

A RESPONSE TO THE E-BUSINESS AWARENESS AND TRAINING NEEDS OF NEW BRUNSWICK SMES

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SMEs that are adopting Internet technologies and e-business solutions often require business support services. This paper describes the results of a survey of New Brunswick SMEs and the resulting package of e-business training and awareness services that was developed in response to their needs.

The paper discusses characteristics of New Brunswick SMEs in terms of “pain points” - perceived barriers to growth and desired capabilities. It also discusses the ways that NB SMEs are responding to these challenges in terms of planned adoption of e-business technologies and solutions. Key points are:

- The most extensive users of Internet technologies or e-business solutions are larger SMEs.
- However, microenterprises lead in adoption of business models relying on Internet-based sales, and small SMEs lead in matters of Internet-based exporting.
- Two-thirds of SMEs report having plans for further investments in Internet technologies and e-business solutions.
- New Brunswick SMEs that have adopted Internet technologies and e-business solutions in varying degrees report a broad range of benefits from their engagement in e-business.
- Domestic market development is the principal motivation for adoption of Internet technologies and e-business solutions.
- Personalized expert services are the most highly desired support service.

The paper then describes an e-business awareness program and online training package that was developed to respond to some of the SMEs’ stated needs. It includes:

- a benchmarking survey of 280 NB SMEs
- thirteen case studies of New Brunswick e-business adopters
- a resource and support directory
- an online e-business awareness and training package with modules for introduction to e-business, e-business solutions, and e-business strategy and implementation; an e-business readiness assessment tool, and an e-business strategy template.

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Introduction

A key contemporary management challenge is how to profit from the networked interactivity made possible by advances in ICTs (Amit and Zott, 2001; Porter, 2001). At first glance, SMEs would seem well placed to benefit from the Internet and e-business, since these new technologies lower barriers to entry, reduce the constraints of distance, and reward some new business models. However, numerous studies have demonstrated the relatively slower rate of adoption of e-business by small and medium sized enterprises (SME), with larger firms the more rapid adopters of more complex business technologies, and slowest adoption among smallest firms (CEBI, 2004; OECD, 2004; Davis & Vladica, 2004).

In most countries, SMEs make up the majority of firms.² Canada has more than 2.2 million SMEs, representing 99.7% of all. Of New Brunswick's 28,488 firms with paid employees, about 97.8% have fewer than 500 employees (CFIB, 2003). Given the importance of SMEs in the economy and their role in job creation, the challenge "is to bring lagging SMEs online and deepen the capabilities of those already online" (CEBI, 2004).

The use of business services to support the effective e-business practice is becoming increasingly important. As we discuss below, demand for e-business support services is determined by desired business capabilities, by plans for adoption of Internet technologies and e-business solutions, and by institutional factors such as firm size. Public agencies and educational organizations have an important role to play in the development of regional capability to supply business services. They can offer services in domains in which demand is not

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² In Canada, small and medium enterprises are defined as firms with fewer than five hundred employees.

yet strong enough to support private suppliers, and in so doing they can help to develop the regional market for business services. In this paper we describe an online package of services and products designed to increase awareness of ways that Internet technologies and e-business solutions can help to reduce business “pain points” or perceived barriers to growth. The paper is organized as follows. First, we briefly review the literature on innovation and business services (which are sometimes referred to as producer services or knowledge-intensive business services). We then discuss results of a recent survey on adoption of Internet technologies and e-business solutions among SMEs in New Brunswick, focusing on firms’ perceived barriers to growth, desired capabilities, and technology adoption plans. Using learnings from this survey, the authors contributed to the design and development of an entry-level e-business awareness and training program and associated e-business support tools. These materials were developed at the Electronic Commerce Centre in Saint John, New Brunswick, with support from Atlantic Canada opportunities Agency (ACOA). This response to SMEs’ e-business awareness and training needs is presented in the final section of the paper.

