Chapter 12

ICT Diffusion and Strategic Role within Italian SMEs

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Information System literature is rich in studies concerning the impact of Information and Communication Technologies (ICT) on organizations. This chapter, however, focuses on a specific context: small and medium size enterprises (SMEs). It presents an up-to-date picture of the ICT employed and of the activities ICT support within Italian SMEs. Moreover, it provides results regarding the relationship between ICT and SME strategy. Data were collected through a survey on IT managers of 143 SMEs placed in Northern Italy. Research results highlighted relevant differences on how small and medium size organizations employ ICT in order to influence or support their strategy.

INTRODUCTION AND PRIOR RESEARCH

In the ’80s, Information and Communication Technology (ICT) evolution mainly affected large companies, able to invest a large amount of their resources in Information System (IS) development. Large information centers and specialized staff were required to effectively manage the ICT introduction and development in these companies.

The initial advantages which promoted ICT introduction in many companies, were mainly related to the productivity improvements. However, in the following years the impact on company strategies was theoretically proposed and empir-

As the broadness of ICT impact begun to expand beyond the boundaries of large enterprises, the academic world has been increasingly interested in the phenomenon of ICT adoption and use by SMEs, recognizing their peculiarity with respect to larger implementations. During the 90's a lot of research outlined the increasing use of ICT within SMEs:

- a survey over 228 Canadian SMEs presented a positive relationship between ICT adoption and organizational development (Raymond, 1992);
- a study on a sample of 201 British small enterprises with under 10 employees reported that approximately 50% had at least one personal computer (Bums, 1992);
- a research carried out in Japan (Japan Small Business Research Institute, 1995) pointed out that more than two thirds of the surveyed SMEs already owned one or more computers, and were working to reach higher levels of computerization, with a further 16% still in the planning phase of giving the business a superior information orientation.
- the few research in Italy, showed that ICT support to business activities is on average lower when compared to other European countries (ASSINFORM, 1997); nevertheless the diffusion of IS-related assets appears widespread even within small and very small Italian enterprises (Bartolozzi, 1995).

Other studies, however, outlined that ICT adoption and management amongst SMEs have not been exempt from problems:

- from technological point of view, the lack of technical expertise seems to limit technical specification and selection policies (Monsted, 1993; Schleich, 1991), leading to hardware and software inadequacy (Cragg, 1995).
- from organizational perspective, Cragg (1995) reported that management paid insufficient attention to the Information System: this can be related to the small size (or even absence) of IS staff, possibly combined with the lack of ICT consultants (Soh 1994; Palvia, 1995; Zinatelli, 1995). As a consequence, IS of small businesses show fail in providing adequate support to many decision activities (Lai, 1995; Lang, 1997).

It is worth noticing that such a rich literature, nevertheless, has given scarce consideration to the analysis of the strategic role ICT could play into SMEs. Therefore, while relationship between ICT and business strategy represent a well-known issue, there is little evidence that ICT can influence or even support SME strategies.
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