

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE

DEPARTMENT OF BUSINESS MANAGEMENT

MASTER OF SCIENCE IN MARKETING

MARKETING INFORMATION SYSTEMS AND E-COMMERCE - CBU 5201

SUPPLEMENTARY EXAMINATION- MARCH 2013

TIME ALLOWED: 3 HOURS 30 MINUTES

INSTRUCTIONS TO CANDIDATES

Answer question **One** and any other **Three** questions from Section B.

INFORMATION TO CANDIDATES

- i) Section A carries **40** marks.
- ii) All questions in Section B carry **20** marks each.
- iii) Questions may be answered in any order.
- iv) Credit will be given for the use of appropriate examples.
- iv) This paper contains **Six** Questions.

SECTION A
QUESTION 1

**CASE STUDY: CAN ALBERTSONS TROUNCE WAL-MART WITH
ADVANCED INFORMATION TECHNOLOGY?**

With 2,305 retail stores in 31 states, Albertsons is one of the largest retail food and drug chains in the world. Among these retail stores are 1,351 combination food-drug stores, 707 standalone drugstores, and 247 conventional and warehouse stores. Stores flying the Albertson flag include Albertsons, Albertsons Express, Albertsons-Osco, Albertsons Say-on, Jewel, Jewel-Osco, Acme, Savon Drug, Max Foods, and SuperSaver Foods.

Albertsons' marketing vow is to "Make life Easier for Our Customers". This credo plays a large part in another of the company's priorities, which is to make Albertsons the number one grocer in the United States. Wal-Mart currently holds that distinction with \$56 million in annual revenue from its grocery departments. Albertsons stands in third place, \$20 million behind Wal-Mart in revenue. Wal-Mart has been selling groceries for a mere 16 years, making it a relative newcomer in the industry compared to most of its competitors. Of course, Wal-mart does have vast retail experience, massive purchasing power, and leading-edge systems to apply to its grocery business to catapult it ahead of the competition. Wal-Marts supply chain

management systems are extremely quick and efficient. They keep inventory down to the necessary minimums and operating costs low so that overhead takes a much smaller chunk out of the company's sales revenue. Wal-Mart's Retail Link network pulls in point-of sale data from its retail stores every 15 minutes, giving suppliers incredibly up-to-date information on how their products are selling. Others retails capture sales data only once or twice each day. To move up to the top rung of the ladder, Albertsons has borrowed a page from WI-Mart's book and written a few pages of its own. The author of these is CEO and president Larry Johnston came from a highly successful corporate environment, having worked under Jack Welch during the peak of his tenure at General Electric. Johnston wants to use information technology to keep prices competitive while making the shopping experience more compelling. He also wants to bolster the company's leadership with the best minds available and use motivational techniques to invigorate his employees. By approaching business strategy on these two fronts, Johnston hopes to distance Albertsons from competitors such as Kroger and Safeway and catch up to industry leader Wal-Mart. Albertsons earmarked half billion dollars for technology advancements in 2004. One goal of this investment is to improve the company's profit margin. Profit margins are razor-thin in the supermarket business, averaging around one cent per dollar of sales. Currently, Albertsons earns 1.4 cents for every dollar of merchandise that it sells. Wal-Mart is famous for keeping the prices of its merchandise low, but still manages to earn more than 3 cents for every dollar of sales. Albertsons must close that margin if it is to become the number one grocer in the United States. Working against Albertsons is the fact that its merchandise sells for 20 to 25 percent more on average than Wal-Mart's product offerings. Albertsons has a wide gap to overcome. The technology strategies put forth by Larry Johnston cover a wide range of the company's operations. Albertsons has begun to install self-service checkout stations in some of its stores. These stations enable customers to scan the items they are buying to create a sales bill and pay for the items by swiping a credit or debit card, all without the intervention of a cashier. Using a handheld scanner, customers may scan their shopping cart, resulting in a checkout process that may take only a few seconds. Not having to wait in line to pay at the supermarket can be a major draw for customers. Albertsons views this improvement to the shopping experience as exactly the type of change it wants to implement to keep its current customers happy, bring in new customers happy, bring in new customers, and thereby increase sales revenue. Of course, self-service checkout stations provide Albertsons with another benefit. They cut personnel costs. The stations enable Albertsons to replace human cashiers with machines that do not earn wages. Cutting payroll is a critical aspect of the company's repositioning, especially when you compare wage numbers with Wal-Mart. The average Wal-Mart worker earns \$8.50 per hour. Albertsons pays its average worker in the neighborhood of \$13 per hour. In addition, Albertsons extends benefits to its employees, including health insurance and retirement packages that, in some cases, nearly double the value of the employee's total compensation. The company line says that installing self-service checkout facilitates is intended solely to create a better shopping experience for the customer. Retail analysts seem to think otherwise, saying that such claims are transparent; eliminating cashier positions could produce savings in excess of \$100 million for Albertsons.

