From Bricks-and-Mortar to Clicks-and-Mortar: A Multiple Case Investigation into Electronic Business in Regional New Zealand

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A MULTIPLE CASE INVESTIGATION INTO ELECTRONIC BUSINESS IN REGIONAL NEW ZEALAND

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ABSTRACT

This paper discusses some of the results from an explorative study of organisational response to electronic business (e-business). The study was conducted during the year 2000 in the Manawatu region of New Zealand. Six organisations from different industries, with employee numbers ranging from one to over 2700, participated in the project. Application of a multiple case methodology allowed the project to illuminate the rich contextual factors involved in the progress towards e-business.

Focussed case write-ups revealed how each business responded to the e-business challenge. An analysis section draws out commonalties and contrasts between the cases and lays them out in a combined response profile - by demonstrating the strategic nature of e-business, outlining drivers and constraints, and listing key success factors.

SET OF CASE ORGANISATIONS

The details of the set of case study organisations sorted in order of staff numbers employed are summarised in Table 1. The participating companies are from a diverse range of industry sectors including private and publicly held institutions. Each of the primary informants held a key position within the organisation and was well experienced and qualified to represent the company. This was a purposive sample set serving the research goal.

Table 1. Set of Case Organisations

	Company	Industry/ Sector	Service/ Product	Number of Staff	Position of primary informant(s)
Case Study A (SME) www.obo.co.nz	Obo	Sport outfits niche	Hockey Goalkeeper Protectiveware, Clothing	1 (sub-contracted work)	Principal and Team Leader
Case Study B (SME) www.ur.co.nz www.mallnz.co.nz	Unlimited Realities, Mall NZ	Information Technology	Information Technology Consultancy, E-commerce solution provider	5	Project Manager for Unlimited Realities, Director of Mall NZ
Case Study C (SME) www.enable.co.nz	Enable NZ	Health Sector – Disabilities	Equipment Management / Customisation, Information Referral Service	55	Chief Executive
Case Study D www.ezibuy.co.nz	Ezibuy	Retail Clothing	Direct Marketer of Clothing	560	New Media Manager
Case Study E www.ucol.ac.nz	UCOL (trading name of the Manawatu Polytechnic)	Public Tertiary Education	Certificates, Diplomas, Degrees, Innovative Learning Programmes	720 (300 equivalent full time)	Chief Executive, Financial Controller
Case Study F www.midcentral.co.nz	MidCentral Health	Public Health	Major Hospital operator, Health service provider	2700	Chief Information Officer

RESPONSE PROFILE TO E-BUSINESS

Response attributes

The response attributes from the case set to e-business are summarised in Table 2. The approaches to e-business used are classified as either experiment, lead or wait [1]. E-business offers the opportunity of integrated real-time responsiveness, and as Table 2 indicates - four of the case set are headed in that direction.

Table 2. Organisational Response Attributes

	E-business significance?	E-business definition apply/fit?	Real-time integrated enterprise?	Approach to e-business
Case A	Yes, lifestyle and business opportunity. Not for the whole company.	No	No	Proactive – experiment, play and learn
Case B	Yes, an e-commerce solution provider	Yes	Near	Proactive – lead
Case C	Yes, reconfigured whole organisation in preparation of e-business	Not totally at present, Yes within 6 months	No, Future goal	Proactive – lead
Case D	Yes, embarking on becoming	No, Will become	No, Future goal	Proactive – lead
Case E	Yes, took full advantage of IT capability	Yes	Near	Proactive – lead
Case F	No, at the periphery of what they do. Not relevant at present	Yes, satisfies current performance parameters, need not necessarily involve new technologies	Definitely not	Wait and see

Case C was a prime a prime example of an organisation that had reconfigured itself ready to conduct e-business:

> So it is partly saying that this is what it is going to be like in the future and as an organisation our choice is to be there when others start arriving, rather than wait for people to get there and then invest the resources to respond to them. We are constantly trying to guess where the market place is going to shift and to make sure we are there first.

Case E's response involved taking that leap of faith to integrate e-business into their strategy:

> E-business is a revolution that is washing over us, you can either ignore it and die or engage in it and gain a better result for your organisation…Use of technology in education is debatable because it is an unproven modality. But the choice of saying no or we will only run it as a pilot or we will run a time-series analysis over five years to see whether the control is doing better over the other mode is not an option. The

revolution will be two thirds of the way through by the time we do that.

Case F stood out as the organisation least prepared to endorse an e-business type environment and provided evidence for what Day and Schoemaker (2000) arguably call an organisational pitfall of 'delayed participation' [2]. The managerial beliefs of the CIO were focussed on retaining the status quo, until some hard and factual results are received about e-business. The stance may be appropriate for an organisation not running a commercial model, with little to no competitor pressure, and where waiting on the maturity and benefits of this technology to be realised can be a reasonable option:

> I am a bit of a sceptic when it comes to saying that an e-commerce solution would provide us with massive savings. My strategy is really to sit down and wait for some of the other health providers that have gone down that path - see if it works for them. But if they cannot show a tangible win then I wouldn't follow that path.

