

Solutions to Student Self Assessment Questions

Chapter 9

Testing and evaluation of systems

Questions

Two questions are placed within the text: (9.1) Case study 9.1 Broomfield plc: sales and trade receivables system; (9.2) Case study 9.4 Burbage Limited.

9.3 The balance sheets of Carnbee Limited, a trading company, at 31 August 2007 and 31 August 2006, together with profit and loss account extracts are as follows:

Figures as on page 356 as amended during proof-reading

You are planning your audit approach for the year ended 31 August 2010. What areas would you regard as being of low risk and of high risk? Are there any areas where you might be inclined to spend restricted or no systems work?

Solutions

9.1 Case study 9.1 Broomfield plc: Sales and trade receivables system

1. There would seem to be a number of objectives, namely, to ensure that:
 - a) Customers receive the goods that they require at advertised prices and quality
 - b) Customers receive goods on credit only if they are likely to pay for them
 - c) Recorded sales are genuine, accurate and complete
 - d) Trade receivables' accounts are debited with sales on credit, which are genuine, accurate and complete
 - e) All cash received is recorded in full before banking
 - f) Inventory records reflect genuine movements out in correct quantities
 - g) A full audit trail of transactions and impact on balances is maintained.All of these systems objectives could be framed as audit objectives. This is the case, even for objective a) as satisfied customers are more likely to pay for goods received and less likely to make claims against the company.
2. We can identify the following control points:
 - a) Identification of customers when they interact with salespersons at the interface with the system. There may have been prior control procedures when a customer wishing to buy on credit supplied bankers references and private information. At the interface the salesperson may require the customer to provide private information (banks often ask, for example for letters, say, 4 and 6 of a password).
 - b) Identification of salesperson by entry of code
 - c) Check on the completeness of order forms, that is that all boxes have been completed before acceptance. The numbering of order forms and insertion of a code representing either a cash or credit sale are also control features, the former enabling a subsequent sequence check and the latter giving an indication to the cashier that cash will be paid or not.
 - d) Credit worthiness check by comparing adjusted balance with credit limit. For this control to be effective, credit limits need regular review by the credit control department.

- e) Signing of official sales order by both customer and sales person is also a control over accuracy of the order form.
- f) The check by the cashier of the customer details at the point where the order form is received from the customer and the instruction to prepare the invoice is made.
- g) The stamping of the invoice with PAID or CREDIT SALE indicates to personnel at the pick-up point that prior procedures have been properly carried out. The stamping of the invoice with a GOODS RECEIVED stamp would indicate that the goods have been transferred to the customer. The same control is in force when the delivery person takes the goods to the customer.
- h) We are not given full information about certain matters but we would expect to see recording of all actions from entry at the interface to the entry in final records. In addition, data does seem to be available to allow sequence checks to be carried out (have we performed actions on all official orders issued) and for control totals to be checked for all transactions initiated by salespersons.

Some of these matters will also be covered on the ICEQ for Broomfield in 3, below.

3.

Broomfield plc Key and Subsidiary Questions: Sales system		
Stage or component Key questions	Subsidiary questions	Comment
<p>1. Receipt of sales order Are all orders received processed in such a way that keeps errors to a minimum in acceptance of the order, filling the order and in pricing, delivery and payment terms?</p>	(a) Are the persons responsible for preparation of sales orders independent of credit control, of custody of inventory and recording of sales transactions?	Yes, salespersons have no responsibility for credit control or for holding inventory. They initiate sales transactions but do not cause sales invoices to be prepared
	(b) Are they responsible persons authorised to prepare sales orders?	Yes, and they are identified by personal codes
	(c) Are standard forms used to record orders in hard copy or on screen?	Yes
	(d) If not, is there a written record of sales orders in every case?	Salesperson keeps hard copies of sales orders and files sequentially
	(e) Are sales orders pre-numbered or automatically numbered by computer system?	Yes, numbered by program
	(f) Do the sales order clerks take steps to ensure that the customer is genuine?	New customers are required to give bank references and private information. The system checks the accuracy of customer details.
	(g) Do sales order clerks ensure that the goods ordered are available in quantity and quality desired?	Yes, salespersons can access inventory files and other details such as lead times
	(h) Are up to date standard prices, delivery and payment terms provided for the use of sales order clerks?	Yes

