

IMPLEMENTATION OF E-BUSINESS AND NETWORKING PROCESSES IN RURAL SMALL AND MEDIUM-SIZED BUSINESSES

IMPLEMENTACE PROCESŮ E-BUSINESSU A NETWORKINGU V MALÝCH A STŘEDNÍCH VENKOVSKÝCH FIRMÁCH

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Abstract:

The paper discusses the process of adoption and use of information and communication technologies by rural small and medium-sized businesses. The emphasis is put particularly on two areas: electronically supported business relations in networks of rural SMEs, and business-customer e-business relations between rural SMEs and their customers.

Keywords:

SMEs, ICTs, e-business, networking, rural development, social capital

Anotace:

Příspěvek pojednává o procesu adopce a využívání informačních a komunikačních technologií venkovskými malými a středními firmami. Přitom se příspěvek zaměřuje zejména na elektronicky podporované vztahy ve venkovských sítích malých a středních podnikatelských firem a vztahy elektronického obchodu mezi těmito venkovskými firmami a jejich zákazníky.

Klíčová slova:

Malé a střední firmy, informační a komunikační technologie, networking, venkovský rozvoj, sociální kapitál.

INTRODUCTION

As Grimes (2000) notes, rural areas are those parts of the spatial economy which are least affected by the process of urbanisation, and are therefore more associated with a more dispersed pattern of population distribution and economic and political activity. Castle (2002) describes fundamental characteristics of rural areas as follows: relatively sparse human populations, interdependence with urban and global systems, and generally great diversity, even though economic activity in particular rural places often is highly specialised. Rural people face many and varied problems including lack of employment opportunities and business, health and educational services, chronic low incomes in some places, arrested economic development for particular groups, and significant challenges related to environmental management, land use, and communication facilities. This leads to depopulation of these areas and outmigration, especially of young and educated people. Thus there is a continued ageing of the population, and increased decline and dependency.

Small and medium-sized enterprises and microbusinesses, due to their importance in the economic performance and sustainable development of rural areas generally, play the special role in many rural development plans (Lowe and Talbot, 2000). Information and communication technologies due to their potential to overcome barriers of time and space together with the assumption that the different kinds of isolation cause the problems of rural areas could contribute to the economic development and greater integration of peripheral and

less favoured areas into nowadays economy (Cornford, 2000; Mitchell and Clark, 1999). Seen through the eyes of a small region, there is a dichotomy in introduction of information and communication technologies in the region (Grymus and Lyons, 1994). They are directly related to globalisation of the economy, the internationalisation of markets, the emergence of business and social virtual networks, and other trends. On the other hand, their potential for local development seems to be unquestionable. The use of information and communication technologies in the promotion of business and social community development in rural communities is seen as an engine for change to overcome the disadvantage of distances, remoteness and the underdevelopment of rural and remote areas.

Building of socio-economic business networks, such as industrial districts, production networks, or entrepreneurial clusters, is a promising approach to regional economic development. According to Terziowski (2003) or Brown and Butler (1995), the primary motive in forming networks of SMEs is to obtain the advantage of “bigness” while remaining small and highly responsive. Small size means fewer bureaucratic procedures that must be overcome in order to respond to requests from customers or partners. And if these networks are formed in the cooperative environment then they enable small entrepreneurs to mobilize social relations to improve their economic performance and create new opportunities to growth (Brunori and Rossi, 2000).

OBJECTIVES AND METHODOLOGY

The objective of the paper is to describe the conceptual framework and essential findings of the research conducted in four Canadian provinces (British Columbia, New Brunswick, Ontario, and Prince Edward Island) in 2002-3. By using evaluation of web-pages and semi-structured interviews with representatives of small and medium-sized enterprises, the goal of the research is to examine the role of e-business processes in improving the position of rural SMEs in the context of current global economic and technological changes through networking processes based on use of information and communication technologies.

The conceptual framework of the research is based on three dimensions of social capital theory – networks, norms, and trust (Putnam, 1993). The three phenomena described above – social networks, norms, and trust – generated by various activities to enhance the socio-economic outcomes form, according to Putnam’s (1993) definition, social capital. Networks themselves provide an infrastructure for contacts, social actions, business interactions, etc., and due to this fact, this concept exploring and describing activities and flows in networks is being used in the work as a theoretical framework. Social capital theory is in the literature strongly related to networks among businesses as well as within and among different groups and communities (i.e. Castle, 2002; Cooke and Morgan, 1993; Evans, 1996; Flora, 1998; Murdoch, 2000; Putnam, 1993; Torsvik, 2000; Wall, 1998; Woolcock and Narayan, 2000). Social capital facilitates coordination and cooperation for mutual benefit and can increase with use and diminish with disuse and misuse (Putnam, 1993; Woolcock, 1998). The network perspective on social capital stresses the importance of vertical as well as horizontal associations between people and of relations within and among such organizational entities as community groups and organisations (Woolcock and Narayan, 2000).

