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# **SMALL BUSINESS AND THE INFORMATION HIGHWAY**

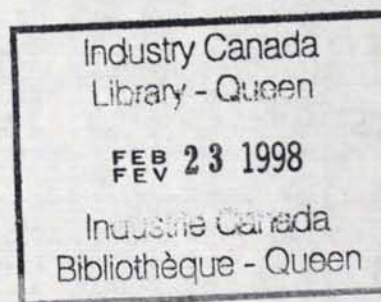
**Background Paper for the  
Information Highway Advisory Council**

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# SMALL BUSINESS AND THE INFORMATION HIGHWAY

**Background Paper for the  
Information Highway Advisory Council**



Dez Rayzak, Information Highway Advisory Council Secretariat in consultation with John Bulloch, Canadian Federation of Independent Business and John Ernst, Industry Canada Entrepreneurship and Small Business Office, April 1997.

This background document was prepared to assist the Information Highway Advisory Council in its deliberations. The content of this document and the positions advanced are the responsibility of the author and do not necessarily represent the views of the Information Highway Advisory Council or of the Government of Canada.

### **Overview of Small and Medium Enterprises (SMEs)**

SMEs are a dynamic presence in the Canadian economy with over 2.2 million firms representing 57 percent of Canada's economic output. The SME group is defined as businesses with 1 to 499 employees, although this paper will focus primarily on small business with 100 or less employees, a group that contributed 42.5 percent of private sector GDP and 49.5 percent of all private sector employment.

It is estimated that 500,000 SMEs are active job creators in the economy, being responsible for most of the jobs created in Canada. Self employment has increased by 33 percent since 1983 and has been a significant factor in the growth of the SME sector.

According to a recent survey undertaken by the Canadian Federation of Independent Business (CFIB), respondents provided a clear indication of what is required for them to hire more people. Half the respondents said a reduction in payroll taxes (such as lower Employment Insurance premiums and of provincial Workers' Compensation Board assessments), 39.7 percent called for a reduction in consumer taxes, 37 percent asked for continued government spending restraint while 33 percent stated that a reduction in the employment paper burden would help them take on more staff.

The CFIB has suggested that the above-noted list of traditional concerns, is expected to be joined by a new range of issues brought on by the Information Highway. This paper examines the impacts, opportunities and barriers of information technology trends on SMEs.

### **SMEs and the Information Highway**

#### **Statistics on SMEs and the Internet**

The Information Highway will have a significant impact on small business, both in terms of changing economic structure and new methods of handling transactions. Determining the nature, magnitude, and speed of the transformation is difficult, however, several factors will influence its development. These include software (e.g. security), hardware (e.g. bandwidth), cost, consumer and business acceptance, and the actions of market influencers, such as banks, the media and government.

In order to assess the adoption of information technology by SMEs, the Canadian Federation of Independent Business conducted an Internet access survey of more than 15,000 of its members during the fourth quarter of 1996. The survey found that 25 percent of small

business have Internet access, double the access rate of one year earlier. Some interesting results from the survey follow:

**Internet Access by Size of Firm  
(Number of Employees)**

0-4	18%
5-19	24%
20-49	30%
50-99	41%
100+	41%

**Internet Access by Sector (1996-1997)**

<b>Sector</b>	<b>In Use</b>	<b>Planned</b>
Hospitality	20%	32%
Community services	24%	40%
Business services	49%	63%
Finance, insurance, real estate	33%	48%
Wholesale	29%	40%
Manufacturing	28%	41%
Retail	16%	25%
Construction	17%	24%
Transportation	21%	31%
Agriculture	22%	34%

As can be seen, not all sectors display the same degree of technology adoption. Internet access is most common in the business services sector with an adoption rate of 49 percent followed by finance, insurance and real estate at 33 percent. Internet access is least evident in the retail and construction sectors at less than 20 percent. However as the chart shows, all sectors plan to increase access to the Internet during 1997.

In terms of SME Internet access by region, the Territories and British Columbia were the highest (42 percent and 33 percent) and Quebec was the lowest (14 percent).

