

**17<sup>th</sup> Annual IMP Conference**  
**“Interactions, Relationships and Networks: Strategic Dimensions”**

**FINAL COMPETITIVE PAPER**

Title:  
***“Managing Transformation for Electronic Business”***

**Author**

**Bruce Perrott**

MSAT Group  
University of Technology, Sydney  
School of Marketing  
PO Box 123 Broadway, NSW 2007, Australia  
Phone 02 9514 3524  
Fax 02 9514 3535  
Email; Bruce.Perrott@uts.edu.au

**Type of Session:**      **Competitive Paper**

**Key Words:**

**‘Place to ‘Space’ transformation, transformation models, transformation process, Electronic business, Electronic business enablement**

**Audience:**   **Academics/Managers/Consultants**

## **Introduction**

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.

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

Our earlier research showed that one of the perceived catalysts of transformation is technology (MSAT 1997). The results of a new primary research program presently underway will be presented to the 17<sup>th</sup> Annual IMP conference. This research probes manager's opinions on the future of electronic business and its impact on particular organisations and industry groups. Those aspects of the research dealing with components of our Transformation model will be reviewed during the presentation.

## **Background**

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 traditional bricks and mortar business, into the emerging electronic cyberspace.

Although the term 'transformation' is frequently cited in the literature, there have been few attempts to develop theory. 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 better understanding of the process of transformation and guide future research. 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 organisation's 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-conomy 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 are 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

### **Managers and Transformation**

A 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. Hence 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).

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 seen by senior managers

Research method used included qualitative and quantitative methodologies in two phases. Two group discussions were held with Sydney based senior managers from a wide range of industries. These groups identified key issues to be included in the later survey mailed to the largest 1000 Australian companies.

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?'*

Respondents identified the significant catalysts of industry transformation;

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

### **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).

Respondents in the MSAT research project reflected on the degree of industry transformation which had taken place from a questionnaire response base of 111 managers;

- 62% defined their industry differently over a six year time span
- 48% attempted a different definition of their industries for the year 2000
- 64% of those indicating change over the 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 of transformation that had occurred in their industry

### **The customer**

The research demonstrated the significance of customers in the transformation process;  
 48% of respondents felt that customers had significantly changed or completely transformed in terms of type and characteristics  
 77% indicated that customers were a significant to highly significant trigger or cause of industry transformation  
 Customers were noted as the most 'highly significant' cause or trigger of industry transformation, rating 10% or greater than any other dimension of cause tested.

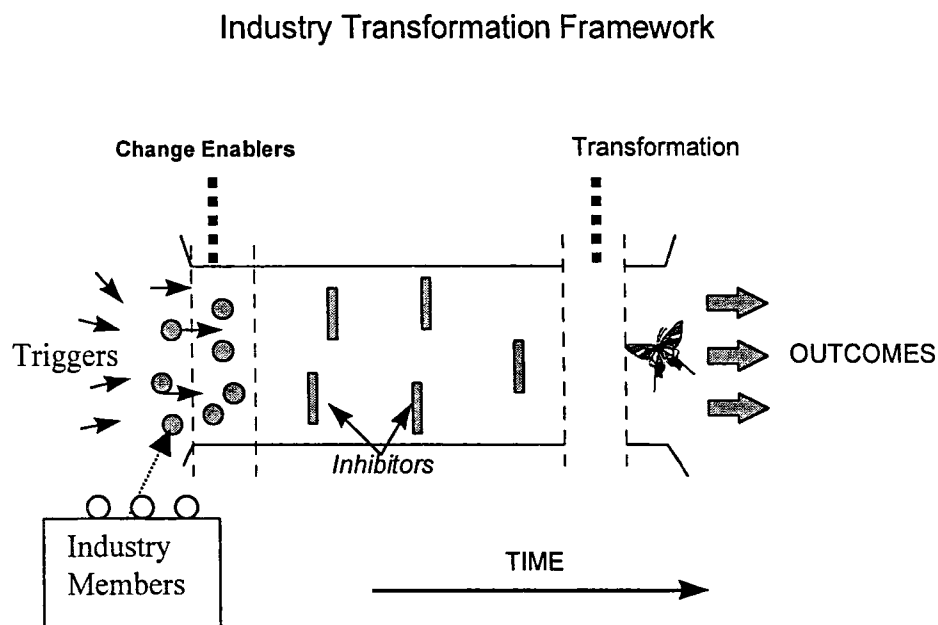
### **Towards a model of Transformation**

Transformation is not restricted to high technology industries although the rate of change was perceived to be much faster in the electronic business sector which includes; telecommunications, finance, banking, computers and software.

