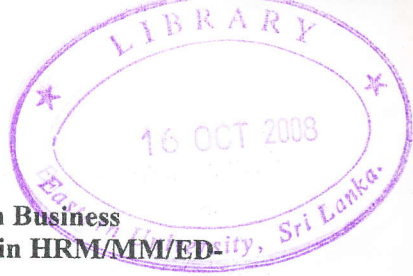




EASTERN UNIVERSITY, SRI LANKA
Faculty of Commerce and Management
Third Year/First Semester Examination in Business
Administration/Commerce/Specialisation in HRM/MM/ED-
2008/2007 (Proper/Repeat) - August 2008
MGT 3013/ MGT 3213 Management Information Systems



Answer all questions

Time: 03 hours

Q1. Case Study: 99 Cents Only Stores: IT Infrastructure on a Budget

99 Cents Only Stores is one of the leading retailers in the deep-discount sales industry. The first 99 Cents Only Store opened in 1982, and as of March 31, 2008, the company operates 232 retail locations, including 164 in California, 36 in Texas, 21 in Arizona, and 11 in Nevada. The stores carry mostly name-brand general merchandise, including food and beverages, health and beauty aids, cleaning supplies, house wares, hardware, stationery, toys, gifts, pet products, and clothing.

The chain makes purchases from over a thousand suppliers, including such notables as General Electric, Colgate-Palmolive, General Mills, Johnson & Johnson, Procter & Gamble, Kraft, Nabisco, and Unilever. Stores cover an average of 22,000 square feet, and average \$4.3 million in net sales per store. Overall, 99 Cents Only Stores experienced a 13 percent company-wide increase in sales in 2006, totaling \$972 million. By 2008, total sales projected to over \$1 billion.

The majority of products can be restocked regularly. 99 Cents Only Stores also feature close-out merchandise, which is not available for reorder. The deep-discount industry is characterized by the purchase of close-out and special opportunity merchandise at costs below wholesale. Deep-discount retailers pass the savings on wholesale from these purchases to customers, who are able to buy products at prices that are well below retail. There is increasing competition with other deep-discount retailers for this special-situation merchandise, and some competitors have more financial resources and buying power than 99 Cents Only.

99 Cents Only Stores' recipe for continued growth is to open more stores while expanding same-store sales and trying to wring more out of each dollar to keep profit margins higher than competitors. The company has set a target of expanding its store square footage by 25 percent every year and believes that the states in which it already operates have the potential to support over 400 stores. Approximately half of the new stores launched in 2006 were in Texas. These stores are serviced by a 741,000-square-foot distribution center near Houston that the company purchased for \$23 million in 2005.

How does 99 Cents Only Stores manage its widespread chain of stores while keeping down costs? The answer is, with information technology, but on a budget. In 2005, despite opening 38 new stores and beginning operations in the new distribution center in Texas, the company's IT budget did not surpass \$5 million. Although David Gold, 99 Cents Only's founder and chairman, resists computer technology in his own office, he knows that computers have played a large role in enabling his company to grow. Gold introduced Radio Shack TRS-80 personal computers to the business in the 1980s. Gold's son, Jeff, now president and COO, programmed the company's first order-entry and warehouse inventory systems on those computers.

Today the company obviously requires far more computing power. The task of choosing and implementing that power without breaking the bank fell to Robert Adams, vice president of information services for 99 Cents Only Stores. 99 Cents Only Stores is not a typical single price point business. The average 99 Cents Only Store is about five times larger than the industry standard and generates approximately four times more in sales than its competitors (\$4.3 million to \$1 million). 99 Cents Only Stores also differs from its competitors in its target customer demographic, even pursuing locations in high-income areas. David Gold says, "Rich people like to save money too, and they do it in higher volumes."

With these factors in mind, Robert Adams continues to improve and expand the company while keeping the clientele satisfied and not spending too much money. For example, he saved the company tens of thousands of dollars on database management software licenses by searching the Web for the best price available rather than simply defaulting to the usual vendor. Adams acknowledges that he is able to make such decisions because the company is family-owned and -run, which concentrates the power among only a few people. In fact, most projects that the company takes on are implemented rapidly because there are fewer people involved in the decision-making process.

