The eCommerce Strategy of New Zealand: Policy Implication for Small Business

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Abstract

This paper attempts to link findings of recent eCommerce research in small business in New Zealand with the Government’s eCommerce strategy. The research stresses the need for the Government to bridge the existing gap between small business and eCommerce. The strategy emphasises the Government’s role in providing leadership, in building the capability of New Zealanders, and in providing an enabling regulatory environment. The strategy is set out to be a complete partnership between Government, business, and the broader community to achieve these objectives. Recent progress on this strategy is reviewed and its significance to small business is discussed. The Government has actively embarked on setting up a comprehensive policy framework to guide the wide success of eCommerce in businesses in New Zealand. The Government’s progress in this regard is admirable. However, this research points to the importance of prioritising the implementation of certain strategies and of addressing impending eCommerce issues relevant to the small business sector in New Zealand.

Keywords: eCommerce strategy, policy, New Zealand SMEs.

1. eCommerce in New Zealand

Small business Internet commerce (eCommerce) is defined as ‘the use of Internet technology and applications to support business activities of a small firm’ (Poon, 1999). According to Poon’s (1999) definition, a business activity can be internally or externally oriented and of transactional or strategic nature. As this research is focusing on Internet commerce and technologies, it adopts the definition provided by Poon (1999). Recent
survey research in small to medium-sized enterprises (SMEs) in New Zealand (Al-Qirim & Corbitt, 2002) investigated the impact of ten factors (relative advantage of eCommerce, cost, compatibility of eCommerce with business, size of the SME, information-intensity (content) of products, CEOs’ innovativeness, CEOs’ involvement in the adoption decision, competition, support from technology vendors, and pressure from supplier/buyer) on eCommerce adoption alongside three categories of adoption (dependent variables): (1) “starters” comprise the adopters of the Internet and email technologies; (2) “adopters” comprise the adopters of any of the four infrastructure and communication technologies (ECITs) (Web sites, Intranets, Extranets, and Internet EDI); and (3) the “extended adopters” category was introduced to the model to test for the difference between adopters and non-adopters alongside the number of adopted ECITs. The introduction of these three categories of adoption was deemed necessary to monitor where true adoption and innovativeness occurs in SMEs.

The sample was selected randomly from the North Shore City (part of the Auckland region). Reid (2002) indicated that the North Shore City is one of the country’s fastest-growing regions with an economical growth of 2.8% over the year to March 2001. Thus, making it the third fastest-growing and fourth largest city in New Zealand and a good exemplar to follow by other regions in the country (Reid, 2002). The Auckland region is the largest region in New Zealand in terms of the number of enterprises and employees. Addressing a representative sample of this region could contribute considerably to the development of eCommerce in SMEs in Auckland. Other regions in New Zealand could benefit from the results of this research, advancing the eCommerce initiatives of their SMEs. The developed measures in the survey questionnaire were tested for two psychometric properties, validity and reliability, to ensure that the measurement is accurate and sound (Al-Qirim & Corbitt, 2002). Testing for reliability could be achieved by calculating the Cronbach alpha. All the constructs were found to have adequate alpha value (>0.6) (Premkumar & Roberts, 1999). Validity has been assessed through content, convergent and discriminant validity. Nine factors were identified as explaining the phenomena (the size factor was not included in factor analysis) under consideration by the current research (having eigen values greater than 1) and hence, convergent and discriminant validity were confirmed and validated. Upon completing these preparatory tests, multivariate techniques were employed.

