

THE PUBLIC ACCOUNTANTS EXAMINATIONS BOARD

A Committee of the Council of ICPAU

CPA (U) EXAMINATIONS

LEVEL FIVE

INTEGRATION OF KNOWLEDGE - PAPER 19

COMPREHENSIVE CASE STUDY QUESTIONS

Afternoon Session Material

Thursday, 24 June 2004

INSTRUCTIONS TO CANDIDATES

1. Time allowed : **6 hours**.
9.00 – 11.00 a.m (2 hours): Planning
11.00 – 12.00 a.m (1 hour): Break
12.00 – 4.00 pm (4 hours): Writing
2. The following pages contain compulsory case study questions.
3. The appendices are also attached
4. The completed answer to the case study must be handed in at the end of the examination
5. All answers to the case study and any working papers, clearly labeled as such, must be handed in at the end of the afternoon session. Where working papers and notes form part of your answer, ensure they are appropriately cross-referenced.
6. It is in your interest to hand in **ALL** written work you prepared during the examination.
7. Please read further instructions on the answer book.

**United Supermarkets Ltd
Managing Director's Office**

Mr Paul Byaruhanga
Ecogas & Company
Certified Public Accountants
KAMPALA

24 June 2004

Dear Paul,

Strategic Review – Presentations to the Board of Directors

When we originally discussed your planned assignment with USL, it was envisaged that you would introduce a system of budgets, and assist in their preparation, and introduce a system of detailed reporting for management control.

Events have moved quite rapidly, and it is clear that a strategic review is essential, taking into account the very disappointing results forecast for 2003, the threat to the Mabara Store, the attitude of Century International Bank, and the potential for the Electronic Point-of-Sale (EPOS) systems to make a significant improvement in our position.

Our immediate requirement is to review the strategic options and help the Board, some of whom are out of touch with developments in retailing, to make the right choice. Some of the detailed work, supporting the recommendations, to present to the bank, can be done later.

The starting point is our present position which needs to be critically reviewed – prospects, competitive risks, challenges, problems, management. This ought to be in a report to the Board members for them to read confidentially before our next meeting.

EPOS options need to be explored carefully; the benefits are significant, but there are problems. Given that the present directors have limited knowledge of these systems, a presentation of EPOS and its costs and benefits and any problems should be planned for the meeting. It would be useful if this presentation to the Board meeting followed discussion of your report, reviewing the present position. I would suggest that this is done at 3.00 p.m.

Yours sincerely

**SM
Sentamu**

Required:

Taking the role of Paul Byaruhanga, you are required to prepare a report and presentation for the Board of Directors of USL.

The report should review the ***present strategic position*** of the company taking into account the financial data /financial performance, premises, resources, competition, staffing, customer perception and technology status. You should attach, as an appendix to the report; some slides and notes for a presentation that you will make to the Board of USL on the feasibility of investing in EPOS. The presentation should discuss the costs, benefits and potential problems.

ADDITIONAL INFORMATION DATA 1 (AID NO # 1)**EPOS (Electronic Point-of-Sale) System Costs**

Ben Sekabira and **Paul Byaruhanga** have discussed the estimated costs with Kazinga Electronics Ltd - the potential contractors.

The contractors envisage providing a complete installation – software, EPOS equipment, the necessary shop fitting to install new checkout facilities with built-in scanners, training and technical support for the first year of operation. The first year of equipment maintenance is also included in the price of the equipment.

The actual EPOS equipment is a small part of the total installation costs, as the shops need to be rearranged to provide more effective till areas for built-in scanners. A simpler scheme with hand-held scanners would not save significantly on labour costs.

Installation costs: to be written off over five years:

<i>Store</i>	<i>Number of tills</i>	<i>Total Cost</i> (U.Shs million)	
Kawempe	4	105	Store will need to be redecorated
Bugolobi	4	45	
Makerere	2	23	
Old Park	3	33	
Kampala-Kikuubo	3	35	Computer facilities and office renovation above Bugolobi store
Central	-	12	

All costs would be incurred and paid in 2004 for year 2005 commencement of full EPOS operations.

Training costs: to be incurred in 2004 and charged to revenue.

No ongoing cost is assumed, as the initial training will include sufficient managerial training to enable them to carry out any future training in store.