Insights provided by this research prompted the preparation of generic model which embraces the fundamental elements of the transformation process as seen by managers. 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. During the change cycle sequence there will be a number of inhibitors which may impede the process or the rate at which it 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'*. As transformation has occurred, there will be certain outcomes which impact upon the industry stakeholders.

**Figure 1; Industry Transformation Model**



## **New Research Project**

A new research project was undertaken by the Marketing Strategy and Technology Group and funded by Alcatel ( MSAT 2001). The research objective was to research the opinion of senior managers in a selection of Australian based organisations regarding the issues arising from developments associated with electronic business (EB) and electronic commerce (EC).

Participating organisations were selected on the basis of firstly researching telecommunication organisations, which are closely involved with providing the infrastructure, network and platform applications necessary for EB to operate and expand. These managers are consequently aware of the current and critical issues fundamental to EB expansion and development. They also gave an insight into the issues that manager's face in other organisations, which are likely to be effected by the introduction of electronic business approaches. The second sampling frame included two organisations in the banking industry. This industry was selected because of its likely transformation in terms of the growth in electronic services and the move away from traditional branch banking.

## **Research Methodology**

As the research objective was to uncover manager's perceptions of issues relating to the development of electronic business, qualitative research methodology was used. 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 the likely effect of EB 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.

Research included 16 in-depth 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 focused firstly on issues external to each organisation in the general economy, and secondly on issues inside the organisation. External and general Probes included the following;

- Defining EB and EC
- Drivers of EB
- Inhibitors to the adoption and growth of EB
- Benefits of EB to society
- Costs of EB to society
- The impact of EB on the industry structure and dynamics

Internal Issues included;

- The organisations approach to EB
- The vision for EB
- Factors driving the move to EB
- Factors inhibiting the move to EB
- What are the effects of EB on the organisation
- What are the critical capabilities needed to meet EB objectives
- Extent of involvement in EB
- Who is driving EB

This working paper will focus on the results of the second set of research questions related to the impact of EB on the organisation and its internal operations.

### **Effects of EB on the Organisation**

Two specific questions were asked to which 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?”*

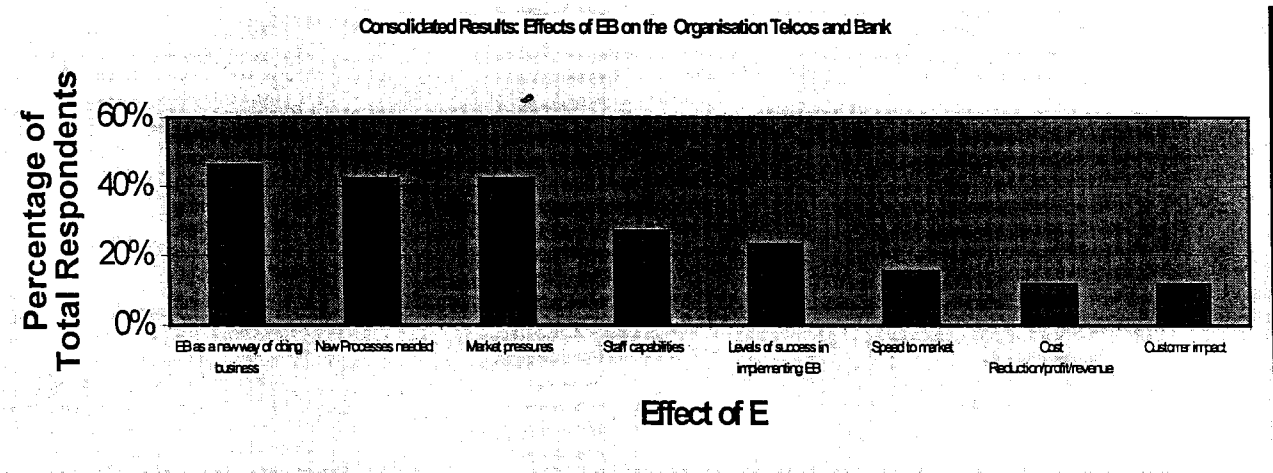
Rationale for probing this topic was to better understand manager’s perceptions in the following areas;

