

Information Please

By: W.J. Stewart Verge

Any organization involved in the marketing of a product or service knows that a critical element in the success of a marketing venture is knowing and understanding the needs of the client. Economic development is, essentially, a marketing activity. The product is a location that is supported by community supplied resources and services. The location that provides a business with tactical advantages over its competitors is likely to attract greater investment.

Sounds simple. However, understanding the needs of individual businesses and the resources required to satisfy them in an economic and trade environment that is changing rapidly, is not an easy task. This is particularly true as businesses continue to cope with radically changing circumstances, not the least of which is the globalization of their markets. The task, then, is not merely to recognize the nature of business today but to understand where it is going in these pivotal years before the turn of the century.

To get an idea of the dominant influences on the business world we only need to review a sampling of the current themes being repeated by some of the more noted chroniclers of business trends in today's marketplace. They may be economists, academics, journalists or business leaders but there is a remarkable consistency to their views. They are not advocating that we stay ahead of a trend - they are warning us to catch up.

Some examples:

Pat McGovern, CEO IDG speaking on global opportunities - and threats:

When we started, 78% of the world market for information technology was in the US. Now it's 45%, and by the year 2000, it will be under 20%. So if you are not globally present, you are going to miss the vast majority of the opportunity.

Koosuki Matsushita - founder of Matsushita Electric Ltd. talking about the awesome power of the individual within the organization:

For you, the essence of management is

getting the ideas out of the heads of the bosses and into the hands of labour. But we are beyond that mindset. Business, we know, is now so complex and difficult, the survival of firms so hazardous in an environment increasingly unpredictable, competitive and fraught with danger, that their continued existence depends on the day to day mobilization of every ounce of intelligence.

Walter Wriston, Chairman Emeritus, Citibank, on telecommunications, the technology which gives us access to a wealth of information:

Today AT&T sends information between Chicago and the East Coast at the rate of 6.6 gigabits per second (the equivalent of one thousand books). At this pace the entire library of congress (86,400,000 books) can be transmitted in 24 hours. Using conventional copper wire and a 2400 baud modem, it would take two thousand years.

Globalization and Strategic Alliances at the Municipal Level

Ontario municipalities are no strangers to globalization. This has been painfully apparent to cities like Toronto whose businesses have been subjected to frequent raiding parties from communities such as New York, Buffalo, Chicago and smaller neighbouring communities, each promoting the benefits of relocation within its boundaries.

Ontario municipalities have also been quick to embrace the benefits of strategic alliances with sister communities around the globe which display compatible needs. Not all of these ventures have been successful. Nonetheless the motivation and desire to establish such alliances is a positive driving force within various economic development programs. Mississauga has even established a function that is dedicated to the promotion and nurturing of strategic alliances among businesses, communities and other organizations which may see complementary benefits to joint activities



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Management degree from the Sloan School of Management at the Massachusetts Institute of Technology. He has held various line and staff positions in engineering, marketing, real estate, capital management and corporate planning.

On July 1, 1991, Mr. Verge was appointed to the position of Group Vice-President (Network Services) in Bell Ontario. Mr. Verge is on the Executive Committee of the Board of the Ontario Chamber of Commerce. He also serves as a Member of the Board of the Canadian Children's Foundation and the Telecommunications Research Institute of Ontario.

with firms operating within its municipal territory.

All of this notwithstanding, the time has come to consider an alliance with another resource which has existed for some time in these communities. It is, at once, a significant employer and investor in Ontario communities, a key supplier to municipal governments and of the enabling technology that permits business to access and exchange the information they need to compete effectively in their respective marketplaces. This resource is Bell Canada.

There are several reasons why such a partnership has not been embraced earlier. One is that the operational agendas of Bell and the municipalities were mutually exclusive and did not permit, nor require, the commonality of interest which exists today. Another is that both parties were working so hard to reshape their own organizations to new realities that the potential for new or revitalized relationships was not immediately apparent, except to members of the economic development community who saw some obvious potential for stronger links.

There are several compelling reasons to consider such an alliance at this time.

1) Resources are too meagre at both the municipal level and in the highly competitive telecommunications industry not to

deploy them in a mutually beneficial manner.

2) Business is being lured aggressively to other locations through the building and promotion of telecommunications infrastructures that support their needs.

3) Most importantly, a superior telecommunications infrastructure already exists in Ontario communities and it represents a powerful asset for municipalities to exploit in economic development campaigns.

The Growing Importance of Telecommunications to Business

One of the most striking transformations to take place in North American business is the empowerment of the individual in the corporate structure. Academics, theorists and our colleagues from Japan have been telling us for years that this was necessary. But no real change, beyond lip service, was forthcoming until it was realized that we were not merely being beaten in competitive skirmishes but we were disappearing from the battlefield. It took two severe recessions since 1980 to convince businesses that they could no longer support their existing levels of employment and a cumbersome multi-layered management structure which limited the effectiveness and contribution of the work force.

