



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

BMS 914: SEMINAR IN MANAGEMENT INFORMATION SYSTEMS

DATE: Friday, 24th November 2017

TIME: 5.30 p.m. - 8.30 p.m.

INSTRUCTIONS:

ANSWER QUESTION ONE AND ANY OTHER THREE QUESTIONS

QUESTION 1

Read the case below and answer the questions below;

Many companies face a problem in determining how to best adopt and deploy emerging capabilities for E-Commerce services. For example, interest in Web-based capabilities for the procurement of materials, repairs, and operations products, or for the acquisition of contracted services remains high, but most companies have not found substantial returns on their investment in these areas. When faced with the emergence of opportunities associated with wireless/mobile commerce, peer-to-peer (p2p) collaboration services, open source software, or the redesign of internal business operations to support E-Business, decision-makers face much uncertainty about how best to proceed, if at all. Simply acquiring and installing a Web-based p2p system for internal or external business operations does not yield significant results. Transforming and realigning business processes, organizational strategies, and end-user work practices is required, but where and how does this occur? Overall, there is a basic and recurring lack of knowledge for how to determine and align the most effective choices for information system technologies, business strategies, and organizational transformation.

In a recent case study, it was reported how a federal government agency achieved a reduction in procurement cycle times of 20X and an annual operational savings of \$10M-15M. These results came from the transformation and realignment of information systems, business processes,

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corporate strategy, and work practices in the agency within a 1-2 year timeframe to support the agency's E-Commerce initiatives. The results also came from a research approach where the research team and agency participants jointly developed and refined an open source computational models of the new business processes, resource dependencies, and work practices that together embodied the new organizational system that was sought.

The case study examines GNUenterprise.org , an international virtual enterprise focused on the development and deployment of free open source software system framework for Enterprise Resource Planning (ERP) systems and Electronic Commerce (EC) solutions. The framework supports the development and integration of information system components for customer relationship management, corporate financial systems, and other business-to-business system modules. The study uses a Web-based approach to provide the data that empirically grounds this resource-based view of an organizational system. These data and the accompanying analysis help to what's involved in developing and deploying open source EC or EB capabilities, how it works; and the conditions that shape success or failure. The description, analysis, discussion, and implications of this case study are the result of this investigation (Walt Scacch, 2002).

- a) In the above case, it is alleged that *“there is a basic and recurring lack of knowledge for how to determine and align the most effective choices for information system technologies, business strategies, and organizational transformation”*.

Required:

- i. Explain the possible remedies to the situation. (10 Marks)
 - ii. Explicate the essence of strategic planning in information systems (6 Marks)
- b) Explain how you can use the technological adoption model to conduct an investigation about the deploy emerging capabilities for E-Commerce services (10 Marks)
- c) Explain the aspects that should be considered during deployment of new e-commerce solutions. (8 Marks)
- d) Describe the concept of “Free Open Source” as applied in the corporate world (6 Marks)

QUESTION 2

By referring to the case provided in *Question 1* above;

- a) Clarify the merits and demerits implied by the statement that “...*framework supports the development and integration of information system components...*” (6 Marks)
- b) Elucidate the compelling factors that necessitate the adoption of open source software in the business environment. (8 Marks)
- c) The FOS solutions are likely to become more popular than proprietary software solutions in future. Discuss this statement. (6 Marks)

QUESTION 3

- a) The use of relevant information systems’ theories is important in research. By using suitable research problems in information systems, discuss how you can apply each of the following theories;
 - i. Unified Theory of Acceptance and Use of Technology (7 Marks)
 - ii. Diffusion of Innovations Theory (7 Marks)
- b) Explain the issues that should be considered when developing ICT policy for an organization. (6 Marks)

QUESTION 4

The use of Distributed Information Systems (DIS) in the corporate world has greatly enabled business organizations, especially the medium and large-sized organizations, to enhance their efficiency and effectiveness in service delivery.

- a) Describe the architecture of DIS (8 Marks)
- b) Explain the associated strategic role of DIS (6 Marks)
- c) Explain the concurrency control mechanisms that are used DIS (6 Marks)

QUESTION 5

In a recent study, it was established that the adoption of various types of hardware and software technologies was significantly dependent on the business complexity and nature of business environment. However, it was found that some of the outstanding challenges affecting the today's business operations include the organizational politics and enforcement of relevant policies. Explain;

- a) The various methods that can be used by an organization to effectively enforce organizational policies. (8 Marks)
- b) Why hardware and software technologies are dependent on business complexity and nature of business environment. (6 Marks)
- c) The approaches that you can use in minimizing the adverse effects that may be triggered by the organizational politics during the acquisition and deployment of information systems. (6 Marks)