Larry Johnston's plans for technology-enabled grocery stores include a completely digital shopping experience that begins in the home and involves the Internet and Global Positioning System satellite technology. Customers would be able to set up

their shopping lists from home through an Internet portal that is connected to their local Albertsons store. They could also add information to their accounts such as allergies and dietary restrictions. When customers arrive at the store, they would use a customer loyalty card to obtain a handheld device. The device would download the shopping list and any other important information, and then sync with the store's inventory. The device would guide customers through the store on the most efficient path to gather and scan all of their items. In addition, customers could receive text messages notifying them about special offers, photos and prescriptions ready for pickup, and conflicts between scanned items and the customer's present dietary or allergy restrictions. Under such a system, a customer account could be linked to a credit card and checkout would be reduced to passing through an electronic gate. Introducing such a radical change in shopping habits will not be easy. For now, Albertsons has deployed handheld scanning devices in only a few stores. To roll out widespread use of the scanners and self-service checkout, as well as Johnston's grander vision of a wired supermarket, Albertsons will have to persuade two important groups of people that such changes are a good idea. The company will have to convince its store employees that a more independent customer is good for business. At the same time, the employees know that some of their services will be rendered unnecessary, thousands of their colleagues have lost their jobs already, and they have run into strong resistance in their pursuit of higher salaries and better benefits. The attitude of the employees is critical to the success of the company and there are no assurances of cooperation with a vision that could reduce their role. As if that weren't enough of a concern, Albertsons' customers also would have to buy into Johnston's vision for high-tech shopping. Michael Lenz, a retail supply-chain analyst for the Canadian firm Thinking Group, notes, "You're going to the store for bread, milk and eggs. It might be a little overwhelming for some folks". Wal-Mart explicitly tries to keep customer shopping experiences simple. On the other hand, if Johnston's futuristic store proves to be successful, Albertsons would gain a significant edge over Wal-Mart. Another Albertsons goal is simply to have current customers buy more when they visit the store. The key to such a goal is cataloging and analyzing purchase data. Albertsons invested \$50 million in an NRC Terada warehouse to examine customer-buying habits. By providing customer loyalty cards, Albertsons can give loyal customers special offers and track exactly what they buy and when they buy it. Analytics software from KhiMetrics of Scottsdale, Arizona, enables Albertsons to determine, for example, whether lowering the price of a box of Wheaties by 15 cents will bring in more profits by increasing sales than would increase the price by 15 cents. The software will also tell Albertsons which products, such as milk and bread, need lower prices to prevent shoppers from defecting to Wal-Mart and which items aren't so critical.

Albertsons is working to reduce costs in its supply chain so that its stores can offer prices that are more competitive with Wal-Mart's prices. Johnston has consolidated distribution centers and is using the Web to coordinate shipments and to reduce billing and invoicing costs. The company has also upgraded its core cooperate systems, moving financial applications to software from Oracle and its human resources management to PeopleSoftware software. Chief Technology Officer Bob Dunst intends to overhaul 90 percent of the company's applications by 2007. In addition to the Oracle and PeopleSoft adoptions, he has also upgraded the company's high-speed network infrastructure. Albertsons had already added electronic data interchange (EDI) capabilities, which enable better processing of transaction with suppliers. However, Albertsons does not yet have a system