Although the transformation is far from complete, the builders and role models for the next generation of businesses have shown us what can be done when employees are empowered and supplied with the tools and information required to exploit that power. The capabilities of that workforce are now limited by the speed and ease with which they can access and manipulate the information they need and the capital required to install the enabling telecommunications infrastructure.

Telecommuting and distribution of labour to distant locations is expanding in direct relationship to the availability of telecommunications support.

But it is not only in the larger corporations that the demands placed on telecommunications infrastructure are apparent. Small business has seen the largest growth in employment in the last few years and the trend is likely to continue beyond the year 2000. Many of these small businesses are in the service sector and offer specialties that formerly existed as part of larger enterprises. These micro ventures freely assemble and reassemble with complemen-

tary services on larger projects or contracts. Sharing information is a given in this free form team play structure where common profit and business objectives are the glue that replaces corporate structure.

The Economic Impact of Telecommunications Infrastructure

For several years now, economists and business planners have known that the telecommunications infrastructure has been a positive contributor to the economic growth and competitiveness, in that investment in telecommunications improves the quality of labour and capital inputs in the economy.

This is particularly true of many of the information-intensive industries such as computers and semiconductors, health and medical and instrumentation industries which, according to economist and author Nuala Beck, are the principal engines of growth in the new economy.

US studies conducted by DRI/McGraw Hill's Business Services Group indicated as early as 1982 that the average industry saved \$1.64 (inflation adjusted) in other costs for every additional dollar invested in telecommunications. The same studies estimated that the increased use of telecommunications saved the 1982 US economy approximately \$50 billion in labour and capital and that US exports between 1977 and 1982 increased by more than \$50 billion as a result of increased international competitiveness stimulated by telecommunications infrastructure improvements.

Since that time the explosion of the information component of business activity has been enormous. It is estimated that virtually 90% of all jobs created within the last decade were information related and this represents fully 6% of the US gross national product. Japan currently displays a similar performance but they estimate that this component will rise to 20% of GNP by the year 2000.

The World-wide Rush to Improve Telecommunications Infrastructure

More and more we see the commitment to improve telecommunications infrastructure becoming a key strategy to national economic development in several countries.

• Britain and France, long considered to offer its citizens inadequate telecommuni-

cations services when compared with North America, are making huge investments in telecommunications infrastructure as a matter of national policy and commitment to economic renewal.

• Germany, likewise, has launched a massive program to install millions of digital lines which will bring five new states up to western standards by 1997.

• Singapore and Japan are vying actively to capture a significant share of regional and international telecommunications traffic. Singapore already has one of the most extensive fibre optic networks in the world and supplies its customers with the most advanced facilities available anywhere. More than half of the national network lines are now digital and they expect to be completely digital by next year.

• Japan, already boasting one of the most highly sophisticated telecommunications networks in the world is building a fibre optic network capable of transmitting complete multimedia services to homes and businesses by 2015. Known as Service Vision for the 21st Century, the might of the Japanese industrial machine is hard at work on advanced components of the project, some of which will be in service as early as 1995.

• Closer to home, the US is accelerating the conversion to digital lines and common channel signalling, a technology that allows information about a call, such as the number placing the call or credit card details, to be carried separately from the call itself.

Telecommunications Infrastructure as an Attractor to Investment and Economic Development

Singapore has been singularly forthright in communicating its intention to capture a significant share of regional and telecommunications traffic. It has focused its resources and energies to building the telecommunications infrastructure needed to accomplish this.

In the United States, Florida has installed an abundance of fibre optic facilities which the State Department of Commerce has featured in advertising campaigns to attract new business.

Omaha, Nebraska has become known as the 800 capital of the world because of the large numbers of telemarketing firms which have been attracted to the City. Fully 40% of people employed in Omaha,

approximately 10,000 individuals are employed in telemarketing firms.

Although the Omaha experience has made virtually every community in North America take notice and to a certain degree lust after telemarketing companies, there were a number of significant reasons why Omaha could accomplish this feat.

Essentially, the reasons Omaha was so successful were:

- the city is located in the central time zone which made marketing on either coast very convenient,
- Nebraskans are considered to have a relatively neutral accent,
- the local telecommunications companies became very nimble responding to the needs of the Strategic Air Command which is headquartered in Omaha.

In other words, Omaha exploited its natural assets to attract an industry that could take advantage of those assets.

