

Ollscoil na hEireann, Gaillimh

THE NATIONAL UNIVERSITY OF IRELAND, GALWAY

SUMMER EXAMINATIONS 1999/2000

DIPLOMA IN SYSTEMS ANALYSIS

Business Information Systems (MS)

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Time Allowed : Three Hours

Candidates are required to answer four questions. All questions carry equal marks.

Question 1.

The city manager of Fingal County Council has approached you for advice on improving the efficiency and effectiveness of the processing of planning permission applications. The current system is largely paper based with planning officers using hard copies of site maps, building plans, environmental reports etc to arrive at their planning recommendation. As a result of the large increase in the number of new building developments the planning officers have found themselves increasingly photocopying parts of the planning documents and bringing these out "on site" when they investigate objections, or have cause to visit the proposed site of the development. The county manager believes that she can significantly improve the throughput in the planning office without any substantial increase in personnel if she could re design the planning approval process and introduce an automated groupware workflow management system. At a recent conference in the UK she saw a groupware product which allowed local government bodies to digitally store all the relevant documents relating to a planning application. This allowed the planning officers to access more reliable and complete information and to share information. While the application software in question was designed for the UK market the vendors have said they are willing to customised the system to meet the needs of the Irish market. While the county manager is keen to implement the proposed system she believes that a fundamental redesign of the way the planning officers work needs to be undertaken. As part of the proposed systems and process changes she has asked you to prepare a briefing for the staff in the planning department on the following issues.

The nature of groupware and the benefits it can bring to the planning approval process

The types of functionality which groupware products typically have

The steps involved in redesigning the existing planning approval process

Other relevant issues

Question 2

The Capital Hotel Group owns and operates a large number of hotels in Ireland and the UK. In recent years the group has faced increased competition for low cost chains of budget hotels offering rates per room. As a result of this competition and the falling number of traditional tourists in the Irish provincial market the firms reported earnings have fallen significantly over the past eighteen months. In the past Capital has relied primarily on financial performance measures in managing its hotel operation. This reflects the view of the previous Financial Controller that room profitability was the key metric. As a result the group has lost substantial market share on the accommodation area of the hotel business and has not managed to grow revenues in value added services such as conferencing, pay per view, etc.

Capital Hotel Group has retained a team of consultants to carry out a review of the firms operations. Part of the consulting teams brief is to suggest ways of improving the firms performance measurement systems and in particular to advise the firm on the implementation a system of non-financial performance measurement.

You are required to write a report for the group on the following issues;

The nature of non financial performance measurement;

An appropriate approach or framework for implementing non-financial performance measurement in the firm.

Examples of non-financial measures which the firm should consider implementing.

Question 3

"The most recent strategic enterprise management product offerings from Enterprise systems vendors have seen the re-emergence of executive information systems type functionality in an ERP setting. In their enthusiasm for capturing a share of executive level market these vendors risk repeating the errors made with EIS in the early 1990s. Then the failure of EIS was largely attributable to an excessively technological approach to meeting the information needs of senior executives and a failure to recognise the need for a more strategic and external stakeholder driven approach to providing information at executive committee and board level."

Discuss the above statement and in particular the contention that Strategic Enterprise Management systems represent little more than EIS in an ERP environment.

Question 4

The Managing Director of a large multinational chemical company has recently announced to staff in its fifty operating sites world wide that the company intends to embark on a Knowledge Management (KM) programme. A team of consultants from a large consulting company will be visiting each site during the next six months to help sites put in place the technology and procedures to support a proactive KM programme. In preparation for this the plant manager of the local manufacturing operation here in Ireland has asked you to prepare a short report on KM for the senior management team. Your report should explain the fundamental principles and

steps involved in KM and the implications for deploying supporting technologies in organisations.

You are required to prepare the necessary report.

Question 5

Gerry Barry is the Financial Controller of a building society with offices through out the country. In recent years the society has faced increased competition from banks and insurance companies. In an attempt to improve the firm's operational control and financial performance Gerry is considering introducing a new monthly reporting system. The objective of the proposed system is to allow senior management within the building society to review the performance of the branch network and in particular the performance of the branch managers. The firm has well established branch transaction processing system that also produces weekly and monthly reports on each branch. These reports are very detailed and are used mainly by branch and regional managers. Senior executives in the building society currently rely on reports compiled manually using spreadsheets. These reports are produced by extracting manually information on each branch from the monthly printouts and comparing these with previous months and budgeted figures. In recent months senior executives have requested additional information on customer service, quality and other areas. Gerry's staff have had to generate this data manually in most cases. Gerry feels that the monthly reporting could be improved if the society was to implement a data warehouse information system. This system would use the information currently contained in the firm's transaction processing system.

Gerry has asked you to prepare a memorandum for him and his staff on the following issues.

- (i) The nature of Data warehousing and the benefits it might bring to the organisation
- (ii) The Critical Success Factors involved in a successful Data warehouse implementation
- (iii) Advice on the range of end user analysis tools available as part of the data warehouse solution

Question 6

Increasingly technologies to support management decision making are converging around a set of end user driven tools designed to give users a richer environment in which to interact with business data and models. As a result the traditional distinctions between DSS/MIS and EIS have all but disappeared to be replaced by data mining/business intelligence applications the main thrust of which is to provide access to underlying operational data stored in large data bases.

Discuss

Question 7

In recent years Enterprise Resource Planning Systems have become an established part of the business landscape. Many firms have now implemented these systems and large enterprise systems vendors such as SAP, Oracle and Peoplesoft are now starting to offer so called mid market solutions to smaller firms.

Placing yourself in the role of an external consultant you are required to advise a medium sized health care products company on the following areas;

1. The nature of ERP systems and their potential contribution to the firm in question.
2. How these systems differ from traditional management reporting systems
3. Other relevant issues