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INFORMATION SYSTEMS EVALUATION: MINI-TRACK INTRODUCTION

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Introduction

There is an increasing awareness that the implementation of IS forms an integral part of the provision of business and organisational services. Successful IS can empower users and streamline processes (Hirschheim and Smithson, 1999) to help improve business and organisational performance (Storey *et al.,* 2000). However, against this backdrop there is concern that IS investment does not always deliver value and that many IS projects do not meet business objectives (Strassman, 1997). This phenomenon has been labeled the *'IT productivity paradox'* Brynjolffson (1993) and is most accurately linked to research studies in the early nineties.

Investment in information systems is regarded as both costly and risky and any IS investment should be examined for its business value and benefit to the organization (Willcocks and Lester, 1999). However, many IS investments go ahead without the use of investment appraisal, evaluation and risk management techniques (Remenyi *et al,* 2000). This is worrying, as in today's hi-technology environment, organizations are spending large proportions of their turnover of new systems and technology and thus, need to be confident that such monies are impacting the organization in the best possible way.

Information Systems Evaluation

IS evaluation necessarily forms part of any overall project to enable issues to be raised and documented, and remedial action taken to address and improve the situation where necessary (Turner, 1998). However, many IS investments go ahead without the use of any evaluation techniques (Willcocks and Lester, 1999).

Authors such as Hirschheim and Smithson, (1999), Remenyi *et al,* (2000) and Irani and Love, (2001) contend that IS evaluation is difficult to undertake because reliable estimates of IS costs and benefits are not always available or easy to obtain. This is due to the often complex nature of the impact of IS, which frequently leads to tangible and intangible benefits and indirect costs (Irani and Love, 2001). Many methods have been developed to measure IS efficiency and effectiveness, and there have been various models proposed in an attempt to define what is required (Bjorn-Anderson and Davies, 1988; Willcocks, 1996; Strassman, 1997; Graeser, Willcocks and Pisanias, 1998, Remenyi *et al,* 2000). Land (2001) contends that there are now over 60 methods available to practitioners. Irani and Love (2002) go one step further, and offer a classification of such techniques. However, Walsham (1999) maintains that there is widespread disagreement over the usefulness of evaluation methods and over which model to adopt. Furthermore, organizations that have undertaken IS evaluation have had mixed results (Balantine *et al,* 1999).

This prevailing situation of no clear consensus of what constitutes meaningful evaluation, makes it difficult to assess the impact of IS, which has led some authors (Walsham, 1999; Wilson and Howcroft, 2000, Irani and Love, 2001) to argue for improved IS evaluation practice and, furthermore, to identify and address barriers to undertaking IS evaluation in organizations.

Barriers to Carrying Out an Evaluation

Although there remains a wide variety of reasons to justify investments in information systems, empirical evidence is offered by Irani and Love (2001), Khalifa *et al.,* (2000) and Serafeimidis and Smithson (2000) to support the lack of widespread evaluation processes, financial or otherwise.

The increased complexity of information systems combined with the uncertainty and unpredictability associated with information systems benefits and costs clearly point to the need for evaluation procedures to offer companies a deeper insight into the impact surrounding capital investment in IT/IS infrastructure, although it must be noted that there is a changing view from one of *investment* to *consumption* (Irani and Love, 2002). Therefore, often placing the justification of IT/IS outside the confines of traditional budgeting processes, albeit with varying degrees of reliance on investment appraisal techniques.

Farbey *et al,* (1993) suggest that the search for a single 'best' approach is fruitless due to the wide variety of complex interacting variables. Yet, evaluation methods are constantly being propagated in a hope to find the panacea for the 'evaluation paradox', which organizations clearly face.

Information systems evaluation has *not* been an explicit topic of any recent AMCIS mini-track [other than the mini track organized by Irani *et al.,* 2000; 2001] although isolated papers on information systems evaluation have appeared in several AMCIS proceedings. These papers have been presented while spanning across different mini-tracks, thereby not allowing the information systems evaluation community and interested researchers to readily follow developments in this dynamic and emerging field.

