



Chapter IV

Information System Check-Up as a Leverage for SME Development

Aurelio Ravarini, Marco Tagliavini and Giacomo Buonanno
Cattaneo University, Italy

Donatella Sciuto
Politecnico di Milano, Italy

INTRODUCTION

The widespread adoption of information and communication technology (ICT) has been involving both large companies and smaller ones. However, while large enterprises usually own the managerial competence and financial resources to face innovation, a lot of research has been highlighting the typical weakness related to small and medium enterprises¹ (SMEs) (Burns, 1996; Raymond, 1985, 1992). In fact, their typical focus on production activities, together with their limited investment budget, very often lead SME entrepreneurs to exclude information systems (IS) issues whenever planning organizational development. As a result, SMEs usually devote minimal resources to the IS department and, whenever they do, IS staff competence are strictly narrowed to technical issues (Soh, 1994; Palvia, 1994; Zinatelli, 1996). The consequent lack of internal expertise limits ICT specification and selection policies (Monsted, 1993; Schleich, 1990), and inevitably leads SMEs to develop an IS which is inadequate to the organizational needs (Cragg, 1995; Lai, 1995; Lang, 1997).

This chapter appears in the book, *Managing Information Technology in Small Business: Challenges and Solutions* by Stephen Burgess.
Copyright © 2002, Idea Group Publishing.

From the fast pace of ICT innovations arises the issue of the worth of IS management: among SMEs it is definitively questionable whether IS has been developed according to efficiency and effectiveness requirements, and whether it is aligned with the business strategy. Even more critically, it is questionable whether anyone in the company does consider IS efficiency, effectiveness and strategic alignment as issues. As a consequence, SMEs could greatly benefit from a tool supporting the ICT manager (or the person in charge of the IS) and the entrepreneur in monitoring the IS adequacy and making competent choices about IS development.

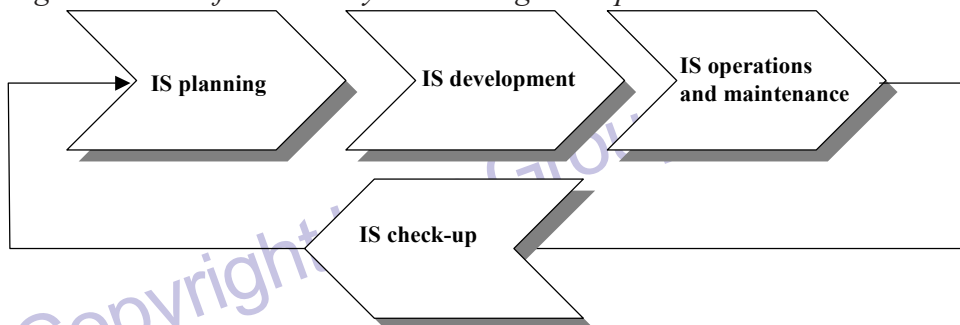
On the other hand, the previous remarks suggest that, in order to be applicable within SMEs, any managerial tool should be low in time and cost consumption and should not require specific skills to be used. Therefore, the purpose of this chapter is to provide a tool fulfilling the aim of IS management support, while respecting such requirements.

The chapter presents a detailed analysis of the literature on this subject, carried out to identify the existing approaches. Then, the identified approaches are compared and their adequacy to SME characteristics is assessed. The last section describes a tool specifically developed for SMEs and discusses its application within a set of Italian companies.

IS MANAGEMENT PROCESS AND IS CHECK-UP TOOLS

Similar to any other managerial process, it is possible to represent the Information System Management Process as a sequence of three main phases (planning, development, maintenance). Moreover, in order to keep IS characteristics coherent with the company needs along time, it is essential to add a fourth phase (check-up) providing feedback to the ongoing outcomes of the process itself (Figure 1).

Figure 1: The information system management process



18 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/information-system-check-leverage-sme/25868

Related Content

Scientific/Technological Human Resources as a Success Factor in the Organizational Culture of SMEs: A Longitudinal Study for a Maquiladora Company

Gerardo Reyes Ruiz (2023). *Using Organizational Culture to Resolve Business Challenges* (pp. 1-34).

www.irma-international.org/chapter/scientifictechnological-human-resources-as-a-success-factor-in-the-organizational-culture-of-smes/329721

Innovation in the Time of Pandemic: Insights from a Survey of Malaysian Small and Medium Enterprises (SMEs)

Mohammed Alnajjar, Abdelhak Senadjki, Au Yong Hui Neeand Samuel Ogbeibu (2025). *International Journal of SME Research and Innovation* (pp. 1-21).

www.irma-international.org/article/innovation-in-the-time-of-pandemic/368040

Innovation in the Time of Pandemic: Insights from a Survey of Malaysian Small and Medium Enterprises (SMEs)

Mohammed Alnajjar, Abdelhak Senadjki, Au Yong Hui Neeand Samuel Ogbeibu (2025). *International Journal of SME Research and Innovation* (pp. 1-21).

www.irma-international.org/article/innovation-in-the-time-of-pandemic/368040

Innovation in the Time of Pandemic: Insights from a Survey of Malaysian Small and Medium Enterprises (SMEs)

Mohammed Alnajjar, Abdelhak Senadjki, Au Yong Hui Neeand Samuel Ogbeibu (2025). *International Journal of SME Research and Innovation* (pp. 1-21).

www.irma-international.org/article/innovation-in-the-time-of-pandemic/368040

Innovation in the Time of Pandemic: Insights from a Survey of Malaysian Small and Medium Enterprises (SMEs)

Mohammed Alnajjar, Abdelhak Senadjki, Au Yong Hui Neeand Samuel Ogbeibu (2025). *International Journal of SME Research and Innovation* (pp. 1-21).

www.irma-international.org/article/innovation-in-the-time-of-pandemic/368040