chapter 2

Business activities and transaction processing

Learning objectives

- To understand the various business activities and business decisions that are made.
- To decide on the information that is needed for various decisions.
- To review the steps in the accounting cycle.
- To understand the principles of internal control.

the story

David and Mary grew more and more excited about starting their new business. There were only 28 days until the grand opening of P & S Furniture Mart. Although Mary and David were happy about the impending commencement of the business, they were inwardly worried about how they were going to organise the numerous tasks without prior hands-on experience and the technical know-how of running a business.

They had been deliberating over the most effective way to recruit the right key personnel such as some salespeople, an accountant, a bookkeeper, a storekeeper, a cashier and a receptionist. They decided the best way to recruit qualified and experienced staff was to approach Centrelink because they could contact individual job seekers. To give Centrelink a better idea of what they were looking for in the potential recruits David and Mary spent considerable time drafting position descriptions of the required personnel. They then made an appointment to meet the manager of the Centrelink office near their home. For David and Mary this proved to be very worthwhile because the manager was extremely helpful in ensuring that appropriate candidates were scheduled for interviews.

On another matter, it is worth noting that David and Mary operated their own separate bank accounts. When they discussed their business plans with their bank manager he advised them to register the business for GST and to apply for an Australian Business Number (ABN). The bank manager also advised them to open an account in the business name and to operate their existing accounts separately. Mary thought it was a good idea as this way they could keep business and private money separate. They both realised that there would be a number of different types of receipts and payments such as furniture sales receipts, loan repayments, purchases, employee salaries and other sundry operating expenses which would be difficult to track if the accounts were not kept separate.

David and Mary began to worry about this side of business management and decided to ask for additional advice from their mutual friend, Roddney Keys, a Certified Practising Accountant. They rang Roddney and made an appointment to see him. When they met with him they posed the banking problem to him. Without hesitation, Roddney suggested that the sensible thing to do was to keep business transactions separate from all their personal accounts and, also, to have a separate salaries and wages account. By working the finances of the firm in this way, David and Mary would have no problems identifying the various business transactions for accounting purposes. Roddney also suggested that the use of Internet banking facilities would help to minimise transaction and account management fees. Significantly, this course of action would help to facilitate tax return preparation at the financial year-end and also enable the reconciliation of salaries and wages on a regular basis. They thanked him for his great advice and promised him a new office chair once they were up and running. The following week, after they received their ABN number, they opened a separate business account in the company name of P & S Furniture Mart at their local branch of Eastpac Bank.

The Centrelink manager again contacted David and Mary and sent quite a few applicants for interviews in order to fill each of the jobs they had requested. Within a few days they had interviewed everybody and even made job offers.

David and Mary were still not sure whether they should be doing the accounting manually, or have it computerised. If they chose to use a computerised system it would mean buying computers and the appropriate accounting software. In fact, the successful applicants for both the accounting and bookkeeper positions had recent computer qualifications and experience and preferred using computerised accounting. After careful consideration, bearing in mind that both David and Mary did not have any idea how computerised accounting worked, they decided that they ought to initially start with the manual system so that they could keep an eye on what was going on. They were certainly keen to computerise the system as they had been informed of the capabilities of computerised accounting systems in getting required information quickly. They were also aware that there were a number of very user-friendly and reasonably priced accounting packages on the market.

David and Mary made time for another lengthy discussion with Roddney the CPA. He suggested the following issues needed to be carefully considered, and appropriate business decisions made. Furthermore, policies and procedures relative to the outcome of their decision-making process needed to be documented and those requiring implementation needed to be acted on immediately.

1. What is the fundamental business model?
2. What are the various business activities?
3. What key decisions have to be made and what information is required to make them?
4. What should be the level of their own remuneration and how should they account for their efforts in managing the business?
5. What are the source documents that evidence each transaction and how are they going to be designed and processed?
6. What are the books of accounts to be used, and how are they going to be organised?
7. What records need to be kept in order to comply with relevant legal and taxation requirements?
8 What controls will ensure that all transactions are properly recorded and that all assets are adequately safeguarded?
9. What procedures need to be in place to ensure data integrity over the long term?

key terms

account A detailed record of the changes that have taken place in a particular asset, liability, or the owner's equity of a business in a particular period of time

account code An identifying number for an account

adjustment note Document used to notify a customer of adjustments to a transaction after it has occurred

assets Economic resources that a business owns

chart of accounts A list of all the accounts and their account codes

control account An account in the general ledger whose balance at any time equals the sum of the balances of a group of related accounts in a subsidiary ledger

current assets Assets of the business expected to be converted to cash within a year

current liabilities Debts of a business to be paid within a year

expenses Decreases in owner's equity that occur due to a business's transactions during a period

field A collection of related characters

file A collection of related records

financial statements Documents that report financial information about a business to stakeholders

gross loss Excess of cost of goods sold over sales revenue

gross profit Excess of sales revenue over cost of goods sold

internal control Policies and procedures followed by a business to safeguard its assets

invoice A document from a seller to a purchaser that details the quantity and value of goods or services provided to request payment for them

journal A book of prime entry of a business's transactions shown in chronological order

ledger The book of accounts

liabilities Economic obligations of a business payable to outsiders

master file A file containing the complete accounting data

net loss Excess of total expenses over total revenue

net profit Excess of total revenue over total expenses

non-current assets Assets other than current assets

non-current liabilities Liabilities other than current liabilities

owner's equity The claim of the owner on a business's assets

posting Transferring of amounts from the journal to the ledger

record A collection of related fields

reserves Part of the retained profit of a business set aside for a particular purpose

retained profit A portion of the net profit for a period not withdrawn by the owners but left in the business as additional capital investment

revenues Increases in owner's equity that occur due to business transactions during a period

source document A document that initially either initiates a transaction or records a transaction

transaction file A temporary file that holds transaction records that will be used to change or update data in a master file

transaction processing Accounting procedures for a transaction completed manually or using computers

introduction

People and procedures are the main constituents of a basic accounting information system. When the system becomes advanced, information technology also gets involved. The basic functions of an accounting information system are to collect data and store data about an organisation's economic events. These activities and transactions are performed by people based on certain procedures that are laid down depending on internal or external needs. Naturally, when the volume of transactions increases it becomes economical to involve the appropriate technology.

Other functions of the accounting information system include processing data into information which helps in the decision-making processes used by management and providing the information necessary to safeguard the organisation's **assets**. Therefore, the basic functions performed by an accounting information system are:

- collecting and storing data
- processing data into information
- providing adequate controls for safeguarding assets including data.

The structure and characteristics of businesses

In order to understand the needs of an accounting information system it is appropriate for us to have an overview of the structure of business organisations, the purpose of their existence and their various activities.

A business is a separate entity from its owner(s) and can be owned in a number of ways. The most common forms of ownership are:

- sole proprietorship
- partnership
- company.

The owner or owners establish a business with an investment of cash (and other assets). This investment is called capital. Another source of capital is borrowings from financial institutions. Both sources of capital are generally used to obtain the necessary assets required for running the business.

Any amount owed by a business to others is called a **liability**. Any amount owed to the owner(s) is regarded as a special liability of the business. This special liability is known as equity. Any profit made by the business belongs to the owner(s) but not all of the profit may be distributed to the owner(s). The amount of profit not distributed is called **retained profit** and is generally used to further the operational activities of the business. Any borrowing from financial institutions is also a liability and is generally referred to as a loan. The loan is classified as a short-term loan if it is repayable within a year. A long-term loan does not require payment in the near future.

A business can buy goods from a supplier and pay for them at a later date. That is, the supplier allows a period of credit. This delayed payment is also a liability and is known as accounts payable. Another liability is the bank overdraft, or a prearranged amount of funding which is available to be borrowed and settled without any formality. Thus, the liabilities of a business are:

- capital contributions by owner(s)
- retained profits
- loan(s)
- accounts payable
- bank overdraft(s).

A business also usually allows its customers a credit period to pay for their purchases. That is, the customers buy the goods and pay at a later date. This form of delayed payment by customers is an asset to the business and is called accounts receivable. Apart from the accounts receivable there are other assets owned by a business. Thus, the assets of a business are:

- land and buildings
- plant and equipment
- motor vehicles
- furniture
- cash at bank
- accounts receivable
- inventory.

The total liabilities of a business equal the total of all assets.

Business activities

Generally, an organisation is in existence to create wealth for its owners. An accounting information system helps improve the efficiency of operations by enabling managers to make better decisions with a view to maximising the profit and, therefore, the wealth of the owners. Not-for-profit organisations also need to improve the efficiency of their operations to maximise the benefits derived from their resources. The activities commonly found in organisations are briefly explained below.