According to the analysis of the survey data, organisational size emerged as a strong motivator for eCommerce adoption across the “adopters” and the “extended adopters” categories (Al-Qirim & Corbitt, 2002). Thus making it quite clear that larger SMEs are more capable than smaller SMEs in adopting ECITs and additional ECITs technologies. It was observed that for non-adopters to move to the “starters” category, the SMEs would need only an innovative manager to guarantee the shift to the Internet and email arena. In moving to the “adopters” category, the SMEs noted the importance of (1) the managers’ innovativeness; (2) the role of the size factor; and (3) compatibility. Specifically, the compatibility factor appeared to be highly significant. Hence, non-adopters of ECITs would need to overcome compatibility issues such as security and legal concerns and the compatibility of eCommerce with their earlier practices and customers in order to guarantee their move to the “adopters” category. The same significant factors highlighted in the “adopters” category appeared significant as well in the “extended adopters” category but with more emphasis on the size and the CEO’s innovativeness, which appeared as the highest significant factor in the “extended adopters” category. In addition, the SMEs started to adopt additional ECITs technologies as a consequence of pressure from their competitors. Finally, it was the compatibility factor, which prevented the SMEs in the “extended adopters” category from adopting more ECITs technologies. In addition, “extended adopters” started to witness a significant negative effect of technology vendors in New Zealand in their decision to adopt more ECITs.
SMEs in New Zealand retained equal and positive views about the relative advantages, cost, information intensity of products, competition (except in the extended adopters), pressure from suppliers/buyers, and CEOs’ involvement in their adoption decision for eCommerce. These views represent a great opportunity for non-adopters to adopt eCommerce. Also, these equal views represent an implication in terms of adoption, as it was suspected that adopters were witnessing many advantages out of their eCommerce initiatives across the three categories of adoption. It is worth noting that most of Poon’s (2000) and Poon and Swatman’s (1997, 1998, 1999a,b) research focused on whether SMEs were realising any real advantage from having eCommerce. They found that most SMEs were not witnessing tangible advantages from eCommerce and the advantages sought from having eCommerce were perceptions only (Poon, 1999, 2000; Poon & Swatman, 1997, 1999a). Poon and Swatman (1997; 1998) found that SMEs did not use the Internet strategically to gain a competitive advantage. Poon and Swatman (1998, 1999a) related these lower advantages to the different perceptions about eCommerce advantages and found that most of the SMEs did not anticipate real benefits (direct sales and tangible profits) in the short term due to difficulties in selling their products over the Internet.

These non-significant factors in general, and the relative advantage specifically, suggest that the different eCommerce initiatives in New Zealand are shallow and not used strategically to report marked differences between adopters and non-adopters. It seems only those with extended adoption initiatives started to use eCommerce strategically to compete in the marketplace and even that was suspect because the relative advantage appeared as insignificant in that category. The significance of the size factor in the “extended adopters” category further suggests this, as it implies that larger SMEs could adopt more ECITs than smaller ones and hence, use their extended initiatives as a means of sending a strong message to their competitors. This again may suggest the uncritical perspective of adopters of eCommerce in SMEs in New Zealand. Recent research highlighted the importance of increasing the penetration of eCommerce in business activities. This research found that barriers concerning the adaptation of business processes were hardly expressed among adopters and non-adopters of the Internet in SMEs (Walczuch et al., 2000), demonstrating that SMEs use eCommerce on an experimental level.

Recent survey research in New Zealand confirmed the same and provided significant insight into the level, value, growth and extent of eCommerce among high adopters (ACNielsen, 2001). The survey targeted businesses with commercial websites (taking orders via their Web site) and included 800 respondents (e-traders). Although commercially oriented sites were targeted, 50% of those surveyed currently are selling less than SNZ 10,000 per annum over the Internet. Overall, this study reported that Internet sales are a small proportion of total sales volume for most e-traders. 58% of the businesses do not anticipate significant growth in their Internet business or profit levels in the next twelve months. While the New Zealand Government reported the widespread adoption of technologies that enable eCommerce, it suspected little depth in their penetration to support fully integrated electronic business systems (MOED, 2000). It also found a relatively low level of understanding of the opportunities afforded by eCommerce and the information and communications technology (ICT) revolution and varying ICT-literacy in the community as a whole. The New Zealand Government suspects that many businesses in New Zealand have recognised the advantages of electronically integrating all their business systems from the front end (e.g., Web site), through integrated management and planning systems, to their supply and distribution chains. This requires a comprehensive assessment of processes and internal systems (MOED, 2000). Other research highlighted different perceived motivators and inhibitors of eCommerce in SMEs (Table 1).
### Table 1: Inhibitors and Accelerators for Internet Use in Small Business