<i>Store</i>	<i>Total annual cost</i> (U.Shs million)
Kawempe	12
Bugolobi	12
Makerere	6
Old Park	8
Kampala-Kikuubo	8

New permanent (central) staff: It is forecast that the following additional permanent staff will be needed for 2004 and onwards:

- One field auditor, checking stocks against new computer information, checking coding accuracy.
- One central computer administrator, for network control and the preparation and distribution of statistics.

The estimated cost of the two together is U.Shs 30,000,000 per annum.

Ongoing maintenance on a seven-day, on-site basis will need to be covered by contract from 1 January 2006 onwards. The costs for 2004 and 2005 are included in the cost of the installation.

The costs quoted are as follows.

Store	Total annual cost (U.Shs million)	
Kawempe	4	
Bugolobi	4	
Makerere	3	
Old Park	4	
Kampala-Kikuubo	4	
Central	10	Central installation software and network maintenance

AID NO # 2

Electronic Point-of-Sale (EPOS) Systems

Information technology is an important and expanding part of the retail scene. The most common use of information technology in supermarket stores can be seen in electronic point-of-sale (EPOS) systems.

EPOS is a computerized system of recording customers' purchases. It does this by electronically reading a bar code on the product being purchased. The process by which a bar code is read is referred to as scanning and the device reading the bar code is referred to as a scanner.

The EPOS software contains the unique bar code of every product line in the store, providing a description of the product, the current selling price and purchase price, and the current inventory quantities. At the checkout points in the store the customer's purchases are scanned, the prices looked up electronically, and an itemised till receipt printed for payment.

The bar code held in the EPOS system has other potential uses other than calculating the payment that is due from the customer. For example, inventory records can be updated immediately when a product is sold, thereby maintaining a **perpetual inventory record** of each product line in terms of quantities and inventory values. If there are cost increases from suppliers, product-line profitability can be quickly evaluated. The EPOS system can also be used to provide marketing information, for example sales trends and the number of customers.

EPOS systems can vary in their degree of sophistication. Basic systems may use an electronic till with software containing bar codes (or product codes) and their prices.

The operator keys in the code that is then looked up electronically to display the price and description of the goods on a computer screen.

Other EPOS systems use hand-held scanning devices for reading the bar codes on products being purchased. Although this is more effective than keying in a code, it is still relatively cumbersome for the checkout operative.

More sophisticated EPOS systems use laser scanners. These scanners are built into the EPOS checkout point and linked to a conveyor belt on which the customer's purchases are placed. The bar codes on the products are passed across an electronic eye, by the Checkout Operative, which reads the information.

A benefit of using built-in laser scanners is that it helps to reduce customer queues at the checkout point. However there are two main problems when an EPOS system is installed:

- The extra space needed for the EPOS check-out point including cabling and the conveyor belt on which customers place their purchases.
- The space required immediately after the check-out point for customers to park trolleys while they pack their packages.

A store using a reasonably sophisticated EPOS system would typically have the following configuration. At each checkout point in the store there would be an electronic till comprising:

- Processor;
- Monitor (for operator and customer display);
- Keyboard (for use in keying in bar codes misread by the scanner);
- Printing facility (for customer receipts);
- Debit-card reader (for customers wishing to pay by automatic bank transfer);
- Cash drawer (for customers paying by cash).

The electronic till is linked to a laser scanner for reading the bar codes on the product purchased.

Where there are a number of check-out points in a store, each till is typically linked to a central computer which is supported by a printer. This enables the store manager to review the sales and inventory positions for the store.

Where there are a number of stores, each store's central computer would be linked to a head-office computer with supporting printer for use in, for example, company-purchasing decisions.

Source: Infomania Journal for the Electronics Dealers in Uganda, 2002

AID NO. 3**EPOS (Electronic Point-of-Sale) System Benefits**

Ben Sekabira and **Paul Byaruhanga** have discussed the potential benefits with **Rutaro** and with the proposed EPOS suppliers. While some benefit will arise in 2004, this will be limited and subject to considerable risk from the least delay in the project. For this reason, these are best ignored in planning.

Planning assumptions agreed are:

- EPOS will provide better information that will enable lower prices to be negotiated. Gross margins can be forecast to be 2 percent greater than they would otherwise have been, though still subject to competitive pressure, and a slow decline.
- EPOS will permit better ordering and stock control and can lead to inventory reductions estimated at 20 percent of current inventory holdings. This will lead to savings in interest costs. Interest is currently 10 percent per annum
- There is scope for significant savings of non-managerial personnel costs, especially in the larger stores. The scope in smaller stores is more limited as there must always be a number of staff in the store for security reasons. These are estimated at:
 - Kawempe and Bugolobi: 15 percent of current non-managerial staff costs;
 - Old Park and Kampala-Kikuubo: 12.5 percent of current non-managerial staff costs;
 - Makerere: 10 percent of current non-managerial staff costs.