- 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 is forcing EB	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 understand the different priority issues between 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>
• Seeing EB as a new way of doing business	• Market pressures were forcing companies to become EB enabled
• New business processes were needed to manage EB	• New business processes were needed to manage EB
• Market pressures were forcing companies to become EB enabled	• Need changes to staff capabilities to handle EB successfully
• Levels of success needed in implementing EB strategies	• 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*

<b>NO</b>	6 managers
<b>YES, BUT</b>	8 managers
<b>YES, THERE IS A CLEAR VISION</b>	2 managers

#### *b) Banks from 10 interviews*

<b>NO</b>	2 managers
<b>YES, BUT</b>	6 managers
<b>YES, THERE IS A CLEAR VISION</b>	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.

*Qualitative comments from all respondents provided the following insights;*

- 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

People- understanding/skills/attitude	Mentioned by 21 respondents out of the 26 interviews
Change Management – redesign and legacy	Mentioned by 8 respondents out of 16

systems (Telcos only)	teleco interviews
Access to sufficient funds for EB projects (Banks only)	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 was 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;	17/26
Cost reductions through EB enablement;	13/26
Competitive Pressures;	12/16 (Telcos only)
Growth/new revenue sources;	3/10 (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	12/16	People skills/understanding	12/16
Managing the change to EB	5/16	Access to sufficient funds for EB	3/10

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 to 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;**

<b>Company</b>	<b>Skilled People</b>	<b>Technology</b>	<b>Implementation</b>	<b>Customers</b>
<b>Telco A</b>	<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</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>

		<i>technology work and be integrated"</i>		
<b>Telco B</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>
<b>Telco C</b>	<i>"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"</i>	<i>"Technologies are critical for us ...accessibility to the right technology at the right time"</i>		<i>"...analyse strategically our customers' businesses and then determine what their EB needs are"</i>
	<b>Leadership</b>		<b>Alliances</b>	<b>Customers</b>
<b>Bank A</b>	<i>"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"</i>		<i>"Collaborative commerce" - working in partnership will become much more important "Degree of collaboration"</i>	<i>"You need to answer 'how are you relevant in the customer's life?' or you're not in it" "Customer insight"</i>

<b>Bank B</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 Telcos 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 manger respondents most mentioned (7/10), the importance of leadership and change management as the critical capability. Equal second, third, and forth 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 partners 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 processes during 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.

#### **Summary and Conclusions**

From this latest qualitative research, there were a number of elements which are likely to impact in the process and pace of EB enablement being carried out in the organisations covered in 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. 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.

Managers see the primary benefit of EB 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.

As the concept of EB was relatively new and still in its early development phases, 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.

Primary drivers of the move towards EB enablement were customer expectations for EB services, competitive forces and the need to reduce operating costs.

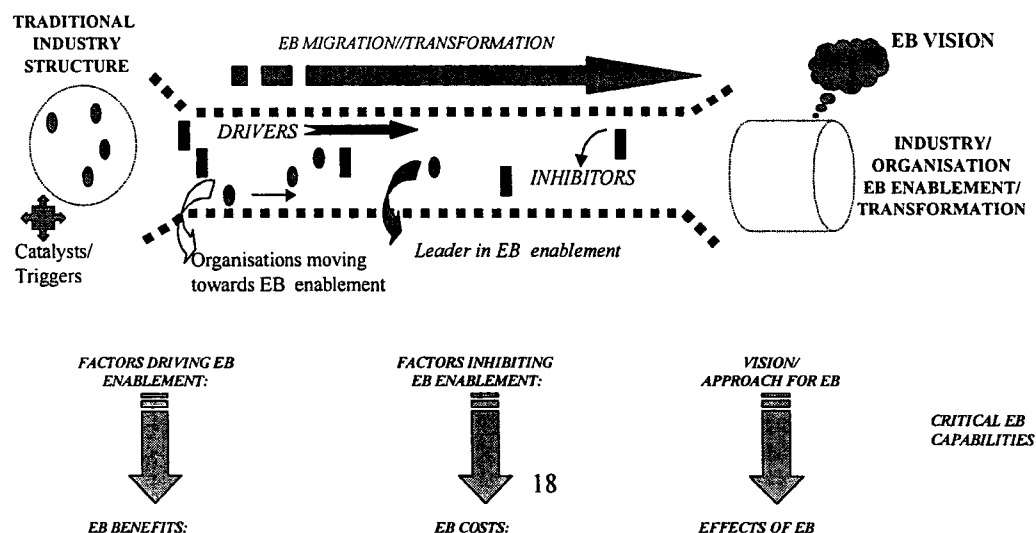
The main factor mentioned as inhibiting the process of EB enablement was related to peoples capability including their attitude, knowledge, skills that would be necessary to operate in an EB environment.

