Practical accounting data processing

CONTENTS

OVERVIEW

Content: AIN2601 (diagram 1)

Diagram 1 below is a schematic representation of the content of the AIN2601 module.

AIN2601
Practical accounting data processing

Study guide 1	Study guide 2

Part 1	**Part 2**	**Part 3**	**Part 4**
Data management and utilisation	Spreadsheets	Transaction processing	Management reporting systems

Topic	**Topic**	**Topics**	**Topic**
1 Data management and utilisation	2 Spreadsheets	3 Accounting cycles 4 Financial reporting infrastructure 5 Accounting information system applications 6 Pastel Partner accounting information system	7 Management reporting systems

Transaction processing

PURPOSE
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The aim of topic 3 in part 3 is to explain accounting transaction processing cycles in an information system environment. Topic 4 introduces the chart of accounts and staffing level requirements needed for financial reporting. Topic 5 focuses on the evaluation and selection of an appropriate accounting software program and on accounting software security risks and controls. In topic 6, Pastel Partner accounting information system is practically applied to process transactions and retrieve financial information.

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Part 1 Data management and utilisation	**Part 2** Spreadsheets	**Part 3** Transaction processing	**Part 4** Management reporting systems
Topic 1 Data management and utilisation	**Topic** 2 Spreadsheets	**Topics** 3 Accounting cycles 4 Financial reporting infrastructure 5 Accounting information system applications 6 Pastel Partner accounting information system	**Topic** 7 Management reporting systems

Accounting cycles

LEARNING OUTCOMES

After studying this topic, you should be able to

– differentiate between the different accounting cycles
– describe the flow of transactions through the various accounting cycles
– identify the source documents, typical reports and database files accessed, updated or modified for each of the different transaction processing cycles
– record transactions' accounting entries in the different transaction processing cycles
– identify the movement in inventory quantities in the different transaction processing cycles

Study guide 1		Study guide 2	
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Topics

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  SU 8: Revenue and receipts cycle
  SU 9: Acquisition and payments cycle
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4 Financial reporting infrastructure
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5 Accounting information system applications
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6 Pastel Partner accounting information system
  SU 15: Getting started on Pastel Partner
  SU 16: Customers, suppliers, inventory and general ledger accounts
  SU 17: Process transactions
  SU 18: Retrieving information and sundry processing

NOTE

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Study units 7 to 12 only highlight some of the applicable basic accounting entries and mention some of the applicable audit controls and processes. Detailed audit controls, processes and accounting entries are not explained in this study guide. You will learn more in your auditing modules about each cycle's audit environment and controls. Your financial accounting studies will equip you with the necessary International Financial Reporting Standards (IFRSs) and accounting transactions knowledge relating to these cycles. Please apply your **auditing** and **accounting** knowledge to these study units as you work through them.

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Overview of transaction processing

In this study unit

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┌─────────────────────────────┐
│   Overview of transaction   │
│         processing          │
└─────────────────────────────┘
              │
              ▼
┌─────────────────────────────┐
│   Accounting transaction    │
│         processing          │
│  • Definition               │
│  • Data to information (manual) │
│  • Data to information (computerised) │
│  • In an organisation       │
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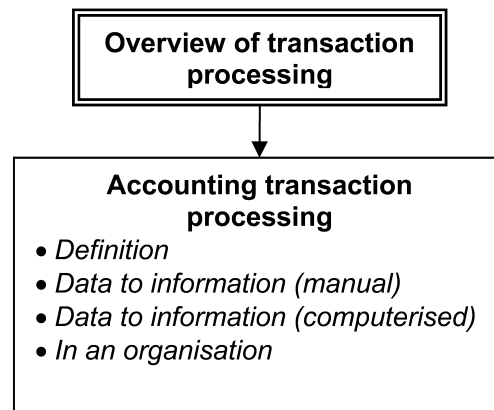
1   Introduction

An organisation's daily business transactions are processed into information by means of transaction processing systems. In this study unit, we will learn about transaction and accounting transaction processing systems and how data is processed into information, both manually and by means of computers.

2   Transaction processing system (TPS)

> A transaction processing system is a specialised type of computerised information system.
>
> A **TPS collects** an organisation's daily business transactions, **processes** them into valuable information and **stores** and **retrieves** the data and information when required.

A TPS is wider than only an account transaction processing system (ATPS) and includes other operational transaction processing systems – for example, a warehouse system that processes the movement of inventory items between different storage locations.

3   Accounting transaction processing system (ATPS)

An ATPS is also most commonly known as an **accounting information system (AIS)**.

> An *AIS* **collects** an organisation's day-to-day **financial** and **nonfinancial transactions**, **processes** them into valuable financial information and **stores** and **retrieves** the data and financial information.

A **financial transaction** is a business activity that generates or modifies financial data and can usually be expressed in monetary terms (eg a sales tax invoice).

A **nonfinancial transaction** is a business activity that generates or modifies nonfinancial data but which is of such a nature that it will directly influence the processing of financial transactions. Although the nonfinancial data will not be directly used in a transaction, it provides vital information that will be used during the transaction processing, such as updating a supplier's details or adding a new supplier.

The accounting transaction processing system can be divided into five accounting/auditing cycles, each of which will be discussed in detail in the rest of topic 3. In categorising the accounting cycles, we will use the same categories that are used in auditing. These categories are as follows:

(a)   revenue and receipts cycle (see study unit 8)
(b)   acquisition and payments cycle (see study unit 9)
(c)   inventory and production cycle (see study unit 10)
(d)   payroll and personnel cycle (see study unit 11)
(e)   finance and investment cycle (see study unit 12)

4   Accounting transactions: from data to information

All accounting transaction processing (daily, monthly and ad hoc) follows a standard path from data to usable information, as depicted in study unit 1, figure 1.1.

4.1   Accounting transactions: from data to information (manual process)

Refer to figure 7.1 throughout the following discussion:
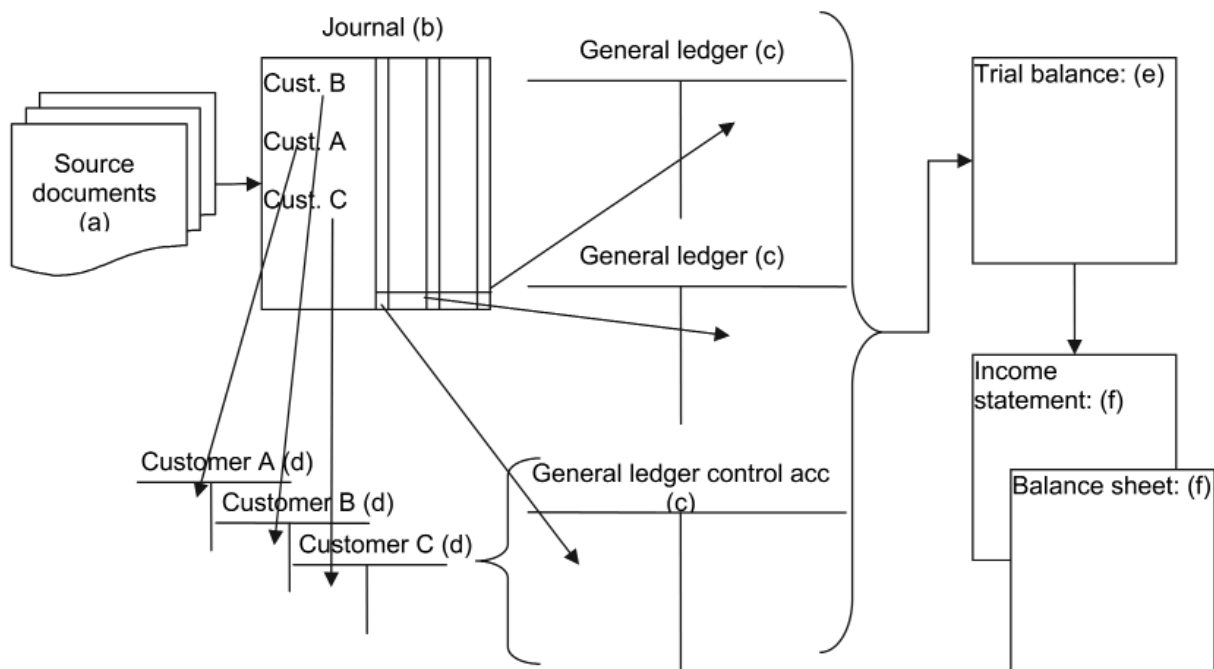
FIGURE 7.1: Transactions: from data to information (manual process)

From our basic financial accounting knowledge we already know that in a manual transaction processing system, the following apply

(a) Data is written on source documents, such as a sales invoice, to record the details of a transaction.
(b) The summary data from each source document is written into the relevant journal, such as a sales journal.
(c) At the end of the month, the summary information from each column in the journal is transferred to the relevant general ledger accounts, such as sales, VAT and accounts receivable (also sometimes referred to as a debtors/customers control account).
(d) In addition, summary information on each individual transaction is also booked to each relevant subledger, which "shadows" the control account. If the individual balances of all the subledger accounts (say, one for every customer) are added up, they will equal the total balance in the control account (in this instance, the customer control account).
(e) The debits and credits of each general ledger account are totalled and the total/balance for each general ledger account taken to the trial balance.
(f) The various income and expense trial balance accounts are grouped together and used to prepare the income statement (statement of profit and loss and other comprehensive income), while the various asset, liability and equity accounts are grouped together and used to prepare the balance sheet (statement of financial position). These can be done monthly for management decisions or annually for reporting to various stakeholders.

4.2 Accounting transactions: from data to information (computerised process)

As we can see from the manual process, this entail a lot of work that people have to perform manually. Fortunately, the computer has made our lives a whole lot easier!

Refer to figure 7.2 throughout the following discussion:

FIGURE 7.2: Transactions: from data to information (computerised process)

In a computerised transaction processing system, the process is slightly different from a manual system, but the same data processed by a computer will produce the same information:
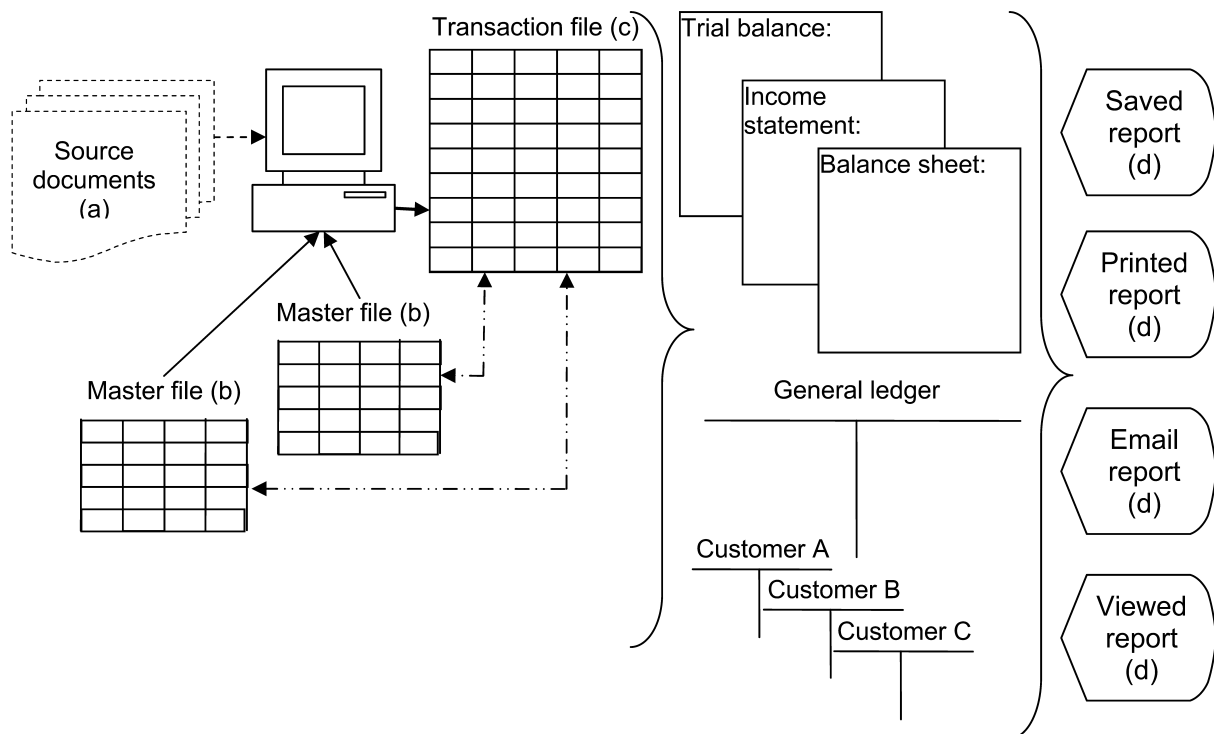
(a) <u>Selected</u> data from the handwritten source documents, such as sales orders or sales invoices, can be typed into the AIS on the computer to record the details of a transaction. However, the data could just as well be scanned in with a barcode scanner or typed directly in the AIS, as the transaction happens (thus without any physical source documents).

(b) The computer does <u>not</u> require <u>ALL the data</u> to be typed/scanned every time a transaction is entered, because a lot of data is already stored on the computer in the <u>master files</u>, such as the customer name and address in the customer master file and the inventory item description in the inventory master file.

(c) The sales <u>transaction file</u> will only record a reference/link to the particular <u>data records</u> in the master file and the other details pertinent to the particular transaction, such as the transaction number, date, quantity sold of each item and the price of each item. **The transaction file is the equivalent of the manual journals.** Refer back to study unit 2 in which transaction files are explained.

(d) What is different from a manual system, is that any time during the month a report with summary information can be printed, emailed, viewed on the computer screen or saved to a secondary storage device. The computer can reprint source documents and print transaction lists, general ledgers and subledgers, trial balances, income statements, balance sheets and much more – all in a fraction of the time used in a manual system. One only has to specify the type of report, the date ranges and other parameters and then the AIS quickly classifies, summarises, sorts and calculates the data contained in the transaction files and the linked master file records. Viewing different reports with different information from the same database is as easy as putting on multiple glasses each with different coloured lenses and then seeing different images, even though we are looking at the same picture.

NOTE:
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Many AISs still use the terms *"Income statement"* for the *"Statement of profit and loss and other comprehensive income"* and *"Balance sheet"* for the *"Statement of financial position".* Although in IFRSs the respective terms do not technically have exactly the same meaning, you can assume for the purposes of this module that these terms do have the same meaning.

IFRSs terms change regularly and it would be unfair to expect software companies to change their software so often.

In this study guide, when referring to actions taking place in AIS, the terms "balance sheet" and "income statement" will be used.

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5   An AIS in an organisation

Accounting software (such as Pastel) is an AIS. Although AIS differs from one software program to the next, the basic underlying principles of an accounting transaction processing system will be the same for all AISs. Different types of AIS, including Pastel, will be discussed in detail in topics 5 and 6 in this study guide.

Before we look in detail at each of the accounting cycles in the accounting transaction processing system, we first need to obtain a high-level overview of using AIS in an organisation.
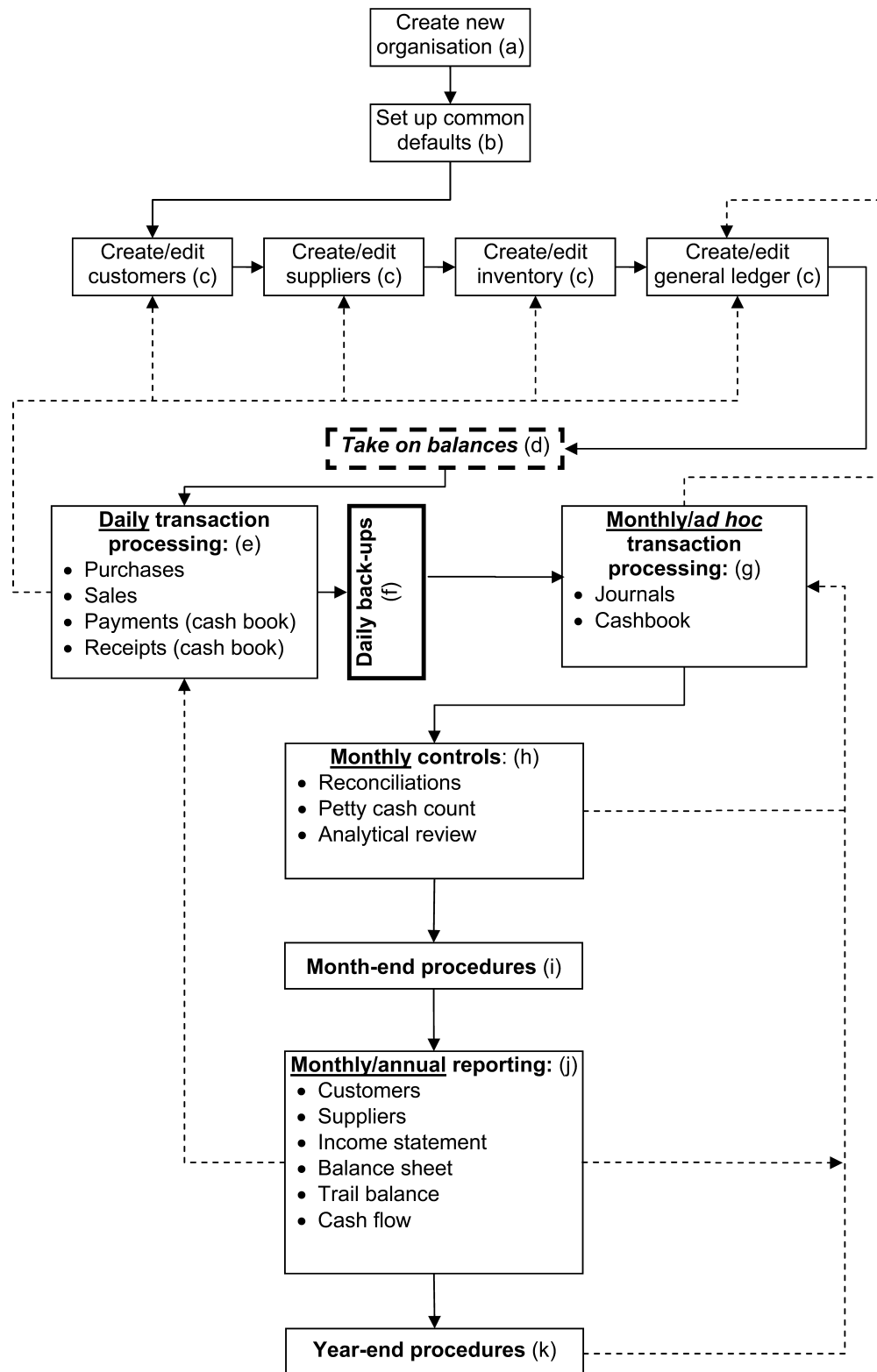
Refer to figure 7.3 throughout the following discussion:

FIGURE 7.3: Accounting transaction processing in an organisation

(a) When we decide to use AIS to process an organisation's financial data into information, we first have to **create (set up) the organisation** on the AIS by providing core organisational information. This information will be used on the documentation and reports as well as in transaction processing. This core setup information includes the following:

- *Organisational parameters.* These involve the following:
  - organisation details: name, address (postal and physical address), VAT number, telephone number and the different document number formats
  - formats: date entry format, default email format, amount format (currency symbol, decimal digits, 1 000 separator) – that is, how this information must be entered and displayed
  - multicurrency: if the organisation has international suppliers and/or customers
- *Periods.* The financial year (start and/or end date), number of accounting periods as well as the end date of each accounting period (last day of the month or same day each month) must be set up. Periods will be discussed in detail in study unit 15.
- *General ledger chart of accounts.* As we will see in study unit 13 each organisation must have a well-structured chart of accounts that suits the organisation's specific business model, IFRSs and regulatory requirements. A chart of accounts is similar to the format of the trial balance with the various account numbers and account names being specified.
- *Financial categories.* These categories are used in financial reporting and allow the software to place a general ledger account in the correct place on a balance sheet or income statement. All general ledger accounts must therefore be linked to a financial category. For example, the office equipment, computer and motor vehicle general ledger accounts will be linked to the "fixed asset category". The name given to financial categories may differ between the different AISs, but where it is placed on the balance sheet and income statement will be the same – for example, a financial category can be called "bank" or "cash and cash equivalents". Usually software allows the renaming of the description, but not for the changing of the underlying nature of the category.
- *Entry types.* Entry types are similar to the subsidiary journals in manual bookkeeping. The entry types created will be based on the organisation's needs.
- *Tax.* Bear in mind that because different countries have different tax regimes, most AISs already have built-in customisations for the different tax regimes applicable to that country. For example, when selecting South Africa as the country the organisation is trading in, VAT is already set up with the applicable VAT percentages.
- *Users and passwords.* Each individual user must be set up on the basis of his or her access. Authorisation rights and passwords must be assigned to each user. This is vital because it enforces segregation of duties.

(b) We will then need to **set up common default** data such as the following:

- types of document to be used by the organisation
- customised names, messages and numbers to be used for the various documents (such as payment on delivery)
- user defined fields (extra fields)
- control accounts for customers, suppliers and inventory
- default terms for customers and suppliers (such as trade discounts)
- descriptions of price lists to be used
- integration of inventory to the general ledger

This data will be available in the next step and will therefore limit the data that we will need to enter for each individual customer, supplier, inventory item and general ledger account, although we can still customise it for each one individually. If we specify

the information that remains the same upfront, we will not be required to retype that same information each time.

(c) Initially, we will **create** the **individual customers, suppliers, inventory items** and **general ledger accounts** needed, if not already available, or else edit and customise the existing general ledger accounts. We will enter information such as the following:

- code and name of the customer/supplier/inventory item/general ledger account
- contact details
- credit limits
- data required by the user defined field (as specified in step b – common details)
- inventory item prices per price list

We will also be able to modify the default terms for each customer and supplier (brought forward from step b), but this will only be necessary if there are special circumstances for that particular customer or supplier. For example, the default setting is that customers pay within 30 days, but the organisation's largest customer pays within 45 days.

Note the dashed lines on the diagram – we can always come back later and edit the details if circumstances should change.

(d) We will only need to do a **take** on of **balances** if the organisation has done business in the past and therefore already has assets, liabilities and customers that owe it money and suppliers who need to be paid.

We will use the organisation's existing trial balance, age analysis reports and bank reconciliation to bring the existing financial information into the new AIS. If, however, we have a newly established organisation, we will start with zero balances and the take on of balances will not be necessary.

Now the initial setup of the organisation on the AIS is complete. The setup information and the details of the customers, suppliers, inventory items and general ledger accounts are stored in the <u>database</u> of the accounting transaction processing system in several <u>master files</u>.

(e) The organisation will perform transactions between itself and its customers, suppliers and employees on a **daily** basis. These **transactions** will then be captured (prefer-ably daily) either online as they occur, or as a batch and then **processed** either in real time or as a batch. Refer back to study unit 1.

Capturing of transactions takes place as follows:

- inventory purchases from suppliers through the purchases journal
- sales to customers through the sales journal
- payments to suppliers for inventory and general expenses and receipts from customers through the cash book

The details of each transaction are stored in a separate data record in the <u>transaction file</u> and each transaction is linked to the relevant data record(s) in the related <u>master file(s)</u>. For example, the details of a sales transaction are entered into the sales transaction file and linked to the specific customer in the customer master file, as well as the specific inventory item(s) sold in the inventory master file.

Should the daily transaction capturing or processing require changes to the details of a customer, supplier, inventory item or general ledger account, this can be done.

For example, the delivery address of the customer to whom an inventory item is sold has changed and will be updated in the customer master file before the sales transaction is finalised; or a payment is made for entertainment, but an appropriate general ledger account for this expense does not currently exist and will be created before the payment transaction can be finalised.

(f) Financial information is critical for organisations and the importance of **daily backups** cannot be emphasised enough, especially when transactions are captured daily.

(g) Some transactions do not occur on a daily basis – for example, employee salaries are paid at the end of every month or processing errors need to be corrected. At the end of the **month** (or as and when the need arises on an ad hoc basis), the company will have to capture and **process** these **transactions.**

For example, salaries and monthly expenses (such as water and electricity and telephone) are captured and processed in the cash book at the end of the month. Another example would be transactions such as depreciation, provisions and corrections captured and processed through various journals at the end of the month or when required.

Any of these transactions may need changes to the details of a general ledger account, which will then first be edited before the transaction is finalised.

(h) To ensure that daily and monthly processing was accurate and complete and that all the transactions processed are valid and did occur (you will learn more about this in auditing) certain **controls** will be performed at **month-end.**

These will include the following:

- a *bank reconciliation* (comparison of your cash book information against the bank statement received from the bank)
- several *supplier reconciliations* (against the customer statements sent by the suppliers to the organisation – remember that the organisation is its supplier's customer)
- a comparison of the physical cash counted in the petty cash against the calculated petty cash balance in the general ledger *(petty cash reconciliation)*
- *reconciliations* of all other material balance sheet accounts and, if required, certain income statement accounts
- an *analytical* review of all <u>material</u> income statement accounts

Should errors be identified through this process, this will again result in ad hoc processing through journals or the cash book.

MATERIALITY OF AN ACCOUNT

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Bear in mind that materiality of a general ledger, customer, supplier or inventory account is not only based on the rand value balance of the account, but also on the nature of the account. For example, a general ledger suspense account may have a small nonmaterial balance at month-end, but may be material owing to the nature of a suspense account. Suspense accounts pose a high risk because they contain individual entries that are material on their own, but because these individual entries are netted off in one account, the balance may not be material. The concept of materiality will be explained in detail in auditing.

(i)   At **month-end,** certain extra **procedures,** over and above the controls mentioned in h, will be performed. These procedures include the following:

- All open batches must be *updated* to ensure that the financial information is complete.
- *The current accounting period* must be *"locked"* (after management accounts have been printed and distributed) and only transaction processing must be allowed for the new accounting period. "Locking" a period does not mean we can never process transactions to previous periods, but that we will only be able to do so after adhering to the proper controls. These controls will include management authorisation, an authorised person processing the transaction or an authorised person "unlocking" the previous period. Why is it important for management to know about changes to previous accounting periods' financial information? Management use financial information in decision making and must be aware of changes so that they can assess the impact of these changes on the organisation's business and past and current decisions. "Locking" a period also helps prevent staff members from mistakenly capturing transactions in the incorrect financial period.
- An extra month-end *backup* must be made (after all open batches have been updated).

(j)   At the end of the **month** as well as at **year-end,** we will also print various **reports.** The information in these reports will be used to make business decisions, but may also help to identify processing errors.

Processing errors will again result in ad hoc processing through journals or the cash book, or even the processing of transactions not yet captured through daily transaction processing.

Examples of reports usually printed at month- and/or year-end include the following:

- the *trial balance* used in, say, reconciliations
- *customer age analysis* used to identify overdue customers, processing errors, etc
- *customer statements,* which are sent to all customers either via post or email
- *supplier age analysis* used to identify processing errors, also used in supplier reconciliations, etc
- a *bank reconciliation*
- the individual *departmental, divisional and organisational financial management accounts* used by the different management levels for decision making and reporting

FINANCIAL MANAGEMENT ACCOUNTS

Management accounts usually include a statement of financial position (balance sheet) and a statement of profit and loss and other comprehensive income (income statement) for the reporting cluster the manager is responsible for. In other words, a divisional CFO or manager will only receive reports containing his or her division's results. Depending on management requirements, these statements are usually not full IFRSs compliant statements, but will only contain adjustments needed for management to run the organisation's business. Accountants must make sure they know what management's requirements are and what the management accounts will be used for to ensure that correct and usable management reports are created.

NOTE:
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When printing reports, one should always consider the environment. Instead of using a physical printer to print reports on paper, one should use a virtual printer such as Microsoft Office Document Image Writer (creates .tif and .mdi files), Microsoft XPS Document Writer (creates .xps files) or Cutepdf (creates .pdf files) to create a nonmodifiable virtual (electronic) files. It is essential to only print to a virtual printer file format that creates electronic files that cannot be changed or edited. Printing to a modifiable file format such as Microsoft Word or Microsoft Excel creates a risk and/or opportunity for fraud and misrepresentation of information. Section 2 in study unit 15 will explain how to install and print to a virtual printer.

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(k)   At **year-end,** in addition to performing the normal month-end controls (h), procedures (i) and printing month-end reports (j) for the last accounting period in the financial year, we will also perform special **procedures.** These procedures include the following:

- updating all open batches
- printing detailed ledger reports (transaction reports) for the full financial year
- printing all other reports which are deemed necessary (the organisation's management, auditors, and/or regulatory bodies might have specific reports they require to be printed at year-end)
- revaluating foreign currencies (if used by the organisation)
- processing the required IFRSs adjustments
- making an extra year-end backup
- running the AIS's official year-end procedure. This official year-end procedure includes the following:

  – *General ledger income statement account totals.* Current financial year balances, per individual general ledger account, are moved to the "previous" year balances. Pastel Partner AIS calls the "previous" year, "last" year, so these can be used as comparative amounts for the new financial year. Current income statement totals are set to zero during the calculation of the profit or loss for the year and posted to the retained earnings general ledger account. As we know, all debit and credit entries must balance – hence in order to post the profit or loss to retained earnings (balance sheet account), all income statement balances will be zeroed (see your financial accounting prescribed book). Current year budgets are moved to the previous year's budgets.
  – *General ledger balance sheet account balances.* For each individual balance sheet account, the previous year's balances consolidate as one total. The current financial year balances move to the previous year and become the opening balance for the new financial year. Current year budgets are moved to the previous year's budgets.
  – *Customer and supplier balances.* For each individual customer and supplier account, the previous year's balances consolidate as one total and the current financial year balances move to the previous year. The current financial year's sales and purchase balances are moved to the previous year. The current financial year's balances (Pastel Partner calls the current financial year, "this" year) and sales and purchases values are zeroed.
  – *General ledger, customer and supplier transactions.* The previous year's transactions are moved to a separate history file (for reference purposes) and the current year's transactions become the previous year's transactions. The software creates a new, empty transaction file for the new financial (current) year.

- *Inventory.* Costs, sales and quantity values for the current financial year are accumulated into the previous year's totals and the current year's values are zeroed.
- *Periods.* In the period table, the financial year is increased by one year and, if applicable, the period-end dates are adjusted for a leap year.
- The transactions in the *inventory history file* and *matched open item history file* are not deleted or consolidated.
- After running the organisation's AIS official year-end procedure, the software will now be ready to capture the transactions for the new financial year.

Bear in mind that we can still post adjustments and accruals to the previous financial year after the official year-end procedure has been run. We do not need to wait to complete all the financial entries before moving on to the new financial year. As with month-end, it is vital to have proper controls in place for processing entries in the previous financial year.

6   Summary

In this study unit we learnt about an accounting transaction processing system in an organisation and how data is processed into information, both manually and by means of computers. In the next study unit, we will learn in detail how transaction processing works in the revenue and receipt cycle.

Self-assessment activity

After working through this study unit, you should be able to answer the following questions:

(a) Define a transaction processing system and an accounting transaction processing system.
(b) Explain the difference between a financial and nonfinancial transaction.
(c) List the different accounting cycles.
(d) Describe how data is processed into information in a manual process.
(e) Describe how data is processed into information in a computerised process.
(f) If presented with figure 7.3, would you be able to fill in the missing information in the figure?
(g) Explain accounting transaction processing in an organisation.
(h) Describe the controls, procedures and reports printed at month-end.
(i) Describe the extra measures taken at year-end and the official year-end procedures.

Revenue and receipts cycle

In this study unit

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                    ┌─────────────────────────────┐
                    │  Revenue and receipts cycle │
                    └─────────────────────────────┘
          ┌──────────────────┼──────────────────┐
          ▼                  ▼                  ▼
   ┌──────────────┐  ┌──────────────────┐  ┌──────────────┐
   │   Revenue    │  │ Customer returns │  │   Receipts   │
   └──────────────┘  └──────────────────┘  └──────────────┘
          ▼
   ┌──────────────────┐
   │ Quotation process│
   └──────────────────┘
          ▼
   ┌──────────────────┐
   │Sales order process│
   └──────────────────┘
          ▼
   ┌──────────────────┐
   │ Delivery process │
   └──────────────────┘
          ▼
   ┌──────────────────┐
   │  Billing process │
   └──────────────────┘
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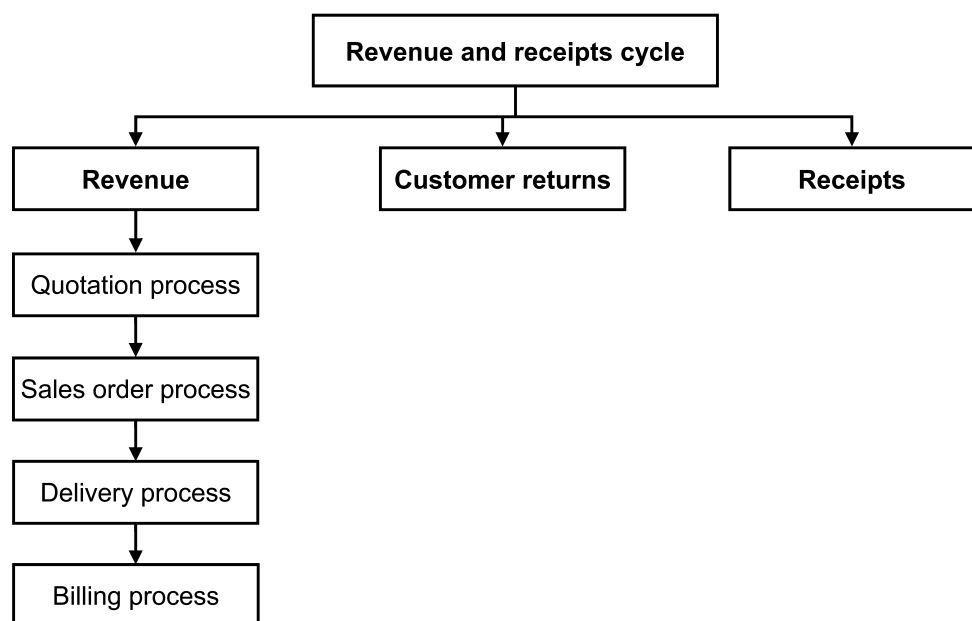
1   Introduction

In the previous study unit, we learnt about general accounting transaction processing. In this study unit, we will focus on how the organisation's revenue and receipts are recorded in an AIS. All organisations receive revenue of some sort. This revenue may be the result of the sale of capital assets, such as a building, or from normal business activities such as the sale of inventory or the rendering of services. The organisation must also receive money for items sold or services rendered, because without money an organisation cannot exist.

In this study unit, we will learn which documents are used, which database files are accessed, updated or modified, which reports can be printed and some of the basic underlying accounting entries. We will not discuss the audit environment and controls relating to this cycle as you will learn about these in auditing. For details of the IFRSs requirements, see the financial accounting modules. This study unit will be based on the retail, wholesale and manufacturing organisations and will not address the revenue and receipt cycle of specialised industries such as financial services, health care, government and so forth.

Because most organisations are registered for VAT on the invoice basis, all VAT implications discussed in this study unit will be based on the invoice basis.

For all accounting transactions shown in this study unit, it was assumed that the organisation is a registered VAT vendor and goods/services sold are subject to standard VAT.

Use your financial accounting and tax knowledge to make the necessary adjustments to the accounting entries where the organisation is not a registered VAT vendor and/or goods/ services sold are not subject to standard VAT.

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2   Revenue

Organisation's business processes differ from each other and the accounting information system (AIS) they use also differs. The AIS used in each organisation is tailored to the specific organisation's requirements. We will therefore only discuss the generic revenue processes, but note that although the basic principles will be more or less the same, there may be small differences between different AISs.

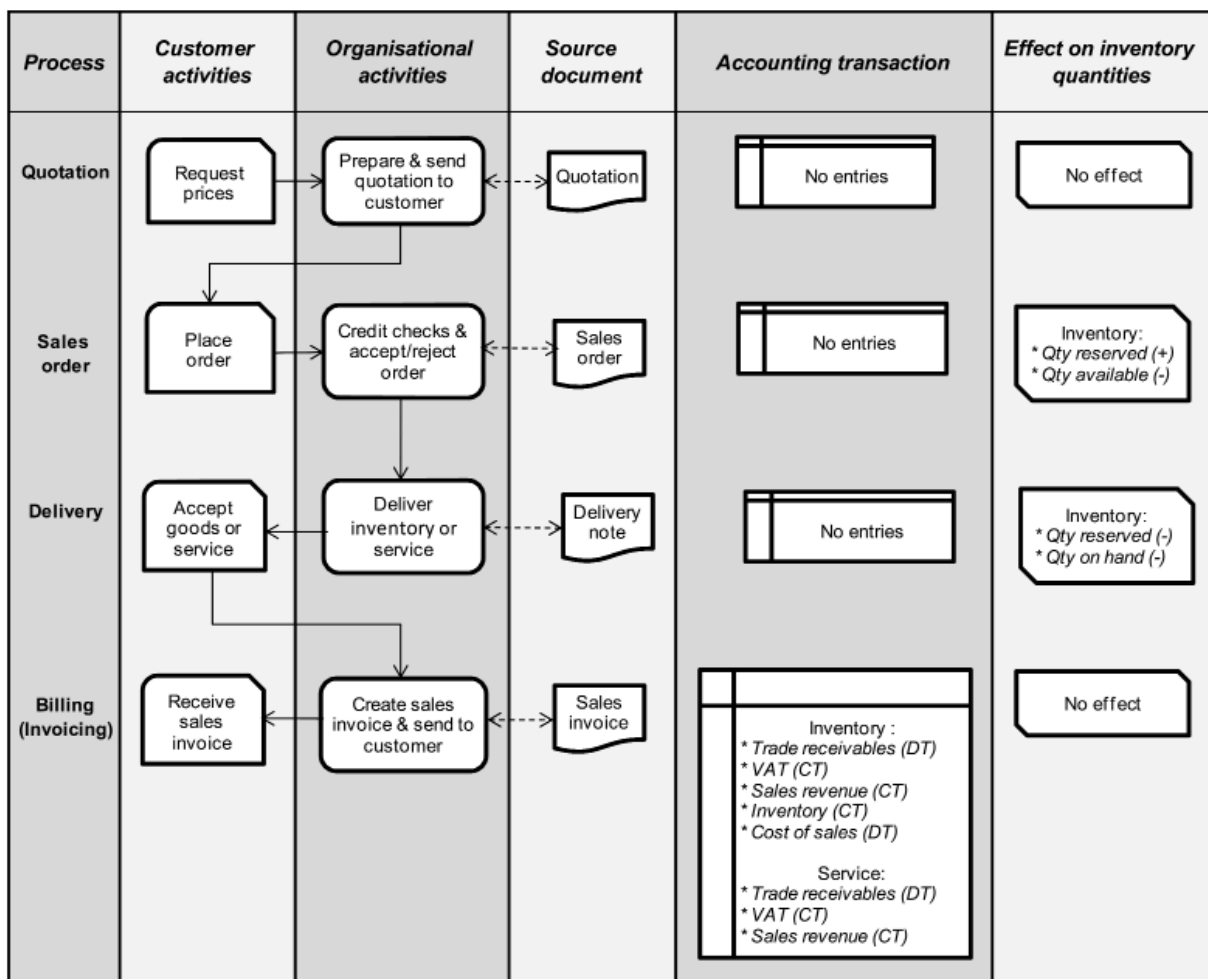| Process	Customer activities	Organisational activities	Source document	Accounting transaction	Effect on inventory quantities
Quotation	Request prices	Prepare & send quotation to customer	Quotation	No entries	No effect
Sales order	Place order	Credit checks & accept/reject order	Sales order	No entries	Inventory: * Qty reserved (+) * Qty available (-)
Delivery	Accept goods or service	Deliver inventory or service	Delivery note	No entries	Inventory: * Qty reserved (-) * Qty on hand (-)
Billing (Invoicing)	Receive sales invoice	Create sales invoice & send to customer	Sales invoice	Inventory : * Trade receivables (DT) * VAT (CT) * Sales revenue (CT) * Inventory (CT) * Cost of sales (DT) Service: * Trade receivables (DT) * VAT (CT) * Sales revenue (CT)	No effect

FIGURE 8.1: Generic revenue process

The fact that there are no **accounting entries** for some of the processes, does not mean there are no **data entries** (either on a manual document or on the computer). Accounting entries are determined by IFRSs rules – for example, a sale takes place when risk is transferred. However when a quotation is processed it will generate a data entry but not an accounting entry.

Refer to figure 8.1 throughout the discussion below.

2.1 Quotation process

- *Customer activities*

   Customers can request quotations from the organisation to determine how much their order may cost them, when inventory can be delivered and/or if inventory is available. It is not a requirement that a customer must always first request a quotation because customers can directly place an order with the organisation.

- *Organisational activities*

   On request from a customer, the organisation will create a quotation and send (fax, email, post, online, etc) it to the customer. Sending a quotation to a customer does not place the customer under a legal obligation to order the items.

- *Source documents*

   Request for quotation received from the customer. This request can be received electronically (email, online request, etc), manually (completed form, letter, fax, etc) or verbally.

   The organisation will create a *quotation* (source document) for the customer. When creating a quotation, the organisation should preferably include an expiry date (ie until what date the quotation will be valid).

- *Accounting transactions*

   Because no accounting transaction has taken place, *no* general ledger accounting entries have been processed.

- *Inventory quantities*

   Because no transaction has taken place, there is *no* impact on inventory quantities.

- *AIS database files*

   Some of the database files accessed, updated or modified to compile the quotation will include the following:

   - the *customer master file:* customer details (ie code, address, etc)
   - the *inventory master file:* inventory item codes, inventory description, unit size, etc
   - the *VAT reference file:* applicable VAT rate
   - the *inventory price reference file:* price structures for the inventory items

– the *quotation transaction file:* the quotation details are captured for reference purposes even though no official transaction has taken place. All the above-mentioned information is either captured or referenced in this quotation file, together with the date and quotation number.

- *AIS reports*

An *outstanding quotation report* can be printed to show all quotations not yet converted into a sales order (see section 2.2) and which have not yet reached their expiry dates. This report can be used to check that all quotations that should have been converted to sales orders were in fact converted. The sales team can also use this report to follow up with customers in an attempt to persuade them to accept the quotation and place an order.

2.2 Sales order process

- *Customer activities*

The customer accepts the quotation (or part thereof) and places an order for the inventory items to be delivered and/or services to be rendered.

- *Organisation action*

On receipt of the customer's order (electronically, manually or verbally), the organisation will do a credit check to ensure the sale to the client will not result in the client exceeding his or her credit limit. The credit limit check is normally an automatic control (if it was set up correctly) built into the AIS – that is, the AIS will automatically warn if a customer is about to exceed his or her credit limit. A credit limit can be exceeded temporarily as a result of, say, a receipt or credit note not yet processed. The AIS supervisor will normally have the authority to process (overwrite) and accept transactions that temporarily exceed a credit limit. The organisation's procedures for establishing credit limits should be followed if the customer's credit limit needs to be increased.

On receipt of the customer's order, the organisation also checks that it will be able to deliver the required inventory items or/and service required. If all the inventory items are not available, the organisation can, with the customer's approval, process an adjusted sales order for only the inventory items available or create a sales order for the full order placed by the client and a back order will be created for the items that cannot be delivered. A back order shows all the items ordered by the customer, but which the organisation cannot currently provide to the client.

The organisation will now create a *sales order* or, if the customer accepted a quotation, convert the quotation into a sales order and close the *quotation.*

- *Source documents*

An *accepted quotation or a new order* is received from the customer. The *accepted quotation* or a *new order* will be received in a format agreed with the customer or required by the organisation. For example, the organisation will only accept orders submitted on the customer's official order form. A *sales order* (AIS document) will be created for the order placed and/or quotation accepted by the customer.

• •

An open source document is not linked or matched to another source document or transaction. A *closed source document* has been linked or matched to another source document or transaction. For example, a quotation that was linked to a sales order will be a closed quotation, while a quotation not yet linked will be open.

• •

- • *Accounting transactions*

  No transaction has taken place and therefore *no* accounting entries have been processed.

  In some instances, the organisation may require a deposit before the order will be executed. The accounting entries will be the same as those for a normal cash receipt (see section 4).

- • *Inventory quantities*

  No physical movement of inventory items has taken place, but inventory items have been committed (ie reserved for a specific client). In the organisation's warehouse information system as well as in the AIS, the inventory *quantity reserved* will increase and the inventory *quantity available* for sale will decrease. This artificial movement in quantity is necessary because the organisation cannot sell inventory items already promised to a client.

- • *AIS database files*

  The following are some of the database files accessed, updated or modified to compile the sales order:

  - – the *customer master file:* customer details (ie code, address, etc)
  - – the *inventory master file:* inventory item codes, inventory description, unit size, quantity reserved, quantity available, etc
  - – the *VAT reference file:* applicable VAT rate
  - – the *inventory price reference file:* price structures for the inventory items
  - – the *sales order transaction file:* document number, date, client code, inventory code, inventory description, quantity, etc
  - – the *quotation transaction file:* where a quotation existed, the quotation transaction file will be accessed for all the above-mentioned information. Changes will be made where necessary (if only a part of the quotation is accepted) and the date added. The quotation file will be updated to reflect the new status.

- • *AIS reports*

  An *outstanding/open sales order report* can be printed to show all sales orders not yet converted into delivery notes and/or sales invoices (see sections 2.3 and 2.4). This report can be used to ensure that all orders are completed.

2.3 Delivery process

- • *Organisational activities*

  The organisation must now complete all sales orders (ie the goods must be delivered). *Sales orders* received, but not yet filled, are known as *open sales orders.*

As far as the inventory items ordered are concerned, they will be retrieved (picked) from the warehouse using a *picking slip,* which was created using the *sales order.* The inventory items are packed and a *delivery note* (also called a *packing slip*) attached to the package. The package is then delivered or shipped to the customer with the delivery note, which the customer must sign as proof that the inventory items were received. You will learn more about this internal control in auditing.

For shipments, a carrier will transport the package to the customer for which a *bill of lading* is used.

In most organisations, the warehouse information system will manage the picking, packing, delivery and/or shipment process of inventory items. You will learn more about these processes in auditing. In the AIS, a delivery note will be created and linked to the sales order and the sales order will be closed.

With regard to the services requested, the organisation will now render the services.

- ***Customer activities***

  The customer receives the inventory items delivered and sign the *delivery note.* For services rendered, the customer will sign a *service acceptance document,* in most instances, the sales order form. This will indicate that the customer did receive the service and that he or she is satisfied with the service rendered.

- ***Source documents***

  The source documents printed and used in the delivery process are based on the information in the sales order (and sales order transaction file). Each document, however, is used for a different internal purpose.

  The *picking slip* (warehouse information system document) lists the inventory codes, descriptions, quantities and, in certain instances, also the location in the warehouse(s) of the inventory items. The picking slip will also include the sales order number and, in some instances, the customer name. This will enable staff to "pick" the items to be delivered.

  The *delivery note/packing slip* (warehouse information system and AIS document) indicates the customer name, the delivery address, a description and the quantity of inventory items included in the package. The delivery note also includes the sales order number and any customer reference number reflected on the customer's order. Two documents are usually printed. One for the customer to retain and the other to be signed and returned to the organisation.

  A *bill of lading* (third-party document) is a legal agreement between the organisation and the carrier and includes the customer name, delivery address, organisation's details, special shipping instructions (ie fragile), a description and weight of the package, etc.

  Picking slips and *delivery notes* usually do not indicate the value of the inventory items delivered.

  A *service acceptance document* indicates when, by whom and the type of service rendered, and if the quality is accepted. The sales order is generally used for this purpose and functions in the same way as the delivery note.

- *Accounting transactions*

  In most instances, ownership is only transferred when the inventory items are physically under the customer's control, that is, when risk has been transferred from the organisation to the customer. There are *no* accounting entries at this stage.

  As you will learn in financial accounting, there are exceptions to this because of the method of shipment. If the transfer of ownership/risk occurs, when the inventory items leave the warehouse, the transactions recorded under (invoice/billing) should occur now because risk has transferred even though the customer has not yet received the inventory items. Some AIS systems are not set up to process the accounting transactions at delivery and therefore organisations will record the corresponding sales invoice at the same time as the delivery note to ensure that the timing of the accounting entries is correct. This is more of a timing issue relating to the recording of the transactions.

- *Inventory quantities*

  The inventory *quantity on hand* will decrease as the inventory items are now physically removed from the warehouse. The sales order is now fulfilled and the inventory *quantity reserved* will also decrease. Remember: quantity on hand = quantity available + quantity reserved.