	(i) Are special orders (special qualities, quantities, prices) authorised by a responsible official?	Not known, but special offers should be agreed by a responsible official who should enter details on master files.
	(j) Are sales orders prepared by one person checked by another or by computer program?	Yes, the computer checks for completeness of order form. We are not informed if there are other controls such as check digits and limit/reasonability checks. In addition, the customer signs the official sales order.
2. Credit control Are potential customers submitting sales orders checked for creditworthiness before the order is accepted?	(a) Is the credit controller independent of the sales order clerks?	Yes, see above
	(b) Are new customers wishing to buy goods on credit vetted for creditworthiness by reference to independent persons or organisations or by means of credit card?	Yes
	(c) Are orders from existing customers checked for payment record, sales ledger balance and credit limit?	Yes

(d) Are credit limits set by responsible officials on the basis of reliable data?	Not known, but they should be - and on a regular basis
(e) Is the credit approval evidenced on the sales order by the signature of a responsible official or by programmed code?	Not known but the fact that credit approval has been given should appear on the document. However, cashier does check credit rating independently of salesperson.
(f) Is the work of the credit control clerk checked by another?	Not known, but master file data like this is critical and such data should be checked periodically by an independent person.

4. The two inventory matters that might cause concern for the auditor are:
- Some goods are sold below normal prices. If below cost, these goods in inventory would need to be valued at net realisable value. The auditor would find out what the company policy was on loss leaders and how the company identified goods that might be sold below cost.
 - At the year-end, the auditor might be concerned whether some goods on hand belong to the customer and not to the company. This would be the case if a sales invoice has been issued but the goods have not yet been delivered to customers or picked up by them. If the inventory figure is taken from the inventory records there would not be a problem, but if inventory quantities are established by count, there might be. We shall look at this matter in greater depth when we discuss audit of inventories in Chapter 13, but at the year end we would expect the company to identify sales invoices where goods have not yet been given to the customer. The company may need to provide the warehouse with details of sales invoices issued to allow comparison with actual inventory movements.

9.2 Case study 9.4 Burbage Limited Suggested solution

As well as commenting on application controls and other matters, we are, for the sake of completeness, commenting on development, organisational and security controls too.

General controls: Development controls

We do not have much information about development controls but we make the following points:

- The modification of software was made following informal discussions with user departments. No formal agreement seems to have been made after these discussions and the needs of user departments may not have been given proper recognition.
- Testing appears to have been carried out by programming staff only. Again the needs of users appear to have been overlooked. The tests should include tests of the whole system by user department staff and the manager of the user department should confirm agreement in writing. That some test results are available is, however, a strength.

General controls: Organisational controls

- User departments have insufficient control over data. The duty operator prepares the control totals and is solely responsible for investigating differences between computer-generated controls and the original totals. There seems to be a good case for salesmen to send in the orders together with a control slip containing document count, hash totals of quantities, inventory codes and customer numbers, and value totals. Allocation of new customer numbers could be given to salesmen on request.
- There is no segregation of duties between systems analyst, programmer and operator. This may be because there are insufficient staff in the department, but an operator who is a

skilled programmer might be able to stop the preparation of a sales invoice while allowing despatch of goods to proceed. As sales orders do not appear to be pre-numbered and leave the hands of sales order clerks without a control listing, there may be a serious lack of control. Generally, the ability to amend programs without authorisation is a weakness.

General controls: Security of data

- a) It is a good control that daily dumping of the hard disc files take place and also that a grandfather, father, son system is in operation. However, it would be better if backup copies were held in a secure place outside the building in which the computer is housed. If a fire were to occur in the building, the company might lose all its valuable computer-generated data.
- b) A good control is that only computer department staff are allowed to enter the computer room. The auditor would wish to know, however, how unauthorised entry is prevented (keys, password identification etc.)
- c) Satisfactory controls seem to be in existence for identification of magnetic tapes in the library and for booking in and out. But, a weakness is that no one person has control of the library control book as it is very easy to fall into sloppy habits and leave tapes and removable disks lying around the computer room where they may be damaged. At the very least Mrs Houndkirk should review the control book from time to time and check the computer room for orderliness.