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 factor 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.

The transformation model is revised in Figure2 to reflect insights from this latest research. Managers participating in this research generally were aware of pressures and incentives to become EB enabled, 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 of competitive group, there will be a leader with other organisations following along the migration path towards an EB enabled future. In addition to individual organisations transforming, industries may also transform into new clusters or networks that will need to conduct their business in the emerging electronic economy.

Figure 2; Revised EBTransformation Model



## 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 therefore 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.

## References

'The Australian little Oxford Dictionary', 1993 Oxford University Press, Melbourne

Gouillart F J and Kelly J N, 1995 'Transforming the Organisation', McGraw Hill, New York

Ghosh, S. (1998), "Making Business Sense Of The Internet", *Harvard Business Review*, March-April: 126-135

Hamel G and Prahalad C K , 1994 'Competing for the Future', Harvard Business School Press, Boston

Hartman A and Sifonis J, 2000 'Net Ready', McGraw Hill, New York

Hoffman, D. L. and Novak, T. P. (1996), "Marketing in Hypermedia Computer-Mediated Environments: Conceptual Foundations", *Journal of Marketing*, 60(July): 50-68

Johansen, R. and Swigart, R. (1994), *Upsizing the Individual in the Downsized Organization*, Addison Wesley, Reading.

Kilmann R, 1995 ' A Holistic Program and Critical Success Factors of Corporate Transformation', *European Management Journal*, Vol 13 No 2, June, pp 175-186

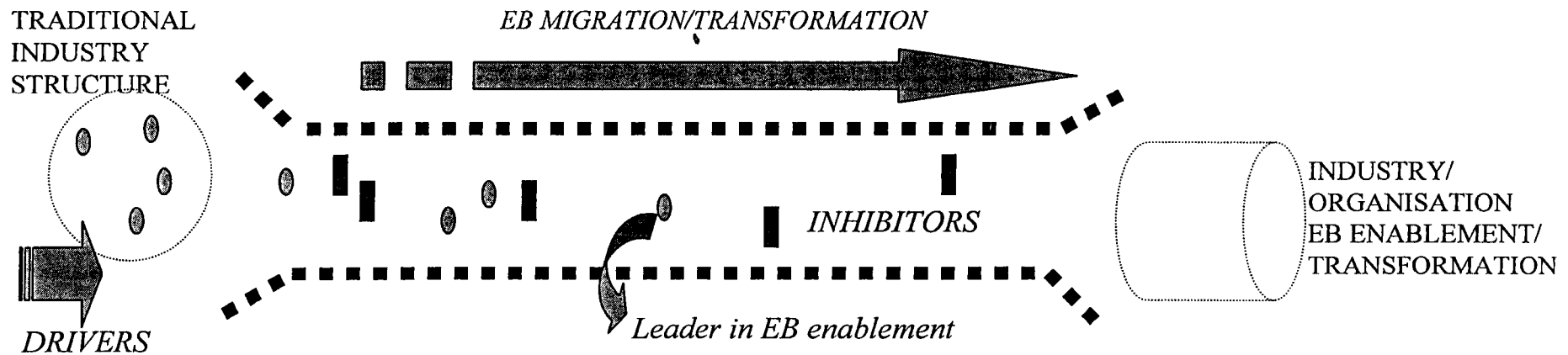
MSAT, 1997, 'The Characteristics and Processes of Industry Transformation', Unpublished report of research findings. Market Strategy and Technology Group, UTS Sydney