Business Services and e-Business Innovation

Successful adoption of Internet technologies and e-business solutions requires development of internal competencies (Chaston & Mangles, 2002; Williams 2002). We identified four groups of internal competencies among New Brunswick SMEs that facilitate adoption of Internet technologies and e-business solutions: 1) management, leadership, organizational culture, and strategy; 2) entrepreneurship, risk-taking, and focus; 3) competition and opportunity; and 4) business process improvement and technology management (Davis & Vladica, 2004).

Learning to use new technologies, learning to employ new business models, or learning to conduct business in new markets often requires recourse to externally supplied business services. The use of external services is expected to increase SME competitiveness and market opportunities (Bellini, 1998). Business services are critically important inputs in innovation (Aslesen & Langeland, 2003) and so can be considered factors of production or as co-producers of innovation ((Drejer, 2002; den Hertog, in press). Furthermore, business services are increasingly important factors in regional and local economic development (Muller). Knowledge-intensive business services tend to concentrate in urban areas, where they strongly contribute to innovation-based competitiveness of these areas (Drejer, 2002; Wood, 2002). The challenge is to develop coherent and effective enterprise support policy and programs (Henry, Hill & Leitch, 2003). Regional economic development policies need to ensure that appropriate support and incentives to innovating SMEs are available (Nauwelaers & Wintjer, 2002) and ensure that they are available to firms of all stages of innovation intensity.

Demand for business services is segmented according to industry, company size, geographical location, degree of capability, and other factors (Atherton & Lyon, 2001; Boter, 2005). The larger the firm, the more likely it is to have purchased externally supplied business services. All in all, 100% of New Brunswick medium SMEs have purchased external services, and a little more than half of all microenterprises have purchased services (Davis & Vladica 2004). In New Brunswick, medium SMEs are major users of technical services, while very small and small SMEs purchase training, strategic management, and marketing support services. Most SMEs design, develop, and operate their e-business solutions internally (Ibid.). Small SMEs are most likely to have designed and developed their own solution. As firms increase in size, hosted solutions and turnkey solutions become attractive.

IT service firms are among the smallest and least export-intensive of all IT firms in New Brunswick (Davis & Schaefer, 2003). Many are almost completely dependent on local demand for survival. New Brunswick SMEs appear to be demanding customers of suppliers of business services. The most desired quality of training, consulting, or other business service providers is affordability; the second and third most sought-after qualities are credibility/expertise and good reputation/referrals/image. Services that are flexible and locally supplied are also considered to be important. Our research suggests that locally available services are perceived to be expensive and not always entirely reliable (Davis & Vladica, 2004). Demand exists for a range of Internet related business and support services, but these services need to be priced and delivered to customers in suitable ways.

Private and public service providers that can help SMEs solve problems of purchasing, quality, market development, coordination, and productivity can also help these firms to improve their e-business capabilities, since information technology underpins most contemporary business practices in these areas. Public and private organizations and agencies, together with SMEs, have many opportunities to increase the uptake of e-business in New Brunswick by influencing the capability development aspirations and the internal and external factors that are known to facilitate adoption of e-business by SMEs.

A Business-Centric Approach to e-Business Training and Awareness Development

In this section we discuss characteristics of New Brunswick SMEs in terms of “pain points” - perceived barriers to growth and desired capabilities. We also discuss the ways that SMEs are responding to these challenges in terms of planned adoption of e-business technologies and solutions. Firms were asked to indicate which of sixteen Internet technologies or e-business solutions they currently use. Responses indicate that simplest Internet technologies and e-business solutions (such as e-mail, PCs, and use of the Internet for information searches) are in practically universal use among New Brunswick’s SMEs. Dial-up connections remain widespread, but faster and more flexible methods of connecting to the Internet are being taken up by the SME community. More than two-thirds of all firms, and nearly all small and medium-sized enterprises, use functional (application) software. More than 80% of medium-sized firms also use external websites, wireless, and shared file folders. But half or fewer of the firms use the remaining technologies or solutions (Davis & Vladica, 2004).