RESULTS

As mentioned above, the paper summarizes findings of the research based on an evaluation of web-pages and interviews with representatives of 249 rural SMEs from four Canadian provinces. Tables 1 and 2 show numbers of interviewed businesses in individual provinces. Differences between these numbers reflect the different level of use of information and communication technologies by SMEs in these provinces.

Table 1 – Numbers of interviewed firms

Ontario	100	
New Brunswick	26	
Prince Edward Island	24	
British Columbia	99	249

Table 2 – Business activities of interviewed firms

Production firm	122	
Entrepreneurial network	25	
Developmental organization	13	
Regional cultural event	1	
Local government	27	
Accommodation	41	
NGOs	1	
Golfing club	3	
Local newspaper	3	
Social organization	1	
Spa	2	
Tourism network	10	249

One of information the research collected was the information related to the role that the web-page of the firm plays in business processes. Table 3 summarizes the information.

Table 3 – Functions of the web-page

Publishing business information	146	
Sales support	28	
Promotion	48	
Business development	6	
Regional development	5	
Tourism	14	
Other	2	249

The results of the semi-structured interviews are organized in five themes presented below:

A) Reasons for and benefits of using means of information and communication technologies in the business

Respondents identified a wide range of reasons why means of information and communication technologies were being adopted by small and medium-sized rural businesses. In most cases it is a reaction to the market pressures what these businesses have to face, or the effort to improve business processes, market positions, or customer services. Businesses from rural areas with limited local market use information and communication technologies to overcome the proximity to bigger markets, to promote their services and products to wider customer base, and to offer their existing and potential customers additional “digital” services related to their production.

B) Membership in business and social groups

Owners, managers, and employees of rural SMEs are members of many local and virtual business and social groups. Some of them (different professional groups, associations, and networks) are directly related to the business, others serve only as a source of potential customers and information about the customers and competitors. Chambers of Commerce are

particularly important and were often mentioned by the respondents when asked about memberships in different business and social organizations.

C) Means for business contacts with partners and customers

Preferences of means of communication used for a contact with customers, bookings, and selling products and services of interviewed businesses differ. Some of firms get all or most of their business from the Internet, others prefer the traditional way of doing business and personal contact with customers. Reasons for this variety of approaches differ as well. Usually, means of ICTs are preferred for the ability to show pictures of products, and for costs and time savings. Face-to-face and phone contacts are being used when the human touch is an important part of the business, when projects or amounts of products are big, or when cultural aspects play a role in a global business.

D) Trust

Almost every respondent answering our questions realized the importance of trust for a business, particularly for electronic and virtual relations and networks, and for electronic business and payments. When asked about their understanding of trust, interviewed businessmen related creation of trust to the predictability of actions of their partners which was based on the transparency of behavior, minimization of surprises, and mutual communication.

E) Business networking

Building strong relations with customers (customer networks) and partners (business networks) is a very important part of doing business. In both cases the final consequence is a better service for customers because the business understands better customers' needs and in the co-operation with others can satisfy them better. One has to invest into the relationships to strengthen them. The most common strategy is exchange of information and communicating between parties. Information and communication technologies can help with this effort by providing electronic and phone links to partners, and by building and maintaining databases that can systematically organize information about, and contacts to partners.

DISCUSSION

Computers and digital networks provide businesses with opportunities for time and cost savings through more efficient communication with their business partners and customers, and through lower transaction costs. It allows businesses to exchange bigger amounts of data, strengthens links between them and encourages them to co-operate more.

System of links between web-pages of different organizations creates also a powerful tool for local development. Local governments, Chambers of Commerce, or other organizations (including social groups organizing annual events in the area) can promote local area through well organized and easy to use system of links to different local governmental, business, and social organizations.

Trust has been identified as a crucial factor in current business activities. With the importance of trust is related the necessity to build trust between partners and between a business and its customers. Trust building can be influenced by the distance between partners, cultural differences between them, or by the introduction of trusted third party. Businesses have to invest time and effort into trust building. They have to give a chance for easy contacts to their partners, create the environment of mutual communication, and build their reputation.

Strengthening relations between businesses can lead to the creation of environment of friendship and co-operation instead competition in the area. The business co-operation increases value of customer services and leads to better satisfaction of customers. Necessary condition for this kind of relationships is a reciprocal character of relations in networks.