MSAT, 2001, 'Prometheus; Research project into Manager's perceptions of the likely impact of Electronic Business, Unpublished report of research findings. Market Strategy and Technology Group, UTS Sydney

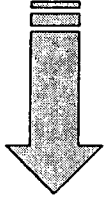
- Nolan R L and Croson C, 1995 'Creative Destruction', Harvard Business School Press, Boston
- Papows J, 1999, 'Enterprise.com-market leadership in the information age', Nicholas Brealey Publishers, London
- Pascale R T, Goss T and Athos A, 1993. ' The Reinvention Roller Coaster', Harvard Business Review, Nov-Dec.
- Perrott, B. (1997), *Electronic Commerce: What is the Future*, Working Paper 1/97. School of Marketing, University of Technology Sydney
- Rayport, J. F. and B J Jaworski (2001) "eCommerce", McGraw-Hill/Irwin, Boston
- Rayport, J. F. and J. J. Sviokla (1994). "Managing in the Marketspace." Harvard Business Review 72(November-December): 141-150.
- Secretariat on Electronic Commerce (1997)., *The Emerging Digital Economy*, Washington, US Department of Commerce, Washington DC
- Tushman M L and O'Reilly C A, 1997, ' Winning Through Innovation', Harvard Business School Press, Boston.
- Venkatraman N, 1995 referred to Gouillart and Kelly 1995, 'Transforming the Organisation' McGraw Hill, New York, pp216- 218.
- Zwass, V. (1996), *International Journal of Electronic Commerce*, 1(1): 3-23