At every step of the way, Adams evaluates actual cost versus business value to the company of every initiative, whether it involves technology, real estate, or the melding of the two. Because Adams has a programming background, when it comes time for the company to deploy a new system, he can effectively weigh the cost of purchasing software off the shelf against the cost of writing the software code himself or with his IT team. Because 40 percent of 99 Cents Only Stores' products flow through the inventory only once because they are close-out items, the company's systems need to be very flexible to deal with unique nonrepeating items in inventory. Given these parameters, Adams often finds that the cost of buying prepackaged software combined with the time and cost required to customize such software for the deep-discount business makes programming the company's systems in-house the better option.

One of Adams's greatest challenges was launching the company's new distribution center in Texas in 2005. The sale of the facility, which David Gold purchased for \$23 million from Albertsons, included over 200,000 square feet of refrigerated storage, approximately 500,000 square feet of dry storage, forklifts, cabling, and furniture. Working with a tight time constraint, Adams had to decide between revising the warehouse management system he had designed for the company's distribution center in City of Commerce, California, so that it could be used in Texas and purchasing a system from a developer or vendor. Adams already knew that his own system would have to be replaced in California to keep up with the company's aggressive growth plans, so he set about finding a warehouse management system that allowed for the degree and ease of customization that his company would require.

In addition to carrying close-out merchandise that only goes through inventory once, 99 Cents Only Stores sometimes receives shipments of products that aren't exactly what the company ordered. However, as Adams says, "We have to accept it, get it to our stores, and turn it fast." A system that would lock out such shipments because of inflexible rules would be a hindrance to the business.

Adams found the flexibility he needed in HighJump Software's Supply Chain Advantage software. The HighJump package addressed all of the major concerns related to the operation of the new distribution center: quick implementation, high functionality (particularly in regard to receiving), adaptability, and interoperability with the advanced automation technology of the new distribution center. One of the most attractive aspects of the package was that it didn't force 99 Cents Only Stores to change its business processes to conform to the structure of the system.

Christopher Heim, who retired as president and CEO of HighJump in 2008, explains that his company basically developed a set of tools that enables users to build their own sets of functions according to the needs of their particular businesses, "almost akin to an Excel spreadsheet." The Supply Chain Advantage system is designed in such a way that users can make changes themselves instead of relying on IT specialists, the vendor, or outside sources to upgrade and manage the system. This is especially important to Adams, who likes to avoid recurring costs that can drain a company's budget.

HighJump developers worked with Adams and his staff to integrate the system with the specific needs of 99 Cents Only Stores, including a radio frequency identification (RFID) system and a voice-based inventory picking system. The Supply Chain Advantage package includes a warehouse management system, Warehouse Advantage, that tracks the status of every product during its time in the warehouse. Warehouse Advantage works closely with a Voxware voice-based picking system, which instructs warehouse employees known as "pickers" to retrieve products that need to be released from the warehouse for shipment to stores. The Voxware system also informs pickers when storage bins need to be refilled and where to find replenishments.

The Supply Chain Advantage software module called Yard Advantage manages the company's delivery trucks, directing them to the proper locations for loading or unloading and monitoring the inventory that each truck is carrying. Customer Service Advantage creates a portal that employees at 99 Cents Only Stores retail locations can use to check on scheduled shipments. Managers use Advantage Dashboard to monitor the performance of both facilities and workers using charts and graphs that update in real time. Event Advantage alerts warehouse managers to unforeseen problems in the supply chain before they can have a negative effect on profit margin.

Adams was sufficiently satisfied with HighJump's solutions to plan for implementation of the Supply Chain Advantage systems at his company's City of Commerce distribution center. The process of installing the systems in this California center could be more complex because the center operates three shifts and employees need retraining. Furthermore, the City of Commerce center already serves 150 of 99 Cents Only Stores' retail locations. When the Texas center went online, it was responsible for far fewer stores. Adams also decided that the receiving process in City of Commerce should undergo the conversion to the HighJump system first. Once that process functions smoothly, other functions will be added.