comparable to Wal Mart for sharing sales data with suppliers and for automatically placing orders in reaction to sales that are taking place in the field. Albertsons will not be relying solely on computing power in its pursuit of Wal-Mart. CEO Johnston believes that brainpower is just as critical to the success of his company as technology is. Johnston scoured corporate America for the most talented and respected executives in retail and other industries. He hired CTO Dunst away from competitor Safeway, where Dunst had 25 years of experience developing applications, working with loyalty card systems, and using advanced technology to analyse data. The supply chain management team has been stocked with technology pioneers and top guns who bring their expertise from such companies as pepsi-Co, Dell, and even Wal-Mart. Analysts are impressed with the crew that Johnston has assembled and believe that he is taking the right approach to competing with Wal-Mart, but the benefit of a first –rate staffs have been slow to materialize. The question remains whether a massive investment in technology and intellect will be enough for Alberstons to reach the top of the industry. Wal-Mart, but the benefits of a first-rate staff have been slow to materialize. The question remains whether a massive in technology and intellect will be enough and intellect will be enough for Albertsons to react top of the industry Wal-Mart grocery sales continue to grow steadily. Also worrisome is the introduction of Wal-Mart is traditionally known for its Supercenters, big-box stores that cover expansive square footage and offer extensive product selection. The Neighborhood Markets are significantly smaller and are intended to reach local markets that aren't always covered by a Wal-Mart big box store. In many cases, these markets contain the customers that Albertsons has targeted as crucial to its success. Alberstons has already lost significant market shares to Wal-Mart Supercentres in various parts of the country, including Boise, where Alberstons headquarters are located. Between 2000, when Wal-Mart came to Boise, and 2004, Albertsons saw its market share drop from 65 to 39 percent, with nearly all of the loss benefiting Wal-Mart. Wal-Mart's Neighborhood Markets are strengthened by the same low prices and powerful supply chain that make the company's Supercenters a seemingly unstoppable force. Other than self-service checkout stations, the Neighborhood Markets are decidedly no-frills in comparison to the average Albertsons store, which often has its own butcher, baker, and gourmet coffee bar. Albertsons is betting that a specialized customized, and technologically advanced shopping experience will be appealing enough to keep customers from the allure of Wal-Mart's lower prices and simple presentation. It is not a sure bet. Albertsons may not be able to beat Wal-mart consistently on price but it must come closer than in the past. Albertsons can also use its loyalty card program to obtain more precise information about individual customers and offer products that they might not find on Wal-mart shelves. Albertsons has the financial backing to continue investing heavily in advanced information technology, and strong chains of drug stores, which tend to see greater profit margins than grocery stores, fortify it. The company has recently joined Wal mart in requiring (by April 2005) its suppliers to use radio-frequency identification (RFID) tags on all product shipments. The use of RFID will increase Albertsons' ability to manage its supply chain more precisely. Additionally, Albertsons stores have fared well in urban markets where Wal-Mart has struggled. Overall, however, Wal- Mart has set the bar very high. Albertsons remains convinced that it can soar to greater heights.

Laudon Kenneth C, Laudon Jane P, **Essentials of Management Information Systems:**

Managing the Digital Firm, Prentice Hall, 9th Edition, 2006

Required:-

- a) Analyse Albertsons using the value chain and competitive forces models. **[20 Marks]**
- b) Evaluate role information systems play in Albertsons' business strategy. **[10 Marks]**
- c) Compare Albertsons to Wal-Mart in terms of business strategy, current success, and future success. **[10 Marks]**

SECTION B

QUESTION 2

Discuss ways in which Information Systems play in the transformation of business enterprises. **[20 marks]**

QUESTION 3

Discuss any **five** categories of electronic commerce process models. **[20 marks]**

QUESTION 4

Explore how information and communication technologies could be applied to the Porter and Miller value chain. **[20 marks]**

QUESTION 5

Evaluate how distributed systems could benefit business organisations. **[20 marks]**

QUESTION 6

Computer networks and telecommunications' primary function is ensuring transmission of data from one source, involving long distances.

Use a diagram to explain the components of a telecommunications system.

[20 marks]

END OF EXAMINATION