Organising capital

When venturing into business, the first and foremost consideration is the capital requirement. Initial capital comes from the owner(s). It can also come from borrowing. When the business gets going, and growth is evident, the additional capital needed may come from the business's savings, or the owner(s) can introduce new capital. Additional capital also can be borrowed. The additional capital can be a combination of any of these, therefore a decision has to be made about how much of each type of capital is to be invested in the business. When borrowing money from a financial institution, it is necessary to shop around to obtain the best possible terms. For example, some considerations will be the loan establishment costs, the interest rate and the length of the loan period.

Acquisition of business premises and equipment

Once the capital is organised, a decision as to where the business's premises will be, its size and whether it is to be bought or leased has to be made. The decision depends primarily on the availability of suitable premises and the required capacity. The next consideration will be the reasonableness and the affordability of the price if buying or the rental charges if leasing. Business leasing contracts often include negotiable portions of fixed and turnover rental charges. Therefore, it is wise to carefully peruse contracts and conditions so that a complete understanding of contractual obligations is reached prior to any final decision being made. Similarly, production machinery (if needed), other equipment, and furniture are also acquired by careful attribute comparison and negotiation of terms and prices.

Recruiting employees

Depending on the nature of the business being contemplated, appropriately qualified and experienced personnel have to be recruited to perform the various tasks. A job description of each position must be drafted and will form the basis for recruitment. There are various methods available for recruitment. These include newspaper and radio advertisements, the Internet, and Centrelink and other recruitment agency assistance. Some methods are more expensive than others. One may wish to use a combination of methods to achieve the desired outcome.

Acquiring inventory

If the business is involved in the reselling of merchandise then the required merchandise has to be purchased. A manufacturing business will have to purchase the raw materials required for the manufactured goods. When making purchases, the business owner has to select the right vendor (supplier). Usually, quotations are requested from two or three short-listed vendors and the vendor offering the most favourable terms is chosen. After selecting the vendor, a decision has to be made about how much merchandise to buy at any given time. An organisation has to hold an inventory, that is, it maintains on its premises a certain quantity of raw materials for production or goods for resale suitable to its needs. When purchasing, it is important to ensure that too much stock is not held—this avoids tying up cash unnecessarily, and exposing the business to losses due to obsolescence. However, care must be taken not to have stock outs that may result in dissatisfied customers who will go elsewhere for their requirements. The quantity purchased is important in some instances because vendors give special discounts for bulk buying. Purchases can be made outright for cash or on credit terms. An outright purchase has the advantage of cash discounts in some cases.

Manufacturing product(s)

Appropriate supplies of raw materials and a suitably skilled labour force have to be sought first. Materials for production have to be acquired at the right time and in the right quantities. The decisions about when to buy, how much to buy and from whom to buy are all-important. A good inventory system is also essential and this system should guide the business as to the minimum, maximum and reorder levels to maintain for raw materials. Although the business would have invested heavily in the production machinery at the commencement of operations, there will be a constant need for overhauls of this machinery. Repairs and maintenance, together with loose tools, depreciation of machinery and electricity and so on, form a substantial cost of production, known as factory overheads. The cost of the raw materials, together with the conversion costs of labour and overheads, constitutes the total cost of production.

Marketing and selling a product/service

Associated with selling is the advertising of the goods available for sale. To capture a fair share of the market, the business has to attract customers by offering competitive prices or differentiated products. The selling price depends on the desired profit margin after discounts. So, a decision has to be made about how much mark-up percentage is to be used. If the business is offering services, then an appropriate fee structure has to be established so as to be competitive.

Collecting amounts owing from customers

When cash sales are made the customers pay immediately. Alternatively, sales made on credit are paid for by the customers depending on the terms of sale. The credit period usually varies from 30 days to 90 days depending on the type of business. Special discounts can be offered by the supplier for early settlement as an incentive to make the customer pay earlier than the allowed credit period. This helps to reduce the interest on capital outlaid for the credit. A good credit control department is needed to promptly collect the amounts owed by customers. Prompt credit collection is very important as it supports the business in meeting cash inflow forecasts.

Paying amounts owing to vendors

When cash purchases are made, the suppliers of the goods or services can be paid immediately. Purchases made on credit are paid for by the business depending on the supplier's terms of sale. When buying on credit, the amounts owed to the suppliers form a source of finance for the business. Therefore, it is better for the business to make full use of the credit period unless the supplier offers an appreciable amount of discount for prompt payments.

Paying amounts owing to loan creditors

When loans are obtained from banks, other institutions or individuals, it is important to remember that interest accrues on the balance of the loan outstanding at any time. The loan agreement will stipulate the frequency with which amounts should be paid and the amounts payable. The amounts payable may also include a portion of the capital in addition to the interest accrued. The point to bear in mind is that the interest paid is a cost to the business and, therefore, it has to be minimised as much as possible.

Paying amounts owing to employees

When employees join a business there is an implied contract that they will be paid periodically, without fail, for the services they render. An employee may also be entitled to other payments such as special allowances, leave pay, sickness pay, bonuses, compensation pay and so on. Therefore, a business must maintain proper records for calculation of payments to employees and for any deductions made from their pay.

Paying amounts owing to the Australian Taxation Office

Every employee has an amount deducted from his or her pay in the form of income tax, as required under the Pay As You Go (PAYG) tax system. The amounts deducted from all employees have to be remitted to the Australian Taxation Office within the stipulated time. It is also necessary to keep proper records of Goods and Services Tax (GST) payable and of input tax credits obtainable for qualifying purchases made. Again, the net amount has to be forwarded to the Taxation Office by the stipulated time. The stipulated time period will depend on the total revenue of the business (i.e. monthly for large organisations or quarterly for smaller entities). Fringe benefits tax (FBT) also has to be remitted at the stipulated time.

Transaction processing procedures

The most basic function of an accounting information system is to process the data from each transaction of an organisation. The transaction activities have to be identified separately for the purposes of control. There is a need for every transaction to be recorded on a form that can be referred to at a subsequent date, for various reasons. These records act as memories and are referred to as **source documents**. Source documents are the basic instructions needed to start a transaction or record information on the occurrence of a transaction. Therefore, every transaction will have: (1) a basic record that either initiated that particular transaction or recorded the occurrence of the transaction; and (2) another record or **journal** on which the outcome of the transaction is recorded. In a manual system, the data in a journal are transcribed onto the pages of a book called a **ledger** where the data are grouped to produce meaningful information. Thus, **transaction processing** consists of the following sequence:

1. Capturing transaction data on special forms called source documents.
2. Recording transaction data in books called journals which present a chronological record of what occurred.
3. Posting data from journals to books of accounts called ledgers which sort data by account type.

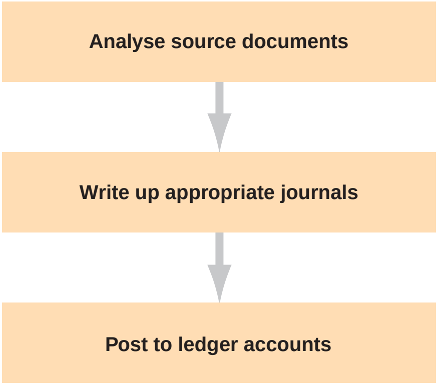


Figure. 2.1 The transaction processing sequence

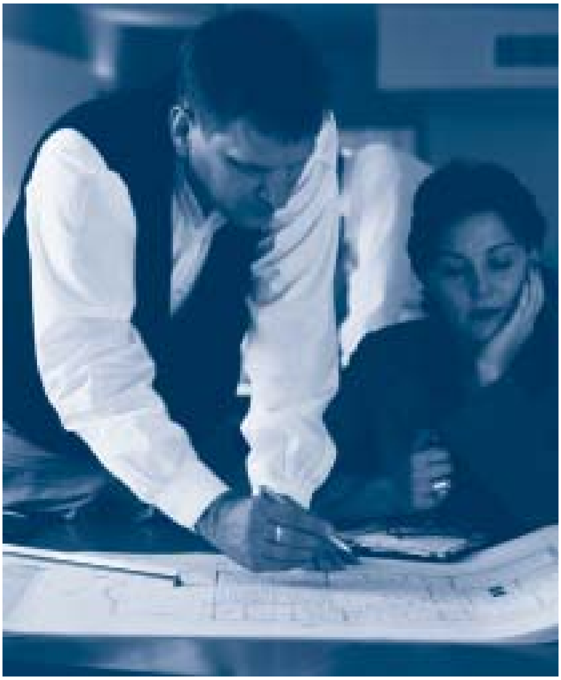
Capturing transaction data

Business transactions can be recorded on pieces of paper, a note pad, a white board, and so on. Sometimes, in a small business, business transactions are recorded in the owner's memory. To provide accuracy and to ensure better control, source documents are generally standardised. This standardisation occurs for the following reasons:

- To ease the understanding of the person dealing with the source documents.
- To capture all the information that is needed.
- To provide information on the person initiating and authorising each source document.
- To avoid repetition of any fixed information.