<table>
<thead>
<tr>
<th>NZ SMEs (Abell &amp; Lim, 1996; Abell &amp; Black, 1997)</th>
<th>APEC countries including New Zealand (PWHC, 1999)</th>
<th>Australian SMEs (Poon &amp; Swatman, 1999b)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advantages:</strong></td>
<td><strong>Advantages:</strong></td>
<td><strong>Advantages:</strong></td>
</tr>
<tr>
<td>• Effectiveness in information gathering (3)</td>
<td>• Improved customer service</td>
<td>• Time saving in finding resources</td>
</tr>
<tr>
<td>• Availability of expertise regardless of locality</td>
<td>• Enhanced company Image (1)</td>
<td>• Useful expertise from Net</td>
</tr>
<tr>
<td>• Better service and support from suppliers (3)</td>
<td>• Customer information exchange (1)</td>
<td>• Savings in communication costs</td>
</tr>
<tr>
<td>• Increased productivity (3)</td>
<td>• Improved competitive position</td>
<td>• Better company image</td>
</tr>
<tr>
<td>• Better awareness of business environment (competition (3))</td>
<td>• Increased customer loyalty</td>
<td>• Better customer relationships</td>
</tr>
<tr>
<td>• Ability to reach international markets (3)</td>
<td>• Access to international markets</td>
<td>• More extensive business network</td>
</tr>
<tr>
<td>• Faster delivery from suppliers</td>
<td>• Increased revenue</td>
<td>• Increased knowledge about competitors</td>
</tr>
<tr>
<td>• Greater customer satisfaction (3)</td>
<td>• Reduction in costs of information</td>
<td>• Better advertising and marketing</td>
</tr>
<tr>
<td>• Opportunity to be seen at the forefront of technology</td>
<td>• Supplier information exchange (1)</td>
<td>• Significant increase in business opportunities</td>
</tr>
<tr>
<td></td>
<td>• Attraction of new investment</td>
<td>• Better opportunity to make well-informed business decisions</td>
</tr>
<tr>
<td></td>
<td>• Reduction in procurement costs</td>
<td>• Improved trade in virtual marketplace</td>
</tr>
<tr>
<td><strong>Disadvantages:</strong></td>
<td><strong>Disadvantages:</strong></td>
<td>• Significant sales increase through Net</td>
</tr>
<tr>
<td>• Connection and/or usage charges too high (2)</td>
<td>• Low customer eCommerce use</td>
<td>• Better supplier relationships</td>
</tr>
<tr>
<td>• Target customers not connected (3)</td>
<td>• Concerns about security</td>
<td></td>
</tr>
<tr>
<td>• Lack of expertise or personnel (3)</td>
<td>• High cost of technology</td>
<td></td>
</tr>
<tr>
<td>• Technical limitations in hardware and software</td>
<td>• Legal and liability concerns</td>
<td></td>
</tr>
<tr>
<td>• Benefits not always evident (2, 3)</td>
<td>• Low supplier eCommerce use</td>
<td></td>
</tr>
<tr>
<td>• No guarantee of message delivery</td>
<td>• High cost of technology</td>
<td></td>
</tr>
<tr>
<td>• Enforceability of contracts</td>
<td>• Limited knowledge</td>
<td></td>
</tr>
<tr>
<td>• Concerns about security (2, 3): tampering with network messages, unauthorised access to internal network, authenticity, and misuse by employees.</td>
<td>• Concern about telecom services</td>
<td></td>
</tr>
<tr>
<td>• Difficulty in locating information</td>
<td>• Y2K concerns</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Firm computerisation too low</td>
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<td></td>
<td>• Low investment in computers</td>
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At a broader level, the New Zealand Government (MOED, 2000) highlighted other weaknesses:

- An uneven distribution of infrastructure capability at reasonable cost, particularly in rural communities
- A lack of integration or connectivity to global business networks
- The short supply of technical graduates from tertiary institutions
- The emigration of skilled New Zealanders, in particular IT personnel with a high degree of technical skill who are attracted by the pay and opportunities overseas.
- A lack of good quality information to support policy formation and inform how we are portrayed in the wider world.

2. Implications for eCommerce Adoption in SMEs in New Zealand

The CEO’s innovativeness appeared significant across the three categories of adoption. Addressing this perspective in managers of different SMEs in New Zealand could encourage adoption. However, this is not sufficient alone to guarantee adoption. E-Commerce requires different expertise in different areas to guarantee its adoption and diffusion in the business. Therefore, it is unlikely that the manager/owner alone would be able to manage the whole adoption scenario for eCommerce. ‘Resource poverty’ (Thong et al., 1994) – the lack of both financial and human resources – may influence the CEO’s behaviour and force a minimum and multi-staged commitment process. Limited human resources may mean either fewer available employees or employees without the appropriate skills. In either case, the manager of a small business will be limited in what activities can be initiated and completed. Hence, there will be a focus on the near term, with an emphasis on allocating these scarce resources only to what is considered top priority activity. Indeed, developing a long-term plan for IS (and eCommerce) and a large one-time commitment of both financial and human resources would represent the greatest challenge for the manager of the small business in New Zealand.

Despite the high representation of the SMEs sector within New Zealand, there exists a counter argument that points to the existence of a high degree of inter-subjective agreement that New Zealand culture is more oriented towards the non-entrepreneurial end of the continuum (Harper, 1992). In comparison with other developed nations, New Zealand has a weaker scientific culture and generally, the division of labour has not been scientifically and extensively applied to management in New Zealand, largely because of the relative small size of most New Zealand businesses and the low levels of formal education and specialist skills of most owner-managers of small businesses (Harper, 1992). These managers rarely have any functional specialisation: the manager is usually responsible for production, finance, sales, personnel, and purchasing.

