

SMEs and their e-commerce

Implications for training in Wellington, New Zealand

Tim Beal and Moha Asri Abdullah

Abstract: *One of the greatest challenges facing traditional small and medium-sized enterprises (SMEs) throughout the world is that posed by the Internet. While the Internet offers great potential to SMEs, from improving and cheapening production processes through to reaching global customers, it also poses great problems. SMEs' resources, human and financial, are usually very limited. This article examines the use of e-commerce, particularly via Websites, among SMEs in Wellington, New Zealand on the basis of a 2003 survey of 106 firms. Almost all the SMEs surveyed used computer technology and about 67% had their own Website. Moreover, 83.1% had launched their Website within the last five years, reflecting the influence of the recent and rapid growth of information and communication technology in New Zealand and around the world. Enhancement of corporate image, reaching new markets, product checking by customers and better communications with customer and suppliers were among the main objectives of the SMEs in setting up their Websites. The survey findings also indicate a strong relationship between the use of a Website and a widening customer base and improvements in turnover. While the presence of a Website is of the utmost important to an SME's development, problems such as the lack of internal resources, technical expertise and maintenance skills are common. The study concludes that appropriately skilled workers (designers, IT specialists, etc), technical training programmes and the availability of advisory services relating to e-commerce and Website operation are of great importance to SMEs.*

Keywords: *e-commerce; SMEs; IT training; New Zealand*

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Information and communications technology (ICT) has entered the lexicon of business in many forms throughout the world. It has grown with overwhelming, sometimes bewildering rapidity, considerable hype and

much confusion (Beal, 2003). The rapid development of ICT affects the competitive environment of enterprises globally, though the impact varies considerably by country. However, even in countries where the general

usage of ICT is low – say in Cambodia or Laos – it is still possible for individual companies to participate in the global ICT environment. This means that ICT directly and indirectly affects all enterprises, irrespective of size. Nonetheless, small and medium-sized enterprises (SMEs) face more challenges in using ICT than their larger counterparts: they have relatively small and limited resources to understand and use the technology, in most cases they cannot afford specialist staff, they do not reap economies of scale and they are vulnerable to major mistakes in their operations.

Nevertheless, the prosperity and development of SMEs in this new global ICT environment are becoming more and more important to the economies of many countries, developing and developed alike. SMEs need to face a number of issues and challenges, but also find themselves presented with more opportunities from the development of such interrelated modes and forms such as e-commerce, Websites, e-mail, dot-com companies, and so on. An SME may participate in one or several of these developments: many, for instance, use e-mail but not e-commerce.

From 1996, the number of users of the Internet has doubled every nine months, and information flow and bandwidth have increased enormously. According to a report published by Nielsen/NetRatings, there are about 300 million active users in just 20 countries (Moha, 2003). Although the USA still has the largest number of Internet users (some 185 million), the larger East Asian and European countries now have very substantial numbers of users. The total number of users in Pacific Asia, here defined as East and Southeast Asia, Australia, New Zealand and India, already exceeds that in the USA, and is likely to continue to do so (CyberAtlas Research, 2001).

One important aspect of the new business potential offered by ICT is e-commerce, which is particularly prevalent in the USA. Just as the USA led the world in adoption of the Internet, so American e-commerce trends are being replicated elsewhere, and the adoption rate is accelerating. Although companies such as Amazon.com have received a great deal of attention, e-commerce has, in fact, so far been primarily business-to-business (B-to-B) rather than business-to-consumer (B-to-C). In 2002, the latest year for which the US Department of Commerce has published an e-commerce report, 93% of e-commerce was B-to-B and e-commerce accounted for only 1.4% of retail sales (Commerce, 2004). However, growth has been fairly rapid, and this trend continues. In the last quarter of 1999 the electronic share of retailing in the USA was only 0.7% (Greenspan, 2004). By the last quarter of 2004 the unadjusted preliminary estimate by the Department of Commerce was 2.2%. However, that is

only one part of the story: many Americans research purchases online and then shop offline. This 'cross-channel shopping' produced sales of \$102 billion a year according to an estimate by Forrester Research in 2004 (Kerner, 2004). The amount of e-commerce uptake varies considerably across sectors – the e-commerce share of travel booking was predicted to rise from 20% in 2003 to 33% in 2009 (McGann, 2004).

This article provides some empirical evidence on the use of ICT (computer, Internet, Websites, etc) in SMEs. Based on a survey of 106 SMEs in Wellington, New Zealand, it focuses on the objectives behind the firms' use of ICT, the problems they encountered, and, especially, the implications for training and education. Given the contribution of SMEs to the economy, an assessment of their use of Websites is of considerable importance. It is hoped that the findings of the survey discussed here will help firms to make better and more profitable use of the Web. Since New Zealand is among the more advanced Internet countries – it ranks eleventh in terms of the percentage of population using the Internet – the findings should have wider applicability.

