

**EASTERN UNIVERSITY, SRI LANKA**  
**Faculty of Commerce and Management**  
**Third Year/First Semester Examination in Business**  
**Administration/Commerce/Specialization in HRM/MM/ED -**  
**2005/2006**  
**(Proper / Repeat) (July/August 2007)**  
**MGT 3213 Management Information Systems**

**Answer all questions**

**Time: 03 hours**

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**Q1. Case Study: Nu Skin International**

In 1984, two young women and a man sat on their living room floor, using teaspoons to fill jars and containers with skin care products. They were the founders of Nu Skin International, a producer of additive-free skin care products aimed at aging baby boomers. Initially Nu Skin's founders Blake Roney and Sandie Tillotson promoted Nu Skin products themselves. They sold their wares at malls and airports and to family and friends-wherever people congregated.

Demand for the product spread like wildfire. Ten years later, Nu Skin's revenues have soared to over \$500 million. Roney and Tillotson preside over a vast network of Nu Skin distributors in Canada, Mexico, Hong Kong, Taiwan, Japan, Australia, and New Zealand. While one Nu Skin distributor host a live satellite broadcast to thousands of distributors all across North America, his Taiwanese counterpart can transmit an order via voice mail on high-speed links to Nu Skin's headquarters in Provo, Utah. New technologies and information systems have made that spectacular growth possible.

Without the cash or resources of giant cosmetics companies, Roney, Tillotson, and other co-founders decided that they could build their company through network marketing. Nu Skin created networks of distributors who would be responsible for promoting and selling Nu Skin products on a commission basis. Distributors in turn could create "downlines", or networks of distributors working under them. Some distributors have tens of thousands of people working under them on three continents.

To keep the distributors happy and the sales and distribution network humming, Nu Skin's managers believed that it was all-important to get distributors their commission checks on time. Nu Skin built a seamless compensation system. No matter how many people or how many different countries were in a distributor's "downline" empire, Nu Skin paid the distributor once a month with one check. (Most other multi-level marketing companies write their distributors one check for each market) Nu Skin continually upgraded its information systems to make sure that it could handle its skyrocketing volume of sales transactions and commission checks as the company grew monthly at double-digit rates. Nu Skin upgraded its computer hardware and software multiple times. The company now runs a \$3.5 million Sequoia mainframe computer that keeps records of every sales transaction for the past 14 months and calculates commissions for 250,000 active distributors. Each distributor is eligible for commission on six levels of sales. The information system crunches the numbers and transmits the results back to each Nu Skin market. It cuts checks in U.S. dollars, Australian dollars, yes, pesos- whatever the local currency is.

Nu Skin also developed an application that translates prompts on the computer screen into various foreign languages. If a distributor in Tokyo or Mexico City needs to check personal and group sales volumes, he or she simply calls the local office. An agent accesses the company's mainframe computer, pulls up a screen in the appropriate language, and relays the requested information directly back to the distributors. No translations are needed.

Nu Skin developed a Voice Information Program (VIP) to connect distributors to its downlines. A distributor can use telephone, voice mail, or fax for prospecting, recruiting, and keeping in touch with its down lines. A feature called Business Card lets a prospective distributor call an 800 number and listen to a tape about Nu Skin business opportunities. The system captures the prospect's phone number so that the distributor can immediately make a follow-up call. Some distributors, such as Lien Yu Shing in Taiwan, use VIP every month to place their orders.

Within three years, Nu Skin plans to move into at least six to twelve new countries, with the main push in Europe. The technological infrastructure is in place. With its far-reaching information systems, Nu Skin can open a new market in 90 days-without a teaspoon in sight.

**Question:**

(a) What kind of trends in the business environment, in management and organisations, and in technology are evidenced in this case?

**(07 Marks)**

(b) Assess Nu Skin's competitive standing in the skin care product industry. How well did Nu Skin's information systems support its business? Explain.

**(07 Marks)**

(c) How would you visualize the contribution of telecommunication network in this case?

**(07 Marks)**

(d) Discuss the type of information system Nu skin wanted that does not exist today.

**(07 Marks)**

**(Total 28 Marks)**

Q2 (a) Evaluate the role played by the major types of systems in a business and their relationship to each other.

**(06 Marks)**

(b) Identify the main moral dimensions of an information society and specific principles for conduct that can be used to guide ethical decisions.

**(06 Marks)**

(c) Explain how enterprise applications promote business process integration and improve organisational performance.

**(06 Marks)**

**(Total 18 Marks)**

Q3. (a) What are the four key organisational elements for creating a database environment?

**(04 Marks)**

(b) Describe the concept of client/server computing and its application in educational institutions.

**(06 Marks)**

(c) In what ways the information technology related strategic alliances helpful to the business organisations in Sri Lanka?

(08 Marks)

(Total 18 Marks)

**Q4. (a)** Analyse how information systems support various business strategies for competitive advantage.

(05 Marks)

(b) "E-banking will have a more profound effect on banking than ATMs in Sri Lanka" Do you agree? Explain.

(05 Marks)

(c) "Behaviorists argue Information Systems automatically transform organisations although system may be instrumental in accomplishing the goals". Do you agree with statement? Justify you answer.

(08 Marks)

(Total 18 Marks)

**Q5. (a)** Explain why information systems need special protection from destruction, error and abuse.

(06 Marks)

(b) Define the following terms:

1. Radio frequency Identification (RFID)
2. Bluetooth
3. Wi-Fi

(03 Marks)

(c) The value of a firm's product and services is based not only on its physical resources but also intangible knowledge assets. This form of knowledge is difficult to imitate, unique and can be leverage into long term strategic benefits. Explain how an organisation achieves such a level with the use of information systems.

(09 Marks)

(Total 18 Marks)