Thus, source documents are designed as forms that need to be completed with only variable information. Source documents are prenumbered so that it is easy to verify that all transactions have been recorded and that no documents have been misplaced. If the principles of good form design are followed, standard information is preprinted on the source document to provide directions for completing the form, to improve accuracy and to avoid repetition. A cheque form and an acknowledgment form for receipt of money are typical examples of source documents where standard information, such as the name of the organisation or persons issuing the form, a special provision for inserting the date and a place for signatures to authenticate the document, is provided.

When designing a form, the following general considerations are vital:



Forms should be checked at the design stage to ensure they are user-friendly

- The form's design should be simple and easy to understand.
- The form should have a name describing its function (e.g. purchase order, invoice).
- A specific identification number, which runs serially, is allocated to each form where form control is of paramount importance (e.g. cheques, purchase orders).
- Sufficient space should be provided for recording the necessary information.
- Related information should be grouped together.
- Whenever needed, a multipart form that can be created by only being filled out once should be provided for, to reduce repetitious writing.
- Whenever ambiguity about how to complete a form is expected, an explanatory note should be provided in a suitable place (e.g. on the back of the form).
- Related forms should have similar information placed in the same position so as to ease the burden of completing the form.
- Routing instructions should be given in an appropriate place on the various parts of a multipart form. The parts can be printed on different coloured paper to help people identify where each copy is to be sent.
- Information on the form must follow a logical sequence.

A sales invoice (Fig. 2.2), an adjustment note (Fig. 2.3) and a receipt (Fig. 2.4) are discussed here as examples of source documents.

A sales **invoice** (tax invoice) is the source document which advises the purchaser of the cost of the goods supplied or services provided. It will have the name, address, and ABN of the supplier and the purchaser. In addition, the invoice will have an identifying, unique document number and the date of sale. The description of the goods or services provided, quantity, unit price of the items sold, discounts, and the amount of GST, if any, are to be shown clearly on the invoice. The total amount owed by the purchaser is shown after accounting for discounts and GST. The sales invoice must either show the amount of the GST charged or a statement that GST has been included within the total price charged.

An **adjustment note** (credit note) is the source document that provides information when the purchaser returns goods and the supplier accepts them. In this respect, it is the opposite of a tax invoice. In addition to providing the information to reduce the amount owed to the supplier, the adjustment note provides the information necessary to adjust the GST liability of the supplier.

A receipt is a formal acknowledgment that a payment has been received. In addition to the information details of the payer and the amounts paid, it has the details of the mode of payment (cash, cheque or credit card) and the date of payment.

West Wise Pty Ltd
3 Sun Street
Sydney 2000
ABN 86 027 374 186

THANK YOU FOR YOUR CUSTOM
Orders please call: 1800 24 16 29

TAX INVOICE

Number: *7382*

Your account number	Date	Your order number	Date entered	Date shipped	Delivered by
4972	*17/9/04*	*D 7934*	*17/9/04*	*18/9/04*	*QTL*

Sold to:
Curtis & Co.
18 Horizon Road
Newtown NSW 2270

Delivered to:
Curtis & Co.
1074 Summer Road
Blacktown NSW 2371

PRODUCT DESCRIPTION	CATALOGUE NUMBER	QUANTITY SUPPLIED	UNIT PRICE INCLUDING GST $	TOTAL GST $	TOTAL AMOUNT INCLUDING GST $
Refrigerator	*R 7394*	*5*	*660.00*	*300.00*	*3 300.00*
				TOTAL GST PAYABLE	*300.00*
				TOTAL AMOUNT PAYABLE	*3 300.00*

TERMS: COD

Figure 2.2 A sample sales invoice

West Wise Pty Ltd
3 Sun Street
Sydney 2000
ABN 86 027 374 186

THANK YOU FOR YOUR CUSTOM
Orders please call: 1800 24 16 29

ADJUSTMENT NOTE

Number: *AN 8321*

Your account number	Date	Invoice number	Your order number	Date entered	Date received	Comments
4972	*28/9/04*	*7382*	*D 7934*	*17/9/04*	*27/9/04*	*Damaged*

Sold to:
Curtis & Co.
18 Horizon Road
Newtown NSW 2270

Returned from:
Curtis & Co.
1074 Summer Road
Blacktown NSW 2371

PRODUCT DESCRIPTION	CATALOGUE NUMBER	QUANTITY RETURNED	UNIT PRICE INCLUDING GST $	TOTAL GST $	TOTAL AMOUNT INCLUDING GST $
Refrigerator	*R 7394*	*1*	*660.00*	*60.00*	*660.00*
				TOTAL GST PAID	*60.00*
				CREDIT TOTAL	*660.00*

REASON FOR ADJUSTMENT: *Return of damaged goods*

Figure 2.3 **A sample adjustment note**

P & S Furniture Mart
ORIGINAL RECEIPT

Date: *25/2/2003*

Received with thanks from: *Adam & Co.*

The sum of one thousand one hundred dollars
for Invoice 1278 for $1650.00 less AN 110 for $550.00

$1100.00

E. Thompson
Signed

Figure 2.4 **A sample receipt**

Recording transactions

Recording or storing data from the source documents is the next step in the transaction processing sequence. The recording is made on a journal. Because journals are the first set of records in which the primary information from source documents are entered, they are also referred to as books of prime entry. The entries made in journals are subsequently transferred to ledgers to obtain some meaningful information. Journals can be either specialised or general.

Specialised journals are used for repetitive transactions and simplify the process of recording a large number of similar transactions. The total amount for a number of similar transactions for a given period is then transferred to the ledger as one figure thereby avoiding the tedious task of individual recording. The specialised journals commonly found in most organisations are:

- Sales journal—where sales of the organisation are recorded.
- Purchases journal—where purchases of the organisation are recorded.
- Cash receipts journal—where cash receipts of an organisation are recorded.
- Cash payments journal—where cash payments of the organisation are recorded.

Depending on the volume of transactions, and the need to simplify the extraction of necessary information, an organisation may create additional specialised journals.

The general journal records the transactions that cannot be categorised and recorded in any of the specialised journals. The entries made in the general journal are for non-routine transactions such as the purchase or sale of an asset, interest accruals and the ad hoc correction of errors.

Posting transactions

The journals on their own are not capable of producing meaningful information. The information in journals is transferred or posted to ledgers where a number of **accounts** are maintained. The accounts are groupings of similar types of transactions that allow meaningful information to be obtained, as per the requirements of the organisation. For example, P & S Furniture Mart could record every dollar spent in different accounts. For example, $2 spent on tea for staff could be recorded under an account called 'Staff Amenities'. Alternatively, they might record this amount under an account called 'Sundry Expenses' as they might not be interested in the details of expenditure under, say, $10. The posting of transactions follows traditional double entry rules, whereby increases in assets and expenses are debited and decreases in assets and expenses are credited to the respective accounts. Conversely, increases in liabilities and revenues are credited and decreases in these are debited to their respective accounts.

The ledger can be divided into a general ledger where many of the accounts are recorded at summary level for the assets, liabilities, expenses and revenue of a business and a subsidiary ledger where individual details of these accounts are recorded. Subsidiary ledgers are generally maintained for accounts receivable, accounts payable and inventory, where a large number of transactions take place. If these accounts were maintained in one ledger, it would cause an enormous increase in the volume of the ledger. The summaries of the subsidiary ledgers are recorded in special accounts called **control accounts** in the general ledger to help preserve their completeness. For example, the control account of accounts receivable in the general ledger shows the total of the amounts owed by the customers of the organisation. The balances in the accounts receivable subsidiary ledger provide information on the amounts owed by individual customers.