The move to e-business can represent navigation of uncharted territory. As much as can be learnt from best practice [3], unique contextual factors present themselves with new challenges, and companies need to learn, improve and adapt [4]. The creation of a virtual organisation can be likened to trying out a new recipe:

> Even though a cook may be familiar with the ingredients and even though one has an idea about the process, it will take time to adjust and perfect some of these ideas in the course of their implementation [5].

Drivers and constraints

Drivers and constraints for each case are summarised in Table 3. Awareness of e-business as a global trend, basic business objective drivers, customer focus, cost savings, drive for efficiency gains, to offer integrated channels, seeking new opportunities, top management commitment, feature across the case set as drivers. The entrepreneurial response from Case A stood out - greed and inquisitiveness, with little focus on what can impede progress. These simple ingredients can be a powerful combination - to learn with the times, while enhancing profitable opportunities. Constraints included customer acceptance of this channel - market readiness to adopt, adequacy of the New Zealand telecommunications industry to provide the necessary infrastructure, adequacy of applications interfaces, financial considerations when the payoff in e-business may well be down the track. People factors - such as attitudes, fear for retraining, feature higher as a concern than possible technological constraints. For example, the 'luddite resistance' observed in Case C.

Table 3. Drivers and Constraints

	Drivers	Constraints
Case A	Basic greed (will make money); Inquisitiveness (learn)	Takes time
Case B	Cost savings; Alternative sales and marketing channel – move towards integrated channels, both bricks-and-mortar and clicks-and-mortar co-existing; Top management commitment	Negative business climate; Customer acceptance of this channel; Market maturity – customer base; Payment method options; Client funding and infrastructure constraints; Human barriers in larger organisations
Case C	Profitability focus and business efficiency, cost savings; Strategic driver in re-positioning inline with a worldwide trend	Justifying freeing up of capital; People and mindsets – resistance to change; Readiness of marketplace to adopt; Finding the right partner to deploy the Internet side
Case D	Customer demand; Basic business drivers; Becoming more entrepreneurial like; To counter threats of overseas competitor positions; Growing the company faster in an e-business environment; Potential for new business opportunities; Awareness by top management that this is something they must accomplish to sustain their advantage	NZ infrastructure issues, employee adoption
Case E	Learning needs of students; Technology work culture – now staff demand improved facilities	Financial considerations, Application standards interface
Case F	Proven technology and a requisite business imperative (still to establish)	Low business imperative; Unproven technology; Large application suites not necessarily downsizeable

An example of drivers and constraints from Case D:

> Probably the biggest hurdle to overcome will be the people and processes they are used to performing, more so than the actual technology itself. There aren't many skilled staff available in this area in Palmerston North, and one of the strengths of Ezibuy has been staff having high involvement in a system that has been in place nearly for the life of Ezibuy. They are going to have to broaden their horizons and look at new ways of doing things. So it's a matter of how we handle that, which will determine the successful outcome of the project.

Strategic/market orientation

Table 4 summarises the strategic/market orientation and sources of advantage in relation to e-business for each case. If a quick conclusion can be reached at this stage, then it is that e-business can elevate levels of 'operational effectiveness', but it still needs to be heavily embedded in what the company's strategic goals are and how the company is seen to perform with the rest of the marketplace.

	Strategic/Market orientation	Sources of advantage
Case A	Clear vision; operating philosophy, to learn and stay ahead of competition, to experiment with e-business applicability Niche market leader, pursuing option of branded clothing	Brand name, talented entrepreneur driving the operations, fresh mindset working on e-business
Case B	E-commerce solution provider Carving out a niche as an e-commerce solution provider, plus pursue other consultancy roles, entry into e-learning products	Fast changing competitive environment; Focus on internal strengths, experience-base, knowledge gained from developing and implementing one of the first fully integrated e-commerce sites in NZ
Case C	Vision to become a fully integrated real-time enterprise Possess strategic asset in 2yr regional contract rights	CEO driven leadership; Questioned the sustainability of uncontested contracts; Re-branded the organisation, transformed the organisation to become fully commercially oriented, reconfigured business practices; E-business means to embed themselves in primary stakeholders systems; Knowledge of health professionals
Case D	Vision to become a fully integrated real-time enterprise Direct Marketing in clothing, market leaders within NZ – threats from overseas competitors	Customer focussed, massive fulfillment infrastructure in place; Professional staged approach to the transition to e-business, move to integrated channels
Case E	Integral part of the strategy Competitive tertiary sector; Innovative teaching programmes adapted to students' learning styles	CEO driven leadership; Strategic flexibility in delivery model; Being there and playing the game; Developing a core competence in e-business
Case F	Opportunity exists for e-business in the strategic plan (supply chain management) but little in the way of a business imperative to pursue e-business Possess strategic asset as Government funded and principal regional health care provider	Not running a commercial model; Internal service delivery improvement; Strategically safe in possessing an immutable strategic asset – uncontested Government funding

Case C provided a vivid account of how competitiveness can be enhanced through the application of e-business technology:

> The real opportunity in terms of competitiveness in the future is about embedding yourself in your customer's systems so much that they cannot easily dislodge you. You become so integrated into their systems that you still have got that other part of the organism which is you, out there.