### **Internet Access by Geographic Region**

Territories	42%
British Columbia	33%
Alberta/Manitoba	25%
Saskatchewan	21%
Ontario	24%
Quebec	14%
New Brunswick	23%
Nova Scotia	30%
Prince Edward Island	23%
Newfoundland and Labrador	25%

### **Impressions**

The strength of the small business sector lies in its ability to adapt to new market and economic forces by being both innovative and opportunistic, so it is no surprise that small business are utilizing new technologies to their best advantage. While it is not unusual for large firms to take the lead when it comes to using new technologies and applications, it should be noted that small and medium sized firms are never far behind.

All signs point to a developing market for electronic commerce as an increasing number of high profile retailers: Wal-Mart, L.L.Bean, Amazon Books from the U.S.; and Sears Canada, Roots Canada and Home Hardware in Canada already have business ready Web Sites. Today, according to Forrester Research Corporation, electronic commerce is estimated to be worth half a billion dollars and is anticipated to grow to more than \$6 billion by the year 2000. Consumers appear to be increasingly equipped for E-commerce as more than 33 percent of Canadian households have computers of which 40 percent have modems.

### **Opportunities and Challenges**

The Information Highway holds the promise of economic benefits to SMEs such as lower transaction costs, decreased marketing and communication costs and the opportunity of virtual alliances, global expansion and improved networking. However, the Information Highway and electronic commerce also poses concerns for small business and some of these include their ability to obtain merchant status, heavy investments in hardware and software, and merchant liability.

Internet technology allows small business to do new things and organize themselves in different ways. Personal networking can now span a much larger geographic area and new forms

of collaboration are possible. Better communication and more timely, precise information have reduced the need for inventories, a significant saving to SMEs from reduced capital requirements and increased cash flows. Employment arrangements can become more flexible, with more outsourcing of labour thereby reducing profit insensitive taxes i.e., payroll taxes and property taxes. However, not all will be winners: the Internet may put some SMEs, such as traditional intermediaries e.g., brokers, agents and retailers at risk. However, other areas, such as transactions brokerage, electronic data interchange (EDI) expertise, and software development will prosper.

## **Electronic Commerce**

Business-to-business commerce is quickly becoming one of the fastest growing online opportunities due to information technology and the rapid Internet adoption by SMEs. Purchase cards, such as VISA and MasterCard issued to companies, can be customized to meet specific needs such as credit limits, identification of eligible merchants, personal identification number (PIN) and so forth. John Bulloch, CFIB states that the use of purchase cards can eliminate up to 90 percent of transactions associated with traditional non production business-to-business commerce such as purchase orders, receivables and payables, cheque issuing and mailings.

Nevertheless, SMEs face significant challenges in adapting to the new information technology intensive environment, and both CFIB and the government have programs to assist small business. The CFIB's efforts include an interactive world wide web (WWW) site, Member Directory with a special search engine, and private Webs for members and staff. This CFIB Internet site is used to communicate with government, media and the public on behalf of small business and for sharing the results of experiments with new technology and business applications with members. The Entrepreneurship and Small Business Office of Industry Canada has several initiatives underway, including new business methods to reduce paper burden, online contact sources for assisting small business, common micro-data for business and banks to allow consistent performance assessment, and online information on sources of financing. In addition, Industry Canada's Strategis site offers a wide range of information important to SMEs.

The Government of Canada is developing a wide variety of Information Highway initiatives. These range from using the Internet to coordinate major international events such as Canada's Year of the Asia-Pacific, to an Asia-Pacific Economic Cooperation Council (APEC) Web site for international business referrals, advice, and business matching opportunities. The paper burden of government is being transformed by new methods of doing business, such as online forms capable of carrying client profile data from transaction to transaction, storing client preferences and saving time for business. *Contact! The Canadian Management Network*, one of many information products, describes sources of small business assistance, provides educational material for entrepreneurs, and hosts online chat forums linking business and small business counsellors. The Community Access Program and SchoolNet, both serve to extend access of the Internet across the country by creating access centres nationwide and opening new consumer markets for online services. The Student Connection Program helps business get online and up-

to-speed by using hundreds of students to train business people on the Internet. This array of initiatives will help small businesses find new and compelling reasons to get on the Information Highway.

SMEs are finding it more difficult than expected to move into the world of electronic commerce. Some of the problems they encounter include the need to obtain merchant status from their bank and to meet the bank's bond/security deposit requirements for online credit card transactions. Banks are concerned about online merchant and consumer fraud and require the use of a secure site, not usually available from small Internet service providers. In addition, the necessary credit card transaction software is currently very expensive and poses a further barrier to SMEs.