# ISSUES ON EB ENABLEMENT

## *B) Industry/Organisation Level*

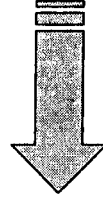


**FACTORS DRIVING EB  
ENABLEMENT:**



**EB BENEFITS:**

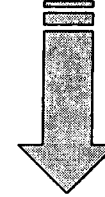
**FACTORS INHIBITING  
EB ENABLEMENT:**



**EB COSTS:**

DR BRUCE PERROTT, UTS

**VISION/  
APPROACH FOR EB**

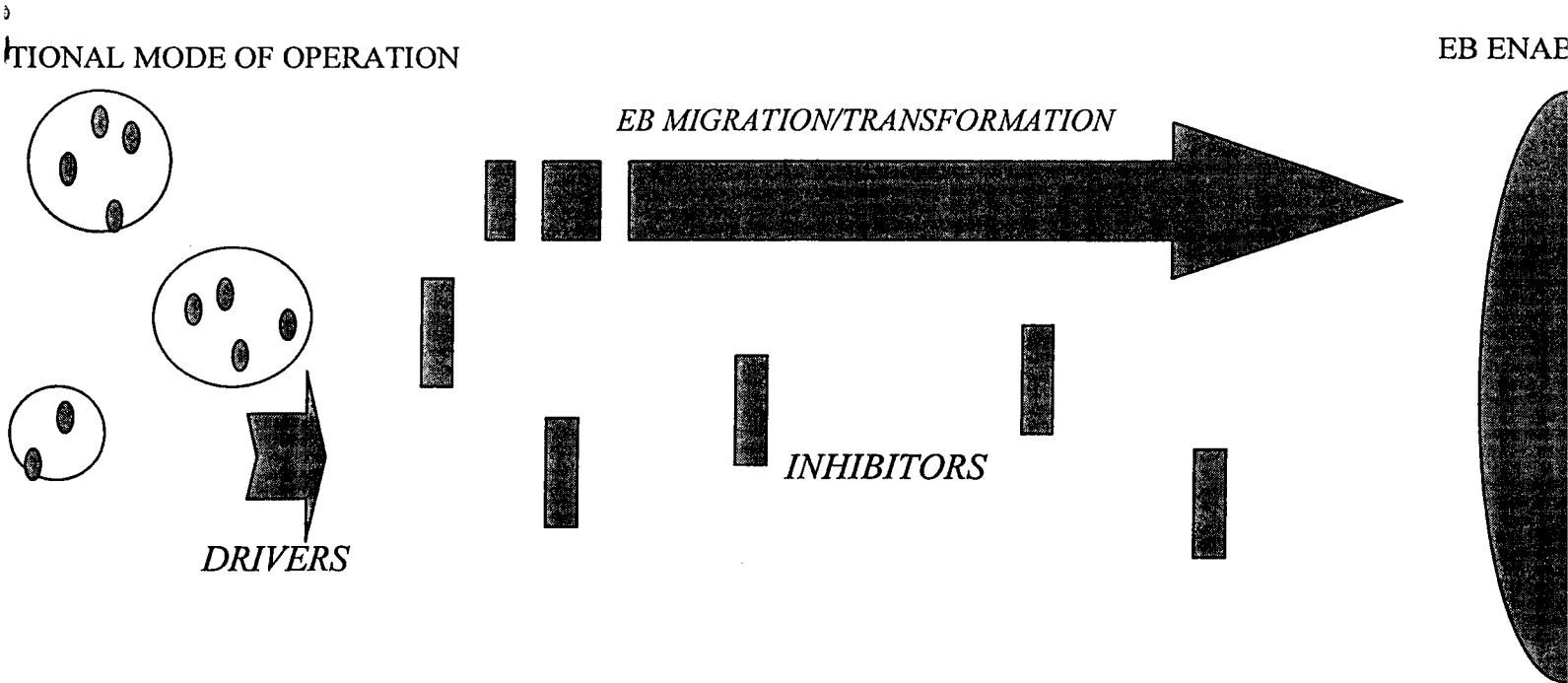


**EFFECTS OF EB**

**CRITICAL EB  
CAPABILITIES**

# ISSUES ON EB ENABLEMENT

## *A) General Economy Level*



**ACTORS DRIVING EB  
ENABLEMENT:**



**EB BENEFITS**

**FACTORS INHIBITING  
EB ENABLEMENT:**



**EB COSTS:**

DR BRUCE PERROTT, UTS

**17<sup>th</sup> Annual IMP Conference**  
**“Interactions, Relationships and Networks: Strategic Dimensions”**

**Proposal Submission**

**Title:**     Managing Transformation for Electronic Business

**Author:**

**Bruce Perrott**

MSAT Group  
University of Technology, Sydney  
School of Marketing  
PO Box 123 Broadway, NSW 2007, Australia  
Phone 02 9514 3524  
Fax 02 9514 3535  
Email; Bruce.Perrott@uts.edu.au

**Type of Session:**     **Paper**

**Key Words:**

**‘Place to ‘Space’ transformation, Industry transformation models,  
electronic business**

**Audience: Academics/Managers/Consultants**

## Introduction

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.

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

Our earlier research showed that one of the perceived catalysts of transformation is technology (MSAT 1997). The results of a new primary research program presently underway will be presented to the 17<sup>th</sup> Annual IMP conference. This research probes manager's opinions on the future of electronic business and its impact on particular organisations and industry groups. Those aspects of the research dealing with components of our Transformation model will be reviewed during the presentation.

## Background

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 traditional bricks and mortar business, into the emerging electronic cyberspace.

Although the term 'transformation' is frequently cited in the literature, there have been few attempts to develop theory. 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 better understanding of the process of transformation and guide future research. 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 are 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

### **Managers and Transformation**

A 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. Hence 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).

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 seen by senior managers

Research method used included qualitative and quantitative methodologies in two phases. Two group discussions were held with Sydney based senior managers from a wide range of industries. These groups identified key issues to be included in the later survey mailed to the largest 1000 Australian companies.

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?'*

Respondents identified the significant catalysts of industry transformation;

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

## **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).

Respondents in the MSAT research project reflected on the degree of industry transformation which had taken place from a questionnaire response base of 111 managers;

- 62% defined their industry differently over a six year time span
- 48% attempted a different definition of their industries for the year 2000
- 64% of those indicating change over the 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 of transformation that had occurred in their industry

## **The customer**

The research demonstrated the significance of customers in the transformation process;

48% of respondents felt that customers had significantly changed or completely transformed in terms of type and characteristics

77% indicated that customers were a significant to highly significant trigger or cause of industry transformation

Customers were noted as the most 'highly significant' cause or trigger of industry transformation, rating 10% or greater than any other dimension of cause tested.

