



**FACULTY OF MANAGEMENT
DECEMBER 2014 EXAMINATION**

DEPARTMENT OF APPLIED INFORMATION SYSTEMS

MODULE	:	MANAGEMENT INFORMATION SYSTEMS 11 (MOD B)
CODE	:	BIS41-2
DATE	:	December 2014
DURATION	:	3 HOURS
TOTAL MARKS	:	100

EXAMINER	:	Dr R Brink
External MODERATOR	:	B P HASKINS
NUMBER OF PAGES	:	3

INSTRUCTIONS TO CANDIDATES:

- Read the questions carefully
- Answer all questions
- Number your answers clearly
- Write neatly and legibly
- Structure your answers by using appropriate headings and sub-headings
- The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this exam.

Please answer all questions.

QUESTION 1: The Personal and Portable Touch

FedEx is an organisation that never sleeps. The foundation of its business is “fast,” and every minute counts. Each business day, the company’s more than 300 000 team members handle an average of 9 million packages, using over 663 aircraft and 90 000 motorized vehicles. During the holiday season, its operations experience significantly increased package volumes and high customer expectations. The company, which generated \$37 billion in revenue in 2012, serves more than 220 countries and territories. Customers use FedEx because they want reliable delivery in a compressed timeframe. When anything disrupts the timely and safe delivery of those packages, FedEx’s customer service reps are likely to receive a call from a customer.

Prompt, efficient customer service is extremely important for staying in this highly competitive global shipping industry, let alone doing so with a satisfactory profit. Incoming telephone calls at the FedEx customer service centers are answered by FedEx reps. Sitting in front of computer monitors in a cluster of cubicles with headsets on, these agents barely have time to stretch their limbs.

A caller complains that their package hasn’t arrived, which is a common complaint. Another asks if he can change his pickup time. A third caller is confused about signature: is he supposed to sign for the delivery or will the package just be dropped at his doorstep? The reps are confident and friendly. They welcome any question or complaint even if they have heard it a thousand times before. The words “I am sorry” are uttered often. They are careful not to give the customers a feeling of being rushed, but try to resolve complaints quickly. Time is money.

Several years ago FedEx installed software that reps at the call centers can use to provide faster service. Many of the callers are already registered in the company’s database. One of the most frequent requests is to send a FedEx worker to pick up a package. Using the software, a rep can handle such a request in 20 seconds. All she needs to do is enter a name, which leads to a zip code, which in turn leads to a tracking number. That number uniquely identifies the package. Some complaints are more complex. For example, a FedEx driver misunderstood a note a caller had left for him and therefore misdelivered a package. A complaint like that takes no more than 10 minutes to resolve.

An experienced and efficient rep can handle about 10 callers in 45 minutes, ideally, though, nobody would call. In FedEx’s way, at least six of the ten callers would use their computers to go to FedEx website and solve their problem by themselves – because about 60 percent of FedEx’s clients have a computer connected to the Internet. Like other companies, FedEx tries to save labor by directing callers to its website. Yet many people prefer to use the phone and talk to a human helper. Every time a customer decides to use the company’s website instead of telephoning, the company saves up to \$1.87. Efforts to divert callers to the site have been fruitful. In 2005, FedEx call centers received 470 000 calls per day, 83 000 fewer than in 2000. This difference in calls translates into a

saving of \$57.56 million per year. The company's website handles an average of 60 million requests to track packages per month. Operating the website does cost money. Each of these requests costs FedEx 3 cents, amounting to \$21.6 million per year. However, if all these requests were made by phone, the cost would exceed \$1.36 billion per year. As it is impossible to divert all callers to the website, the company must maintain call centers. The annual cost of these call centers is \$326 million. The cost might decrease over the years, as more and more customers use the website, but there will probably always be call centers, because FedEx does not want to lose frustrated customers.

In 2000, management purchased customer relationship management software called Clarify. A new policy was established: systems and customer service experts are equally responsible for the call centers. Using PCs, reps can pull up historical data on customers whenever customers call. Customer records that are immediately available to reps include shipping histories, preferences, and images of the paper bills. Customers are happier now than they were just a few years ago. So are the reps. Turnover of service reps has decreased 20 percent.

Interestingly, customers are not interested in friendliness, but in quick and accurate information. FedEx constantly follows customer reactions to different help styles. Managers discovered that when reps' time is not limited, they tend to be too talkative, and they get a bad impression about FedEx. Thus, reps are encouraged to get off the phone as soon as the problem is resolved rather than try to be "nice."

