

UNIVERSITY OF SWAZILAND

FACULTY OF COMMERCE

DEPARTMENT OF BUSINESS ADMINISTRATION

MAIN EXAMINATION 2011

TITLE OF PAPER: STRATEGIC INFORMATION SYSTEMS

DEGREE AND YEAR: BCOM V (F/T) & BCOM VII (IDE)

COURSE NUMBER: BA 502/ IDE BA 502

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: 1. THIS PAPER CONSISTS OF SECTIONS (A) AND (B)

2. THE CASE STUDY SECTION (A) IS COMPULSORY

3. ANSWER ANY TWO QUESTIONS FROM SECTION B.

Note MARKS WILL BE AWARDED FOR GOOD COMMUNICATION IN ENGLISH AND FOR ORDERLY PRESENTATION OF WORK

THIS EXAMINATION PAPER SHOULD NOT BE OPENED UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

TOTAL MARKS: 100

SECTION A:

This section is compulsory

DATA CHOICE

Data Choice (DC) is a Cape Town based organisation that provides risk management and fraud prevention services. Traditionally, Data Choice provided motor vehicle reports, claims history and similar data to the automotive industry. In recent years, it broadened its customer base to include general business and government agencies. Data Choice has over 100 employees and its annual revenue ranges around R 40 million.

At the beginning of the 2005 festive season (around November), DC was a victim of a fraudulent attack in which unauthorised individuals posed as legitimate customers and obtained personal data on more than 145000 individuals. According to the company's website:

These criminals were able to pass our customer authentication due diligent processes by using stolen identities to create and produce the documents needed to appear legitimate. As small business customers of Data Choice, these fraudsters accessed products that contained basic telephone-type data (name and address information) as well as a combination of identity numbers and /or Driver's license numbers and, at times, abbreviated credit reports. They were also able to obtain other public record information including, but not limited to, bankruptcies, liens, judgements, professional licenses, and real estate data.

DC became aware of the problem in January 2006 when it noticed unusual processing activity on some accounts in Pretoria. Accordingly, the company contacted the Pretoria Police Department, which requested that DC not reveal the activity until the department had conducted and finalised an investigation. In March, the department notified DC that it could go ahead and contact the customers whose data had been compromised.

This crime is an example of hackers in action. The infiltrators obtained valid Pretoria business licenses, and until their unusual processing activity was detected, appeared to be legitimate users. As such, they were able to manipulate the system to their advantage.

In response to this problem, DC established a hotline for customers whose data were compromised, to call for assistance. They also purchased a credit report for each of these people and paid a one year credit report monitoring service. In April 2006, attorneys initiated a class action lawsuit for all 145,000 customers with an initial loss claim of R75,000 each.

Questions:

1. Based on your knowledge of network security issues, what type of attack was this? (10)
2. Discuss five possible defensive measures that Data Choice should have had in place to minimise the attack on their systems. Give examples related to the case to illustrate how these measures would have helped. (25)
3. What other issues should Data Choice consider when it comes to assuring security of their networks. (15)

SECTION B

Answer any *two* questions from this section.

1. Why is the competitive forces model as presented by Porter important in an organisation's search for IT opportunities and how can it be used to ensure business advantage? (25)
2. Discuss the major implications of the rise of internetworking in business in terms of IT infrastructure management and business strategy. (25)
3. Should organisations opt for centralised (organisation driven) IT services instead of decentralised (user driven) IT services? Justify your answer? (25)