Sunday, October 18, 2020 8:48 PM

Preview from Notesale.co.uk
Page 1 of 54

MANAGEMENT RESPONSIBILITY AND PERFORMANCE MEASUREMENT

Saturday, October 17, 2020 11:42 PM

Responsibility centres

- A responsibility centre is a function or department of an organisation that is headed by a manager who has direct responsibility for its performance.
- *Responsibility accounting* is a system of accounting that segregates revenue and costs into areas of personal responsibility in order to monitor and assess the performance of each part of an organisation.

Cost centres

- A cost centre is any section of an organisation to which costs can be separately attributed.
- A cost centre is a production or service location, function, activity or item of equipment for which costs are accumulated.
- To collect costs to a cost centre, each cost centre will have a cost code. Items of expenditure will be recorded with the appropriate cost code. For example, the equipment maintenance department in a printing factory would be one example of a cost centre.
- Information about cost centres might be collected in terms of total actual costs, total budgeted costs and total cost variances (the differences between actual and budgeted costs). In addition, the information might be analysed in terms of ratios.

Cost centres may include the following.

- A department (as in our example above)
- A machine or group of machines
- A project (eg the installation of a new computer system)
- A new product (to enable the costs of development and production to be identified)
- A person (eg a marketing director. Costs might include salary, company car and other expenses incurred by the director)

Profit centres

- A profit centre is any section of an organisation to which both revenues and costs are assigned, so that the profitability of the section may be measured.
- A profit centre is part of a business accountable for both costs and revenues.
- Profit centre information is needed by managers who are responsible for both revenue and costs. For example, an individual branch of a hairdressing chain would incur costs and generate revenue.
- The manager of the profit centre has some influence over both revenues and costs, that is, a say in both sales and production policies.

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Page 20 of 54

Examples of profit centres

- A sales division selling products to customers
- A service division providing after sales service
- Individual shops in a retail chain
- Local branches in a regional or nationwide distribution business
- A geographical region eg a country or group of countries
- A team or individual eg a sales team, a team of equipment installers

Investment centres

- An investment centre is a centre which has additional responsibilities for capital investment.
- Investment centres refer to centres with additional responsibility for capital investment and possibly for financing, and whose performance is measured by its return on capital employed.
- Managers may or may not have the power to make decisions about capital investment – senior management quite often retains control over decisions on high value investments.

- **Cost centres collect information on costs**
- **Profit centres collect information on costs, revenues and profits**
- **Investment centres collect information on costs, revenues and profits in relation to the value of non-current assets and working capital**

Performance measures

- Performance measurement aims to establish how well something or somebody is doing in relation to a planned activity.

Cost per unit is total costs ÷ number of units produced.

- Performance measures for materials and labour include differences between actual and expected (budgeted) performance. Performance can also be measured using the standard hour.

- Standard hours are useful in computing levels of efficiency, capacity utilisation and production volume (or activity). Any management accounting reports involving budgets and variance analysis should incorporate control ratios.
- The three main control ratios are the efficiency, capacity utilisation and production volume ratios.
  (a) **The efficiency ratio** measures the efficiency of the labour force by comparing equivalent standard hours for work produced and actual hours worked.
  (b) **The capacity utilisation ratio** compares actual hours worked and budgeted hours, and measures the extent to which planned utilisation has been achieved.
  (c) **The production volume ratio** compares the number of standard hours equivalent to the actual work produced and budgeted hours.

  Efficiency ratio = Standard hours of actual production × 100% ÷ Actual hours worked

  Capacity utilisation ratio = Actual hours worked × 100% ÷ Budgeted hours

  Production volume ratio = Standard hours of actual production × 100% ÷ Budgeted hours