The web has clearly transformed customer service. However, mobile computing now allows the customer to "carry the company" with them. While FedEx has a website version for smartphones, a fully optimized mobile version was released in late 2010. Mobile-based websites generate a fraction of the traffic realized by the traditional website. However, FedEx experienced steady growth on the mobile-based product. The increasing adoption of the new technology forced an examination of the new product. They believed that a more robust product was needed to support FedEx's operations. Ultimately, FedEx developed a product that offered a broader functionality using smartphone technology on popular devices such as Apple iPhones and Android phones. FedEx plans to track the use of the apps and the mobile site against any cost savings realized through reduced calls placed to their call centers.

The availability of quality, fast customer service continues to be realized by integrating information technology with the latest mobile technologies. FedEx, like many business organizations, continues to improve through innovative technology initiatives.

Source: FedEx. (2012). About FedEx. Retrieved 13 September, 2012, from [HTTP://about.van.fedex.com](http://about.van.fedex.com); Gage, D. (2005). Personal Touch; Fedex already saves big bucks by steering inquiries to its web site. So how can it justify spending \$326 million a year on call-center reps? *Baseline*, 1(39), 54-54; Gordon, R. (2010). FedEx mobile strategy aims for customer loyalty. www.dmnews.com/fedex-mobile-strategy-aims-for-customer-loyalty/article/181706/

- 1.1 What is CRM in general? Give examples of different CRM applications. (5)
- 1.2 Enumerate and explain the various ways in which the CRM applications discussed here save costs or help in other (5)

[10]

QUESTION 2: Finish Line Finishes First

Finish Line is a clothes and shoe retailer with over 640 locations in malls across the United States. In late 2012, Finish Line was about to unleash its new in store POS technology to engage more shoppers. Although Finish Line was initially criticized for the timing of the roll-out, director of store applications and delivery, Rob Baugh, knew from the start it was going to be a home-run. From previous research conducted by the National Retail Federation, Finish Line knew an astounding 95 percent of purchases were still occurring in physical stores. Thus, an opportunity awaited retailers that could engage more customers to make more in-store purchases. Baugh knew the goal of the POS system was to provide service to the customer, when the customer needed it.

Before Finish Line could make any technological improvements, it required network upgrades and additional wireless access points. Mobile receipt printers were placed throughout stores to aid sales associates performing mobile POS transactions. To leverage the opportunity at hand, Finish Line implemented a mobile POS system to aid and engage shoppers through their entire in store shopping experience. To enable mobile payments, it upgraded its POS system to a platform from MICROS systems and implemented a customer engagement solution from VeriFone. Their new electronic payment options included magnetic stripe and PIN-based debit/credit cards, chip-enabled smart cards, and mobile payments. The multimedia processors were high-speed, color, and supported full-motion video for additional shopper appeal. iPod touch devices used Micros' MyStore application and VeriFone's PAYware Mobile Enterprise software, which supported all device transaction functionality.

High confidence in the success of the new system led to a 36-store, 3-month pilot program from May to August. Each store feature five mobile devices that could process a variety of business activities. Customers appreciated using the mobile POS units to interact with sales associates. The overall results of the pilot were very positive and one month later, the positive results led to a companywide roll-out, right before the crucial holiday season. Finish Line issued five devices per store and added barcode scanners to allow users to conduct price checking and inventory management processes. Transactions completed on the mobile units are sent through the retailer's centralised system to consolidate its sales and inventory data.

Finish Line's new POS system and mobile payments acceptance has changed its in-store shopping experience. Finish Line did its research and pursued an opportunity to change in-store consumers' shopping experience and put the customer first.

Source: Amato-McCoy, D.M. (2012). Perfect Timing. Chain Store Age, 88(7), 28-28.

- 2.1 Why do retailers want to provide customers with more product/service information when they come into a retail store? (10)
[10]
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QUESTION 3

- 3.1 Explain the phases of a supply chain (4)
3.2 Discuss the main characteristics of radio frequency identification (RFID). (6)
[10]
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QUESTION 4

- 4.1 Discuss is the main drawback of wireless LANs? (3)
4.2 What is a modem and how does it work? (6)
4.3 Discuss videoconferencing as a telecommunication media for businesses. (1)
[10]
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QUESTION 5

- 5.1 Explain the impact of databases on businesses. (10)
[10]
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QUESTION 6

- 6.1 Discuss File Transfer Protocol. (10)
[10]
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QUESTION 7

- 7.1 Discuss the differences in regulations and tariffs companies must face when establishing international information systems. (10)
[10]
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QUESTION 8

- 8.1 Discuss the benefits of standardization in planning? (6)
8.2 What does a technical feasibility study entail? (4)
[10]
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QUESTION 9

- 9.1 Often, an organization has a need that no existing software can satisfy. For example, if the cost-accounting procedures of a particular company are so specific that no commercially available software can perform them, the company must develop custom-designed, or tailored, software. **Discuss the Risk of Outsourcing IT Services** (10)
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- [10]**

QUESTION 10

- 10.1 Discuss common controls to protect systems from risks (10)
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- [10]**

TOTAL: 100