SMEs and e-commerce in New Zealand

The rapid increase in general ICT use, the growth of Internet use and the development of e-commerce raise questions as to how fast SMEs should and could adjust to such changes? These questions are very relevant for New Zealand, where nearly 97% of all private enterprises are SMEs, accounting for about 44.8% of private-sector employment. Small firms employing fewer than five full-time workers constitute the largest contributor to job creation, creating 194,000 new jobs between 1995 and 2002. SMEs account for about 35.1% of total national output. (Statistics from Ministry of Economic Development, 2001.)

As they face up to the challenges and opportunities presented by the Internet, SMEs need to understand as fully as possible the virtual environment in which they are planning to operate. The Internet, as a mass phenomenon, is still very new and in many parts of the world is still growing very rapidly. Even in the USA and parts of Europe and East Asia, where it is entering into some sort of maturity in terms of growth in users, the technology, applications and markets remain volatile.

In December 1995 a survey monitored by the Irish company Nua (subsequently taken over by CyberAtlas.com and then by ClickZ.com) produced an estimate of 16 million Internet users worldwide (Beal and Abdullah, 2002) – a mere 0.39% of the world's population. Some five years later, the number had

grown to 407.1 million, 6.71% of the world's population (Beal, 2003). A recent estimate of global users from the US-based Computer Industry Almanac Inc (2004) puts the total at 934.5 million; the company predicts that the number will exceed one billion during 2005. The USA still has the largest Internet population, but it is now only 20% of the global total – and this share will naturally drop as connection to the Internet increases elsewhere. Europe and Asia Pacific currently account for the bulk of the balance, leaving the rest of the world – Africa, the Middle East and Latin America with about 6% (Beal, 2002). The Asia Pacific countries' share of the global total has grown very rapidly. In addition to Japan, South Korea is among the world leaders in ICT use and the percentage of the population with access to the Internet. South Koreans spend twice as much time on the Internet as others (SCMP, 2001) and have the highest level of broadband penetration in the world (*Korea Herald*, 2002).

The use of the Internet varies considerably around the world. It is important therefore to get some idea of where New Zealand stands in 'cyberspace geography' to ascertain the relevance of this survey to other countries. In reviewing this, three sets of data are presented:

- for connectivity – the percentage of the population with access to the Internet;

- for the Internet market – the number of people in a country with access to the Internet; and
- for 'e-readiness'.

The data cited here and in Figure 1 were compiled by the US company ClickZ.com (2005), using data from the US Central Intelligence Agency. The connectivity rate – though, like all Internet data, subject to methodological uncertainties – does give a reasonable sense of the Internet environment. The higher the connectivity rate then the more likely it is that the firm's customers, competitors and supply-chain partners, as well as government agencies, information sources, etc, will be online and so the greater the pressure of the firm to use the Internet. As Figure 1 shows, New Zealand is among the most 'wired' countries in the world, ranking 16th, with 59% of its population having access to the Internet. This is some way behind the Scandinavian countries, South Korea, and even neighbouring Australia, but it is ahead of Germany and the UK.

The size of the market is another motivating factor. In some large countries, with China being the classic example, the connectivity rate may be low but the Internet market is still significant. As Figure 2 indicates, China is now second to the USA, having overtaken Japan. New Zealand is inevitably a small Internet market (its total population is just over four million) but its relative proximity to Australia, with