EPOS Benefits and Central Distribution

Rutaro considers that there are potential advantages in undertaking some central distribution of products to stores, especially where bulk purchase could lead to discounts. The annual costs of such a facility, commencing in 2005, would be:

Rented premises	U.shs. 30,000,000 per annum
Transport	U.shs. 80,000,000 per annum
Staff	U.shs 45,000,000 per annum

This would not be an alternative to EPOS; it would not be effective without the additional information from an EPOS system. If it were established at the same time as EPOS was installed it would enable the gross margins to be increased to 4 percent above those achievable without EPOS and central distribution.

EPOS Benefits and USL Purchasing Volumes

The benefits discussed above of potential lower buying prices with better information from EPOS, and a possible central distribution system, depend critically on **USL**. buying-in sufficiently large quantities to interest suppliers. They will never be as large as the discounts that the major supermarket chains obtain. If USL volumes fall, the discounts would also fall, probably in proportion to volume.

AID NO. 4**“Shoprite” Bucks the Trend**

Shoprite has reinforced its position as the country's leading dry foods and domestic appliances retailer by outperforming the industry's sluggish profit growth over the last year. The Shoprite Group of supermarkets yesterday announced sales up by 8 percent and profit before tax up by 10 percent on previous year's figures. Asked to comment on the good figures, Kwazulu Mandela, Shoprite's Supply Chain Development Manager, said; 'We have invested billions of shillings in forging electronic procurement links with our one hundred key suppliers. Electronic point of sale data at each of our stores is automatically transmitted late at night to each supplier allowing them to track demand for their products.

'Huge numbers of supplies create a significant overhead cost of companies like ours. Reducing the number of suppliers is an option but we prefer to reduce the management of supplier costs by greater use of technology'.

Mr. Mandela went on to say: 'We see the next exciting development in the retailing as home shopping where customers will not come into our stores to buy our products but will instead link into us from their homes, possibly through the internet or mobile phones. We will then deliver their orders direct to their homes at a nominal cost. We as a company would expect to be in the forefront on new technology development.'

Source: *The Procurement News*, 20 October 2003

AID NO. 5**Customer Road-Map**

During 2003 each supermarket store manager was asked to undertake some market research on their own store's customers. The research was undertaken on different days of the week over a four-week period in an attempt to obtain a representative view of customers' opinion.

The purpose of the research was to provide some insight into how customers perceived the store, with a view to improving customer service. The company was aware that it was very difficult to get customers back once they started shopping elsewhere.

The analysis has been referred to as a '**customer road-map**'. Customers were selected at random on leaving the store and asked to rate the store on a number of issues considered as being important in influencing the customer. Each answer was awarded a score that was then averaged to provide an overall score for each store in respect of each issue.

The scoring system used was:

Answer rating the store as:	Points awarded
Excellent	5
Better than average	4
About average	3
Below average	2
Very poor	1

The issues and related questions asked were:

Issue	Question asked
Prices	How do this supermarket's prices compare with other possible stores?
Choice	Is our range of items what you would expect?
Quality	Is the quality of our fresh food satisfactory?
Aisles	Is there enough room to walk down the aisles in comfort?
Checkouts	Is the time you spend at the checkout points reasonable?
Staff	Do you find our staff helpful and pleasant?
Convenience	Is our supermarket open when you need it?
Parking	Is there adequate car parking space at our supermarket?
Image	Is our supermarket clean and maintained in good order?

A summary of the average responses for each supermarket store is provided below:

<i>Issue</i>	<i>Kawempe</i>	<i>Bugolobi</i>	<i>Makerere</i>	<i>Old Park</i>	<i>Kampala-Kikubo</i>
Prices	3	3	4	2	3
Choice	4	3	2	3	4
Quality	3	3	4	3	5
Aisles	3	3	3	3	3
Checkouts	2	2	3	3	3
Staff	4	2	4	4	4
Convenience	4	3	3	3	3
Parking	3	3	3	3	1
Image	1	2	3	2	2
Score (maximum:45)	27	24	30	25	28