We [mini-track chairs] believe that this specific mini-track on *'Information Systems Evaluation'* will be highly beneficial to both AMCIS and the information systems evaluation community. In doing so, it will enable new and different insights of information systems evaluation to be viewed in a more holistic and integrated manner. The idea for organizing a mini-track on information systems evaluation originated from a lack of forum to debate the issues associated with information systems evaluation outside Europe. This is evident with recent (European published journals) announcing special issues, such as:

- *Information Systems Journal*, **12**(4), 2002. Guest edited by Irani Z and Fitzgerald G.
- *European Journal of Information Systems*, **10**(4): 183-236, 2001. Guest Edited by Irani Z and Love P.E.D.
- *Logistics Information Management*, **12**(1-2): 1-195, 1999. Guest Edited by Irani Z.

Much of the research community feels frustration with having to look through many conference programmes [including those of AMCIS] to find papers that relate to the information systems evaluation area, as a result, this mini-track proposed to go some way in addressing this critical issue.

The themes explored by this mini-track deal with the evaluation and measurement of the effectiveness of emerging technologies, and its implication of the evaluation process. As a result, the purpose of this mini-track is to generate a stream of research oriented toward the study of measuring effectiveness and impacts of information systems. Specifically, in areas were theoretical models may need to be borrowed from referent disciplines, or where models and associated operationalizations have been proposed, or not yet tested [conceptual].

Information Systems Evaluation: Purpose

The information systems evaluation mini-track will help researchers and practitioners understand the processes involved in the decision making of adopting technology in contemporary organizations. Articles that address the justification process necessary to evaluate IT/IS deployments by identifying the constructs associated with investment decision-making are presented. Emphasis has been placed on investment decision-making in the context of business process change and effective capital budgeting. Strategic frameworks, conceptual and analytical models, and case studies of information systems evaluation were encouraged and form the genesis of the mini-track.

It is hoped that this mini-track will encourage the latest thinking and research in information systems evaluation to be presented to a forum of leading information systems professionals and business executives. The mini-track will provide a potpourri of ideas, models, and case studies, which will be stimulating and useful.

Information Systems Evaluation: Navigating Through the Literature

Although the field of information systems evaluation is not new, it has been arguably re-popularized in recent years. This is evident in the number of conferences and journal special issues devoted to the subject. Only looking back at the last few years one can find:

- *Americas Conference on Information Systems (AMCIS-2001),* [Mini-track on Information Systems Evaluation and Integration, Chair: Irani *et al*.,] - Boston Massachusetts USA, August 2001.
- *Americas Conference on Information Systems (AMCIS-2000),* [Mini-track on Information Systems Evaluation, Chair: Irani *et al*.,] - Long Beach California, USA, August 2000.
- *Thirty-third annual Hawaii international conference on System Science,* [Mini-track on Information Systems Performance and Evaluation, Chair: Giaglis G, Irani Z and Amaroso D], January 4-7, Island of Maui, Hawaii, USA, 2000.
- *European Journal of Information Systems*, vol. 7, no. 3 (1998): Special issue on Information Systems Evaluation, Edited by Farbey B.
- *Sixth European Conference on the Evaluation of Information Technology,* Edited by Remenyi D, Irani Z and Brown A., Brunel University, UK, November 1999.
- *Fifth European Conference on the Evaluation of Information Technology,* Reading University, UK, November 1998.
- *Fourth European Conference on the Evaluation of Information Technology,* Delf University, Netherlands, November 1997.
- *Third European Conference on the Evaluation of Information Technology,* Bath University, UK, November 1996.
- *Second European Conference on the Evaluation of Information Technology,* City University, UK, November 1995.
- *First European Conference on the Evaluation of Information Technology,* Henley Management College, UK, November 1994.

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