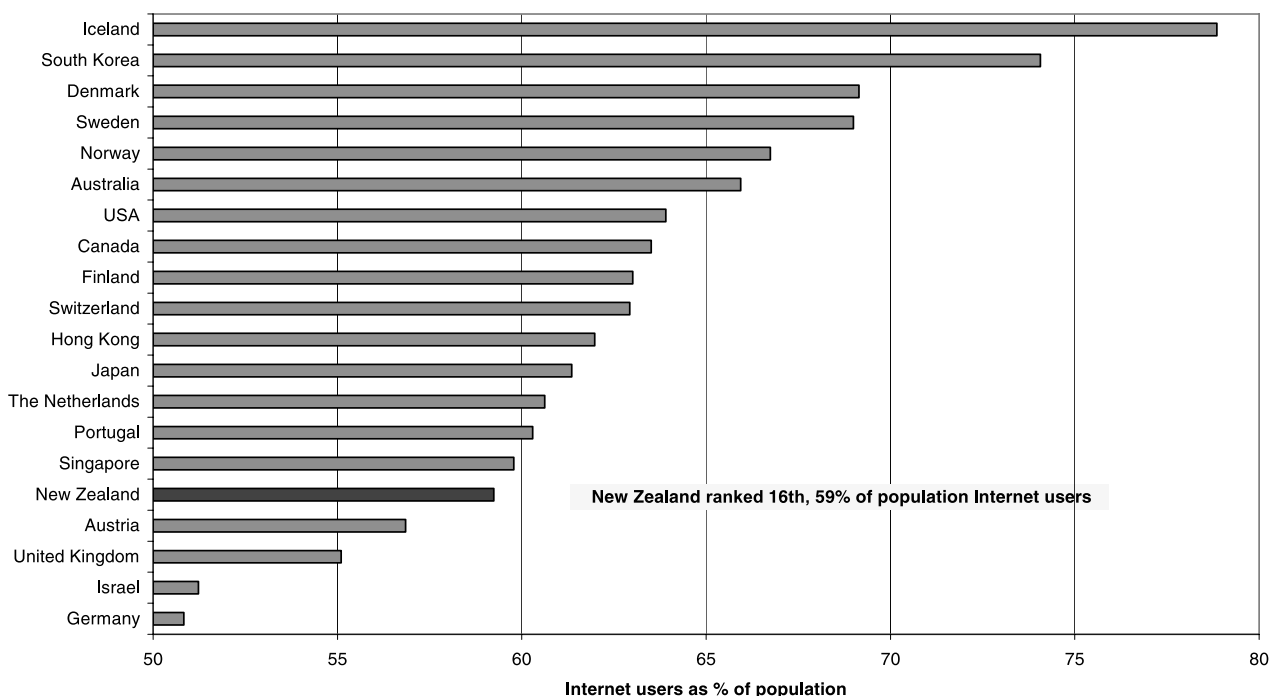


Figure 1. Connectivity, 2004 – top 20 countries.

Source: ClickZ.com (using CIA statistics), downloaded 14 March 2005.

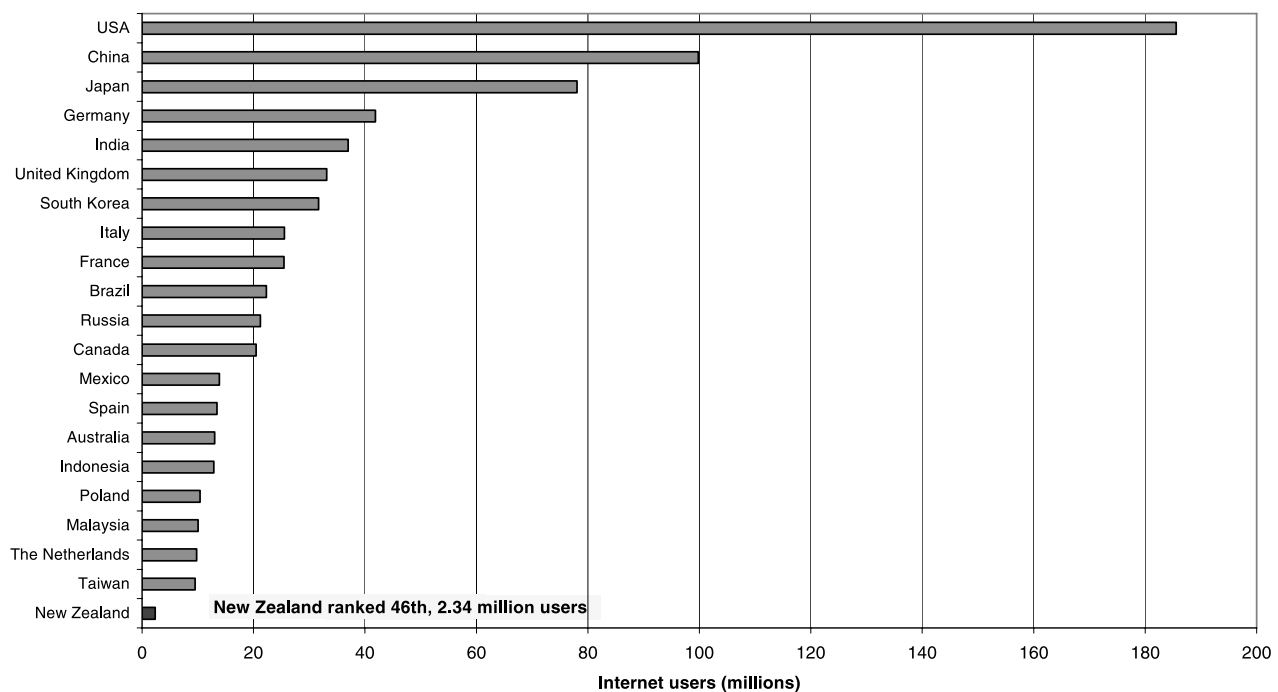


Figure 2. Size of Internet market, 2004: top 20 countries, plus New Zealand.

Source: ClickZ.com (using CIA statistics), downloaded 14 March 2005.

which it is becoming increasingly economically integrated, may offer some SMEs a larger catchment area.

A number of organizations have attempted to assess ‘e-readiness’, which may be roughly defined as the conduciveness of the national environment towards business use of the Internet. The survey used for the data presented in Figure 3 is that carried out by the Economist Intelligence Unit and published in April 2004. It can be seen from the figure that New Zealand does not shine in this respect, lagging behind much of the European Union, North America and some of the advanced Asian economies (although it is ahead of Taiwan).