This research highlights that it might turn out no further eCommerce opportunities to exploit by certain businesses or the identified opportunities are not financially justifiable or the nature of the product or industry does not encourage adoption. However, the issue here is whether the SMEs are willing to undertake the consultative investment or learn about the technology to bridge the existing gap between their business knowledge and their lack of knowledge about eCommerce. The New Zealand Government points to weaknesses in business innovation (MOED, 2000). The domestic market provides a small economic base for businesses and while technology uptake is high, the benefits are not necessarily reflected in business profits and growth. This weakness in business innovation could be easily remedied by increasing the investment in research and development.
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(MOED, 2000). Bridge and Peel (1999) emphasises that the wide success of information, its analysis and applications in SMEs do not rely on educating the SMEs about the benefits of IT adoption only, but also on fostering a planning orientation, which will encourage management to utilise their existing capabilities more fully. Waiting for eCommerce to diffuse widely in the business environment and for the numbers of online buyers and competitors to increase is cautioned and SMEs would indeed miss the different opportunities provided by eCommerce.

It is worthy recalling here the need for the small business to think about eCommerce differently and the fact that eCommerce requires a change (compatibility) in the way business is conducted for it to be successful and to be able to transform to the market-space transparently. It is only when the SMEs reassess their products and processes in the light of the new emerging technology (eCommerce) that they can operate their eCommerce initiatives more effectively. Thus, breaking from the current paradigm dictated mostly by traditional business practices and processes is highly emphasised here. A participant in recent research in New Zealand confirmed the same and commented, “at the beginning we had a big picture plan but as you do the next thing eyes become open to the situation. Every time we take the next step we’ll be saying, what is the next step after that? You’ve got to live it, to experience it…..(however), if you say to (SME owner) go out and make a Web site and sell to the world, and they don’t know how to make today work, how are they possibly going to comprehend it” (Chapple, 2002). This mindset is holding businesses back from progressing with eCommerce (Chapple, 2002).

On the other hand, issues pertaining to small business such as the inadequate financial, and human resources, time, and expert knowledge about eCommerce, would indeed widen the existing gap between their simple initiatives and their envisioned advanced eCommerce initiatives. It seems that the SMEs would be locked in that vacuum for a long time unless concerned or interested stakeholders in SMEs such as the Government do something to help the SMEs bridge this gap. Recent research in New Zealand emphasises that the Government could do more to promote technology to SMEs, either financially or through a mentoring programme (Chapple, 2002). The outcomes of Al-Qirim’s and Corbitt’s (2002) research highlight the following significant issues, which could assist the Government in addressing main impending issues pertaining to eCommerce in SMEs in New Zealand:

- Due to the high significance of the CEO’s innovativeness in this research, the existing electronic divide between adopters and non-adopters in SMEs could be bridged alongside the entrepreneurial perspective in New Zealand. Issues pertaining to the characteristics and personal traits of the manager/owner of the SMEs and their knowledge and understanding of eCommerce as a technology and as an enabler for business innovations needs to be addressed. Other issues pertaining to leadership, business practices and strategic planning could be addressed as well.

- Unveiling the varied perspectives and advantages of eCommerce could further attract SMEs to eCommerce. The cost as highlighted in the current research is not significant in that if the SMEs are able to realise the opportunity (advantages) out of eCommerce, cost should not be a problem. Cost could become a problem if the SMEs invest in eCommerce projects with unknown ends or results (risky eCommerce initiatives). Simply, they will not invest in something they know nothing about (risk averse). The New Zealand Government reported a tendency among businesses and financial institutions in New Zealand to be risk averse such as ignoring critical intangible factors and a failure to appreciate the changing strategic environment and the opportunities it offers (MOED, 2000).
The performance of technology vendors in New Zealand needs to be addressed as well, providing a trusted third party, which could introduce some performance indicators and put measures in place. These could further encourage interested SMEs in moving ahead with their eCommerce initiatives. CICA (2001) found the Canadian SMEs struggling with eCommerce and found that accountants are the professionals most trusted to give advice on eCommerce strategy, not technology vendors or consultants! This might be another option for SMEs to consider.

Regulatory, security, and electronic payments issues need to be addressed and bridged at least within the New Zealand perspective. However, such broad issues need to be addressed at the global level as well as most of the eCommerce opportunities are of global nature.

In the following, the Government’s eCommerce strategy in New Zealand is reviewed and recent progress on this strategy is introduced. These policies are then compared with the researcher’s findings of eCommerce adoption in SMEs in New Zealand.

