

Chapter 1.4

Information Systems and Small Business

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INTRODUCTION

The subject area of the application of information systems to small business is a thoroughly interesting, yet relatively under-researched topic. Small business is an important part of any economy. In the United Kingdom, 25% of the gross domestic product is produced by small business, which employs 65% of the nation's workers (Ballantine et al., 1998). In Canada, 43% of economic output is accounted for by small business, employing 50% of private sector employees (Industry Canada, 1997). Further, governments view the small business sector as that component of the economy that can best contribute to economic growth (Balderson, 2000). Given the importance of this sector of the economy, it is incumbent upon researchers and managers of small business to develop a better understanding

of how information systems may contribute to the operation and growth of individual businesses as well as the overall sector.

The objective of this chapter is to provide an overview of information systems used by small business. Research projects are presented that describe the current situation. Recommendations are then proffered for various stakeholders who should contribute to a more effective use of information systems by small business.

BACKGROUND

There does not seem to be a commonly accepted definition of a small business. Thus, individual researchers have adopted a definition for their specific projects. Some definitions include annual revenue, amount of investment, or number of employees. The definition mostly used is number of employ-

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ees (Longnecker et al., 1997). The European Parliament (2002) has also adopted number of employees as a definition and has further refined the category. Thus, 0 to 10 employees represent micro businesses, small businesses include 10 to 50 employees, and medium businesses have 50 to 250 employees.

Beyond the size aspect of small business, there are others that differentiate them from large businesses. Stevenson (1999) has determined that from a strategic perspective, managers of small businesses tend to respond to opportunities presented by their environment in a multi-staged approach by committing a minimum of resources. Another differentiating factor is “resource poverty” (Thong et al., 1994). This term refers to the lack of time, finances, and human resources.

Laudon and Laudon (2001) suggest that an information system is “interrelated components working together to collect, process, store, and disseminate information to support decision making, coordination, control, analysis, and visualization in an organization” (Laudon & Laudon, 2001, p. 7). As indicated previously, managers of small businesses emphasize short-term decisions in their allocation of scarce resources. However, most information systems require a long-term plan with a significant one-time initial financial commitment. This conflict may result in inefficient investment in information systems, which in turn may negatively impact the financial situation of the small business.

Recent research has supported the contention that the use of information systems by small business represents a unique approach. For instance, Belich and Dubinsky (1999) and Pollard and Hayne (1998) determined that the issues being faced by small business managers (lack of time, skills, and financial resources) are different than those faced by large business managers. Further, Taylor (1999) investigated the implementation of enterprise software in small businesses and found that neither the businesses themselves, nor the software vendors were fully cognizant of

the unique problems (matching system capability to functional requirements) encountered by small business managers. Finally, Hunter et al. (2002) identified two major themes regarding small business use of information systems. These themes are “dependency” and “efficiency”. The authors suggest that the adoption of information systems increased the small business’ dependency on an internal champion, and a series of external stakeholders, including consultants and suppliers. Hunter et al. (2002) suggest this increased dependency results from the approaches to business (Stevenson, 1999) taken by the manager and the concept of resource poverty (Thong et al., 1994). The efficiency theme suggests that small business managers primarily use information systems as an operational tool to help complete daily activities.

Earlier research (Nickell & Seado, 1986) determined that small business was mainly using information systems for accounting and administrative purposes. Research conducted in the 1990s (Berman, 1997; Canadian Federation of Independent Business, 1999; Fuller, 1996; Lin et al, 1993; Timmons, 1999) noted a growing interest by small business in employing information systems for daily operations. While small business has been more than prepared to exploit the use of information systems to support daily operations (El Louadi, 1998), there exists little evidence that they are prepared to employ the technology in a strategic manner (Berman, 1997). Bridge and Peel (1999) determined that small businesses employed computers mainly to support daily operations and tended not to use them to support decision-making or long-term planning. Current research suggests this situation has not changed. For instance, Dandridge and Levenburg (2000) found that information systems were being employed for daily operations and there was little use of computerization for competitiveness aspects such as accessing the Internet.

A number of research projects have identified that small businesses have not adopted Internet use because of lack of knowledge and experi-

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