- *AIS database files*

  Some of the database accessed, updated or modified will include the following:

  - the *customer master file:* customer details (ie code, name, delivery address, etc)
  - the *inventory master file:* inventory item codes, inventory description, unit size, quantity reserved, quantity on hand, etc
  - the *delivery note transaction file:* delivery note number, client code, inventory code, inventory description, quantity, etc
  - the *inventory transaction file:* delivery date, inventory code, quantity, etc
  - the *inventory history file:* summarised inventory movements from previous inventory transaction files
  - the *sales order transaction file:* where a sales order existed, the sales order transaction file will be accessed for all the above-mentioned information. Changes will be effected where necessary and the date added. The sales order file will be updated to reflect the new status.

- *AIS reports*

  A variety of reports, including the following, can be printed:

  - An *open delivery note report* can be printed to show all delivery notes created that have has not yet been linked to sales invoices (see section 2.4). This report can be used to ensure that all inventory items delivered are invoiced.
  - *Delivery tracking reports* can be used to track the delivery of inventory items to customers (ie when was orders received and items picked, packaged and shipped).
  - *Inventory quantity reports* will show inventory quantities reserved, available and on hand.

2.4 Billing process

- *Organisational activities*

  The team responsible for customer billing will receive the signed delivery note. They will capture any updated delivery note information, and a sales invoice will be created by converting the delivery note into a sales invoice. The complete delivery note will then be closed. (For services, the sales order form will be converted into a sales invoice). The sales invoice is sent to the customer for payment. The sales invoice will only be closed in the AIS when payment has been received according to the invoice from the customer.

- *Customer activities*

  The customer receives the sales invoice and is obliged to pay the invoice based on the agreed terms. The payment received is captured in the receipts part of this cycle.

- *Source documents*

  A sales invoice includes the following: the organisation's details; the customer's name, address and contact details, the payment date; per inventory item/service an item/ service description, unit size, quantity, amount per unit, item discount (if applicable), total amount per item; invoice discount (if applicable); VAT, (if applicable); total invoice amount; any messages to the client, etc. A sales invoice is also known as a tax invoice where the organisation is registered for VAT. There are specific SARS requirements for tax invoices to be valid such as the words "Tax invoice" and the organisation's VAT number; the customer's VAT number must also be included if the value of the invoice is more than R3 000, etc. You will learn in your taxation studies about all the requirements for a valid tax invoice.

- *Accounting transactions*

  The sales journal will be used to capture the sales transactions. The organisation can grant a trade discount to its customers. Any trade discount granted to a customer is not recorded separately, the discount amount must be netted off (ie deducted from) the revenue (sale) and the trade receivables or bank amount recorded.

TRADE DISCOUNT AND SETTLEMENT DISCOUNT GRANTED

Trade discount granted is where the organisation gives a discount on a specific item or the complete invoice to its customer as a result of the quantity ordered, a "sale", etc. For example, the customer received 5% discount for quantities more than 500 or the customer received 2% on all invoices. Trade discount is not the same as a settlement discount.

Settlement discount granted, also referred to as early payment discount granted, is applicable on credit sales only and is a discount granted to a customer if he or she pays the invoice before an agreed date. For example, the customer can receive 2.5% discount if the invoice is paid five days after the period ends in which it is recorded or a customer can receive 4% discount if the invoice is paid six days after the invoice was issued. You will learn about determining a discount percentage during your later management accounting studies.

The sales invoice will result in the following accounting entries where a perpetual inventory system is used:

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Inventory sale on credit			
Trade receivables	BS – asset	Dt	Sale amount *including* VAT (net of any trade discount granted)
VAT	BS – liability	Ct	VAT amount (based on the sale amount net of any trade discount granted)
Sales revenue	IS – revenue	Ct	Sale amount *excluding* VAT (net of any trade discount granted)
Inventory	BS – asset	Ct	Amount based on inventory valuation method *excluding* VAT
Cost of sales	IS – expense	Dt	Amount based on inventory valuation method *excluding* VAT
Inventory sale for cash			
Bank	BS – asset	Dt	Sale amount *including* VAT (net of any trade discount granted)
VAT	BS – liability	Ct	VAT amount (based on the sale amount net of any trade discount granted)
Sales revenue	IS – revenue	Ct	Sale amount *excluding* VAT (net of any trade discount granted)
Inventory	BS – asset	Ct	Amount based on inventory valuation method *excluding* VAT
Cost of sales	IS – expense	Dt	Amount based on inventory valuation method excluding VAT
Service sale on credit			
Trade receivables	BS – asset	Dt	Sale amount *including* VAT (net of any trade discount granted)
VAT	BS – liability	Ct	VAT amount (based on the sale amount net of any trade discount granted)
Sales revenue	IS – revenue	Ct	Sale amount *excluding* VAT (net of any trade discount granted)
Service sale for cash			
Bank	BS – asset	Dt	Sale amount *including* VAT (net of any trade discount granted)
VAT	BS – liability	Ct	VAT amount (based on the sale amount net of any trade discount granted)
Sales revenue	IS – revenue	Ct	Sale amount *excluding* VAT (net of any trade discount granted)

- *Inventory quantities*

  The billing process will have no influence on inventory quantities.

- *AIS database files*

  Some of the database files accessed, updated or modified will include the following:

  – the *customer master file:* customer details (ie code, name, delivery address, year to date sales, outstanding balance, etc)
  – the *inventory master file:* inventory item codes, inventory description, unit size, price per unit, year to date sales, etc
  – the *sales transaction file:* sales invoice number, invoice date, client code, inventory code, inventory description, quantity, price per unit, VAT amount, discount %, discount amount, line item amount, total amount, etc
  – the *VAT reference file:* VAT % per tax type
  – the *VAT transaction file:* VAT transactions
  – *several general ledger master files:* storing new general ledger account balances
  – *general ledger transaction files:* details of each transaction recorded in the general ledger
  – the *delivery note transaction file:* where a delivery note existed, the delivery note transaction file will be accessed for all the above-mentioned information. Changes will be effected where necessary and the date added. The delivery note transaction file will be updated to reflect the new status.

- *AIS reports*

  A variety of reports can be printed, such as the following:

  – *sales analysis reports* which can be extracted on the basis of sales per customer, item, journal, sales agent, etc
  – *customer statements and customer age analysis* based on the customer's processing method (ie balance forward or open item) (we will learn about balance forward or open item processing methods in topic 6)
  – *VAT reports* showing the output VAT for all sales transactions
  – *general ledger account details* showing the accounting entries for the selected general ledger accounts
  – the *customer detail ledger* showing the detail of transactions processed in each customer's trade receivables subledger account

Activity 8.1

Yummy Sweets (Pty) Ltd issued the following sales invoices during April 201X. The money relating to cash sales is received immediately. Any applicable trade discount has not yet been taken into account in the "Total sales including VAT" amounts. Yummy uses a perpetual inventory system.

Yummy uses the following general ledger accounts for sales, cost of sales and inventory.

- Sales revenue – Hard candy
- Sales revenue – Soft candy
- Cost of sales – Hard candy
- Cost of sales – Soft candy
- Inventory – Hard candy
- Inventory – Soft candy

Customer	Invoice number	Item	Total sales *including* VAT	Total cost of sales *excluding* VAT	Cash or credit sale	Trade discount %
Cash sale	INV8745	Hard candy	R 256.50	R 90.00	Cash	No
	INV8745	Soft candy	R 91.20	R 40.00	Cash	No
Mr S Ucker	INV8846	Hard candy	R 1,995.00	R 700.00	Credit	No
	INV8846	Soft candy	R 1,254.00	R 550.00	Credit	10%

Draw the table below and use it to record the accounting entries in the general ledger master file for the transactions indicated above. You should show all the applicable accounting entries. (The accounting entries can be recorded in a summary or in detail.)

General ledger description	Debit/Credit	Amount

Hint: Draw the T-accounts, as rough work, to ensure that the debits and credits are correct.

The suggested solution below shows the T-accounts (rough work) in detail and summarised information in the journal. Both methods are acceptable (ie detailed or summarised information). Use the method you find the easiest.

General ledger description	Debit/ Credit	Amount	Calculation
Sales revenue – Hard candy	Credit	R1,975.00	Cash sale excluding VAT: R256/1.14 = R225.00 Mr S Ucker (credit sale) excluding VAT: R1,995.00/1.14 = R1,750.00 Total sale: R225.00 + R1,750.00 = R1,975.00
Sales revenue – Soft candy	Credit	R1,070.00	Cash sale excluding VAT: R91.20/1.14 = R80.00 Mr S Ucker (credit sale) excluding VAT before discount: R1,254.00/1.14 = R1,100.00 10% trade discount deducted: R1,100.00 – (R1,100.00* 10%) = R990.00 Total sale: R80.00 + R990.00 = R1,070.00
VAT	Credit	R426.30	Sales * VAT %: Hard candy: R1,975.00 * 14% = R276.50 Soft candy: R1,070.00 * 14% = R149.80 Total VAT: R276.50 + R149.80= R426.30
Trade receivables	Debit	R3,123.60	Credit sale – Mr S Ucker (incl VAT): Total amount including VAT before discount = R1,995 (hard candy) + R1,254 (soft candy) = R3,249.00 10% trade discount on soft candy deducted: R3,249 – (R1,254 *10%) = R3,123.60
Bank	Debit	R347.70	Cash sale (including VAT): R256.50 (hard candy) + R91.20 (soft candy) = R347.70
Inventory – Hard candy	Credit	R790.00	Inventory value excluding VAT: R90.00 (cash sale) +R700.00 (credit sale) = R790.00
Cost of sales – Hard candy	Debit	R790.00	
Inventory – Soft candy	Credit	R590.00	Inventory value excluding VAT: R40.00 (cash sale) +R550.00 (credit sale) = R590.00
Cost of sales – Soft candy	Debit	R590.00	

T- accounts (rough work)

Trade receivables (TR)

Dt			Ct		
INV8846	SR - Hard	R 1,750.00	INV8846	SR - Soft (discount)	R 110.00
INV8846	SR - Soft	R 1,100.00	INV8846	VAT (discount)	R 15.40
INV8846	VAT (Hard)	R 245.00			
INV8846	VAT (Soft)	R 154.00			
				Balance carried down (c/d)	R 3,123.60
		R 3,249.00			R 3,249.00

Bank

Dt			Ct		
INV8745	SR - Hard	R 225.00			
INV8745	SR - Soft	R 80.00			
INV8745	VAT (Hard)	R 31.50			
INV8745	VAT (Soft)	R 11.20			
		R 347.70			

Sales Revenue - Hardy candy (SR - Hard)

Dt			Ct		
			INV8745	Bank	R 225.00
			INV8846	TR	R 1,750.00
					R 1,975.00

Sales Revenue - Soft candy (SR- Soft)

Dt			Ct		
INV8846	TR (discount)	R 110.00	INV8745	Bank	R 80.00
			INV8846	TR	R 1,100.00
Balance c/d		R 1,070.00			
		R 1,180.00			R 1,180.00

Cost of Sales - Hard candy (CoS - Hard)

Dt			Ct		
INV8745	Inv - Hard	R 90.00			
INV8846	Inv - Hard	R 700.00			
		R 790.00			

Inventory - Hard candy (Inv - Hard)

Dt			Ct		
			INV8745	CoS - Hard	R 90.00
			INV8846	CoS - Hard	R 700.00
					R 790.00

Cost of Sales - Soft candy (CoS - Soft)

Dt			Ct		
INV8745	Inv - Soft	R 40.00			
INV8846	Inv - Soft	R 550.00			
		R 590.00			

Inventory - Soft candy (Inv - Soft)

Dt			Ct		
			INV8745	CoS - Soft	R 40.00
			INV8846	CoS - Soft	R 550.00
					R 590.00

VAT

Dt			Ct		
INV8846	TR (Soft - discount)	R 15.40	INV8745	Bank (Hard)	R 31.50
			INV8745	Bank (Soft)	R 11.20
			INV8846	TR (Hard)	R 245.00
			INV8846	TR (Soft)	R 154.00
Balance c/d		R 426.30			
		R 441.70			R 441.70

3   Customer returns

There are many reasons why a customer would want to return inventory items. The items may have a defect, the incorrect items may have been delivered, too many items may have been delivered and so on. The rules of what items may be returned will be determined by the organisation's policies, and must be communicated to the customer as early as the quotation and/or order stage. This process can also be used if a customer was incorrectly invoiced for items that were not delivered, although this is highly unlikely if the proper controls were in place.
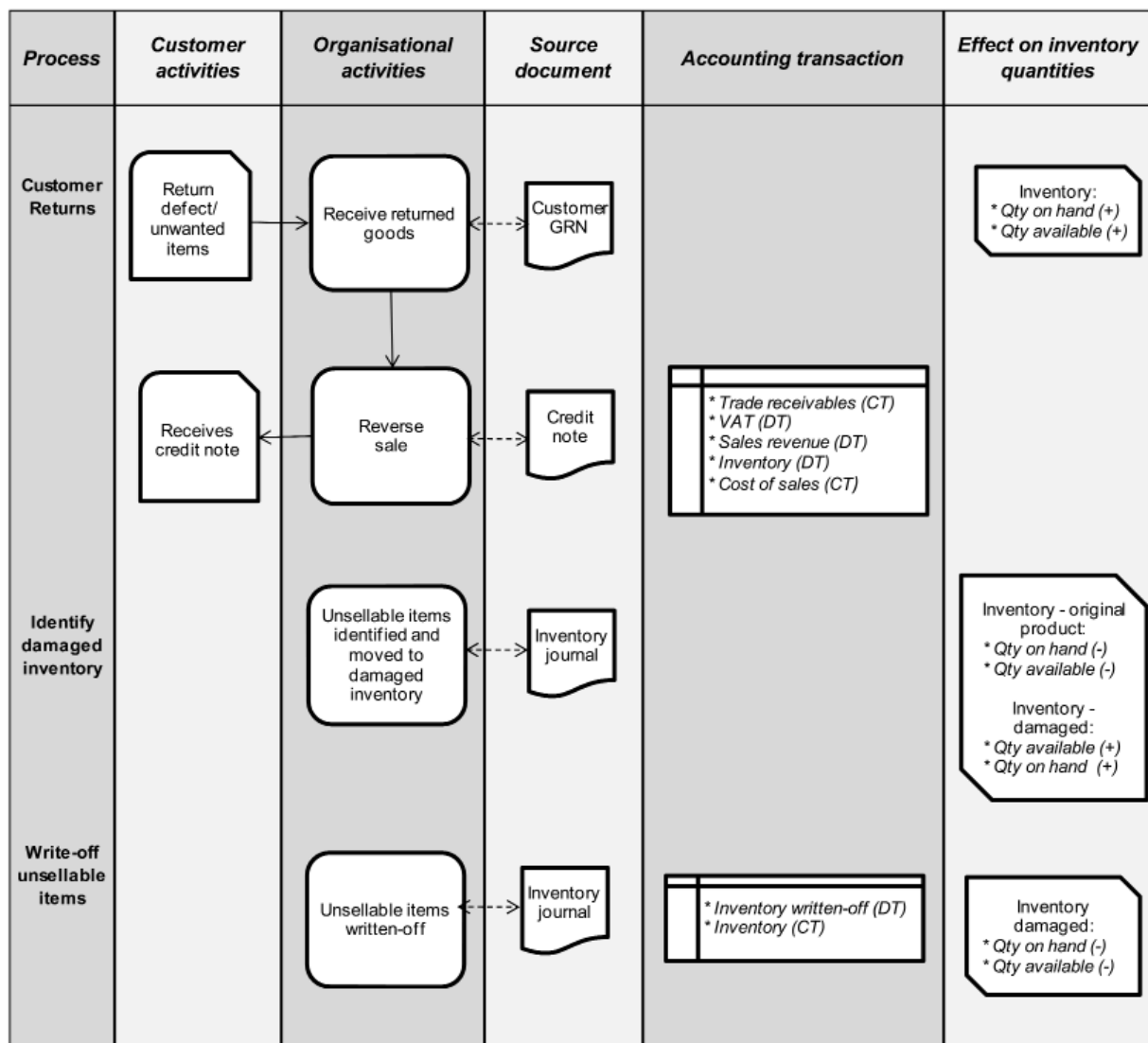
Process	Customer activities	Organisational activities	Source document	Accounting transaction	Effect on inventory quantities
Customer Returns	Return defect/ unwanted items	Receive returned goods	Customer GRN		Inventory: * Qty on hand (+) * Qty available (+)
	Receives credit note	Reverse sale	Credit note	* Trade receivables (CT) * VAT (DT) * Sales revenue (DT) * Inventory (DT) * Cost of sales (CT)	
Identify damaged inventory		Unsellable items identified and moved to damaged inventory	Inventory journal		Inventory - original product: * Qty on hand (-) * Qty available (-) Inventory - damaged: * Qty available (+) * Qty on hand (+)
Write-off unsellable items		Unsellable items written-off	Inventory journal	* Inventory written-off (DT) * Inventory (CT)	Inventory damaged: * Qty on hand (-) * Qty available (-)

FIGURE 8.2: Generic customer returns process

Refer to figure 8.2. throughout the following discussion

- ***Customer activities***

    The customer returns the defective or unwanted inventory items.

- ***Organisational activities***

    The returned inventory items are received and taken back into inventory. The warehouse will issue a "customer goods returned" note. This note will be used to create the credit note in the AIS. The credit note must be linked to the original sales invoice – that is, the sales invoice where the items were originally billed to the customer. The credit note is sent to the customer. The sales invoice and linked credit note will be open until payment has been received from the customer.

- ***Source document***

    Over and above the information usually reflected on a sale invoice, the *credit note* will also indicate the applicable sale invoice number. Although there is normally no

"customer goods returned" note in the AIS, the warehouse information system should issue such a document that will be similar to a "goods received note" (see study unit 9 section 2.2) which is used when items are received from suppliers, in order to control inventory items received into the warehouse. Bear in mind that if a line item or invoice discount (ie trade discount) was granted on the original sales invoice, the same discount, if applicable to the returned items, should also be captured on the credit note.

- *Accounting transactions*

  Bear in mind that if any trade discount was applicable on the original sales invoice, this discount will have been recorded by netting it off against the sales and accounts receivable amounts. The credit note accounting entries must therefore follow the same principle as the original transaction – that is, any trade discount must be netted off (deducted) from the sales revenue and accounts receivable amounts.

  The accounting entries are recorded when the risk of the inventory items was transferred back to the organisation that is, the organisation receives the returned items.

  The credit note will result in the following accounting entries where a perpetual inventory system is used and the original sale was on credit:

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Customer return: Inventory sold on credit			
Trade receivables	BS – asset	Ct	Sale return amount *including* VAT (net of any trade discount granted on the inventory returned)
VAT	BS – liability	Dt	VAT amount (based on the sale amount net of any trade discount granted on the inventory)
Sales revenue	IS – revenue	Dt	Sale return amount *excluding* VAT (net of any trade discount granted on the inventory)
Inventory	BS – asset	Dt	Amount based on inventory valuation method *excluding* VAT
Cost of sales	IS – expense	Ct	Amount based on inventory valuation method *excluding* VAT

Note: The transactions above are the exact reversal of the sales transaction.

Although the likelihood is slim, there is a possibility that payment was received from the customer for credit sales, before the items were returned. If the settlement discount was granted on the payment of the items that have now been returned, this the settlement discount must now also be reversed. The reversal of this transaction should be recorded in a separate journal because the VAT effect must be recorded separately. The journal entry will be as follows:

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Reversal of settlement discount granted (if applicable)			
Trade receivables	BS – asset	Dt	Settlement discount amount *including* VAT
VAT	BS – liability	Ct	VAT amount
Settlement discount granted	IS – expense	Ct	Settlement discount amount *excluding* VAT

- *Inventory quantities*

  Because the items have been returned to the warehouse, the *quantity on hand* and the *quantity available* will increase.

  The organisation must decide what to do with inventory items returned because of damage, unsatisfactory quality, defects, etc, and which are *unsellable* to another customer. The organisation can, if it is still within their supplier's terms, return the damaged items to the supplier (see study unit 9 section 3) or if the items cannot be returned, these items must be moved from *inventory available* to *inventory damaged* from where it can be sold at a lower value, or if it is totally unusable, be written off.

  If the items are only damaged and can be sold at a lower value, these items must be moved from the *inventory available* to *inventory damaged.* Because many entry-level AISs do not have a damaged goods function, it may be necessary to create a new inventory item code (eg "Product X damaged goods") and move the items from the original inventory item code (eg "Product X") to the new inventory item code, "Product X damaged goods", which is valued at net realisable value. This can be done through the inventory journal. The *quantity on hand* and the *quantity available* will *decrease* for the original product (eg "Product X"), and *increase* for the new damaged inventory item (eg "Product X damaged goods").

  When unsellable items are written off, the inventory *quantity on hand* and the *quantity available* will decrease.

- *AIS database files*

  Some of the database files accessed, updated or modified will include the following:

  - the *customer master file:* customer details (ie code, name, delivery address, year-to-date sales, outstanding balance, etc)
  - the *inventory master file:* inventory item codes, inventory description, unit size, price per unit, year-to-date sales, year-to-date returns, etc
  - the *credit note transaction file:* credit note number, credit note date, client code, inventory code, inventory description, quantity, price per unit, VAT amount, discount %, discount amount, line item amount, total amount, etc
  - *VAT reference file:* VAT % per tax type
  - *VAT transaction file:* VAT transactions
  - *several general ledger master files:* storing general ledger account balances
  - *general ledger transaction files:* details of each transaction recorded in the general ledger, etc

- the *sales transaction file:* where a sales invoice existed, the sales transaction file will be accessed for all the above-mentioned information; changes will be made where necessary and the date added

- **AIS reports**

  A variety of reports can be printed, including the following:

  - *credit note analysis reports* which can be extracted based on credit note per customer, item, journal, sales agent, etc
  - *customer statements; customer age analysis;* and the *customer detail ledger,* which will include the credit note
  - *general ledger accounts details* showing the accounting entries for the applicable general ledger accounts

Activity 8.2

Yummy Sweets (Pty) Ltd issued the following sales invoice to one of its customers, Ms CH Olate, who always buys on credit. Yummy uses a perpetual inventory system.

Yummy Sweets (Pty.) Ltd.	**TAX INVOICE**	
PO Box 9874		
Rosslyn	**Date:**	18 May 201X
5289		
VAT number:	**Invoice number:**	INV 89576
987654333		

Customer code: OLAT011

Ms CH Olate
PO Box 15647
Sunnyside
4567

VAT number:
977664441

Item description	Code	Qty	Price per unit	Tax %	Net amount including VAT
Chocolates 200g	CHL200	600	R 10.00	14%	R 6,000.00
Chocolates 100g	CHL100	500	R 4.74	14%	R 2,370.00
Hard candy	HCA123	1000	R 5.70	14%	R 5,700.00
Soft candy	SCA456	1650	R 2.30	14%	R 3,795.00

Sub total	R 17,865.00
Discount @ 5%	R 893.25
Total Amount excluding	R 14,887.50
VAT	R 2,084.25
Total Amount including	R 16,971.75

Refer to the above sales invoice. You can assume that this sales invoice was updated to the applicable master files. Ms CH Olate has returned 500 units of <u>hard candy</u>, which was invoiced (invoice no. 89576), because she is not satisfied with the quality of the hard candy. Yummy Sweets is of the opinion that they will be able to sell these 500 units of hard candy to another customer. The cost price of the hard candy per unit is R2.28 excluding VAT.

(a) Draw the table below and use it to record the accounting entries into the general ledger master file for the return of the **hard candy**.

General ledger description	Debit/Credit	Amount

Hint: Draw the T-accounts, as rough work, to ensure that the debits and credits are correct.

(a) Refer to the sales invoice. Identify the AIS document used to record the return of the inventory items.
(b) Refer to the sales invoice above. Identify three (3) database files that can either be accessed, updated or modified by the sales invoice transaction.
(c) Refer to the sales invoice above. Identify three (3) database files that can either be accessed, updated or modified by the return of the inventory items.
(d) Record the effect the return of the items will have on the inventory quantities.

Feedback on activity 8.2

(a)

General ledger description	Debit/ Credit	Amount	Calculation
Sales revenue	Debit	R 2,375.00	Price per unit excluding VAT = R5.70/1.14 = R5.00 Total amount excluding VAT before discount = R5.00 * 500 items = R2,500 5% trade discount deducted = R2,500 – (R2,500 * 5%) = R2,375
VAT	Debit	R 332.50	Sales * VAT % = R2,375 * 14% = R332.50
Trade receivables	Credit	R 2,707.50	Total amount including VAT before discount = R5.70 * 500 items = R2,850 5% trade discount deducted = R2,850 * (100% – 5%) = R2,707.50
Inventory	Debit	R 1,140.00	Inventory value excluding VAT = R2.28 * 500 = R1,140
Cost of sales	Credit	R 1,140.00	

(b) Credit note

(c) Any three (3):

- customer master file
- inventory master file
- sales transaction file
- VAT transaction file
- general ledger master files
- delivery note transaction file

(d) Any three (3):

- customer master file
- inventory master file
- credit note transaction file
- VAT transaction file
- general ledger master files
- sales transaction file

(e) Inventory quantity on hand and quantity available will increase by 500 items.

4 Receipts

Collecting amounts due to the organisation is crucial because no organisation can survive without cash. Proper controls to ensure timely collection of cash are therefore of vital importance.

Customers can pay the organisation in various ways. Some of the methods include a direct deposit in the organisation's bank account, cheque, cash, EFT or credit card.

NOTE:
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Inventory and service sales for cash have activities that fall within both the revenue and the receipt processes. In other words, the recording of the sale and movement in the inventory forms part of "revenue" and the physical cash received and banked forms part of "receipts".

The influence of cash sales accounting transactions on inventory was included in the "revenue" process so as not to duplicate the information.
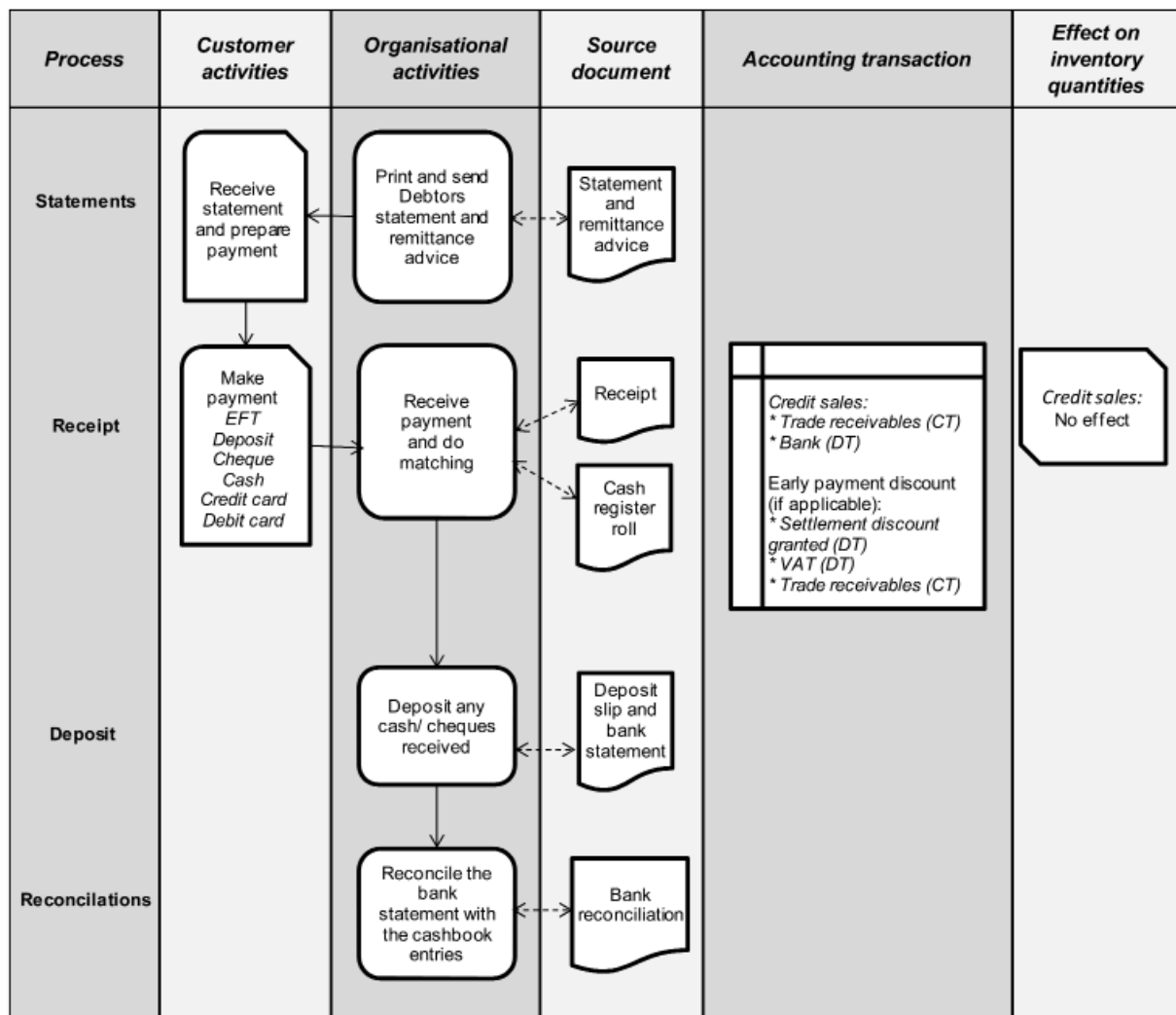
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Process	Customer activities	Organisational activities	Source document	Accounting transaction	Effect on inventory quantities
Statements	Receive statement and prepare payment	Print and send Debtors statement and remittance advice	Statement and remittance advice		
Receipt	Make payment *EFT Deposit Cheque Cash Credit card Debit card*	Receive payment and do matching	Receipt Cash register roll	*Credit sales:* * *Trade receivables (CT)* * *Bank (DT)* *Early payment discount (if applicable):* * *Settlement discount granted (DT)* * *VAT (DT)* * *Trade receivables (CT)*	*Credit sales:* No effect
Deposit		Deposit any cash/ cheques received	Deposit slip and bank statement		
Reconcilations		Reconcile the bank statement with the cashbook entries	Bank reconciliation		

FIGURE 8.3: Generic receipt process

Refer to figure 8.3 throughout the following discussion

- ***Customer activities***

    The customer will receive the debtors' statement and will compare it to his or her records. The customer will make a payment to the organisation. Cash and cheque payments sent or directly received by the organisation are usually accompanied by a remittance advice. The customer will send a proof of payment to the organisation if he or she made an electronic fund transfer (EFT) or a direct deposit into the organisation's bank account.

- ***Organisational activities***

    The organisation will send, at least monthly, a debtor statement and remittance advice (which is the tear-off portion of the debtor statement) to their customers. The organisation can receive payments from customers in electronic (EFT) format or in cash.

    Amounts deposited and/or received directly in the bank account should be matched to either a remittance advice or a proof of payment received from the customer. A receipt will be issued to the customer for all payments received and verified. The receipts are captured in the receipt cashbook and matched against the customer from whom the

amount was received. If the customer's transactions are processed using open item processing (see topic 6), then the amount will not only be matched to the customer but also to the specific sales invoices and credit notes that are being paid. When matched, the sales invoices and credit notes are closed. The receipt will be open and reflect as unreconciled on the bank reconciliation until the receipt is matched to the bank statement and reconciled.

All cheques and cash received at the organisation are indicated on a bank deposit slip. The cash and cheques will then be banked and the bank will stamp the deposit slip as proof that money was received.

The organisation will, at least monthly, compare the bank statements received from the bank with the transactions processed in the cashbook and perform a bank reconciliation. Proper internal controls necessitate that any receipt transaction should not be captured using the bank statement as the source document, except for bank-generated transactions (ie interest received), but that the receipt issued or the cash register roll should rather be used as source document.

- *Source document*

  A *bank deposit slip* will be completed for cash and cheques received at the organisation. The bank must stamp this deposit slip. In all instances, a receipt must be issued to customers for amounts received. A receipt also includes a "cash register slip".

- *Accounting transactions*

  No VAT transaction is recorded with the receipt, as the VAT entries were recorded during the recording of the sales invoice. (Remember, however, there will be VAT entries for <u>cash sales</u>. See section 2.4)

  As agreed with the customer, and if a receipt qualifies for it, a *settlement discount* (also called *early payment discount*), should be granted and the accounting entries recorded. If the organisation is a VAT vendor, the *settlement discount* transaction must account for VAT against the VAT rate applicable on the linked sales invoices and credit notes.

  Most organisations use a *"settlement discount granted"* general ledger account to record settlement discounts because this enables the organisation to easily see how much discount was granted in a certain period. However, IFRSs disclosure requirements stipulate that the settlement discount should be netted off against sales revenue. We should therefore remember to include the *settlement discount granted* general ledger account in the same AIS report writer category as sales revenue. As an alternative, we could also journalise the settlement discount granted balance to the sales revenue account at period-end.

The *receipt cashbook journal* will be used to capture the following accounting entries:

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Cash receipts for credit sales			
Trade receivables	BS – asset	Ct	Amount including VAT
Bank	BS – asset	Dt	Amount including VAT
Settlement discount granted (if applicable)			
Trade receivables	BS – asset	Ct	Discount amount including VAT
VAT	BS – liability	Dt	VAT amount
Settlement discount granted	IS – expense	Dt	Discount amount excluding VAT

- **Inventory quantities**

  Since payment is only received, there is no influence on inventory quantities. (Remember however, there will be an influence on inventory quantities for <u>cash sales</u>. See section 2.4)

- **AIS database files**

  Some of the database files accessed, updated or modified will include the following:

  – the *customer master file:* customer details (ie code, name, delivery address, year-to-date payments received, outstanding balance, etc)
  – the *receipt cashbook transaction file:* reference number, date, bank amount, customer code, general ledger account number, etc
  – the *open sales transaction file:* summarised sales from previous sale transaction files that have not yet been matched to a payment
  – *general ledger transaction files:* details of each transaction recorded in the general ledger
  – *the open credit note transaction file:* summarised credit notes from previous customer returns transaction files that have not yet been matched to a payment

- **AIS reports**

  A variety of reports, including the following, can be printed:

  – *receipt cashbook detail report* (similar to a journal printout) showing the cashbook receipt transactions for a selected period
  – *customer statements, customer age analysis, customer detail ledger,* which will include payments received
  – *general ledger accounts details* showing the accounting entries for the applicable general ledger accounts
  – *unmatched/unpaid invoices* and *credit notes showing details of invoices and credit notes not yet paid or matched to a payment received, etc*

5   Summary

In this study unit, we investigated how revenue and receipts are recorded in an *accounting information system.* We learnt which documents are used, which database files are accessed, updated or modified, the reports that can be printed and some of the basic underlying accounting entries for quotations, sales orders, deliveries, billing, inventory returned and receipts.

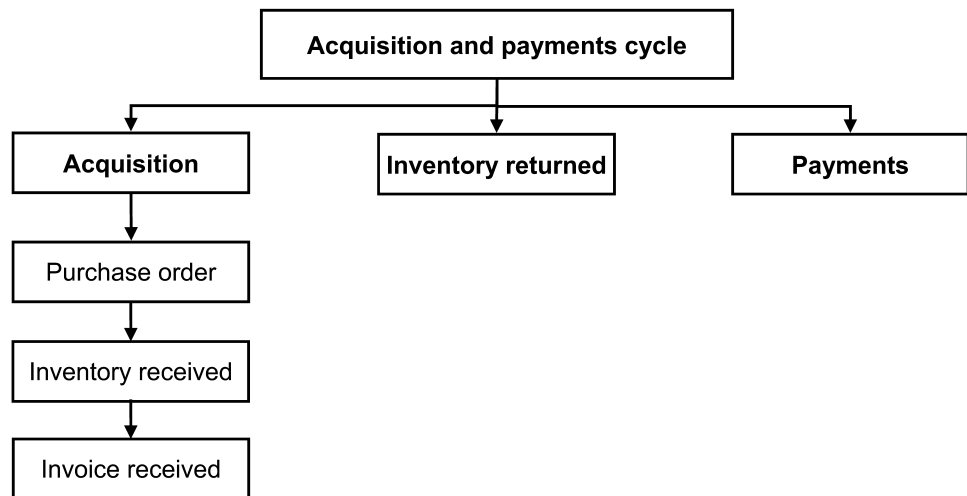In the next study unit, we will gain a deeper understanding of the acquisition and payment cycle and its interaction with the AIS.

Self-assessment activity

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After working through this study unit, you should be able to answer the following questions:

(a)   List the processes that form part of the revenue process.
(b)   For each process in the revenue process, describe the activities performed by both the organisation and customer.
(c)   For each process in the revenue process, name and describe the source documents used.
(d)   Identify and record the accounting entries applicable to each of the revenue processes.
(e)   Identify the movement in inventory quantities for each of the revenue processes.
(f)   For each process in the revenue process, list the database files accessed, updated or modified and name some of the information contained in these database files.
(g)   For each process in the revenue process, list the AIS reports that can be generated.
(h)   Describe the activities performed by both the organisation and customer in the receipts cycle.
(i)   Name and describe the source documents used in the receipts cycle.
(j)   Identify and record the accounting entries applicable to each of the receipts process.
(k)   Identify the movement in inventory quantities in the receipts process.
(l)   For the receipts process, list the database files accessed, updated or modified and name some of the information contained in the database file.
(m) For the receipts process, list the AIS reports that can be used and mention what information it will contain.
(n)   Describe the activities performed by both the organisation and customer in the customer returns process.
(o)   Name and describe the source documents used in the customer returns process.
(p)   Identify and record the accounting entries applicable to the customer returns process.
(q)   Identify the movement in inventory quantities for each of the customer returns processes.
(r)   For each process in the customer returns process, list the database files accessed, updated or modified and name some of the information contained in these database files.
(s)   For each process in the customer returns process, list the AIS reports that can be generated.

Acquisition and payments cycle

In this study unit

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                    ┌─────────────────────────────────┐
                    │  Acquisition and payments cycle  │
                    └─────────────────────────────────┘
        ┌────────────────────┼────────────────────┐
        ▼                    ▼                     ▼
┌──────────────┐   ┌────────────────────┐   ┌──────────────┐
│ Acquisition  │   │ Inventory returned │   │   Payments   │
└──────────────┘   └────────────────────┘   └──────────────┘
        │
        ▼
┌──────────────────┐
│  Purchase order  │
└──────────────────┘
        │
        ▼
┌────────────────────┐
│ Inventory received │
└────────────────────┘
        │
        ▼
┌──────────────────┐
│ Invoice received │
└──────────────────┘
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1 Introduction

In the previous study unit, we learnt how the organisation's revenue and receipts are recorded in an AIS. In this study unit, we will focus on how the organisation's acquisitions and payments are recorded in an AIS.

To enable the organisation to sell inventory items or render a service to its clients, the organisation first needs to acquire and pay for inventory and services from its suppliers. In this study unit, we will learn which documents are used, which database files are accessed, updated or modified, the reports that can be printed and some of the basic underlying accounting entries. We will not discuss the audit environment and controls relating to this cycle because you will learn about these in auditing. For details of the IFRSs requirements, see the financial accounting modules. This study unit is based on the retail, wholesale and manufacturing organisations and will not address the acquisitions and payments cycle of specialised industries such as financial services, health care, government and so forth.

NOTE:
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Since most organisations are registered for VAT on the invoice basis, all VAT implications discussed in this study unit will be based on the invoice basis.

For all accounting transactions shown in this study unit, it was assumed that both the organisation and the supplier are registered VAT vendors and goods/services bought are subject to standard VAT.

Use your financial accounting and tax knowledge to make the necessary adjustments to the accounting entries where a suppliers and/or organisation is not a registered VAT vendor and/or also goods/services bought are not subject to standard VAT.

● ●

2   Acquisition

The inventory items bought will also refer to raw material inventory used in the manufacturing process. The process of converting raw material inventory into finished goods inventory is discussed in study unit 10.

Organisations often use a manual and sometimes an electronic requisition to request the purchasing department to place an order. The process followed will differ materially between organisations. The requisition process is not discussed in this study unit because it generally has no impact on the AIS.

Process	Supplier activities	Organisational activities	Source document	Accounting transaction	Effect on inventory quantities
Identify needs		Identify needs	Requisition	No entries	No effect
Purchase Order	Credit checks & accept/ reject order	Select supplier and place order	Purchase Order	No entries	Inventory: * Qty ordered (+)
Inventory received	Complete order and deliver items or service	Receive inventory / non-inventory items / service. Create GRN	Goods received note (GRN)	Inventory : * GRN accrual (CT) * Inventory (DT)	Inventory: * Qty on hand (+) * Qty available (+) * Qty ordered (-)
Invoice received	Create invoice and send to organisation	Receive invoice. Compare supplier invoice with GRN. Record supplier invoice	Supplier invoice	Inventory : * Trade payables (CT) * VAT (DT) * GRN accrual (DT) Service & non-inventory items: * Trade payables (CT) * VAT (DT) * Expense (DT)	No effect

FIGURE 9.1: Generic acquisition process

Refer to figure 9.1 throughout the following discussion.

2.1 Purchase order process

- *Organisational activities*

  Noninventory items and services. A department will request items to be purchased or services to be rendered by following the organisation's procedures and controls. (You will learn about these procedures and controls in auditing.) Examples of controls for nonrecurring items may include obtaining three quotations upon which a staff member with the correct mandate must approve the request. Examples of controls for recurring items may include the use of only preferred suppliers and the placement of orders by authorised staff members. The suppliers that are used will either be predetermined preferred suppliers or other suppliers selected according to the organisation's internal control procedures.

  Inventory items. The organisation will determine from the AIS or warehouse inventory information system which inventory items must be ordered and the quantity required. The quantity required will be determined on the basis of the inventory quantity on hand and the inventory quantities that should be available. In topic 6 we will see how an AIS, Pastel Partner, calculates reorder quantities based on minimum, maximum reorder levels and quantities on hand. Inventory items are regularly purchased from suppliers, and the organisation will therefore have negotiated payment terms, prices, item quality and so forth, with some of these suppliers. The organisation will then normally only buy inventory items from these suppliers (called preferred suppliers) with whom arrangements exist.

  For inventory, noninventory items and services. The selected supplier will be a preferred supplier or a supplier selected according to internal control procedures. The price that is used can be obtained from the previous paid prices, a quotation, supplier price list and so on. Once we know which supplier and price to use and which items/ service to order, a purchase order will be created in the AIS and sent to the applicable supplier.

- *Supplier activities*

  The supplier will receive the *purchase order* and process the purchase order according to his or her own internal processes. (Similar to those described in the revenue and receipt cycle.)

- *Source documents*

  A *purchase order* will be created in the AIS and sent to the supplier. Purchase orders sent to suppliers for inventory items not yet received (ie it is not linked to a goods received note [GRN]), are referred to as open purchase orders. The price per unit used on the purchase order will depend on the organisation's prescribed procedures. It can be the current cost price per unit as reflected in the AIS, the prices indicated on the supplier's quotation, the price per supplier price list and so forth.

- *Accounting transactions*

  Because no transaction has taken place and risk has not yet been transferred, there are *no* general ledger accounting entries.

- *Inventory quantities*

  No physical movement of inventory items has taken place, but inventory items have been ordered. In the organisation's AIS (as well as the warehouse information system if used), the inventory *quantity on order* will increase. This artificial movement in quantity

is necessary to ensure that the organisation does not double order (ie. order items already on order from a supplier).

- *AIS database files*

  Some of the database files accessed, updated or modified will include the following:

  – the *supplier master file:* supplier details (ie code, address, etc)
  – the *inventory master file:* inventory item codes, inventory description, unit size, quantity ordered, last prices, etc
  – the *VAT reference file:* VAT % per tax type
  – the *purchase order transaction file:* document number, date, supplier code, inventory code, inventory description, quantity, etc

- *AIS reports*

  An *outstanding/open purchase order report* can be printed to show all purchase orders not yet converted into GRNs (see section 2.2). This report can be used to follow up on outstanding orders to ensure that all purchase orders are completed.

2.2 Inventory received

- *Supplier activities*

  The supplier will fulfil the order received from the organisation. Items will be delivered with a delivery note that the organisation must sign to confirm receipt of the items.

- *Organisational activities*

  The organisation will receive the physical items. On receipt, the organisation will compare the items received with the items listed on the supplier's delivery note and the organisation's own purchase order. Any differences in quantity, type of items, quality and so forth, will be clearly indicated on the delivery note before it is signed by the organisation as acknowledgement of receipt. For example, the purchase order included 200 red ink cartridges, but blue cartridges were delivered instead, and the delivery note likewise updated. In this instance, the organisation would probably not accept the blue cartridges and indicate on the delivery note that they did not take delivery. Take another example: the delivery note indicated 200 black ink cartridges, but only 180 were actually delivered. The organisation can decide not to accept the complete black ink cartridges delivery or more likely adjust the delivery note to reflect the actual quantity received (ie 180) and indicate on the delivery note that there is a short delivery. It is however crucial for the delivery note, as adjusted, to agree with the actual items received from the supplier, before the note is signed. The organisation will keep a copy of the delivery note. If a proficient supplier is used, the possibility of the delivery note and the delivery being different is highly unlikely.

  As always, the organisation's unique way of conducting business will determine how incorrect items should be dealt with. It may not always be possible to send items back immediately because the delivery may have been made by a third-party carrier. These "incorrect" items may need to be taken into stock (to keep control of the items) and returned to the supplier later (see section 3).

  The supplier's *delivery note* will be used to create the organisation's own *goods received note (GRN)* in the AIS. The term "goods" is used because a GRN is not only used for the receipt of inventory items, but also for noninventory items, and goods therefore refer to both types of items. The GRN will be linked to the *purchase order* and *the purchase*

order closed if the complete order was received. If the complete purchase order was not received, the organisation will have the option to close the complete purchase order and inform the supplier that they no longer want the items or to only close the purchase order line items actually received. In the latter instance, the undelivered purchase order will then still be open, but will only show the items still on order.

- *Source documents*

  The *supplier delivery note* is an external document that serves as proof of which items were delivered. The delivery note (as adjusted) will be used to create the goods received note (GRN). The GRN created in the AIS will indicate the supplier name, date, a description and the quantity of inventory items delivered and the purchase order number to which the GRN relates. The price per unit will be based on the price per unit used in the purchase order because most delivery notes do not include prices, and the organisation has yet to receive the supplier invoice. The GRN and the original purchase order are linked and the purchase order is completely or partially closed. Most of the information on the GRN can be obtained/copied from the associated purchase order.

- *Accounting transactions*

  Once the inventory items have been received, risk and ownership are transferred to the organisation, which now has a liability to pay the supplier and can sell the received inventory items. The organisation has not yet received and captured the supplier invoice in the AIS, and as a result, no liability or inventory accounting entries were <u>recorded</u>, but do nevertheless exist. To reflect the actual substance of the transaction, an accrual account is used to record the liability until such time that the actual invoice is received and recorded. This accrual is based on estimates only, because the supplier invoice with the actual prices and so forth, has not yet been received at this stage. In this module, the accrual account will be named *"GRN accrual account".* The inventory account will be used to record the inventory accounting entries. Bear in mind that no VAT transactions are raised at this point, because SARS only allows VAT to be claimed on the receipt of a valid supplier tax invoice. The GRN accrual amount will therefore exclude VAT and the inventory amount will also exclude VAT.

TRADE DISCOUNT AND SETTLEMENT DISCOUNT RECEIVED

Trade discount received entails the organisation receiving discount from a supplier for a specific item or on the complete invoice (also called line item discount and invoice discount respectively). This discount may be the result of the quantity ordered, a "sale" and so forth. Trade discount, however, excludes a settlement discount. For example, the organisation receives 5% discount for quantities over 500 ordered or it receives 2% on all items ordered from the specific supplier (invoice discount).

Settlement discount received, also referred to as *early payment discount received,* is only applicable on credit purchases and is a discount that is received if the organisation pays the supplier before a specific date. For example, the organisation receives a 2.5% discount if the purchase invoice is paid five days after the period end in which it was recorded or the organisation can receive 4% discount if the invoice is paid six days after the invoice was issued.

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Any known trade discount (eg a standard agreement whereby the organisation receives 2% invoice discount) should be recorded at this stage. IFRSs requires that inventory should be valued at the lowest of cost and net realisable value. Trade discount will therefore be recorded by netting it off (deducting it from) against the inventory amount, that is, reducing the inventory amount by the trade discount amount.

