the important considerations motivating the investment and moves to EB enablement*
- *What are factors preventing or slowing the processes of e-business enablement*
- *To better understand the dynamics of EB in organisations*
- *Identify different approaches to actioning EB direction*
- *To contrast different opinions of the internal drivers of EB*

Internal Drivers;

Consolidated; Telcos and Banks - main factors and weightings regarding internal inhibitors

<i>People- understanding/skills/attitude</i>	Mentioned by 21 respondents out of the 26 interviews
<i>Change Management – redesign and legacy systems (Telcos only)</i>	Mentioned by 8 respondents out of 16 teleco interviews
<i>Access to sufficient funds for EB projects (Banks only)</i>	Mentioned 3 out of 10 bank interviews

Internal Drivers and Inhibitors: Researchers Observations

Drivers

Telecommunication company managers had a heavy emphasis on external factors as driving the move towards EB enablement, including customers and competitors (Together accounting for 22 response mentions from the 16 telco respondents). The opportunity for operating cost reductions through EB enablement was third ranking. Customer expectations were the driver most mentioned by bank managers, with the opportunity to reduce operating costs ranked second.

Telcos		Banks	
Competitive Pressures	12/16	Customers expectations	7/10
Customers expectations	10/16	Cost Reductions	6/10
Cost Reduction/profit/revenue	7/16	Growth/new revenue	3/10

Key drivers for both telcos and banks were as follows;

Customer expectations/satisfaction;	17 out of 26 responses
Cost reductions through EB enablement;	13 out of 26 responses
Competitive Pressures;	12 out of 16 (Telcos only)
Growth/new revenue sources;	3 out of 10 (Banks only)

Market forces were the main underlying factor driving the move to EB enablement namely in the form of competition for telcos, with customer's expectations for EB solutions featuring prominently in both types of organisation.

Specific drivers mentioned included; customer expectations, competitor's actions, improvement to shareholder value with EB solutions, and the opportunity to reduce operating costs. A separate section of this research project covered aspects of who in the organisation was driving EB enablement. This section is not covered in this paper.

Inhibitors

Various aspects of the human factor were foremost in manager's perceptions of key factors inhibiting EB enablement in both the telcos and the banks. These factors covered a range of factors to do with people skills, understanding and attitudes for EB. There were major concerns about the ability and aptitude of people in the organisation to have the capability to manage the process of EB enablement to cost and time requirements set by market forces.

Telcos	Banks
People skills/understanding; 12 out of 16	People skills/understanding; 12 out of 10
Managing the change to EB; 5 out of 16	Access to sufficient funds; 3 out of 10
Challenges of new EB models; 3 out of 16	Legacy systems; 1 out of 10

The research indicated that staff and managers had different understanding of EB applications and what they meant for individual organisations. The need for a change to the traditional culture was mentioned by some as being a necessary aspect of effectively introducing EB applications and services. There was concern regarding the ability for some people to adapt to an EB work environment.

Some managers mentioned the difficulty in deciding how much face to face contact customers will need in proportion to electronic interface contact.

Bank managers mentioned the difficulty in obtaining sufficient funds for EB projects and the difficulty in competing for funds with more traditional business projects which had more predictable returns.

Critical Organisational Capabilities

The specific question asked to which open responses were noted and recorded was; *“What are the critical capabilities your organisation will need in order to meet key EB objectives?”*

Rationale for probing this topic was to better understand managers perceptions in the

following areas;

- To gain insights into the perceived capabilities necessary to implement EB strategies
- Identification of important resourcing issues facing companies moving towards EB
- To contrast the perceptions and priorities of critical EB capabilities between managers and between the various types of organisation.

Observed patterns on responses to the questions relating to the critical capabilities needed for EB were as follows:

Selected Comments grouped by themes;

Company	Skilled People	Technology	Implementation	Customers
Telco A	<i>"It is exceedingly difficult to find the right people"</i>	<i>"There is a technical skills shortage" "....needs to increase its expertise in both the emerging technologies and the markets that are out there" "How to make technology work and be integrated"</i>	<i>"The question is to keep old technologies going and to implement new ones". "People who have the skills and capabilities to implement strategies"</i>	<i>"The ability to build communities ... the challenge is how to deliver value over time"</i>

Telco B	<i>"The people side is patchy ... the big issues are attitudes and execution ... there is a lot of attitude; 'it doesn't affect me', We probably have enough of both (commitment and skill levels) at the moment".</i>	<i>"Technology is not much of a gap ... it is the intellectual desire to do it and the intellectual property (what am I going to do with it) which is the real competitive piece that we need to work out." "Use your technology to leapfrog processes"</i>	<i>"When we get our act together we can execute well - there is the need for a clear narrow arrowhead of penetration" "Implementation to take advantage of the infrastructure"</i>	<i>"We need to help many of our customers and suppliers in this journey ... it is a collaborative model". "Need to manage the speed of transition from the old to the new (technology) to make sure they do not alienate their customers"</i>
Telco C	<p>"We must remember that we don't have to have ownership of resources with the power of new alliances. We know we cannot do it all ourselves, so we must involve others as the need arises"</p>	<p>"Technologies are critical for us ...accessibility to the right technology at the right time"</p>		<p>"...analyse strategically our customers' businesses and then determine what their EB needs are"</p>