Significantly, New Zealand emerges from these statistics as a relatively advanced Internet economy, comparable in connectivity and e-readiness to many other developed economies. It is unquestionably quite a small Internet market, but that is not necessarily a problem for an SME. It seems safe to argue therefore that the results of this survey are relevant throughout the ‘developed world’ and perhaps beyond.

The NZ government and the promotion of ICT to SMEs

The New Zealand government, like its counterparts elsewhere, has been anxious to promote the use of ICT by SMEs but has struggled to find the best ways

of doing this. One of its initiatives was the Electronic Commerce Action Team (ECAT), hosted by the Ministry of Economic Development. This was set up in March 2001 following a New Zealand ‘E-Commerce Summit’ in November 2000. Its composition represented 11 sectors of the economy and included members from the Wellington Chamber of Commerce. It was disbanded on 16 June 2003 on the grounds that it had achieved what it had set out to do (Swain, 2003). In its final report, *Towards World Class E-Commerce*, it pointed out that:

Statistics show that use of the Internet by businesses increased significantly between the middle of 2000 and the middle of 2002. The number of businesses with their own domain name increased from 33% to 60% over that period and 45% of businesses also had their own website by the middle of 2002. The statistics also indicate that businesses are using the Internet to conduct business, with over half of businesses ordering goods or services and over a third selling over the Internet. (Simpson and Calarco, 2003).

What contribution ECAT actually made to this growth is unclear. It is also important to emphasize that the degree of attention given to SMEs specifically was rather limited – although a couple of examples of SME-oriented initiatives were given. As part of its commitment to ECAT, the Tourism Industry Association of New Zealand (2005), for instance, referred to the fact that it had ‘commissioned a

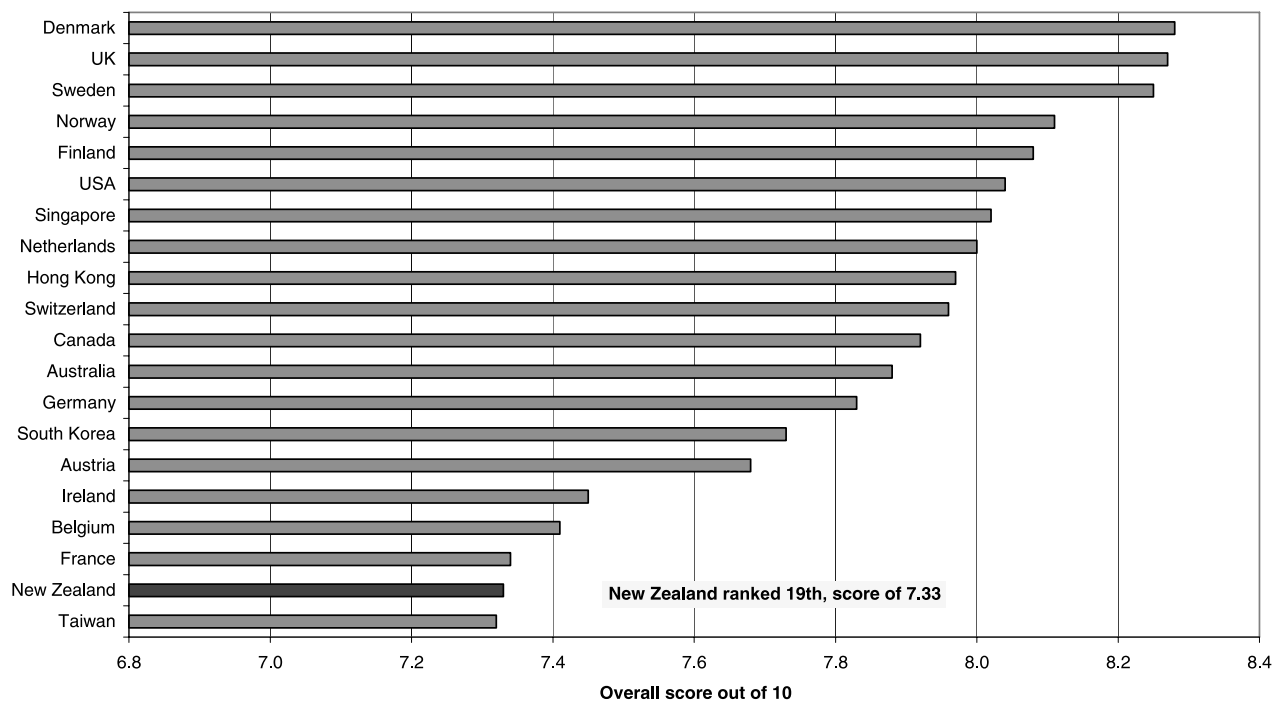


Figure 3. E-readiness, 2004.

Source: EIU (2004).

substantial Tools and Templates package to provide practical business support for the lifecycle stages of small and medium businesses selling products in the tourism market' (p 16).