GENERAL LEDGER	Debit	Credit
Account: Accounts payable control 3/3 Purchases		$3 000
Account: Purchases 3/3 Accounts payable control	$3 000	

ACCOUNTS PAYABLE SUBSIDIARY LEDGER	Debit	Credit
Account: Vendor A 3/3 Purchases		$1 000
Account: Vendor B 3/3 Purchases		$800
Account: Vendor C 3/3 Purchases		$1 200

Figure 2.5 An example of general ledger and subsidiary ledger entries

It is important that the balances of the control accounts be matched with the total of the balances of the subsidiary ledger at frequent intervals in order to maintain the accuracy of the data stored in the system. The total of the balances of the subsidiary ledger should equal the balance in the control account in the general ledger and the differences should be investigated with a view to rectifying any errors occurring in the **posting** process.

Samples of journals and posting summaries

Samples of specialised journals and the debits and credits when posting from these journals to the ledgers are given below.

Sales journal

The source document used to record this journal, in which sales are recorded, is the duplicate of the sales invoice.

Date	Invoice number	Particulars of accounts receivable	Ref.	Value of sales $	GST collected $	Invoice total $
6/8	172	A. Bradford		200.00	20.00	220.00

The debits and credits required when posting to the general ledger accounts are:

Dr	Accounts receivable control	$220	
Cr	Sales		$200
	GST payable		$20

Purchases journal

The source document used to record this journal, in which purchases are recorded, is the supplier's invoice.

Date	Invoice number	Particulars of accounts payable	Ref.	Value of purchases $	GST paid $	Invoice total $
2/4	110	B. Barnard		240.00	24.00	264.00

The debits and credits required when posting to the general ledger accounts are:

Dr	Purchases	$240	
	Input tax credit	$24	
Cr	Accounts payable control		$264

Cash receipts journal

The source document used to record this journal, in which details of all cash received is recorded, is the duplicate of the cash receipt.

Date	Received from	Ref.	Receipt number	Discount allowed	Accounts receivable $	Cash sales $	GST 10%	Other		Bank
								Amt	Acc.	$
10/5	A. Ashley		75		176.00					176.00

The debits and credits required when posting to the general ledger accounts are:

Dr	Cash at bank	$176	
Cr	Accounts receivable control		$176

Cash payments journal

The source document used for recording cash payments in the cash payments journal is the cheque butt.

Date	Paid to	Ref.	Cheque number	Discount received	Accounts payable $	Cash purchases $	GST 10%	Other		Bank
								Amt	Acc.	$
4/5	B. Barnard		39		231.00					231.00

The debits and credits required when posting to the general ledger accounts are:

Dr	Accounts payable control	$231	
Cr	Cash at bank		$231

The following are samples of two of the various specialised journals used by an organisation. Again it should be noted that the use of specialised journals depends on the needs of the organisation.

Sales returns journal

This journal is used by the selling organisation for recording details of each sales return. The source document used to record this journal is the copy of the adjustment note to the customer.

Date	Adjustment note number	Particulars of accounts receivable	Ref.	Sales returns $	GST adjustment $	Total credit $
7/4	37	A. Redford		20.00	2.00	22.00

The debits and credits required when posting to the general ledger accounts are:

Dr	Sales returns	$20	
	GST payable adjustment	$2	
Cr	Accounts receivable control		$22

Purchases returns journal

The source document used to record this journal, in which purchase returns are recorded, is the adjustment note from the supplier.

Date	Adjustment note number	Particulars of accounts payable	Ref.	Purchases returns $	GST adjustment $	Total credit $
3/4	22	B. Barnard		30.00	3.00	33.00

The debits and credits required when posting to the general ledger accounts are:

Dr	Accounts payable control	$33	
Cr	Input tax adjustment		$3
	Purchases		$30

A sample of a general journal, detailing the purchase of an item of office equipment (an asset) for $1000 on credit from Office Supplies Ltd (a liability), is as follows:

Date	Particulars	Debit $	Credit $
10/5	Office equipment Input tax credit conrol Office Supplies Ltd (Credit purchase of office equipment)	1 000 100	 1 100

Note that the format of the general journal differs from specialised journals in that:

- accounts that are debited and credited are specified
- a short narrative describing the transaction is written.

The posting process

When a business purchases goods from Vendor A on credit, for example, the purchase is first recorded in the purchases journal. Each such credit purchase is similarly recorded in this journal. Periodically, the total of the purchases journal is posted to the credit of the accounts payable control account in the general ledger and debited to the purchases account in the general ledger (to complete the double entry). At the same time, the individual vendor account is credited with the appropriate amount in the accounts payable subsidiary ledger.

The chart of accounts

The accounts in the ledger should be arranged in a logical manner. This is achieved by assigning each account with a unique number or **account code**. The list of all the account names and account codes of an organisation is called a **chart of accounts**. The chart of accounts is structured in such a way that it eases the work of preparing financial statements and reports. The chart of accounts also helps in assigning the correct account in the posting process. It reduces the chances of making errors while posting. A well-designed chart of accounts accomplishes the following:

- It provides an adequate description of each account, which guides the staff in the consistent use of the account codes.
- It clearly distinguishes between account titles which helps to minimise ambiguities concerning the contents of the accounts.
- It assists in the preparation of the required reports.

The chart of accounts should record, in sufficient detail, the particulars of enough individual accounts to allow for the information needs of the organisation. It is essential that this is understood and applied at the outset as the accounts will generally be summarised to cater for the various information needs of different levels of staff. It will be difficult for each account to be broken down and reported on in greater detail if this is needed later on. Further, the allocation of account codes should be such that new accounts, when needed, can be easily added without disturbing the general structure of the chart.

Figure 2.6 shows a sample chart of accounts. It is grouped into assets, liabilities, equity, revenues and expenses. The first digit denotes the major group (i.e. assets, liabilities and so on). The second digit represents any subdivision within each major group. Notice that the account codes are arranged in such a manner that additional codes can be inserted as necessary to cater for future information needs as well as future business growth. For example, if P & S Furniture Mart decided to undertake furniture repairs in the future, an account named 'Revenue—Repair services' with account code 42000 can be created.

Information for decision making

The second function of an accounting information system is to process data into information which is used for decision-making purposes. This information is provided in the form of reports. The reports can be categorised into two groups, namely, **financial statements** (financial performance and position reports) and management reports.

Financial statements

Financial statements reveal the progress of a business over a stated period of time. In Australia, it is the general practice that these statements are prepared for a period of twelve months commencing on 1 July of one year and ending on 30 June of the

Account name	Account code
Assets (10000–19999)	
Current assets (11000–12999)	
Cheque account	11110
Accounts receivable control	11200
Provision for doubtful debts	11210
Inventory	11320
Prepaid expenses	12200
Fixed assets (13000–13999)	
Buildings	13110
Accumulated depreciation–buildings	13120
Equipment	13210
Accumulated depreciation–equipment	13220
Furniture and fixtures	13310
Accumulated depreciation–furniture and fixtures	13320
Motor vehicle	13410
Accumulated depreciation–motor vehicles	13420
Liabilities (20000–29999)	
Current liabilities (21000–21999)	
Accounts payable	21100
Accrued wages	21210
PAYG payable	21230
GST collected	21310
GST paid	21320
Long-term liabilities (22000–22999)	
Loans payable	22200
Equity accounts (30000–39999)	
Capital	31000
Revenue reserves	32000
Capital reserves	33000
Revenues (40000–49999)	
Sales	41000
Cost of sales (50000–59999)	
Purchases	51000
Freight	52000
Expenses (60000–69999)	
General and administration (61000–61999)	
Salaries and wages	61100
Rent and rates	61200
Depreciation	61300
Electricity	61500
Telephone	61600
Motor vehicle expenses	61700
Selling and distribution (62000–62999)	
Salespersons commission	62200
Advertising	62300
Finance (63000–63999)	
Bad debts	63100
Discount expense	63300
Interest expense	63400

Figure 2.6 A sample chart of accounts for P & S Furniture Mart

following year. This period of twelve months is called the financial year. In other countries, different start and end dates for the financial year are used to prepare reports. Management, investors, financial institutions, government agencies and others use financial statements for various purposes. A financial statement can be prepared for a shorter period, such as weekly, monthly or quarterly, for internal use by management (e.g. control purposes). Investors, lenders and other interested parties use financial statements to gain an understanding of the financial situation of the business and why changes have occurred.

There are three main financial statements:

1. Statement of financial performance (profit and loss statement)
2. Statement of financial position (balance sheet)
3. Statement of cash flows.

Revenue and expenses are reported in the statement of financial performance.

Assets, liabilities and owner's equity are reported in the statement of financial position.

The statement of financial performance (profit and loss statement)

The statement of financial performance shows the profit or loss made by a business in a financial year (or a shorter time period). The profit is calculated by deducting all **expenses** from the **revenue** for the period. The term 'revenue' describes all sources of income for a business. The revenue earned by performing a service is called fees revenue and that derived from selling a product is known as sales revenue. Other revenues include rent received, interest received, dividends received and royalties received.