Application controls: Input controls

- a) There is no validation of input data before computer master files (sales ledger and inventory record file) are updated. That an exception report is prepared is a good control in itself but it is produced too late to avoid corruption of data. For instance, a sales order incorrectly entered produces an invalid invoice and/or an invalid inventory record entry, which then has to be manually corrected and re-entered into the system in the next run. In the meantime the accounting records are incorrect. To prevent this there should be a validation run, during which edit checks on incorrect customer number, invalid inventory codes, seemingly excessive orders etc are carried out and exceptions printed out for investigation and correction before the updating run takes place. The sales order clerks should be involved. This would avoid much of the messy correction procedures that are taking place at the present time (See note 8 in the flowchart).
- b) The same applies to the authorisation procedures. That a check for balances exceeding credit limits is made by the computer is satisfactory. Much trouble would be avoided, however, if the sales order clerks were to access the sales ledger file at the time the order is received and to obtain permission to process from a responsible official (say, Mr Moscar) if credit limits were to be exceeded following processing.
- c) As mentioned above computer operators batch sales orders instead of the user department. This is bad practice as is the failure to take full advantage of the control total technique. (Hash totals are not prepared for customer number, inventory code, nor is a value total prepared.

Application controls: Processing controls

Run to run controls seem to be in operation as trailer labels and header labels exist and there is manual identification. This is assuming that control totals for the disk file are produced at daily dumping and that a responsible official (Mr Moscar?) compares father dump with son dump and reconciles them with the use of the control sheet for the current day's run.

Application controls Output controls

The distribution of output would appear reasonable but we do not have enough information to be certain about this.

Other matters

- a) It is bad practice for warehouse staff to count inventory on their own. Inventory control should be involved to ensure that inventory is properly safeguarded and that the inventory records are accurate.
 - b) Sales despatch notes are sent to despatch before checking of the sales invoice listing and sales invoices by the sales order clerks. This may mean that goods are despatched in error. As we mentioned above the current system for correction of errors is very weak.
- 3 In practice we would have more information about the company, but on the face of it the following areas are of low risk:
- Fixed assets. There has been no movement on fixed asset cost and accumulated depreciation has increased by 10% of cost. Provided that you are satisfied that this is in line with company policy you might decide to little systems work in the area, restricting yourself to checking significant fixed assets visually.
 - Petty cash appears to be very insignificant and you would probably do no work in the area.
- Other balances appear to be much higher risk as can be seen from a significant reduction in gross profit percentage and significant increases in inventory, trade receivables, and trade payables days. These changes would require the auditor to direct work to testing the system in use for ensuring that cut-off is accurate and that sales and trade receivables, and cost of goods sold and trade payables are genuine, accurate and complete. The auditor would also wish to ensure that the system in use for determining physical inventory and for arriving at appropriate cost and net realisable value is satisfactory.

(F) Are all entries in the general ledger (Trade payables control account, and expense and assets accounts) as the result of purchases transactions, fully and accurately recorded in the appropriate general ledger accounts?

Janet Black codes invoices, but no one appears to check her work. Proper coding is clearly essential if the postings to the general ledger are to be accurate and the auditor would wish to determine that the coding is indeed independently checked before processing occurs. A strength is that the chief accountant reviews the cost information for reasonableness.

General comment on the purchases and related trade payables system

- i) Generally, the company has a basic organisational structure that enables segregation to be effective. In some cases the segregation needs tightening up, particularly as regards checking of exception reports (this should be done by both the data control clerk and the persons responsible for data preparation. There is too much power in the hands of Ivor Jordan who prepares the budget and chooses the suppliers (with apparently no bidding system in place); and some doubt about the setting of amended budgets and reorder levels. His work needs to be supervised more closely and he should not alter the inventory master file, as he is responsible for executing transactions, while the inventory master file affects the recording of inventory.
- ii) There is a strength in that the chief accountant reviews listings and cost information for reasonableness, but his work should be supported by detailed checking of exception reports and transactions by data preparers (Ivor Jordan and Janet Black). Ivor Jordan is already performing many tasks and it might therefore be proper for his work to be re-appraised.
- iii) A further concern is that prices and terms do not appear to be independently checked with perhaps too ready an assumption that the computer has got it right.
- iv) Finally, coding of purchase invoices requires an independent check.