There was recognition of an ongoing need for support, but little in the way of specific ideas as to how it might be addressed. As noted in the Tourism Industry Association's report (p 17), 'Good progress has been made, but we must not rest on our laurels. Further efforts need to be made to increase the capability of businesses, particularly small businesses, to take advantage of e-commerce, and we encourage the Government to continue to work in this area.'

A key part of the New Zealand government's continuing effort to assist business, particularly small business, is its Website at <http://www.biz.org.nz/>. This covers a wide range of business issues, including e-commerce (Figure 4). Again it is unclear just how successful this site is and, as far as is known, no study has been conducted and no assessment reports have been published. However, a measure of the government's commitment might be indicated by the fact that the main publication accessible via the site, *E-Commerce: A Guide for New Zealand Business*, was published in November 2000 and, at time of writing (March 2005), has still not been updated. If a week is a long time in politics, over four years is a very long time in e-commerce.

All this shows the importance of empirical studies of SMEs and their experiences with Internet technologies.

Research method

It is widely acknowledged that definitions of SMEs differ across countries and sectors. However, there are common criteria, including the number of full-time employees, the amount of invested capital, personal ownership and management and the total value of turnover or profit before tax. In many countries, only one or some of these factors are typically chosen, depending on the purpose of the study in question. In New Zealand, SMEs are usually defined as enterprises employing 19 or fewer full-time equivalent employees. Small enterprises are defined as those employing not more than 5 full-time equivalent employees and medium-sized enterprises as those employing 6–19 full-time equivalent employees (see, for instance, Ministry of Economic Development, 2001, p 2).

The present study focuses on Website use by members of the Wellington Regional Chamber of Commerce (WRCC) whose e-mail addresses were registered with the Chamber. The survey was carried out as a joint project between WRCC and the School of Marketing and International Business of Victoria University of Wellington. It was not formally confined

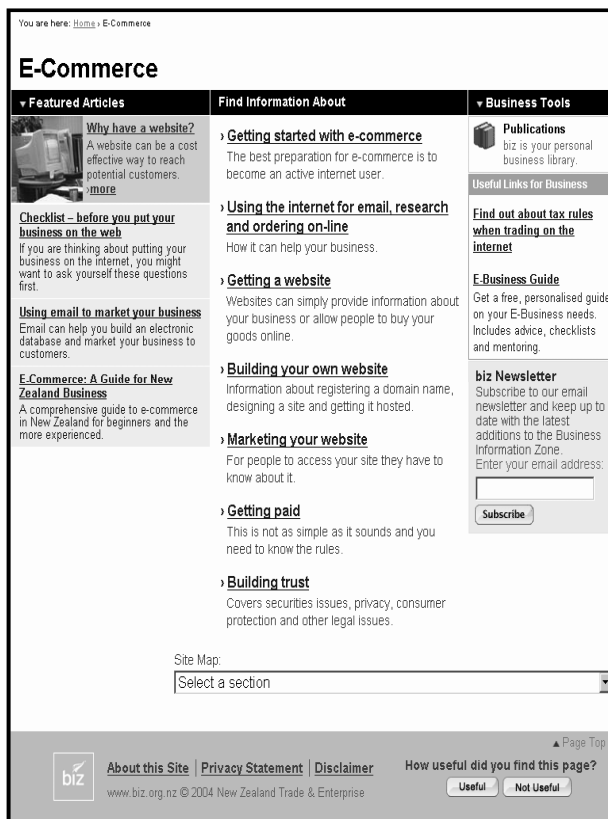


Figure 4. Detail from New Zealand government's e-commerce Website.

Source: <http://www.biz.org.nz/public/section.aspx?sectionid=37>, downloaded 16 March 2005.

to SMEs, because the WRCC does not categorize its members in that way. However, the membership is predominantly comprised of SMEs and so the survey was nevertheless SME-focused.

The survey was carried out between late February and early March 2003. An e-mail message was sent to WRCC members, providing a link to a secure Website on which the survey questionnaire was posted. It should be stressed that all the members surveyed were thus, of necessity, connected to the Internet. We cannot say how typical they are of SMEs in general. Of the 842 WRCC members approached, 106 SMEs completed the questionnaire. This represents a 12.6% response rate and provides an adequate sample size (see, for instance, Kazmier and Pohl, 1987, p 9). The data were processed and analysed in SPSS and some basic statistics were used to substantiate the findings.

General findings

Of the 106 responding SMEs, over 40% (43) had a turnover of less than \$NZ500,000. Nonetheless, a

significant 32.1% had a turnover between \$NZ10 million and \$NZ50 million, while another 4.7% exceeded NZ\$50 million (see Table 1). This reflects the fact that New Zealand SMEs vary substantially in size and type.

The responding SMEs were quite inward-looking as far as their customer base was concerned: about 28.3% marketed products in the Wellington area only, while another 42.5% promoted their products nationally. As can be seen from Table 2, those SMEs marketing their products globally accounted for only 20.8%, while another 8.5% reported markets in New Zealand and Australia only. To some extent this local focus reflects the nature of their business.