The major expense for a merchandising business is the cost of goods sold (COGS) and for a manufacturer it is the cost of goods manufactured (COGM). The cost of goods sold is the cost of the inventory the business has sold during a period. It is the sum of the cost of purchasing the inventory, transport and storage costs, if any, and other associated costs, like customs duty if the inventory is imported. For a manufacturing business, the total cost of manufacturing consists of raw material costs, wages, and other miscellaneous costs to do with items directly used in the manufacture of the product. The cost of sales for a service business is the cost of the services provided and is arrived at in a similar manner to that of the cost of goods manufactured.

Other expenses of a business are classified into three categories. They are:

1. General expenses of administration—salaries, rent, rates, electricity and depreciation of assets.
2. Selling and distribution expenses—advertising, salaries for salespeople, commissions and vehicle expenses for salespeople.
3. Finance expenses—interest payments, discounts and bad debts.

It is usual to distinguish between two types of profit with regard to the statement of financial performance. One type of profit is **gross profit** and the other is **net profit**. Gross profit is the difference between sales and the cost of sales. It is also known as the gross margin. If the cost of sales is greater than the sales then a loss occurs. This loss is called a **gross loss**. Net profit is the difference between the gross profit and the other expenses of the business such as general expenses, selling and distribution expenses, and finance expenses. If the total of these expenses is greater than the gross profit, a net loss results. If there was a gross loss, then, after deducting the other expenses, a **net loss**, which is greater than gross loss, occurs.

Statement of Financial Performance for the year ended 30/6/2003	
	$('000s)
Sales	930
less Cost of sales	560
Gross profit	370
less Other expenses	260
Net profit	**110**

Figure 2.7 A sample statement of financial performance

The statement of financial position (balance sheet)

The statement of financial position is a statement of the assets, liabilities and owner's equity of a business at any point in time.

Assets are classified into current assets and non-current assets:

- Current assets These are cash, and other assets easily convertible to cash. Examples of current assets are cash at bank, accounts receivable, inventory, short-term investments and prepayments.
- Non-current assets These are all assets other than current assets. These are acquired to be kept for use in a business over a long period. They are also called long-term assets. Examples include factory buildings, plant and machinery, motor vehicles and furniture.

Liabilities are classified into current liabilities and non-current liabilities:

- Current liabilities These are debts to be paid by a business to outsiders within the period of a year. Examples include payments to trade creditors, bank overdrafts and short-term loans.
- Non-current liabilities These are the liabilities of a business other than current liabilities. They are debts owed to outsiders by the business, payable after a year. They are also called long-term liabilities.
- Owner's equity This is the liability of a business to its owner(s). **Reserves** are part of the owner's equity. These are the retained profits of a business and are referred to as revenue reserves. Unrealised profits resulting from revaluation of assets and any unexpected profits are capital reserves and are used for specific purposes.

Statement of Financial Position as at 30/6/2003		
	$('000s)	$('000s)
Equity		
Capital		200
Retained profits		320
Other reserves		130
		650
Represented by:		
Current assets	546	
less Current liabilities	386	
Working capital		160
Non-current assets	780	
less Non-current liabilities	290	
		490
		650

Figure 2.8 A sample statement of financial position

The statement of cash flows

The statement of cash flows shows the changes in an organisation's cash situation between the beginning and end of an accounting period.

Statement of Cash Flows for year ended 30/6/2003		
	$('000s)	$('000s)
Opening cash balance		130
add Cash receipts		
Sales	890	
Other	80	970
		1 100
less Cash payments		
Purchases	580	
Others	290	870
Closing cash balance		230

Figure 2.9 A sample statement of cash flows

Preparing financial statements

When preparing financial statements, the first step is to undertake a trial balance of all account balances in the general ledger. This is done by listing all debit account balances and all credit account balances in two adjacent columns. If the postings to the general ledger were error free, the two totals should agree. The trial balance is so named because it helps to verify the accuracy of ledger postings by ensuring that the debit and credit columns agree. If there were posting errors and other errors due to transposition of figures or additions, for example, then the trial balance will not balance. Despite these limitations, the trial balance is a useful device and a stepping stone for the preparation of full financial statements.

When a trial balance fails to agree, the following steps can be followed to locate a few common errors.

1. Check all postings, debits, credits and additions again for accuracy.
2. Add the two columns again, preferably by starting from the bottom of each column when keying in the numbers.
3. If there are no mistakes yet, determine the difference between the totals of the two columns and divide the difference by two. See if the resulting figure appears in one of the columns. If it appears, it is likely to be in the wrong column.
4. Failing the test in Step 3, try dividing the difference between the column totals by 9. If the difference is exactly divisible then the chances are that a number has been transposed. For example, 891 may have been transposed as 819.

After the trial balance is prepared and checked for accuracy, adjusting entries are made to obtain meaningful information. Depending on the way the ledger is maintained, the adjusting entries can be made for items such as inventories in hand, accrued or prepaid expenses and provisions for doubtful debts. For example, insurance premiums paid may have been debited either to an expense account (insurance), or to an asset account (insurance prepaid). If the original debit was to the insurance account, the 'unspent' portion of the amount prepaid needs to be transferred to the insurance prepaid account. On the other hand, if the original debit was to the prepaid insurance account, then the 'spent' portion of the amount applicable to the period of the report is to be transferred to the insurance expense account. After all such adjustments have been made and checked, the resulting trial balance is called an adjusted trial balance.

The statement of financial performance is prepared from the adjusted trial balance using the revenue and expenses groups of accounts. These accounts are closed, therefore transferring the net balance to the retained profit/revenue reserve account. The balances left over in other accounts, assets, liabilities and equity form the basis for preparing the statement of financial position. It should be noted that once a trial balance is prepared there is no need to make any further entries to the general ledger unless it is necessary to close the general ledger, say, at the end of the financial year. By adding the required sets of columns on to the trial balance, the whole set of adjustments can be made on the trial balance.

The statement of cash flows is prepared using information from the statement of financial performance and the statement of financial position.

Management reports

The accounting information system also provides specialised reports for management control purposes. These reports are prepared to cater for the specific requirements and information needs of the person requiring them. For example, David and Mary may need the following reports detailing:

- inventory levels
- profitability of each product
- performance of each salesperson
- daily cash balances and commitments
- extent of back orders.

When data is captured from a source document, non-financial (operational) data on the business transaction is recorded in addition to the financial data. The accounting information system is designed to capture both sets of data and integrate them in the production of management reports.

It may also be necessary to collect data from external sources, such as customers and suppliers, and combine it with the internally available data to produce management reports. For example, it may not be sufficient to just measure and report on how long it takes to complete and deliver customer orders. Knowledge about customer satisfaction is also essential for the organisation's efficient performance. Usually this information can only be gleaned from external sources (i.e. customers themselves). While the former gives an idea of how well the organisation performs internally, the latter compares how well the organisation performs in relation to its competitors.

Internal control issues

A third function of accounting information systems is to provide adequate **internal controls** to:

- facilitate the capture of reliable business data by preventing errors and irregularities
- safeguard assets and business data
- enable the execution of management objectives in accordance with established policies.

The following principles are used to achieve the above aims:

- Documented procedures The procedures used to carry out the transactions of the organisation, the various personnel involved and the levels of authority and responsibility should be clearly documented. Personnel should strictly follow procedures when performing their duties.
- Quality of personnel The personnel involved should be reliable and should have the capacity and qualifications necessary to carry out the duties to which they are assigned.
- Segregation of duties The responsibility for a transaction should be assigned in such a way that the work of one employee provides a crosscheck on the work of one or more employees.
- Authorisation Every transaction has to be authorised by personnel who have appropriate authority and who will act within the scope of that authority.

- Documentation Every transaction should be documented and the authorisation for that transaction should be in the form of the signature of the person who authorised the transaction. These authorisation documents should be serially numbered in order to physically control them and ensure that none go missing.
- Recording of transactions The transactions are recorded properly and the relevant reports are made to users.
- Physical controls Preventing unauthorised personnel from handling the assets and documents of the organisation enforces physical controls.
- Internal verification The procedures of internal control are verified by personnel who are not involved in carrying out these procedures. This is done to assess the reliability of the procedures.

The impact of information technology on accounting information systems

An accounting information system records, processes and reports on internal events as well as events from an organisation's environment. When this system is only composed of human resources it is a manual system. Conversely, if the system is only composed of computer resources (which is highly unlikely), we could call it a computerised system. When both human and computer resources are used, the accounting system is called a computer-based accounting system.