The most extensive users of Internet technologies or e-business solutions tend to be the larger firms. In general, larger SMEs appear to adopt the more complex Internet technologies and e-business solutions faster than their smaller counterparts. However, microenterprises lead in adoption of business models relying on Internet-based sales, and small SMEs lead in matters of Internet-based exporting. Around three-quarters of New Brunswick SMEs use the Internet to purchase goods or services. Once again, size appears to be a factor in the adoption and use of Internet technologies and e-business solutions. The larger the SME, the more likely it is to purchase goods and services over the Internet. Around 90% of medium-sized firms purchase over the Internet, while around 70% of microenterprises use the Internet for purposes of purchasing (for complete results see Davis & Vladica, 2004). Two-thirds of SMEs report having plans for further investments in Internet technologies and e-business solutions, with a focus on website content development and design, secure transactions with business, government, and customers, and Internet marketing (Ibid.).

In terms of volume, about half of New Brunswick SMEs' Internet-based sales are conducted by very small firms (5-19 employees) and about one-quarter by medium-sized SMEs (Davis & Vladica, 2004). New Brunswick SMEs that have adopted Internet technologies and e-business solutions in varying degrees report a broad range of benefits from their engagement in e-business (Davis & Vladica 2004). Many of the reported impacts are highly qualitative, having to do with image, relationships, speed, and agility. New Brunswick SMEs report greatest benefits in the areas of improved relationships with customers, improvement in brand and image, increased adaptability to customers' requirements, and increased speed of delivery. However, most of the benefits of e-business engagement are generated in the domestic market. The Internet has not led to significant internationalization of New Brunswick SMEs, which earn around 62% of their revenue in the local market. Among New Brunswick SMEs, microenterprises have the highest rate of Internet-based export sales (on average 26% of their Internet sales are to international customers).

Firms usually intend to develop capabilities in response to perceived barriers to growth. We asked New Brunswick SMEs which capabilities they would like to develop. Marketing, interactivity with customers, and technology top the list of desired capabilities. Small firms (20-49 employees) express particular interest in capabilities in new product development, purchasing, supply management, and change management. The profile of small firms' interests suggests that when firms reach the range of 20 employees, they face a new set of growth challenges that reflect the transition to a larger organization with more formal management, purchasing, and business development routines. Medium-sized firms do not express interest in developing these capabilities because they have already developed them (see Figure 1).

It is important to better understand the factors that induce firms to acquire e-business capability. Figure 2 provides a rank-ordered list of firms' assessment of factors that might facilitate adoption and use of Internet technologies and e-business solutions. It shows that the most important factor is firms' perceptions of the possibility of accessing new markets. Entrepreneurship and capability to manage technological change, or the nature of products and services bought or sold (such as digital products or electronically delivered services) are other highly ranked factors that facilitate adoption and use of e-business and Internet technologies and solutions.

What support tools or services related to Internet technologies or e-business solutions are New Brunswick SMEs most like to use? Figure 3 provides a rank ordered list of preferences. More than 40% of SMEs would be likely to use personalized, expert advice, examples (cases) of successful e-business use, and recommendations about e-commerce solutions. The profile of demand varies by size of firm. However, in the case of practically every kind of business service and size categories, at least 20% of the firms express interest. Demand therefore exists for a range of business and support services in the area of Internet technologies and e-business solutions, although this demand must be suitably aggregated and priced, and solutions delivered to customers in suitable ways.

An e-Business Awareness Program and Online Training Package

Good practices for e-commerce awareness creation encompass general awareness activities, action via intermediaries, and focused support to SMEs (Papazafeiropoulou et al., 2002). The e-Business Awareness Program was designed as a comprehensive approach framework on e-business awareness practices as well as a solid basis to build on business support services and products for SMEs. On the basis of our diagnosis of the needs of New Brunswick SMEs we designed a package of services and products for an *e-Business Awareness Program* – an initiative funded by the Atlantic Canada Opportunities Agency and executed in 2004 and 2005 by a team at the Electronic Commerce Centre of the University of New Brunswick – Saint John (for complete results see Davis & Vladica, 2004). The primary business case for undertaking the project and building this package is the anticipation that it will contribute to the competitiveness of small businesses in the province through promoting their uptake of Internet technologies and e-Business solutions. The intent is to increase the awareness among SMEs on how the Internet technologies and e-business solutions can solve challenges to business growth – the “pain points.” Moreover, the program aims to provide support in the initial stages for those who are willing to adopt and use e-business in order to be more successful. The aims of the *e-Business Awareness Program* were to assess the state of e-business activities among New Brunswick SMEs; to identify gaps where knowledge & training are required; to provide the tools necessary for implementation of e-business: online training modules, an e-business readiness assessment tool, and an e-business strategy template; to encourage the adoption of e-business solutions; to promote the Electronic Commerce Centre (ECC) in Saint John as a source of assistance for e-business support; to offer easy access to a resources needed for e-business strategic planning and implementation.