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
GRN accrual			
Inventory	BS – asset	Dt	Purchase order price per unit excluding VAT (net of any known trade discounts) multiplied by the GRN quantity received.
GRN accrual	BS – liability	Ct	

- **Inventory quantities**

  Because inventory was physically received and is now available for selling, the inventory *quantity on hand* and the *quantity available* will increase and the *quantity on order* will decrease.

- **AIS database files**

  Some of the database files accessed, updated or modified will include the following:

  – the *supplier master file:* supplier details (ie code, address, etc)
  – the *inventory master file:* inventory item codes, inventory description, unit size, quantity on hand, quantity available, quantity on order, year-to-date purchases, last cost prices, etc
  – the *GRN transaction file:* document number, date, supplier code, inventory code, inventory description, quantity, purchase order number, etc
  – the *inventory transaction file:* delivery date, inventory code, quantity, etc
  – the *general ledger transaction files:* details of each transaction recorded in the general ledger
  – for all open and partially open purchase orders, the *open purchase order transaction file.* Where a purchase order existed, the *open purchase order transaction file* will be accessed for all the above-mentioned information. Changes will be made where necessary and the date added. The *open purchase order transaction file* will be updated to reflect the new status.

- *AIS reports*

  A variety of reports, including the following, can be printed:

  – An o*pen purchase report* can be printed to show all purchase orders that have been created but have not yet been completely linked to a GRN, and an open *GRN report will reflect* all GRNs that have not yet been completely linked to a supplier invoice (see section 2.3). These reports can be used to ensure all inventory items ordered are delivered and for all delivered items that invoices are received and processed.
  – An *inventory activity report* will show all movements of an inventory item including the purchases received.
  – *Inventory quantity reports* will show inventory quantities on order, available and on hand.

2.3 Invoice received

- *Supplier activities*

  The supplier issues the invoice and sends it to the organisation. At month-end, the supplier will also send a statement showing all invoices not yet paid (ie outstanding). The organisation is obliged to pay the invoice according to the agreed terms, unless there are disputed item quantities, prices and so forth, on the invoice.

- *Organisational activities*

  The trade payables team will receive the supplier invoice and match it to the original purchase order and GRN. The invoice received from the supplier will be captured in the AIS, creating a *supplier invoice*. The supplier invoice is linked to the GRN and the GRN closed. The *supplier invoice* will remain open until the invoice has been paid.

- *Source documents*

  The purchase order and GRN are matched to the supplier invoice to ensure that the organisation is billed for items actually ordered and received. The *supplier invoice* will include the supplier details; the organisation's details and address; the payment date; for each inventory/service item, a description, unit size, quantity, amount per unit, item discount (if applicable), total amount per item; invoice discount (if applicable); VAT (if applicable); total invoice amount; any messages from the supplier; and so forth. If the organisation is a registered VAT vendor, it can claim VAT on all valid tax invoices received from its suppliers who are registered VAT vendors. The tax invoice must include information such as the words "Tax invoice" and the supplier's VAT number, the organisation's VAT number, if the value of the invoice is more than R3 000, and so on. You will learn in your taxation studies about all the requirements for a valid tax invoice.

- *Accounting transactions*

  The supplier invoice has now been received and the accounting transactions can be recorded. The liability will now "move" from the GRN accrual account to the supplier's trade payables subledger account.

  Price differences between the purchase order and/or GRN and the actual supplier invoice, as well as any *trade discount* not previously acknowledged, must now also be recorded. IFRSs requires that inventory should be valued at the lowest of cost and net realisable value. Price differences and trade discounts will therefore be recorded by adjusting the *inventory value* – that is, increasing or decreasing the inventory amount by the price difference and/or trade discount amount.

The purchase journal will be used to capture the purchase transactions. The purchase journal will result in the following accounting entries:

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Inventory purchased on credit (No price and/or trade discount differences between GRN and purchase invoice)			
Trade payables	BS – liability	Ct	Supplier invoice amount including VAT
VAT	BS – liability	Dt	Supplier invoice VAT amount
GRN accrual	BS – liability	Dt	Original GRN accrual amount excluding VAT
Inventory purchased on credit (Price difference and/or trade discount not previously recorded on GRN)			
Trade payables	BS – liability	Ct	Supplier invoice amount including VAT (net of trade discount and price differences)
VAT	BS – liability	Dt	Supplier invoice VAT amount
GRN accrual	BS – liability	Dt	Original GRN accrual amount excluding VAT
Inventory	BS – asset	Dt/Ct	Trade discount and price difference amount (excluding VAT)
Inventory purchased on cash (No price and/or trade discount differences between GRN and purchase invoice)			
Bank	BS – asset	Ct	Supplier invoice amount including VAT
VAT	BS – liability	Dt	Supplier invoice VAT amount
GRN accrual	BS – asset	Dt	Original GRN accrual amount excluding VAT
Inventory purchased on cash (Price difference and/or trade discount not previously recorded on GRN)			
Bank	BS – asset	Ct	Supplier invoice amount including VAT (net of trade discount and price differences)
VAT	BS – liability	Dt	Supplier invoice VAT amount
GRN accrual	BS – asset	Dt	Original GRN accrual amount excluding VAT
Inventory	BS – asset	Dt/Ct	Trade discount and price difference amount (excluding VAT)
Noninventory items and services purchased on credit			
Trade payables	BS – liability	Ct	Supplier invoice amount including VAT (net of any trade discount or price difference)
VAT	BS – liability	Dt	Supplier invoice VAT amount
Expense	IS – expense	Dt	Supplier invoice amount excluding VAT (net of any trade discount or price difference)

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Non – inventory and service purchased on cash			
Bank	BS – asset	Ct	Supplier invoice amount including VAT (net of any trade discount)
VAT	BS – liability	Dt	Supplier invoice VAT amount
Expense	IS – expense	Dt	Supplier invoice amount excluding VAT (net of any trade discount)

- *Inventory quantities*

  There is no influence on the inventory quantities because these items were taken into stock on delivery.

- *AIS database files*

  Some of the database files accessed, updated or modified will include the following:

  – the *supplier master file:* supplier details (ie code, name, address, year to date purchases, outstanding balance, etc)
  – the *inventory master file:* inventory item codes, inventory description, unit size, price per unit, year to date purchases, etc
  – the *purchase transaction file:* supplier invoice number, invoice date, payment due date, supplier code, inventory code, inventory description, quantity, price per unit, VAT amount, discount amount, line item amount, total amount, etc
  – the *VAT reference file:* VAT % per tax type
  – the *VAT transaction file:* VAT transactions
  – *several general ledger master files:* storing new general ledger account balances
  – the *general ledger transaction files:* details of each transaction recorded in the general ledger
  – the *GRN transaction file:* where a GRN existed, the *GRN transaction file* will be accessed for all the above-mentioned information. Changes will be made where necessary, and the date added. The *GRN transaction file* will be updated to reflect the new status and so on.

- *AIS reports*

  A variety of reports, including the following, can be printed:

  – *purchase analysis reports* which can be extracted, based on purchases per supplier, document type, journal, etc
  – *invoices due* reports indicating unpaid invoices that are due, based on the supplier payment terms
  – *supplier statements, supplier age analysis and supplier detailed ledger* showing all supplier invoices recorded
  – *VAT reports* showing the input VAT for all purchase transactions
  – *general ledger accounts details* showing the accounting entries for the selected general ledger accounts

Activity 9.1

Yummy Sweets (Pty) Ltd received the following supplier invoice from Chocolate Deluxe Ltd, from whom the company always buys on credit. Yummy uses a perpetual inventory system.

Chocolate Deluxe Ltd.					TAX INVOICE	
PO Box 5546						
Midrand					**Date:** 12/09/201X	
123						
VAT number:					**Invoice number:** S4567	
912894562						

Customer code: YUM987
Yummy Sweets (Pty.) Ltd.
PO Box 9874
Rosslyn
5289

VAT number:
987654333

Item description	Unit	Code	Qty	Price per unit	Tax %	Net amount excl. VAT
Swiss milk	100g	SWM100	200	R 8.00	14%	R 1,600.00
Swiss white	150g	SWW150	150	R 12.00	14%	R 1,800.00
Belgium dark	200g	BED200	300	R 20.00	14%	R 6,000.00
Belgium milk	100g	BEM100	80	R 15.00	14%	R 1,200.00

Sub total	R 10,600.00
Discount @ 2.5%	R 265.00
Total Amount excluding	R 10,335.00
VAT	R 1,446.90
Total Amount including	R 11,781.90

Refer to the supplier invoice. All the information on the supplier invoice and GRN agrees <u>except</u> for inventory item BED200, where the unit price has increased from R18 to R20 and the 2.5% discount that was granted on the whole supplier invoice, but did not reflect on the purchase order or GRN.

Yummy Sweets has separate inventory general ledger accounts for Swiss and Belgium chocolates referred to as "Inventory – Swiss" and "Inventory – Belgium" respectively.

(a)   Draw the table below. Use this table to record the accounting entries into the general ledger file for the supplier invoice. You should show all the applicable accounting entries. (The accounting entries can be recorded in summary form or in detail.)

General ledger description	Debit/Credit	Amount

Hint: Draw the T-accounts, as rough work, to ensure that the debits and credits are correct.

(b) Identify the two (2) source documents to which the supplier invoice must be matched, to ensure that the organisation is only billed for items ordered and received?

(c) Refer to the supplier invoice above. Name three (3) AIS reports that can be used to verify that this transaction was recorded correctly in the AIS.

(d) Identify the movement in inventory quantities in the processing of the supplier invoice.

Feedback on activity 9.1

(a) Since the VAT numbers of both Yummy and the supplier, Chocolate Deluxe, are reflected on the tax invoice, we can assume they are both VAT vendors.

The suggested solution below shows the T-accounts (rough work) in detail and the summarised information in the journal. Both methods are acceptable (ie. detailed or summarised information). Use the method you find the easiest.

General ledger description	Debit/ Credit	Amount	Calculation
Trade payables	Ct	R11,781.90	Total invoice amount including VAT.
VAT	Dt	R1,446.90	VAT amount as per supplier invoice.
GRN accrual	Dt	R10,000.00	The original GRN accrual amount. Remember that the 2.5% invoice discount and price difference were not on the GRN and were therefore not accrued. Also, the GRN accrual amount always excludes VAT. Start at the subtotal of R10,600 and adjust for the R2 price increase (ie. 300 * R2 = R600 R10,600 – R600 = R 10,000.00) We did not adjust the discount because it was not included in the subtotal and was also not on the GRN.
Inventory – Swiss	Ct	R85.00	The Swiss inventory amount must be adjusted for the trade discount (2.5%) which was not reflected on the original GRN and purchase order. R1,600 + R1,800 = R3,400 R3,400 * 2.5% = R85.00 The inventory account is credited because the cost price decreases. **For VAT vendors, these amounts must always be exclusive of VAT as inventory is valued exclusive of VAT.**

General ledger description	Debit/ Credit	Amount	Calculation
Inventory – Belgium	Dt	R420.00	The Belgium inventory must be adjusted for the price increase and the trade discount (2.5%) which was not reflected on the original GRN and purchase order. *Price increase:* R20 – R18 = R2 * 300 units = R600 increase (excluding VAT) *Trade discount:* R6,000 + R1,200 = R7,200 R7,200 * 2.5% = R180.00 decrease *Net movement:* R600 increase – R180 decrease = R420 increase, therefore the inventory account is debited. **For VAT vendors, these amounts must always be exclusive of VAT as inventory is valued exclusive of VAT**.

T- accounts (rough work)

Trade payables (TP)

Dt			Ct	
SWM100	Inv - Swiss (discount)	R 40.00	SWM100 GRN	R 1,600.00
SWW150	Inv - Swiss (discount)	R 45.00	SWW150 GRN	R 1,800.00
BED200	Inv- Belg (discount)	R 150.00	BED200 GRN	R 5,400.00
BEM100	Inv- Belg (discount)	R 30.00	BEM100 GRN	R 1,200.00
SWM100	VAT (discount)	R 5.60	SWM100 VAT	R 224.00
SWW150	VAT (discount)	R 6.30	SWW150 VAT	R 252.00
BED200	VAT (discount)	R 21.00	BED200 VAT	R 840.00
BEM100	VAT (discount)	R 4.20	BEM100 VAT	R 168.00
			BED200 Inv- Belg (price diff)	R 600.00
Balance c/d		R 11,781.90		
		R 12,084.00		R 12,084.00

GRN accrual (GRN)

Dt			Ct		
SWM100	TP	R 1,600.00	SWM100	Balance brought down (b/d)	R 1,600.00
SWW150	TP	R 1,800.00	SWW150	Balance b/d	R 1,800.00
BED200	TP	R 5,400.00	BED200	Balance b/d	R 5,400.00
BEM100	TP	R 1,200.00	BEM100	Balance b/d	R 1,200.00
		R 10,000.00			R 10,000.00

Inventory - Belgium (Inv- Belg)

Dt			Ct		
BED200	TP (price diff)	R 600.00	BED200	TP (discount)	R 150.00
			BEM100	TP (discount)	R 30.00
			Balance c/d		R 420.00
		R 600.00			R 600.00

Inventory - Swiss (Inv - Swiss)

Dt			Ct
	SWM100	TP (discount)	R 40.00
	SWW150	TP (discount)	R 45.00
			R 85.00

VAT

Dt			Ct		
SWM100	TP	R 224.00	SWM100	TP (discount)	R 5.60
SWW150	TP	R 252.00	SWW150	TP (discount)	R 6.30
BED200	TP	R 840.00	BED200	TP (discount)	R 21.00
BEM100	TP	R 168.00	BEM100	TP (discount)	R 4.20
			Balance c/d		R 1,446.90
		R 1,484.00			R 1,484.00

(b)   Purchase order and GRN

(c) Any three (3):

  – *purchase analysis reports*
  – supplier age analysis
  – supplier detail ledger
  – VAT reports
  – general ledger accounts details

(d) There is no influence on inventory quantities.

---

3 Inventory returned

There are numerous reasons why the organisation would want to return inventory items that have already been invoiced by the supplier and the supplier invoice captured in the AIS. The items may have be defective or may have been damaged during shipment, and these defects and damage were only discovered after the items had been unpacked. The incorrect items may have been delivered or possibly too many items were delivered. The latter two reasons should have been picked up during the delivery process, and the items returned and the delivery note adjusted. We are only going to discuss the process in which the supplier invoice had already been processed in the AIS before the inventory items were returned.
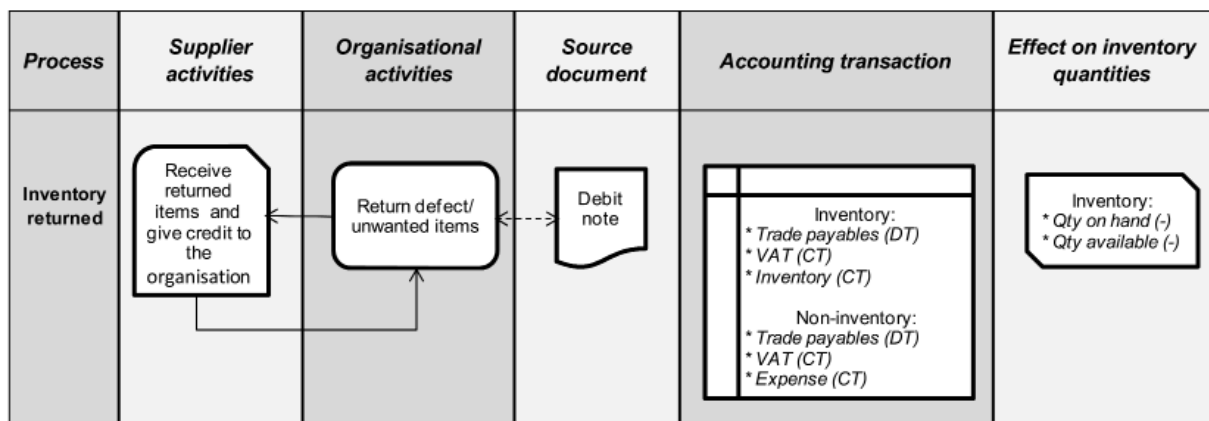
FIGURE 9.2: Generic return process

Refer to figure 9.2 throughout the following discussion.

- **Organisational activities**

  The defect/unwanted inventory items are returned to the supplier and a credit note received from the supplier. The supplier *credit note* received is used to create a return *debit note* in the AIS and the return debit note is linked to the corresponding AIS supplier invoice. The supplier invoice and linked return debit note will remain open until payment has been made.

- **Supplier activities**

  The supplier receives the items and gives the organisation credit for the items received by issuing a credit note.

- **Source document**

  The *debit note* must be matched to the credit note received from the supplier. The *debit note* will, over and above the information usually reflected on a supplier invoice, also indicate the supplier invoice number it relates to. Bear in mind that if trade discount was granted on the original supplier invoice, the same discount, if applicable on the returned items, should also be captured on the return debit note.

A debit note is generally used where items are returned to a supplier. However, a debit note can also be used to correct incorrectly captured supplier invoices or supplier invoices captured according to the source document received but which did not, say, include the agreed invoice or line item discount. When performing supplier reconciliation, the debit note must be matched to the credit note received from the supplier.

- *Accounting transactions*

    Remember that if any trade discount was applicable on the returned items, this discount would have been recorded by netting it off against the inventory and trade payables amounts. The debit note accounting entries must therefore follow the same principle as the original transaction that is, any trade discount must be netted off (deducted from) inventory and trade payables amounts.

    The accounting entries are recorded when the risk of the inventory items is transferred back to the supplier (ie the supplier receives the returned items).

    The debit note will result in the following accounting entries where a perpetual inventory system is used:

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Inventory purchases on credit			
Trade payables	BS – liability	Dt	Amount including VAT (net of any trade discount received on the inventory returned)
VAT	BS – liability	Ct	VAT amount (based on the inventory amount net of any trade discount received on the inventory returned)
Inventory	BS – asset	Ct	Amount excluding VAT (net of any trade discount received on the inventory returned)
Noninventory purchases on credit			
Trade payables	BS – liability	Dt	Amount including VAT (net of any trade discount received)
VAT	BS – liability	Ct	VAT amount (based on the excluding VAT amount)
Expense	IS – expense	Ct	Amount excluding VAT (net of any trade discount received)

NOTE:
•••••••••••••••••••••••

The above transactions are the exact reversal of the purchase transaction. All the debits become credits. Although not indicated above, you can apply the same principle to the return of cash purchased items.

••

Although the likelihood is slim, there is a possibility that payment was made to the supplier for credit sales, before the items were returned. If settlement discount was received on the payment of the items which have now been returned, the settlement discount must now also be reversed. The reversal of the discount will have to be done through the general journal because the VAT effect must be recorded separately. The journal will be as follows:

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Settlement discount reversed (if applicable)			
Trade payables	BS – liability	Ct	Settlement discount amount including VAT
VAT	BS – liability	Dt	VAT amount
Settlement discount received	IS – revenue	Dt	Settlement discount amount excluding VAT

- *Inventory quantities*

  Because the items were returned to the supplier, the *quantity on hand* and the *quantity available* will decrease.

- *AIS database files*

  Some of the database files accessed, updated or modified will include the following:

  – the *supplier master file:* supplier details (ie code, name, address, year-to-date purchases, year-to-date debit notes, outstanding balance, etc)
  – the *inventory master file:* inventory item codes, inventory description, unit size, price per unit, year-to-date purchases, year-to-date returns etc
  – the *debit note transaction file:* debit note number, supplier invoice number, debit note date, supplier code, inventory code, inventory description, quantity, price per unit, VAT amount, discount amount, line item amount, total amount, etc
  – the *VAT reference file:* VAT % per tax type
  – the *VAT transaction file:* VAT transactions
  – *several general ledger master files:* storing general ledger account balances
  – the *general ledger transaction files:* details of each transaction recorded in the general ledger
  – the *purchase transaction file:* where a supplier invoice existed, the purchase transaction file will be accessed for all the above-mentioned information. Changes will be made where necessary and the date added. The purchase transaction file will be updated to reflect the new status and so forth.

- *AIS reports*

A variety of reports, including the following, can be printed:

- *debit note analysis reports* that can be extracted, based on debit notes per supplier, item and so on
- *supplier statements, supplier age analysis and supplier detailed ledger*, which will include the debit note
- *VAT reports* showing the output VAT for all debit note transactions
- *general ledger accounts details* showing the accounting entries for the selected general ledger accounts

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Activity 9.2

Yummy Sweets (Pty) Ltd received the following supplier invoice from Chocolate Deluxe Ltd from whom they always buy on credit. Yummy uses a perpetual inventory system.

Chocolate Deluxe Ltd.   **TAX INVOICE**
PO Box 5546
Midrand   **Date:** 12/09/201X
123

VAT number: **Invoice number:** S4567
912894562

Customer code: YUM987
Yummy Sweets (Pty.) Ltd.
PO Box 9874
Rosslyn
5289

VAT number:
987654333

Item description	Unit	Code	Qty	Price per unit	Tax %	Net amount excl. VAT
Swiss milk	100g	SWM100	200	R 8.00	14%	R 1,600.00
Swiss white	150g	SWW150	150	R 12.00	14%	R 1,800.00
Belgium dark	200g	BED200	300	R 20.00	14%	R 6,000.00
Belgium milk	100g	BEM100	80	R 15.00	14%	R 1,200.00

Sub total	R 10,600.00
Discount @ 2.5%	R 265.00
Total Amount excluding	R 10,335.00
VAT	R 1,446.90
Total Amount including	R 11,781.90

Refer to the above supplier invoice. Yummy Sweets has returned 50 units of Swiss white (150 g), which were invoiced but not yet paid by Yummy Sweets. Yummy Sweets has separate inventory accounts for the Swiss and Belgium chocolates.

Draw the table below. Use this table to record the accounting entries into the general ledger master file for the return of the Swiss white (150 g).

General ledger description	Debit/Credit	Amount

Hint: Draw the T-accounts, as rough work, to ensure that the debits and credits are correct.

General ledger description	Debit/Credit	Amount	Calculation
Inventory – Swiss	Ct	R585.00	Total price excluding VAT: 50 units * R12 = R600 (excl VAT) Deduct 2.5% trade discount: R600 – (R600 * 2.5%) = R585
VAT	Ct	R81.90	Return * VAT %: R585 * 14% = R81.90
Trade payables	Dt	R666.90	Total returned amount including VAT R585 + (R585 * 14%) = R666.90

T- accounts (rough work)

Dt			Ct		Dt		Ct
Accounts payable - Creditors (AP)					Inventory - Swiss (Inv - Swiss)		
SWW150	Inv - Swiss	R 585.00				SWW150 AP	R 585.00
SWW150	VAT	R 81.90					
		R 666.90			VAT		
						SWW150 AP	R 81.90

4 Payments

The organisation will normally pay the supplier via cheque or EFT. Nowadays, EFTs are the preferred method of payment because the costs involved are lower and there is less fraud risk.

Process	Supplier activities	Organisational activities	Source document	Accounting transaction	Effect on inventory quantities
Statements	Print and send statement and remittance	Receive the supplier statement and remittance	Statement and remittance		
Payments	Receive payment and issue receipt to organisation	Pay supplier	Payment requisition Cheque EFT	* *Trade payables (DT)* * *Bank (CT)* Early payment discount received (if applicable): * *Discount received (CT)* * *VAT (CT)* * *Trade payables (DT)*	No effect

FIGURE 9.3: Generic payment process

Refer to figure 9.3 throughout the following discussion.

- *Supplier activities*

  The supplier will send a statement with a payment remittance advice monthly or more frequently to the organisation. The statements will indicate the ageing of the outstanding balances and other information based on the supplier processing method (open item or balance forward which will be explained in topic 6). After the payment and the remittance advice have been received, the supplier will update his or her records.

- *Organisational activities*

  Proper controls to ensure timely payments are vital to ensure that overdue account interest is not charged and that the organisation's credit record remains untainted.

  The AIS will automatically identify invoices due based on each supplier's payment terms and/or the payment due date captured on the supplier invoice. Payment can be made in cash (very high risk), cheque or EFT. Only persons with the applicable mandates may authorise these payments and most organisations' internal controls require payments to be authorised by two persons. The payments are captured from the *petty cash voucher* (cash payments), *cheque stub or EFT payment list* source documents in the AIS *payment cashbook,* and the amount allocated against the supplier being paid. If the supplier transactions are processed using open item processing (see topic 6), then the amount will not only be matched to the supplier, but also to the specific supplier invoices and return debit notes that are being paid. When matched, the supplier invoices and return debit notes are closed. The payments will be open and will reflect as unreconciled on the bank reconciliation until the payment has been matched to the bank statement and reconciled.

- *Source document*

  Proper internal controls necessitate that any payment transaction should not be captured using the bank statement as the source document, except for bank-generated transactions such as interest paid, bank charges and so forth. The *petty cash voucher* (cash payments)*, cheque stub* or *EFT payment list* should be used as the source document.

- *Accounting transactions*

  No VAT transaction is recorded with the payment because the VAT entries were recorded during the recording of the supplier invoice. As agreed with the supplier and if the payment qualifies for it, *settlement discount* (also called *early payment discount*), should be received and the accounting entries recorded. If the organisation and the supplier are VAT vendors, the discount transaction recorded must account for VAT against the VAT rate applicable on the linked supplier invoices and return debit notes.

  Most organisations use a *settlement discount received* general ledger account to record settlement discount because it enables the organisation to easily see how much discount was received in a certain period. VAT rules also require that the settlement discount cannot be netted off against input tax and must be disclosed gross – hence a separate settlement discount account would be more appropriate. However, IFRSs disclosure requirements stipulate that the settlement discount received should be netted off against the cost of sales. We should therefore remember to include the settlement discount received general ledger account in the same AIS report writer category as cost of sales. As an alternative, we could also journalise the settlement discount received balance to the cost of sales account at period end.

  The *payments cashbook journal* is used to capture the following accounting entries:

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Payment for credit purchases			
Trade payables	BS – liability	Dt	Amount including VAT
Bank	BS – asset	Ct	Amount including VAT
Settlement discount received (if applicable)			
Trade payables	BS – liability	Dt	Discount amount including VAT
VAT	BS – liability	Ct	VAT amount
Settlement discount received	IS – income	Ct	Discount amount excluding VAT

- *Inventory quantities*

  There is no influence on inventory quantities because payment is made.

- *AIS database files*

  Some of the database files accessed, updated or modified will include the following:

  – the *supplier master file:* supplier details (ie code, name, address, year to date payments, outstanding balance, etc)
  – the *payments cashbook transaction file:* reference number, date, bank amount, supplier code, general ledger account number, etc
  – the *open invoice file:* summarised purchases from previous invoice transaction files that have not yet been matched to a payment
  – the *open debit note file:* summarised debit notes from previous debit note transaction files that have not yet been matched to a payment
  – *several general ledger master files:* storing general ledger account balances
  – the *general ledger transaction files:* details of each transaction recorded in the general ledger

- *AIS reports*

  A variety of reports, including the following, can be printed:

  – a *payment cashbook detail* report showing the cashbook payment transactions for a selected period
  – *supplier statements, supplier age analysis and supplier detail ledger,* which will include payments made
  – *general ledger accounts details* showing the accounting entries for the applicable general ledger accounts
  – *unmatched/unpaid invoices and debit notes* showing details of invoices and debit notes not yet paid or matched to a payment made

5   Summary

In this study unit, we investigated the processing of acquisition and payment transactions in an AIS. We learnt which documents are used, which database files are accessed, updated or modified, which reports that can be printed and some of the basic underlying accounting entries for purchase orders, inventory received, invoices received, inventory returned and payments.

In the next study unit, we will investigate the inventory and production cycle.

Self-assessment activity

After working through this study unit, you should be able to answer the following questions:

(a) List the processes that form part of the acquisition cycle.
(b) For each process in the acquisition cycle, describe the activities performed by both the organisation and supplier.
(c) For each process in the acquisition cycle, name and describe the source documents used.
(d) Identify and record the accounting entries applicable to each of the acquisition processes.
(e) Identify the movement in inventory quantities for each of the acquisition processes.

(f) For each process in the acquisition cycle, list the database files accessed, updated or modified and name some of the information contained in the database file.

(g) For each process in the acquisition cycle, list the AIS reports that can be generated.

(h) Describe the activities performed by both the organisation and supplier in the payment process.

(i) Name and describe the source documents used in the payment cycle.

(j) Identify and record the accounting entries applicable to the payment process.

(k) Identify the movement in inventory quantities for the payment process.

(l) For the payments process, list the database files accessed, updated or modified and name some of the information contained in the database file.

(m) For the payments process, list the AIS reports that can be generated.

(n) Describe the activities performed by both the organisation and supplier in the inventory returned process.

(o) Name and describe the source documents used in the inventory returned process.

(p) Identify and record the accounting entries applicable to the inventory returned process.

(q) Identify the movement in inventory quantities in the inventory returned processes.

(r) For the inventory returned process, list the database files accessed, updated or modified and name some of the information contained in these database files.

(s) For the inventory returned process, list the AIS reports that can be generated.

Inventory and production cycle
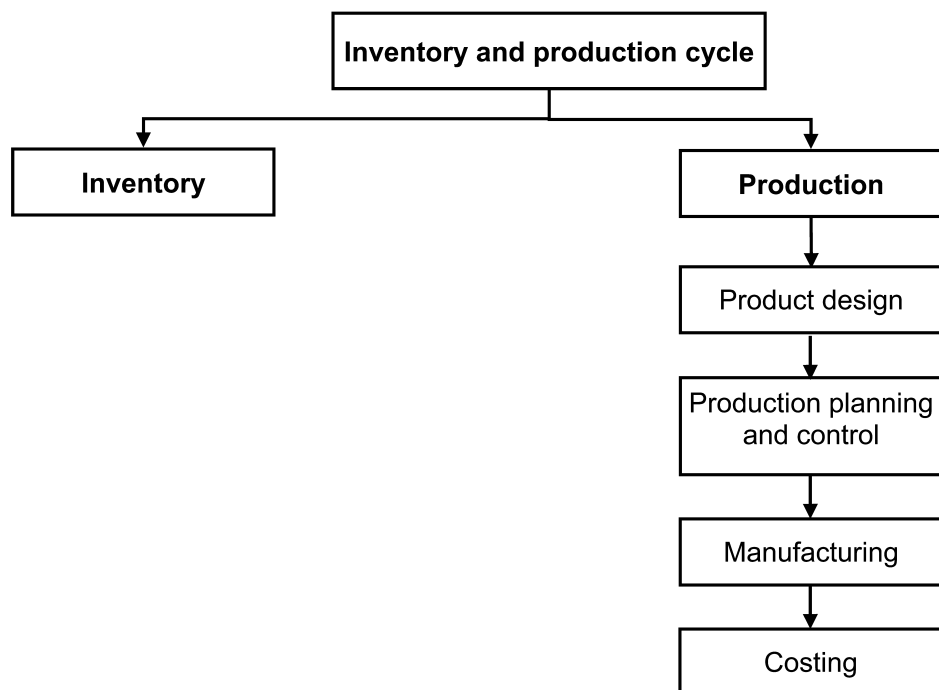
```
                    ┌──────────────────────────────┐
                    │ Inventory and production cycle │
                    └──────────────────────────────┘
                 ┌────────────┴─────────────┐
                 ▼                           ▼
        ┌─────────────────┐        ┌─────────────────┐
        │    Inventory    │        │   Production    │
        └─────────────────┘        └─────────────────┘
                                            │
                                            ▼
                                   ┌─────────────────┐
                                   │  Product design │
                                   └─────────────────┘
                                            │
                                            ▼
                                   ┌─────────────────┐
                                   │ Production planning
                                   │   and control   │
                                   └─────────────────┘
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                                            ▼
                                   ┌─────────────────┐
                                   │  Manufacturing  │
                                   └─────────────────┘
                                            │
                                            ▼
                                   ┌─────────────────┐
                                   │     Costing     │
                                   └─────────────────┘
```

1   Introduction

In the previous study unit, we learnt how the organisation's acquisitions and payments are recorded in an AIS. In this study unit, we will focus on some of the information systems used in the production and management of inventory. We will also look at the influence of the inventory and production cycle on the AIS. We will not discuss the audit environment and controls relating to this cycle because you will learn about these in auditing. We will also not deal with the IFRSs requirements in detail because they will be covered in financial accounting.

The inventory bought and sold by retail organisations is mostly managed and controlled with the aid of information systems. Manufacturing organisations buy raw materials and convert these materials into finished goods. Raw materials inventory and finished goods inventory are also managed and controlled using information systems. Owing to the advancement in technology, many large organisations' production processes are operated by information systems.

2 Inventory

Inventory is affected by the revenue and receipt cycle (see study unit 8) where inventory items are sold, the acquisition and payments cycle (see study unit 9) where inventory items are bought, and the production cycle (see section 3) where inventory items are manufactured.

Inventory can be stored in different warehouses and sold from different locations (ie stores/branches). Most AISs allow for the capture of different location data by capturing the store location and linking it to the inventory items and/or capturing the warehouse locations. Organisations with extensive warehouse and store locations (also called branches) will use specialised warehouse information systems that can track each inventory item's movement between different warehouses and/or stores. Other organisations' warehouse information systems may only record inventory movement in the individual branches and they are not integrated with other branches and/or warehouse information systems. Warehouse information systems are usually a module in an Enterprise resource planning (ERP) system, which you learnt about in AIN1501, but can also be a stand-alone software program.

Activity 10.1

Reflect on your own experience of a warehouse information system in action.

- Have you ever asked a shop assistant to enquire whether the item you are looking for is possibly available at another branch of the store?

    - Did the shop assistant call the other branch to find out or did he or she check the inventory quantities on the computer system?

    - If the shop assistant needed to call, could the branch you were at, at least check its own stores inventory quantities online?

- Reflect on how topic 1 (databases) links to warehouse information systems. Consider the following:

    - Would you recommend using a centralised or distributed database?
    - What would the field name be for the primary key?

The procedures and controls surrounding inventory items will be discussed in auditing, the different valuation methods for inventory in management accounting and the recording of these transactions will be dealt with in financial accounting. The movement of inventory items is recorded in the warehouse system and the data can be linked directly to the AIS (integrated system) or reports from the warehouse information systems can printed and then, if necessary, recorded in the AIS.

The influence of the other transaction cycles on AIS inventory was discussed in the applicable cycles (see study units 8 and 9)

3 Production

Production is unique to manufacturing type organisations, in contrast to service organisations, where there is no inventory to sell, and in retail organisations, where the finished inventory item is bought from a supplier during the acquisition and payments cycle (see study unit 9).

In the production cycle, also referred to as the conversion cycle, raw material inventory purchased during the acquisition and payments cycle (see study unit 9), is converted into

finished goods inventory. The procedures and internal controls applicable to this cycle will be examined in your auditing studies, while in your management accounting studies you will learn different methods of valuing inventory and costing of finished goods. In this module, we will discuss how the production cycle is interlinked to the AIS and some of the information systems used in the manufacturing process.

3.1 Product design

The first step in the conversion cycle is the design of the products to be manufactured. This process may involve a number of specialists and software to support the design process such as computer-aided design (CAD) and computer-aided engineering (CAE).

3.2 Production planning and control

Each finished product is manufactured using different raw materials.

> The **bill of materials (BOM)** specifies, for each finished goods inventory item, the type and quantities of raw materials needed in the manufacturing

More advanced AISs allow for a manufacturing module where the BOM information is captured.

Before the organisation can start the physical product manufacturing, they need to plan for and schedule the manufacturing, including determining which products (referred to as the product mix) to manufacture, the quantity required, the timing of production and raw materials acquisition and so on. Production planning will take a number of factors into account such as customer demand, labour and machine capacity and distribution and storage constraints.

Different methods can be used to determine the product mix and quantities required such as previous sales and forecast customer demand, and AIS can help with this by providing historical information on the quantities sold. You will learn more about calculating required product mix and quantities in your management accounting studies.

> Based on the planned production, a **master production schedule** (ie a detailed plan of which product must be manufactured, when and the quantity involved) is created.

The BOM, the master production schedule, raw material and work-in-process (WIP) quantities on hand and on order are used to determine the raw material quantities needed and the timing of the purchases. **Material resource planning (MRP)** software is specialised planning and control software that can help with this process. The AIS acquisition process of raw materials was explained in study unit 9.

> **Manufacturing resource planning (MRP II)** software is an extension of MRP software and is used for short- and long-term planning and control of the manufacturing process. It integrates all the aspects (people, materials, machines, money, etc) of the manufacturing process.

MRP II includes determining production needs, the master production schedule, BOM, MRP, capacity planning for machines and labour, managing raw materials and finished goods inventory levels, job/product costing and so forth. MRP II systems are similar to ERP systems, but with the difference that MRP IIs are specifically focused on manufacturing organisations, while ERPs are used by all types of organisations. The MRP II system will provide the necessary information to record the change in inventory quantities and the related costs in the AIS.

3.3 Manufacturing

After the planning has been done and the organisation has acquired the necessary raw materials, manufacturing can commence according to the master production schedule. Nowadays, *computer-aided manufacturing (CAM)* and *computer-integrated manufacturing (CIM)* software is used in the manufacturing process.

> *CAM* controls and coordinates all the machines used in the manufacturing process such as conveyor systems, cutting or welding machines and so forth.

CIM encompasses more than CAM.

> *CIM* is the automation and integration of the complete manufacturing process by using computers to control and/or execute the process from product design right through manufacturing, to quality control, storage of raw materials, WIP and finished goods, and ultimately, the shipment of the finished products.

Some of the steps can be performed by humans, but controlled by the CIM computers. Some of the subsystems found in CIM include CAD, CAE, MRP, MRPII and CAM.

The question that can now be asked is how does the AIS fit into the manufacturing process? Business activities, including the manufacturing process, will be recorded in the AIS. These activities can be recorded in detail or in summary form.

As products are manufactured, the raw materials inventory on hand quantities will decrease and WIP quantities on hand will increase. As the products are completed, the WIP quantities on hand will decrease and the finished goods on hand and inventory quantities available for sale will increase. These changes in inventory quantities will be captured in the AIS at an amount determined during costing.

The effect on inventory quantities is summarised below:

Process	Inventory type	Effect on quantities
Purchase raw material	Raw material	Increase
Manufacture	Raw material	Decrease
	WIP	Increase
Finished goods	WIP	Decrease
	Finished goods	Increase
Sale of finished goods	Finished goods	Decrease

3.4 Costing

There are different methods of calculating the cost of WIP and finished goods. Some of the costing methods that can be used include standard costing and activity-based costing. You will learn more about the different costing techniques in your management accounting studies.

Some organisations use a simplistic method to calculate the finished products' costs by utilising the information in the BOM – that is, the value of a finished goods item will be the total of the different raw material components' cost as indicated in the BOM. The raw materials cost is based on basic costing methods such as average cost or last-in-first-out.

However, the costing method used must not be determined by the AIS capabilities – it should be the most appropriate method for the organisation's business and adhere to IFRSs requirements. Whatever the method of determining costs, the costs must be recorded in the AIS. We will need to use our accounting knowledge to adjust, if necessary, the accounting entries for our organisation's specific costing methods and the amount of detail required by the organisation. Simplistically, the accounting entries can reflect as follows:

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Raw materials issued for production – WIP			
Inventory – WIP	BS – asset	Dt	Amount based on selected costing method (excl VAT)
Inventory – raw materials	BS – asset	Ct	
Finished goods received from production			
Inventory – finished goods	BS – asset	Dt	Amount based on selected costing method (excl VAT)
Inventory – WIP	BS – asset	Ct	

- *AIS database files*

  Some of the AIS database files accessed, updated or modified by the production process are as follows:

  – the *bill of material master file:* per finished good item, the component code, description quantity needed, cost, etc
  – the *inventory master file:* inventory item codes, inventory description, unit size, quantity on hand, quantity available, year-to-date purchases, year-to-date production, cost prices, etc
  – the *inventory transaction file:* inventory code, date, quantity issued for production, etc
  – *several general ledger master files:* storing new general ledger account balances
  – the *general ledger transaction files:* details of each transaction recorded in the general ledger

- *AIS reports*

  A variety of reports, including the following, can be printed:

  – *Inventory activity reports* will show all activities on an inventory item, including the movement of items from raw materials to WIP to ultimately finished goods.
  – *Inventory quantity reports* will show inventory quantities on order, available and on hand.
  – *General ledger accounts details* reports will show the accounting entries for the applicable general ledger accounts.

4   Summary

In this study unit, we learnt about some of the information systems used in the production and management of inventory. We also looked at the influence of the inventory and production cycle on the AIS. We focused primarily on the interaction with the AIS. In the next study unit, we deal with the human side of the organisation and investigate the activities relating to payroll and personnel.

Self-assessment activity

• •

After working through this study unit, you should be able to answer the following questions:

(a)   List the processes in the production cycle.
(b)   Name two types of software that can be used in the production design process.
(c)   Explain the following concepts: bill of materials, master production schedule, material resource planning (MRP) software and manufacturing resource planning (MRP II) software.
(d)   Explain the difference between computer-aided manufacturing (CAM) and computer-integrated manufacturing (CIM).
(e)   Explain how the AIS fits into the manufacturing process.
(f)   Describe how some AISs determine the cost of finished products.
(g)   Indicate the simplistic accounting entries applicable in costing of the inventory.
(h)   For the costing process, list the database files accessed, updated or modified and name some of the information contained in the database file.
(i)   For the costing process, list the AIS reports that can be used and indicate what information they will contain.

Further reading

If you are interested in further reading, the following authors discuss information systems used in the production and management of inventory, extensively:

- Boczko, T. 2007
- Dull, RB, Gelinas, UJ & Wheeler, PR. 2010
- Hall, JA. 2011
- Rommey, MB & Steinbart, PJ. 2009
- Stair, R, Reynolds, G & Chesney, T. 2008
- Wessels, P, Grobbelaar, E, Mc Gee, A & Prinsloo, G. 2007
- Wessels, P, Mc Gee, A, Prinsloo, G, Mc Gee, E & Van der Poll, H. 2010

Payroll and personnel cycle

In this study unit

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│   Payroll and personnel cycle     │
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┌──────────────┐    ┌──────────────┐
│  Personnel   │    │   Payroll    │
└──────────────┘    └──────────────┘
       │                   │
       ▼                   ▼
┌──────────────┐    ┌──────────────┐
│Human resource│    │Payroll and AIS│
│management(HRM)│    │system         │
│systems       │    │interaction    │
└──────────────┘    └──────────────┘
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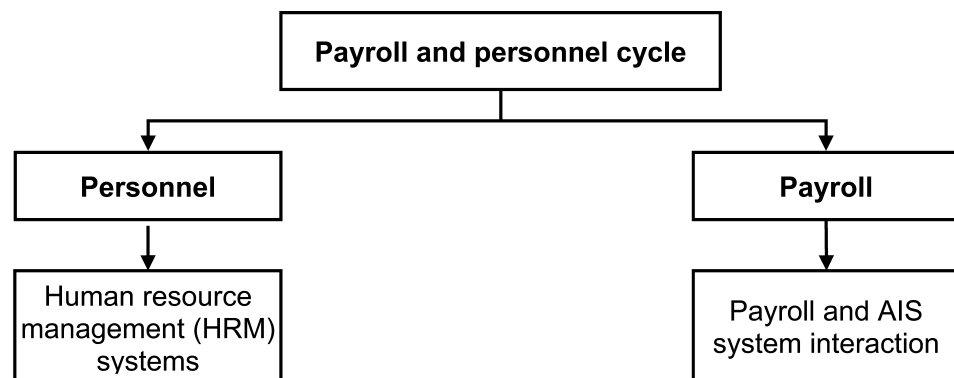
1   Introduction

In the previous study unit, we focused on some of the information systems used in the production and management of inventory. In this study unit, we will learn about information systems used in the payroll and personnel cycle. In the payroll cycle, we will investigate the source documents used, database files accessed, updated or modified the reports printed as well as some of the basic accounting entries.

The payroll and personnel cycle entails all activities revolving around an organisation's employees and their management. These activities will include the recruitment and hiring of personnel, personnel training, the movement of personnel in the organisation, attendance management, performance management, voluntary (resignations) and involuntary (eg redundancy) discharge of personnel, salary management and the payment of personnel.

2   Personnel

The management of personnel and the recording of their activities are not part of an AIS.

> Personnel information systems, referred to as *human resource management (HRM) systems,* is a specialised information system used for this purpose.

These HRM systems are used by the HR department in organisations to help ease the burden of managing the numerous regulations applicable to personnel management such as the Employment Equity Act, Income Tax Act, Basic Conditions of Employment Act and Labour Relations Act.

HRM systems can be stand-alone application software or a module in an ERP system. Both HRM stand-alone software and ERP modules are usually capable of easily integrating with most payroll systems.

The following are some of the functions included in many HRM programs/modules:

- *personal information:* each employee's full name, surname, identity number, address, next of kin, race, gender, income tax number, etc
- *recruitment:* job descriptions, vacancies, offers made, etc
- *employee compensation:* salary scales, structures, market salaries, etc
- *performance management:* key performance indicators, performance contract and reviews, promotions, disciplinary actions, etc
- *talent management:* employee education, training received and required, awards, work experience, etc
- *absence management:* vacation leave, sick leave, unpaid leave, etc
- *reports and analytics* – budget reports, timing before vacancies are filled, staff turnover, top performers, bottom performers, employment equity reports, etc

Examples of HRM systems/modules include Pastel Partner Human Resources, Sage Accpac HRMS, SAP ERP HCM, Oracle HRMS and Microsoft Axapta Human Resource Management.

In the absence of an HRM system, many organisations use spreadsheets and word processors to perform the above functions, but keeping track of everything is clearly far more demanding compared with the use of an HRM system.

Because you will learn more about personnel procedures and controls in auditing, these procedures and controls will not be discussed in this module.

Activity 11.1

Ask a family member or a friend employed at a medium to large organisation about the following:

- How he or she apply for leave and capture performance evaluations.

  - Does he or she complete manual forms, or is the request/information captured on a computer system?
  - If it is captured electronically, does he or she know which computer program is used?

3 Payroll

Payroll is one of the most important processes from an employee's perspective, because it ensures that he or she is paid every month. The timely and accurate processing of payroll is therefore crucial. Payroll is a specialised activity and should be managed by personnel with knowledge of the applicable regulations. Payroll should also make use software that caters for the applicable regulations such as income tax, unemployment insurance fund (UIF), skills development levies (SDL) and so forth.

Most payroll software include functionalities such as:

- the creation and distribution (print or electronic format) of payslips
- the calculation of annual leave pay
- the calculation of income tax, based on different tax methods (ie monthly, tax directives, directors' tax, etc)
- the creation of statutory returns for tax, SDL, UIF and so on
- the creation and distribution (print or electronic format) of IRP5 certificates
- managing different types of contributions such as medical aid and provident and pension funds
- the management of different deduction types such as loan repayments and garnishee orders.

Examples of payroll software include Pastel Partner Payroll, PraxiPay, Superpay, QuickBook's Quick payroll, Simplepay and Softline VIP payroll. Access to the payroll system is extremely well controlled because it contains huge amounts of sensitive personal information that must be protected. You will learn all about the procedures and controls relating to payroll in auditing. In this module, however, we will explain how the payroll system is linked to the AIS.

AIS and the payroll and personnel cycle intersect at payroll because the payroll-related payments must be recorded in the AIS. There are different methods for this interaction between the payroll and AIS system. Some payroll systems are fully integrated with the AIS and will automatically process the payroll transactions in the AIS. Other payroll systems create electronic files in a format required by the AIS. These electronic files are then imported into the AIS and processed. Other payroll and AIS systems are not at all integrated, and the transactions from the payroll system are manually captured in the AIS from reports generated by the payroll system. Whatever the method of interaction, the principles are the same, as explained below.

- *Payroll system*

  All employees' payroll-related information is captured and processed on the payroll software. The payroll will calculate the net pay due to each employee and the liabilities due to various parties such as pension funds, UIF, SDL and tax. Payroll costing reports will include the payroll cost that needs to be allocated to each department and/or cost centre, liabilities that must be recorded (ie amounts payable to UIF, SDL, SARS etc), amounts due to employees and so on. In a nonintegrated system, these costing reports are used to record the payroll transactions in the AIS, while in an integrated system, these transactions will be automatically pushed from the payroll system to the AIS.