The way accounting information is processed has changed due to the invention of computers and advancements in computer technology. The term 'information technology' (IT) refers to the processing of information using computer systems. Computers assist in processing high volumes of data at high speeds. Since their invention, the power of computers has increased tremendously because of improvements in technology. Computers have now become affordable to everyone. Manual accounting has become virtually nonexistent except in businesses where only a few transactions are involved. Therefore, it is important to have an understanding of the use of IT in the accounting information system of an organisation.

Computer processing of accounting information

A computer system primarily consists of hardware and software. The physical machine (i.e. hardware) cannot function alone. The computer has to be given instructions to tell it what to do. These instructions are called software or computer programs. There are two types of software. The operating system software gets the computer up and running and application software provides the instructions the computer needs to perform specific tasks such as preparation of the payroll. The components of a computer include a central processor unit (CPU), its support processors, secondary storage, and input and output devices.

The basic components of a computer are the same irrespective of the size of the computer. The central processor, support processors and secondary storage are generally housed in one box. The input devices include a keyboard, and magnetic and optical readers such as tape drives, disk drives and compact disk readers. Output devices include the visual display unit (VDU), the printer, and magnetic and optical writers such as tape drives, disk drives and compact disk writers. Automatic teller machines (ATM) and point of sale systems (POS) are some of the popular devices which serve as both input and output devices.

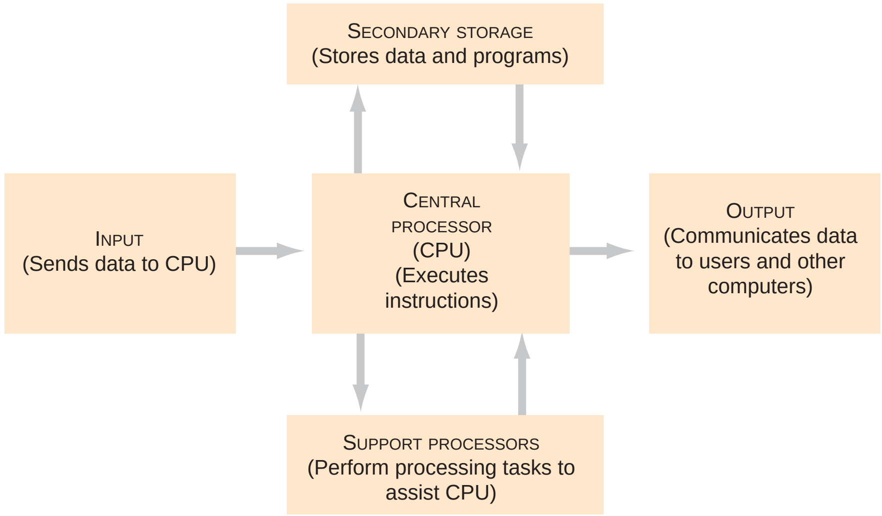


Figure 2.10 The components of a computer

The central processor unit executes the instructions given to it by the computer program. The central processor unit generally consists of a control unit, an arithmetic logic unit and a primary memory module. The control unit controls the access to programs, processing flow and storage flow. It directs the activities of the computer but does not participate in them. The arithmetic logic unit performs the computational and logical work. Primary memory acts as an immediate storage of instructions for the arithmetic logic unit. Support processors are generally dedicated processors that perform special functions, such as communication, and audio and video processing. Secondary storage is a device that stores data outside the central processing unit. Generally, on a personal computer, it is known as the hard drive.

Data is stored in **fields** or data items. Examples of fields include a customer account number, invoice number, employee number, and employee name. An organised collection of fields is referred to as a logical record or **record**. For example, an employee record may consist of fields such as employee number, name, address, rate of pay and Tax File Number (TFN). A collection of related logical records is called a **file**. Examples include payroll, purchase orders, and so on. Therefore, a file is a collection of a set of related data. The frequency with which data changes varies with the type of data. For example, to prepare the amounts payable to employees for a particular week we need data on the employee rates of pay, say, dollars per hour, and the number of hours the employees work during the week. The data related to the rate of pay of employees is changed at intervals longer than the changes to other data. This change may take place annually when there is a change in the award rate or when an employee is moved to another grade. As opposed to this data, the data on the hours worked varies from week to week.

Computer files can be grouped into a **master file**, which contains the data that is more or less of a permanent nature, and a **transaction file**, which contains data that is frequently updated. The master file of employees might contain the name, age, address, commencement date, position and the rate of pay of each employee in the organisation. On the other hand, the data relating to an employee's hours of work, for a week, which is transient in nature, are updated every week and are contained in a transaction file. The data from the transaction file in conjunction with data from the master file are used to calculate each employee's weekly pay. In addition to data from the two types of files, data relating to some permanent information, such as income rates and the rate of the superannuation guarantee levy, are necessary to complete the calculation. These data, though stored in files that come under the master file group, are sometimes referred to as the reference file group.

The files need to be organised in such a manner that accessing the data in them should be efficient and effective so as to reduce the processing time. As mentioned, a file contains records and these records are identified by assigning a unique attribute, referred to as the primary key, to one of its fields. For example, in an inventory record the primary key could be the inventory code and in an accounts receivable record the primary key could be the customer number. A secondary key identifies a group of records in a file. This secondary key is assigned to a field that identifies certain properties that a group of records have in common. That is, secondary keys can be used to sort records. The due date of the amount receivable in accounts receivable records and the classification level of an employee in employee records are examples of secondary keys. The former is used to extract a schedule of amounts receivable on a particular date and the latter is used to identify the employees at a particular classification level. Similarly, other keys can be assigned when the computer system is designed, to facilitate the efficiency of the computer system.

The data stored in the files are periodically updated. The process of updating or data maintenance is categorised into:

- Additions—inserting new records in the files
- Deletions—removing records from the files
- Changes—modifying the data values in the files
- Updates—revising current balances in the files.

Online real-time processing and batch processing

Data maintenance can take place at the same time that an entry is made to the computer system. For example, when a sales order clerk receives an order over the telephone, the order is entered on the computer system, which immediately updates the other related files to process the order. This process is known as online real-time processing. In contrast, the data on the order received can be temporarily collected in a computer file. The data in this file are used at set times to update the other related files. As the updating takes place in batches, this process is known as batch processing. In the past, computer systems consisted of a number of individual computers due to limitations in their processing and data storage capacity. Therefore, batch processing, in which a magnetic medium such as tapes was used to transfer data from one computer to another, became popular. Advancements in technology, especially in increasing the processing and storage capacity of computers, have meant that batch processing has given way to online real-time processing, except where a high volume of transactions favours batch processing.

Computer accounting software packages

The application software, not the operating system software, makes the computer suitable for accounting functions. The application software (i.e. accounting software) can be either purchased as a package or built to order. For a small business that only requires a simple cashbook, a number of software packages are available. These help to keep track of incoming and outgoing transactions and are adequate for looking after simple, everyday transactions. However, they do not provide enough detail to manage the finances without the support of an accountant.

The next level of products, which generally aim at small and medium-sized businesses, provides for maintaining a complete set of records of accounting transactions and may have features which provide information useful for making lower-level decisions. Some products in this category include *Solution 6*, *Attache*, *Sybiz*, *MYOB* and *Quick Books*. Some of the above packages have upgraded versions to cater for advanced accounting needs. Calculating GST and producing Business Activity Statements (BAS) are crucial activities of any business and these features are contained in most of these accounting software packages.

There are a number of high-end tools available for processing a large volume of transactions, complicated transactions involving many currencies, and product and service revenues that also would fulfil the information needs of management. An example of this sort of package would be the *SAP* accounting package, which is promoted as being an Enterprise Wide System (EWS).

If needed, organisations can get software accounting systems written specifically to deal with every peculiarity of their business.

Equivalent terminology

Computer-based accounting systems are now used by most organisations. It is important that we learn both computer and manual methods as each organisation's computer-based system has a different mix of each method. Since inception, the processing of information using computers has resembled the manual system except for integrated computer systems where a single data entry populates the area where that data is required. The following table shows the terminology used in manual accounting and its counterpart in computer accounting.