A set of project deliverables was defined and assigned for completion in different stages and to different members of the Project team. This team included professors from the Faculty of Business at University of New Brunswick - Saint John, co-op and MBA students from the business program, Electronic Commerce Centre staff, and local training and e-learning consultants: Learning Synergy, Engage Interactive, Arkeveld Communications, and Nocturne. Additional contributions were provided by CIDIF, Media Planet, and ideas interactive. The authors of this paper were significantly involved in preparation of the following deliverables:

Product 1: the Benchmarking Survey measured the current level of e-business enablement among SMEs, identified needs and demand for e-business support services, and most important, provided indications of what type of training topics and approaches would be most attractive to SMEs (the content needed for the e-business enablement educational program). The survey contains usable responses from 280 New Brunswick SMEs that were identified via mailing lists obtained from Enterprise Network (formerly known as Community Economic Development Agencies - CEDAs) and Business New Brunswick. Nearly three-quarters of firms surveyed are microenterprises, firms with fewer than five employees. Firms from 28 industries participated in the survey. The SMEs that participated in this survey account for an estimated 4,924 employees and an estimated \$315M in sales.

Product 2: Thirteen case studies of New Brunswick e-business adopters were developed and integrated in the training modules. These can be read online, and are also available in PDF format. The case studies will also be used at promotional or awareness raising sessions delivered by the Electronic Commerce Centre (ECC) and its delivery partners. The thirteen examples explain the company's experience with e-business, the reasons for investing, the benefits and the obstacles faced, hints about the cost or return of investing in e-business, type of technology used (e.g. online payment, content management), and three short video interviews with the entrepreneurs. All cases are available in both English and French.

Product 3: a Resources and Support Directory is available for use by SMEs looking for support in their adoption of technology. The access is possible via website in searchable format, or downloadable PDF files. The Directory is actually a 'directory of directories' - four directories with relevance for New Brunswick that include: educational programs, funding sources from the Canadian and provincial governments in support of small businesses' use of information technology, products, especially web-based applications and ASPs well suited to SMEs (e.g. hosted online shop builder, or B&B booking), companies supplying services to help small businesses benefit from the Internet, and general information on e-business, hosted on sites by government and affiliated public institutions.

Product 4: an e-Business Awareness and Training Package builds awareness of Internet technologies and e-business applications, along with e-business implementation trends, risks for not adopting e-business, and best practices illustrated by the case studies. The package offers structured knowledge for the steps involved in e-business implementation, together with tools needed in the start-up stage of an e-business initiative. All in all, the Package has:

- Three training modules: Introduction to Internet & e-Business, e-Business Solutions, and e-Business Strategy & Implementation;
- an e-Business Readiness Assessment Tool; and
- an e-Business Strategy Template.

Each training module involves one to two hours of online learning, and includes content that is sufficient for at least one day of classroom training. The entire Package, that is the training modules and the tools, together with the directories and the case studies, are available online. The training content can be offered to small business owners either through the website, on CDs, or via classroom training. The web address is <http://www.ebusinessinnb.com>.³

Deployment of an e-commerce awareness initiative according to the framework suggested by Papazafeiropoulou et al. (2002) is envisaged as follows:

a) **General awareness activities.** Production of bilingual brochures and promotional CDs are under development. Content from the training modules can be tailored and presented to industry specific seminars and workshops throughout the Province. A showroom at the Electronic Commerce Centre in uptown Saint John could provide access to the project website, or to showcase demos about the online training modules and video clips on the case studies. The deployment of the program should include not only the classroom training sessions in the