The Secure Electronic Transaction (SET) standard, originally expected to be operational by early 1997, is a security protocol jointly developed by Mastercard and Visa designed to offer protected payment card transactions over public networks such as the Internet. SET will use encryption technology to keep information confidential, ensure payment integrity and authenticate both merchants and cardholders. It was anticipated that SET would alleviate some of the current concerns of business and consumers and encourage business to begin promoting the use of electronic transactions. In addition, it was thought that as more of the major Canadian banks increase the use of online banking, many of the market's late adopters would begin to see the technology benefits and be convinced that electronic commerce is secure and convenient. However, it now appears that the SET standard will not be introduced until sometime in 1998 and, in any event, the digital certification system associated with SET is expensive and may prove to be out of reach for most small business operations. In addition, E-commerce transactions, as is the case for mail order business, shift credit card liability from the banks to the merchants exclusively. However, in this dynamic area, other standards exist or will be developed and it remains to be seen which standard consumers and the marketplace will eventually adopt.

The problems associated with SMEs obtaining merchant status and the associated costs appears to have created a new opportunity for transaction brokers who are positioning themselves to provide a secure Internet master merchant service to small business by obtaining merchant status from banks, by posting the necessary bonds, providing the required transaction software and secure site to allow 'real time' E-commerce to proceed. The issue of 100 percent merchant liability still remains with the individual businesses, however, the risks appear to be minimized by using a master merchant who also offers risk management services to its clients. The CFIB is currently evaluating the benefits and costs of a master merchant service provider with a view to promoting this option to its membership.

Overall, it appears that the characteristics of small business have served them well in adapting to the new challenges of information technology and doing business on the Internet. However, this work of the Steering Committee on Job Creation and Economic Growth and the CFIB revealed areas where further action is required. First, the opportunities of this new technology need to be better promoted to consumers, business, community organizations,

governments, and public institutions. Not only can each benefit individually, but there are clear benefits in terms of increased overall economic activity and community development. Next, specific information is needed on the costs of training, hardware and applications software, and the best information technology products for specific business purposes are required. Further, more training opportunities are needed to help business get online and learn to navigate the Internet and to identify the information technology products that will be most beneficial to them. In this area, training options that engage senior personnel either directly or utilize multimedia training applications was considered important. Finally, the government must continue to move quickly to ensure that the legal, policy and regulatory framework for electronic commerce is in place and provides a reasonable measure of certainty. If not, Canadian SMEs will not use the full potential of the Information Highway, and Canadian economic performance will be curtailed.

Assisting SMEs to fully utilize the Information Highway will help support this vital sector of the Canadian economy. It will also allow these firms to move onto the global stage and expand their business opportunities. This, in turn, will increase the international competitiveness of the Canadian economy, and contribute to domestic economic growth and job creation.

## **Conclusions**

- The characteristics of SMEs as opportunistic and innovative have served them well in adapting to the new challenges of information technology and doing business on the Internet.
- The CFIB does not see technology as a threat to job creation. In fact, their latest survey found that growth firms are more likely to be users of higher technologies while declining size firms are more likely to be users of lower technologies.
- Information technology and the Internet have provided economic benefits to SMEs in the form of lower transaction costs, decreased marketing and communication costs, and the opportunity for virtual alliances, global expansion and improved networking.
- Governments should employ their economic policy tools at the micro and macro economic level to encourage and promote the rapid adoption of information technology and applications while guarding against offensive content and illegal activities.

## **Recommendations**

- The government must move quickly to ensure that the legal, policy and regulatory framework for electronic commerce is in place to provide a reasonable measure of



certainty, to remove any impediments and barriers, and to clarify the ground rules for electronic commerce.

- The Government of Canada should take the lead in promoting the opportunities of the Information Highway and the Internet to consumers, business, community organizations and public institutions. Not only can each benefit individually, but there are clear benefits in terms of increased overall economic activity and community development.
- SMEs require more information on the costs of training, hardware and software, and the best information technology products and applications for specific business purposes.
- Further training opportunities are needed to help business get online, learn to navigate the Internet and identify the information technology products that will be most beneficial to them. Flexible training options such as the use of multimedia learning technologies that engage senior personnel are considered important.
- The government must increase its working partnerships with SMEs to ensure ongoing dialogue on factors affecting this vital sector of the Canadian economy.

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