Table 2.1 Terminology used in manual and computer accounting

Manual accounting	Computer accounting
Journals	Transaction files
Specialised journals	Cash receipts files Cash payments journal
Journalising	Data entry
Posting	File update
Ledgers	Master files
General ledger	General ledger master file
Subsidiary ledger	Fixed asset master file Inventory master file

Modules in accounting packages

The computer application software packages that are not basic (i.e. catering only for cash transactions) have their functions grouped into several modules. This grouping is done to facilitate the package's development, and ease operations. Also, the groupings increase the user-friendliness of the packages. Most computer accounting packages may have a general ledger module, a cash book module, an accounts receivable module and an accounts payable module. In addition, they may also have an inventory module and a payroll module which completes the general needs of an organisation. These modules are detailed below.

The general ledger module

This module of a computer software package generally consists of facilities to add accounts to or delete accounts from the chart of accounts or modify the particulars of an account. It should be possible to post to the general journal. Financial statements, including a statement of financial performance (profit and loss statement) and a statement of financial position (balance sheet), can be obtained from this module.

The cash book module

In this module, the details of cheque payments and deposits are entered. It also enables the user to perform a bank reconciliation and there are facilities to extract cash reports, such as cash receipts and disbursements journals.

The accounts receivable module

This is also called the debtors module and allows for the entry of details from invoices, adjustment notes (credit notes), customer payments and adjustments. The module also generates invoices and adjustment notes. The module produces reports such as sales analysis, debtor analysis and details of customer balances and transactions.

The accounts payable module

This module is also called the creditors module and allows for the entry of details from supplier invoices, adjustment notes (credit notes) from suppliers, payments to suppliers and adjustments. The module also generates invoices and adjustment notes. The module produces various reports including a creditor analysis balance, year-to-date purchases and payments, and outstanding transaction details.

The inventory module

The inventory module records the inventory purchased and sold. The reports that can be obtained from this module include the quantity and value of inventory in hand and the current price list. The module can be used alone or in conjunction with order entry and invoicing, which updates product information as each order or invoice is accepted.

The payroll module

This module is used to maintain information on employees, and calculate periodic payroll. Reports on employees, like accrued holidays and employee entitlements, are obtained from this module.

The asset register

This is another module which completely stands alone to complement the reporting needs of an organisation. The particulars of each asset such as purchase price, expected life and residual value are recorded in this module. Reports on the list of asset acquisitions, the depreciation schedule, and asset disposals are obtained from this module.

summary

Establishing and operating a business successfully requires business acumen. The various activities of the business have to be mapped out, and appropriate responsibilities must be assigned to various individuals and their performance monitored regularly. Adequate internal controls, which are needed to safeguard business assets, have to be instituted and it must be ensured that they function properly at all times. All transactions have to be evidenced by source documents and these documents have to be properly designed, carefully completed and securely filed. These source documents form the starting point when assessing the financial performance of a business during an accounting period.

The information in the source documents is transferred to journals—preferably on a daily basis. The journals contain similar transactions and, hence, can be totalled and transferred to accounts of various classes of assets, liabilities, revenue, and expenses that are kept in the general ledger. The details of individual accounts of customers, suppliers and inventory are kept in another set of ledgers called subsidiary ledgers. The total of the individual accounts of each category in the subsidiary ledgers is reconciled periodically with the total amounts appearing in the general ledger. The correctness of the general ledger accounts is first verified by preparing a trial balance at the end of the accounting period. Any adjustments required are made at this stage before preparing the financial statements.

There are three main financial statements. One type of financial statement is the statement of financial performance (profit and loss statement) which reveals the profit or loss made by the business for the period. Another statement is the statement of financial position or balance sheet, which shows the state of the assets, liabilities and equity of the business at the end of the accounting period. A third statement, called the statement of cash flows, is prepared to show the movement of cash during the accounting period. The chart of account that dictates the details of information shown in financial statements varies from business to business. The chart of accounts can be tailor-made for a business.

The accounting process becomes painless when using one of the many accounting packages that are now available. The choice of package depends on the capabilities of the package and the requirements of the business.

Checkpoint

1. What are source documents? What purpose do they serve?
2. List five source documents commonly used in any organisation.
3. What are the main points to bear in mind when designing source documents?
4. What are accounting journals (or books of prime entry)?
5. Name four specialised journals.
6. What is a general journal used for?
7. What is a chart of accounts?
8. What does 'postings to ledger' mean?
9. What is the purpose of a posting reference column in journals?
10. What is a control account?
11. What are subsidiary ledgers? Why are they necessary? Give some examples.
12. What are the desired functions of a good accounting package?
13. What is a trial balance? What reasons can be attributed if a trial balance fails to balance?
14. Explain what you understand by the term 'adjusted trial balance'.
15. What are the commonly prepared financial statements?
16. How does computerised accounting differ from manual accounting?
17. Differentiate between a file, a record and a field.
18. What is meant by online real-time processing?
19. Differentiate between the primary key and a secondary key of a record.

Multiple-choice questions

Circle the letter corresponding to the correct answer.

1 Posting is the process of transferring an amount from:
- **(a)** a specialised journal to the ledger
- **(b)** any journal to the ledger
- **(c)** the ledger to a financial statement
- **(d)** a journal to the trial balance

2 The purpose of a trial balance is to:
- **(a)** detect any fraud
- **(b)** indicate whether total debits equal total credits
- **(c)** speed up the process of financial statement preparation
- **(d)** ensure that all transactions have been recorded

3 The first step in the accounting process is:
- **(a)** preparing specialised journals
- **(b)** recording transactions in source documents
- **(c)** preparing journal vouchers
- **(d)** getting the accounting books ready

4 Any adjustments to the accounts are first recorded in a:
- **(a)** subsidiary ledger
- **(b)** specialised journal
- **(c)** general journal
- **(d)** cash payments journal

5 Which of the following is a temporary computer file?
- **(a)** reference file
- **(b)** master file
- **(c)** transaction file
- **(d)** none of the above

6 A journal is:
- **(a)** similar to a transaction file
- **(b)** similar to a reference file
- **(c)** similar to an inventory master file
- **(d)** similar to a fixed asset master file

7 Data hierarchy from highest to lowest level is:
- **(a)** file, record, attribute
- **(b)** attribute, record, file
- **(c)** file, record, key
- **(d)** key, record, file

8 Which of the following is not a principle of good internal control?
- **(a)** segregation of duties
- **(b)** documented procedures
- **(c)** physical control
- **(d)** cost–benefit analysis

9 A difference of $100 between the total debits and total credits in a trial balance could signal that:
- **(a)** the debit column total is $50 more than that of the credit column
- **(b)** the credit column total is $50 more than that of the debit column
- **(c)** an amount of $50 has been inadvertently written in the wrong column
- **(d)** an amount of $50 has been mistakenly included in the trial balance

10 The difference between a primary key and a secondary key with respect to a computer record is that:
- **(a)** a secondary key is a unique attribute that identifies a file while a primary key is not unique
- **(b)** a primary key identifies a group of fields and a secondary key identifies one particular field
- **(c)** a primary key is a unique attribute that identifies a record field while a secondary key identifies a group of records in a file
- **(d)** a secondary key is a second field in a record whereas a primary key is the first field in a record

✔ Activities

1 The accounts receivable ledger shows the following customer details.

John Speirs	$675.15
Mary Campbell	$2 177.40
Jean Rackman	$3 751.50
Ricky Wonting	$1 492.05

The total of these individual customer accounts is $8096.10. However, the accounts receivable control account in the general ledger shows a total of $8921.70. Explain how you will go about detecting the error, and state the amount of the error and why it has occurred.

2 **(a)** How does an accounting system normally identify errors not revealed by a trial balance?
(b) Which of the errors in the following entries would be revealed by a trial balance?

(i)	Dr	Cash	$1 500	
	Cr	Accounts receivable		$1 550
(Received $1500 from a customer Martin Miller.)				
(ii)	Dr	Accumulated depreciation	$2 304	
	Cr	Depreciation		$2 304
(Depreciation for the year.)				
(iii)	Dr	Accounts payable	$900	
	Cr	Cash		$900
(Payment of $909 made to Brad Witt, a supplier for goods ordered but not yet received.)				
(iv)	Dr	Cash	$430	
	Cr	Interest expense		$430
(Interest paid on a loan.)				

