**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**

**FINAL EXAMINATION - DECEMBER 2012**

**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: DOLLAR GENERAL CORPORATION**

Dollar General Corporation, head quartered in Goodlettsville, Tennessee, is an aggressive competitor in the deep discount retail industry, fighting for position with other dollar stores such as Family Dollar, Fred's, and Dollar Tree, as well as with retailers such as Wal-Mart, Kmart, CVS, and rite aid. Dollar general stores offer a product line of general merchandise that includes house-ware and cleaning supplies, health and beauty aids, clothing, packaged food, stationery, seasonal offerings, and other house hold consumables. The company has been operating since 1939.

Dollar general's most recent annual sales figures total $6.9 billion, placing the chain at the top of the dollar store category of discount retailers. Some what surprisingly, the chain is not achieving its success by following the example set by other successful retailers. Whereas competitors such as 99 Cents Only stores consider middle- and high- income customers to be key contributors to their profits, dollar general caters specifically to customers with low, middle, and fixed incomes. Dollar general has kept away from the big box supercenter store model used by Wal-Mart and Kmart. This type of store is often located on the outskirts of cities or out side of particular owns to draw customers from a broad area. When placing new stores, Dollar General prefers to locate them within communities, often targeting municipalities that are home to fewer than 20000 residents. In early 2004, over 4000 Dollar General Stores were in such communities. The company believes that filling the role of neighborhood store is a big part of its success. As such, stores follow a fixed, even-dollar pricing schedule with about one third of all merchandise priced at $1 or lower. The maximum price for a Dollar General product is generally around $35.

When it comes to total revenue, the dollar store cannot really keep up with the superstore. Wal-Mart's most recent annual sales figures were over $250 billion. However, where Dollar General can make its mark is in getting the biggest bang for its buck.

Many supermarkets struggle to keep up with Wal-Mart because the retail giant earns a higher percentage on each dollar of sales (3.5 cents last year) than most retailers are able to achieve. Last year Dollar General surpassed Wal-Mart's benchmark by earning 4.3 cents for every dollar of sales.

How Dollar General achieves this is by rapidly opening stores and running each store at the lowest operating cost possible. As of the middle of 2004, Dollar General operated 6930 stores with 57800 full and part-time employees in 29 states, with an additional 695 new store openings in 2004 alone. Since 1999, when there were 3687 stores, the chain has doubled in size. For every day that a new store is open, the company, on average, can expect to add $2800 in sales and $124 in profit. Across a large scale, these numbers make quite a difference in the key columns of a profit and loss statement at the end of the year.

To take full advantage of this strategy, Dollar General has developed a system for opening new stores that whittles the procedure down to a scant 8 days. Dollar General views this system as so vital to its business that it protects the details of the procedure the same way that Coca-Cola protects the formula for its leading soft drink. However, *Baseline Magazine* has been able to reveal the basics of the typical Dollar General Store opening, as well as how the operation fits in with the manner in which the store is run after opening. In both cases, a strict budget influences every step from hiring to implementing information systems.

The average Dollar General Retail store occupies 6800 square feet of space. The company views leasing space as the most favorable financial practice. The majority of stores are placed in either shopping centers (56%) or freestanding buildings (41%), with a handful housed in urban structures (3%). The opening of a new store is a chain reaction of events that begins with a district or area manager hiring a construction team to perform any work necessary for the site to serve as a Dollar General store. This can include putting in new floors or creating access for delivery trucks.

As this work begins to wind down, the Goodlettsville office authorizes the purchase of point-of-sale (POS) terminals from IBM, with the stipulation that IBM deliver the terminals on the second day of the upcoming store opening process. The POS purchase is the cue for Dollar General Headquarters to notify its satellite link provider, Spacenet, to schedule an installation at the new store. The satellite link connects the IBM terminals to corporate headquarters so that the store can report sales data. Spacenet is contracted to perform the installation on the fourth or fifth day of the store opening process.

The opening of Dollar General Stores falls under the direction of a store merchandiser, also known as a setter or an opener. Setters coordinate the entire process as it happens and their responsibilities include everything from managing employees to installing the IBM terminals to building shelves and stocking the shelves with products. They also test software and link up with headquarters. In a way, setters are like hired guns even though they work full-time for Dollar General. They spend most of their time on the road, travelling to different locations (wherever they are needed) to open, close and reorganize stores. Once on-site, setters wield significant power because of their strong operational knowledge. Working beneath the setter, for the meantime, is a store manager who will stay on to run the location once the setup process is complete.

A few weeks before a Dollar General Store is scheduled to open, the store manager or the district manager solicits applicants to populate the crew for the eight-day opening effort. This crew normally consists of 10 to a maximum of 20 workers. Workers who apply themselves well during this period receive consideration for full- or part-time employment when the store opens. However, since the stores operate with a staff of not more than 6, continued employment is hardly a guarantee.

On the first day of setup, the crew unloads, constructs and installs fixtures for the store including shelves, counters, display racks and refrigerators. The workers also clean the floors and windows of the store. Dollar General outlines the proper positioning and placement of all fixture and products in a guidebook known as planogram, or POG, for short. POGs are extremely detailed, right down to instructing employees that products must be positioned so that they are even with the front edge of a shelf. Corporate headquarters maintains close control over every aspect of operation. The company distributes handbooks to employees that direct them how to communicate with each other and with customers.