  The payment of liabilities, especially the payment of employees, will be done by EFT, cheque or (rarely) cash, but nowadays EFT is generally used. Many organisations use a separate payroll bank account, as a control, to pay salaries and payroll liabilities. This bank account is only funded with the amount as indicated by each month's payroll reports. Any bank charges on this payroll account are deducted from the main bank account and not from the payroll account. This ensures that all money due is paid, and that no more can be paid than what is due as per the payroll run.

- *Source documents*

  Where the HRM and payroll system are linked, the source documents will flow from the HRM system. Some of the source documents used include employment contracts stipulating salary, garnishee orders, tax directives received and so on. Source documents relating to the physical payment of the payroll will include EFT reports or cheque stubs.

- *Accounting transactions*

We can divide the accounting transactions into two parts, namely the recording of the costs and related liabilities due and the physical payment of the salaries and related liabilities.

As mentioned previously, an individual employee's salary information is personal and sensitive and we will therefore normally only see totals reflected in the AIS and not individual amounts per employee. The breakdown of individual amounts, however, will be available in the payroll system.

In many organisations, both the employee and the organisation contribute towards certain benefits. For example, they both contribute to the employee's pension fund. Payroll reports will differentiate between employee contributions and organisation contributions, because the taxation and accounting for these differ. The organisation's contribution is a cost to the organisation and should reflect as an expense in the organisation's financial statements, while the employee contribution is a payment on behalf of the employee, and must have a R0 net effect on the organisation's financial statements. The organisation will pay their contribution for the noncash benefit (ie the benefit is not paid in cash to the employee) to the provider of the benefit, say, a pension fund, medical aid and UIF.

Organisations may also use less or more detail – for example, an organisation may decide to only have a salary general ledger expense account or to split the salary general ledger account into separate benefits. A salary control account is sometimes also used to record all liabilities due to third parties (including employees), while other organisations may prefer to use separate liability accounts for this purpose.

We will need to use our accounting knowledge to adjust the accounting entries for our organisation's specific salary and benefit structures and the amount of detail required by the organisation.

Below is a simplistic example, which reflects some of the generic accounting entries for an organisation. In this example, we will use the salary control account to record all liabilities due.

Salaries	R100,000
Employees tax (PAYE & SITE)	- R40,000
Expense paid on behalf of employees (employee contributions)	- R3,000
Net payment to employees	R57,000

Salaries	R 100,000
Noncash benefits for organisation's cost (employer contribution)	R 2,500
Total organisational cost (ie salary expense)	R 102,500

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Payroll costing			
Salary control account	BS – liability	Ct	R102,500
Salaries	IS – expense	Dt	R100,000
Noncash benefit for the organisation's cost	IS – expense	Dt	R2,500
Payment to employees			
Salary control account	BS – liability	Dt	R57,000
Bank	BS – asset	Ct	R57,000
Payment to SARS for employees' tax due			
Salary control account	BS – liability	Dt	R40,000
Bank	BS – asset	Ct	R40,000
Payment to third parties for expenses paid on behalf of the employees			
Salary control account	BS – liability	Dt	R3,000
Bank	BS – asset	Ct	R3,000
Payment to third parties for noncash benefit for organisation's cost			
Salary control account	BS – liability	Dt	R2,500
Bank	BS – asset	Ct	R2,500

After all the payments have been accounted, the salary control account will now have a zero balance (ie R102,500 – R57,000 – R40,000 – R3,000 – R2,500 = R0).

Bear in mind the payment for training or recruitment fees to a recruitment agency is not paid through payroll but through the acquisition and payments cycle.

• *AIS database files*

The database files accessed, updated or modified will be as follows:

– *several general ledger master files:* storing new general ledger account balances
– the *general ledger transaction files:* details of each transaction recorded in the general ledger
– the *payments cashbook transaction file:* reference number, date, bank amount, general ledger account number, etc

- *AIS reports*

  Some of the reports that can be used are as follows:

  – the *payment cashbook detail report* showing the cashbook payment transactions for a selected period
  – the *general ledger account details* showing the accounting entries for the selected general ledger account

  ### Activity 11.2

  - Ask a family member or friend employed at a medium to large organisation if he or she knows which payroll software is used in his or her organisation (the name of the software program used is often printed on the employee's payslip).
  - Ask the above family member or friend to explain how his or her salary is broken down. Note: Tell the person to use fictitious amounts (salary information is sensitive).
  - If you are the accountant for the organisation, would you be able to record the accounting entries based on the salary information provided?

4   Summary

In this study unit, we investigated information systems used in the payroll and personnel cycle and identified examples of the software used. We also learnt about the source documents used, database files accessed, updated or modified, reports printed and some of the basic accounting entries in the payroll cycle. In the next study unit, we will examine the final transaction processing cycle, namely finance and investment.

Self-assessment activity

After working through this study unit, you should be able to answer the following questions:

(a) Explain the purpose of a Human resource management (HRM) system.
(b) List and briefly explain the different functions of in a HRM system.
(c) List three examples of HRM software.
(d) List five functionalities of payroll software.
(e) Name three examples of payroll software.
(f) List three source documents used in the payroll system.
(g) Identify the differences in the accounting transactions for an employee contribution and an organisation contribution.
(h) Explain why only salary totals are reflected in the AIS.
(i) Using a simplistic example, indicate the applicable accounting entries.
(j) Name the AIS database files that will be accessed, updated or modified by payroll transactions.
(k) Name two (2) AIS reports used in the payroll cycle.

Finance and investment cycle

In this study unit

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│        Finance and investment cycle       │
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┌──────────────┐          ┌──────────────┐
│   Finance    │          │  Investment  │
└──────────────┘          └──────────────┘
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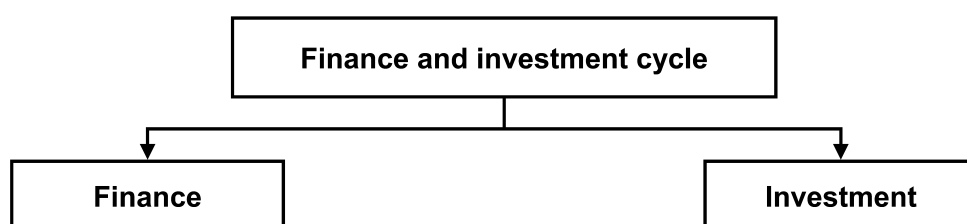
1   Introduction

In the previous study unit, we learnt about information systems used in the payroll and personnel cycle. In this study unit, we will focus on AIS transaction processing for investments made and finance received by the organisation.

At some stage or other, all organisations will require money to finance normal business operations or expansion of operations. Successful organisations will generate enough money to enable them to invest and thereby generate further profits.

2   Investments

The organisation can invest in a multitude of investment vehicles including new projects, working capital, plant, equipment, money markets, derivates and equity markets, to name but a few. The investment decision will be based on the organisation's financial strategy. Financial strategy, investment appraisal techniques and the financing of these investments will be explained in your later management accounting studies, while the controls and procedures involved in the investment cycle will be dealt with in your auditing studies. However, whatever types of investments are made, all investment transactions must be recorded in the AIS. Investment transactions will include the initial investment, regular revaluations as per IFRSs requirements and the recording of returns on investments. Revaluation can, for example, include depreciation charges on fixed assets, change in market value of equity investments and so on. Investment-related transactions are recorded in the AIS using different journals. For example, an initial investment using an EFT payment will be recorded in the payments cashbook journal and the revaluation of an investment will be recorded using a general journal.

• *Source documents*

The source documents that are used will be based on the type of investment vehicle. One should always remember to use the applicable source document to record the transaction in the AIS and not only the bank statement. The actual source document contains information required for the accurate accounting of the transaction and the purpose of the bank statement is only to reconcile the bank account.

• *Accounting transactions*

The accounting transaction will depend on the investment vehicle used. These accounting entries are extremely specific to the different investment vehicles, and you will learn about these in your further financial accounting studies.

However, we will now look at a simplistic example, in which the investment is a fixed deposit, and interest is paid at the end of the period. The payments cashbook journal will be used to capture the initial investment and a general journal for the accruing of interest.

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Initial investment			
Fixed deposit	BS – asset	Dt	Investment amount
Bank	BS – asset	Ct	
Accrue monthly return on investment			
Fixed deposit	BS – asset	Dt	Return amount
Interest received	IS – income	Ct	

Activity 12.1

• Record the accounting transactions for the purchase of a computer to the value of R10,000 excluding VAT.
• The computer is depreciated at 33% per annum according to the straight-line method. Record the accounting transactions for one month's depreciation charge.

• *AIS database files*

Database files accessed, updated or modified to record investments in the AIS include the following:

– the *payments cashbook transaction file:* reference number, date, bank amount, general ledger account number, etc
– *several general ledger master files:* storing new general ledger account balances
– the *general ledger transaction files:* details of each transaction recorded in the general ledger

- *AIS reports*

The *general ledger accounts details* report shows the accounting entries for the applicable general ledger accounts. This GL listing will be used to reconcile the general ledger with the investment and fixed asset registers.

3   Finance

There are different sources of long- and short-term finance for an organisation. Examples of long-term finance include the issuing of shares, bonds, term loans and leases. A bank overdraft is an example of short-term finance. In your later management accounting studies you will learn more about these finance options, the valuation of thereof and the costs relating to the use of these financial methods.

A finance option must be selected carefully because it can lock an organisation into a long-term agreement that can be to the detriment of the organisation – hence the need to ensure that proper controls and procedures for the finance cycle are implemented. These controls and procedures will be explained in your auditing studies.

However, whatever the type of finance used, all finance transactions must be recorded in the AIS. Finance transactions do not only include the initial finance obtained but also the regular valuation of the finance per IFRSs requirements and the recording of ongoing finance costs such as interest.

- *Source document*

The source documents used will be based on the type of finance obtained. As with investments, it is also necessary for finance transactions to use the applicable source document to record the transaction in the AIS and not only the bank statement, because the source document may contain information required for the accurate accounting of the transaction. Examples of source documents are loan agreements, minutes of meetings and so on.

- *Accounting transactions*

The accounting transaction will depend on the finance obtained. These accounting entries are specific to the different finance options and you will learn about these in your financial accounting studies.

However, we will now look at a simplistic example, in which finance is obtained through a long-term loan and interest is paid at the end of the period. The receipts cashbook journal will be used to capture the initial finance obtained and a general journal for the accruing of interest.

Account	Balance sheet (BS)/ Income statement (IS)	Debit (Dt)/ Credit (Ct)	Value
Initial finance obtained			
Bank	BS – asset	Dt	Finance amount from loan agreement
Long-term loan	BS – liability	Ct	
Accrue monthly finance cost			
Interest paid	IS – expense	Dt	Finance cost – recalculated per loan agreement
Long-term loan	BS – liability	Ct	

- *AIS database files*

  Database files accessed, updated or modified in the AIS include the following:

  – *several general ledger master files:* storing new general ledger account balances
  – the *general ledger transaction files:* details of each transaction recorded in the general ledger

- *AIS reports*

  The *general ledger accounts details* report shows the accounting entries for the applicable general ledger accounts. These listings should be used to perform reconciliations with third-party statements (eg a loan statement).

4 Summary

In this study unit, we examined the source documents, accounting transactions, database files and AIS reports involved in processing investments and finance transactions in the AIS. In the next topic you will be introduced to the chart of accounts and staffing level requirements for financial reporting.

Self-assessment activity

After working through this study unit, you should be able to answer the following questions:

(a) List three types of investment transaction that must be recorded in the AIS.
(b) Explain the importance of not using only a bank statement as a source document for both investment and finance transactions.
(c) Using a simplistic example of a fixed deposit, record the applicable accounting entries.
(d) Name the AIS database files that will be accessed, updated or modified by the investment transactions.
(e) Name the journal used to record the initial investment transaction.
(f) List three types of finance transactions that must be recorded in the AIS.
(g) Using an example of a simplistic long-term loan, record the applicable accounting entries.
(h) Name the AIS database files that will be accessed, updated or modified by the finance transactions.
(i) Name the journal used to record the initial finance transaction.
(j) Name an AIS report that is used when reconciling finance transactions.

Financial reporting infrastructure

LEARNING OUTCOMES

After studying this topic, you should be able to

– identify the factors influencing the basic staffing level requirements for a specific organisation
– discuss the finance team structure in relation to the AIS
– identify the basic chart of account components to meet the requirements of a specific organisation
– evaluate a given chart of accounts in terms of the organisation's business environment

Study guide 1		**Study guide 2**	
Part 1 Data management and utilisation	**Part 2** Spreadsheets	**Part 3** Transaction processing	**Part 4** Management reporting systems

Topics

3 Accounting cycles
  SU 7:   Overview of transaction processing
  SU 8:   Revenue and receipts cycle
  SU 9:   Acquisition and payments cycle
  SU 10: Inventory and production cycle
  SU 11: Payroll and personnel cycle
  SU 12: Finance and investment cycle

4 Financial reporting infrastructure
  SU 13: Financial reporting structure

5 Accounting information system applications
  SU 14: Selecting an appropriate accounting information system

6 Pastel Partner accounting information system
  SU 15: Getting started on Pastel Partner
  SU 16: Customers, suppliers, inventory and general ledger accounts
  SU 17: Process transactions
  SU 18: Retrieving information and sundry processing

13

Financial reporting structure

In this study unit
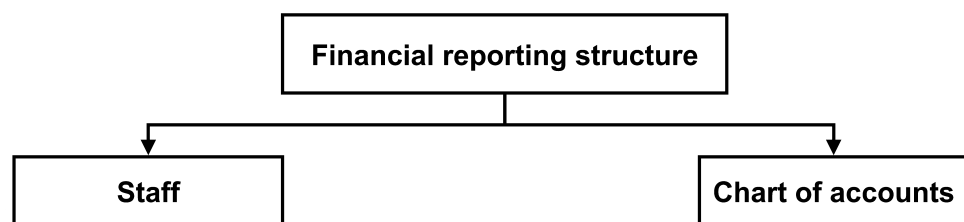
1 Introduction

The ultimate purpose of the organisation's finance team is to accurately and timeously report on the organisation's financial position and cash flow and provide useful information to facilitate decision making. To accomplish this goal, the finance team cannot only rely on computers, but need some human interaction and technical knowledge as well.

In the previous topic, we focused on accounting transaction processing cycles in an information system environment. In this study unit, we will first examine the staffing level requirements of a finance team. Secondly, we will take a closer look at the chart of accounts (CoA) and the guidelines to create an effective CoA, because without a proper CoA, financial reporting may be a cumbersome and, in some instances, an impossible task.

2 Staffing level requirements

The structure and the number of staff members in a finance team will differ from organisation to organisation. It can vary from one person in an owner-run business (possibly the owner himself or herself), to large teams in large organisations. Even in organisations of the same size, the structure of the finance teams may differ – some may be centralised, while others may be situated in various business units. The treasury function that deals with investments and financing may be separate or form part of the finance team. Bear in mind that there is no "one size fits all" solution for staffing levels and structures in a finance team because the variables influencing these will differ from one organisation to the next.

Some of the factors influencing the staffing level requirements of the organisation's finance team will include the following:

• the size and structure of the organisation
• the complexity and volume of transactions processed

- the complexity and volume of reporting required
- the integration of the AIS with the operational information systems
- the number of manual interventions needed
- the AIS software used.

We will need to analyse the organisation's specific environment and requirements before suggesting changes to staffing levels and structures in the finance team.

However, the following items are always important to remember when relating the finance team structure to the AIS.

- ***Segregation of duties (SoD).*** The responsibility to perform related tasks is allocated to different people or departments, and is a vital internal control to help reduce the risk of fraud and mistakes. You will learn more about SoD in auditing. SoD must also apply to the AIS by assigning certain roles and responsibilities to the different users in the AIS. The AIS will be set up so that each specific user will only have access to the tasks in the AIS directly linked to his or her role and responsibilities. For example, the cashbook clerk will only have access to the cashbook and will not be able to process customer transactions. We will practically learn how to allocate specific functions to AIS users in topic 6, Pastel Partner.
- ***Supervisor.*** Each AIS will have a role that has access to all functions in the AIS. This person is usually referred to as the supervisor or administrator. A senior member of the finance team, usually the financial manager, will fulfil the role of supervisor. A trustworthy, honest and ethical person must fulfil this role because he or she will have the authorisation to overwrite most computerised controls and will be able to perform all the functions in the AIS, thereby SoD controls will be overridden.
- ***Reconciliations.*** Reconciliations should be performed monthly, no matter what the size of the team, and these must be reviewed and signed off by a person other than the person performing the reconciliation. Examples of typical reconciliations are bank and creditors' reconciliations.
- ***Audit trail.*** Each user's access (including that of the supervisor) to the AIS and actions performed on the AIS must be logged on the AIS audit trail. An ***AIS audit trail*** tracks user activity on the AIS by recording the user name and access date and time as well as the actions performed by that user. The level of detail recorded on the AIS audit trail will depend on the AIS used.

3 Chart of accounts (CoA)

As you know from your accounting studies, a ***CoA*** is a list of accounts used in the organisation's general ledger.

The CoA in an AIS includes for each general ledger (GL) account a description of the account and a unique account number (primary key) by which it can be identified.

The CoA reflects the complexity of the organisation's structure and requirements. Large organisations' CoAs contain thousands of GL accounts and smaller organisations' CoAs hundreds of GL accounts.

AIS programs already include a generic and a number of industry-specific CoAs. For example, Pastel Partner contains one generic and 21 industry-specific CoAs. These predefined industry specific CoAs contains GL accounts normally used by an organisation operating in that specific industry. For example, a club's industry-specific CoA will include GL accounts for entry fees and bar sales, while a church's CoA will include GL accounts for offerings and tithes. Although these predefined CoAs will already include a number of

industry-specific GL accounts, the CoA is still flexible and can be tailored to the organisation's specific needs by adding, deleting and modifying the GL accounts in the CoA.

3.1 Structure

The CoA is grouped into the five major financial statement categories namely assets, liabilities, equity, income and expenses, with subcategories for each major category. The subcategories used will be based on the industry- and business-specific requirements of the organisation. Figure 13.1 shows the categories of a generic CoAs.
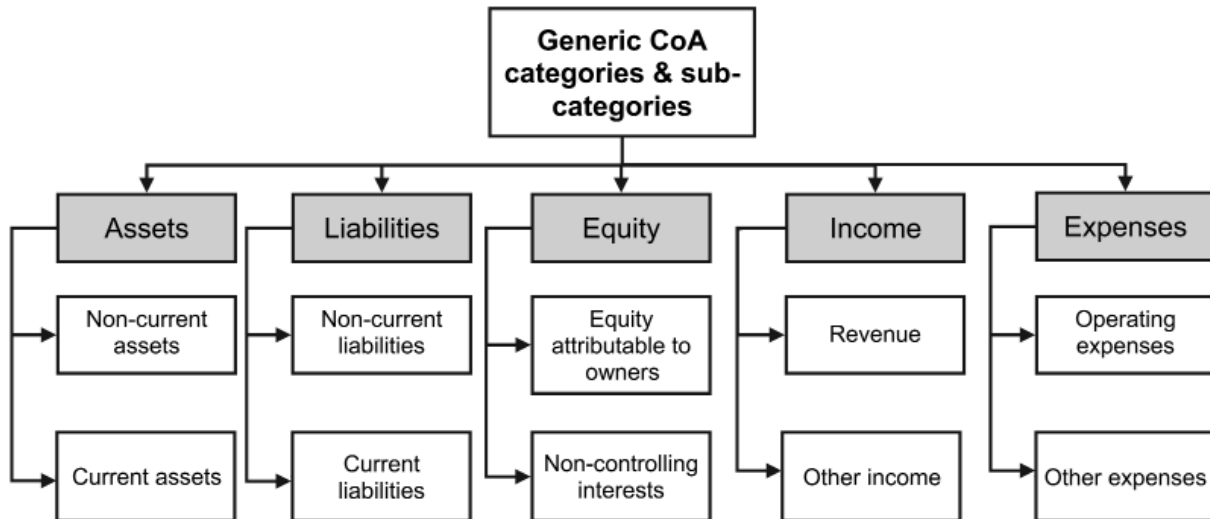
FIGURE 13.1: Generic CoA categories

A block of account numbers is assigned to each of the five major categories, leaving gaps between the subcategories in each major category. These gaps are used to expand the subcategories in future, so that they can be stored numerically. For example, all the account numbers from 8000 to 8999 are allocated to assets. In the asset category, the block of account numbers 8000 to 8399 is allocated to non-current assets and the block of account numbers 8600 to 8899 is allocated to current assets.

The AIS software program used will prescribe the CoA account number convention, that is, the number of numbers used, only numbers, or only alpha numeric, and so on.

In the same way as each major category can have subcategories, each GL account, called the main account, can also have subaccounts. For example, a computer shop's "Sales" main account may have subaccounts named "Sales – hardware" and "Sales – software". In Pastel Partner the first numbers in a subaccount's account number will be the same as the main account, and the last numbers in the subaccount's account number will indicate the specific subaccount. Looking at our example of the computer shop again, the sales main account number may be "1000/000" and the subaccount number for "Sales – hardware" will then be "1000/100" and "Sales – software" account number will be "1000/200". The "100" will indicate the "hardware" subaccount and the "200" the "software" subaccount. We will learn more about main and subaccounts in practice when we tackle Pastel Partner in topic 6.

3.2 Development guidelines

An effective designed and setup CoA produces better financial reporting and saves time and costs. The CoA structure should assist in the accurate and consistent posting of transactions. Remember the old saying: "If you fail to plan, you plan to fail". It is therefore essential to spend enough time properly planning a new or adjusted CoA.

When planning, the following should be taken into account:

- **The organisation's business operations and industry.** The CoA should reflect the organisation's specific business operations and the industry in which it is operating. It is therefore necessary to understand the business before creating the CoA. For example, if the organisation provides services only, then one would not expect to see "inventory work in progress (WIP)" GL accounts in the CoA. By contrast, if the organisation operates in a manufacturing environment, one would expect to see multiple inventory accounts including "inventory WIP" GL accounts.
- **The organisation's structure.** The GL accounts that are used must fit the organisation's structure. For example, the GL accounts must give details per department, business unit and so on, and how these relate to one another (department A and B are part of business unit AA). Use an organogram to visualise and plan for this structure.
- **Reporting detail required.** The GL accounts must be able to populate the organisation's required IFRS financial statements, financial management accounts and the organisation's various tax returns, without the need to analyse the transactions in an individual GL account. For example, if management reporting for a computer organisation requires sales to be split between hardware and software sales, the "sales" GL account must then also be split along these lines. Meet with the users and creators of the IFRS financial statements, financial management accounts and tax returns to understand and plan for the detail required in these statements and returns. However, remember there should always be a balance between detail requirement "wish lists" and what is practical, feasible and logical.
- **Plan for the future.** The CoA is not only used for the current financial year, but also for future years – hence the need to plan for the future. Take into account possible growth in the organisational structure, change in business processes and detail requirements. For example, leave enough gaps between the GL account numbers and subcategories' account blocks so that it is possible to add new GL accounts and categories when needed in future.
- **Logical.** The CoA must have a logical flow in the major categories, subcategories and the related account number blocks and individual account numbers. For example, the balance sheet accounts will be first, followed by the income statement accounts. The categories, subcategories and the related GL accounts will not be mixed, but follow each other logically.
- **Consistent.** The account number structure and format must be consistent between the accounts used.
- **Account description.** The account description should clearly but briefly explain the nature of the GL account.
- **Draft.** Create a draft structure on paper first before implementing it in the AIS. It is easier to change the draft than the implemented CoA.
- **Feedback.** Obtain feedback from the different role players on the draft CoA. They may have insights you have not yet considered and which could influence the CoA materially.
- **Sign-off.** Obtain sign-off from applicable management on the final CoA before implementing it.

Activity 13.1

Fruity Fruit (Pty) Ltd is a retail organisation that buys fresh fruit and vegetables wholesale and then sells it to individuals and small shops. Information in monthly management reports is divided between shop and individual sales. The first four numbers in the account number indicate the main account, and the following three numbers the subaccount. Below is an extract from the organisation's current CoA.

Account number	Account description
1000/000	Sales – Shops and individual
1000/345	Service – Consultation
1000/346	Service – Medicine
1001/000	Interest paid
1002/000	Interest received
2000/234	Fixed asset – Trucks
2000/235	Fixed asset – Property
2001/500	Cost of sales – Individuals
2001/600	Cost of sales – Shops
2002/111	Delivery fees paid – Individuals
2002/211	Delivery fees paid – Shops
5000/100	L – loan
5000/200	L – ST FNB

REQUIRED

Using examples, evaluate whether Fruity Fruit's CoA adheres to the CoA development guidelines. For the purpose of this activity, you do not need to consider the draft, feedback and sign-off guidelines.

Feedback on activity 13.1

Fruity Fruit's CoA does not adhere to the development guidelines. This is evident in the following:

(a) Organisation's business operation

Fruity Fruit sells fruit and vegetables, but the CoA includes GL accounts for "1000/345 Service – Consultation" and "1000/346 Service – Medicine". These accounts do not relate to Fruity Fruit's business operations and should therefore not be included in the CoA.

(b) Reporting detail required

Management requires management accounts split between shop and individual transactions. The sales transactions is all recorded in one GL account namely "1000/000 Sales – Shops" and individual and not in two separate accounts as required for reporting purposes. This also does not match the cost of sales accounts which have separate accounts for "Cost of sales – Individuals" and "Cost of sales – Shops".

(c) Plan for the future

There should be gaps between account numbers so that it is possible to insert new GL accounts and categories in future. In Fruity Fruit's CoA there are no such gaps as can be seen where the delivery fees main account number ("2002") immediately follows the cost of sales main account number ("2001"). Also, the interest paid main account number ("1001") immediately follows the sales main account number ("1000").

(d) Logical

There is no logical flow between the categories. Assets accounts numbers, that is, "2000/234 Fixed asset – trucks" and "2000/234 Fixed asset – property" are between income and expense accounts. A logical flow should not have balance sheet and income statement major categories mixed together. "Property" general ledger accounts usually also appear before any other fixed asset accounts such as "Trucks".

In addition, the expense account "1001/000 Interest paid" is between the income accounts. A logical flow should not have an income statement's income and expense accounts jumbled together.

(e) Consistent

The inconsistency between account numbering is most obvious in the sub-account numbers. For "2001/500 Cost of sales – Individuals" and "2001/600 Cost of sales – Shops", the subaccount numbering used for individuals and shops is 500 and 600 respectively. However , for "2002/111 Delivery fees paid – Individuals" and "2002/211 Delivery fees paid – Shops", the subaccount numbering used for individuals is 111 and for shops 211. In a consistent CoA, the subaccount numbers used to respectively indicate "individuals" and "shops" would be the same.

(f) Account description

The account description used for "5000/100 L – loan" and "5000/200 L – ST FNB" is not descriptive enough. The CoA guidelines require that the account descriptions must be sufficiently descriptive and clearly explain the nature of the GL account.

4 Summary

In this study unit, we learnt about the factors influencing the staffing level requirements of the finance team, the structure of a CoA and the guidelines for creating an effective CoA. In the next topic, we will examine the available AIS applications, discuss how to select AIS and consider AIS risks and controls.

Self-assessment activity

After working through this study unit, you should be able to answer the following questions:

(a) Name the factors that will influence a finance team's staffing levels.
(b) List and briefly describe important items relating to a finance team structure and the AIS.
(c) List the five major financial statement categories in which the CoA is grouped.
(d) Explain why gaps should be left between the blocks of account numbers assigned to subcategories.
(e) Indicate the factor that will prescribe the CoA account number convention used?
(f) List and briefly explain each of the CoA development guidelines.

Accounting information system applications

LEARNING OUTCOMES

After studying this topic, you should be able to

– list various accounting information systems available
– discuss factors to consider when selecting an AIS
– explain AIS security risks and controls

Study guide 1		**Study guide 2**	
Part 1 Data management and utilisation	**Part 2** Spreadsheets	**Part 3** Transaction processing	**Part 4** Management reporting systems

Topics

3 Accounting cycles
  SU 7:   Overview of transaction processing
  SU 8:   Revenue and receipts cycle
  SU 9:   Acquisition and payments cycle
  SU 10: Inventory and production cycle
  SU 11: Payroll and personnel cycle
  SU 12: Finance and investment cycle

4 Financial reporting infrastructure
  SU 13: Financial reporting structure

5 Accounting information system applications
  SU 14: Selecting an appropriate accounting information system

6 Pastel Partner accounting information system
  SU 15: Getting started on Pastel Partner
  SU 16: Customers, suppliers, inventory and general ledger accounts
  SU 17: Process transactions
  SU 18: Retrieving information and sundry processing

Selecting an appropriate accounting information system

In this study unit
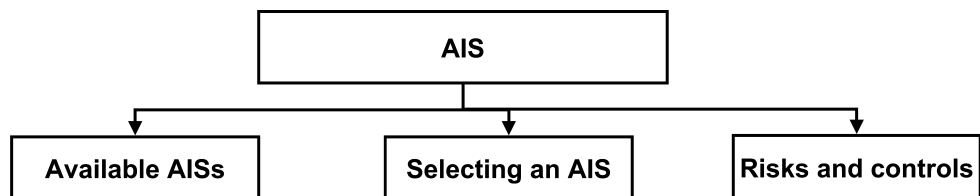
1   Introduction

In most organisations, accounting records are no longer kept in manual paper books. Almost all organisations currently use an AIS to record financial transactions. There are several different AISs available to choose from, making the selection process more difficult for an organisation.

In the previous topic, we learnt about the factors influencing the staffing level requirements of the finance team, the structure of a CoA and the guidelines for creating an effective CoA. In this study unit, we will examine some of the available AIS applications. We will also discuss how to select an AIS, including the items that should be considered in the process. Lastly, we will discuss the risks and controls surrounding AISs.

2   Available AISs

AISs, also known as **accounting software,** vary greatly in cost and functionality. An AIS can be developed in-house, bought from software vendors and used as is or bought from software vendors and customised to suit the organisation's specific needs. The use of an in-house-developed AIS, however, is rare nowadays.

AIS vendors have segmented their accounting software to focus on entry-level, small to medium, medium to large and enterprise-level organisations. The software price increases as the complexity and the features provided by the software increase.

An *entry-level* AIS includes basic features, usually has one-user access and generally does not provide for segregation of duties. These software are purchased off the shelf and only allow for basic set-up information. Entry-level software will have the least number of reports available and will not include advanced security controls. Examples include the following:

- Pastel My Business (www.pastel.co.za)
- QuickBooks SimpleStart (www.quickbooks.co.za)
- Palladium Accounting Individual (www.palladiumsoftware.co.za)

One step up from entry-level software is the ***small to medium*** organisation's AIS. This software allows for more users (usually between 3 and 5), and will also include more features such as more standard reports, setting of user permissions and passwords. Examples include the following:

- Pastel Xpress (www.pastel.co.za)
- QuickBooks Pro (www.quickbooks.co.za)
- Palladium Accounting Business (www.palladiumsoftware.co.za)

A wide range of AISs are available for ***medium to large*** organisations. These programs usually allow between 20 and 50 users, and again have more features than the AIS for small to medium organisations, but fewer features than the enterprise-level software. Examples include the following:

- Pastel Partner (www.pastel.co.za)
- QuickBooks Premier (www.quickbooks.co.za)
- Palladium Accounting Enterprise (www.palladiumsoftware.co.za)

An AIS focusing on ***enterprise level organisations*** is usually a module in an ERP system. This software seamlessly integrates with the organisation's other information systems and reduces the interactions needed from users to transfer data and information between the different information systems. It provides a large number of features such as multiple currencies and multiple users. These accounting systems are highly customisable and can be tailored to suit the organisation's specific needs. The implementation period can be extensive because this AIS must be customised and integrated before it can be used. The purchase and especially implementation costs can be extremely expensive for these products. Examples of the AISs focusing on enterprise-level organisations include the following:

- Sage ERP Accpac (www.sageerp.co.za/Softline-Accpac-Products-Services/Accpac.asp)
- Pastel Evolution (www.pastel.co.za)
- SAP ERP (www.sap.com/africa/index.epx)
- Microsoft Dynamics GP (www.microsoft.com/dynamics/en/za/default.aspx)

The AIS used by the organisation will not only be based on the organisation's size, but also on the complexity of the organisation's business and the features the organisation requires. This means that a complex small to medium organisation that only requires access for two users will use software for medium to large organisations owing to the features provided in the more advance software.

Computer activity 14.1

A huge number of AISs are available on the market.

Visit http://en.wikipedia.org/wiki/Comparison_of_accounting_software for a comparison of some of these AISs.

The basic principles underlying all AISs are the same – that is, the accounting principles, tax calculations, trial balance, ageing principles, and so on, are all the same. However, the

semantics (document names, menu items, etc), look and feel of the accounting programs and the features offered will differ from program to program. Because the basic principles are all the same, it is easier to learn a new accounting program if you already know how one such program works. In topic 6 we will only learn how Pastel Partner works, but with this knowledge at your finger tips, you will be able to apply these principles to all other AISs you may encounter in the future.

3 Selecting an appropriate AIS

The acquisition and implementation of an AIS can require a substantial investment in time and money. It is therefore essential that the AIS one purchases matches the organisation's requirements as closely as possible.

3.1 Determine general accounting information system requirements

When selecting a new accounting program, we need to first determine the general AIS requirements before looking at individual AIS providers and the software they offer. We need to determine the following:

- *Requirement analysis.* The organisation must first determine its requirements for the AIS. These should also include planned future growth in the organisation. It is vital to obtain input from all the role players who will interact with the system, at all levels (ie users, support providers, reporting, etc) in this analysis process. Role players will probably include the finance team, relevant IT staff, management and others, and in smaller organisations, possibly even the auditors. Many large organisations use third-party consultants to facilitate this process.

  Once the requirements have been analysed, they must be prioritised. It is necessary to determine the requirements that are non-negotiable and must be included in the new system. Features that are simply "nice to haves", can be placed on a "wish list". Requirements will include items such as the following: the number of users; the number of suppliers and customers; input, processing and output methods (real-time, batch, etc.); processing speed; features; standard and customisable reports; and security. The requirements will increase as the complexity and size of the organisation increase.

- *Budget.* Money will always be a constraint for any organisation because organisations can only afford to spend so much on a system before it becomes uneconomical. We therefore need to understand how much money (budget) is available for the initial investment in software, training and implementation as well as for the succeeding years' maintenance, support and licence fee costs. Implementation costs, which are easily forgotten, can sometimes amount to more than the initial investment costs. Understanding how much money is available will help save time when investigating all the possible new AISs, because we can immediately eliminate the AISs we cannot afford. Bear in mind that the budget should also take into account the cost of possible investment in new hardware, if the AIS requires it, as well as any process re-engineering costs.

- *Implementation period.* In the same way as the organisation needs to budget for the costs, it also has to budget and plan for the time it will take to implement the AIS. If the organisation can only afford a three-month implementation period, it would obviously not be a good idea to look at software requiring a six-month implementation period.

3.2 Investigate individual accounting information systems

Now that we know what the organisation's requirements and constraints are, we can investigate individual AISs. When investigating new AISs, we should consider the following:

- *Requirement matching.* Obtain a list of product features and compare it with the organisation's requirements. See how it matches and exceeds the requirements and where the software's shortcomings are. Additional software features cost money, and buying software features the organisation will never use is a total waste of money.
- *Ease of use.* Because this software is used daily, it should be easy to understand and use. The AIS must help, not hinder the organisation.
- *Integration.* How easily can this software be integrated with the organisation's other information systems and applicable third-party systems? For example, does the AIS support the organisation's electronic bank statement format or would it be possible to integrate the organisation's AIS with eXtensible Business Reporting Language (XBRL)? (XBRL will be discussed in study unit 20)
- *Flexibility.* Can this software be tailored to the organisation's specific needs?
- *Country suitability.* Is the AIS suitable or adaptable to the organisation's specific country processing and reporting requirements? For example, can the AIS be configured according to the country's unique tax, levies, currency and regulations.
- *Scalability.* Can this product grow with the organisation?
- *Support and training.* What support and training does the software vendor offer and what are the costs involved? Are there any local support offices?
- *Costs.* How much will the software cost? There are different ways of pricing software (eg per user, features available, fixed fees, etc). We need to understand the pricing structure and therefore the total costs applicable to the organisation for the initial investment, training and implementation as well as successive years' costs. These costs must be compared to the predetermined budget.
- *Hardware requirements.* Can this software run on the organisation's current hardware configuration or should new hardware be acquired, and what will the costs be?
- *Implementation.* Is the software easy to implement and what is the estimated implementation period?
- *Documentation quality.* What is the quality of the software manuals and is it electronic or paper? These manuals will be used by the organisation for support and training.
- *Upgrades.* How often are upgrades made available and what are the applicable upgrade costs? Are upgrades easy to implement or will this require a huge investment in time and money. Because hardware, operating systems, database and other technology improve, the software should be able to keep up with these advances or else it will become obsolete.
- *Software vendor.* What is the vendor's track record? Is it an unreliable organisation that will be unable to provide support when needed, or is it a stable organisation with a good track record of quality software, training and support?

When investigating software we should request product demonstrations from the vendors to see exactly how the program works. We should also obtain references from other organisations where this software has been up and-running for at least a year (to ensure that these organisations have been through a year-end). The reference organisation should be one whose business is at least in the same industry or a related industry than your organisation is in, and should preferably be a similar size. Most software vendors are only too happy to provide the contact details of reference organisations in which their software has been implemented.

4   Risks and controls

In AIN1501, you learnt about the risks, threats and vulnerabilities faced by organisation's information systems. As part of the organisation's information systems, its AIS also faces these risks, threats and vulnerabilities. In AIN1501, you also studied the controls that can be implemented to mitigate these risks, which again will be applicable to the AIS the organisation uses. Since you are familiar with these risks, threats, vulnerabilities and the

controls to mitigate them, we will not discuss them here. You must not forget what you learnt in AIN1501, so that you can apply it to the AIS. In auditing, you will learn more about the internal control environment, which again is also applicable to the AIS environment.

In study unit 13, we discussed the finance team and the fact that the segregation of duties in the finance team must be transferred to the AIS by setting up appropriate users and passwords. The setting up of a user means the supervisor selects which functions can be performed by each of the individual users and also allocates a specific password to each user. Most entry-level AISs do not have this feature because only one person works with the software, but as soon as the number of AIS users increases, the availability and use of this security feature become crucial. Bear in mind that the user and password features in some AISs are only a basic feature because they do not allow users to change their own passwords and do not prescribe regular updating of passwords.

In study unit 6, we discussed the controls relating to spreadsheets, including the importance and good practices for passwords. What you learnt about spreadsheet passwords also applies to AIS passwords.

In topic 6, Pastel Partner, you will learn how to allocate roles and set up passwords in AIS.

Another threat faced by AISs is the possible loss or partial loss of data. This loss is not always caused by a computer being physically destroyed or stolen – data corruption is also a huge threat. A power surge can often cause data corruption. To protect a financial system against data loss, it is crucial to make back-ups regularly. These backups will allow the organisation to restore the data to the point the last backup was made. The importance of making regular backups cannot be emphasised enough. We referred to backups in study unit 7 and will mention them again in topic 6.

5   Summary

In this study unit, we identified some of the AIS applications available in the market. We also discussed how to go about selecting an AIS for an organisation and the items that should be considered when comparing individual programs. In conclusion, we discussed the risks and controls surrounding AIS. In the next topic, we will use Pastel Partner to gain hands-on experience of an AIS.

Self-assessment activity

After working through this study unit, you should be able to answer the following questions:

(a) Name and briefly describe the market segments an AIS caters for.
(b) For each segment named in a. give two examples of RIS programs.
(c) Name and briefly describe the three general items which must be determined before looking at specific AISs and vendors.
(d) List and briefly describe factors to consider when comparing AISs.
(e) Name two requirements for a suitable reference organisation.
(f) Briefly explain how segregation of duties is transferred to the AIS?
(g) Briefly explain how an organisation can protect its AIS against data loss?

Pastel Partner accounting information system

LEARNING OUTCOMES

After studying this topic, you should be able to

– create and set up a new company
– create and edit customers, suppliers, general ledger accounts and inventory
– process daily and cashbook transactions
– perform month-end and sundry processing
– retrieve information by generating reports
– process take-on transactions

Study guide 1		Study guide 2	
Part 1 Data management and utilisation	**Part 2** Spreadsheets	**Part 3** Transaction processing	**Part 4** Management reporting systems

Topics

3 Accounting cycles
   SU 7:   Overview of transaction processing
   SU 8:   Revenue and receipts cycle
   SU 9:   Acquisition and payments cycle
   SU 10:   Inventory and production cycle
   SU 11:   Payroll and personnel cycle
   SU 12:   Finance and investment cycle

4 Financial reporting infrastructure
   SU 13:   Financial reporting structure

5 Accounting information system applications
   SU 14:   Selecting an appropriate accounting information system

6 Pastel Partner accounting information system
   SU 15:   Getting started on Pastel Partner
   SU 16:   Customers, suppliers, inventory and general ledger accounts
   SU 17:   Process transactions
   SU 18:   Retrieving information and sundry processing

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In this study guide "Pastel manual" will refer to the prescribed Pastel Partner training manual and "Pastel" or "Pastel Partner" to the prescribed Pastel Partner educational software.

••

NOTE:
•••••••••••••••••••••••

Note the following when working through the Pastel manual:

• Where an activity requires you to work through a lesson or part of a lesson in the Pastel manual, you must work through the <u>complete</u> section.
• Read everything carefully and do not skip steps.
• Do not worry if you make a mistake while working through the exercises in the Pastel manual. These exercises do not count for marks. Learn from your mistakes and continue. Do not waste too much time correcting mistakes. However, mistakes will affect the results of some of your reports, but do not worry if your reports do not exactly match those printed in the manual.
• Besides being able to perform a task/action in Pastel, you must also understand and study the written information in the Pastel manual and be able to apply it in Pastel.

••

Getting started on pastel partner

In this study unit

```
                    ┌─────────────────────┐
                    │  Getting started on │
                    │       Pastel        │
                    └─────────────────────┘
                               │
                               ▼
              ┌──────────────────────────────────────┐
              │ Hardware and system software requirements │
              └──────────────────────────────────────┘
                               │
                               ▼
                    ┌─────────────────────┐
                    │    Install Pastel   │
                    │      (Lesson 1)     │
                    └─────────────────────┘
```

Getting started on Pastel

Hardware and system software requirements

Install Pastel
(Lesson 1)

Working in the "Demo" company
(Lesson 2)

Create a new company
(Lesson 3)

Auto setup
(Lesson 4)
- *Company Parameters*
- *Users/Passwords*
- *Financial Categories*
- *Entry Types*
- *Periods*
- *Tax*
- *Customer Control & Documents*
- *Supplier Control & Documents*
- *Inventory*

Backup and Restore

1   Introduction

Most organisations use AISs for recording financial transactions and producing financial reports. Although different AISs will differ in look and feel, the basic underlying principles are the same. Pastel Partner AIS is one of the most used AISs in South Africa and we are going to use this software package to familiarise ourselves with AIS. This study unit relates to lessons 1 to 4 in the Pastel manual. In the first lesson, we will learn how to install Pastel and a virtual printer and in the second lesson, how to navigate in Pastel. In lesson

3, we will create a new company in Pastel, and lastly, in lesson 4, we will use the auto setup assistant to set up defaults for the newly created company.

2   Lesson 1: installing Pastel Partner

In lesson 1 we will learn how to install the Pastel Partner software program as well as a virtual printer. We will also show you how to print using a virtual and a physical printer. Lastly, we will register the Pastel educational software.

Before we can install Pastel, we need to make sure that the computer we are working on has the correct hardware, system software settings and printer (virtual and/or physical) installed.

2.1   Hardware and system software requirements

To successfully install Pastel Partner, your computer must meet certain minimum hardware and software requirements, as specified in the Pastel manual.

> **Computer activity 15.1**
>
> • Verify that your computer meets the minimum hardware and system software requirements to install Pastel Partner by
>
>   – following the step-by-step instructions in the Pastel manual, lesson 1, to obtain your computer's specifications.
>   – comparing your computer's specifications with the specifications listed in lesson 1 of the Pastel manual and ensure your computer meet these requirements.

2.2   Install a physical or virtual printer

Pastel cannot be installed unless either a physical or a virtual printer is installed on the computer.

A physical printer is a printer that prints to paper, while a virtual printer prints to an electronic file which can be saved on the computer's local hard drive or on a flash drive. Hence you do not need to buy a physical printer if you do not have one because you can install a free virtual printer.

However, we strongly recommend that even if you have a physical printer linked to your computer, you should also install a virtual printer. Virtual printouts will enable you to submit your assignments electronically to myUnisa and will save you paper and ink.

> **Computer activity 15.2**
>
> Follow the step-by-step instructions (steps 1 and 2) in the Pastel manual, lesson 1, activity 1–2, to verify which printers are currently installed on your computer.
>
> If you have Microsoft Office Document Image Writer or Microsoft XPS Document Writer listed, you already have a virtual printer installed (it creates .TIF files and

.XPS files respectively, similar to a photo of the documents you "print"), and it is therefore not necessary to install another virtual printer.

(a) Installing a virtual printer

A number of free virtual printers are available on the internet. In the following activity, we will download and install one such free virtual PDF printer, namely CutePDF.