3 **Classify the following as belonging to either the transaction processing system or the financial reporting system.**
(a) Posting to the general ledger
(b) Journalising closing entries
(c) Making adjusting entries
(d) Preparing financial statements
(e) Recording transactions in specialised journals
(f) Preparing an adjusted trial balance
(g) Posting to a subsidiary ledger
(h) Capturing transactions on source documents

4 **Design a chart of accounts for a company wishing to have the following accounts in their ledger.**

Cash at bank
Accounts payable
Accounts receivable
Prepaid insurance
Delivery truck
Inventory
Investments in shares of ABC Ltd
Accumulated depreciation—delivery truck
Wages payable
GST payable
Equipment

Land
Office supplies inventory
Depreciation expense
Furniture and fittings
Loans payable
Accumulated depreciation—furniture and fittings
Building
Accumulated depreciation—building
Accumulated depreciation—equipment
Sales

Interest expense
Dividend income
Sales returns
Cost of goods sold
Wages expense
Office supplies expense
Electricity expense
Telephone expense
Advertising expense
Fuel expense
Retained earnings

5 **Design the following source documents for a local motor repair shop:**
(a) Repair services invoice
(b) An adjustment note
(c) Customer receipt.

6 **The following is a chart of accounts for a restaurant operated in partnership by Partner A and Partner B.**

Account number	Account title	Account number	Account title
1-0000	**Assets**	3-1200	Partner B
1-1000	Current assets	3-1210	Partner B capital
1-1100	Cash on hand	3-1220	Partner B drawings
1-1110	Cheque account	3-8000	Retained earnings
1-1120	Payroll cheque account		
1-1140	Petty cash	4-0000	**Revenues**
1-1200	Trade debtors	4-1000	Food sales
1-1210	Provision for doubtful debts	4-2000	Beverage sales
1-2200	Prepayments	4-3000	Catering fees
1-3000	Property, plant and equipment	4-4000	Rental fees
1-3100	Kitchen equipment	4-5000	Delivery charges
1-3110	Kitchen equipment at cost	4-6000	Late fees collected
1-3120	Kitchen equipment accumulated depreciation	4-7000	Miscellaneous income
1-3200	China, glass, silver, linen	5-0000	**Cost of sales**
1-3210	China, glass, silver, linen at cost	5-1000	Food purchases
1-3220	China, glass, silver, linen accumulated depreciation	5-1100	Beverage purchases
		5-2000	Freight
1-3300	Office equipment		
1-3310	Office equipment at cost	6-0000	**Expenses**
	accumulated depreciation	6-1000	Purchases
1-3320	Office equipment	6-1100	Advertising
1-3400	Motor vehicles	6-1200	Depreciation expense
1-3410	Motor vehicles at cost	6-1300	Discounts
1-3420	Motor vehicles accumulated depreciation	6-1310	Discounts given
		6-1320	Discounts taken
		6-1400	Dues and subscriptions
2-0000	**Liabilities**	6-1500	Employees' meals
2-1000	Current liabilities	6-1600	Insurance
2-1100	Credit cards	6-1800	Laundry and cleaning
2-1110	Bankcard	6-2000	Legal and accounting
2-1120	Diners Club	6-2100	Maintenance
2-1130	MasterCard	6-2200	Other fees
2-1140	Visa	6-2300	Kitchen supplies
2-1200	Trade creditors	6-2400	Employment expenses
2-1300	GST liabilities	6-2410	Wages and salaries
2-1310	GST collected	6-2420	Other employer expenses
2-1330	GST paid	6-2500	Postage
2-1360	Import duty payable	6-2600	Rent
2-1400	Payroll liabilities	6-2800	Telephone
2-1410	Payroll deductions payable	6-2900	Travel and entertainment
2-1600	Customer deposits	6-3000	Uniforms
2-1700	Other current liabilities	6-3100	Services
2-2000	Long-term liabilities	6-3110	Electricity
2-2100	Bank loans	6-3120	Gas
2-2200	Other long-term liabilities	6-3130	Water
3-0000	**Equity**		
3-1000	Partners' equity		
3-1100	Partner A		
3-1110	Partner A capital		
3-1120	Partner A drawings		

(a) How is the above chart structured? Does it meet the information needs of decision makers?

(b) How will you modify the chart to provide suitable information to management if the company wishes to make the following changes for the next financial year: (i) admit another partner, Partner C; and (ii) obtain a licence to sell liquor (beer, spirits and wines) on the premises?

7 **The individual amounts in a number of sales invoices were added to obtain a batch total. All the figures and the total were checked and found to be accurate. The invoice amounts were transferred to journals first, then to ledger accounts, and finally to a trial balance listing. One processing error occurred in each process. Identify these errors.**

Original figures $	Figures appearing in sales journal $	Figures appearing in ledger accounts $	Figures in the trial balance listing $
2 420.41	2 420.41	2 420.41	2 420.41
989.91	989.91	989.91	989.91
630.95	630.95	630.95	630.95
1 752.19	–1 752.19	1 752.19	1 752.19
1 080.63	1 080.63	1 080.63	1 080.63
3 045.54	3 045.54	3 045.54	3 054.54
1 848.28	1 848.28	2 848.28	1 848.28
1 175.08	1 175.08	1 175.08	1 175.08
1 032.34	1 032.34	1 032.34	1 032.34
13 975.33	**10 470.95**	**14 975.33**	**13 984.33**

8 **An employee has randomly written down the following which represent record types, primary keys and secondary keys relating to the records of his company.**

- Accounts receivable
- Vendor number
- Accounts payable
- Inventory
- Fixed assets
- Payroll
- Asset number
- Employee number
- Customer name
- Location of asset
- Payroll date
- Payment due date to supplier
- Customer credit limit
- Date of acquisition of asset
- Customer balance

List the appropriate items under each heading in the following table.

Record type	Primary key	Secondary key

9 **Assume that you want to open a bookstore selling textbooks, other books, stationery, and printing supplies. You would like to design an accounting information system that will give proper and timely financial and operating information. Explain the details of information you would like to see in the:**

(a) Chart of accounts
(b) Journals
(c) Financial statements.

10 **For the following types of businesses, design the journals to use for recording the accounting transactions.**

(a) Doctor's surgery with customer billing
(b) Department store
(c) Pharmacy

11 **The following information relates to the service business of A & B Electricals.**

At 1 June, electrical material on hand is valued at $700. A. Arnold and B. Brighton are accounts receivable for $275 and $330 respectively. The net cost of vans and equipment is $30 000. Cash at bank is $2000. C. Carter is a creditor for $1760 and the capital is $31 650. GST receivable is $105. The following transactions took place in June. GST at 10% needs to be included for purchases, sales and returns.

DATE June	Transaction details	Document	Amount $
3	Completed a contract for XYZ Ltd and sent an invoice	Invoice number 21	10 000
3	Cash received from a domestic job	Receipt number 10	660
3	Purchased electrical materials from C. Carter	Invoice number 88	700
4	XYZ Ltd paid $5000 as part payment	Receipt number 11	5 000
5	Paid wages	Cheque number 189	1 200
7	Cash purchases of electrical material	Cheque number 190	264
8	Performed a job for B. Brighton	Invoice number 22	410
10	B. Brighton paid all amounts due	Receipt number 12	781
10	Wrote off A. Arnold accounts as bad		275
10	Bought electrical materials from D. Dunn	Invoice number 110	850
12	Returned goods worth $110 to D. Dunn	Adjustment note number 14	110

Required:

(a) Enter the above transactions in the appropriate journals.
(b) Open the relevant accounts in the ledgers with the opening balances at 1 June.
(c) Post the journals into the general ledger account and subsidiary ledger accounts.
(d) Reconcile a summary of the subsidiary account balances with the control account.
(e) Prepare a trial balance as at 12 June.

Case study

You have been appointed as the financial controller for a family-owned manufacturing business which has been in existence for ten years. The business supplies parts to the automotive industry. The business's operating divisions are heat treating, extruding, small parts stamping and specialised machining.

The divisional accounting system has evolved according to the respective needs and abilities of individual accountants and bookkeepers. You have decided that your first task is to design a new financial reporting system that should:

- give managers uniform, timely, and accurate reports on divisional and overall performances for each month, by the tenth of the following month
- show the assets assigned to each division, together with details of revenue generated and expenses incurred by each division
- generate meaningful budget data for planning and decision making
- enable measurement of cost centre variances for both operating and non-operating units.

You feel that a new chart of accounts is essential for the above activities because the present account codes used by divisions are not standardised and therefore do not facilitate a uniform reporting system. The new chart of accounts should facilitate processing of transactions both manually and using a computer, and the length of each code should be restricted for economic processing and convenient use. You decide to divide the accounts into six major categories: Current assets, Plant and equipment, and so forth. There is a need for a maximum of nine control accounts within each category. Sixty subsidiary accounts are more than adequate for each control account.

None of the divisions has more than five major product groups. The maximum number of cost centres within any group is six, including operating and non-operating groups. The general divisional costs are to be regarded as a non-revenue producing product group.

Design a chart of accounts and explain the coding system used.