Table 3 presents the responses on computer use. Some 16% of the sample had more than 50 computers. Another 37.7% used between one and five computers, while 16.9% used from six to ten and 16.0% used from 11 to 20. Curiously, one of the SMEs claimed it did not use a computer at all for business, but since the survey was conducted by e-mail this response is difficult to interpret. Based on the responses, it seems that once Wellington SMEs move into ICT they do it with some determination.

A total of 67%, or 71 respondents, had a Website, which left 33% currently without a Website (Table 4). This indicates that the majority of SMEs in New Zealand with Internet access do currently maintain a Website as a way of doing business at least to some extent. It should be recognized, however, that the sample is likely to be more enthusiastic about ICT than the norm: the mere fact that were responding to an e-mail survey on the subject suggests this. Table 4

Table 1. Turnover of enterprises (\$NZ).

	Number	Percentage
Less than 100,000	19	17.9
100,000–499,999	24	22.6
500,000–999,999	15	14.2
1 million–9,999 million	34	32.1
10 million–49,9999 million	9	8.5
50 million and above	5	4.7
Total	106	100.0

Table 2. Current customer base of SMEs.

Market level	Number	Percentage
Wellington only	30	28.3
National (New Zealand)	45	42.5
New Zealand & Australia only	9	8.5
Global	22	20.7
Total	106	100.0

Table 3. Number of computers used by SMEs.

	Number	Percentage
None	1	0.9
1–5	40	37.7
6–10	18	17.0
11–20	17	16.0
21–50	13	12.3
50 and above	17	16.0
<i>Total</i>	<i>106</i>	<i>100.0</i>

Table 4. Status and age of SMEs' Websites.

Status	Number	Percentage
SMEs with Website	71	67.0
SMEs without Website	35	33.0
<i>Total</i>	<i>106</i>	<i>100.0</i>
When launched		
Less than 2 years ago	18	25.4
2–4 years ago	41	57.7
5–7 years ago	9	12.7
8–10 years ago	3	4.2
<i>Total</i>	<i>71</i>	<i>100.0</i>

also confirms, as expected, that many of the Websites were relatively new, with more than 80% having been set up within the last five years. Of that 80%, 57.7% of the firms had launched their sites within the last two to four years, while only 4.2% had established them eight to ten years ago. This recent rapid growth in the number of Websites corresponds closely to the recent and rapid development of the ICT industry in the country and to global developments.

Objectives and problems of Websites

As shown in Table 5, the main objectives of SMEs in relation to their Websites included, among others: to enhance their corporate image; to reach new markets in New Zealand; to enable customers to check products; to communicate more effectively with existing customers; to reach new markets overseas; and to enable them to compete with large companies.

The principle aim of setting up a Website clearly should be to improve the business in some way. Table 6 shows that those who had established Websites were broadly satisfied, with 26.8% claiming that the site had produced a better company performance and 46.5% reporting that their sites had been moderately successful. Only 26.8% considered that the Website had either not made much difference, or that it was too early to judge the level of success. Thus, three-quarters of the respondents with a Website found that it had been worthwhile.

As expected, the companies encountered a number of problems. As can be seen from Table 7, 22.5% acknowledged that the maintenance of the site absorbed too much of their internal resources, another 21.1% said their staff did not have the required expertise, while another 18.1% thought that their Website had generated no extra business. This last problem is not necessarily incompatible with the most common objective for establishing a Website – that of improving the company image. While a better corporate image is intuitively assumed to be at least conducive to the generation of new business, it does not necessarily follow. Furthermore, a company might be happy with an enhanced corporate image, even if it had no discernable impact on business purely for reasons of self-esteem.

Table 5. SMEs' objectives in setting up Websites.

	Number	Percentage
Enhance corporate image	56	78.87
Reach new markets in New Zealand	42	59.15
Enable customers to check products	42	59.15
Communicate better with existing customers	41	57.75
Reach new markets overseas	31	43.66
Compete with larger companies	30	42.25
Grasp technology in business	28	39.44
Catch up with competitors	25	35.21
Able to stay open all the time	23	32.39
Provide access to manuals, detailed product information, etc	21	29.58
Replace paper-based information	18	25.35
Provide means of customer-to-staff communication	16	22.54
Enable customers to order products	13	18.31
Provide subscription-based electronic material	11	15.49
Enable customers to pay for products	8	11.27
Provide an information resource for geographically scattered staff	8	11.27

Note: The number and percentage of answers exceed the total because respondents could select more than one answer.

Table 6. Level of success with Website.