A major US site selection magazine has been tracking the most important reasons given by corporations for choosing a particular site for several years now. In the last five, telecommunications has come virtually from off the list to rank in the top four out of the top 10 considerations for site preference. The magazine projects that within the next two years it will be one of the top three determinants.

This seems to be confirmed by the fact that two of the best three performing new business parks in the US in 1992, in terms of tenancy growth, were both so called "smart" parks equipped with the latest in telecommunications services.

Both the City of Mississauga and the Regional Municipality of Sudbury have embraced this notion and are working actively with Bell Canada to prioritize the deployment of new technologies in the area.

The Opportunity for a Strategic Alliance

The transfer and sharing of information is no less powerful a tool for Ontario municipalities and Bell Canada than it is for the businesses we both wish to attract to the province or those resident enterprises we wish to help grow and prosper. Complementary objectives focus our attention on similar matters and the scarcity of capital and other resources would indicate there is much to benefit both parties in an alliance.

Bell is strongly committed to working more closely with municipal economic development departments to help them attract

business investment to their communities and to position them for the future with "smart" telecommunications infrastructures. This process has already started in some communities, and Bell is interested in working with others to provide a variety of communication solutions that support community needs.

The corporation has also helped to develop lure pieces on telecommunications infrastructure in support of economic development mailing and marketing programs with a view to extending this activity further to assisting municipalities with presentations on telecommunications infrastructure to prospects who have expressed an interest in locating here. Achieving the telecommunications "smart" city, however, also requires some support and information from developers, building owners, architects and the municipalities themselves. Consideration given to the accommodation of telecommunications when designing communities and new buildings and the allocation of space for fibre electronics in both new and existing buildings would only serve to enhance the appeal of those buildings.

Bell also needs the assistance of the municipalities to keep up-to-date on their directions and plans and help in understanding how best to contribute to dialogue on the municipal consent process. The establishment of building codes that would provide for telecommunications equipment space would ensure that those properties could be more easily and economically serviced with modern technology that would be attractive to would-be tenants.

The areas of mutual support are many and the potential to be gained from such a relationship would benefit all parties - a classic opportunity for a win/win relationship.

Towards the Year 2000

As we move towards the turn of the century the needs of the business community and the competitive forces at work in the telecommunications industry will continue to ensure that our attention and resources are focused on areas which will provide the greatest opportunity for financial success and the continued funding of improvements to the network.

The present focus on system survivability will remain a priority until continued use and practical observation demonstrates that the Ontario telecommunications infra-

structure has been built with reliability as the utmost concern.

As the following trends continue to expand:

- the empowerment of the individual within the organization,
- the distribution of tasks and work to employees located at home or other distant locations,
- the growth of the small business sector with a corresponding proliferation of strategic partnerships and alliances,
- the need to conserve resources in the health care and educational fields while expanding the effectiveness of these disciplines,
- the increasing global competitiveness and the need for local businesses to work with international alliances, while not diminishing the need for system reliability, they will create an ever increasing demand for network capacity to deliver video, data and voice all at significantly greater speeds.

Technology is already available that allows Bell-Northern Research employees in Ottawa, the US south and Europe to share and manipulate data and see each other on their respective PC screens, all in real time. Technology is also available in the fashion industry that immediately transmits the details of an order taken on a fashion runway in Paris to a textile cutting machine in Asia, starting the manufacturing process within minutes of the purchase being made. The possibility of project teams working on the same project in several different locations and time zones around the globe creates the opportunity to devote 24 hours of thought and productivity to a single activity.

Custom software at Toronto's Sick Kids Hospital is used to digitize medical X-Rays allowing surgeons to generate complex three-dimensional images and to retrieve images from a PC. The University of Guelph and the University of Waterloo are engaged in a project where students at both universities have fully interactive data, voice and video contact with a professor located in Guelph. The students can access the professor's notes on their PCs even after they have been erased from the white board.

Large office towers in various Ontario cities will not lie vacant but they may well be occupied by a greater population of small businesses. Telecommuting will not eliminate the need for concentrated groupings of employees although at least one estimate places the number of Canadians working at home in the year 2000 at 5

million while the home office market is projected to grow from \$5 million to a \$3 billion business by the turn of the century. Also by the end of the century, continually declining transmission costs are expected to make video conferencing in the home entirely feasible.

Based on smaller and smaller business units (some of the smallest such as a software research company have enormous appetites for network capacity) both Bell and municipal governments will find that business needs will become less and less predictable requiring greater flexibility of response by both parties.

Competitive pressures will also focus attention on the high value customers as the cost of doing business for both Bell and municipal government goes up. A strong and well established collaborative approach whereby both parties are able to share knowledge about the needs of the end user can only make the process of being prepared for the year 2000 easier. □

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