³ At present only users with New Brunswick IP addresses can set up an account on this website.

destination cities, but also presentations in rural areas, where awareness informative sessions can be organized.

b) **Intermediary-oriented activities.** The Electronic Commerce Centre can play the role of “trusted third party” that will suggest sources of funding, training or services providers (the Directory), and that disseminates unbiased training content and relevant information about business services and products in New Brunswick. The training package includes train the trainer components for educating intermediaries that in turn will raise awareness and provide support within the SME community.

c) **Focused SMEs support.** The ECC can facilitate community networking using its building in uptown Saint John and the project website. Not only can these showcase and promote success stories, but also the ECC will be a virtual and/or brick-and-mortar facilitator of networking, or where users can meet with providers servicing the SMEs market. The Training Modules address the awareness issue (Intro to Internet & e-Business), encourage adoption (e-Business Solutions), and describes a structured approach for the planning & implementation (e-Business Strategy & Implementation). The e-Business Readiness Assessment and an e-Business Strategy Template are practical self-assessment tools that increase the uptake and integration of e-business within user companies. Moreover, the training content was tailored to meet needs of entry-level e-business enablement. The Benchmarking Survey provides unique insights of the SMEs community in the Province and their e-business enablement needs. In summary, the design of the awareness and training package incorporated lessons learned in the research stage, addressing specific pain points in the training modules, in the selection of topics, in the illustrative case studies, in the language and level of technicality used, in the variety of e-business solutions presented, and in the selection of methods to diffuse and promote the program.

Conclusions

e-Business enablement occurs as firms solve business problems (including responding to pressure from demanding customers or suppliers) and improve their capabilities. Private and public service providers that can help SMEs solve problems of purchasing, quality, market development, coordination, and productivity will also be helping these firms to improve their e-business capabilities. Educators, policymakers, associations, economic development agencies, and service providers can all contribute to improving the use of Internet technologies within the New Brunswick SME community by focusing on following two key areas:

1. **Identify and service e-business learning needs.** E-business enablement implies that a variety of learning processes take place within the firm. SMEs that have a learning orientation are probably better suited to adopt and exploit Internet technologies and e-business solutions than other firms are.
2. **Facilitate community of providers.** The expansion of e-business capability among New Brunswick SMEs implies expansion of the community of business service providers. Support services need to be responsive to SMEs’ development objectives and e-business targets. In particular, SMEs want reliable, affordable expert advice.

Our package of educational products was developed in direct response to the current situation for SMEs in New Brunswick. The decision makers in SMEs need to be aware that e-business is possible and that it can bring results. SME owners need to be informed and educated about e-business opportunities, challenges, and existing knowledge and expertise, and they need access to the right tools and support services.

References

Amit, Raphael & Zott, Christoph, "Value Creation in e-Business," *Strategic Management Journal* 22, (2001), 493-520.

Aslesen, Heidi Wiig & Langeland, Ove, "The Role of Knowledge-Intensive Business Services and Venture Capital Firms in the Innovation System," paper presented at the 2003 DRUID Summer Conference, Copenhagen.

Atherton, Andrew & Lyon, Fergus, *Segmenting Support for Small and Medium Enterprises*. Research report, Foundation for Small and Medium Enterprises, University of Durham, 2001.

Bellini, Nicola, "Services to Industry in the Framework of Regional and Local Industrial Policy," paper prepared for OECD Conference on Regions and Innovation, Modena, Italy, 1998.

Boter, Hakan, "SME Perspectives on Business Support Services," *Journal of Small Business and Enterprise Development* 12(2), (2005), 244-258.

CEBI, *Net Impact Study Canada: Strategies for Increasing SME Engagement in the e-Economy*, Canadian e-Business Initiative, Final Report, September 2004.

CFIB Research, *New Brunswick Small Business Primer*, Canadian Federation of Independent Business, Ottawa, 2003.

Chaston, Ian & Terry Mangles, "E-Commerce in Small UK Manufacturing Firms: a Pilot Study on Internal Competencies," *Journal of Marketing Management* 18, (2002), 341-360.