Computer activity 15.3

- Open Internet Explorer and make sure you are connected to the internet.
- Type the following URL into Internet Explorer's address bar:

    http://www.cutepdf.com/

- Browse the website page for the download area and click to download.
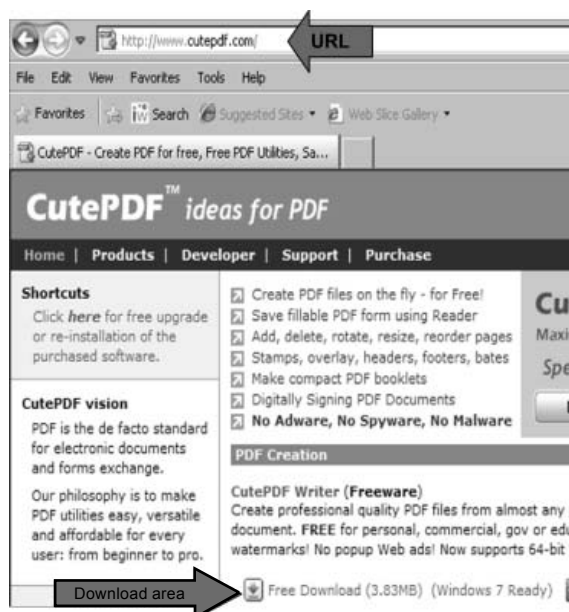
- Do not run, but **"Save"** the file to your local hard drive (or flash drive if you are downloading at work or at an Internet Café). Note the location the file is saved to (eg c:\downloads\CuteWriter).
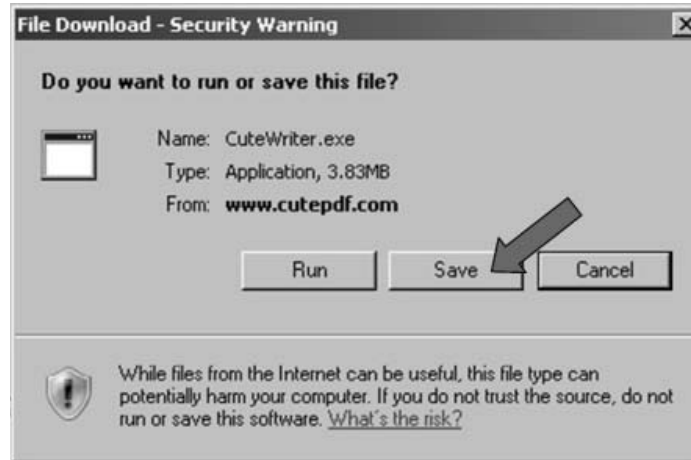
- Use My Computer or Windows Explorer and locate the file (cutewriter.exe) where it was saved. (eg c:\downloads\CuteWriter).
- Double click on the file (cutewriter.exe) to install the virtual printer.
- Click on **"Run"** when prompted "Do you want to run this file?"
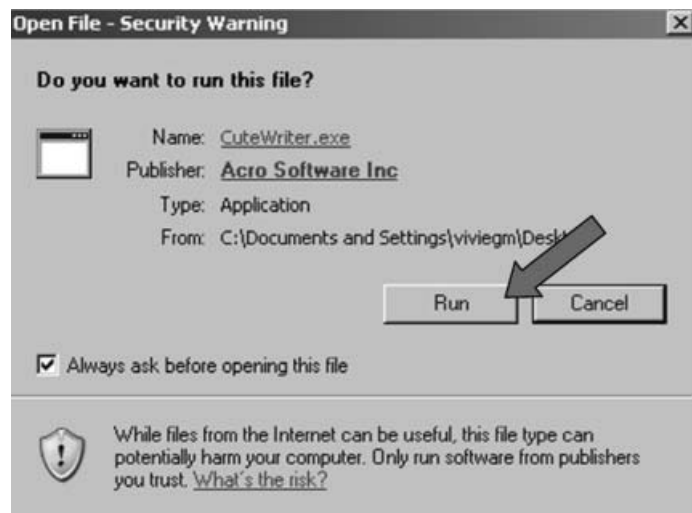
- The Setup dialogue box will open. Click on **"Next".**

- Read the licence agreement, select the option to accept the agreement and then click on **"Next".**
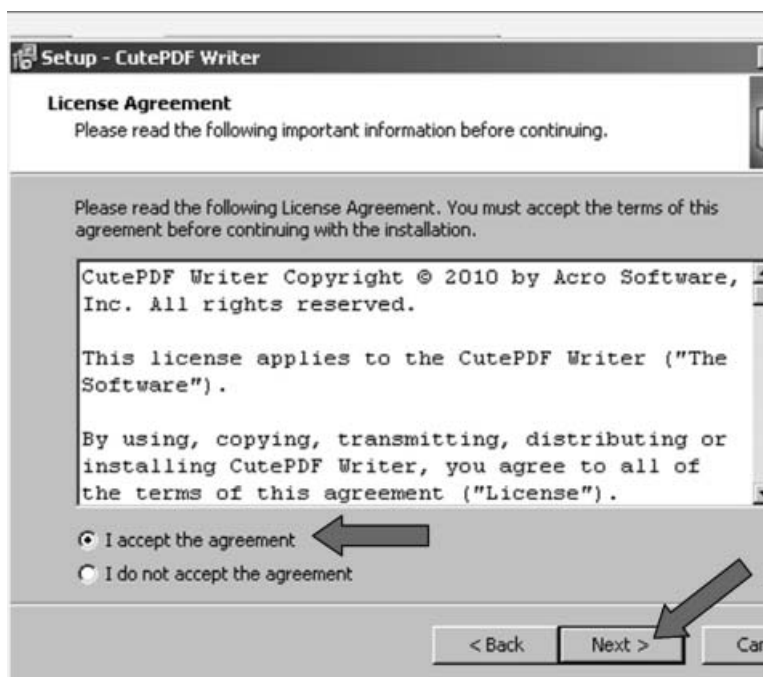
- Read the End user licence agreement.
- It is not necessary to install the Ask toolbar. Select all options you want to install or deselect the options you do not want to install.
- Then click on **"Next".**
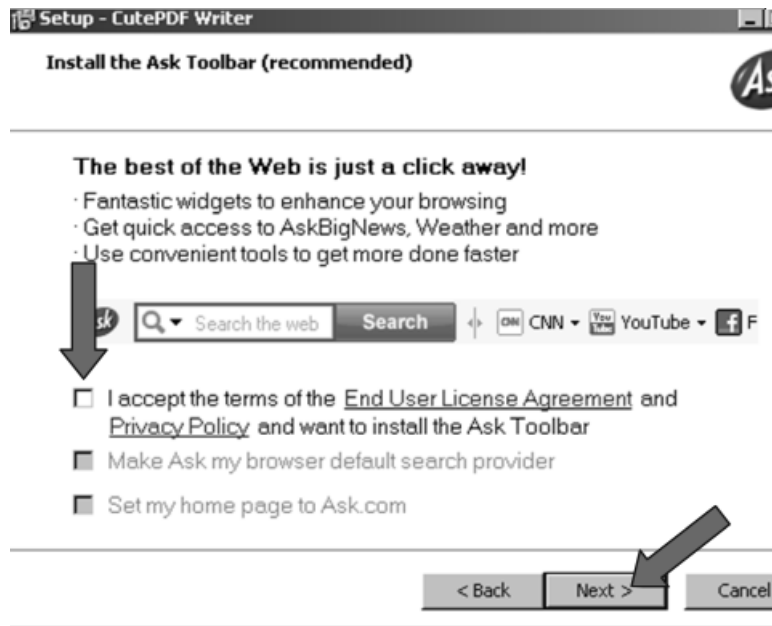
- Click on **Install** to continue with the installation of the virtual printer.

- Some computers may also require a PS2PDF converter to be installed. You may be automatically prompted and taken to the download area. If not, follow the steps below.
- Go back to the CutePDF home page: http://www.cutepdf.com/.

- Browse the website for "Learn More" next to the CutePDF download area and click on it. This will take you to the website page (http://cutepdf.com/Products/CutePDF/writer.asp).

- Browse the website page for the "Free Converter" download area and click to download.
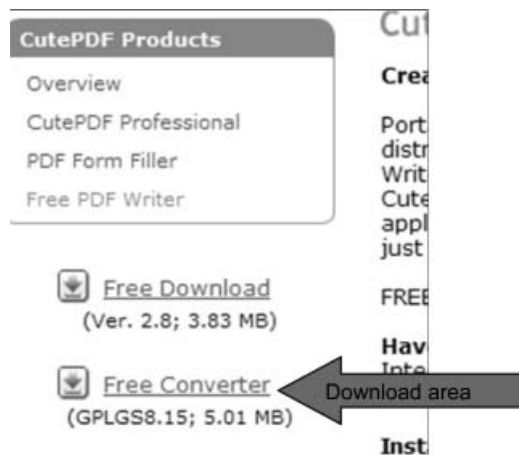
- Do not run, but **"Save"** the file to your local hard drive (or flash drive if you are downloading at work or at an Internet Café). Note the location the file is saved to (eg c:\downloads\converter).

- Use My Computer or Explorer and locate the file (converter.exe) where it was saved (eg c:\downloads\converter.exe).
- Double click on the file (converter.exe) to install the converter.
- Click on **"Run"** when prompted "Are you sure you want to run this software?"
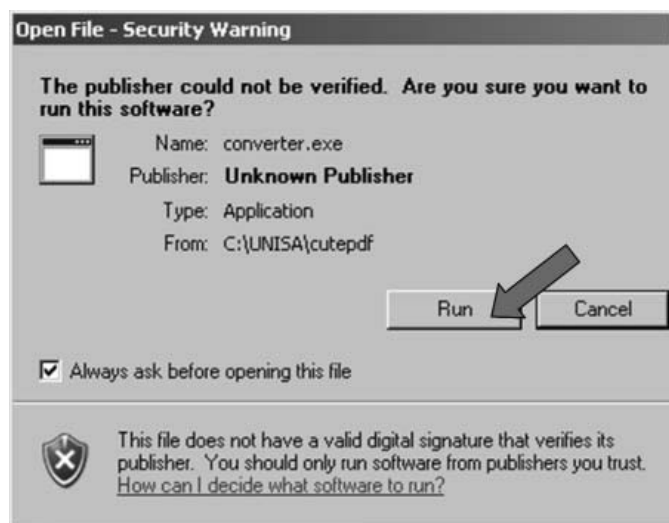
- Click on "Setup" to install the program.
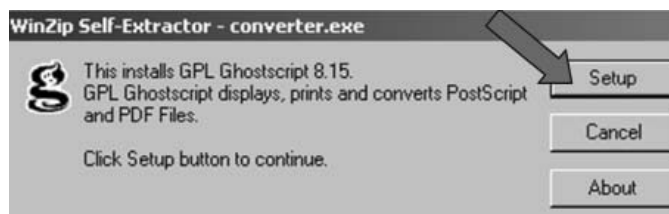
You might need to restart your computer for the changes to take effect.

Source: http://www.cutepdf.com/

You can find other free virtual printers at the following websites:

http://www.freepdfcreator.org
http://www.primopdf.com

(b) *Installing a physical printer*

There are a number of different virtual printers and of physical printers available. In the following activity we will install a physical printer. **Note:** *If you have a virtual printer installed, you do* <u>not</u> *have to install a physical printer.*

Computer activity 15.4

Follow the step-by-step instructions (steps 3 to 13) in the Pastel manual, lesson 1, activity 1–2, to install a physical printer. Bear in mind that you must have a

physical printer (a printer that prints to paper) physically connected to your computer when you complete these steps.

(c) ***Physical and virtual printer's paper size***

It is very __important__ for both virtual and physical printers that the printer's paper size be set to A4. This will ensure that Pastel reports and documents print correctly. If you find that the bottom part of documents, which usually reflect the totals, does not print for certain Pastel documents (ie tax invoices, etc), it is probably because the printer's paper size has not been set to A4.

> **Computer activity 15.5**
>
> Follow the step-by-step instructions in the Pastel manual, lesson 1, activity 1–3, to set the printer's paper size to A4.
>
> **Please follow these steps for both virtual and physical printers.**

2.3 Print to a physical or virtual printer

Although we are only going to print our first report in lesson 5, the steps to follow to print from Pastel using a physical or virtual printer are explained here. This will keep all the information about printers in one place and make it easier for you to refer back to it when necessary.

(a) ***Print using a physical printer***

Follow the step-by-step instructions below to print to a physical (paper) printer from Pastel. The screens will differ according to the printer you have and the document or report you have selected to print, but the principles will remain the same.

- To print to a physical printer in Pastel, the screen will appear similar to the screen print on the right:

  – In this example, the "Demo" company was opened and *View/ General ledger/ Financial reports/Trial Balance"* were selected.

- Click OK to Print to "Printer" if that is already listed, or use the drop-down list to select "Printer" if it was set to something else, such as print to "Screen".


Trial Balance		
Print To	Printer	OK
Use Sub Accounts	✓	Cancel
Print Zero Items	☐	Help
This Year	✓	
Period Start	01 - 01/03/10 - 31/03/10 March	
Period End	01 - 01/03/10 - 31/03/10 March	
Show which Comparative	Last year	
Include Opening Balances	☐	
Which Currency	00 - Home currency	
Print Balance Sheet Accounts First	✓	
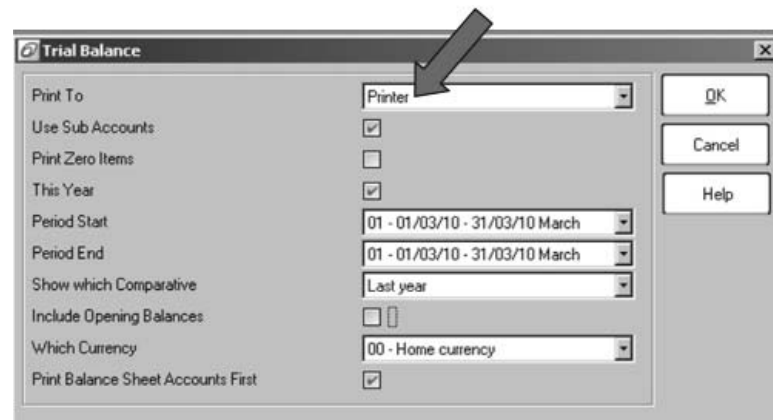
- If this is indeed the physical printer you want to print to, click "OK".

- If this is not the physical printer you want to print to, click on the "Set Printer" button. Select the correct printer and click "OK". Click "OK" again to print.
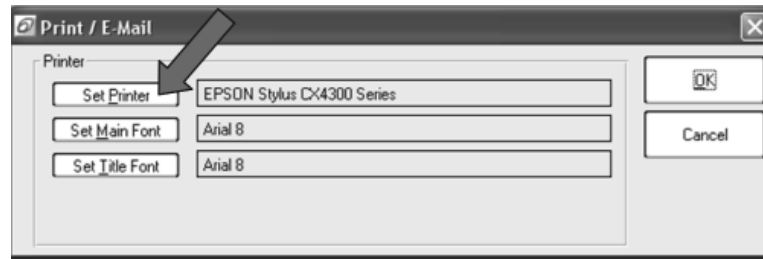
(b) *Print using a virtual printer*

Follow the step-by-step instructions below to print to a virtual printer (ie print to a file from Pastel). The screens will differ on the basis of the virtual printer you have installed and the document or report you have selected to print, but the principles will remain the same.

- Create a separate folder for all your Pastel documents.

  – In this example, the *"AIN2601 Pastel documents" folder was created.*
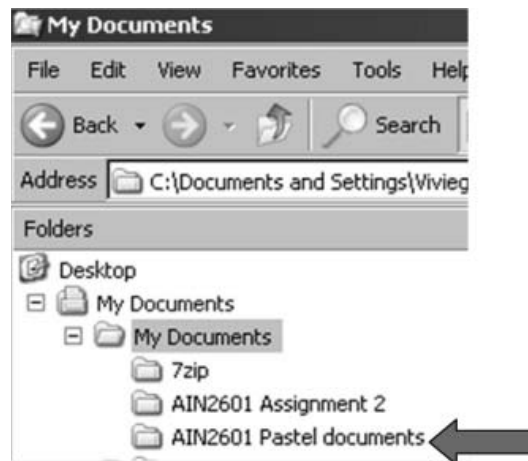
- To print to a physical printer in Pastel, the screen will appear similar to the screen print on the below:

  – In this example, the "Demo" company was opened and *View/ General ledger/ Financial reports/Trial Balance* were selected.

- Click OK to print to "Printer" if that is already listed, or use the drop-down list to select "Printer" if it was set to something else, such as print to "Screen".
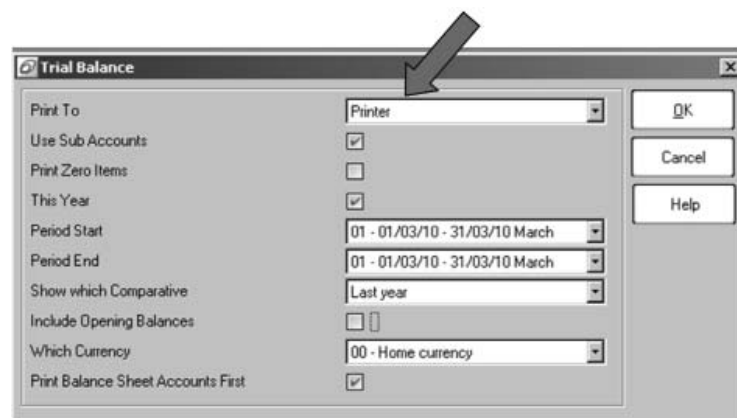
- Click on the "Set Printer" button to change to the virtual printer.
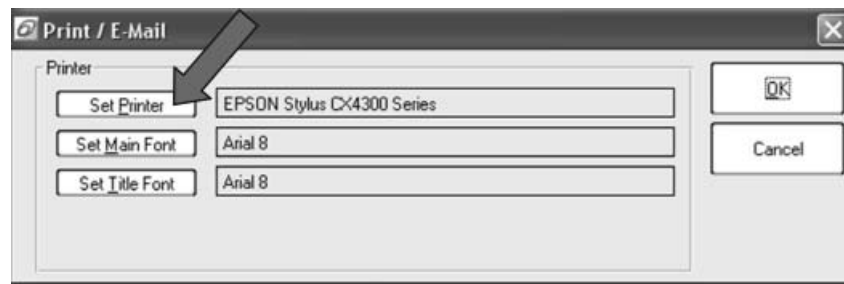
- Click on the virtual printer you want to use (such as CutePDF, Microsoft XPS Document Writer or Microsoft Office Document Image Writer, etc). **DO NOT select: Send to OneNote!**

  – In this example, CutePDF is selected.
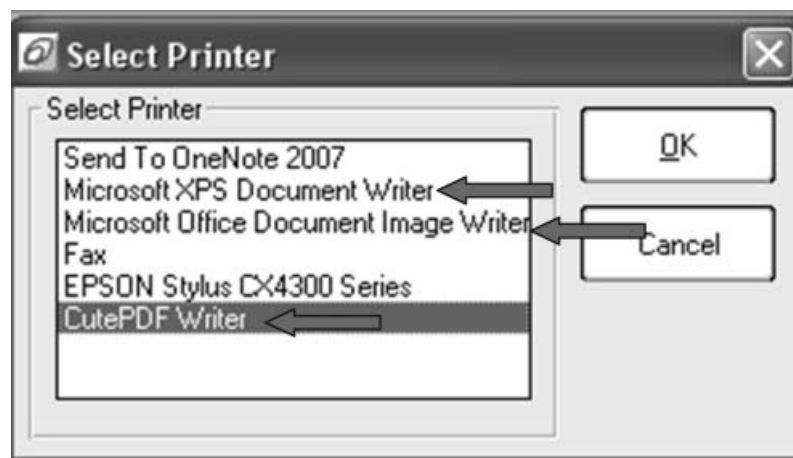
- Click OK.
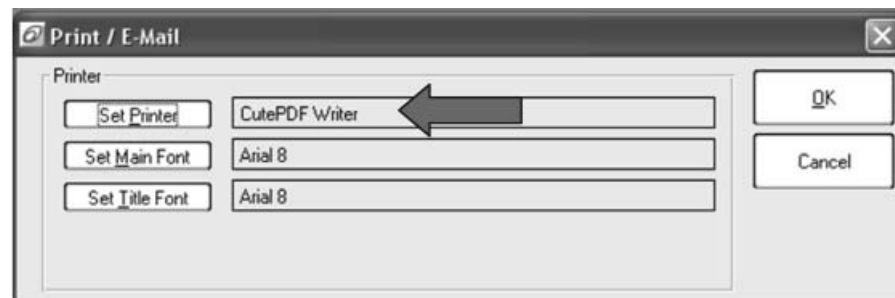
- Click OK to print.

  – In this example, the printer is now set to the virtual printer selected (ie CutePDF).

- Depending on the type of virtual printer selected, the screen will appear similar to the screen print below
- Browse until you get to the special folder (subdirectory) you have created for all your virtual files (printouts) and double click that folder to select it.

  – In this example, it is the *"AIN2601 Pastel documents".*
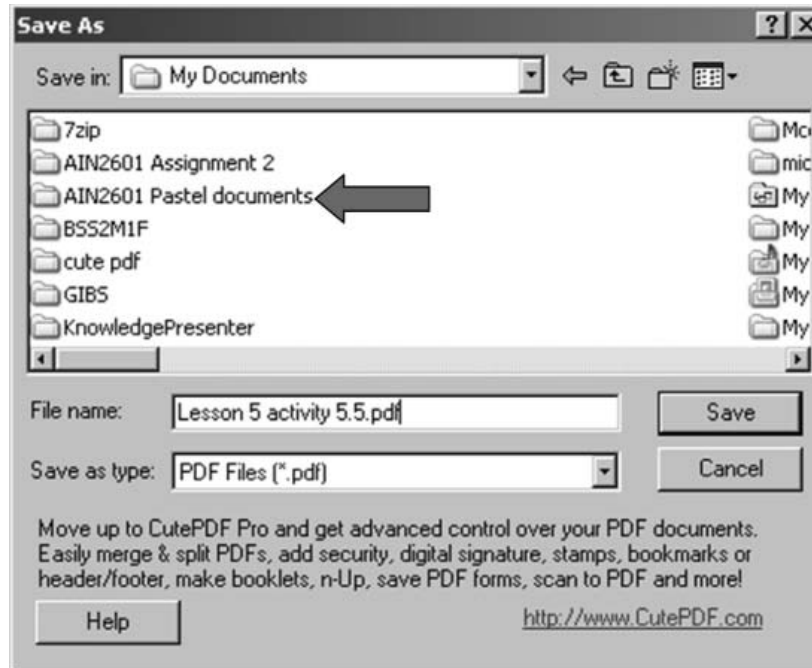
- Give the printout a name by typing the name of your printout in the File name field.

  – In this example *"Lesson 5 activity 5.5.pdf".*

- Click on the "Save" button to save the file.
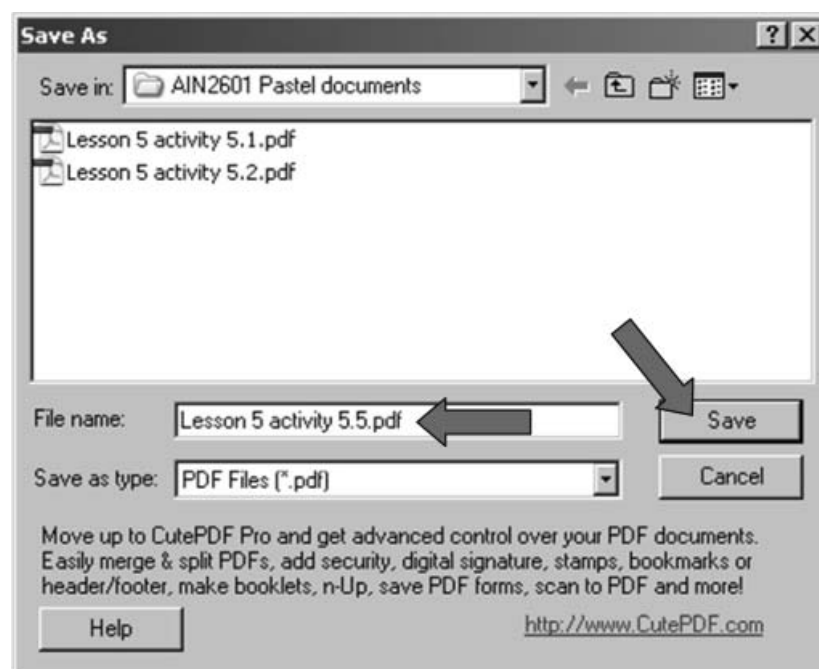
2.4 Other computer settings (date, display and decimal separator)

Before installing the Pastel Partner software, ensure that your computer's system date, screen resolution and decimal separator are correct.

Computer activity 15.6

Follow the step-by-step instructions in the Pastel manual, lesson 1, activity 1–4, activity 1–5 and section C.

2.5 Install Pastel Partner

After completing sections 2.1, 2.2 and 2.4, we are now ready to install the Pastel Partner software.

If you are unable to install Pastel, **despite following the instructions in this study guide and the Pastel manual,** please contact the Pastel Training Department at Pastel (email: training@pastel.co.za, telephone: +27 11 304 3750). If an error code appears on your screen while installing, make a screen print of the error code, paste it into Microsoft Word, save it and send it by email to Pastel, together with a description of the circumstances of the problem. Also mention that you are a Unisa student and provide your student number in the email. Always refer to Tutorial Letter 101 for the latest Pastel contact details.

Screen print

A screen print makes a copy of the computer screen exactly as you see it at that moment in time. To make a screen print, press the "CTRL" and "PrtScr" keys on your keyboard simultaneously. Open the document and click where you want to paste the screen print. Now select "Paste", by either clicking on the paste icon or right click on the mouse and select paste. Screen prints, like other pictures, can be cropped, moved, aligned and so forth.

Computer activity 15.7

- Insert the Pastel installation compact disc (CD) in your computer's CD drive.
- Follow the step-by-step instructions in the Pastel manual, lesson 1, section B.
- **Make sure you select to install Pastel Partner and not Pastel Xpress!**
- Depending on the speed of your computer, the installation process may take some time. Please be patient.

2.6 Registering Pastel Partner educational software

Pastel Partner educational software must be registered within 30 days of installation. After 30 days or 200 transactions, whichever comes first, the demo version will expire. We recommend that you register the Pastel software the first time you open the software.

- Follow the step-by-step instructions in the Pastel manual, lesson 1, section D.
- You can follow the steps below if you do not see the Registration Assistant dialog box:

  – Open Pastel by double clicking on the Pastel icon.
  – Click on the **Help** menu.
  – Click on **Register your package.**
  – Follow the remaining step-by-step instructions in Pastel manual, lesson 1, section D.

NOTE:
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In contrast to the full AIS, Pastel Partner educational software is only valid for a limited period. The expiry date of the software is indicated on the registration details summary (in Pastel click on *Help … About).* Note the expiry date because you will not be able to use the educational software after this date.

Contact Masterskill if your Pastel Partner educational software has expired. You will find the latest contact details in Tutorial Letter 101.

. . . .

3 Lesson 2: Working in the Demo Company

The demo company is for learning, trying new options and generally playing around with. During later lessons, and even the assignment, go back to the demo company, try out steps you are unsure about and see what happens. You cannot break the demo company, so please use it! Using the demo company, in lesson 2 we will learn how to navigate in Pastel and how to use Pastel's function and shortcut keys.

Computer activity 15.9

Follow the step-by-step instructions in the Pastel manual, lesson 2, to open the "Demo" company.

3.1 The Menu, Toolbar, System Navigator and Pastel Explorer

Different methods are available to move around in Pastel, each of which is explained in detail in the Pastel manual. To be able to work in Pastel, we need to be familiar with these methods. It is recommended that over and above working in detail through the manual, you should also play around in the "Demo" company by clicking on the different items to see what happens. Feel free to let your curiosity take over because this is the only way to get to know new software.

The Pastel **Help** function is one of the main functions in Pastel and it is therefore essential to be able to use the **Help** function well. A manual, textbook or even a person with Pastel

experience may not always be readily available or be able to explain everything you want to know to you, but the Help function is always available to help you.

The zoom facility allows us to search for specific records. We are going to use this while working through the rest of the Pastel manual, so also make sure you know how to use the zoom facility.

Computer activity 15.10

- Follow the step-by-step instructions in the Pastel manual, lesson 2. Explore

    – the various **Menu** items
    – the various **Toolbar** items
    – the **System Navigator**
    – the **Pastel Explorer**
    – the **Function** and **Shortcut keys**
    – **Pastel utilities**

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4 Lesson 3: Create a new company on Pastel Partner

As accountants, we may have several organisations as clients or we may be the accountant for a group of companies for which we capture their accounting transactions on an AIS such as Pastel. For each of these organisations, a separate, new company will be created on the AIS. In lesson 3 we will learn which information is required prior to creating a new company, the methods that can be used in Pastel to create a new company, and lastly, how to create a new company.

In Pastel we can either use the *Setup Assistant,* copy from another existing company on Pastel or manually create a new company from scratch. The *Setup Assistant* is used most of the time by accountants and is the method we will use to create a new company.

4.1 Gather company information

Regardless of the method used to create a new company on Pastel, we will need to know some basic information such as the following:

- *Country.* The various tax general ledger accounts, tax rates and display requirements are automatically set up by Pastel, depending on the country selected during setup.
- *Company name, contact details and VAT registration number.* This information will be included on all the printed company documents (eg purchase orders and sales invoices).
- *Date format.* The date format specified will be used to record and display transaction and report dates.
- **Start of financial year and period end day.** This is used for financial reporting purposes. An organisation may decide not to use the last day of the month for a period end but another day. For example, an organisation may select the 25th of each month to enable it to finalise capturing its accounting transactions in time for the monthly management reports/budget analysis which may be due the 1st of each month.
- *Number of periods to use in a financial year.* This will be used for reporting periods (12 periods would enable monthly reporting, 4 periods quarterly reporting, etc). Most organisations use monthly reporting (ie 12 periods in a financial year, one for each month).
- *Chart of accounts.* The standard chart of accounts has the most common general ledger accounts already set up for the specific industry selected. This saves time in setting up a company.

- *Cash books/bank accounts.* These are used to create the general ledger accounts for bank accounts and to link these general ledger accounts to the cash book journal entry types.
- *Price lists.* These are linked to the inventory items and allow us to specify separate prices for each new inventory item later during the setup process.
- *Default customer terms.* These defaults will be used initially for each new customer created during the setup process. However, the defaults can be modified later for each individual customer during the setting up of the individual customer.
- *Paper setup.* The selections made here will depend on the type of printer and paper used for printing Pastel documents and reports. However, this can be modified later for each type of document used.

4.2 Create the new company

Computer activity 15.11

Follow the step-by-step instructions in the Pastel manual, lesson 3, to gather the information and use the *Setup Assistant* to create the company required on Pastel.

NOTE:

• •

Since the Pastel manual is regularly updated and the name of the company created in lesson 3 may differ from year to year, in the rest of the study guide, we will refer to the company created in lesson 3 (see the previous activity) as the Pastel manual company, abbreviated as the "PM" company.

• •

4.3 Create another new company ("TEST")

Computer activity 15.12

- In addition to the "PM" company created in section 4.2 of this study unit, create another new company on Pastel using the *Setup Assistant* and name this company "TEST".
- Play around during the setup of the "TEST company":

  - Explore different industry-specific chart of accounts.
  - Look at the different general ledger accounts available under each chart of accounts – for example, service, retail, manufacturing, farming, property rental, restaurant, medical practitioner, church and school. Consider several actual organisations and decide which Pastel chart of accounts would be most suitable for that particular organisation. See study unit 13 in which the financial reporting structure is discussed.
  - Explore the different customer terms. Know the differences between period- and day-based customer terms, as well as the open item and balance forward processing method.
  - Use the Pastel help function to obtain additional information on period- and day-based customer terms, as well as the open item and balance forward processing method.

5   Lesson 4: Using the Auto Setup

In lesson 4, the *Auto Setup* guides us, in sequence, through all the menu items in the Pastel setup menu to set up all the common default data that we need to enter the minimum additional data thereafter for each individual customer, supplier, inventory item and general ledger account. Setting up common customer and supplier default data saves time, because the information is already automatically included when a new customer or supplier is created and therefore does not need to be retyped repeatedly. It also helps to ensure that the company's standard terms and conditions are used for all the customers, suppliers and inventory items because this information is there by default, even though it can be modified during individual setting up.

Computer activity 15.13

- Read through study unit 7, figure 7.3, and the accompanying explanation again.

NOTE:
• ••

If you should lose your way or miss something during Auto Setup, just click Cancel until you reach the end and then either click on Auto Setup again, or click the individual menu item under the Setup menu and make the applicable change. It is preferable to click on each menu item individually as this will show you where to make changes, when needed.

• •

Computer activity 15.14

Note: Remember to open the "PM" company created in section 4.2 of this study unit.

- Click on **File.**
- Select the company created in section 4.2.
- Click on **Open.**

5.1   Setup Company Parameters

Notice how the information entered in lesson 3 is brought forward and can be changed (if we want to) with the setup menu.

The educational version of Pastel automatically changes the company name, address details and other information we entered in lesson 3 to prevent unethical accountants from purchasing the less expensive educational Pastel software instead of the full version to do accounting work. Carefully note the instructions to change the company name to reflect your details with Control + Shift + T, because you will need to do this in Assignment 02 to prove it is your own original work!

Also note where the cash book transfer account number will be entered – we will use it later.

> **Computer activity 15.15**
>
> Follow the step-by-step instructions in the Pastel manual, lesson 4, to set up the common default data for the "PM" company.

5.2 Setup Users/Passwords

Although we are told which access rights to give the different Pastel users for the "PM" company we are creating, we should be able to decide that for ourselves after learning about proper segregation of duties as a control mechanism in auditing.

As a rule, it is preferable for the software to enforce minimum password requirements (such as password length and composition), and both the password and a username are required for a user to logon. You touched on these requirements in your AIN1501 studies and will learn about designing proper access controls in auditing. In study unit 6 you learnt about controls surrounding spreadsheets including the importance of good practices for passwords. Bear in mind that what you have learnt about spreadsheet passwords also applies to the passwords used in AISs.

> **Computer activity 15.16**
>
> Follow the step-by-step instructions in the Pastel manual, lesson 4, to set up the users and their passwords.
>
> *Important:* **Do not click OK after you have specified the user details and access options for the first user, as it will take you to the next section. Instead, click on the drop-down list next to the User until all the details and options for all users have been specified. Only then click OK.**

5.3 Setup Financial Categories

The financial and report writer categories are used as headings in reports such as the income statement and the balance sheet. The official accounting terminology sometimes changes, or we (or our manager) may simply want to given an item a different name (eg we could change "Retained income" to "Future nest egg", and the balance sheet would display it as such).

> **Computer activity 15.17**
>
> Follow the step-by-step instructions in the Pastel manual, lesson 4, to view the financial categories and the report writer categories.

5.4 Setup Entry Types

Entry types are similar to the various journals we know from accounting.

Examine the Entry Types screen.

Every bank account in Pastel has two separate cash books – one for payments and one for receipts. It is sound policy to use descriptive names, and we will therefore change the default entry type descriptions during the exercise. Imagine how confusing it would be if we had ten or even more bank accounts and had to identify them with numbers.

As accountants in organisations, we can change any of the entry-type descriptions to suit our needs – for example, we could use "Salaries and wages journal" instead of "Payroll journal".

The debit/credit column sets the default for the particular journal so that we just have to enter the minimum information and Pastel will automatically allocate the transactions correctly to the specified general ledger accounts. This will limit debit/credit mistakes and one day enable us to delegate the capturing of the transactions to someone with less experience.

NOTE:
● ●●

We assume you already know your debits and credits, know which side assets, liabilities and equity are increased and decreased and are able to write down applicable journals and T-accounts. Remember an AIS is merely a tool to make life easier – we still need human knowledge and skills to work properly.

● ●

When an organisation has a high volume of transactions, printouts can become extremely cumbersome. When the Contra in Detail column has not been selected, Pastel will summarise the transactions and will only show the totals in the general ledger printouts, but not the detail. However, the details will be available in separate Entry Type reports. This detail is crucial to keep the audit trail intact. (You will learn about following the audit trail in auditing.)

For each entry type/journal we can set how the date of the transactions should influence the period in which the transaction should be recorded. Reflect back on your accounting knowledge and the importance of recording transactions in the correct financial period. Clearly choosing between "Date sets period" and "Period defaults date" could have a huge influence on the fair presentation of the organisation's financial results.

What happens if we open a new bank account later during the year? First, we will create the general ledger account for the new bank account and then we will set up the payment and receipt cash book for the new bank account at the bottom of the entry type list similar to the other cash books.

Computer activity 15.19

- Follow the step-by-step instructions in the Pastel manual, lesson 4, to edit the entry types.
- <u>Before you click on OK</u>, browse through the various entry types by scrolling down with the vertical scroll bar. Note the different types available. For each

entry type, use your accounting knowledge and consider whether you agree that

- the majority of the transactions for that specific entry type/journal are a debit or a credit
- the account access for that specific entry type/journal is correct

5.5 Setup Periods

A financial year is similar to a calendar year. Both a financial year and a calendar year cover a 12-month period, but where a calendar year starts on the 1 January, includes 12 months and ends on the 31 December, a financial year can start at the beginning of any month. (Bear in mind that there are statutory requirements that an organisation has to satisfy if it wishes to change its financial year – you will learn more about this in auditing.)

A financial year can, for example, start on 1 July and end on 30 June of the next year. When talking about a financial year, the year is usually expressed in terms of its last period – for example, a June 2013 financial year will relate to the period 1 July 2012 to 30 June 2013 and an April 2014 financial year will relate to the period 1 May 2013 to 30 April 2014.

In any accounting system (manual or AIS) it is always essential to ensure that transactions are entered in the correct accounting period and financial year. (An accounting period is also sometimes called a financial period.) If a transaction is processed in the wrong accounting period, the financial and business information will be incorrect and this can lead to incorrect decisions being made.

We will see in Pastel and other AISs that we usually do not refer to a month we are working in, but to an accounting period. Period 1 in our example of a financial year starting 1 July 201X will be the month from 1 July to 31 July 201X.

Let us first look at a financial year starting 1 January 201X (December 201X – financial year)

Financial year: 1 January 201X – 31 December 201X	
Accounting period	**Corresponding calendar month**
Period 1	January 201X
Period 2	February 201X
Period 3	March 201X
Period 4	April 201X
Period 5	May 201X
Period 6	June 201X
Period 7	July 201X
Period 8	August 201X
Period 9	September 201X
Period 10	October 201X
Period 11	November 201X
Period 12	December 201X

Period 6 in the example above will relate to June – that is, if we capture a transaction in accounting period 6 we know that the date for the transaction must be between and including the dates 1 June 201X to 30 June 201X.

* For the financial year 1 January 201X–31 December 201X, in which accounting period would a transaction dated 18 May 201X be captured?

  Answer: In period 5

Let us now look at the financial year starting 1 July 201X (June 201Y financial year)

Financial year:	
1 July 201X – 30 June 201Y	
Accounting period	**Corresponding calendar month**
Period 1	July 201X
Period 2	August 201X
Period 3	September 201X
Period 4	October 201X
Period 5	November 201X
Period 6	December 201X
Period 7	January 201Y
Period 8	February 201Y
Period 9	March 201Y
Period 10	April 201Y
Period 11	May 201Y
Period 12	June 201Y

Period 6 in the example above will relate to December – that is, if we capture a transaction in accounting period 6, we know that the date for the transaction must be between and including the dates 1 December 201X to 31 December 201X.

Activity 15.21

* For the financial year 1 July 201X–30 June 201Y, in which accounting period would a transaction dated 18 May 201Y be captured?

  Answer: In period 11

* For the financial year 1 July 201X–30 June 201Y, in which accounting period would a transaction dated 12 September 201X be captured?

  Answer: In period 3

Remember that the purpose of an AIS is to collect data and produce information to enable informed financial decisions to be made. Hence if financial decisions are made monthly (eg most businesses), then the AIS will be set up with 12 monthly periods. If, however, financial decisions are only made quarterly, then the AIS will be set up with four quarterly periods (4 quarters x 3 months each = 12 months).

Now what happens if we have not finished our transaction processing for the previous financial year, but have to start processing for the new financial year? Pastel allows us to

add an extra (grace) period that will become the first period of the next year once we have run the official year-end procedure. This grace period can be added at any time during the year using the setup function.

Remember we can only change the number of periods for the financial year if we have not yet processed transactions in the current financial year in our company.

Computer activity 15.22

Follow the step-by-step instructions in the Pastel manual, lesson 4, to view the periods.

5.6 Setup Tax – value-added tax (VAT)

There is a familiar saying: "The only certainty in life is death and taxes". That is certainly true when working on an AIS (not death of course – VAT). Fundamental VAT knowledge and the application thereof in Pastel is needed, say, when making setup decisions and capturing transactions.

Before we move one to the tax setup in Pastel, we need to familiarise ourselves with VAT.

Tax

Pastel AIS is used internationally and Pastel therefore uses the general term "tax" to make provision for the different tax systems used in different countries, for example, GST, VAT and so forth. In South Africa, we pay VAT and the term "tax" in Pastel AIS, set up for South Africa will therefore refer to VAT.

Activity 15.23

- Read the background information on VAT in the Pastel manual, as well as additional information on the "Data files accompanying the Pastel courseware" CD accompanying the manual under Additional/VAT guide. Make sure you know and can explain the following:
  – What is VAT?
  – How does it work?
  – What is the difference between output VAT and input VAT?
  – Who must and who may register? (Note: compulsory registration starts at a turnover of R1 million in any 12-month consecutive period.)
  – What is the difference between normal VAT (invoice-based VAT) and payment/cash-based VAT? When should which option be used, and how are the two options treated differently for accounting purposes?
  – In South Africa, should bad debts and/or discounts given affect the business's VAT liability?
  – What is the difference between the various tax types?

– Which type of **output** VAT and what percentage would be charged if an organisation sells the following to its customers (in general):
   ◊ basic foodstuff (such as brown bread, maize, rice, cooking oil, milk, eggs, fresh fruit and vegetables)
   ◊ general items (such as washing powder, pet food, tinned food, toiletries and sweets)
   ◊ restaurant food
   ◊ delivery vehicles and/or passenger vehicles
   ◊ petrol and/or diesel
   ◊ computer equipment and/or office equipment
   ◊ accounting services
– Which type of **output** VAT and what percentage would an organisation exporting any of the above to customers in other countries (in general) charge?
– Which type of **input** VAT and what percentage would an organisation purchasing the following from suppliers (in general) claim?
   ◊ basic foodstuff (such as brown bread, maize, rice, cooking oil, milk, eggs, fresh fruit and vegetables)
   ◊ general items (such as dishwashing liquid, refreshments [tee, coffee and milk], toilet paper and sweets)
   ◊ entertainment (such as taking your staff to the state theatre or having a year-end function)
   ◊ delivery vehicles and/or passenger vehicles
   ◊ petrol and/or diesel
   ◊ computer equipment and/or office equipment
   ◊ accounting services
   ◊ water and electricity
   ◊ rates and taxes to the city council
   ◊ telephone
   ◊ office rent
   ◊ short-term insurance (theft, car, etc)
   ◊ medical aid contributions
   ◊ pension fund contributions
– Would your answer relating to **input** VAT change if the particular supplier had not been registered for VAT or had not provided you with a valid VAT invoice?
   ◊ A useful exercise would be to draw some T-accounts on a piece of paper and work out the debits and credits (including the VAT) relating to several purchase, sale and expense transactions. (Good old accounting and taxation combined!)

Feedback on activity 15.23

To complete the above activity you must draw from your pre-existing accounting and taxation knowledge as well as the knowledge obtained from the Pastel manual and accompanying "Data files accompanying the Pastel courseware" CD.

For further information on VAT, visit www.sars.gov.za.

Pastel, like many other AISs, already has the majority of the tax settings (eg the parameters, percentages and box names) automatically set up. When South Africa was chosen as the country when we first created the new "PM" company in Pastel, the tax was automatically set up and we will only need to make limited changes to the tax settings in order to customise it for the "PM" company. When South Africa is selected, Pastel allows for three different "tax systems". We will select "Do Not Use Tax" if the organisation is not a registered VAT vendor. Registered VAT vendors can choose between "Normal VAT/GST/Sales tax" or "Payment/Cash Based VAT", depending on their registration status at SARS.

Computer activity 15.24

Follow the step-by-step instructions in the Pastel manual, lesson 4, to set up the tax.

5.7 Setup Customers' Control

Remember that we set up the common defaults as part of Auto Setup so that we have to enter minimum additional data thereafter for each individual customer, supplier, inventory item and general ledger account. Keep this in mind when we do the setup for customers, suppliers and inventory.

NOTE:
. . . .

It is essential to fully understand the difference between

- a customer and a supplier
- open item and balance forward processing

. . . .

When doing the setup for the customers' control, we are specifying the terms and rules we want the majority of our customers to follow – for example, 15% interest on late payment or to print the VAT % instead of the VAT amount on the sales invoice. Of course we can modify this later when we create/edit an individual customer, such as only 10% interest for a large customer or printing the VAT amount on their sales invoices as requested.

Computer activity 15.25

Open the *Customers Control* screen as part of the Auto Setup and first click on all the tabs to see the contents thereof.

Only certain items in the setup of the customers' control will be highlighted, as the rest is sufficiently explained in the Pastel manual.

(a) Configuration tab

See how well items relating to one another are grouped together.

In study unit 16, Pastel manual, lesson 8, we will learn about creating and editing general ledger accounts. The three accounts used here are the default accounts because of the industry-specific chart of accounts that we selected when we created the new "PM" company.

- *Interest*

  The *Annual % Rate* specified will be the default for all the customers, but it can be modified for individual customers when these customers are created later by editing the individual customer's account. Although the interest rate and general ledger account are specified here, the interest transactions will <u>not</u> be processed automatically. We will therefore have to calculate and process the accounting entries for the interest. We will specify the journal through which we will enter the interest with the *entry type* (see section 5.4 in this study unit).

- *Warn Overdue When Invoicing*

  A warning when a customer's account is overdue is an effective way to help control an organisation's (potential) bad debts. Designing controls will be dealt with in detail as part of auditing – remember to open Pastel again when studying auditing to see where the controls are implemented.

- *Tax on Document Lines*

  VAT legislation requires that all customers be identified on the VAT invoices they receive when purchasing for more than R3,000 per invoice. Although the customer name and VAT number will already have been stored in Pastel for the regular customers, ad hoc or cash customers' names and VAT numbers have to be recorded separately when the individual transaction exceeds this limit. The amount entered as the "Tax Ref Prompt Amount" will help the person capturing the invoice to remember to ask for the required details.

- *User Defined Fields*

  The user-defined fields are extra information that may be required. The items we type here basically become the additional field names in the customer master file.

(b) Statements tab

"Begin with the end in mind" is what Steven Covey (1989:97) said in his book, *The seven habits of highly effective people.* It would be rather difficult for us to understand why we are doing what we are doing with the setup if we do not know what we are working towards (the end we have in mind).

Customer statements are documents printed (usually monthly) and sent to customers. These can list the details of transactions not yet paid together, with the most recent payment transactions (open item) or merely print the balance owed from previous months together with the details of the most recent transactions (balance forward).

Despite having an open item customer, we can still print the monthly statement for the customer in balance forward view, should we (or the customer) prefer it. Owing to the potentially huge number of different items sold to a customer on each separate invoice, one does not usually repeat all the details on the customer statement, but instead only print the total for the invoice.

Customer statements also categorise the various transactions according to the age categories we have chosen as the default terms when we created the company. For example, if we sold R1,000 worth of goods to a customer two months ago and he has not paid us yet, the R1,000 would be shown as 60 days outstanding. We can customise the messages that we want to print automatically to our customers, depending on how long they have owed us the money. However, one has to be careful when wording such messages – that is, if we wish to keep such customers in the future.

(c) Defaults tab

- *Normal Payment Terms*

  The normal payment terms, processing method and most common price list were chosen when we created the new "PM" company, but here we have the opportunity to change it.

- *Tax Entry Method*

  The tax entry method chosen will depend on the organisation. Remember that most organisations' sales prices are shown inclusive of VAT. This will make the capturing of the prices inclusive of VAT much easier.

- *Other Terms*

  Credit limits should always be individually set for customers. We will set these limits in study unit 16, Pastel manual, lesson 5. All the factors to take into consideration in determining the credit risk and the process for granting credit form part of auditing.

  The early payment terms are clearly the discounts granted to customers for paying early. The difficult part is to determine exactly how much discount should be offered to customers as an incentive, without diminishing profits too much. You will learn how to calculate this as part of your studies in management accounting.

(d) Description tab

The items we type here become the field names in the customer master file, but different from the field names typed on the configuration tab. Pastel knows that these are associated with the address of the customer and will use them where required on invoices, statements and suchlike.

Computer activity 15.26

Follow the step-by-step instructions in the Pastel manual, lesson 4, to set up the customers' control.

5.8 Setup Customers Documents

Activity 15.27

- Review study unit 7, figure 7.1 (manual process) and figure 7.2 (computerised process) on the conversion of transaction data into information.

The Setup Customer Documents in Pastel contain the various source documents relating to customers.

Note that not all documents result in a journal entry – hence not all of them result in an accounting entry in the general ledger and the customer subledgers. The details (data) of these source documents will still be stored in transaction files for reference purposes (we do not want to retype all the data later, if we can simply refer to the data already stored and make small amendments if necessary).

Quotations and Sales Orders are optional, depending on the design of the sales process in the particular business (you will learn more about the process and the associated controls in your auditing studies).

See figure 15.1 below for a better understanding of the sales process.
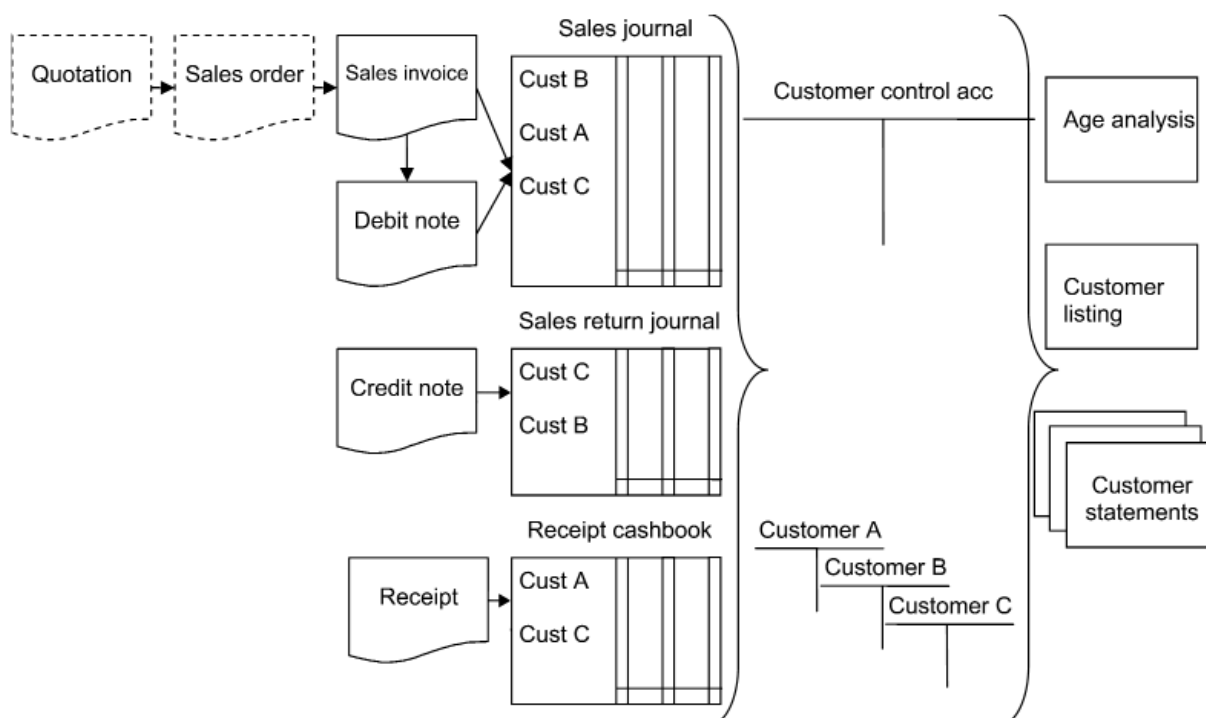
FIGURE 15.1: Sales process

Activity 15.28

•   For each source document, make sure you know the

   – order in which the documents are used in the sales process
   – purpose of the document
   – differences between the various source documents
   – entry type (journal) normally used by each source document
   – accounting debits and credits (remember to take VAT into consideration too)

To complete the activity above you must draw from your pre-existing accounting and taxation knowledge as well as the information contained in topic 3.

