Chapter I

Basic Concepts of Information System Auditing

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INTRODUCTION

The challenge of information system auditing, as it is known nowadays, is a consequence of a most important current trend, namely the change from an industrial to an information society.

We are involved in profound changes of all kinds leading us into the 21st century. Organizations depend on the economical, industrial and social environment in which they develop; so if technological tendencies, economical environments and industries change, they have to adapt fast to the new circumstances in order to survive.

Such a fast change is affecting the whole world and its understanding is fundamental for all kinds of organizations, especially in relation to information systems and related technologies. For better or worse, the whole society is more and more dependent on information and communication systems.

On the other hand, the development of information technologies in the last twenty years has been constant and impressive. The past five years can be considered as a true technological revolution in depth and impact. Nowadays, the majority of organizations consider that information and its associated tech-
nology represent their most important assets. The quality control and security requirements that are implemented for other companies’ assets are also required for information systems and technology. Management must establish an adequate system of internal controls, and such systems should support business processes and resources properly.

The planning, control, security and cost reduction involved in information systems are currently essential for organizational strategies.

Generally speaking, the current situation of information systems is frequently characterized by a lack of assimilation of new technologies, a bad use of information and technological resources, a general dissatisfaction of users, obsolescent applications, and a lack of planning. Applications in the past have not been integrated but designed as partial solutions, and they have been functioning as independent automated or manual islands. Manual processes were difficult to control and expensive to maintain. Eventually there was a lack of standards and methods and a lack of training and general culture concerning the overall aspects of information control and security.

Taking the initiative in dealing with these problems, the professional organization ISACA (Information Systems Audit and Control Association) published, following its Foundation in December 1995, CobiT (Control Objectives for Information and Related Technology), as a result of four years of intensive research by a broad team of international experts.

In the past, information system auditing has been used as a technical complement to financial auditing. Because of the growing impact of information and related technology in organizations, this issue becomes more and more important and it can only be seen and executed as an independent discipline. The methods and procedures for information system auditing are worth considering by organizations and enterprises of any size.

As a result of current global competition, the organizations have to restructure their operations towards a more competitive and technological environment; consequently, they have to take advantage of using information systems and technology that are secure and controlled to hold and improve their market position. This fact should both stimulate students and professionals and
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