Davis, Charles H. & Vladica, Florin, *Adoption of Internet Technologies and e-Business Solutions by Small and Medium Enterprises (SMEs) in New Brunswick*, report prepared for ACOA, November 2004.

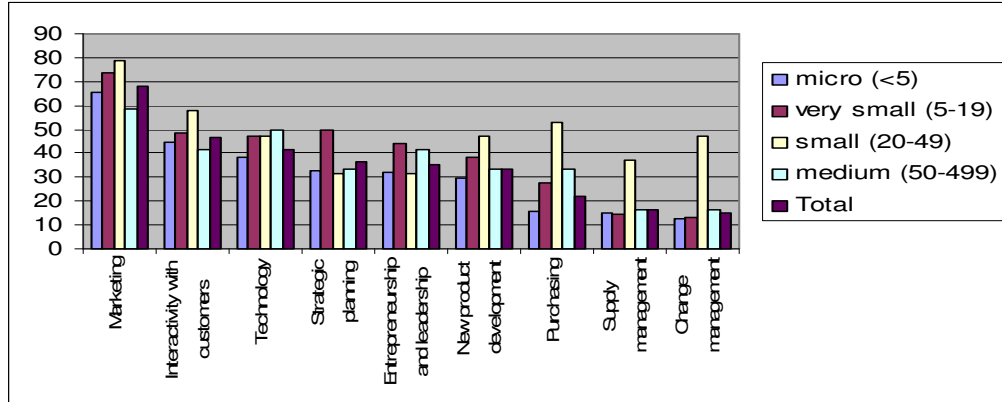
Davis, Charles H. & Schaefer, Norbert V., "Development Dynamics of a Startup Innovation Cluster: the ICT Sector in New Brunswick," pp. 121-160 in D. Wolfe, ed., *Clusters Old and New: the Transition to a Knowledge Economy in Canada's Regions*. Montreal: McGill-Queen's University Press, 2003.

Den Hertog, Pim, in press. "Knowledge-Intensive Business Services as Co-Producers of Innovation," *International Journal of Innovation Management*.

Drejer, Ina (2002). "Business Services as a Production Factor," *Economic Systems Research* 14(4), 389-405.

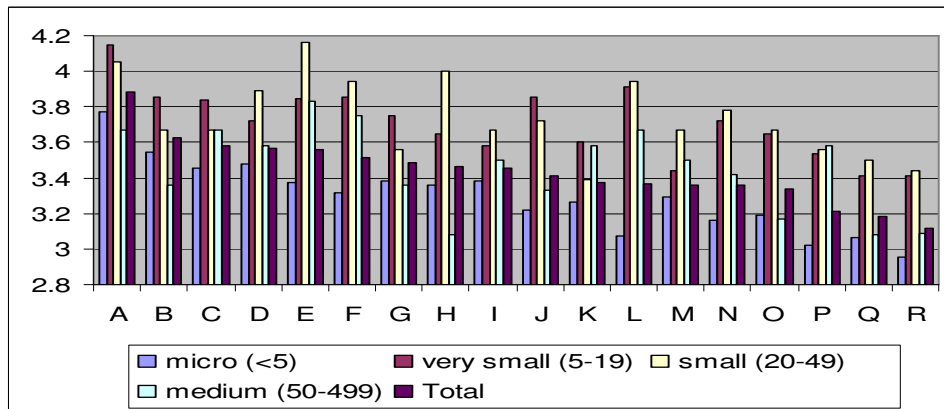
- Guilhon, Bernard, "Markets for Knowledge," *Economics of Innovation and New Technologies* 13(4), (2004), 165-181.
- Henry, Collette, Hill, Frances & Leitch, Claire, "Developing Coherent Enterprise Support Policy," *Environment and Planning C: Government and Policy* 21, (2003), 3-19.
- Martin, Lynn M. & Matlay, Harry, "'Blanket' Approaches to Promoting ICT in Small Firms," *Internet Research* 11(5), (2001), 399-410.
- Martin, Stephen & Scott, John T., "The Nature of Innovation Market Failure and the Design of Public Support for Private Innovation," *Research Policy* 29, (2000), 437-447.
- Muller, Emmanuel & Zenker, Andrea, "Business Services as Actors of Knowledge Transformation: the Role of KIBS in Regional and National Innovation Systems," *Research Policy* 30, (2001), 1501-1516.
- Nauwelaers, Claire & Wintjers, René, "Innovating SMEs and Regions: the Need for Policy Intelligence and Interactive Policies," *Technology Analysis and Strategic Management* 14(2) (2002), 201-215.
- Papazafeiropoulou, Anastasia, Pouloudi, Athanasia & Doukidis, Georgios, "A Framework for Best Practices in Electronic Commerce Awareness Creation", *Business Process Management Journal* 8(3), (2002), 233-244.
- Porter, Michael E., "Strategy and the Internet," *Harvard Business Review*, March (2001), 63-78.
- Williams, Michael L., "Identifying the Organizational Routines in NEBIC Theory's Choosing Capability," *Proceedings of the 36th Hawaii International Conference on System Sciences (HICSS 03)*.
- Wood, Peter, "Knowledge-Intensive Services and Urban Innovativeness," *Urban Studies* 39(5-6), (2002), 993-1002.

