

IS Research at Cranfield - A Look at the Future

At the end of 1992, Cranfield School of Management Information Systems Group completed a two year research project on Electronic Data Interchange and its impact on the business and managerial aspects of organisations. The project was sponsored by a consortium of twenty organisations from the UK, Japan, Switzerland and the Netherlands. Based on the success of the project, in January 1993 an Information Systems Research Centre was launched. Its mission is "the study of information and its systematic use in business - for operational strategic and other purposes - with a special emphasis on its management."

Cranfield has led work in the UK and Europe on information systems strategy and has an unparalleled track record in studying and promulgating new ideas in

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its development and implementation. This focus is necessary in order that senior business management can deal with information systems to the best possible advantage of the business.

Underpinning the research centre is the wish to contribute new methods and thinking that will enhance and develop all management disciplines, not just information systems management. The ap-

proach taken embraces many related topics. In order to achieve its mission the Centre decided to work in close co-operation with leading organisation which recognise the potential for information technology in business. It has also set up close relationships with other academic institutions around Europe as well as other disciplines in order to foster an integrated approach to the research work. The centre has elicited support from over twenty organisations.

information technology (IT) in business. It aims to achieve this by:

- Close co-operation with leading organisations which recognise the potential for information technology in business. This will ensure the relevance of the work undertaken.
- Close liaison and co-operation with all relevant disciplines, centred on information management but working with all the other management disciplines as required.

Specific Projects

The consortium of organisations have identified a number of areas for research and each project is supported by a differ-

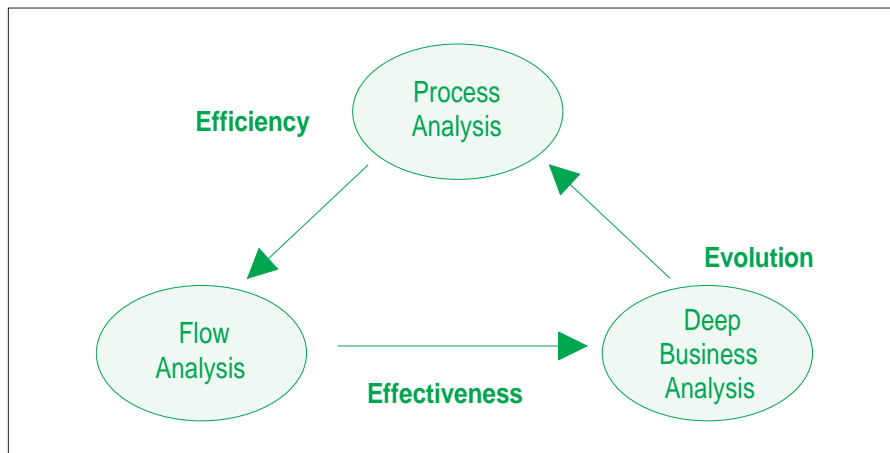


Figure 1: A key model used in the EDI research project

ent cluster of companies. The four research initiatives are:

1. *Business process redesign:*
As attitudes to information systems mature - especially at the management level - there is a new focus on the way that the processes of business contribute to the end customer. The old vision of the ideal organisation is replaced by a new vision of the ideal set of processes, such as might begin with a value chain analysis. Successful process management is critically dependent upon the supporting business information systems and needs urgently to be studied.

2. *Benefits management:*
Strategy identifies and defines the benefits that could derive from information systems. All businesses today understand the need to follow through, but there is no widespread understanding of how to determine and then manage the benefits during systems development and implementation. This forms an important current focus for the work in order that the full lifecycle of systems can be properly managed.

3. *Managing IT Infrastructure:*

Developments in IT combined with increased use of distributed information systems (IS) architectures are generating new challenges for effective IS/IT management. The need to invest in IT infrastructure in advance of well defined IS requirements limits the use of conventional investment criteria. Management approaches that enable the cost effective provision of IS while retaining the capability and flexibility to meet new IS demands quickly will be the hallmark of successful organisations in the '90s.

4. *Supply Chain Information Management:*

Undertaken jointly with the Cranfield Centre for Logistics and Transportation, this area combines supply chain management and information management disciplines in recognition of the critical importance of supply chain operations to many businesses. Building on the success of the Cranfield EDI research, this area will examine the flow of materials, information and money in the overall supply chain. By the use of prototypes and experiments the aim is to develop a more complete framework than currently exists to support effective management. The results from the work will be disseminated initially to the sponsoring organisations and will later be released.

Each of the projects within the research centre makes a contribution in one or more of the above areas. Whilst the themes identified above provide an important separation of ideas, projects are not constrained to one area alone. Rather, they are based upon the needs of real organisations and represent the best possible short-term contribution to management's needs. In the longer term, each project helps to progress the above areas of understanding and provides important empirical inputs. In this way, the research centre is able to satisfy both the short and the longer term needs of business in the general area of information systems. ■

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Purpose of the IS Research Centre

The purpose of the Information Systems Research Centre is therefore straightforward: to develop and exploit new frameworks and methods for information systems management, in order to derive the maximum possible benefit from