



MACHAKOS UNIVERSITY

University Examinations for 2018/2019 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF BUSINESS ADMINISTRATION

FIRST YEAR SECOND SEMESTER EXAMINATION FOR

MASTER OF BUSINESS ADMINISTRATION

BBA 841: MANAGEMENT INFORMATION SYSTEMS

DATE: 20/5/2019

TIME: 9.00-12.00 PM

INSTRUCTIONS

Instructions

This paper consists of FIVE questions

Answer question one and other two questions in this paper

QUESTION ONE (30 MARKS)

Read the article and answer the questions that follow.

UPS Competes Globally with Information Technology

United Parcel Service (UPS) started out in 1907 in a closet-sized basement office. Jim Casey and Claude Ryan, two teenagers from Seattle with two bicycles and one phone, promised the “best service and lowest rates.” UPS has used this formula successfully for more than 90 years and is now the world’s largest ground and air package-distribution company. Today UPS delivers more than 13.6 million parcels and documents each day in more than 200 countries and territories. The firm has been able to maintain leadership in small-package delivery services despite stiff competition from FedEx and Airborne Express by investing heavily in advanced information technology. During the past decade, UPS has poured billions of dollars into technology and systems to boost customer service while keeping costs low and streamlining operations. Using a handheld computer called a Delivery Information Acquisition Device (DIAD), a UPS driver can

automatically capture customers' signatures along with pickup, delivery, and time-card information. The driver then places the DIAD into the UPS truck's vehicle adapter, an information-transmitting device that is connected to the cellular telephone network. Package tracking information is then transmitted to UPS's computer network for storage and processing in UPS's main computers in Mahwah, New Jersey, and Alpharetta, Georgia. From there, the information can be accessed worldwide to provide proof of delivery to customers or to respond to customer queries.

Through its automated package tracking system, UPS can monitor packages throughout the delivery process. At various points along the route from sender to receiver, bar-code devices scan shipping information on the package label; the information is then fed into the central computer. Customer service representatives can check the status of any package from desk-top computers linked to the central computers and are able to respond immediately to inquiries from customers. UPS customers can also access this information from the company's web site using their own computers or wireless devices such as pagers and cell phones.

Anyone with a package to ship can access the UPS web site to track packages, check delivery routes, calculate shipping rates, determine time in transit, and schedule a pickup. Businesses anywhere can use the web site to arrange UPS shipments and bill the shipments to the company's UPS account number or to a credit card. The data collected at the UPS web site are transmitted to the UPS central computer and then back to the customer after processing. UPS also provides tools that enable customers such as Cisco Systems to embed UPS functions, such as tracking and cost calculations, into their own web sites so that they can track shipments without visiting the UPS site.

A capability called UPS campus ship allows employees in multiple offices of a business to process and ship from their computers and have shipping procedures controlled by a central administrator set up by the business. Morris, Schneider and Prior LLC, a top law firm serving the financial services industry, uses this capability to track and control shipping costs. This firm is constantly sending time-sensitive documents from three different locations to clients throughout the United States. UPS tools automate the allocation and reporting of this firm's shipping costs and even itemize and detail shipping expenses for each client. Information technology helps UPS reinvent itself and keep growing. UPS is now leveraging its decades of expertise managing its own global delivery network to manage logistics and supply chain management for other

companies. It created a UPS supply chain solutions division that provides a complete bundle of standardized services to subscribing companies at a fraction of what it would cost to develop their own systems and infrastructure. These services include supply chain design and management, freight forwarding, customs brokerage, mail services, multimodal transportation, and financial services, in addition to logistics services. The UPS supply chain management division, located online at www.upslogistics.ca, also provides important information for shippers, such as the recent shutdown and reopening of the port of Vancouver due to a local cartage strike.

Birkenstock Footprint Sandals is one of many companies benefiting from these services. Birkenstock's German plants pack shoes in crates that are bar-coded with their U.S. destination. UPS contracts with ocean carriers in Rotterdam to transport the shoe crates across the Atlantic to New Jersey ports instead of routing them through the Panama Canal to Birkenstock's California warehouses. UPS trucks whisk each incoming shipment to a UPS distribution hub and, within hours, to 3,000 different retailers. By handing this work over to UPS, Birkenstock has cut the time to get its shoes to stores by half. Along the way, UPS uses bar-code scanning to keep track of every shipment until the merchant signs off on it. UPS also handles Internet orders for Jockey International, laptop repairs for Toshiba America, and X-ray machine installation in Europe for Philips Medical Systems.

Source: Kenneth C. Laudon, Jane P. Laudon, and Mary Elizabeth Brabston, *Management Information Systems: Managing the Digital Firm*, 3rd Canadian Edition, ©2006.

Required

- a) Define what is meant by an information system (5 marks)
- b) Describe how UPS's package tracking system is an information system (10 marks)
- c) Identify and describe the strategy or strategies that UPS is using to achieve a competitive advantage in the packaged goods shipping industry (5 marks)
- d) UPS is using mobile commerce to support its shipping operations. Define what is meant by mobile commerce (10 marks)

QUESTION TWO (15 MARKS)

- a) Describe the challenges posed by networking and the internet (5 marks)
- b) Explain how an organization can develop information systems that fit its business plan (5 marks)
- c) Evaluate the role of information systems in today's competitive business environment (5 marks)

QUESTION THREE (15 MARKS)

You have recently been hired as the chief information officer of an emerging financial institution. The organization is in need of procuring an information system. Explain with appropriate examples how you would decide the amount of money you commit the organization.

(15 marks)

QUESTION FOUR (15 MARKS)

Describe Porter's five forces model of competitive structure. Clearly indicate the contributory factors for each force

(15 marks)

QUESTION FIVE (15 MARKS)

- a) Describe five moral dimensions of the information age on ethical, social and political issues surrounding systems. (10 marks)
- b) Identify **three** environmental problems associated with the use of IT by organizations. (3 marks)
- c) Highlight **two** hazards that may wreck an organization's information system. (2 marks)