	Leadership	Alliances	Customers
Bank A	"We need strong central leadership - the people with complementing skills and styles and teamwork mentality" "An adaptive, flexible culture and the leadership that goes with that; helps create it"	"Collaborative commerce" - working in partnership will become much more important "Degree of collaboration"	"You need to answer 'how are you relevant in the customer's life?' or you're not in it" "Customer insight"
Bank B	"Skilled Executive and Board are core" "Leadership and change management" "Managing the transition" "Combination of hiring and training people in a different way- you can retrain" "Business innovation" "Leaders who can effect major organisational change" "Open mind of how things can be done (not closed mind/traditional)"	"Embrace new practices eg strategic alliances" "Better tap into ideas of our business partners"	"A product range that is current and up with the market" "Speed to market- if there is anything new, you are able to compete" "Efficient technology set-ease of use in the customer's workplace"

Critical EB Capabilities: Researcher's observations

Perceptions of critical capabilities differed between Telecoms and Bank manager respondents (mentioned by all 16 respondents). Telco manager respondents all mentioned skilled people as the critical capability needed for EB projects and strategy implementation. This would suggest that this has been an issue of primary concern in

becoming EB enabled. Technology resource capabilities were the second most mentioned critical capability. The ability to access EB resources and expertise external to the organisation was the third most mentioned critical capability.

Bank manager respondents most mentioned (7/10), the importance of leadership and change management as the critical capability. Equal second, third, and fourth ranking mentions (all 3/10) were to do with capabilities; gaining insights to customer needs for EB solutions, ability to manage external alliances, and having the capabilities of innovation, commitment and determination.

<i>Telcos</i>		<i>Banks</i>	
Having skilled people	16/16	Leadership & change mgt.	7/10
Technology to facilitate EB	9/16	Customer focus/insight	3/10
External sourcing of EB capability	8/16	Alliance management	3/10

Telco Manager's Comments

Various comments by respondents provide further insights to the issue. One respondent mentioned that it was difficult to find people that were knowledgeable, capable and confident with EB.

It was mentioned that people skills for EB may need to be accessed through external alliances rather than through the traditional approach of having this expertise on staff.

It was emphasised that it was important to be able to access the appropriate EB technology at the right time. The ability to have the capability to implement EB strategies effectively was seen to be critical.

Having a capability to collaborate with suppliers and customers during the journey of EB enablement was an important dimension.

Bank Manager's Comments

The need for strong leadership and teamwork skills was mentioned. Also important was leadership, adaptive and flexible enough to guide the transition to EB enablement.

Collaborative commerce was seen to be of increasing importance as work with alliance partner's increase.

The journey must be driven from the perspective of the customer and the market.

General and Common themes

- *It is increasingly accepted that an organisation's capability should include the capabilities provided by alliance partners.*
- *It is important to recognise the need to develop and action effective management processes to support the EB evolution.*
- *The journey must be driven from the perspective of the customer and the market.*
- *Managers must recognise the importance of speed to market, to answer the question of whether the organisation wants to be leader or follower in the move towards EB enablement and transformation (refer to organisations positions shown in Figure 2).*

Research Implications

From the phase two qualitative research, there were a number of elements which were likely to have implications on the process and pace of EB enablement being carried out in the organisations covered by this research project. EB was seen by some telco managers as being a new way of doing business and therefore required careful thought on how it should be coordinated and integrated with the traditional business operations. They feel that they may be facing a transformation in terms of the way business may be conducted in the future compared the past. New processes were seen as being necessary to facilitate EB, rather than attempting to adapt old or existing business processes. Pressures of competition and customer expectations of EB solutions were said to be the key force driving EB enablement of the banks.

Some managers see the implication of EB enablement as providing the potential to reduce operating costs and to improve market reach and penetration.

While bank managers wanted more funds allocated for EB project investments, some respondents mentioned that it was difficult to decide between EB investment projects and traditional investments as the returns on EB projects were difficult to determine with any certainty. EB investments required a 'leap of faith'.

Few managers believed that their organisations had a clear vision for EB. Notwithstanding the lack of an EB vision, there was generally a strong commitment to the process of building EB enablement to ensure successful survival in the competitive operating environment.

The main factor mentioned as inhibiting the process of EB enablement was related to people's capability including their attitude, knowledge, skills that would be necessary to operate in an EB environment.