Figure 1: business capabilities that New Brunswick SMEs desire to develop



Scale: percent of firms expressing interest in developing a capability. N=280 firms. Source: Davis & Vladica (2004).

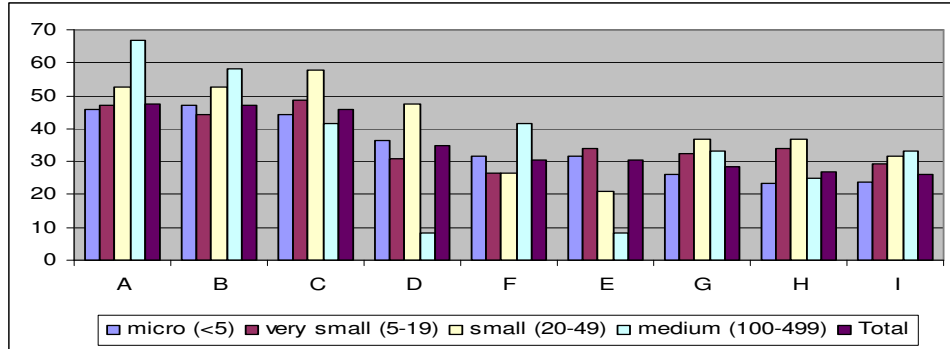
Figure 2: factors that facilitate adoption and use of Internet technologies or e-business solutions



Scale: 5 = Very Important, 4 = Important, 3 = Neutral, 2 = Little importance, 1 = No Importance

Legend: A: Possibility to access new markets. B: Entrepreneurship. C: Capability to manage technological change. D: Nature of the goods or services that the firm buys or sells. E: Demanding customers or suppliers. F: Management effectiveness. G: Focus. H: Access to specialized suppliers. I: Strategic objectives. J: Competitive threats. K: Business processes that facilitate learning. L: Skillful and resourceful employees. M: Access to financial resources. N: Management commitment. O: Leadership quality. P: Internal business culture. Q: Attitude towards risk. R: Favourable regulatory environment. N=280 firms. Source: Davis & Vladica (2004).

Figure 3: likely use of e-business support tools or services by New Brunswick SMEs



Scale: percent of firms in each size category reporting likely use of each service.

Legend: A: Personalized, expert advice on e-commerce for your business. B: Examples (case studies) of businesses similar to yours, using e-commerce successfully. C: Recommendations about e-commerce solutions relevant to your type of sector or business. D: Directory of organizations that can offer help in using e-commerce. E: Online seminars on e-commerce in your sector (i.e. tourism, fisheries, manufacturing, etc.). F: Classroom-based seminars about e-commerce in your sector (i.e. tourism, fisheries, manufacturing, etc.). G: Interactive questionnaire to help you define an e-commerce strategy. H: Statistics and graphics about e-commerce adoption and use among different sizes or types of companies in New Brunswick. I: Visits to successful companies.