Computer activity 15.29

Open the customer documents screen as part of the auto setup and first click on all the tabs to see the contents thereof.

Here we will only highlight certain items in the setup of the customer documents because the rest is sufficiently explained in the Pastel manual.

The various names of the document and the number of copies are determined by the design of the organisation's sales process. Refer to your auditing studies again.

Remember that Pastel uses the term "Entry Type" for a journal. Note how it is shaded in grey for certain documents. That is because those types of documents are not posted to the general ledger. Also note that for the same reason, the update options are shaded in grey when the entry type is shaded in grey.

When the update options are available, we can choose between "Update on Completion of Document" and "Update in Batch Mode". Refer back to, study unit 1. Which of the two options will result in real-time processing and which in batch processing?

Project codes are used to track income and expenditure. A project code can be a branch, department, job, employee or anything we want to allocate income and expenses to in order to see the individual profitability or contribution thereof in relation to the business as a whole. For instance, we can use project codes to prepare a separate income statement for each branch of the organisation.

Sales codes (sales analysis codes) are similar to project codes, but relate specifically to sales. Sales codes make it possible to analyse sales by sales representative, geographic areas, market segments and so on. Sales codes can be used to calculate commission. Commission need not necessarily be paid to a sales representative – it depends on the sales code descriptions. For example, if we enter a geographic area as a sales code, commission can be calculated for the geographic area and the commission can be split equally between all the sales representative in the geographic area.

NOTE:

The different versions of Pastel Partner use either the term **"Project code"** or **"Cost code",** but the meaning of the terms is the same.

Do you remember where the "Next Numbers" of the documents were set up? Yes, on the company parameters setup screen.

Many different types of stock and/or service items can be sold on one invoice (and of course the quantity for each type can be one or more). Each different type of item will be listed on a new line, but on the same invoice (refer to a supermarket till slip). To save time with data capturing, we can set the default for the type of item that will most often be entered on an invoice line.

Computer activity 15.30

Click the drop-down list for the *invoice lines default* to explore the various defaults. Use the help function (F1) to learn more about each default. We will also learn more about the item code, general ledger (GL) code and remarks when entering transactions in study unit 17 and the Pastel manual, lesson 9.

When we enter a transaction on a source document and click on *"Next Document"* or *"Close",* Pastel will automatically try to print the document (and variations thereof). Why? Because it was set up here in customer documents.

When and what to print will depend on how the organisation is run. For example, if the majority of the customers walk into the shop to do business, we will want to print the invoice immediately and give it to them, but if the organisation mainly receives telephone or email orders, we will probably want to capture all the transactions in a batch and then print all the invoices and delivery notes at the end of the batch only.

NOTE:

Set up Pastel according to your organisation. Unless your business processes were ineffective or inefficient, do not try to mould your organisation to fit in with your AIS.

Computer activity 15.31

Follow the step-by-step instructions in the Pastel manual, lesson 4, to set up the customers' documents.

5.9 Setup Suppliers Control

The setup of the suppliers' control is similar to the setup of the customers' control.

When doing the setup for the suppliers' control, we specify the terms and rules the majority of the suppliers will follow, such as to enter the supplier prices including or excluding VAT and the standard payment terms. Again, we can modify this later when we create/edit an individual supplier.

Computer activity 15.32

- Open up the supplier control screen as part of the *Auto Setup* and first click on all the tabs to see the contents thereof.

  – Compare the contents of the various tabs of the *Setup Suppliers Control* with the contents of the *Setup Customers Control* and note the similarities and differences.
  – Read section 5.7, guidance for customers' control setup, again and apply the same principles to the suppliers' control setup.

Only certain items in the setup of the suppliers' control will be highlighted here, because the rest is sufficiently explained in the Pastel manual and in section 5.7, the explanation of the customers' control setup.

(a) Configuration tab

Using goods received notes (GRN) is excellent from a control perspective and will depend on how the organisation's business process was designed (you will learn more about this control in auditing).

When an organisation is likely to sell goods before receiving and processing the supplier invoice for the goods, it will be necessary to use goods received notes, or else the accounting system will indicate that the organisation is out of stock, while there is in fact stock available for selling in the storeroom.

Computer activity 15.33

- Compare the supplier configuration tab to the customer configuration tab (and the guidance given for it in section 5.7)
- Toggle (click first the one and the other one and back again) between "Mandatory" and "Never" for goods received notes. Notice how the *Accrual Account* is shaded in grey when "Never" is selected.
- Refer again to study unit 9 on transaction processing and read the section on accounting for goods received notes. Draw up the T-accounts (general ledger accounts) and practise posting debits and credits to the correct accounts (taking VAT into consideration)

(b) Remittances tab

Remember that the organisation is the supplier's customer. The supplier will therefore send a monthly customer statement in the same way as the organisation will send a monthly customer statement to its customers.

Customers use the customer statements to pay their suppliers, and often the bottom of the customer statement can be cut off and attached as a remittance to the payment made to the supplier.

That is why, in practice, separate remittances are rarely printed and sent to suppliers to accompany the payment, although remittances are still useful to help settle account disputes between customers and suppliers.

(c) **Defaults tab**

> **Computer activity 15.35**
>
> Compare the *supplier defaults tab* with the *customer defaults tab* (and the guidance given for it in section 5.7)

(d) **Description tab**

> **Computer activity 15.36**
>
> Compare the *supplier description tab* with the customer description tab (and the guidance given for it in section 5.7)

NOTE:
• ••

It is essential to fully understand

- the difference between a customer and a supplier
- ageing
- the difference between balance forward and open item processing

• •

> **Computer activity 15.37**
>
> Follow the step-by-step instructions in the Pastel manual, lesson 4, to set up the suppliers' control.

5.10 Setup Suppliers Documents

The setup of the suppliers' documents is similar to that of the customers' documents and contains the various source documents relating to suppliers.

> **Activity 15.38**
>
> - Review study unit 7, figure 7.1 (manual process) and figure 7.2 (computerised process) on converting transaction data into information.

- Compare the contents of the various tabs of *Setup Supplier Documents* with the contents of *Setup Customers documents* and note the similarities and differences.
- Read section 5.8, guidance for the setup of the customers' documents again and apply the same principles to the suppliers' documents.

Only certain items in the setup of the suppliers' documents will be highlighted here because the rest is comprehensively explained in the Pastel manual and in section 5.8, which deals with the setup of the customers' documents.

Activity 15.40

- Refer to figure 15.1 for the **sales** process, and draw your own figure with the relevant documents, journals, general ledger accounts and reports for the **purchase** process. Use the outlines below to assist you.
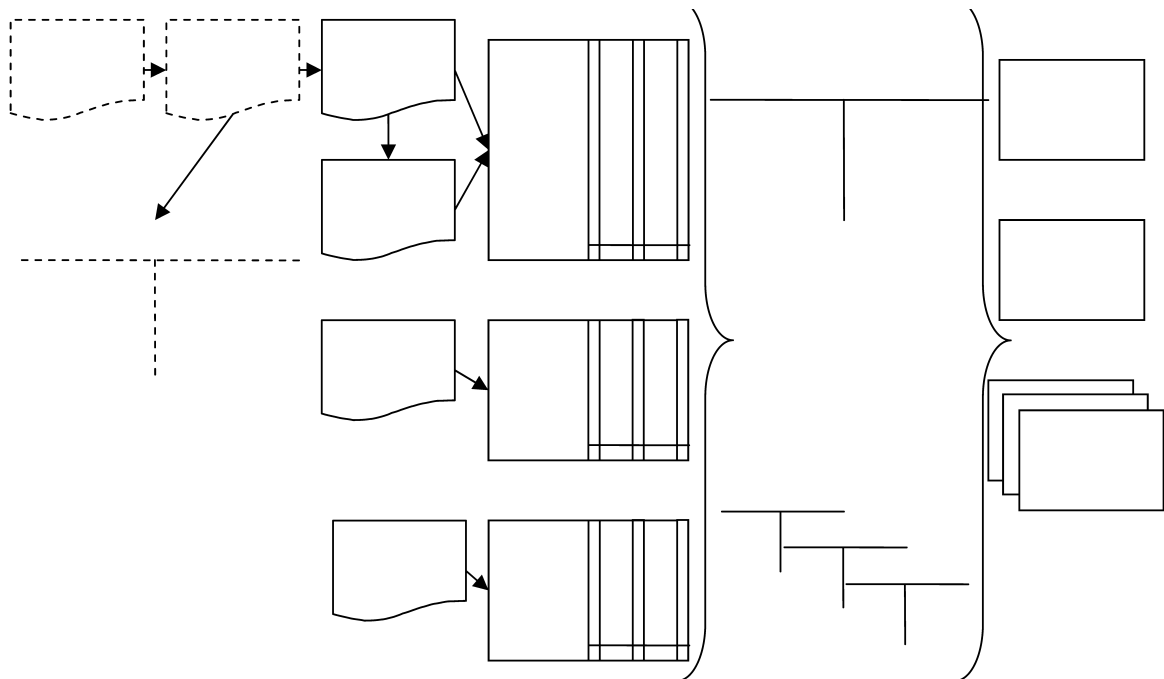
FIGURE 15.2: Purchase process

- Make sure you know for each source document

  - the order in which the documents are used in the purchase process
  - the purpose of the document
  - the differences between the various source documents
  - the entry type (journal) usually used by each source document
  - the accounting debits and credits (remember to also take VAT into consideration)

Notice the message details typed in for the purchase order and the return/debit note. Why would a business want to print this in addition to its documents?

> ### Computer activity 15.41
>
> Follow the step-by-step instructions in the Pastel manual, lesson 4, to set up the suppliers' documents.

5.11 Setup Inventory

When doing the setup for the inventory, we will specify the terms and rules the majority of inventory items would follow, such as the various price lists used for inventory items, the maximum selling prices, discount percentages and so on. We can modify this later when we create/edit an individual inventory item.

> ### Computer activity 15.42
>
> Open up the *inventory setup* as part of the Auto Setup and click on all the tabs to see the contents thereof.

Only certain items in the setup of the inventory will be highlighted here because the rest is comprehensively explained in the Pastel manual.

(a) *Configuration tab*

- *Price List Descriptions*

  Many organisations have different price lists. For instance, a hotel may have individual client and corporate client price lists, or tourist attractions may have local or tourist price lists (the latter often quoted in US dollars).

- *Limits*

  Employees are often given authorisation to make decisions relating to sales and purchases, but only within certain limits. Some of these limits are specified in Pastel on this tab, so that the employees do not overstep their authorisation, be it accidentally or on purpose for extra sales commission or kickbacks on purchases. Again, you will learn more about controls (both manual and computerised) in auditing.

- *Processing*

  The items listed in the processing block refer to computerised controls to help the business owner achieve his or her profit goal.

  An organisation cannot sell something it does not have in its stores. Hence there is no reason for inventory quantities to ever fall below zero, especially if goods received notes are selected to be mandatory and inventory is properly controlled. We can only opt to be warned if inventory falls below zero *("Warn if Inventory Falls Below Zero"),* if we have elected to allow inventory to go below zero in the first place *("Allow Inventory Quantities to Fall Below Zero").*

The reorder levels and the preferred suppliers will be set later when we create/ edit individual inventory items in study unit 16, Pastel manual, lesson 8.

Activity 15.43

Think where each of the limits shown and the items in the processing block will have an impact further on in the AIS.

(b) Integration/Groups tab

Currently, the default inventory groups are Services and Inventory Goods. Pastel allows setting up multiple groups and using different descriptions. E.g. a supermarket can use groups such as basic food, luxury food, fresh produce, pet food, cleaning and other as inventory groups.

Why would we want to create multiple inventory groups? For decision making, of course! If an organisation can separate the sales and cost of sales of the various groups, it can make better decisions on the profitability of each inventory group.

To create various groups, we type the group names under the description column. Pastel will not automatically know how to link (integrate) the groups with the general ledger to enable extracting the information at a later stage. That is why we set up the integration here on the inventory integration/groups tab.

When we selected an industry-specific chart of accounts during the creation of the new "PM" company on Pastel, several standard general ledger accounts were automatically created. These include the customer and supplier control accounts we have seen so far during Auto Setup, as well as the accounts visible on the integration/ groups tab of the inventory setup.

Computer activity 15.44

- Use the horizontal sliding ruler to view all the different general ledger accounts affected by an integrated inventory system (the default).
- Now unselect the *"Integrate Inventory to General Ledger"* tick box and see how the general ledger accounts are affected. Select the same tick box again (and click OK as requested) to see the integrated general ledger accounts again.

Activity 15.45

- Review the difference between a perpetual inventory system and a periodic inventory system as you learnt about in accounting.
- Draw T-accounts and prepare fictitious transactions for both the perpetual and the periodic inventory systems to make sure you remember and understand the related accounting. (**Hint:** The general ledger accounts visible in Pastel when you select to integrate or not to integrate may help you here.)

(c) ***User Fields tab***

These user-defined fields are similar to those defined for customers and suppliers, that is, they become the <u>field names</u> in the inventory master file. For example, we will be able to specify the name of each type of inventory item for any organisation, but, if the organisation sells food, we may want to create a special field for ingredients in food that may cause allergic reactions.

(d) ***Other tab***

The defaults for new items on the inventory setup other tab are similar to the default tabs for customer control and supplier control in that it will use this information as the default for every new inventory item created in study unit 16, Pastel manual, lesson 8.

If we decide to change the description or add more inventory groups on the configuration tab, we would be able to select it here in the *Inventory Group* dropdown list.

The *Encrypted Cost Price* is an excellent feature if we are going to print our own price labels and if we allow our sales staff some flexibility in negotiating sales prices.

Computer activity 15.46

Press F1 (Help) when you are on the *"Setup Inventory Other"* tab. Read the additional guidance given on

- when and when not to use fixed descriptions
- the difference between physical and service items and when to select which option
- encrypted cost price

NOTE:
• •

It is extremely important to familiarise yourself with the Help function (F1). Long after you have passed AIN2601, the Help function will still be there to give additional guidance and help you to brush up on those skills that have become rusty because of infrequent use.

• •

Computer activity 15.47

Follow the step-by-step instructions in the Pastel manual, lesson 4, to set up the inventory.

The setup of a new company after creation is crucial. We therefore strongly recommend that you open your extra "TEST" company (see section 4.3) and do the setup again. Go through section 5 again, but this time play around, click and try out different options.

You cannot break the test company or Pastel. If something does go horribly wrong, simply delete the "Test" company and create another one.

• ••

5.12 Backup and Restore

There is a difference between saving a company and backing up a company. When we close Pastel after working on it, the company and all the changes made are automatically saved to the local hard drive or the network drive (depending on the installation), even if we do not backup. It is therefore **not** necessary to restore a backup before starting to work in Pastel again the next day. Remember – it is automatically saved!

A backup is a special save (preferably to another location such as a removable disk, internet, etc). We make this special save in case something happens to Pastel on the local hard drive, or if we are going to effect a major change on Pastel that could result in major errors.

It is necessary to make daily backups and to do this in a different location to the local/network hard drive because the people responsible for capturing the data work extremely hard and do not want to redo their work if it is somehow lost – not to mention the cost of lost information in an organisations' decision-making processes.

ONLY when a disaster has struck the AIS (such as a system crash or if there were major errors in the processing), will the backup be restored.

Computer activity 15.48

Follow the step-by-step instructions in the Pastel manual, lesson 4, to make and restore a backup.

Know everything there is to know about backups! This will save you a lot of time and tears when you work through the rest of the Pastel manual and your assignment.

Hints for Pastel backups

- Always tick the "Ensure Files Readable" tick box. (Would you take a chance that your backup files are <u>not</u> readable when you desperately need to restore?!)
- Create a separate "Backup" folder, preferably on a flash drive, but n<u>ot</u> under the company name in the Pastel folder (this will result in the file size growing exponentially, because the increasing number of backups will be backed up again every time).
- Create subfolders under the "Backup" folder for each lesson in the Pastel manual (eg lesson 4, lesson 5, etc).
- Create extra subfolders for lesson 9 (eg lessons 9A to 9D), because lesson 9 is fairly long with numerous transactions.
- Starting right now, make a backup of the "PM" company after every completed lesson in the relevant subfolder. (You may make a mistake and want to restore and start over from the previous lesson again to ensure your printouts agree with those shown in the manual.)

6 Summary

In this study unit, we installed Pastel and a virtual printer (lesson 1) and learnt how to navigate in Pastel (lesson 2). We collected basic information on the organisation and then used it information to create a new company on Pastel (lesson 3). We set up the common default data so that we need to enter the minimum additional data thereafter for each individual customer, supplier, inventory item and general ledger account (lesson 4). In the next study unit, we will set up the individual customer and supplier accounts, inventory items and general ledger accounts.

Self-assessment activity

• •

After working through this study unit, you should be able to answer the following questions:

(a) Complete the Pastel manual formative assessment questions at the end of lessons 1 to 4.
(b) Explain the difference between a physical and a virtual printer.
(c) Explain why it is necessary to make sure the user clicks to indicate he or she accepts the licence agreement.
(d) Explain why it is necessary, from the software vendor's perspective, to compel users to register their software.
(e) List the differences between the Pastel educational software and the full Pastel AIS.
(f) Briefly explain what each of the Pastel main menu items does.
(g) Identify the correct main menu item on the menu bar to use for a specified function.
(h) Label/identify the various toolbar icons.
(i) Name all the function keys and their operations.
(j) Name all the shortcut keys and their operations.
(k) Fully discuss the how, why and when of the help function and the zoom facility.

(l) List and describe each type of information required to create a new company.

(m) Determine an appropriate industry-specific chart of account to use for a service organisation.

(n) Fully explain the difference between period- and day-based customer terms.

(o) Explain in detail the difference between the open item and balance forward processing methods.

(p) Explain the chosen settings on each of the Auto Setup section screens.

(q) Explain the various VAT concepts, requirements and types, choose the correct VAT type and percentage for a given transaction and explain their effect in the general ledger.
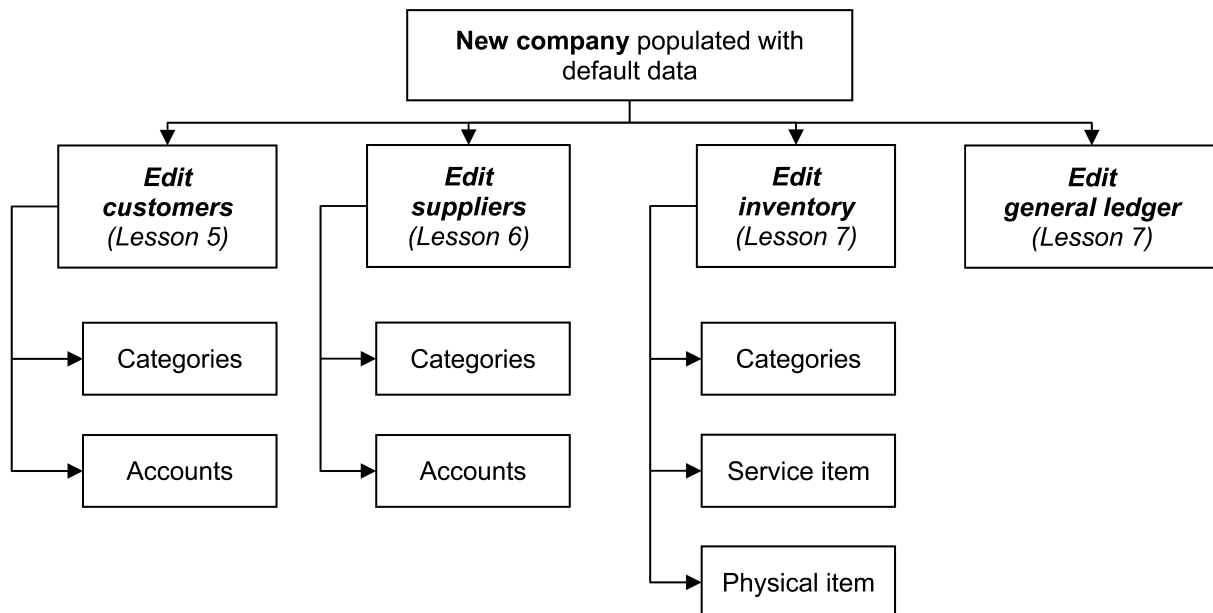
(r) Discuss how, why and when backups are made.

Feedback on self-assessment activity

You will find the answers in the Pastel manual, the Pastel Help file, this study unit or the myUnisa discussion forum. The answers to the questions in the Pastel manual formative assessment are provided on the "Data files accompanying the Pastel courseware" CD.

16

Customers, suppliers, inventory and general ledger accounts

In this study unit

```
                    ┌─────────────────────────────┐
                    │ New company populated with  │
                    │        default data         │
                    └─────────────────────────────┘
```

Edit customers (Lesson 5)	Edit suppliers (Lesson 6)	Edit inventory (Lesson 7)	Edit general ledger (Lesson 7)
Categories	Categories	Categories	
Accounts	Accounts	Service item	
		Physical item	

1 Introduction

Each organisation has different customers, suppliers and inventory items. Each of these accounts and items has its own unique data which must be set up. In the previous study unit, we set up the common default data for our new company. In this study unit, we will set up the individual customer (lesson 5) and supplier accounts (lesson 6), inventory items (lesson 7) and general ledger accounts (lesson 7) and customise each of these accounts to our company's specific needs (lesson 8).

2 Lesson 5: the Edit menu – Customers

In lesson 5 we will create customer categories, sales analysis codes and customer accounts. We will also learn how to change from open item processing to balance forward processing. Lastly, we will print the customer master file listing.

2.1 Create customer categories and sales analysis codes

Computer activity 16.1

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 5, to create the customer categories.

- Open the "Demo" company:
  - Click on Edit – Customers – Categories.
  - See how different customer categories can be used for reporting purposes.
  - Stop and think about which categories could be used for various types of businesses.

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 5, to create the sales analysis codes.

- Open the "Demo" company again:
  - Click on Edit – Customers – Sales Analysis Codes.
  - See how the demo company was set up for commission. Also click on the tabs for "This Year Totals" and "Last Year Totals" to see the resulting commission.
  - Remember that sales analysis codes need not only be used to calculate commission.

2.2 Create customer accounts

When creating the customer accounts, we will use the setup information we created as part of the *"Setup Customer Control"* in study unit 15 and the Pastel manual, lesson 4, as well as the *"Customer Categories"* and *"Sales Analysis Codes"*.

We can control how each customer's transactions will be processed and how their transactions will be displayed in the customer statements.

Activity 16.2

Review the *balance forward* and *open item processing* methods in the Pastel manual, lesson 4. You need to understand this well.

The customer account codes will be used as the primary key in the customer master file to uniquely identify each customer. Although it can be changed later, it is much better to do this correctly right from the start.

Review how to design customer codes and enter customer names in the Pastel manual, lesson 5.

When we create a customer account for each customer on Pastel, we are actually creating a subledger account for that individual customer and specifying the how, where and when of the processing and output for the customer.

Computer activity 16.4

- Open the "Demo" company:
    - Click on Edit – Customers – Accounts.
    - Click on the various tabs to familiarise yourself with the contents.
    - Point your mouse (do not click yet) over each of the icons at the top of the "Edit Customer Accounts" screen to see the name of each icon. Make sure you know what each one is used for.

- When working through the customer account setup, you should continually ask yourselfthe following questions:
    - Where did this default information/setup come from?
    - Where will it be used further on in the AIS?
    - Why is it necessary (what is its purpose)?

- If you are not sure about the use of something, click on F1 (Help). It is vital that you learn to help yourself when using any software.

Only certain items in the *Edit – Customer – Accounts* will be highlighted here because the rest is comprehensively explained in the Pastel manual.

(a)   Top section

The "Account Code" will have to be created with the guidelines previously provided.

Activity 16.5

- Can you remember where the "Customer Category" was set up, the possible variations and what it will be used for?
- Why would you set up a "Cash Sale Account" if you can simply create a separate subledger for every customer, and what is purpose of the blocked tick box?

(b)   Contacts tab

When typing the addresses of a customer, note how the name for the particular address line is displayed in the yellow textbox to help with the data entry.

Computer activity 16.6

- Can you remember where we did the setup for these textbox names?
- What can the email address of a customer be used for, and where do we have the option to email something to our customers?
- What is a "Sales Code" again, where did we set it up and what can it be used for?

(c) Processing tab

Computer activity 16.7

- Can you remember where we did the setup for all the default information contained on this tab? See how we can change (customise) it here for every individual customer – our initial setup was merely the setup we wanted for the majority of our customers.
- Where and for what purpose do you think this information will be used further on in the AIS?
- Why do we need to capture the "Tax Reference" number for each customer?

(d) Terms tab

Computer activity 16.8

- Can you remember where we did the setup for all the default information contained on this tab?
- Where and for what do you think this information will be used further on in the AIS

The organisation's credit manager determines the credit limit for each customer individually. The credit limit granted is basically the maximum amount a customer can buy for without paying up front (think of your Edgars'/Ackermans' accounts). Allowing sales on credit increases the risk of bad debts.

In any organisation, a situation may arise that warrants the exceeding of a customer's credit limit for a short period. This may include situations such as cash receipt not yet processed in the financial system, a business decision by management and so forth. This temporary exceeding of a credit limit must always be authorised by a designated person(s) with the applicable authority. Such persons may include the owner of the business, the financial manager or the director, but will always depend on their approved authorisation rights. In Pastel, the person who will be able to action this temporary exceeding of the credit limit will be the supervisor. The supervisor will not increase the credit limit on the applicable customer's account, but will log in and process the applicable transaction.

The process for granting and monitoring customer credit is discussed in greater detail in auditing.

(e) *User defined tab*

See how the fields we defined in the customers' control are listed here.

(f) *Balances tab and Notes tab*

Computer activity 16.10

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 5, to create the customer account and a note for the customer.
- Follow the step-by-step instructions in the Pastel manual, lesson 5, and create the **cash** customer account. The differences in the setup of a cash customer account and that of a normal customer account are as follows:
  - For a cash account, the "Cash Sale Account" box is selected.
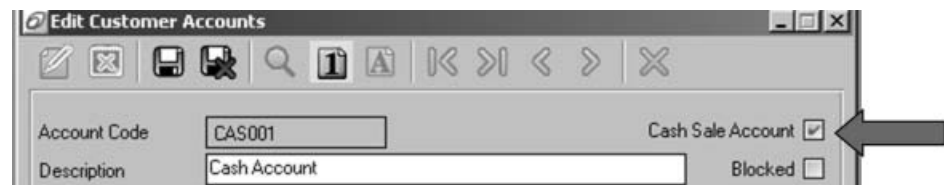
  - The cash account processing method is balance forward.
  - The cash account monthly terms are current.

2.3 Change customer processing

We can change the processing method (open item or balance forward) of customers and/ or suppliers in the **"Change"** menu, either for all of them, a range of customers/suppliers or an individual customer/supplier.

It is always a good idea to make a backup before converting from one processing method to another because some of the changes cannot always be reversed.

(a) *Balance forward to open item*

When converting from balance forward to open item processing the ageing for transactions processed under the balance forward method will not be able to reflect as if open item processing was used from the start of the account, as invoices and

payments were never matched from the start. (Refer again to the Pastel manual, lesson 4, if you are unsure about the difference in the ageing of open item and balance forward processing.) Pastel will create an artificial open item ageing by creating open item transactions (original invoices). These invoices must be matched against any payments received. For Pastel to be able to create these transactions we need to chose

- the individual customer or range of customers we want to convert
- which entry type will be used.
- whether
  - Pastel should create one open item transaction (invoice) for the full outstanding amount, or
  - Pastel should calculate a balance forward ageing and then create a transaction (invoice) for the balance in each ageing period (the period chosen in the next step is seen as the current period)
- the period in which to process the conversion

Computer activity 16.11

- Open the "Demo" company:
  - Click on Change – Open item/Balance forward conversion.
  - Select "From Balance Forward to Open Item".
  - Choose any customer and convert him or her customer by making your own decisions on how to convert. (Since this is only the demo company, you can play around with the conversion.)

(b) Open item to balance forward

Converting from open item to balance forward is straightforward and we only need to choose which individual customer or range of customers we want to convert.

Computer activity 16.12

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 5, to change from open item to balance forward processing.

2.4 Print the customer master file

Documents and reports can be printed from the **"View"** menu. When viewing a document or a report, we are looking at a small subset of the data (like reading with a magnifying glass).

Viewing will not change the underlying data, but it also sorts, calculates, summarises and classifies the data into useful information.

- Follow the step-by-step instructions in the Pastel manual, lesson 5, to print the customer master file listing.
- Click on the "Rerun" button and **play around** with the various report options. **Experiment –** this is the way to familiarise yourself with software.
- Now is also a good time to experiment with printing to the **virtual printer** you have installed. Refer to study unit 15, section 2.3, for step-by step instructions on how to print using a virtual printer.

Remember to back up lesson 5 into a separate subfolder/directory named "Lesson 5".

3   Lesson 6: the Edit menu – Suppliers

In lesson 6, we will create supplier codes and supplier accounts. We will print the supplier master file listing.

3.1 Create supplier categories

The setup of the supplier categories is similar to that of the customer categories.

- Open the "Demo" company:
  - Click on Edit – Suppliers – Categories.
  - Create categories for these suppliers using your knowledge of the setup of customer categories.

3.2 Create supplier accounts

The setup of the supplier accounts is similar to the setup of the customer accounts. We will use the setup information we created as part of the "Setup supplier control" in the Pastel manual, lesson 4, to create the individual supplier accounts.

- Open the "PM" company
- Compare the contents of the various tabs of the Edit – Supplier – Accounts with the contents of the Edit – Customer – Accounts.
  - Note the similarities and differences.
  - Read the guidelines on *"create customer accounts"* again (see section 2.2) and apply the same principles to creating supplier accounts.

Only certain items in the *Edit – Supplier – Accounts* will be highlighted here because the rest is adequately explained in the Pastel manual and above in section 2

- Open the "Demo" company:
  - Click on Edit – Suppliers – Accounts.
  - Click on all the various tabs to familiarise yourself with the contents.

- When working through the supplier account set up you should ask yourself continually:
  - Where did this default information/setup come from?
  - Where will it be used further on in the AIS?
  - Why is it necessary (what is the purpose)?

- **If you do not know what something will be used for, click on F1 (Help).**

(a) Processing tab

- **Tax**

  Why do we need to capture the "Tax Reference" number for each supplier? Input VAT can only be claimed on invoices from registered VAT vendors. VAT rules require organisations to ensure that the VAT numbers reflected on the supplier's VAT invoices received are the valid VAT number for that supplier. Only capturing the VAT number after the verification of the VAT number is a way to ensure that all VAT numbers are verified. Passwords can be used to restrict edit access to the system, thereby ensuring that only verified supplier VAT numbers are recorded. Including the VAT number in the supplier master file will help save time and reduce the costs of having to verify online every invoice received, especially where the volume of invoices is high.

  If a supplier is not a VAT vendor, which *"Tax Code"* should be selected? *"00-Tax 0",* because the organisation cannot claim any input VAT for that specific VAT vendor. (There are some exceptions to this rule, such as second-hand goods, which will not be discussed in this module. You will learn about these exceptions in taxation.)

  If our organisation (company on Pastel) is not a registered VAT vendor, then we cannot claim input VAT even if the suppliers we buy from are registered VAT vendors. During the "Setup Tax" we would have selected "Do Not Use Tax". The effect will be that on the "Edit Supplier Accounts" screen, tax processing will be greyed out, and "No tax type default" automatically selected.

- **Default Contra Account**

  When we purchase inventory items, we generally enter the stock item code on the supplier invoice, together with the quantity and price per item. However, an organisation needs to purchase several other noninventory items and services to enable them to run their business. We will still capture the details on these supplier invoices in Pastel, but will then enter the general ledger account instead of a stock item code on the invoice. Examples of such purchases are stationery and electricity. However, a word of caution – if the organisation's business is to sell stationery, we will have plenty of stationery inventory items, but those stationery

items we purchase for use in the business (ie not for resale) will be allocated to the stationery expense account in the general ledger.

It may happen that some of the suppliers of noninventory expenses only supply a single type of service or noninventory type item to the organisation. Thus to save time with data capturing, we will enter the general ledger code of the associated expense in the *"Default Contra Account"* text box. Pastel will then automatically use that general ledger code for that supplier's invoice and we need not look up the code every time. For example, if Hollard Insurance is the organisation's short-term insurer, we will enter 3850/000 as the *"Default Contra Account",* which is the general ledger code for insurance in the chart of accounts.

- *Terms*

Remember that an organisation is its supplier's customer. In the same way as an organisation grants a credit limit to its customers, the suppliers will in turn each grant a credit limit to the organisation (depending on the organisation's creditworthiness).

If organisations know the credit limit they have at each supplier, it will enable them to plan and spread their inventory purchases to optimise their cash flow. An organisation wants its customers to pay as quickly as possible, but it wants to delay paying its suppliers. (Budgeting and cash-flow projections are dealt with in detail in management accounting.)

Computer activity 16.17

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 6, to create the supplier account.

3.3 Print the supplier master file

Computer activity 16.18

- Follow the step-by-step instructions in the Pastel manual, lesson 6, to print the supplier master file listing.
- Click on the "Rerun" button and play around with the various report options and the virtual printer.

Remember to back up lesson 6 in a separate subfolder/directory named "Lesson 6".

4 Lesson 7: the Edit menu – Inventory and General ledger

Lesson 7 starts with creating inventory categories and service and physical inventory items. We will also renumber inventory codes and print some of the available inventory reports. This lesson concludes with creating and editing general ledger accounts and subaccounts.

> ### Activity 16.19
>
> • Refer back to study unit 7, figure 7.3, and the accompanying explanation to understand where we are in the overall AIS.

4.1 Creating and editing general ledger accounts

> ### Computer activity 16.20
>
> • Open the "Demo" company.
> • Open the Explorer and click on *"General Ledger"* under *"Tasks".* Sort according to code. (We learnt how to do this in lesson 2 – working in the demo company.)
> • Browse through all the existing general ledger accounts. Take a closer look at the account numbers in the *"Fixed Assets"* financial category.
>   – The four numbers before the "/" are the main account number and the following four numbers the subaccount number of the general ledger account.
>   – Review the section on "Main and subaccounts" in the Pastel manual, lesson 7.
>
> • Click on *Edit – General Ledger – Accounts,* and then click on all the various tabs to familiarise yourself with the contents.

As we will learn later, we can also create general ledger, customer, supplier and inventory accounts as and when we need them (without going to the separate menu). We will create these accounts "on the fly" by using the F6 shortcut key.

Only certain items in the *Edit – General Ledger – Accounts* will be highlighted here because the rest is adequately explained in the Pastel manual, lesson 7.

(a) Top section

By selecting the most relevant industry chart of accounts during the creation of our company, Pastel has automatically created numerous balance sheet and income statement general ledger accounts for our organisation. However, since every organisation is unique, we may need to add some general ledger accounts or delete some that we will not use. It is recommended that you block an account instead of deleting it. In that way, it cannot be used for transaction processing, but if we need the account later, we can simply unblock it.

Computer activity 16.21

- Open the "Demo" company.
- Click on Edit – General Ledger – Accounts.
- Click repeatedly on the *"Next Record"* icon until you reach a general ledger account with a description in the control account block.
    - Continue and note the various control accounts.
    - Do these control accounts look familiar?
    - Can you remember where an account is set up as a control account? For example, the customer control account? The customer control account is set up under *Setup – Customer – Control.*

(b) Details tab

- **Main Account**

Computer activity 16.22

- Open the "Demo" company.
- Click on Edit – General Ledger – Accounts.
- Select *Income statement* and click to see which financial categories and report writer categories are available in the drop-down list.
- Select *Balance sheet* and click to see which financial categories and report writer categories are available in the drop-down list.

NOTE:
• •

You have to know your accounting framework in order to classify the new/existing accounts correctly as assets/liabilities/equity/income/expenditure and so on.

• •

- **External Reference**

    The external reference is a handy field if we wish to export and compare the financial results of various companies using different account numbers. We enter the same external reference and can then manipulate the information in Excel for comparison purposes.

- **Tax processing**

    We can set the tax processing for the general ledger here. This can save time later during transaction processing and, more importantly, it allows us (the knowledgeable accountants) to set it up correctly so that the data capturers are less likely to make mistakes during transaction processing.

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 7, to create a general ledger main account and general ledger subaccounts.

4.2 Integrating the general ledger inventory accounts to the inventory groups

Activity 16.24

Read the section under the Integration/Groups tab in study unit 15, section 5.11, again.

Only **after** we have created the appropriate general ledger accounts and subaccounts, can we link the various inventory groups to those general ledger accounts. Remember that a computer cannot think for itself – everything has to be specified in detail.

It is crucial that the integration is set up correctly because the accounts specified here will be used in allocating the inventory transactions to the specified general ledger accounts. If the integration is set up incorrectly, the wrong transactions will be processed to the different general ledger accounts, and our financial statements and management information will be incorrect.

Computer activity 16.25

Follow the step-by-step instructions in the Pastel manual, lesson 7, to integrate the general ledger accounts with the inventory groups.

4.3 Create inventory categories

Inventory categories, like customer categories, are used to classify the inventory items and inventory item transactions, then summarise, calculate and sort the information in those categories, thereby increasing and improving the information in the reports for management. The purpose of this is improved decision making.

Computer activity 16.26

Follow the step-by-step instructions in the Pastel manual, lesson 7 to create the inventory categories.

4.4 Create inventory items: familiarisation

When creating the inventory items, we will use the setup information created as part of the "Setup – Inventory" in lesson 4, as well as the "Inventory Categories".

When we create each individual inventory item on Pastel, we are actually also creating a subledger account for that inventory item and specifying the how, where and when of the processing and output for that inventory item – in the same way as customer and supplier accounts.

Computer activity 16.27

- Open the "Demo" company.
    - Click on Edit – Inventory – Item File.
    - Click on all the various tabs to familiarise yourself with the contents.

- When working through the inventory item setup, you should continually ask yourself the following questions:
    - Where did this default information/setup come from?
    - Where will it be used further on in the AIS?
    - Why is it necessary (what is its purpose)?

- **If you do not know what something will be used for, click on F1 (Help) or refer to the Pastel manual.**

Only certain items in the *Edit – Inventory – Item File* will be highlighted here because the rest is adequately explained in the Pastel manual.

(a) Top section

The inventory code will have to be created using the same guidelines as for customer and supplier account codes.

See the inventory categories we have created in the drop-down box. This is for reporting purposes.

(b) Details tab

- #### Inventory Group

Where do we set up the inventory groups? Quickly page back to lesson 4 in the Pastel manual to refresh your memory.

NOTE:

In any AIS application, it is essential that you always know where the data you are currently entering is going to be used in future processes and where the data you see originated.

Remember that as the accountant, you will be asked for expert advice. You therefore need to prepare yourself for the real world.

- *Allow Tax*

  The tax selected for a registered VAT vendor for both purchases and sales, will usually be the same, that is, "01-Vat-Standard rated (14%)". Pastel, however, allows us to select different tax types for purchases and sales because different VAT rules may apply for these.

  ### Activity 16.28

  Review your VAT notes and decide how you would set up the VAT on the "Details" tab for those items listed in study unit 15, section 5.6

- *Processing Options*

  There is a fraud risk in allowing employees to change the descriptions of the inventory items while invoicing. Fraud, fraud risk and controls are dealt with as part of auditing.

  How is the sales commission item linked to the customers and sales analysis codes? In section 2.1 of this study unit we set up sales analysis codes. Organisations can decide that staff cannot earn sales commission on certain products. For these products "Sales Commission item" will not be selected.

- *Type*

  Pastel allows us to create two types of inventory items, namely service items, such as garden services, and physical items, such as books. Depending on our organisation's business, we can create only service items, only physical items or both. An easy way to remember the difference between a service and physical item is that we can touch a physical item but we cannot touch a service item. Service items and physical items have different characteristics in Pastel and it is vital to understand the difference between the two.

  ### Activity 16.29

  - Review the differences between physical and service inventory items in lesson 7 in the Pastel manual. Alternatively use F1 (Help) and research the differences in Pastel. (A comprehensive understanding of this is vital).

  - Think about the following:
    – the differences between a service and a physical inventory item
    – the difference between the set-up of a service and a physical inventory item
    – how the accounting entries differ

(c) Prices tab

Where were the various price lists that are displayed here originally set up? To refresh your memory, page back to the Pastel manual, lesson 3.

But what happens if we want to create another price list over and above the price lists created at the start? We can always go back to the "Setup-Inventory-Configuration tab" and add new price lists. Bear in mind that we can only create a maximum of ten price lists.

NOTE:
. . . .

You have to be able to convert VAT inclusive prices to VAT exclusive prices, and vice versa, using your calculator and Excel formulas. Working with VAT is explained in study guide 1 part 2, study unit 5. Pastel, however, will do the calculations for us.

. . . .

How will we determine what sales price to ask for each item? Pricing decisions will be covered in management accounting.

(d) Reorder tab

On the *"Reorder"* tab we set all the details relating to the suppliers from which we can purchase our inventory items and what the minimum and maximum inventory levels should be. This is useful if we want to use the *"Reorder Assistant"* to help us order inventory when the stock levels drop below a certain level.

> **Activity 16.30**
>
> While on the "Reorder" tab in the "Demo" company, use F1 to research the various fields on the tab, as well as the "Reorder Assistant".

- *Recommended Supplier Details*

    All the suppliers from whom we buy this specific inventory item from are listed here. We can also indicate who our preferred supplier is and the inventory code this supplier uses.

    A preferred supplier is one from whom we will always first try to buy before we contact any other supplier for the same inventory item. There are a few reasons why a supplier will be an organisation's preferred supplier – for example, this supplier has the lowest prices, the best quality, on-time delivery and preferential payment terms. Pastel has a built-in control, if selected, to warn us if we are not using our preferred supplier when ordering. We can select the "Warn if Preferred Supplier Not Used" control on the "Setup – Inventory" screen.

    Why would we want to record the **supplier's** inventory code on our inventory records? This will help save time when reordering because we need not search for the supplier code to use on our order form. It is also an effective control because it will ensure we order the correct item from our supplier, especially if there are a few items with similar item descriptions.

- *Reorder level*

    The minimum and maximum quantities determine when Pastel will warn us to order more stock and these are used by the "Reorder Assistant" to determine

how many items should be ordered on the purchase order. It is essential for you to understand how Pastel uses minimum and maximum reorder levels.

The calculation of reorder points (ie minimum and maximum quantities) will be covered in management accounting.

(e) User Field tab

Where could we set up the names of the user fields so that they are correctly displayed here? See the Pastel manual, lesson 4.

(f) Activity tab

> **Computer activity 16.31**
>
> - Click on the *"Activity"* tab and then click repeatedly on the *"Next Record"* icon to view the quantity information for the various inventory items of the "Demo" company.
>
>   – Think about possible uses of this information and who can use it.

(g) Notes tab

> **Computer activity 16.32**
>
> - Click on the "Notes" tab and then click repeatedly on the "Next Record" icon to view the different notes for the various inventory items of the "Demo" company.
>
>   – Double click to open and read these notes, then close them again after reading.
>   – Think about the possible uses of this information and who can use it.

(h) Picture tab

We can include pictures of the inventory item on this tab. If we decide to include pictures of the inventory items it would also be wise to also back them up when backing up our other accounting data.

4.5 Create service inventory items

> **Computer activity 16.33**
>
> - Open the "Demo" company.
> - Click on Edit – Inventory – Item File.
>   – Select "Service Item" on the "Details" tab and see what happens to the "Reorder" tab.
>   – Select "Physical Item" on the "Details" tab and see what happens to the "Reorder" tab. Why do you think this happens?

The "Reorder" tab is greyed out when "Service Item" is selected and is only available when "Physical Item" is selected. This happens because service items are intangible, do not have quantities, do not have minimum and maximum levels and cannot be ordered or reordered.

Computer activity 16.34

- Open the "PM" company
- Follow the step-by-step instructions in the Pastel manual, lesson 7, to create a service inventory item.

4.6 Create physical inventory items

Because we wanted separate inventory categories for physical inventory items, and wanted to track their profitability separately in the general ledger, we first had to create the required subaccounts, then set the integration, and now only can we create those physical items.

STOCK

Some organisations also use the word "stock" for "physical inventory items".

Computer activity 16.35

- Open the "PM" company
- Follow the step-by-step instructions in the Pastel manual, lesson 7, to create a **physical** inventory item.

4.7 Renumbering inventory codes

Do you remember the guidelines for creating "account codes" for customers and suppliers and "codes" for inventory items?

These codes are the primary keys in the relevant master files and are used to uniquely identify each customer, supplier and inventory item.

As always – doing things right the first time is the best. However, if we do need to change the inventory codes, we can do so in the "Change" menu.

Computer activity 16.36

- Open the "PM" company
- Follow the step-by-step instructions in the Pastel manual, lesson 7, to renumber inventory codes and to create the additional inventory items.

We will now play around with the "Renumber Codes Assistant" in the "Demo" company to change the customer and supplier codes.

Computer activity 16.37

- Open the "Demo" company.
- Click on Change – Renumber Codes.
  - Select *Customers* and follow the instructions on the screen. Now view the result of your change. (Think about where you would do that – similar to Inventory)

- Click on Change – Renumber codes.
  - Select *Suppliers* and follow the instructions on the screen. Now view the result of your change. (You probably know where to check this – similar to Customers)

4.8 View inventory reports

Viewing any report is an excellent opportunity to check that we have captured everything correctly and completely to date. Before we run these reports (any reports for that matter), form a mental picture during the setup of how the information will be presented, and what detail entries should be listed. Then compare your mental picture with the report results.

(a) Inventory master file listing

Computer activity 16.38

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 7, to print the inventory master file listing.
  - The instructions are included in the "creating physical item" activity.

- Click on the *"Rerun"* button and **play around** with the various report options as well as the **virtual printer.**

(b) Reorder report

Computer activity 16.39

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 7, to print the reorder report.
- Click on the *"Rerun"* button and **play around** with the various report options.

(c) ***Price list***

Computer activity 16.40

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 7, to print the price lists.
- Click on the *"Rerun"* button and **play around** with the various report options as well as the **virtual printer.**

What will happen if we have set up our price lists incorrectly? We will sell our inventory items at the wrong price. A too high price can result in the organisation losing customers because they will buy from a cheaper supplier, while a too low price can result in the organisation suffering losses.

Always remember that you learn how to use software by playing around with it and by making mistakes.

(That is why you have to make a backup after every lesson.)

Back up lesson 7 in a separate subfolder/directory named "Lesson 7".

5   Lesson 8: Creating/Editing accounts and inventory items

In this lesson, we will practise the skills acquired in lessons 5 to 7. We will also learn how to rename a pre-existing unused general account.

While doing the exercises, think about where the information that was used came from and where it will be used.

Computer activity 16.41

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 8.
- Click on the *"Rerun"* button and **play around** with the various report options as well as the **virtual printer.**

Make sure you have created all the inventory items as required by the Pastel manual. If not, you must go back and capture them now, because you will need them for your transaction processing.

Remember to back up lesson 8 in a separate subfolder/directory named "Lesson 8".

6   Summary

This study unit dealt with lessons 5 to 8 in the Pastel manual. We learnt how to set up individual customer accounts (lesson 5), supplier accounts (lesson 6), service and physical inventory items (lesson 7) and general ledger accounts (lesson 7). We also learnt how to customise each of these accounts to our company's specific needs (lesson 8).