- The capacity utilisation ratio multiplied by the efficiency ratio gives us the activity or production volume ratio: 109.1% × 93.8% = 102.3%, ie output, as measured in standard hours, was 2.3% above budget with higher than budget hours more than offsetting the below budget efficiency.
- Ratios and percentages are useful performance measurement techniques.
- The net profit margin (net profit to sales ratio) is calculated as (profit ÷ sales) × 100%.
- The net profit margin (net profit to sales ratio) is calculated as (net profit ÷ sales) × 100%.
- The net profit margin provides a simple measure of performance for profit centres. Investigation of unsatisfactory profit margins enables control action to be taken, either by reducing excessive costs or by raising selling prices.
- Profit margin may be calculated using either net profit or operating profit. You should always state which margin you have calculated – 'net profit margin' or 'operating profit margin'.
- The operating profit is the difference between the value of sales (excluding sales tax) and the costs incurred during operations (total operating expenses).
- *The gross profit margin is calculated as gross profit ÷ sales × 100%.*
- Gross profit is the difference between the value of sales (excluding sales tax) and the cost of the goods sold.

Preview from Notesale.co.uk
Page 21 of 54

Performance measures for investment centres

- Return on capital employed (ROCE) or return on investment (ROI)) shows how much profit has been made in relation to the amount of resources invested.
- ***Return on capital employed (ROCE) (also called Return on investment (ROI)***) is calculated as (profit/capital employed) × 100% and shows how much profit has been made in relation to the amount of resources invested.
- Residual income (RI) is an alternative way of measuring the performance of an investment centre. It is a measure of the centre's profits after deducing a notional or imputed interest cost.
- Residual income (RI) is profit before interest and tax less a notional interest charge for invested capital.
- *Asset turnover* is a measure of how well the assets of a business are being used to generate sales. It is calculated as (sales ÷ capital employed).
  Return on capital employed = Asset turnover × Net profit margin

QUESTIONS

1 A function or department of an organisation that is headed by a manager who has direct responsibility for its performance is called:
A A profit centre
B An investment centre
C A cost centre
D A responsibility centre

2 What is the main aim of performance measurement?
A To obtain evidence in order to dismiss someone
B To establish how well something or somebody is doing in relation to a planned activity
C To collect information on costs
D To award bonuses

SOURCE DOCUMENTS AND CODING

Sunday, October 18, 2020 12:22 AM

Coding

- A code is a system of words, letters, figures or symbols used to represent others.
- For elements of cost and income to be correctly analysed, classified and recorded they must initially be correctly coded for entry into the accounting records.
- Most organisations use computers to record their accounting transactions because they have the following advantages.
  - They record and retrieve information quickly and easily.
  - They are automatically accurate and have built in checking facilities.
  - They can file a large amount of information in a small space.
  - They are capable of sorting information in many different ways.
- A good coding system will possess the both of the following features:
  - Items each have a unique code
  - Codes are uniform in structure and length

Types of code

(a) **Sequential (or progressive) codes**

- Numbers are given to items in ordinary numerical sequence, so that there is no obvious connection between an item and its code. For example:

000042 4 cm nails
000043 Office stapler
000044 Hand wrench

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Page 24 of 54

(b) ***Block (or group classification) codes***

- These are an improvement on simple sequences codes, in that a digit (often the first one) indicates the classification of an item. For example:

4NNNNN Nails
5NNNNN Screws
6NNNNN Bolts
(Note. 'N' stands for another digit; 'NNNNN' indicates there are five further digits in the code.)

(c) **Faceted codes**

- These are a refinement of block codes, in that each digit of the code gives information about an item. For example:

(i) The first digit: 1 Nails
2 Screws
3 Bolts etc…
(ii) The second digit: 1 Steel
2 Brass
3 Copper etc…
(iii) The third digit: 1 50mm
2 60mm
3 75mm etc…
A 60mm steel screw would have a code of 212.

(d) **Mnemonic codes**

- Meaning of mnemonic is a learning technique to aid the memory. Under this type of coding the code means something, it may be an abbreviation of the object being coded. A well-known example of this type of code is the three letter coding used for airports. For example:

does, and they are updated from the same sources: GRNs, MRs and MRNs. But there are two important differences.
1. Cost details are recorded in the stores ledger account, so that the unit cost and total cost of each issue and receipt is shown. The balance of inventory after each inventory movement is also valued. The value is recorded as these accounts form part of the costing bookkeeping records.
2. The stores ledger accounts are written up and kept in the costing department, or in a stores office separate from the stores by a clerk experienced in costing bookkeeping.