99 Cents Only Stores planned to have the City of Commerce distribution center running on HighJump technology beginning in the fall of 2006. The need for improved systems had become very apparent. In mid-2006, the company's stock price had fallen around 50 percent. One factor contributing to the falloff was that the California distribution center was working beyond its means, which decreased productivity, affected delivery schedules, and left stores unable to replenish their shelves. Overall the chain experienced lower same-store sales and increased sales of products with lower profit margins. By 2008, 99 Cents Only Stores was seeing positive trends in same-store-sales. The company did experience a loss in net income for the quarter ending September 30, 2008 as compared to 2007. This was due to \$1.8 million in temporary labor costs to implement inventory control and initiatives, \$2 million in expenditures for consulting and accounting related to the annual audit and Sarbanes-Oxley compliance requirements. The latter resulted in several delays in filing the company's Form 10-K for fiscal 2008.

99 Cents Only Stores has to regularly reevaluate its inventory control procedures and expand its warehouse capacity. To bolster the company's leadership, CEO Eric Schiffer announced an organizational realignment in November 2008. The distribution and transportation

departments were placed under the wings of Jeff Gold, who was already in charge of store operations. Jim Parros came aboard to fill the new position of Senior Vice President of Logistics. Buying and merchandise planning reported directly to Schiffer. 99 Cents Only Stores will continue to explore advanced information technology giving the highest priority to technology initiatives that promise the best return on investment (ROI). If a new project comes along that offers a better opportunity to improve the business, the company will shift gears even if the previous project has not been deployed fully. The company still receives most of the benefit of the first project, and doesn't miss out on a new opportunity. Can 99 Cents Only Stores continue to rely on the uneasy relationship between leading-edge technology and a bottom-line-oriented business to rebound from its recent struggles?

Questions:

1. Analyze 99 Cents Only Stores using the value chain and competitive forces models. (07 Marks)
2. What is the role of information technology infrastructure in 99 Cents Only Stores business strategy? How does it provide value for 99 Cents Only Stores? (07 Marks)
3. How effective is 99 Cents Only Stores' strategy for IT infrastructure investments? Explain your answer. (07 Marks)
4. How successful have 99 Cents Only Stores' strategy and use of information systems been in addressing the company's problems? (07 Marks)

(Total 28 Marks)

Q2.
(a)

Discuss why "**management of information technology**" is so important nowadays for business and management than earlier days?

(06 Marks)

(b)

Explain the salient features of organizations of which managers should be aware when building information systems.

(06 marks)

(c)

Why it is difficult to develop integrated information systems for organisations? Discuss your answer by using suitable examples from organisations in Sri Lanka.

(06marks)

(Total 18 marks)

Q3.

(a)

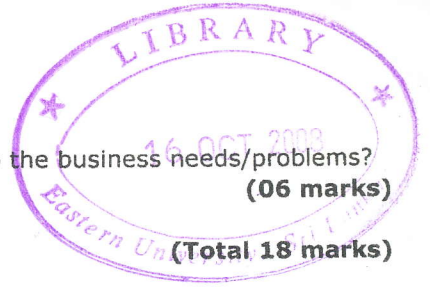
Identify six (06) categories of Internet Business Models in a table with brief description and suitable examples.

(06 marks)

(b)

Analyse how IT/ISs support various business strategies for competitive advantage.

(06 marks)



(c)
In what ways large distributed database systems contribute to the business needs/problems?
(06 marks)
(Total 18 marks)

Q4.
(a)
Assess the business value of wireless technology and describe important wireless applications in business.
(08 marks)

(b)
Assess the roles of Information Technology on business enterprise internally and externally.
(04 marks)

(c)
Analyse the principal causes of information system failure.
(06 marks)
(Total 18 marks)

Q5.
(a)
What are the problems of Information systems Development in Organizations in Sri Lanka?
(06 marks)

(b)
List out six (06) ICT (Information and Communication Technology) Laws in Sri Lanka and briefly explain the coverage area of each law.
(06 marks)

(c)
"There are many procedures for IS auditing which can be classified into three categories".
Identify and briefly explain those categories of IS auditing.
(06 marks)
(Total 18 marks)