CONCLUSIONS

The research presented in the paper is significant more than one way. It describes interconnections between small local business and social networks, the functioning of networks of rural SMEs, and the potential of information and communication technologies for development of rural businesses. Part of the research looked at web presentations of small rural businesses and used the Internet as an important research site testing theories of technology diffusion and media effects. All issues identified above are not fully understood and have been described only partially in the literature (Curran, Jarvis, Blackburn, and Black, 1992). Additional systematic research is needed for the better understanding of the topic what can enhance the effectiveness of developmental actions of different kinds.

Using social capital theory, the study provides a general framework for the analysis and explanation of the role of new information and communication technologies in the development of small businesses in rural areas through their networking. Building of trust and solid relations with partners and customers is important aspect of the transition to e-business. Sociological explanations of network effectiveness stress the importance of increased communication (Symon, 2000), and trust. Despite the fact that there has been a lot written about the impact of social capital building on different aspects of social and economic life, the use of social capital theory in processes of electronic business in rural SMEs is quite unique.

LITERATURE

- Brown, B., and Butler, J.E.: 1995, 'Competitors as allies: A study of entrepreneurial networks in the U.S. wine industry', *Journal of Small Business Management*, pp.57-66.
- Brunori, G., and Rossi, A.: 2000, 'Synergy and coherence through collective action: some insights from wine routes in Tuscany', *Sociologia Ruralis*, vol.40, no.4, pp.409-423.
- Carney, M.: 1998, 'The competitiveness of networked production: The role of trust and asset specificity', *Journal of Management Studies*, vol.35, no.4, pp.457-479.
- Castle, E.N.: 2002, 'Social capital: An interdisciplinary concept', *Rural Sociology*, vol.67, no.3, pp.331-349.
- Cooke, P., and Morgan, K.: 1993, 'The network paradigm: new departures in corporate and regional development', *Environment and Planning D: Society and Space*, vol.11, pp.543-564.
- Cornfold, J., Gillespie, A. and Richardson, R.: 2000, 'Regional Development in the Information Society', In: Ducatel, K., Webster, J. and Herrmann, W.: *The Information Society in Europe: Work and Life in an Age of Globalization*, Rowman and Littlefield Publishers, Lanham, Maryland.
- Curran, J., Jarvis, R., Blackburn, R.A., and Black, S.: 1992, 'Networks and Small Firms: Constructs, Methodological Strategies and Some findings', *International Small Business Journal*, vol.11, no.2, pp.13-25.
- Evans, P.: 1996, 'Government Action, Social Capital and Development: Reviewing the Evidence on Synergy', *World Development*, vol.24, no.6, pp.1119-1132.
- Flora, J.L.: 1998, 'Social Capital and Communities of Place', *Rural Sociology*, vol.63, no.4, pp.481-506.
- Grimes, S.: 2000, 'Rural areas in the information society: diminishing distance or increasing learning capacity?', *Journal of Rural Studies*, vol.16, pp.13-21.
- Grimes, S. and Lyons, G.: 1994, 'Information technology and rural development: unique opportunity or potential threat?', *Entrepreneurship and regional development*, vol.6, pp.219-237.
- Knickel, K. and Renting, H.: 2000, 'Methodological and Conceptual Issues in the Study of Multifunctionality and Rural Development', *Sociologia Ruralis*, vol.40, no.4, pp.512-528.
- Lowe, P. and Talbot, H.: 2000, 'Policy for small business support in rural areas: A critical assessment of the proposals for the small business service', *Regional Studies*, vol.34, no.5, pp.479-487.
- Mitchell, S. and Clark, D.: 1999, 'Business adoption of information and communications technologies in the two-tier rural economy: some evidence from the South Midlands', *Journal of Rural*

Studies, vol.15, pp.447-455.

- Putnam, R.: 1993, *Making democracy work: Civic traditions in modern Italy*, Princeton, Princeton University Press.
- Symon, G.: 2000, 'Information and communication technologies and the network organization: A critical analysis', *Journal of Occupational and Organizational Psychology*, vol.73, pp.389-414.
- Terziovski, M.: 2003, 'The relationship between networking practices and business excellence: a study of small to medium enterprises (SMEs)', *Measuring Business Excellence*, vol.7, no.2, pp.78-92.
- Torsvik, G.: 2000, 'Social Capital and Economic Development: A plea for the mechanisms', *Rationality and Society*, vol.12, no.4, pp.451-476.
- Wall, E., Ferrazzi, G., and Schryer, F.: 1998, 'Getting the Goods on Social Capital', *Rural Sociology*, vol.63, no.2, pp.300-322.
- Woolcock, M.: 1998, 'Social capital and economic development: Toward a theoretical synthesis and policy framework', *Theory and Society*, vol.27, pp.151-208.
- Woolcock, M. and Narayan, D.: 2000, 'Social Capital: Implications for development theory, research, and policy', *The World Bank Research Observer*, Volume 15, Issue 2, Washington.

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