	Frequency	Percentage
Very successful	19	26.8
Moderately successful	33	46.5
Has not made much difference/ too early to measure	19	26.8
<i>Total</i>	<i>71</i>	<i>100.0</i>

Further analysis was performed with SPSS to ascertain the degree of correlation between three key variables and whether or not the SME had a Website. The variables – number of computers used, current customer base and turnover – were individually tested using normal cross-tabulation and then either the Chi-Square test or Fisher's Exact Test was used, depending on which was appropriate. Table 8 shows the relationship between the number of computers uses and whether or not the SME had a Website. Clearly, the higher the number of computers used, the more likely the company was to have a site. The Fisher test result indicates that the relationship is very significant with a probability of $p < 0.008$. This means that SMEs with a

Website tend to use more computers in their business operation.

The second relationship, that between the current customer base and the existence of a Website, is illustrated in Table 9. The finding is clear: SMEs with a Website tend to have a broader customer base, while those without tend to concentrate their market around the Wellington region or within New Zealand. The relationship is strong, with a Chi-Square of 9.883 and an exact significance level of 0.018.

Similarly, Table 10 shows that SMEs with a Website tend to have a higher turnover. The result is validated by the Fisher test, which indicates that the relationship is strong at a value of 11.166 and an exact significance level of 0.039. This finding is of course consistent with the distance-neutrality of the Web.

Implications for training and education

The final set of questions in the survey, on training and support needs, was of great importance to the WRCC and of particular relevance to SMEs. The introduction to the section explained its rationale:

Table 7. Problems encountered with Website.

	Number	Percentage
Website maintenance too demanding on internal resources	16	22.54
Staff did not have required expertise	15	21.13
No extra business was generated	13	18.31
Took staff from more profitable duties	12	16.90
ISP performance was unsatisfactory	9	12.68
Set-up costs were too high	8	11.27
Consultants did not understand our business	7	9.86
Difficult to find qualified and dependable consultants	7	9.86
Maintenance costs were too high	6	8.45
It created customer demands/expectations we couldn't cope with	4	5.63
ISP cost was excessive	4	5.63
There were security problems	1	1.41
Other	10	14.08

Note: The number and percentage of answers exceed the total because respondents could select more than one answer.

Table 8. Relationship of number of computers to existence of a Website.

Number of computers	With Website	Without Website	Total
None	1 (100)	–	1 (9.4)
1–5	18 (45.0)	22 (55.0)	40 (37.7)
6–10	13 (72.2)	5 (27.8)	18 (17.0)
11–20	13 (76.5)	4 (23.5)	17 (16.0)
21–50	11 (84.6)	2 (15.4)	13 (12.3)
50 and above	15 (88.2)	2 (11.8)	17 (16.0)
<i>Total</i>	<i>71 (67.0)</i>	<i>35 (33.0)</i>	<i>100.0</i>

Note: Figures in parentheses are percentages. Fisher Test = 14.57.; $p < 0.01$.

Table 9. Relationship of current customer base to existence of a Website.

Customer base	With Website	Without Website	Total
Wellington region only	14 (46.7)	16 (53.3)	20 (18.9)
NZ only	31 (68.9)	14 (31.1)	33 (31.1)
NZ and Australia only	7 (77.8)	2 (22.2)	17 (16.0)
International	19 (86.4)	3 (13.6)	36 (34.0)
<i>Total</i>	<i>71 (67.0)</i>	<i>35 (33.0)</i>	<i>106 (100.0)</i>

Note: Figures in parentheses are percentages. Chi-Square Test = 9.883; df 3. $p < 0.05$.

Table 10. Relationship of turnover to existence of a Website.

Turnover of SMEs (NZ\$)	With Website	Without Website	Total
Less than 100,000	8 (42.1)	11 (57.8)	19 (17.9)
100,000–499,999	14 (58.3)	10 (41.7)	24 (22.6)
500,000–999,999	13 (86.7)	2 (13.3)	15 (14.2)
1 million–9.999 million	25 (73.5)	9 (26.5)	34 (32.1)
10 million–99,999 million	6 (66.7)	3 (33.3)	9 (8.5)
10 million and above	5 (100.0)	–	5 (4.7)
<i>Total</i>	<i>71 (67.0)</i>	<i>35 (33.0)</i>	<i>106 (100.0)</i>

Note: Figures in parentheses are percentages. Fisher Test = 11.166; $p < 0.05$.

Whether you have a Website or not, you want to make the best possible decision for your company. And if you have a Website the decisions do not stop there. Are you getting value for money? Are you realizing the potential of the technology? Could you be doing things better? Here are some possible ways the Chamber of Commerce could assist you in the Web area. Please tick the ones you would find useful.

There followed two questions, each with a set of options and an opportunity to give an open-ended answer. It should be remembered that these questions related to services that members felt the WRCC might provide, so they do not necessarily reflect needs in general, which might be satisfied in other ways. In other words, a respondent might perceive a need for 'Accreditation of reputable commercial Website developers', but might not regard the WRCC as a suitable provider. However, since none of the respondents made this point in the open-ended section, it seems likely that their answers do represent their perceptions about needs in general.

