Chapter XXII
Examining the Approach Used for Information Technology Investment Decisions by Practitioners Responsible for IT Planning in Namibia

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ABSTRACT

Despite the technological progress made by organisations in Namibia, the impact of IT has not been studied. The existing definition of IT is not comprehensive enough to include all relevant IT expenditures. No return calculations are made, though managers are showing growing concern at the increasing IT costs. The purpose of this article is to determine what organisations in Namibia use as basis for investing in IT. In interviews with six organisations in Namibia, it was determined how they define and manage their investment in IT. Some conclusions can be drawn, the first being that organisations need to look at their definition of IT to include all aspects of IT like communication systems, maintenance, etc. the second implication is that somebody must be appointed to take responsibility for managing the IT investment.

INTRODUCTION

Throughout history, progress in technological behaviour had profound social significance—regardless of whether it was based on mere intuition, trial-or-error, or scientific approach. Machiavelli as cited by Bass (1990) made the following comment about systems in general: “There is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new system. For the initiator has the enmity of all who would profit by the preservation of the old system and merely lukewarm defenders in those who would gain by the new one.”

We now realise that information systems (IS) are the centre of a new business reality in the 1990s.
The impact of the IT revolution is a phenomenon that is affecting every aspect of Third World societies. This revolution increasingly affects anything from the way organisations conduct business to the organisation of schools. The impact can even be stronger than the impact of gaining independence by drastically changing the course of economic development in a county. The major problem is that the use of IT is not fully understood nor studied in the Third World countries in order to yield meaningful insights.

**PREVIOUS ATTEMPTS TO QUANTIFY IT EXPENDITURE**

Although there has been some growth in the usage of IT over the last couple of years, no analysis of the impact of IT on sales, costs, and profits of organisations has been made in Third World countries. It is, however, important that organisations inform themselves of the impact of IT usage on operating results and profitability. Strategies can then be developed in order to gain a competitive advantage.

Weill and Olson (1989) use case studies of organisations to determine how IT is defined, how IT investments are measured, tracked, and what other factors control IT investment decisions. Some important issues emerged from their study, namely that managers must adopt a broad definition of IT and that IT expenditures can be measured and tracked against a convenient base (revenues, total expenses, or management control costs). Weill et al. believe that attention must be paid to certain factors concerning any important IT investment, namely: managers’ commitment to IT, previous organisational experience with IT, user satisfaction with systems, and the turbulence of the political environment of the organisation. A literature study based on a graphical cost/benefit approach to computer systems selection was presented by Shoval and Lugasi (1988). They note that stages, like analysing the needs of the system and defining its requirements and attributes, need attention.

Ahituv and Neumann (1990) state that any attempt to assess the value of information should be closely linked to the decision supported by the information. They noted that the selection of criteria to use in comparative analysis is the easier part in cost/benefit analysis. The complicated part is to identify all the elements which form part of cost and benefits, and determining how to measure (or estimate) all those elements.

Kwong and Mohammed (1985) suggest the use of a computerised index (CI) that can quantitatively evaluate the impact of computerisation on profitability and, in the process, develop an indicator to the extent and sophistication of computerisation. The organisations used show that an increasing degree of computerisation is generally associated with an increasing profitability margin as indicated by the CI—even in the short term.

In his study involving experienced users, Davis (1989) suggests the use of determinants, the most important one being that if potential users believe that a given application is useful, they may simultaneously believe that the system is difficult to use and that the performance benefits of usage are outweighed by the efforts of using the application.

In conclusion, it can be said that IT investment uses resources of organisations. There are no consensus of the definition of IT and the measurement of its tangible and intangible benefits. This makes IT investment difficult to manage.

**CASE STUDY RESULTS**

Six mini case studies were conducted to help understand how organisations define and manage their IT investments in Namibia. The six organisations compose of five large profit-making organisations, while the sixth organisation is a part of the educational system in Namibia. A lengthy, semi-structured interview was conducted with