In the next study unit, we use these set-up accounts and inventory items in the processing of the organisation's day-to-day transactions.

Self-assessment activity

After working through this study unit, you should be able to answer the following questions:
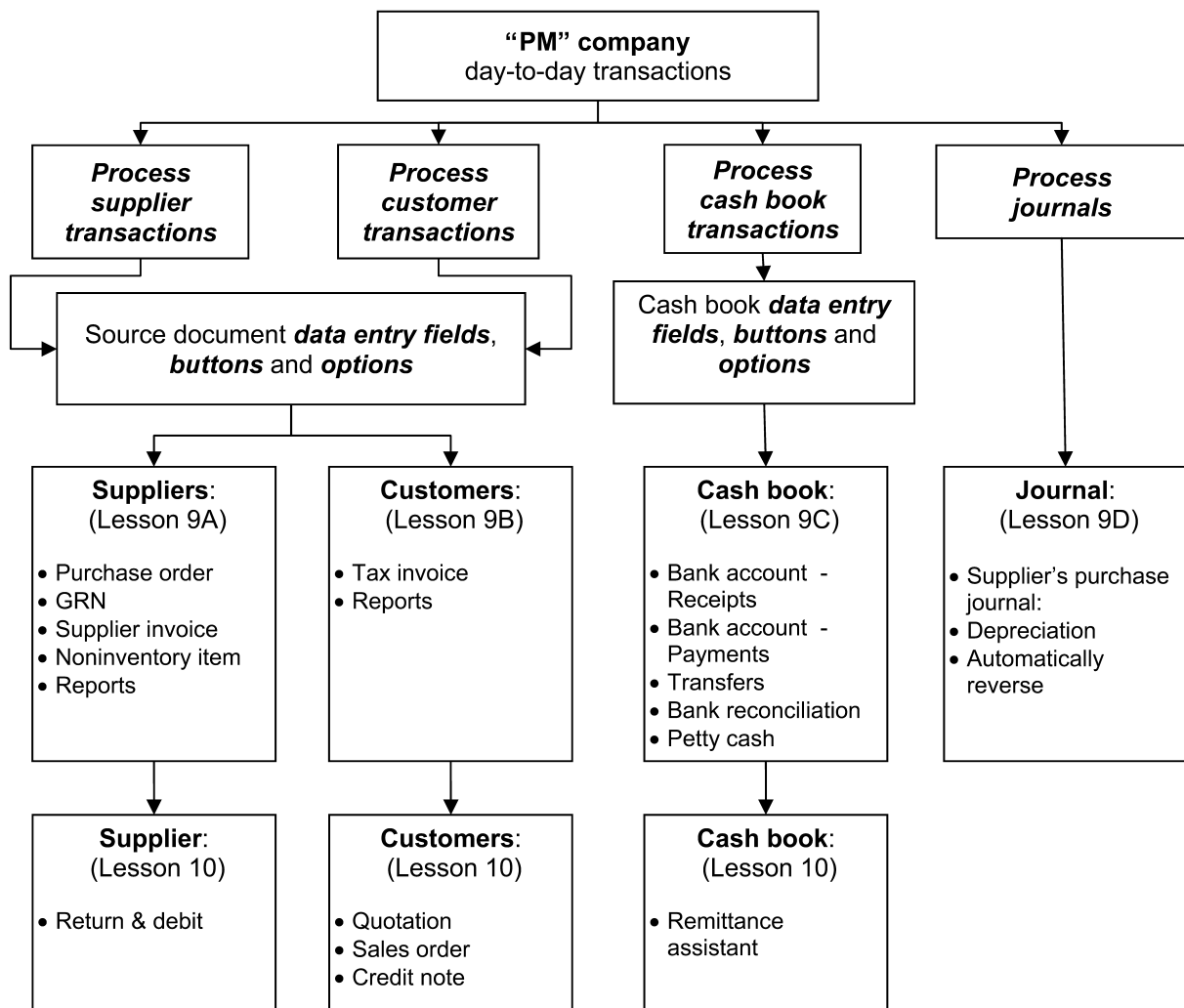
(a) Complete the Pastel manual formative assessment questions at the back of lessons 5 to 8.
(b) If presented with a screen print of any "Edit Customer Account" screen, explain and evaluate (if necessary) the chosen settings.
(c) Identify the report and report settings used to obtain the required information in b.
(d) If presented with a screen print of any "Edit Supplier Account" screen, explain and evaluate (if necessary) the chosen settings.
(e) Identify the report and report settings used to obtain the required information in d.
(f) Explain why we set up credit limits for customers and suppliers.
(g) Explain open item and balance forward processing.
(h) If presented with a screen print of any "Edit Inventory Item" screen, explain and evaluate (if necessary) the chosen settings.
(i) Identify the report and report settings used to obtain the required information in h.
(j) Explain minimum and maximum reorder quantities and explain how Pastel uses them.
(k) If presented with a screen print of any "Setup Inventory Integration/Groups" screen, explain and evaluate (if necessary) the chosen settings.
(l) Record the accounting entries for the sale of inventory items (including discount) referring to the setup inventory integration/group screen (remember VAT).
(m) Record the accounting entries for the purchase of inventory items (including discounts) referring to the setup inventory integration/group screen (remember VAT).
(n) Identify correct financial and report writer categories for income statement and balance sheet general ledger accounts.
(o) Explain the difference between service and physical inventory items.
(p) List the characteristics of service and physical inventory items in Pastel.

Feedback on self-assessment activity

The answers can be obtained from your Pastel manual, the Pastel Help file, this study unit or the myUnisa discussion forum. The answers to the Pastel manual formative assessment questions are provided on the "Data files accompanying the Pastel courseware" CD.

Process transactions

In this study unit

```
                    ┌─────────────────────────────┐
                    │      "PM" company           │
                    │   day-to-day transactions   │
                    └─────────────────────────────┘
```

Process supplier transactions	*Process customer transactions*	*Process cash book transactions*	*Process journals*

Source document **data entry fields**, **buttons** and **options**

Cash book **data entry fields**, **buttons** and **options**

Suppliers: (Lesson 9A)	**Customers**: (Lesson 9B)	**Cash book**: (Lesson 9C)	**Journal**: (Lesson 9D)
• Purchase order • GRN • Supplier invoice • Noninventory item • Reports	• Tax invoice • Reports	• Bank account - Receipts • Bank account - Payments • Transfers • Bank reconciliation • Petty cash	• Supplier's purchase journal: • Depreciation • Automatically reverse

Supplier: (Lesson 10)	**Customers**: (Lesson 10)	**Cash book**: (Lesson 10)
• Return & debit	• Quotation • Sales order • Credit note	• Remittance assistant

1   Introduction

Organisations buy inventory and other expense items/services from their suppliers and sell physical and/or service inventory items to their customers on cash or credit. The organisation will receive and pay out money by means of EFTs, cash, cheques and so on. All these normal day-to-day business transactions need to be captured in Pastel.

In the previous study unit, we learnt how to set up and customise individual customer and supplier accounts, service and physical inventory items and general ledger accounts.

In this study unit on processing (Pastel manual, lessons 9 and 10), Pastel will use the setup documentation data (Pastel manual, lesson 4). We will specify which customers and inventory items or which suppliers and inventory items from the relevant <u>master files</u> to use (we created the master file records in the Pastel manual, lessons 5 to 8) when processing the various transactions, which will all be recorded in various <u>transaction files</u>. This study unit comprises two Pastel manual lessons, namely lessons 9 and 10. In lesson 9, we will learn how to process various customer, supplier, cashbook and journal transactions, and in lesson 10, we will build on what we learnt in lesson 9 and process a few more transactions.

Activity 17.1

- Refer back to study unit 7, figure 7.3, and the accompanying explanation to understand where we are in the overall transaction processing process.
- Review study unit 7, figure 7.2, on the conversion of transaction data into information (computerised process).
- Review study unit 15, figure 15.1, on the sales process and figure 15.2 on the purchase process (which you have completed).

NOTE:

Before we continue, make sure you understand the following:

- the difference between master files, transaction files and reference files
- the difference between batch input, online input, between batch processing and real-time processing and between batch output and interactive output
- the difference between suppliers and customers
- the various source documents and how they fit into the sales and purchases processes
- the accounting entries created by the various source documents

2   Lesson 9A and 9B: Supplier and customer processing

In lesson 9A, we will learn how to process a purchase order, GRN and a supplier invoice. We will also update batches and print some reports. In lesson 9B, we will process customer transactions. However, we will first familiarise ourselves with the source document data entry fields because the layout for the various Pastel source documents is similar.

Transactions can be entered by capturing the data on screens that look similar to the source documents, or it can be entered directly into a journal. The benefit of capturing the transaction into a source document is that it is more understandable for most data capturers, less error prone and the AIS will take care of the debits and credits for you.

2.1 Source document data entry fields: familiarisation

Computer activity 17.2

- Open the "Demo" company.
- Click on *Process – Suppliers* and familiarise yourself with the screen layout.
- Click on the drop-down list for *"Document Type"* in the top left corner and select the various supplier source documents one after another.

Note how similar the layout for the various source documents is in Pastel. This increases the speed of data capturing and limits data capturing errors as far as possible. However, make doubly sure when capturing a transaction that the correct source document is used. Pastel uses different colours for the different source documents to make it easier to differentiate between the various source documents.

Also note that in the processing of the various customer and supplier transactions, the document/screen has been designed to limit typing. There are fields that use drop-down boxes, fields that are automatically completed by Pastel from the setup information or based on our drop-down selection and *"zoom"* boxes for looking up details. This again increases speed and limits errors.

Computer activity 17.3

- Open the "Demo" company.
- Click on Process – Customers and compare these customer documents with the supplier documents you have just scrutinised.
- Click on the drop-down list for "Document Type" in the top left corner and select the various customer source documents one after another.

There are many data entry fields for all (supplier and customer) source documents, but all of them can be classified according to the following three main types of data:

- details relating to the party with whom the company is doing business (customer or supplier)
- details relating to the particular transaction
- details relating to the inventory purchased/sold

There are also options and buttons displayed on each source document, which will not be printed on the document, but there is to help with the display on the screen (for capturing purposes) and special functions.

- Open the "Demo" company.
- Choose any source document and classify all the data entry fields into one of the three main types of data listed above.
- Play around in the "Demo" company. Process a purchase order and a sales quotation without looking at the detailed guidance in the Pastel manual.

    – Use your computer instinct.
    – Click and follow the onscreen guidelines where provided.
    – Click on the magnifying glass to access master file records.
    – Click F1 for help when stuck.
    – Think about where each data field comes from and where the data will be used further on in the process.

2.2 Source document data entry fields: detail

Only certain document data entry fields will be highlighted here because the rest is adequately explained in the Pastel manual.

(a) Data fields with details relating to the party with whom the organisation is doing business (customer or supplier)

- #### Supplier/customer code

This is the <u>primary field,</u> which is unique and used by Pastel to look up the rest of the details from the relevant <u>master file</u>. These master file details of the supplier or customer are then displayed on screen (and printed later). This saves a lot of time in capturing the transactions.

- #### Supplier/customer name

This is inserted by Pastel on the basis of the supplier/customer selected.

- #### Supplier/customer address

This is inserted by Pastel on the basis of the supplier/customer selected. (Note how the displayed delivery address can still be modified. This is a fraud risk for the organisation.)

- #### Supplier/customer shipping

This is inserted by Pastel on the basis of the supplier/customer selected.

(b) Data fields with details relating to the particular transaction

- #### Document number

This field is automatically inserted by Pastel in number sequence. The number sequence of document numbers is vital for auditing purposes to ensure completeness and validity.

- *Period*

  This the accounting period in which the transaction should be recorded. The periods available in the drop-down list depend on the number of periods created during setup. The period is linked to the date (or vice versa), depending on the setup (can you remember where?). Accounting requires transactions to be recorded in the correct accounting period. **Be careful when selecting the accounting period because incorrect accounting periods will give rise to incorrect monthly financial information and may result in incorrect business decisions.**

- *Transaction date of the document*

  It is critical to process transactions on the correct date – not the date when the transaction is captured, but the date risk was transferred! (See your accounting notes for the theory on this.) **Be careful when capturing transaction dates because wrong dates for goods received notes may result in inventory records being incorrect, and we will then not be able to sell the items as required by the tasks in the Pastel manual.** The words "Period" and "Date" are related – that is, the transaction date entered must fall within the period selected. If the "Period" and "Date" do not correspond, an error message – *"WARNING! The date you have entered is out of period"* – will be displayed. Do not ignore this error message because it will result in incorrect financial information. Correct either the period or the transaction date, depending on which one is incorrect.

- *Reference*

  When a document from outside the organisation is received, the document number of that document will be entered as a reference so that the relevant document can be found again where it was filed for auditing purposes. Examples of documents received from outside the organisation are a purchase order from customers, a quotation, a delivery note or sales invoice from suppliers. (It is imperative that you know the difference between customers and suppliers and the documents they use.)

- *Transaction discounts and terms*

  If specific discount or terms were specified during setup, these will now automatically reflect here. We can always modify these for each individual document, provided we allow for that in the setup. Refer back to where we set it up for the particular documents, individual customers or suppliers and so forth. We can now see where those setup details are going to be used and for what purpose.

- *Latest action date*

  This date is for information purposes, to indicate to the customer or supplier when the document expires or when the last date is for delivery or payment.

- *Message box*

  Remember we could have included a default message for each source document type during setup. We can still modify it here, or type a new message from scratch. Take a moment to think about what would be appropriate messages for each source document.

- *Summary of total amounts*

  The total discount, tax and grand total for the whole document are situated in the right bottom corner.

NOTE:
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If the summary of total amounts does not print on the documents, return to study unit 15 and ensure your printer's (virtual and physical) paper size is set to A4.

. . . .

(c) *Data fields with details relating to the inventory being purchased/sold*

- *Type and Code*

  The "Type" selected will result in the type of code available for selection under "Code". When we click on the zoom icon (magnifying glass) next to "4 Item Code" a list of "types" we can select from becomes available. Depending on our selection under "Type", the zoom list available under "Code" will differ. We can set up the "Type" (per individual user) that should by default be selected when opening a specific customer/supplier document. This is specified on the specific document's "Setup Supplier/Customer Documents" screen under "Invoice Lines Default". We will use the "Item Code", "GL Code" and "Remarks" types the most.

- *Inventory/general ledger description*

  This is inserted by Pastel on the basis of the "Code" selected.

- *Quantity*

  What will happen on a tax invoice if we type a quantity exceeding the quantity on hand for the inventory item? Pastel will automatically warn us that there is insufficient quantity on hand, but this warning will only appear if this control was selected during the inventory setup. Pastel can also automatically warn us if the "Quantity in stock has fallen below the reorder level", but again, only if the applicable control, in this instance, "Check Reorder Level When Processing", was selected during the Inventory setup. Refer back to study unit 15 if you are unsure about the inventory setup.

- *Price*

  Customers and suppliers are set up globally for prices to be captured, either including or excluding VAT. On creation of the individual customer or supplier accounts, however, this can be modified, and the price column displayed on a document will be according to these settings. However, should we need to enter the prices differently from the setup, we simply need to tick or untick the "Inclusive" tick box in the top left corner **before we start capturing the invoice lines.**

  Customer prices will automatically reflect the customer price list specified when the customer was created. If we zoom on the customer price, it will display all the prices available while still highlighting the price list linked to the particular customer. The purchase prices displayed for suppliers will be the latest cost price at which the organisation purchased the inventory item. **(Note: It is strongly recommended**

that the purchase prices should already be captured in the purchase orders because during the linking of goods received notes and invoices to the previous source documents, the prices do not need be captured again and the general ledger entries will thus be at the correct values.)

Overriding of the prices is possible, depending on the controls selected during "Setup".

NOTE:
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Pastel takes any amount difference between the GRN and the supplier invoice to a "purchase variance" general ledger account. The difference in amount may be caused by price differences or trade discounts not reflected on the GRN.

This *"purchase variance"* general ledger account is included in the income statement under the "Cost of Sales" report writer category – that is, the account forms part of cost of sales.

As you can remember from study unit 9, inventory must be valued against the lowest of cost and net realisable value and that differences caused by price and/or trade discount should be adjusted against the inventory value and not against the cost of sales. The recording of price and trade discount differences in the "purchase variance" general ledger account is therefore incorrect. However, we cannot simply change the *"purchase variance"* to a balance sheet account because the difference is related to specific inventory items and must be released when the specific inventory is sold. It is therefore necessary to ensure that the prices and trade discounts captured on the GRN are as accurate as possible for this will ensure that inventory is valued correctly.

• •

- *Tax*

  The display as inclusive or exclusive, the nondisplay of VAT and the VAT type on the documents depend on the setup. Refer back to study unit 16 for information on the setup of the VAT type per supplier/customer and inventory item.

- *Nett (total) for transaction line*

  The nett total is simply quantity multiplied by price less any line (not invoice) discount.

2.3 Source document options and buttons

- *Link/Create button*

  Refer to the sales and purchases processes in study units 8 and 9. Note that certain documents follow logically on documents used earlier in the process. In a manual AIS, we would have had to rewrite everything, but in a computerised AIS we need to merely "link" the current document to the earlier documents and all the line item details will be brought forward to limit typing.

  Pastel will automatically prompt us to link to the previous document. If, however, the prompt dialogue box does not automatically appear, we can click on the link button to link the documents.

It may happen that we have ordered a quantity of, say, 20 for a particular inventory item, but the supplier delivers only 15. When we link, click on the inventory item received and do not worry about the quantity brought forward from the linked document because we will correct the quantity on the current document by simply typing over it.

- *Inclusive tick box*

Depending on the setup, the source documents for suppliers and customers will allow us to enter prices either inclusive or exclusive of VAT. If the box is ticked, prices should be entered VAT inclusive and if the tick box is unticked prices should be entered VAT exclusive. If we suddenly need to change it while entering the document details, simply tick or untick this tick box BEFORE entering the document lines (or else delete the lines with the "Delete/Insert" button). Tick and untick this tick box and see how the price column changes.

- *Batch button*

If batch processing is used, documents will be captured, but this will not reflect in the reports or general ledger before it is updated. The batch button is used to update batches. The batches for each type of document must be updated separately. (We will learn later how to view all the outstanding/open batches and then jump to them to update them.). During the setup of customer and supplier documents, we can select for certain documents to either "Update on Completion of Document" (real-time processing) or "Update in Batch Mode" (batch processing).

We can also print a list of all the transactions in the particular batch from the "Batch" button, print documents that have not yet been printed in the past (outstanding) or print documents again.

- *Delete/Insert button*

We can insert document lines and delete document lines, whole documents or even the whole batch. Please use the delete function with great caution.

- *Edit document button*

Changes can be made to saved documents, **but only if the batch has not yet been updated.** Once a batch has been updated, we will have to effect changes with debit notes, credit notes and journals.

The edit document button affords the accountant/manager an opportunity to review the data capturing of those reporting to him or her and making corrections where necessary. Bear in mind that some documents are not subject to batch processing, but are processed in real time. Hence editing of these documents will not be possible.

- *Next document button and Close button (X)*

These buttons will automatically save the document. However, they do <u>not</u> cancel the document in case of a mistake.

NOTE:
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Accuracy is critical in accounting. Hence when processing transactions, be careful and accurate.

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2.4 Lesson 9A: Supplier processing

We will process the supplier transactions first, because the "PM" company is a new company and we cannot start selling if we have not purchased any inventory yet.

NOTE:
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If you should make mistakes somewhere during the practical exercises – simply continue so that you can acquire the learning experience. If you want to do it over, then use the "Restore" function in the "File" menu and restore the backup of the latest lesson that does not contain an error.

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Computer activity 17.5

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 9A, taking the guidelines provided in this study guide into consideration.
- Click on the *"Rerun"* button and **play around** with the various report options.

Remember to back up lesson 9A in a separate subfolder/directory named "Lesson 9A".

2.5 Lesson 9B: Customer processing

Computer activity 17.6

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 9B, taking the guidelines provided in this study guide into consideration.
- Click on the *"Rerun"* button and **play around** with the various report options.

Remember to back up lesson 9B in a separate subfolder/directory named "Lesson 9B".

2.6 Entering transactions directly into a journal

In the Pastel manual, lessons 9A and 9B, we entered the transaction into Pastel with a screen that looked similar to the source document, such as a goods received note or a tax invoice. From there, Pastel automatically entered the transaction details into a transaction file (see study unit 7, fig 7.3). However, Pastel also allows transaction details to be entered into Pastel with a screen that looks similar to a journal.

Sales transactions can be entered directly into Pastel through a customer sales journal and purchases through a supplier purchases journal.

Computer activity 17.7

- Open the "Demo" company.
- Click on *Process – Journals* and view the variety of journals available (click on the + sign to expand the list of options).
- Select a few familiar journals and see how similar they look to the manual-type journals you learnt about in accounting.

All these journals make the entry of transaction details easier by already setting up the contra accounts and relevant column details, as well as whether the transaction should debit or credit the specified accounts.

NOTE:
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Just because the transaction was directly captured in the journal does not, even for a second, mean that there is no source document. It is critical that there should be source documents to preserve the audit trail.

The Pastel manual creates the impression that a cheque counterfoil and a bank statement are part of your source documents. This is not the case!

All payments made should have supplier invoices or contracts to support the expenses and prenumbered receipts should be issued for all payments received from customers. If not, your auditor and/or SARS will be decidedly unhappy! In addition, this will create numerous opportunities for fraud in the organisation.

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3   Lesson 9C: Cash book processing

In this lesson, we will first familiarise ourselves with the cashbook data entry fields and then process cash payment and cash receipts transactions.

3.1 Cash book data entry fields: familiarisation

The journals most often used for cash book transactions are the *cash payment journal* and the *cash receipt journal.*

Computer activity 17.8

- Open the "Demo" company.
  - Click on *Process – Cash Book* and familiarise yourself with the screen layout
  - Alternate between the cash payment journal and the cash receipt journal by clicking on the *"Payments"* and *"Receipts"* tabs alternatively.

- Play around in the "Demo" company. Process several cash payments and cash receipts without looking at the detailed guidelines in the Pastel manual.
  - Use your computer instinct.
  - Click and follow the on-screen guidelines where provided.
  - Click on the magnifying glass to access master file records.
  - Click F1 for help when you are stuck.

- Think about where each data field comes from and where the data will be used further on in the process.

When entering a transaction directly into a journal it is necessary to ensure that the

- correct journal is used
- correct bank account is used
- correct tab (payments/receipts) is used
- settings are correct

3.2 Cash book data entry fields: detail

Only certain data entry fields will be highlighted here because the rest is adequately explained in the Pastel manual.

- *Period and transaction date*

    Remember that "Period" and "Date" are related – that is, the transaction date entered must fall within the period selected.

- *GCS*

    The selection in this column will determine the selection available in the account field. "G" is for general ledger account, "C" for customer and "S" for supplier. Why is the "C" not available under the "Payments" tab and the "S" not available under the "Receipts" tab? Because, generally, we do not pay customers and we do not receive money from suppliers. Refer back to where we set up the entry types for the cash books (lesson 4) and especially the "Account Access". Note that for the cash book payment entry type, "GL and Suppliers", is selected, and for the cash book receipt entry type, "GL and Customers", is selected.

- *Account*

    The drop-down lists of accounts available to select from for a transaction depends on the GCS selection.

- *Reference*

    We will type the unique number of the source document in here (for the audit trail). Note that Pastel will combine all line items with the same reference number for bank reconciliation purposes. This will enable us to split a transaction and book it to different general ledger accounts to ensure that the classification audit objective is met, and this will lead to better management control when analysing the information. For example, the municipality account will be paid for with one cheque, but we may decide to split the cheque and book the relevant parts to separate general ledger accounts for electricity, water and rates. However, on the bank reconciliation screen, only one cheque number with the total amount will appear.

- *Description*

    This description will show in the detail cash book and general ledger printouts and help us to remember what the expense/income was for. The more descriptive the description is of the actual transaction, the better. If we later find that we rely a lot on

the descriptions to analyse expenses or income, it may be time to create additional subaccounts or separate general ledger accounts.

- *Bank amount/Bank inclusive and Bank exclusive*

The settings will determine the columns available. If "Tax Processing" (under the settings button) is not selected, then only "Bank Amount" will be displayed.

If "Tax Processing" is selected, then "Bank Exclusive" and "Bank Inclusive" will be displayed. The settings will determine whether the amount will be entered including or excluding VAT.

The amount actually paid (including VAT, if its was applicable) will be displayed on the bank reconciliation.

- *Tax*

Refer back to study unit 15 (section 5.6). Your knowledge of VAT will be tested, especially in the cash book.

- *Discount*

The amount of discount we allow our customers or we receive from our suppliers should be calculated and entered here. This will make possible the successful open item matching of payments/receipts with the respective purchases/sales. Although we enter early payment terms for both customers and suppliers, Pastel <u>does not</u> automatically calculate the amounts and enter them here. We need to manually calculate the discount and enter the amount here.

3.3 Cash book options and buttons

- *Cash book drop-down list box*

Some companies have ten or more different bank accounts, but almost all have at least one bank account and a petty cash account. <u>Step 1</u> should always be to confirm that the transactions are entered in the correct cash book, or else the transactions will have to be retyped, or worse cancellation entries processed if the incorrect cash book batch has already been updated.

- *Batch-Type drop-down list box*

We can create cash book batches and save them. At a later date, we can update them (postdated batches) or copy and reuse the cash book transactions every month or as needed (recurring batches), or simply type them in as needed for the current period (normal batch).

Postdated batches are extremely useful if there is little time at month-end to finalise accounting entries, and recurring batches save a lot of time for journals that repeat every month (eg salaries, rent, etc). Recurring batches are never updated because we will copy from them again and again into our normal batches.

- *Delete button*

This will delete the selected transaction line.

- *Match button*

  If the settings were not set up correctly to invoke open item processing, it can be manually matched by clicking this button. The screen to match payments/receipts with the respective purchases/sales will then open.

- *Reconcile button*

  From an auditing perspective, it is recommended that this button is NEVER used! Reconciliation should take place properly through the separate reconciliation function by a different person from the one entering the cash book transactions (ie the segregation of duties).

- *Inc /Exc button*

  Although we can set the tax entry method as part of the cash book settings as either including or excluding VAT, individual transactions may differ from this settings and if we click this button it will allow the amounts to be entered differently from the general settings chosen.

- *Preview button*

  Every cash book and journal was created with the debit and credit accounts, as usually required for this type of transaction, already set up. The double entry is taken to the account specified as the contra account.

  Click on the preview button to view the actual debits and credits because it will be saved in the transaction file.

- *Transfer button*

  Pastel has a complicated method of transferring money from one cash book to another. The transfer button MUST be used when transferring money between different bank accounts or if cash is drawn to use as petty cash, or else the transfer will not be visible as part of the bank/petty cash reconciliation.

  If the transfer button is not used, but the transaction recorded as a "payment" from the one cashbook and a receipt into the other cash book, the transaction will have been processed. Remember that the cash book transfer account is set during "Setup – Company Parameters".

- *Update button*

  Remember, if we use batch processing, we will capture transactions, but these will not reflect in the reports or general ledger before the batch is updated. Click the cash book update button to update cash book batches. (We will learn later to view all the outstanding/open batches and then jump to them in order to update them.)

- *Batch button*

  Use this button to sort the cash book transactions, **copy from recurring/postdated batches** into normal cash book batch, delete the whole batch or use the **remittance assistant.**

- *Settings button*

    <u>Step 2</u> should always be to set the settings before entering cash book transactions. Here we will set the processing options, the reference options and the tax processing.

    These settings are the ones that will mostly be used when entering a transaction. However, all the settings chosen can be changed during the entering of the transactions, should the need arise, by simply overtyping or clicking the appropriate button.

3.4 Bank reconciliations

A bank reconciliation is one of the most important controls in a business. Bank reconciliations can identify cash book transaction processing errors, fraud and theft, and even mistakes by the bank.

Because banks make mistakes and fraudsters can obtain funds from a bank account, the bank statement should not be used as a source document, except for bank interest and bank charges. With a bank reconciliation, we will be simultaneously checking up on our bank and our accounting personnel.

It is critical that the bank reconciliation should be done by a staff member who does not capture the payment and/or receipt transactions in the accounting system. This explains why we do not support using the "Reconcile" button on the cash book – the correct process should be followed without using shortcuts.

The Pastel manual recommends that the cash book transactions should not be updated until the bank reconciliation has been done. While this may work for a small organisation with an accountant coming in at the end of every month to quickly capture the few transactions, **this is not recommended** for any other organisation for the following reasons:

- Only updated transactions are reflected in the general ledger. We will therefore have to wait for the bank reconciliation to be completed before drawing information from the system and making decisions.
- We may have received payments from our customers during the month, but their accounts will not be updated until the cash book has been updated. Their outstanding balance could thus incorrectly reflect as exceeding their credit limit, and the organisation could be losing out on some sales (and customer goodwill).
- The "Remittance Assistant" (as we will see in lesson 10) is a wonderful time saver to make payments to suppliers. However, if we have not updated the cash book payments made to them during the month, it will not work accurately and we may overpay the suppliers.
- This encourages careless transaction capturing because any mistakes are simply corrected with the bank reconciliation (then again assuming the bank statement is 100% correct, which is not always the case).
- This encourages the roles of capturer and reconciler to be performed by the same person. Bank reconciliation is a control procedure and these roles should therefore never be performed by the same person.

Even petty cash should be reconciled monthly – do a count of the cash in the petty cash box and use that as the bank balance, then tick off all the recorded petty cash transactions to make sure no cash is missing.

NOTE:

In the same way as the creditor of one organisation is always the debtor of another organisation, the supplier of one organisation is always the customer of another organisation.

If you do not understand this, as well as debits and credits, you will find bank statements and bank reconciliations extremely confusing.

When the organisation owes money to the bank, the bank account will have a credit balance in the organisation's accounting records (a liability), but a debit balance on the bank statement received from the bank (the organisation will be an asset for the bank).

By the same token, when the organisation has excess money in the bank, the bank account will have a debit balance in the organisation's accounting records (it is an asset), but a credit balance on the bank statement received from the bank (the organisation will be a liability for the bank).

Before you do a bank reconciliation, you must fully understand the principles above.

● ●

Computer activity 17.9

- Open the "Demo" company.
- Click on *Process – Bank Reconciliation* and follow the instructions of the Bank Reconciliation Assistant.
  - Use your computer instinct.
  - Click and follow the onscreen guidelines where provided.
  - Click F1 for help when you are stuck.

- Think about where each data field comes from and where the data will be used further on in the process.

3.5 Lesson 9C: Cash book transactions

Computer activity 17.10

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 9C, taking the guidelines provided into consideration.
  - Make sure you know and understand the various source documents relating to cash books.

- Click on the *"Rerun"* button and **play around** with the various report options.

> **Remember to back up lesson 9C in a separate subfolder/directory named "Lesson 9C".**

4 Lesson 9D: Journal processing

Lesson 9D is the last subsection of lesson 9. In this section, we will focus on the processing of journals.

Note how similar the layout of the other journals and the cash book journals are. Each has been slightly adjusted for the specific functions it is designed for.

Before processing any journal, draw the relevant T-accounts on a piece of paper, then only process the journal in Pastel. Preview the journals before updating and make sure the debit and credit entries agree with those of Pastel. If the entries disagree, the settings (such as the contra account) may be incorrect, or the wrong type of journal has been used or the debits and credits incorrectly specified. Your T-accounts could be incorrect.

Computer activity 17.11

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 9D.

> **Remember to back up lesson 9D in a separate subfolder/directory named "Lesson 9D".**

5 Lesson 10: Second month of trading

In this lesson, we are going to practise our transaction processing skills, learn to capture some additional source documents and learn to use the Remittance Assistant.

Activity 17.12

- Refer back to figure 15.1 in study unit 15 on the sales process, and figure 15.2, on the purchase process, and see where the various documents fit into the sales and purchasing processes.

Refer back to the guidelines provided in sections 2 and 3 of this study unit because they will also apply when processing transactions in this lesson.

Computer activity 17.13

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 10.

> **Remember to back up lesson 10 in a separate subfolder/directory named "Lesson 10".**

6 Summary

In this study unit, we learnt to process the organisation's day-to-day transactions. Lesson 9 covered some of the day-to-day customer and supplier transactions, cash book payments and receipts transactions and journals. In lesson 10, we reviewed what we had learnt in

lesson 9, as well as how to process more transactions in Pastel. In the next study unit, we will learn how to retrieve information through the printing of various reports from Pastel. We will also capture take-on balances for a newly created company on Pastel and learn how to process a RD cheque and correct a misallocation of a payment received from a customer.

Self-assessment activity

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After working through this study unit, you should be able to:

(a) Complete the Pastel manual formative assessment questions at the end of lessons 9 and 10.
(b) If presented with a screen print of any source document, journal or cash book screen, explain and evaluate (if necessary) the chosen settings.
(c) Explain the various VAT concepts, requirements and types, choose the correct VAT type and percentage for a given transaction, as well the effect of these in the general ledger.
(d) Explain the various purchases, sales, cash book and journal processes, including the associated debit and credit accounting entries.
(e) Explain and substantiate the types of input, processing and output used by Pastel.
(f) Identify the appropriate source documents, cash books or journal to use for transactions, as well as the settings.
(g) Identify the report and report settings used to obtain the required information.
(h) Explain what the Remittance Assistant can be used for and the benefits and requirements for using it.

Feedback on self-assessment activity

•••••••••••••••••••••••••••••••••••••• •

You will find the answers in your Pastel manual, the Pastel Help file, this study unit or on the myUnisa discussion forum. The answers to the Pastel manual formative assessment questions are provided on the "Data files accompanying the Pastel courseware" CD.

Retrieve information and sundry processing
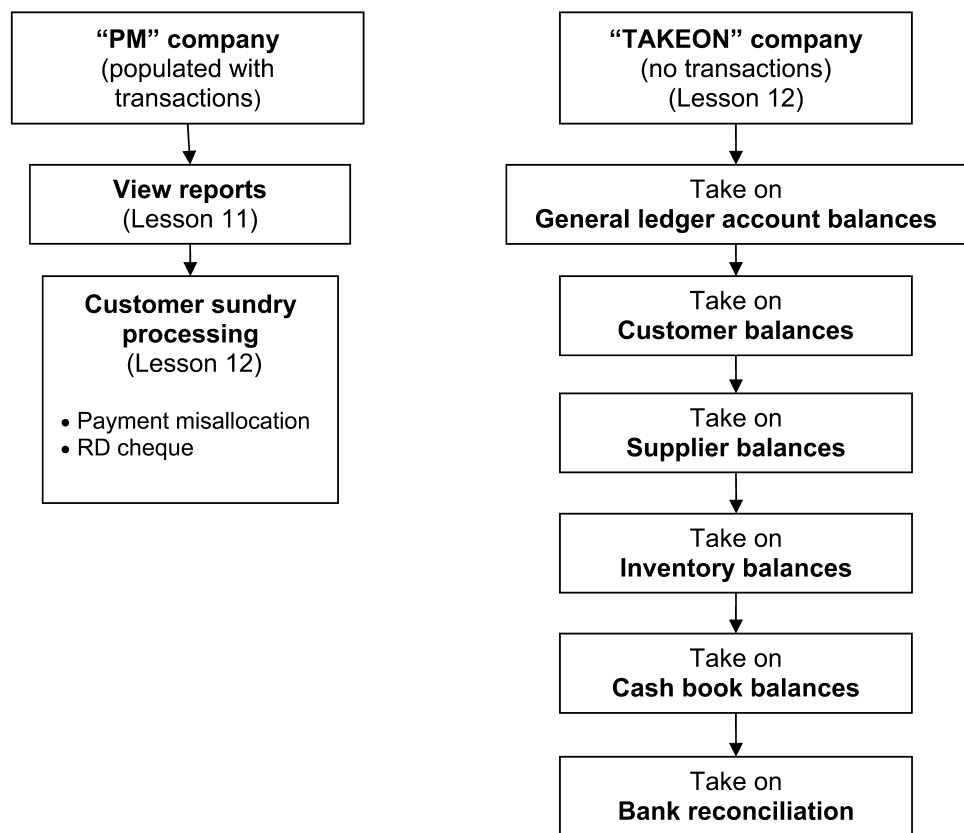
In this study unit	
"PM" company (populated with transactions)	**"TAKEON" company** (no transactions) (Lesson 12)
↓	↓
View reports (Lesson 11)	Take on **General ledger account balances**
↓	↓
Customer sundry processing (Lesson 12) • Payment misallocation • RD cheque	Take on **Customer balances**
	↓
	Take on **Supplier balances**
	↓
	Take on **Inventory balances**
	↓
	Take on **Cash book balances**
	↓
	Take on **Bank reconciliation**

1 Introduction

In the previous study unit, we learnt to process the organisation's day-to-day transactions. These processed day-to-day transactions become information. Information retrieved from the AIS is used for decision making and providing information to third parties such as financial institutions. Pastel has a number of standard reports that can be viewed, and we will examine some of these reports in the Pastel manual, lesson 11.

An existing organisation may require its previous financial year's trial balance to be captured on a new AIS, if the organisation, say, decides to upgrade to a higher-level AIS. The previous year's information will be captured in order to provide opening balances and comparative figures. In the Pastel manual, lesson 12, we will learn how to take on these balances in a newly created company. In lesson 12, we will also learn how to correct a customer's payment misallocation, and an RD cheque received.

2   Lesson 11: the View menu

In this lesson, we are going to view various reports. While viewing the reports, think about where the information displayed came from and what it can be used for.

Computer activity 18.1

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 11.
  - Compare the details of your reports with those in the manual because this will give you an indication of the accuracy of your setup actions and your transaction capturing. If there are differences between your reports and those in the manual – simply note the difference, consider where you may have made mistakes (so as to not repeat them in future) and continue with the exercises in the manual. The "PM" company does not count for marks and will not be marked by your lecturers – you are required to do a separate project (Assignment 02) that will be marked.

- Click on the "rerun" button and **play around** with the various report options.
- Experiment with printing to the **virtual printer** you have installed. Refer to study unit 15 for step-by-step instructions how to print using a virtual printer.

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3   Lesson 12: Sundry processing

In this lesson, we are going to correct misallocations (lesson 12A) and do a "take-on of balances" (lesson 12B).

3.1   Lesson 12A: Correction of errors

Accuracy is always the best when it comes to accounting. The motto of every person working in the accounting department should be **"Do it right the first time!"**

Errors increase the workload, create opportunities for fraud (and even more mistakes) and may also create a confusing audit trail.

Computer activity 18.2

- Refer to study unit 15, figures 15.1 (sales process) and 15.2 (purchase process).
  - Identify types of capturing errors and other mistakes that are likely to occur in each of these processes.
  - Name the source documents or journals you would use to correct the various types of errors.
  - Identify where you would enter these correction transactions in Pastel and determine how this would affect the general ledger and the subsidiary ledgers.
  - Identify the reports that can be used to view the correction transactions.

Computer activity 18.3

- Open the "PM" company.
- Follow the step-by-step instructions in the Pastel manual, lesson 12A.

> **Remember to back up Lesson 12A in a separate subfolder/directory named "Lesson 12A"!**

3.2 Lesson 12A: Restoring/opening a company from a data disc

In order to complete section 3.3 in this study unit, we must restore the "TAKEON" company from the "Data files accompanying the Pastel courseware".

Computer activity 18.4

- Follow the step-by-step instructions in the Pastel manual, lesson 12, "Restoring/ Opening a company from a data disc" to open the "TAKEON" company.

If the backup does not restore using the steps in the Pastel manual, you can also follow the "Add-company" method. We can also use this method when restoring a backup file on a different computer from the computer the company was originally created on (given that Pastel is installed on this computer.)

NOTE:
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To be able to follow the "Add-company" method you must have Winzip or 7-zip already installed on your computer. If you do not have either of the programs installed, download the free 7-zip software from the internet by visiting http://www.7-zip.org.

• •

Computer activity 18.5

"Add-company" method

- Note that "backup.zip" refers to your backup file's name. Your backup file's file extension will be .zip, but the name of the file will be whatever your company was named, for example, TAKEON11.zip.

    Step 1:   Open Windows Explorer.
    Step 2:   Click on the + next to **MY COMPUTER.**
    Step 3:   Select the drive the backup file is saved to (eg your flash disk or the CD drive) and the folder on the drive with your backup file in it.
    Step 4:   Click once on your backup FILE – this is the file with the .zip extension.

Step 5:   Right click and select **copy.**
Step 6:   Click on the + next to the **Local drive.**
Step 7:   Select the Pastel folder. Depending on the Pastel version you are using, the folder name will be similar to **Pastel11.**
Step 8:   Right click and select **Paste.**
Step 9:   Check and make sure you see your "backup.zip" file under the Pastel folder.
Step 10: Click on the "backup.zip" file.
Step 11: Right click on the mouse.
Step 12: Click on the arrow next to WinZip or 7-Zip.
Step 13: Point to "Extract to folder C: ………." .
Step 14: Write down the complete path from C:…….
Step 15: Select "Extract to folder C: ………." – this will extract the files into the path/folder above.
Step 16: Open the Pastel program.
Step 17: Click on "File – Open".
Step 18: Click on *"Add company".*
Step 19: Click on *"Add company".*
Step 20: Select the path as written down in step 14.
Step 21: If selected correctly, the OK button will now be available to click on.
Step 22: Click on *"OK".*
Step 23: Click on *"Close".*
Step 24: Select your company and open as usual.

3.3 Lesson 12B: Take-on balances

The majority of organisations are not new organisations starting from scratch, like the "PM" company, but they will already have been operating for a number of years and want to either computerise their records for the first time or convert from their previous AIS to a new AIS (such as Pastel).

A take-on of balances is simply the process whereby the existing balances of the organisation (as per the trial balance) are entered into the newly created, but still empty, company on Pastel (or whatever new AIS will be used).

What type of balances will an existing organisation have to capture in the new AIS?

- equity accounts
- liability accounts
- asset accounts
- income and expense accounts (only if the take-on is during and not at the beginning a financial year, or if we want comparative figures)

The newly created general ledger accounts as per the trial balance should reflect the existing general ledger accounts, although this would be a perfect opportunity to make some changes should we wish to.

According to the double-entry method, there has to be a debit for every credit. That is why it is imperative that the organisation's old/existing trial balance, which will be used to create the new trial balance on Pastel, **does in fact balance.**

(a) General ledger accounts

To bring the take-on balances into the company, we will use a general journal and a suspense account as the contra account. As long as the total debits equal the total credits, then the balance in the suspense account will still be zero and we will have a trial balance that balances. Refer to figure 18.1 below:

Suspense account			
Equity accounts	400	Asset accounts	650
Liability accounts	200	Expense accounts	150
Income accounts	200		
	___		___
	800		800

FIGURE 18.1: Suspense account

(b) Subsidiary ledgers

Over and above the general ledger accounts, we must also take on the subsidiary ledgers for customers, suppliers and inventory. The details per individual customer, individual supplier and individual inventory item must therefore also be inserted into the accounting records.

We will use customer journals, supplier journals and inventory journals. The problem is that we will be duplicating the balances for customers, suppliers and inventory if we bring them in here, because we have already brought in the balances for the control accounts with the general journal. To resolve this problem, we are going to use small (sub-) suspense accounts – one for each category.

Firstly, we will use the general journal to create an initial balance (control account balance) in the individual subsuspense accounts (we will still use the main suspense account as the contra account to ensure the trial balance balances). Refer to accounting entries a, b and c in figure 18.2.

We will then take the balance out again with the relevant customer, supplier or inventory journal to the individual customer, supplier and inventory accounts leaving each subsuspense account with a zero balance. If open item processing is used for suppliers and/or customers, then it is necessary to capture each invoice separately and in the financial period it originated in, because this will ensure that the open item ageing is correct and that the matching of

future payments is possible. Refer to accounting entries d, e and f in figure 18.2. The figure only shows the accounting entries for one customer, supplier and inventory item because the principles will be the same for each of the remaining accounts and items.

Main suspense account

Equity account	400	Asset accounts	200	
Liability account	50	Expense accounts	150	
Income accounts	200			
		Customer suspense	200	b
Supplier suspense	150 a	Inventory suspense	250	c
	800		800	

Customer suspense account

Main suspense	200 b	Customer AA	75	d
		Customer BB	25	
		Customer CC	100	
	200		200	

Customer AA

Invoice 123	12 d	
Invoice 456	35 d	
Invoice 789	28 d	
	75	

Inventory suspense account

Main suspense	250 c	Inv item 1	95	e
		Inv item 2	35	
		Inv item 3	120	
	250		250	

Inventory item 1

Take on value	95 e	
	95	

Supplier suspense account

Supplier XX	50 f	Main suspense	150	a
Supplier YY	70			
Supplier ZZ	30			
	150		150	

Supplier XX

	Invoice S123	20 f
	Invoice S256	18 f
	Invoice S659	12 f
		50

FIGURE 18.2: Main and sub-suspense accounts

(c) Cash book

When viewing transactions in the cash book, Pastel only allows us to see transactions entered via the cash book (this also results in the roundabout way in which transfers between cash books have to be made). Hence, if we were to use the above methods, everything would balance, but we will not be able to do a bank reconciliation for any of our cash books because the opening balance of the bank was entered via a general journal (refer above) and not via the cash book interface.

To solve this problem, we will use another subsuspense account and the cash book to enter the opening bank balance. Refer to accounting entries g and h in figure 18.3.

This is similar to the process whereby we use a customer journal, supplier journal and inventory journal to bring the individual customer, individual supplier and individual inventory item balances into the accounting records.

NOTE:

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As you will see later during the exercises in the Pastel manual, Pastel recommends using only four suspense subaccounts. However, we recommend using five, with the additional suspense subaccount to be used for all the company's cash books, because it is much clearer on what we are doing and it is much more consistent with the way in which we deal with the take-on of customers, suppliers and inventory. The more cash books a company has (this includes petty cash), the more important it will be to use an additional separate suspense subaccount for cash books during the take-on of balances.

• •

Thus everything seems set for the bank reconciliation(s), but bank reconciliations may have outstanding cheques and receipts from the previous period. These payment and receipt transactions will obviously not reflect in the current period on the new AIS because they were taken into account with the opening balance of the bank account. So we have another problem – how to capture these cheques and receipts through the cash book (so that each outstanding transaction is visible when doing the bank reconciliation), but without affecting the opening bank/cash book balance.

Think again about the double-entry method in accounting – if we debit everything that we credit, there will be no impact on the balance. We will have to do this debit and credit through the cash book so that it is visible in Pastel. Refer to accounting entries i, j and k in figure 18.3. The figure only shows the accounting entries for one bank account because the principles will be the same for the remaining bank account and petty cash.

Main suspense account

Equity account	400	Asset accounts	120
Liability account	50	Expense accounts	150
Income accounts	200		
		Customer suspense	200
Supplier suspense	150	Inventory suspense	250
		Cash book suspense	80 g
	800		800

Cash book suspense account

Main suspense	80 g	Bank ABC	65 h
		Bank DEF	10
		Petty cash	5
	80		80

Cash book - Bank ABC

Cash book suspense	65 h		
O/s cheque 895	5 i	O/s cheque 895	5 i
O/s cheque 897	4 j	O/s cheque 897	4 j
O/s deposit	8 k	O/s deposit	8 k
		Closing balance	65
	82		82
Opening balance	65		

FIGURE 18.3: Cash book subsuspense account and outstanding cheques and deposits

(d) Take-on balances: step by step

The steps to follow during the take-on of balances are set out below:

Step 1:   Ensure that the old trial balance balances and the subsidiary ledgers agree with this trial balance.

Step 2:   Create the new company on Pastel (using one of the three methods available).

Step 3:   Ensure that the trial balance accounts in Pastel exist and that the descriptions are correct (if not, edit the general ledger accounts).

Step 4:   Create the customer accounts, supplier accounts and inventory accounts for the organisation's existing customers, suppliers and inventory items.

Step 5:   Create the four (or five) subaccounts of the Opening Balances suspense account.

Step 6:   Make a "before take-on" backup.

Step 7:   **Trial balance balances**
- Capture and update the take-on for the <u>trial balance</u> balances into the new company's <u>general</u> journal (using all the relevant subaccounts of the Opening Balances suspense account for bank, customers, suppliers and inventory).
- View the trial balance report to ensure the trial balance balances were correctly captured.
- Make an "after trial balance take-on" backup.