It seems from the responses that numerous Web-based services are required in the Wellington region. Table 11 shows that the greatest need (58.5%) is for a directory of members and Website services in the Wellington area. This is followed by the need for business information and statistics, such as Web use data (53.8%). Some 50% of respondents wanted online booking/registration facilities for WRCC events (50.0%), while online business advice and publications each attracted 45.3%. Meanwhile, 'accreditation of

reputable commercial Website developers' received the lowest score of 33.0% (this may indicate that most respondents were happy with their designer or felt confident in their ability to choose the right one – and those with a well-established site might have felt this issue was now in the past). The open-ended answers suggest that while many SMEs had found their own designers and IT specialists, they still felt the need for information about services for the maintenance and further expansion and enhancement of their Websites.

The survey responses in this section also point to other significant issues. First, aligning actual Website needs with appropriate Website developers is of central importance – that is, ensuring that low-tech needs are matched with low-tech providers and high-tech needs with high-tech providers. Some SMEs stressed that a Website does not necessarily have to have all the 'bells and whistles' or embrace the latest technological possibilities: a simple presence may suffice in many cases, with add-ons coming later if appropriate. Second, there is a need for a reliable contact who can answer routine questions about computer use in general. Third, a clear need was identified for a specific advice service tailored to small services-based companies – this is an area that needs further exploration.

Table 12 presents the findings on staff development. The respondents felt that the most urgent need was for general, non-specialist training (52.8%). This is consistent with what we know about SMEs in general:

Table 11. Web-based services.

	Number	Percentage
Third party Website verification service	40	37.7
Online business advice	48	45.3
Publications	48	45.3
Online booking/registration for WRCC events	53	50.0
Business information and statistics (eg Web use data)	57	53.8
Directory of members and services	62	58.5
Accreditation of reputable commercial Website developers	35	33.0

Note: The number and percentage of answers exceed the total because respondents could select more than one answer.

Table 12. Staff development needs.

	Number	Percentage
General seminars on Web marketing	52	49.1
User forum to network with other companies	27	25.5
Short training courses for non-specialists	56	52.8
In-depth courses – for example, for particular Web software	16	15.1

they are generally run by people who have to cope with the whole gamut of business functions and therefore need to interact with external specialists such as accountants, lawyers and IT people, as they do not have the time to develop expertise in these areas themselves. General seminars on Web marketing came a close second, favoured by 49.1% of the SMEs. It is noteworthy that the option with by far the lowest score (15%) was that of specialist courses. However, it is evident that, although the scores varied, there was considerable demand for all the suggested services. The respondents clearly felt that there was a need for the WRCC to provide training and help for its members and they were conscious that their own use of the Web could be improved. In other words, they saw the Web as a tool which they could use more effectively to develop their business, but did not want to be side-tracked into spending too much time and energy on the technology and the mastering of it. For managers of SMEs, Web marketing has to be understood in the wider context: the Web is not the only tool and in fact is often over-valued in marketing. It is one more way of reaching the customer.

Concluding remarks

The development and prosperity of SMEs are essential to any economy and New Zealand is no exception. This is simply because SMEs constitute almost 97% of enterprises in New Zealand and account for 43% and 35% of its total employment and total output,

respectively. SMEs have played a key part in the increase in enterprise in the country, but face various issues and challenges in their responses to the ever-increasing importance of ICT and the Internet.

On the basis of the findings set out in this paper, it seems that SMEs in New Zealand either are prepared to transform their operations dramatically and adjust to those challenges or at least are following global business trends in the adoption of ICT and use of the Internet. This can be seen from that fact that 99.9% of the companies used computer technology and 67% had launched their own Website with the objectives, among others, of enhancing their corporate image, reaching new markets, enabling customers to check product availability and competing with larger firms. More than 72% of the SMEs with a Website felt that it had been very successful or moderately successful in its impact on their business performance. Even though these companies encountered a number of problems, the advantages of setting up a Website were clear to most of them. In keeping with findings reported in the existing literature (Yap and Thong, 1997; Gregory, 2000), the survey also identified the size of enterprise as a determinant of Website development.

Given the high use of ICT, what other conclusions can be drawn from this study? First, there is a clear challenge for those SMEs that have not established a Website. Without this development, they are in danger of lagging behind their competitors in terms of efficiency and market penetration and, consequently, in turnover and profit.

It is important that appropriate support is provided to these SMEs so that they can identify and address the problems that hinder them from Website development – whether these relate to technical capability and expertise and/or capital and credit facilities. Problems such as lack of the appropriate expertise, consultants not understanding the actual needs of the business, unaffordable set-up costs, and security fears are areas that could be usefully addressed by government agencies and higher education institutions.

Finally, there is a need on the part of the New Zealand government to increase awareness among SMEs of the various support programmes and channels that are available to them. The size of the firm is an advantage in this respect: SMEs can adjust their operations and accommodate change rapidly – with appropriate guidance and educational programmes they will be able to gain much advantage from effective and strategic use of global communications and the huge market reach of the Internet.

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