3. The eCommerce Strategy of the New Zealand Government

In November 2000, the Government launched its eCommerce strategy for New Zealand (MOED, 2000). The strategy set out the Government’s vision to build New Zealand’s knowledge economy (MOED, 2001). “New Zealand will be world class in embracing eCommerce for competitive advantage” (MOED, 2000: 2). The Strategy recognises the opportunities and risks associated with the eCommerce and information technology revolution and set out the goals and principles to guide the Government’s response. It detailed the Government’s commitment to provide leadership and work in partnership with business and the broader community to build the eCommerce capability of New Zealanders. Implementing the E-Commerce strategy is a priority for the Government in this drive for economic transformation (MOED, 2001). The strategy identified three broad roles for the Government (MOED, 2000):

Leadership and communication in partnership with the private sector (shared responsibility):

• Raise awareness and champion eCommerce through leadership in communication (e.g., workshops, publications, develop Web sites, national awards, support through Government agencies such as Industry NZ, Trade NZ, and Technology NZ, develop key networks between businesses, professional services providers, and the financial community).

• Be informed about eCommerce capability through quality information and research. Identify research and development (R&D) programmes aiming at providing better statistics on the penetration of information and communication technology (ICT) and ICT skills, improving the understanding of the constraints on the adoption of eCommerce by businesses to inform policy response, and benchmarking New Zealand against the rest of the world.

• Deliver better quality, cheaper, secure, and faster services to its customers through the introduction of on-line services, and lead by example through e-Government and e-procurement. Developing New Zealand Government On-line (NZGO) as the primary Internet portal into Government agencies and services, and Web-based access to forms, with 40 per cent of all public service forms available on-line by 30 June 2001. Information and on-line payments systems
will be in place by 30 June 2001; and identifying activities where New Zealanders will be encouraged to interact with Government agencies on-line, and providing incentives for them to do so.

- Ensure the continuing supply of skilled resources either nationally (training) or internationally (supply of skilled people into New Zealand through review of immigration policies).

Helping to build human capability in business and the broader community including Maori\(^1\) and rural businesses:

- Facilitate building business eCommerce skills by working with business to build strategic, management, and technology skills. Focusing on SMEs is an immediate priority.
- Work to ensure that all New Zealanders have access to life-long learning opportunities to develop ICT skills for the 21st century through leadership in the education sector and by promoting the integration of ICT across the curriculum.
- Build broader ICT literacy and capability in the community including rural areas.

Ensuring an enabling regulatory environment for eCommerce (domestic and international). It embraces trade policy, tax policy, industry specific regulation and consumer policy:

- ensure flexible and timely legislative responses by passing the Electronic Transaction Bill, Crimes Amendment Bill No 6 to deal with cyber crimes, amend the Privacy Act 1993 to meet with the European directive on data protection, progress the development of the evidence code (communications used as evidence), and review other legislation including intellectual property.
- facilitate the development and protection of telecommunication infrastructure
- encourage appropriate self-regulation by industry by developing industry codes of practice in areas such as consumer protection and Internet services
- ensure an appropriate tax environment that takes into account the growth of eCommerce
- promote New Zealand's interests internationally alongside the above points.

The strategy identified a significant number of broad and specific commitments and actions for Government under this framework. The strategy identified how and where Government would focus its efforts to ensure that all citizens have access to new technology and it outlined initiatives to support an enabling regulatory environment in which eCommerce can flourish. It is agreed that achieving the above objectives and principles could happen in stages, however, addressing these broad objectives is indeed a very complex task and needs the cooperation/collaboration of the different entities in the Government.

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\(^1\) Indigenous people of New Zealand.
4. Progress so Far

The strategy contained 60 commitments and actions. The Government’s progress report in 2001 (MOED, 2001) reported different achievements alongside the different issues highlighted in the strategy (full details in MOED, 2001). This research highlights some of the main issues.

Leadership and Communication

One of the most important achievements in this strategy was the establishment of the Ecommerce Action Team (ECAT) in March 2001 to assist in implementing the eCommerce strategy. It is made up of industry and business leaders and experienced eCommerce individuals. It has worked on raising awareness of eCommerce issues across the broader community represented by its members and identifying ways of meeting specific sector needs. ECAT consists of three main entities (Figure 1): (1) the ECAT core group, a leadership team appointed by the Minister for Information Technology; (2) A largely self-selected ECAT network of sector or community groups and individuals (the ECAT Network); and (3) a website (ECAT, 2001).