Critical capability for EB enablement for telcos was seen to be having people who are able to understand and implement EB strategies. Leadership and change management were the two most mentioned factors in banking. There was an increasing recognition of looking to alliance partners to provide supporting capabilities and skills to assist in the EB enablement process.

Managers mentioned that the EB enablement process needed to be driven from a market and customer perspective rather from an internal administrative or IT orientation. Speed to market was a factor in deciding whether to be an industry leader or follower. Rapid implementation of EB strategies was a critical factor in staying ahead of the competition.

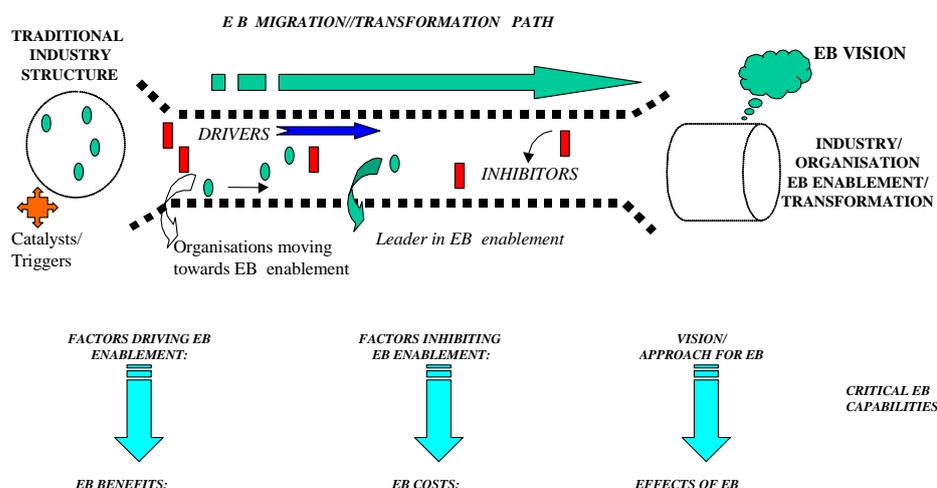
It has been observed that managers may embrace an ebusiness approach as a result of external pressures, but once they understand its true capabilities, they are able to define new directions for the organisation and new approaches to capitalise on emerging electronic technologies and channels (Gale and Abraham 2005).

It has been observed that ebusiness and information technologies have the potential to transform entire industries, however there is a shortage of research to support this claim (Crowston and Myers 2004). Other researchers have suggested the development of models to assist in better understanding the implications of ebusiness research (Burn and Ash 2005). The original transformation model shown in Figure 1 has been amended to reflect the findings and insights of the phase two research just reviewed. This is shown as Figure 2.

Managers participating in this research generally were aware of pressures and incentives in becoming EB enabled, thus transforming the business from its traditional form of operation. This research identified some of the effects, drivers, inhibitors, costs and benefits of moving towards an EB vision.

Within any identified industry or competitive group, there will be a leader (shown in Figure 2 as the ‘Leader in EB enablement’) with other organisations following along the migration path towards the EB vision. In addition to individual organisations transforming, industries may also transform into new clusters or networks that will conduct their businesses in the emerging electronic economy.

Figure 2 Electronic Business Transformation Model



So What

The senior managers participating in this research were strongly aware of the potential impact of developments in EB on the way they have done business traditionally. One driving force to embrace EB capability is the competition seeking to gain the benefit of early mover advantage and additional market reach to segments not previously penetrated. Another is the growing awareness of customer groups who are seeking to benefit from EB developments by way of greater convenience, greater product choice and decreased product cost.

Notwithstanding the general awareness of the inevitability of EB as a way of doing business, there was an absence of a clear vision and strategy of the appropriate business model that would best embrace EB at the time this exploratory research was carried out. It was recognised that considerable investment was needed to facilitate the progressive building of EB enablers. The successful adoption of EB systems rely on positive investment decisions (Simonovich 2007). Hence the question for senior decision makers as to whether EB capability should be incremental at one end of the spectrum or transformational at the radical extreme.

It has been observed that the dot.com burst in 2001 did not mark the end of EB and that many of the changes predicted then are now materialising. It has been suggested that some of these recent changes are so radical that a new generation of organisation and management theories are needed (Feng 2007).

Future Research

This exploratory research provided some useful insights into the issues that managers contemplated in the race to becoming EB enabled. Limitations of the research need to be acknowledged in reading the findings. These included the small sample of managers participating in the research and the fact that they were selected on the basis of their availability rather than on an objective sampling rationale. Another limitation was the small number of organisations taking part and therefor limits the generalisability of any findings.

Future research should include other types of organisations and their manager's perspective of key EB issues and priorities. Quantitative research would probe the dimension of issues mentioned in the findings of this research so that their relevance and importance could be assessed within particular types of organisations and industry groups.

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