Over the next several days, the setter receives and sets up the IBM point-of-sale terminals, the crew sets up a stock room for surplus inventory, and a small manager’s office is constructed. By the third day of the setup process, approximately 50% of the store’s opening inventory arrives. On the fourth or fifth day, a Spacenet technician arrives to install the store’s satellite dish on the roof and a satellite modem inside that connects to the IBM terminals. Spacenet is receiving $40 million over 10 years to fill this role for Dollar General.

Once the technician establishes a satellite link with corporate headquarters in Goodlettsville, corporate management begins to transmit pricing data and product codes to the IBM terminals. The store can begin sending payroll information back the other way. Spacenet also tests the point-of-sale software, called Triversity, which the store will need to run to authorize credit and debit card payments and transmit sales data. Meanwhile, the crew continues to unpack and shelve merchandise that has been delivered by the truckload.

As the second half of the eight-day opening process begins, the satellite network is up and running and the store manager can begin to train the store’s assistant manager and candidates for cashier jobs on the IBM cash register terminals. Bar-code scanners that lay flat in the cashier counters are installed and connected to the registers. Training on the registers also provides the staff the opportunity to test the system, ensuring that products scan at he correct prices and that details about the store are properly entered in the fields of the sales application systems.

The last few days of set up involve additional product stocking, all the while taking advantage of every inch of space that the store has. The setter uses a map that was constructed specifically for this store to fit the thousands of standard items that Dollar General offers into the store. He or she also sets up the space that has been allotted to special or seasonal items. The final few days of the eight-day project are a flurry of activity as perishable goods arrive, the satellite network receives a final test and the crew finally clears and mops the aisle to make the store bright and clean. If they can get the store ready for business in fewer than eight days, it could mean a bonus for the setter.

Once a Dollar General Store is open for business, the use of information systems in the stores is rather thin. Systems are used to keep costs down and for very little else. According to Alinean, an Orlando, Florida, technology measurement firm, Dollar General spends less on technology per employee ($3000 annually) than any of its dollar-store competitors.

Dollar General does use advanced satellite technology to communicate with headquarters, but it was chosen because dial-up and high speed connections were unreliable in some areas and stores were not always able to complete their nightly sales reports. However, individual Dollar General Stores do not use networks to facilitate operations. The IBM terminals include e-mail features, but the stores do not use them, relying on a private voice-mail system for communication instead. Managers, both during setup and operation, use paper on clipboards for tracking cash deposit logs, employee contact information and the arrival of goods into the stores. Using handheld computerized devices for this purpose would add to the company's technology budget.

Individual Dollar General Stores have no automated method for keeping track of their own inventory. Managers know approximately how many cases of a particular product they're supposed to receive when a delivery truck arrives. However, they do not scan the carton or verify the item count inside the cases (the exception being perishable food items, which are generally supplied by local sources). Dollar General's distribution centers do use information systems, running Catalyst warehouse management software, to track the inventory they receive and subsequently ship to stores. However, recipients at the stores merely check to see whether the cases are sealed properly. Inventory management depends on the polling data that headquarters gathers from store cash registers each night, which indicates how many of a product were sold and at what price.

Dollar General has an increasing shrink rate, which refers to the percentage of total sales that the company writes off as losses resulting from theft of product or other mishap. Dollar general's shrink rate has grown steadily from 2.6% in 1998 to 3.05% in 2003. The company's goal is to keep shrink rates to no more than 1.75% to 2%. Store managers believe that most of the company's losses are caused by merchandise being stolen during shipping, which goes undetected because there is no scanning upon receipt, and to shoplifting in the stores.

Corporate headquarters has chosen to focus on the employees as the root of the problem. The measures that headquarters has taken to counter the shrink rate include deploying loss preventing software, which identifies unusual cash register transactions, and installing video cameras to monitor the registers, the stockroom, and even the store manager. These measures apparently have not made a dent in the shrink rate.

While Dollar General continues to watch the bottom line carefully, its business continues to grow. In 2003, the chain experimented with two larger, grocery-oriented stores under the Dollar General Market name. The company intends to open 20 more such store in 2004. At the same time, the chain has continued to achieve growth through new stores and from increases in same-store sales. The question is, how long can this strategy work for Dollar General? Can the company keep ramping up its business without ramping up its technology budget?

Laudon Kenneth C, Laudon Jane P, ***Essentials of Management Information Systems:*** Managing the Digital Firm, Prentice Hall, 9th Edition, 2006

**REQUIRED:-**

(i) Analyse Dollar General's business strategy and show why the company has been so successful. **[10 Marks]**

(ii) Evaluate the role of management, organization, and technology in Dollar General's business strategy. **[15 Marks]**

(iii) Illustrate how information systems support Dollar General's business strategy. **[10 Marks]**

(iv) Show how Dollar General misses out business opportunities as a result of its approach to information technology. **[5 Marks ]**

## SECTION B

**QUESTION 2**

Give examples to assess the impact of the Internet and Internet technology on business and government in the context of Zimbabwe. **[20 Marks]**

**QUESTION 3**

Identify and discuss any **five** major management challenges to building and using information systems. **[20 Marks]**

**QUESTION 4**

Whereas most companies, particularly large ones, must support a multiplicity of computer platforms that cannot communicate with each other, intranets provide immediate connectivity and communications to an organization.

Show how an intranet supports electronic-business in your organization. **[20 Marks]**

**QUESTION 5**

Analyze how your organization uses information and communication technologies to provide efficient and effective functioning of its marketing information systems. **[20 Marks]**

**QUESTION 6**

Evaluate the 6 C's of Internet marketing in the context of your organisation. **[20 Marks]**

**END OF EXAMINATION**