Case B was well aware of the competitive marketplace:

> There are many organisations trying to get there - to get into the game. There is nothing we can do about that. I suppose we are more resilient to the competition, in that we have gone through a successful development and implementation of the original product. It has been a tried and true experience. We basically went that hard process of establishing an e-commerce solution when there were few such products available on the market. That knowledge is now reflected in our company and the relationships we build with our customers who recognise the effort we put in to get a system to operate, in what are sometimes difficult situations.

Table 4. Strategic Factors for Advantage

Key success factors and measures of success

Table 5 summarises the key success factors and measures of success. Each organisation will have its own particular set of factors that they hold as important [3].

Table 5. Key Success Factors and Measures of Success

	Key success factors and measures of success
Case A	Not driven by numbers but to maximise on opportunities
Case B	For clients – long-term strategic orientation; top management commitment; business process reassessment Turning site visits into paying customers; Use of the technology in gaining statistics for metrics
Case C	Client satisfaction, excellence in service, business retention, financial measures on profitability impact
Case D	Based on stringent Key Performance Indicators (KPIs) on each phase of implementation and Return on Investment (ROI) in each phase of the investment; Staff adoption; Customer satisfaction
Case E	Staff adoption – now a technology work culture; Learner satisfaction - surveys; Increased participation in tertiary education
Case F	Demonstrably achieving cost savings and service improvement

E-business as seen from Table 5 requires sound business principles that are as applicable to e-business as they are to traditional business activity.

SUMMARY OF KEY POINTS

Case A:

- Opportunity to use e-business in a subset of the organisation but not necessarily required for the whole company
- Learn from the mindsets of a younger generation
- Vision driven by maximising each opportunity
- Entrepreneurial style - greed and inquisitiveness, keen to experiment, learn, and play with the e-business idea.

Case B:

- Successful implementers of one of the first fully-fledged e-commerce operations in the country, now offer a virtual mall product. Expansion into e-learning products
- Various market/client constraints, has not seen immediate growth in the mall product
- Essentially e-business is business process driven. Requires top management commitment
- Advantage stems from a growing competence in e-business.

Case C:

- Personal vision of the CEO - CEO driven change effort
- Staff attitudes, resistance and fear to the implications of this technology
- Internal reconfiguration complete. Seeking high-performing partner to manage the Internet side

- Competitiveness via embedding into client systems. Technology is the means to link the key differentiators of the company to the rest of the marketplace.

Case D:

- Undergoing transformation into an e-business - timing right, where current IT systems are incapable of handling growth. Envision growing the company faster in and e-business enabled environment
- New breed of e-business skilled leadership
- Meticulous planned and staged approach to implementation. Strict key performance indicators over the entire project.
- E-business is business process driven
- Fully aware of the need to provide integrated channels for customers
- Massive fulfillment infrastructure already in place.

Case E:

- E-learning combined with on campus facilitation in a modern high-tech campus
- High IT impact on the institution
- CEO driven - leadership both hard and facilitative
- A resulting technology work culture
- Strategic flexibility to meet student demand
- Building up a core competence in e-business
- Unproven modality - required a leap in faith in taking this approach
- Above all, focus is on the needs of the learner.

Case F:

- Not running a commercial model
- Delayed participation in e-business - not seen as relevant at present
- Waiting on the proven and tangible results from other health providers that have taken that path
- Cost of coming second in implementing e-business type functionality not much greater or may prove less
- Influence of CIO in maintaining the status quo
- New technologies are assimilated on a broad health-industry initiative basis.

CONCLUSIONS

Each of the six cases demonstrated an overall individuated response to electronic business, reflecting the complexity of environmental and contextual factors that eventually determines the position companies adopt. Awareness that e-business is a reality that can transform organisational practice and have strategic consequences in terms of accruing advantages from building competence in this area, was evident over most of the set. Case F was the exception, due in part to a non-commercial business model and the influence of the CIO in retaining the status quo. The route taken towards e-business involves a combination of influencing factors - some enabling, some inhibitory that together determine the choice of strategy.

Managerial implications are that e-business is a critical response activity that can pervade most aspects of an organisation. The business impact of this technology will become greater as it gradually becomes assimilated into society, though many concerns still exist with an otherwise 'unproven' and potentially risky endeavour. Lessons learnt from this case set may help in minimising risk when introducing e-business into an organisation. However, a qualitative study such as this one is appropriate in an explorative context and must demonstrate excellent judgement for the findings to be credible to a wider audience. For New Zealand the move to a knowledge economy away from its heavy reliance on primary agricultural industry is vitally important if the Country is to retain its place in the world.

E-business need not necessarily be the magic bullet for all companies. Advances in inter-networking technologies will guide the evolution of the linking mechanisms to achieve end-to-end integration of information flows. But sound business principles embedded in a coherent and cohesive strategic focus, with the appropriate leadership to drive initiatives into an organisation, and willingness of people to learn and innovate - to develop the business and technological competencies required for this environment, will likely influence the success of these transitions to clicks-and-mortar.

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