![Diagram of ECAT Structure](image)

**Figure 1: Structure of the ECAT [Source: ECAT, 2001].**

A key objective of ECAT is to promote the establishment of additional regional or sector based ECATs and to support existing groups. Several "mini-ECATs" have formed, including a research ECAT; an Education ECAT (EduCAT); a rural ECAT lead by Federated Farmers; the Waikato ECAT (WECAT) and the Hawkes Bay E-Commerce Development Committee. Six regional eCommerce events have been held in different parts of the country to assist in building awareness of the opportunities afforded by eCommerce and helping businesses learn from each other. Most importantly they have acted as catalysts for the establishment of local groups and eCommerce initiatives. The ECAT website is being developed (launched recently and hosted by the Government2) as a key instrument to support business and the wider community to build their eCommerce capability and develop support networks. It contains links to a wide variety of information including the eCommerce guide, case studies, current research and statistics,

ECAT Network member pages, a calendar of eCommerce events and training and eCommerce news.

One significant achievement of the ECAT is the launch of the ECAT Network in June 2001. It provides a channel for businesses, non-profit organisations and individuals to share their experience and interest in eCommerce. Members contribute to the resources on the ECAT website through their member pages. Anyone may join the network and the eCommerce-contacts mailing list. This list is used to notify updates to the ECAT website, publicise events and stimulate feedback on practical eCommerce questions and issues.

The E-Government Strategy was released in April 2001 with the mission that by 2004 the Internet will be the dominant means of enabling ready access to Government information, services and processes (ecommerce.govt.nz). Work continues on a comprehensive range of projects including implementation of secure email, development of a new Government portal, the e-procurement pilot and work on establishing interoperability and standards. An enhanced NZGO website will be implemented by January 2002 (superseded recently by the “www.govt.nz” portal).

The Minister of State Services has advised public service chief executives that departments must explicitly incorporate e-Government3 into their strategic business planning from 2001/2002 onwards. An e-procurement strategy and report has been provided to the Cabinet Economic Development Committee. E-procurement pilots have been undertaken by various agencies, and agencies' experience reviewed. An e-billing strategy report was prepared in early 2001 for the E-Government Advisory Board. It concluded that products in the marketplace are not developed enough to recommend any particular approach.

Due to the limited market scope in New Zealand, the Ministry of Foreign Affairs and Trade4 and Trade New Zealand5 continue to work through New Zealand’s overseas posts and offices to enhance market access opportunities using eCommerce for New Zealand exporters and to promote New Zealand companies as innovative users of leading edge technology.

Building Capability

In line with the second role of the Government in the strategy, different educational and motivational initiatives were established. The Government published the eCommerce guide in November 2000 where over 8000 copies have been distributed to businesses all over New Zealand. In addition, more information has been made available through the ECAT website (e.g., multi-currency credit card services). The BIZInfo6 programme through Industry NZ has developed an eight-module eCommerce training programme aimed at SMEs. This programme is now available through the BIZ provider network. Trade New Zealand is well advanced in implementing its eCommerce strategy including a revamped website, a client eCommerce education programme, an online database to profile all New Zealand exporters, advice on digital marketplaces, and incorporated eCommerce into its criteria for the export awards. Businesses with innovative eCommerce and electronic business strategies can apply for the Enterprise Award Scheme administered by Industry NZ.

4 http://www.mfat.govt.nz/
5 http://www.tradenz.govt.nz/
6 http://www.bizinfo.co.nz/
**Enabling Regulatory Environment**

There have several developments on the third initiative. The Electronic Transactions Bill was approved by the parliament on 10 October 2002. It will enable statutory requirements for writing, signature and the retention and production of information to be met using electronic methods. This represents a significant development. Secure Electronic Environment\(^7\) (S.E.E.) email is now operational between different state agencies. The Crimes Amendment Bill (No.6) will address computer-related crime. It has been reported back from select committee and is awaiting parliament's consideration of the committee's report. The Telecommunications Bill is designed to create a more efficient and competitive telecommunications market in New Zealand for the benefit of both business and domestic consumers. Work on reform of evidence law, including electronic evidence, is at the policy approval stage. The Government has issued the New Zealand model code for consumer protection in eCommerce to assist business to develop self-regulatory mechanisms and provided advice to business associations considering their own codes of practice. A national infrastructure protection strategy report was prepared and the Government has approved the establishment of a centre for critical infrastructure protection.

The Government has approved an initial pilot on-line service for immigration, visa and permit applications. New Regulations have been promulgated. The New Zealand Immigration Service\(^8\) (NZIS) has undertaken a migrant recruitment drive aimed at Indian ICT professionals. The current promotional activity is likely to be a pilot for a broader, global promotional campaign.