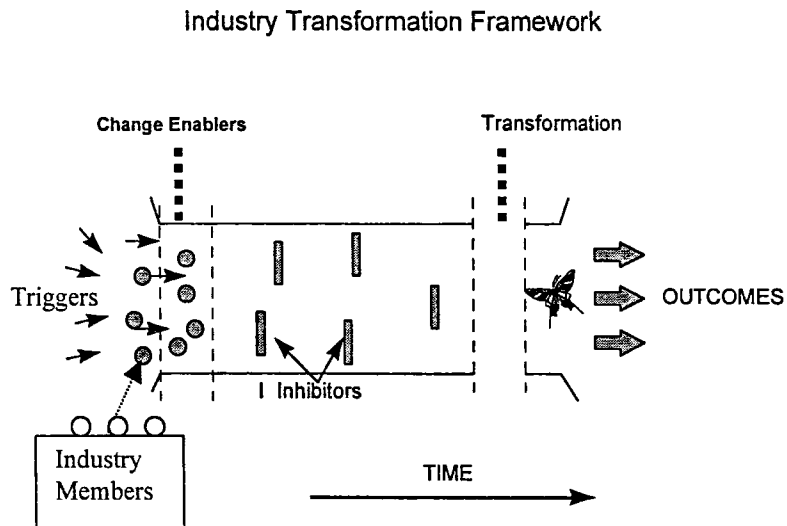
## **Towards a model of Transformation**

Transformation is not restricted to high technology industries although the rate of change was perceived to be much faster in the electronic business sector which includes; telecommunications, finance, banking, computers and software.

Insights provided by this research prompted the preparation of generic model which embraces the fundamental elements of the transformation process as seen by managers. 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. During the change cycle sequence there will be a number of inhibitors which may impede the process or the rate at which it 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'*. As transformation has occurred, there will be certain outcomes which impact upon the industry stakeholders.

**Figure 1; Industry Transformation Model**



### **New Research**

A new research program is underway which will probe manager's perceptions of the likely impact of electronic business on industry groups. It is being undertaken by the MSAP Group at UTS, Sydney using industry funding (MSAT 2001). Research method will include in-depth interviews with senior managers in selected organisations and industries which are being impacted by developments in electronic business. Relevant findings of the research will be used to review the transformation model shown in Figure 1. The results of this research and any revisions to conceptual models will be presented at the 17<sup>th</sup> IMP conference

### **References**

- 'The Australian little Oxford Dictionary', 1993 Oxford University Press, Melbourne
- Gouillart F J and Kelly J N, 1995 'Transforming the Organisation', McGraw Hill, New York
- Hamel G and Prahalad C K , 1994 'Competing for the Future', Harvard Business School Press, Boston
- Hartman A and Sifonis J, 2000 'Net Ready', McGraw Hill, New York
- Kilmann R, 1995 ' A Holistic Program and Critical Success Factors of Corporate Transformation', European Management Journal, Vol 13 No 2, June, pp 175-186

MSAT, 1997, 'The Characteristics and Processes of Industry Transformation', Unpublished report of research findings. Market Strategy and Technology Group, UTS Sydney

MSAT, 2001, 'Prometheus; Research project into Manager's perceptions of the likely impact of Electronic Business, Unpublished report of research findings. Market Strategy and Technology Group, UTS Sydney

Nolan R L and Croson C, 1995 'Creative Destruction', Harvard Business School Press, Boston

Papows J, 1999, 'Enterprise.com-market leadership in the information age', Nicholas Brealey Publishers, London

Pascale R T, Goss T and Athos A, 1993. 'The Reinvention Roller Coaster', Harvard Business Review, Nov-Dec.

Rayport, J. F. and J. J. Sviokla (1994). "Managing in the Marketspace." Harvard Business Review 72(November-December): 141-150.

Tushman M L and O'Reilly C A, 1997, 'Winning Through Innovation', Harvard Business School Press, Boston.

Venkatraman N, 1995 referred to Gouillart and Kelly 1995, 'Transforming the Organisation' McGraw Hill, New York, pp216- 218.