Step 8:   **Customer balances**
- Capture and update the take-on for the customer balances into the new company's customer journal (using the customer subaccount of the Opening Balances suspense account as the contra account).
- View the customer age analysis report and the customer detailed ledger report to ensure that the customer balances were correctly captured.
- Make an "after customer take-on" backup.

Step 9:   **Supplier balances**
- Capture and update the take-on for the supplier balances into the new company's supplier journal (using the supplier subaccount of the Opening Balances suspense account as the contra account).
- View the supplier age analysis report and the supplier detailed ledger report to ensure that the supplier balances were correctly captured.
- Make an "after supplier take-on" backup.

Step 10:   **Inventory balances**
- Capture and update the take-on for the inventory balances into the new company's inventory journal (using the inventory subaccount of the Opening Balances suspense account as the contra account).
- View the inventory valuation report to ensure the inventory balances were correctly captured.
- Make an "after inventory take-on" backup.

Step 11:   **Cash book balances**
- Capture and update the take-on for the cash book balances into the new company's relevant payment OR receipt cash books (using the general ledger subaccount of

the Opening Balances suspense account as the contra account, but preferably the cash book subaccount of the Opening Balances suspense account).
- View the cash book details report to ensure the cash book balances were correctly captured.
- Make an "after cash book take-on" backup.

Step 12:   **Bank reconciliation**
- Capture and update the outstanding cheques and receipts into the new company's relevant payment OR receipt cash books (using the bank account itself as the contra account).
- View the cash book details report to ensure the outstanding cheques and receipts were correctly captured and that the closing bank balance is still the same as per the take-on trial balance.
- Reconcile the bank opening balance and update the bank reconciliation.
- View the bank reconciliation report to ensure that the outstanding cheques and receipts were correctly captured.
- Make an "after bank reconciliation take-on" backup.

NOTE:
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The principles for the take-on of balances are critical – you must therefore have an in-depth knowledge of them.

• ••

> **Computer activity 18.8**
>
> - Open the "TAKEON" company.
> - Follow the step-by-step instructions in the Pastel manual, lesson 12B, while comparing them with the steps listed on the previous page.
> - Make sure you understand how the take-on of balances works (both theoretically and practically).
> - In fact, it is strongly recommended that you unzip "TAKEON" company again and name it something else like TAKE2. Then do the take-on section in the Pastel manual a second time (while reflecting on the why and how and accounting behind the take-on of balances).

4   Summary

In this study unit, we used the Pastel "View" menu to retrieve standard Pastel reports (lesson 11). We also learnt to take on a new Pastel company's existing trial balance (lesson 12).

This was the last study unit in topic 6. Congratulations on finishing working through the Pastel manual! We hope you have enjoyed learning about Pastel and that you will be able to apply everything you have learnt in the workplace.

In the next topic, we highlight the importance of access to valuable information. We will also look at management information systems, business intelligence software and new sources of technology such as XBRL.

Self-assessment activity

After working through this study unit, you should be able to answer the following questions:

(a) Complete the Pastel manual formative assessment questions at the end of lessons 11 and 12.

(b) If presented with a screen print of any report setup screen, explain and evaluate (if necessary) the chosen settings.

(c) Identify the report and report settings you would use to obtain the required information?

(d) Determine the appropriate correction for various errors in the accounting records.

(e) Explain the methodology and reasons behind the take-on of balances procedures.

(f) List and explain the steps for the take-on of balances.

Feedback on self-assessment activity

The answers can be obtained in your Pastel manual, the Pastel Help file, this study unit or on the myUnisa discussion forum. The answers to the Pastel manual formative assessment questions are provided on the "Data files accompanying the Pastel courseware" CD.

Management reporting systems

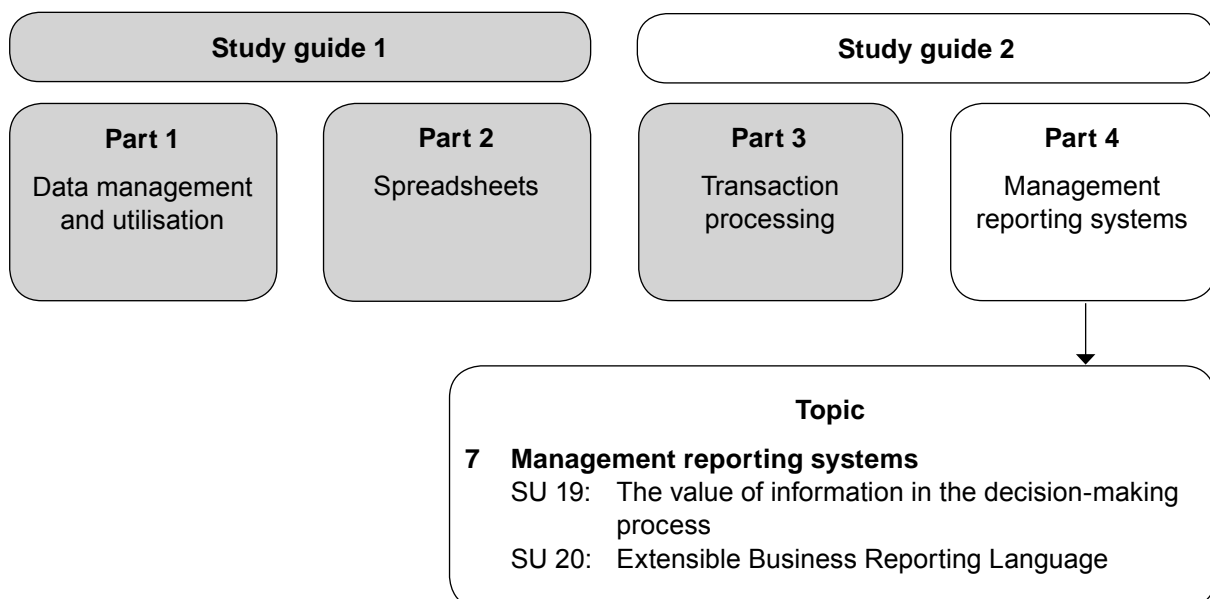| Study guide 1		Study guide 2	
Part 1 Data management and utilisation	**Part 2** Spreadsheets	**Part 3** Transaction processing	**Part 4** Management reporting systems
Topic 1 Data management and utilisation	**Topic** 2 Spreadsheets	**Topics** 3 Accounting cycles 4 Financial reporting infrastructure 5 Accounting information system applications 6 Pastel Partner accounting information system	**Topic** 7 Management reporting systems

Management reporting systems
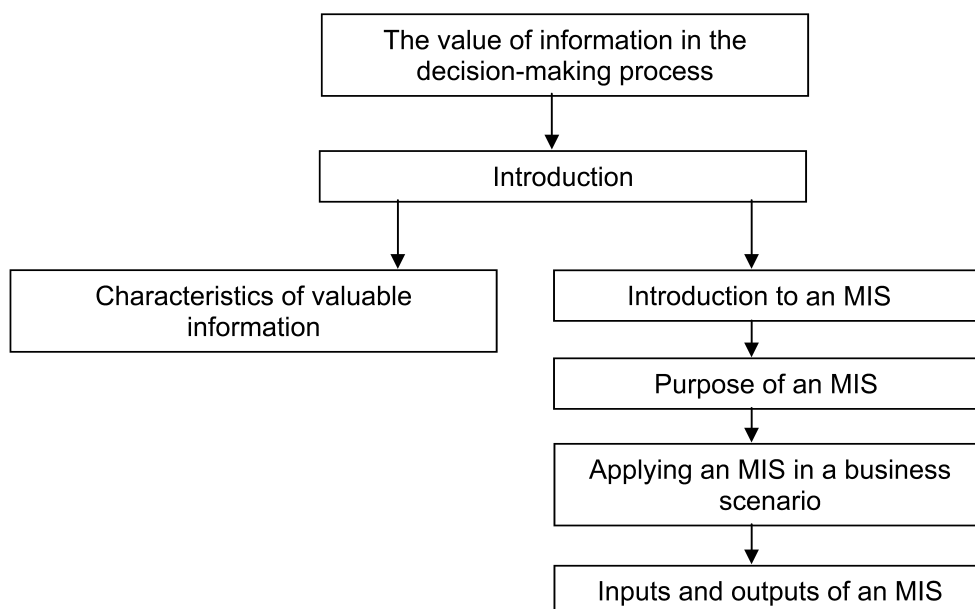
LEARNING OUTCOMES

After studying this topic, you should be able to

– describe the characteristics of valuable information
– demonstrate the characteristics of valuable information in a given case study
– describe a management information system (MIS)
– list the main characteristics of an MIS
– identify how an MIS can be applied in a business scenario
– describe MIS inputs and outputs
– describe business intelligence software (BIS)
– describe the working of Extensible business Reporting Language (XBRL) and the role it plays in South Africa
– list the advantages and disadvantages of XBRL

Study guide 1	Study guide 2

Part 1	**Part 2**	**Part 3**	**Part 4**
Data management and utilisation	Spreadsheets	Transaction processing	Management reporting systems

Topic

7 Management reporting systems
   SU 19: The value of information in the decision-making process
   SU 20: Extensible Business Reporting Language

The value of information in the decision-making process

In this study unit

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         ┌─────────────────────────────────┐
         │   The value of information in    │
         │     the decision-making process  │
         └─────────────────────────────────┘
                         │
         ┌─────────────────────────────────┐
         │          Introduction            │
         └─────────────────────────────────┘
              │                        │
┌──────────────────────────┐   ┌──────────────────────────┐
│  Characteristics of       │   │   Introduction to an MIS  │
│  valuable information     │   └──────────────────────────┘
└──────────────────────────┘                │
                                ┌──────────────────────────┐
                                │     Purpose of an MIS     │
                                └──────────────────────────┘
                                             │
                                ┌──────────────────────────┐
                                │  Applying an MIS in a     │
                                │  business scenario        │
                                └──────────────────────────┘
                                             │
                                ┌──────────────────────────┐
                                │ Inputs and outputs of an  │
                                │ MIS                       │
                                └──────────────────────────┘
```

1   Introduction

In topic 2, you learnt about business applications in the form of spreadsheets, and in topic 6, about transaction processing using Pastel Partner. You spent time converting your theoretical knowledge into practical skills by sitting in front of a computer and practising your newly acquired knowledge. You have probably noticed that the purpose of these skills is ultimately to record and retrieve information, specifically financial information through the transaction processing system (TPS) which includes the accounting information system (AIS).

Information no longer only assists the decision-making process, but also enables it. Decisions are made after carefully considering all the information available at a certain point in time. If the information is inaccurate or unavailable, the decisions made may have a negative impact on strategic planning, business operations and financial results. In some instances, management require information beyond that provided by the TPS in order to make an informed decision. This information can be provided by the management information system (MIS) and business intelligence software (BIS).

The first part of this study unit will explain why information will only add value to the decision-making process if it meets certain criteria, and will refresh your memory on the characteristics of valuable information. The second part of this study unit will introduce you to an MIS by briefly defining the concept, while the third part will describe its purpose. The fourth part will discuss how MIS can be applied as a business tool in typical functional subsystems of an organisation. The fifth part of the study unit will examine the inputs and outputs associated with an MIS, and the study unit will conclude with a brief explanation of BIS.

2   Characteristics of valuable information

Even the most effective decision makers in an organisation do not add value if the requested information is supplied after the decision has been made or if the reports generated are full of errors. Reports therefore need to be timely and accurate.

The International Financial Reporting Standards (IFRS) require financial statements to be understandable, reliable, relevant and comparable. This is impossible without valuable information.

You will remember the characteristics of valuable information, which were dealt with in the first-year AIN1501 module.

This section will not only refresh your memory, but also make you aware of the fact that the time and money invested in an MIS and an AIS will be of no value if the information produced does not possess the characteristics below. If the data entered into the accounting information system does not meet the criteria below, the information that is generated will also be worth almost nothing. This is known as the "garbage-in-garbage-out principle".

Information is considered **valuable** in making sound decisions when it meets the **following criteria:**

Characteristic	Explanation
Accurate	Information should be without any errors. Inaccurate data used in the decision-making process will provide inaccurate information. The use of controls (eg the review of information), will ensure accurate information.
Complete	Complete information contains all the important facts. If vital information is excluded, management could end up making the wrong decision.
Simple	Information should include all the important facts, but not too much detail. Users should not waste time on unnecessary detail. The information should be presented in the format required by the user.
Economical	The benefit of obtaining information should always outweigh the cost of producing the information.
Flexible	Information must be flexible enough to be adapted to meet the unique needs of different users.
Relevant	Facts should be relevant and meaningful to users in making decisions. If this is not the case, users may become confused or their time could be wasted.

Reliable	Decision makers must be able to depend on the source. The method used to collect the information should be reliable. Users cannot rely on information generated from an unreliable data source.
Secure	Information should be protected from unauthorised access.
Timely	Information must be available when users need it. Information that is delivered too late is meaningless. Current events and transactions should be taken into account when presenting information because outdated information may no longer be relevant to the decision being made.
Verifiable	Information is verifiable if it can be traced and agreed to various sources.

Activity 19.1

(a) Think of the consequences if the Unisa study material and tutorial matter delivered (communicated) to you does not possess the characteristics of valuable information. Consider, for example, the communication regarding your examination timetable.

(b) Describe the possible consequences for a shareholder who buys shares in a listed company after studying the financial statements. He or she was unaware that the financial statements had been based on incomplete, unverifiable information.

(c) Consider the consequences if a spreadsheet-generated report on which a major capital budgeting decision will be based contains all sorts of errors.

3 Introduction to management information systems

The transaction processing system (TPS) is a subsystem of the overall information system and uses computer technology to provide information for decision-making purposes. However, in some instances, management may require additional information to make well-informed decisions and to achieve their goals, especially in a growing business where some areas may become more specialised.

> The **management information system (MIS)** serves to fulfil this purpose. The MIS can provide both **financial and nonfinancial information** to users, according to their **needs,** by **extracting information** from the **appropriate TPS,** including the **accounting information system (AIS).**

Bear in mind that some AISs are so advanced that the required reports are already available from the AIS.

The main aim of an MIS is to provide the valuable information in a usable format, to the relevant person at the right time. However, the TPS provides lower-level management and clerical personnel with information to make structured decisions at operational level, whereas the focus of an MIS is to provide support at a tactical level to help make structured

and slightly unstructured decisions. The BIS is an instrument used by management at a strategic level to make unstructured strategic decisions.

Refer to the diagram below to help you put this study unit into perspective:
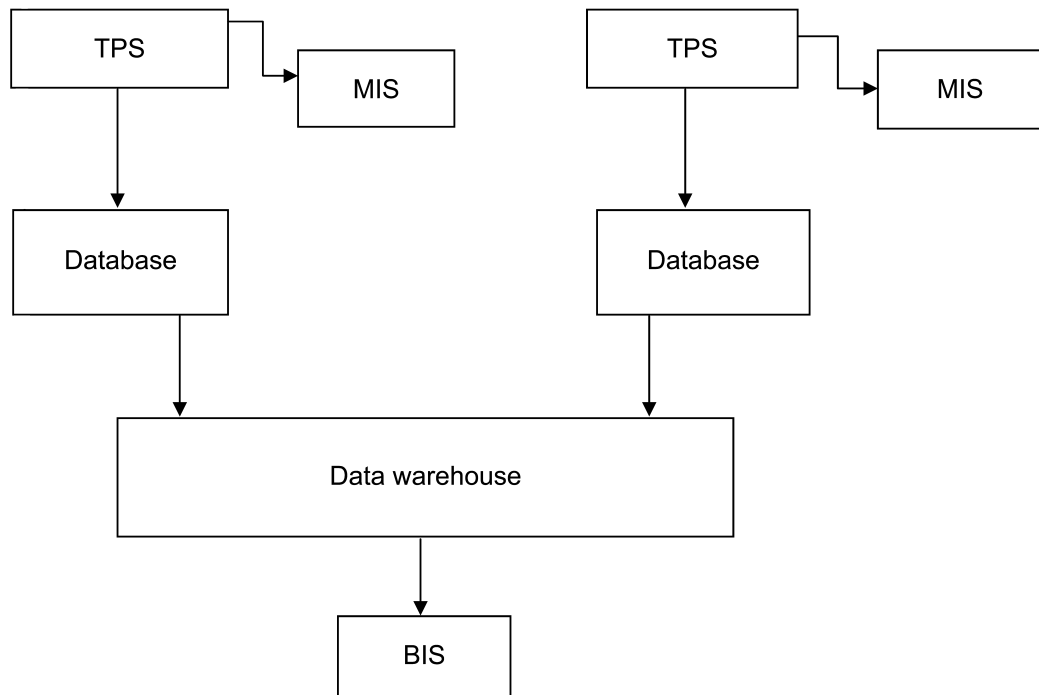

FIGURE 19.1: MIS and BIS in context

4   Purpose of an MIS

The purpose of an MIS is to generate both financial and nonfinancial reports about operational activities.

An MIS has the ability to provide user-friendly reports by

- generating reports in hard copy (a physical printout) or soft copy (a virtual printout)
- generating standard and/or tailored reports
- integrating financial and nonfinancial information from various internal and external sources into a single report

5   Applying an MIS in business scenarios

An MIS can be applied in various business scenarios to add value in the decision-making process. An MIS can be divided into subsystems, based on certain functions performed to produce reports to meet the specific needs of these functional areas (eg financial, marketing, human resources [HR] or manufacturing). The purpose of these MIS subsystems is primarily to generate reports to assist with the unique information needs of every function (eg the reports generated by the financial MIS subsystem will be utilised by the financial manager, whereas the HR MIS reports will be used by the HR manager). The various functional managers will typically not have access to reports other than those relating to their specific functional area. However, these subsystems may overlap.

The functional MIS subsystems include the following:

(a) Financial MIS

A financial MIS integrates financial and operational information from various sources into one system. The financial MIS ensures easy and quick access to all relevant users. As we have already mentioned, the required information may sometimes already be available from the AIS.

Examples of uses for financial MIS reports include

– payment summaries
– budget and capital budget setting and control
– comparison and analysis of historical and current financial information
– summaries of cash-flow information
– reporting on exceptions and deviations

(b) Manufacturing MIS

The manufacturing MIS provides information to meet the needs of the manufacturing function, by monitoring and controlling the flow of materials, products and services through the organisation.

Examples of uses of manufacturing MIS reports include

– inventory information (eg cost allocation)
– warehouse management (eg delivery and production scheduling)
– throughput rates
– order backlogs
– bottlenecks

(c) Marketing MIS

A marketing MIS supports management in the development of new products and marketing campaigns, price setting and sales forecasting. You will recall learning about customer relationship management (CRM) in your AIN1501 studies. A CRM is an apt example of a marketing MIS.

Examples of applications include

– market analysis and research
– promotional strategies
– pricing decisions
– development of new products
– sales information (eg analysis per product or branch or commission summaries)

(d) HR MIS

HR MIS involves all activities relating to the employees and potential employees of the organisation. The HR MIS does not only focus on reducing cost, but also endeavours to develop employees to their full potential and to empower them to contribute to the achievement of organisational goals.

Examples of uses for HR MIS reports include

– absence management
– HR allocation
– payroll administration

- selection and recruitment processes
- employee benefit administration
- training and skills tracking

6 MIS inputs

In order for an MIS to be able to function and provide valuable information for decisions, it needs data input. Data is mainly obtained from internal sources, but can also be obtained from external sources. Refer back to study unit 1 about the computerised information system process.

(a) *Internal sources* include the organisation's TPS, enterprise resource planning system, strategic planning, databases and data warehouse. In certain instances where the organisation requires specialised data, the data will be sourced from specific functional areas in the organisation.

(b) *External sources* refer to all data not already recorded in the organisation. Examples of external sources include supplier and customer feedback, information on competitors, publicly available information and census data.

After all the required data has been gathered from the relevant sources, the MIS will convert it into useful information, known as outputs, based on management's parameters and report requirements.

7 MIS outputs

In section 5, we indicated the uses of MIS reports in various business scenarios. These applications are possible because the MIS converts data collected from internal and external sources into various reports disseminated to management.

The following types of output are generated by the MIS:

(a) *Scheduled reports*

Scheduled reports are generated at scheduled points in time, say, daily, weekly or monthly. An example of a scheduled report is the key indicator report which is produced daily. This report provides feedback on the previous day's most important activities such as inventory levels, sales volumes and production activity.

(b) *Demand reports*

A demand report is produced at the specific request of a user. An example would be a report of a specific employee's sick leave being generated when management suspect that the employee is absent from work too often.

(c) *Exception reports*

Exception reports highlight unusual situations that require investigation. Bear in mind that an exception report is generated automatically by the MIS when specified parameters are exceeded. An example of the generation of an exception report would be an unauthorised staff member attempting to process a journal.

(d)   *Drill-down reports*

The purpose of a drill-down report is to provide increasingly detailed data on a matter. Information can first be analysed at a strategic level (such as inventory levels for the company as a whole), then at a more detailed level (such as the inventory levels per region) and then at a highly detailed level (such as the inventory levels per branch). If even more detail is required, it is possible to drill down into information about every individual inventory item as well.

8   Business intelligence software

Refer back to AIN1501 to refresh your memory on decision support systems.

The terms "business intelligence software" (BIS) and "management information system" (MIS) are sometimes used interchangeably. There is, however, a slight difference between the two concepts, as explained below.

The MIS supports the unique information needs of every functional area. The manager of every functional area only has access to the information pertaining to his or her area of responsibility. For top management this is not sufficient. Top management require a look at the bigger picture to make strategic decisions, which will have impact on the route the organisation will follow in the long run.

> **BIS** serves this purpose. **Special software combines information** obtained from a **data warehouse** (cube structure), from **all functional areas** in the organisation and external sources to a lesser extent to generate **reports required by top management.**

> This software can provide a **"dashboard",** which gives access to all the required reports. The dashboard can be located on computer's desktop to give management **access to the information** with the **click of a button.** A dashboard used by top management is **based on the BIS** and provides management with an **overall picture** of the **organisation's activities at a glance.** The manager of a functional area can also utilise the dashboard function, but he or she will only have access to the information unique to the functional area, based on the relevant MIS.

Refer back to study unit 2 to refresh your memory on data warehouses.

Pastel also provides this application in the form of the business intelligence centre (BIC). The BIC automatically converts Pastel information to Excel reports in predefined or customised templates. Figure 19.2 is an example of a Pastel dashboard:
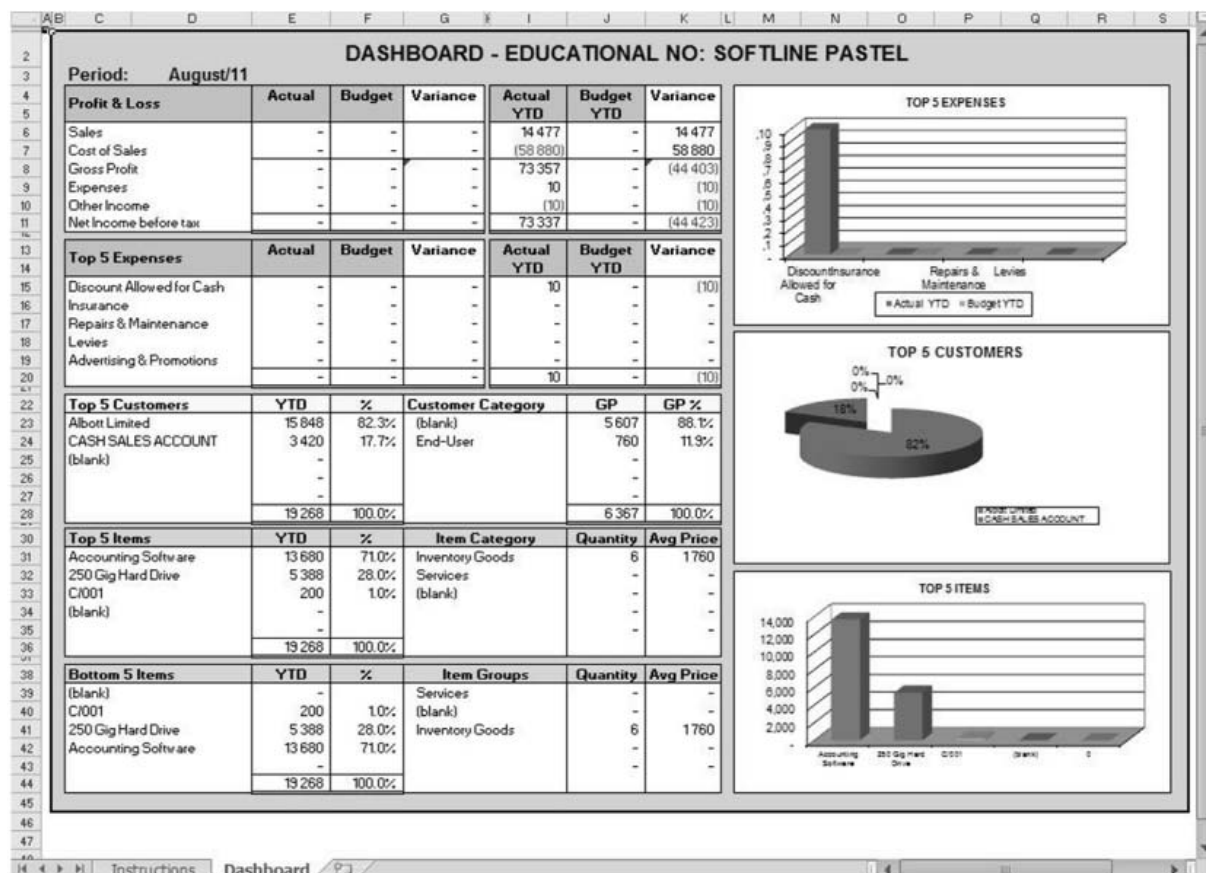
DASHBOARD - EDUCATIONAL NO: SOFTLINE PASTEL

Period: August/11

Profit & Loss	Actual	Budget	Variance	Actual YTD	Budget YTD	Variance
Sales	-	-	-	14 477	-	14 477
Cost of Sales	-	-	-	(58 880)	-	58 880
Gross Profit	-	-	-	73 357	-	(44 403)
Expenses	-	-	-	10	-	(10)
Other Income	-	-	-	(10)	-	(10)
Net Income before tax	-	-	-	73 337	-	(44 423)

Top 5 Expenses	Actual	Budget	Variance	Actual YTD	Budget YTD	Variance
Discount Allowed for Cash	-	-	-	10	-	(10)
Insurance	-	-	-	-	-	-
Repairs & Maintenance	-	-	-	-	-	-
Levies	-	-	-	-	-	-
Advertising & Promotions	-	-	-	-	-	-
	-	-	-	10	-	(10)

Top 5 Customers	YTD	%	Customer Category		GP	GP %
Abbott Limited	15 848	82.3%	(blank)		5 607	88.1%
CASH SALES ACCOUNT	3 420	17.7%	End-User		760	11.9%
(blank)	-				-	-
	-					
	19 268	100.0%			6 367	100.0%

Top 5 Items	YTD	%	Item Category	Quantity	Avg Price
Accounting Software	13 680	71.0%	Inventory Goods	6	1 760
250 Gig Hard Drive	5 388	28.0%	Services	-	-
C/001	200	1.0%	(blank)	-	-
(blank)	-			-	-
	19 268	100.0%			

Bottom 5 Items	YTD	%	Item Groups	Quantity	Avg Price
(blank)	-		Services	-	-
C/001	200	1.0%	(blank)	-	-
250 Gig Hard Drive	5 388	28.0%	Inventory Goods	6	1 760
Accounting Software	13 680	71.0%		-	-
	19 268	100.0%			

TOP 5 EXPENSES

TOP 5 CUSTOMERS

TOP 5 ITEMS

FIGURE 19.2: Example of a dashboard

Computer activity 19.2

Visit the following links for more examples of dashboards:

(a) http://www-01.ibm.com/software/analytics/cognos/business-intelligence/dashboarding.html
(b) http://www.sisense.com/sample-dashboards.aspx

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9 Summary

In this study unit, we examined the characteristics of valuable information. We also indicated that information provided by traditional information systems alone is sometimes not sufficient to meet the needs of management in terms of decision making. We explained that this need can be met in the form of an MIS. The study unit included a description of the characteristics of an MIS, applications of MIS in business scenarios and the inputs and outputs of an MIS. The study unit concluded with a brief explanation of a BIS.

In the next study unit, we will examine how Extensible Business Reporting language (XBRL) can enhance management reporting even further.
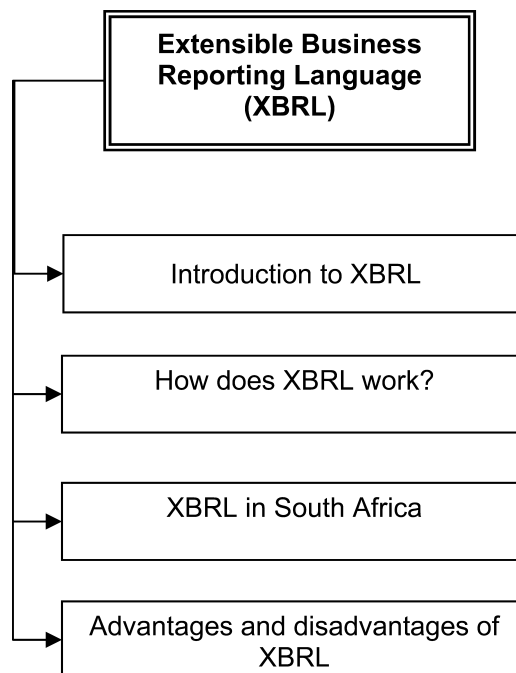
After working through this study unit, you should be able to answer the following questions:

(a) Briefly explain the importance of valuable information.
(b) List the characteristics of valuable information.
(c) Briefly define an MIS.
(d) List the characteristics of an MIS.
(e) Identify and explain the inputs to an MIS.
(f) Differentiate between various MIS output reports
(g) Explain the difference between MIS and BIS.

Extensible business reporting language

In this study unit

```
                    ┌─────────────────────────┐
                    │  Extensible Business    │
              ┌─────│  Reporting Language     │
              │     │        (XBRL)           │
              │     └─────────────────────────┘
              │
              │     ┌─────────────────────────┐
              ├────▶│   Introduction to XBRL  │
              │     └─────────────────────────┘
              │
              │     ┌─────────────────────────┐
              ├────▶│    How does XBRL work?  │
              │     └─────────────────────────┘
              │
              │     ┌─────────────────────────┐
              ├────▶│   XBRL in South Africa  │
              │     └─────────────────────────┘
              │
              │     ┌─────────────────────────┐
              └────▶│ Advantages and disadvantages of │
                    │           XBRL          │
                    └─────────────────────────┘
```

1   Introduction

In study unit 19 we have looked at the characteristics of valuable information and how management information systems (MISs) can be utilised to ensure valuable information is obtained for decision making and reporting.

One of the main concerns about reporting is comparability. An apt example would be to consider various pension funds and the differences in the method of reporting – for example, one fund may use the term "gain", whereas another fund may use the term "benefit", both of which refer to the same concept. You can clearly see how problematic this can be when attempting to compare financial statements or reports in order to make important decisions.

Extensible Business Reporting Language (XBRL) has been developed to solve this problem. In this study unit, we will explore XBRL as a way to further enhance management reporting and decision-making.

The first part of the study unit will briefly introduce you to XBRL, which will be the focus of the remainder of the study unit. We will explain how XBRL works, the role it plays in South Africa and the advantages and disadvantages associated with XBRL.

2   Introduction to XBRL

Technology is developing at a rapid pace, including the technology relating to financial reporting. Businesses have two alternatives in dealing with all the new developments, that is, be intimidated or overwhelmed by all the new ways to do financial reporting, or jump at the opportunity to use these new sources of technology to enhance financial reporting. Both alternatives have associated risks.

Both XML and XBRL are examples of new technologies. It is important to understand what is meant when referring to XML. XML stands for Extensible Markup Language and as in the case of Hyper Text Markup Language (HTML), it is also a markup language. However, XML was designed to carry information in a simple, general and usable format over the internet, instead of displaying data. XML is self-descriptive and the user has to define tags.

Markup language

A markup language is associated with the formatting of text files using specific codes called tags to process, define and present text. HTML is a frequently used markup language.

XBRL stands for **Extensible Business Reporting Language** and is used when **financial information** is exchanged in **XML format.** Instead of **defining the tags,** XBRL refers to **standard XML tags** to **describe financial information.** XBRL can broadly be defined as the **electronic communication** of **financial and business information** to all **stakeholders.**

3   The working of XBRL explained

The following extract is from an article that appeared in *AccountancySA* in June 2011:

With the ever-increasing need for transparency when it comes to financial reporting due to various laws and regulations, as well as the demand from stakeholders for more information in a timely fashion, the last mile of reporting, in other words generating the annual report, has become fraught with challenges. As a result of these needs, XBRL was created to drive an open, global standard for business reporting and exchanging business information (Annandale 2011:28 & 29).

Financial information, like financial statements, is usually presented in the form of a block of text in a standard HTML internet page, spreadsheet or portable document format (PDF). One organisation may refer to sales as "revenue", whereas another may use the term "turnover". Sales may be on different pages in the organisation's financial statements, making it difficult to extract information for comparative purposes. If a standard code/tag is attached to the information by all organisations, a software program can automatically extract, consolidate and compare information. XBRL allocates an identifying tag (also known as an element) to each individual item of data, making it understandable to computers. These tags contain all the information about the item which is required for comparative

purposes, including the description (eg retained earnings, its monetary value and currency and whether the amount is a debit or credit).

An example of a tag

<Asset>1000</Asset> – the word "Asset" together with the brackets < and > is called a tag; there are opening tags: <…> and closing tags: </…>.

Although XBRL refers to a standard set of tags, organisations are not limited to these tags. XBRL is extensible and organisations can create their own elements known as extensions, which can be used in exceptional reporting cases. A collection of these tags or elements is known as a taxonomy.

Organisations can download the standard tags (called taxonomies) from websites such as that of XBRL International and those of standard-setting bodies. In South Africa, you can read more about taxonomies on the websites of XBRL South Africa as well as the South African Institute of Chartered Accountants (SAICA).

Bear in mind that XBRL is not an accounting standard. IFRS and the applicable GAAP should still be adhered to, it is only the tagging of the information that is now different.

4 The role of XBRL in South Africa

Globally, XBRL International oversees the use of XBRL in different countries through country "jurisdictions".

XBRL in South Africa is regulated by a not-for-profit company, called XBRL South Africa. XBRL South Africa promotes the use of XBRL in South Africa in conjunction with the South African Institute for Chartered Accountants (SAICA), which is responsible for the administrative matters.

XBRL South Africa identifies specific reporting needs in South Africa and creates taxonomies accordingly, such as JSE listing requirements, company secretary statement and directors' reports. The training and education of users and potential users also form part of XBRL South Africa's objectives and functions.

5 Advantages of XBRL

The business world has been revolutionised by XBRL in terms of financial reporting and advantages include the following:

Advantage	Explanation
Increase in accuracy of reporting	Computers can identify XBRL identification tags, and employees therefore no longer need to manually recapture data in software applications like Excel or Pastel, say, for consolidation or comparison purposes. Using XBRL saves a lot of labour time and costs and ensures more accurate information.

Meeting IFRS requirements	XBRL has been designed in such a way that specifications meet the requirements of US GAAP and IFRS. Users of the financial statements can therefore rest assured that the published financial statements comply with IFRS.
Cost and time efficient	XBRL is more accurate and quicker to audit than reporting in HyperText Markup Language (HTML), spreadsheets or Portable Document Format (PDF), resulting in savings in auditing costs. XBRL further allows for automated machine-to-machine communication, which enables accountants, auditors, data capturers and stock exchanges to access the data and work with it more quickly, leaving more time for data analysis.. All these cost and time savings add up, leading to an increase in shareholder wealth.
Crossing the language barrier	Different reporting languages are no longer a challenge because tags are allocated to numbers, making the comparison of financial results much easier.
Data analysis	Data received via XBRL can be validated and analysed by using specific software. This analysis will highlight risk and problem areas that accountants and auditors can focus on. Financial institutions will also be able to use this analysis in the case of loan applications. Financial records will be accessed more quickly and accurately, resulting in a decrease in the granting of loans to high-risk borrowers.

Source: www.slideshare.net and www.ehow.com

6   Disadvantages of XBRL

Even though XBRL sounds like the solution to all financial reporting problems, we need to take the following disadvantages into account:

Disadvantage	Explanation
Inexperienced users	Since XBRL is still a fairly new concept, not all users or accountants are familiar with it yet, resulting in many errors. These errors may result in a decrease in investor confidence, which may lead to management deciding to outsource the XBRL function. This, in turn, leads to unnecessary costs.
Security	XBRL data is available all the time, creating great potential for security breaches. Security measures need to be implemented to ensure integrity of information at all times.
Cost	The initial cost of tagging XBRL data is high because it requires high labour input, and organisations may find it difficult to justify the initial capital outlay.
Unauthorised access/ alterations	Information is transferred to and from different financial information systems electronically on a regular basis, resulting in the risk that data may be lost, altered or stolen.
Compatibility	A concern at this stage is that not all TPSs can export to XBRL.

Source: www.slideshare.net and www.ehow.com

Visit the links below for valuable information on XBRL:

(a) **XBRL South Africa:** http://www2.xbrl.org/za/
(b) **South African Institute of Chartered Accountants:** https://www.saica.co.za/TechnicalInformation/CorporateReporting/XBRL/tabid/645/language/en-ZA/Default.aspx
(c) http://www.ehow.com/list_5843829_disadvantages-using-xbrl.html#ixzz1YP9bMwDk
(d) http://www.ehow.com/about_5066285_advantages-xbrl.html#ixzz1YP8I9oRW
(e) **Example of XBRL documents:** http://media.corporate-ir.net/media_files/irol/76/76540/xbrl/2011/trito-20110930.xml

7   Summary

This study unit explored XBRL, which has the potential to add value in the reporting process. We focused on XBRL because it is currently the most revolutionary concept in reporting to assist with the comparability of financial statements and reports. We briefly defined XBRL, explained how it works and the role it is playing in South Africa. We concluded by examining the advantages and disadvantages of XBRL.

Self-assessment activity

After working through this study unit, you should be able to answer the following questions:

(a) Differentiate between XML and XBRL.
(b) Explain the role of XBRL in South Africa.
(c) List and explain the advantages of XBRL.
(d) List and explain the disadvantages of XBRL.

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KEY TERM LIST

KEY TERM / CONCEPT	DEFINITION / EXPLANATION
ACCOUNTING INFORMATION SYSTEM (AIS)	An AIS collects an organisation's day-to-day financial and nonfinancial transactions, processes them into valuable financial information and stores and retrieves the data and financial information
AIS AUDIT TRAIL	An AIS audit trail tracks user activity on the AIS by recording the user name and access date and time as well as the actions performed by that user
APPLICATION PROGRAMMERS	Application programmers are responsible for creating, maintaining, updating and managing the application and DBMS software which the end-users use to interact with the physical database
ATTRIBUTE	An attribute, commonly known as a column, represents one unique characteristic of a single database table.
BATCH INPUT	Batch input involves similar source documents being grouped together (batch) and then entered in the CIS periodically, say, daily, weekly or monthly.
BATCH OUTPUT	Batch output occurs when all requests for information (ie reports, queries, etc) are batched together and periodically extracted from the CIS.
BATCH PROCESSING	Batch processing occurs when transaction files (containing the captured data) are updated to the master files periodically, that is, daily, weekly or monthly.
BILL OF MATERIALS (BOM)	The bill of materials (BOM) specifies, for each finished goods inventory item, the type and quantities of raw materials needed in the manufacturing.
BUSINESS INTELLIGENCE SOFTWARE (BIS)	Business intelligence software (BIS) is special software that combines information obtained from a data warehouse (cube structure), from all functional areas in the organisation and external sources to a lesser extent to generate reports required by top management.
BIS DASHBOARD	BIS can provide a "dashboard", which gives access to all the required reports. The dashboard can be located on the computer's desktop to give management access to the information with the click of a button.
CENTRALISED DATABASE	When using a centralised database, the database is physically stored in one central location (ie it is on one server).
CHART OF ACCOUNTS (COA)	A CoA is a list of accounts used in the organisation's general ledger.
CLASSIFYING DATA	Data is arranged into different groups (categories) using some of the data's specific characteristics

COMPUTER-AIDED MANUFACTURING (CAM)	CAM controls and coordinates all the machines used in the manufacturing process such as conveyor systems, cutting or welding machines and so forth
COMPUTER-INTEGRATED MANUFACTURING (CIM)	CIM is the automation and integration of the complete manufacturing process by using computers to control and/or execute the process from product design right through manufacturing, to quality control, storage of raw materials, WIP and finished goods, and ultimately, the shipment of the finished products.
CONCEPTUAL LEVEL	The conceptual level is a complete view of the entire database, that is, a view of all the data from which the user views can be derived.
DATA ADMINISTRATOR	The data administrator, also called a database analyst, is responsible for managing and controlling the data in the organisation's databases.
DATA CONTROL LANGUAGE (DCL)	DCL controls the security and user access to the database objects and data in the database.
DATA DEFINITION LANGUAGE (DDL)	DDL is used to define a database and includes commands to (1) create, modify and delete the database and database objects, (2) define and describe the data structure of the database according to the database model used, and (3) create the data dictionary.
DATA DICTIONARY	The data dictionary contains a record for each data field in the database and this record gives a detailed description of that data field.
DATA FIELD	A data field contains a single data value and is the smallest unit of data that can be accessed in a database.
DATA MANIPULATION LANGUAGE (DML)	DML is used in the routine operation of the database to insert, delete, modify and maintain the data stored in the database.
DATA MART	A data mart is a smaller data warehouse extracted from the main data warehouse and contains specific related data extracted for a specific organisational user group such as the finance department or the marketing department.
DATA MINING	Data mining software is used to analyse data sets in order to uncover previously unknown trends, patterns and relationships between data.
DATA MODEL	Databases can be classified according to the theoretical data structure, referred to as a data model, on which it is based.
DATA QUERY LANGUAGE	Data query language is used to retrieve data from the database.
DATA RECORD	A data record is a set of logically related data fields about a single member or item.
DATA VALUE	A data value is a character (a single number, letter or special character) or a group of related characters used to populate the data field.
DATA WAREHOUSE	A data warehouse is a database populated with current and historical data extracted from the organisation's various databases.

DATABASE	A database can be defined as an organised collection of related data that is managed and stored electronically and can provide data to different application software in the organisation.
DATABASE ADMINISTRATOR	The database administrator is responsible for managing and controlling the organisation's databases.
DATABASE ENVIRONMENT	The database environment consists of three components, namely the users of the database, database management systems (DBMS) and the physical database, which includes both the hardware it runs on and the data in the physical database.
DATABASE FILE	A database file, also known as a database table, is an organised collection of related data records.
DATABASE LANGUAGES	The database users (end-users, application programmers and database administrator) use different database languages to interact with the database.
DATABASE MANAGEMENT SYSTEMS (DBMS)	A DBMS is an integrated set of software programs that provides a user-friendly interface to the users for all data interactions between the user and the physical database – in other words, it enables the users to operate and interact with the database.
DISTRIBUTED DATABASE	When using a distributed database, there are several interlinked databases stored in several computers in the same (eg headquarters) or different locations (eg branches).
DUPLICATION OF A DATABASE	In duplication, the master (original) database is copied to the other locations, normally at a specific frequency and time, and will overwrite the data at the distributed locations.
END-USERS	End-users capture data in the database and extract information from the database using database management system software.
EXTENSIBLE BUSINESS REPORTING LANGUAGE (XBRL)	XBRL is used when financial information is exchanged in XML format and can be broadly be defined as the electronic communication of financial and business information to all stakeholders.
EXTERNAL LEVEL	The external level, also called the user view, is the individual end-user's view of the data and the database.
FIELD NAME	All attributes have a unique name known as a field name, which labels the data stored in the attribute.
FINANCIAL TRANSACTION	A financial transaction is a business activity that generates or modifies financial data and can usually be expressed in monetary terms.
FLAT FILE ENVIRONMENT	In a flat file environment files are not related to one another and the users of data and information each keep their own data and information.
FOREIGN KEY	When a primary data field of a database file is entered into another database file to create a relation between the two database files, the primary data field in the other database file is known as a foreign key.

HIERARCHICAL MODEL	This model was used in early databases and, as the name indicates, the data is structured in a hierarchical (upside down tree-like) structure.
HISTORY FILE	A history file contains data records about transactions completed in the past.
HUMAN RESOURCE MANAGEMENT (HRM) SYSTEMS	Personnel information systems, referred to as Human resource management (HRM) systems, is a specialised information system used for the management of personnel and the recording of their activities.
INFORMATION	Is obtained by processing raw data ie processed data.
INTERACTIVE OUTPUT	Interactive output occurs when users are directly connected to the CIS and can request certain information and receive it immediately
INTERNAL LEVEL	The internal level, also called the physical view, is the low-level view of how the data is physically stored on a storage device such as a magnetic hard drive disk.
MANAGEMENT INFORMATION SYSTEMS (MIS)	MIS can provide both financial and nonfinancial information to users, according to their needs, by extracting information from the appropriate TPS, including the accounting information system (AIS).
MANUFACTURING RESOURCE PLANNING (MRP II)	Manufacturing resource planning (MRP II) software is an extension of MRP software and is used for short- and long-term planning and control of the manufacturing process. It integrates all the aspects (people, materials, machines, money, etc) of the manufacturing process.
MASTER FILE	A master file contains data records of a relative permanent nature (ie they do not change regularly) about the organisation's resources and subjects (ie customers, suppliers, inventory, employees, etc).
MASTER PRODUCTION SCHEDULE	A master production schedule is a detailed plan of which product must be manufactured, when and the quantity involved.
MATERIAL RESOURCE PLANNING (MRP)	MRP is specialised planning and control software that can help to determine the raw material quantities needed and the timing of the purchases.
MULTIDIMENSIONAL MODEL	A multidimensional model is similar to a relational model, but whereas a relational model stores data in a two-dimensional table, a multidimensional model stores data in a three- or more dimensional table, creating a cube-like data structure.
NETWORK MODEL	The network model supports many-to-many relationships, that is, data may be accessed by following several paths
NONFINANCIAL TRANSACTION	A nonfinancial transaction is a business activity that generates or modifies nonfinancial data but which is of such a nature that it will directly influence the processing of financial transactions
OBJECT-ORIENTED MODEL	In an object-oriented model, the data and the operations to be performed on the data are both stored in the database. This database model can furthermore store and process a wider range of data types than only text and numerical data – it also stores and processes images, audio and video data

ONLINE ANALYTICAL PROCESSING (OLAP)	Online analytical processing (OLAP) software enables users to interactively and rapidly analyse large data sets from various viewpoints (ie OLAP can handle multidimensional queries).
ONLINE INPUT	Online input involves data being immediately captured into the CIS at the point where the activity occurs.
PARTITIONED DATABASE	A partitioned database is split into smaller portions (partitions) and the part applicable to the user is made available on the location closest to the user.
PERFORMING CALCULATIONS	Arithmetical or logical calculations can be performed on data.
PRIMARY DATA FIELD	Each file has a unique data field (known as the primary data field) that can be used to uniquely identify each data record in a data file.
RAW DATA	Data captured on manual documents (hard copy) as well as data entered in the CIS and not yet processed is called raw data.
REAL-TIME PROCESSING	Real-time processing is the immediate update of the transaction files to the master files as the transaction occurs.
REFERENCE FILE	A reference file is a semipermanent file containing data records referenced to by the transaction file in order to complete a transaction.
RELATIONAL MODEL	In a relational model, data is stored in two-dimensional rows and columns (ie tables).
REPLICATED DATABASE	In a replicated database, the whole original database is copied to the different locations, that is, the database is replicated at each location.
SORTING DATA	Data is organised (sorted) in an orderly sequence based on specific criteria.
SUMMARISING DATA	This process condenses the data by extracting only specific data based on criteria provided by the user.
SYNCHRONISATION OF A DATABASE	Synchronisation (also referred to as replication) is more complex and time consuming and involves a two-way updating of the master database and the distributed databases (ie the master database can update the distributed database and the distributed database can update the master database).
TRANSACTION FILE	A transaction file contains data records relating to the daily individual activities of the organisation (eg the organisation's sales). A transaction file changes regularly as additional transactions are processed.
TRANSACTION PROCESSING SYSTEM (TPS)	A TPS collects an organisation's daily business transactions, processes them into valuable information and stores and retrieves the data and information when required.
TRANSFORMING DATA	Data is processed by transforming the format or medium of the original data into another format or medium.