5. **Discussion**

The Government has drawn on the wider framework to address eCommerce adoption and diffusion in business in New Zealand and progressed different initiatives aiming at bridging the gap between business and eCommerce. It set the general guiding strategy and progressed admirably in achieving most of the impending issues that were highlighted in the strategy. The Government is acknowledging its leading role in empowering and driving eCommerce in New Zealand; upgrading the capability of the business; and setting the governing regulatory framework. At the heart of the Government’s strategy is the joint leadership perspective between the Government and the businesses in New Zealand and choices about new technology and the exploitation of opportunities must be led by the private sector (individuals and business innovators).

However, the implication here is twofold. Initially, there is a need for more interdisciplinary eCommerce research aiming at detecting the true progress and penetration of the Government’s eCommerce initiative into the business environment in New Zealand and most importantly, how to develop accurate measures and benchmarks for eCommerce success in businesses in general and in SMEs specifically. We need to identify the true impact of eCommerce on the market efficiency, the regions that are targeted and the regions that are progressing more than the others, the level of success and penetration of the strategy, the Government’s priorities regarding eCommerce diffusion, and the business perception of the strategy. In pursuing eCommerce, the SMEs in that research were found not to be following any guidelines or measures set by the


Government. The Government is addressing this and hence, focusing on this perspective with quality research could safeguard against any deviation or waste in targeting the most important issues that are of essence to the wide success of the eCommerce strategy in business in general and in SMEs in New Zealand specifically.

Secondly, the guidelines in the strategy are set broadly and it could be agreed here that implementing the strategy will take many years and indeed, looking at the progress occurring on the strategy, the Government is quite focused on achieving the eCommerce strategy. However, although the Government has addressed the small sector in many places in the strategy, it should be emphasised here that focusing on the SMEs’ perspective in greater detail could yield more effective and direct results. This research outlined some of the main features of the SMEs, which distinguish them from other businesses. The structure of the SMEs is too fragile to withstand any serious strategic investment on eCommerce. Most of the research studies in this paper point to the wide adoption of Internet, email, and simple Web page but the utilisation of these technologies in business is not extensive. E-Commerce is more than businesses advertising. It is about undertaking business processes in a networked electronic environment, as envisioned by the Government (MOED, 2000). Accordingly, leaving the business to choose its own eCommerce technology and to exploit it to the benefit of the business has proven ineffective at least from the SMEs’ perspective because SMEs lack the detailed knowledge about eCommerce and business models in the first place. Waiting for the implementation of the whole eCommerce strategy will take a long time and due to the rapid development in the eCommerce technology, it is feared that many SMEs will always be in a position to miss taking the lead in eCommerce. The Government acknowledges the threats from other businesses, which could influence the economic structure, drive prices down and undermine competitive positions of many businesses in New Zealand. There are many companies that have not formerly been seen as competitors that are addressing these challenges and exploiting new opportunities faster than New Zealand firms. E-Commerce also poses new risks as more agile competitors harness the power of the Internet and eCommerce.

This research emphasised the importance of addressing four main issues: set the regulatory framework; increase the SMEs’ awareness of eCommerce; CEO’s innovativeness; and address technology vendors performance in New Zealand. It is clear from the Government’s strategy that it has addressed and achieved different steps toward the first two main issues. Issues like security, privacy, legal protection, lack of knowledge of eCommerce and business models, and most importantly guiding the SMEs to the next level of eCommerce (interactive initiatives where most of the benefits and risk fall!) is highlighted as the major deterrent. However, what is important alongside these initiatives is to promote these services effectively to the businesses community in general and to SMEs specifically in New Zealand. For instance, BizInfo provides free training on eCommerce. However, BizInfo chief executive says the support for eCommerce is available but just not being used by businesses (Caппple, 2002)! This further highlights the need for more work to be done by the Government in populating its services to the business community in New Zealand. The training programmes need to be more “hands on” such as conducting workshops where the managers of the SMEs are exposed to real live situations and are encouraged to find solutions to such situations. Providing more case studies (success/failure stories) and analysing them could prove more insightful to the managers of the small business. Workshops aiming at guiding the SMEs to develop their eCommerce initiatives starting with problem identification and analysis and ending with development (blueprint) are highly encouraged here. Allowing the SMEs to live the experience could remove many of the misperceptions that surround eCommerce and could act as a motivator for adoption or joining a network.
As for the remaining two issues, this research emphasises the need for addressing and prioritising the CEO’s innovativeness perspective in SMEs and the performance of technology vendors in New Zealand. Although the Government is acknowledging (MOED, 2000) the shortage of management, leadership, and entrepreneurial eCommerce skills and the need to develop an innovation culture, this research emphasises that if the CEO’s perspective is not addressed first, most of the Government’s initiatives will not strike a bull’s eye. The Government needs to reach out to the CEOs of the different SMEs in New Zealand and to target its messages to the managers of the different SMEs on a one-on-one basis in order to attract their attention. Perhaps creating a consistent marketing campaign could generate this momentum among the managers of the SMEs in New Zealand to adopt eCommerce or to join a network. The ECAT role in this regard is apparent and highly commended. However, there is a tendency for businesses and financial institutions in New Zealand to be risk averse and many SMEs prefer debt- rather than equity financing, to avoid sharing ownership control and hence, a strong go-it-alone attitude prevails (MOED, 2000). This represents the greatest risk for initiating such networks among the SMEs in New Zealand, as they would perceive this call for clustering as intervening with their sovereignty. Promoting the entrepreneurial perspective and spirit (CEO’s innovativeness) among the business-owners in New Zealand is highly advised and targeted educational programmes and workshops could address this perspective.

