EMERGING ROLE OF ACCOUNTING AND ACCOUNTANTS IN EXECUTIVE INFORMATION SYSTEM: EVIDENCES FROM LITERATURE

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The role of information systems in decision making has become particularly prominent in recent times with the advent of affordable technology. Businesses routinely use such methods to increase efficiency. A particular field that merits attention in this field is executive information systems which assist top management in decision-making. Researchers in this paper have tried to highlight the relevance of including accounting information into this system. This paper outlines a framework where accounting plays a vital role in aiding complex decisions under both high and low levels of uncertainty. Accounting's undeniable role in product costing decisions and in measuring productivity serve as a basis for showing that inputs from this area are needed in order to reach goals when multiple conflicting objectives may be present. The need for accounting information at this level will continue to grow and better decisions will require further incorporation of such knowledge into the executive information systems.

Keywords: Accounting Information Systems, Business Strategy, Technological explosion, Role of Accounting in Decision-making

PROLEGOMENA

The potential for utilization of computers as part of information systems in the business environment was realized as early as the 1960s. Historically, many executive decisions relied heavily on information that was captured, processed, and reported by middle managers. One estimate suggests that middle management spends up to 80 percent of its time collecting, processing, analyzing, and passing on information (Fireworker and Zirkel 1990, 26). Today, the role of middle managers as information czars is diminishing. Technology makes it possible for companies to automate many data processing activities traditionally performed by middle managers in support of executive information needs. Such an automated system is called an executive

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information system (EIS)[4].

Executives are managers with formal authority over the whole of an organization or an important functional unit of one" (Thierauf, 1991). They have responsibility and are accountable for the results of their actions, to either other executives (higher on the organizational scale) or to the owners of the organization (McLeod and Jones, 1986). A prominent characteristic of the executive's role is the making of decisions (Mintzberg, 1975). This refers to evaluating possible courses of action and selecting and initiating one of them. In order to take effective decisions, accountants need to have access to 'high quality' information. Such information needs to be relevant to the variables affecting the outcome of the decision, accurate, timely and up to date. Moreover it needs to be accessed easily and presented in a format that makes it easily understood.

Much of the focus of EISs has been on capturing and processing exogenous information (Frenkel 1990; Giordanella 1989), such as stock prices, or on improving communications among executives through electronic mail (Giordanella 1989). Many EISs access on-line databases that provide windows to Wall-Street and allow monitoring of external events that may affect the organization. Internal data on the results of operation, financial position, cash flow, and other operating events are equally relevant for many executive decisions. Although several companies reported using their EIS to help monitor operating data (Armstrong 1990a and 1990b; Bulkeley 1988; De Long 1988; Harvey 1989), literature is scarce how EISs impact the transaction processing system of financial accounting and the internal reporting function of managerial accounting.

This paper discusses the impact that EISs will have on accounting and on the roles that accountants, particularly managerial accountants, assume as contributors to these systems. The potential is unlimited for improved decision making by fully exploiting EISs for data analysis. The discussion assumes Ijiri's (1967, 3) broad definition of accounting as "a system for communicating the economic events of an entity". Given this definition, the paper explores the disparate roles that accounting and accountants can serve to provide data critical for executive decisions under different levels of uncertainty. As a frame work for this analysis, the authors use a model based on research by Thomson and Tuden (1959) and Burchell et al. (1980). Practical anecdotes are presented to depict the importance of accounting information to executive decisions and critical accounting roles in an EIS.

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4. Executive information systems are also called executive information and decision support systems (Martin 1989; Mc Namarna et al. 1990), and enterprise information system (Pinella 1991).

MEANING OF EIS?

The term 'Executive Information Systems' was introduced in 1982 (Rockart and Treacy, 1982) to describe the kind of systems a few senior corporate officers were using on a regular basis to access information they needed. Unfortunately, there is no standard, universally accepted definition as to what the term EISs encompasses. Different researchers use a different working definition which usually refers to some characteristics of what the term 'Executive Information Systems' describes. In much of the literature the term Executive Support Systems (ESS) is used interchangeably with EISs to describe the same kind of system. Rockart and Delong (Rockart and Delong, 1988), make a distinction between the two terms. They define and use the term ESS to refer to systems with a broader set of capabilities than EISs. While the term EIS denotes providing information.

EISs are defined as computerized information systems designed to be operated directly by executive managers without the need of any intermediaries. Their aim is to provide fast and easy access to information from a variety of sources (both internal and external to the organization). They are easily customizable and can be tailored to the needs and preferences of the individual executive using it. They deliver information of both soft and hard nature. This information is presented in a format that can be easily accessed and most readily interpreted.

Executive information systems provide non-technical, real-time environments in which executives can access on an ad hoc basis whatever information is needed to either confirm or refute a perception about the business at a particular moment in time. John N. Kelly notes:

An executive information system is a set of tools designed to help an organization carefully monitor its current status, its progress toward achieving its goals, and the relationship of its mental model of the world to the best available clues about what's really happening. (Fireworker and Ziekel 1990, 25)

These tools are designed to overcome drawbacks of traditional approaches of gathering information for executive users. Typical drawbacks include poor response time, poor graphics flexibility, difficulty in mastering computer systems' command structure, and limited scope (Giordanella 1989)

Executives often have unique information needs that differ from lower-level decision