Living in the global knowledge economy amidst rapid technological developments, this situation could lead to difficulties at the national level in New Zealand in the long run. On the other hand, latest reports by the media about the resulting mergers between gigantic enterprises in the U.S and Europe and the emergence of the European Union, raises concerns to countries like New Zealand, which is dominated by smaller businesses. It seems the rapid deregulation and downsizing policies embraced by the New Zealand Government since the mid eighties needs to be reviewed in the light of recent global economical changes and the online information age. The resulting merger between New Zealand’s two largest dairy producers (Fonterra) in order to survive global competition is solid evidence for this change. Assessing the structure of small business in New Zealand and hence, providing a framework for more collaborative, cooperative, integrative work could prove more useful to New Zealand SMEs. For instance, creating clusters of SMEs working in similar industries or dealing with similar products could put them in a better position to compete in the global marketplace. Building consolidations among suppliers-manufacturers- buyers could prove effective to the SMEs. In the case of Fonterra creating eCommerce linkages between the parent company and the different farmers alongside the supply chains could introduce valuable efficiencies at the short run leading to a strategic advantage at the long run. It seems this call for clusters among the SMEs’ community in New Zealand is more pressing now than ever. However, due to the limited market scope in New Zealand, prioritising and promoting these clusters in the direction of exporting could prove more effective and encouraging to SMEs reluctant to participate.

Other countries are doing the same. For instance, the U.S lawmakers approved an eCommerce pilot programme designed to help SMEs manufacturers (350,000) move their business online. The Korean Government is doing the same with domestic software companies, mostly SMEs, to streamline their distribution channels by establishing a software cybermall to link buyers and developers easily bypassing lots of intermediaries.

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9 A news clip reported by TVNZ in 2002.
10 Retrieved 9 December, 2002 from the Web: http://www.fonterra.com/content/aboutfonterra/whoweare/default.jsp
along side the selling/supplying chain (Turban et al., 2002). In Europe, there has been tremendous progress with respect to the economic significance of eCommerce, the development of (self-) regulatory mechanisms and the creation of a modern policy framework (L’Hoest, 2001).

As for technology vendors in New Zealand, it should be emphasised here that like most of the developed countries, the Government’s deregulation policy dictates that it could not intervene in how business-owners should run their business. All it can do is generate the broad regulatory framework, which could govern relationships and interrelationships among businesses. However, what the Government can do is to provide a list of accredited technology vendors, who could deliver professional and economical advise and solutions. In this regard the Government could benefit from the business model of certificate authority and trusted-third-parties in Cyberspace. This could encourage technology-vendors registering for this service and meeting the requirements to increase their business stake in the SMEs’ sector.

6. Conclusion

This research attempted to review the Government’s eCommerce strategy in the light of recent eCommerce research findings in New Zealand. The findings point to the significant role played by the New Zealand Government in creating and encouraging an atmosphere for the wide adoption and success of eCommerce in New Zealand in the long term. The progress in implementing the strategy is significant. What this research stresses is to prioritise certain issues that are of significant importance to SMEs such as addressing the CEO’s innovativeness and the performance of technology vendors in New Zealand. The call for clustering among New Zealand SMEs seems the only plausible solution to survive the rapid technological development and growing global competition.

This research represents an initial attempt in this policy direction to link eCommerce research in SMEs with Government policy. Thus, expanding on the different issues highlighted in this research could contribute significantly to this policy, SMEs and to researchers interested in this area. Monitoring the progress of the eCommerce strategy alongside its different entities and stakeholders and creating accurate measures tracking its diffusion and success among the different businesses in general and the SMEs specifically in New Zealand is highly recommended here.

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