- Stores ledger accounts are very often computerised, and this would enable the amount of free inventory to be monitored.
- **At any point in time the amount of free inventory can be calculated as inventory on hand plus inventory on order less any inventory that has been scheduled for use.**
  Free inventory is inventory on hand + inventory on order – inventory that has been scheduled for use.

Documents for labour costs

- Hourly paid workers are generally paid a flat rate per hour with a premium for overtime hours. The hours worked are often recorded on clock cards, job cards or timesheets.
- Labour costs are an important element of total costs. Labour costs include wages (usually weekly) and salaries (usually monthly) paid to employees, and other payments such as agency workers or contractors who supply labour.

Sales income

- The sales income of the business may be analysed in a number of different ways depending upon the needs of management – whatever analysis is required each sales invoice must be carefully coded.

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Page 26 of 54

QUESTIONS

1 When materials are received by a business what is the internal document completed by the receiving department?
A Purchase requisition
B Goods received note
C Invoice
D Despatch note

2 Statement 1. A cash discount is given for large orders or special customers and will be shown as a deduction on the invoice.
Statement 2. A trade discount is usually given for prompt payment within a stated period. It cannot be shown as a deduction until payment has been made.
A Both statements are false
B Both statements are true
C Statement 1 is true and statement 2 is false
D Statement 1 is false and statement 2 is true

3 The sales tax inclusive amount (rather than the net amount) should be coded on a purchase invoice. Is this true or false?

4 Which type of coding system uses an aid to memory in its code?

5 Which document is filled in by a company when goods have been delivered to them?

ANSWERS

ACCOUNTING FOR MATERIAL AND LABOUR COSTS

Sunday, October 18, 2020 12:51 AM

Types of materials

- Materials can be classified according to the substances that make them up, how they are measured, or their physical properties.
- Raw materials are goods purchased for incorporation into products for sale.
- Work in progress is a term used to represent an intermediate stage between the manufacturer purchasing the materials that go to make up the finished product and the finished product.
- A finished good is a product ready for sale or despatch.

Ordering inventory

- When the store keeper places an order for materials the amount that will be ordered will be dependent upon the sales and/or manufacturing plans for the immediate future.
  Units produced = units sold + units in closing inventory – units in opening inventory
  Materials purchases = materials usage + closing inventory material – opening inventory material

Accounting for materials

- The materials purchased are recorded as a debit in the materials control account.
- Materials issued to production must be classified as either direct or indirect materials. Direct materials are credited to the materials control account and debited to the work in progress account. Indirect materials are credited to the materials control account and debited to the production overhead account.

Inventory valuation methods

(a) FIFO – First in, first out

- This method values issues at the prices of the oldest items in inventory at the time the issues were made. The remaining inventory will thus be valued at the price of the most recent purchases.
  (b) LIFO – Last in, first out
- This method is the opposite of FIFO. Issues will be valued at the prices of the most recent purchases; hence inventory remaining will be valued at the cost of the oldest items.
  (c) Weighted average pricing methods
- There are two main weighted average pricing methods: cumulative and periodic.
  (i) Cumulative weighted average pricing
- With this method we calculate an average cost of all the units in inventory whenever a new delivery is received.
  (ii) Periodic weighted average pricing
- The periodic weighted average pricing method involves calculating an average cost per unit at the end of a given period (rather than whenever new inventory is purchased, as with the cumulative weighted average pricing method). The periodic weighted average pricing method is easier to calculate than the cumulative weighted average method, and therefore requires less effort, but it must be applied retrospectively since the costs of materials used cannot be calculated until the end of the period. It is calculated as;

Number of units received in the period + Cost of opening inventory ÷ Number of units received in the period + Number of units of opening inventory

Points to remember for the exam

- In a period of rising raw material prices the following points are true:
  (a) Closing inventory values will be higher using cumulative weighted average pricing rather than periodic weighted average.
  (b) Closing inventory values will be higher using FIFO rather than LIFO.
  (c) Under FIFO, production costs would be lower than under LIFO.
  In a period of falling raw material prices, the opposite will occur.

Remuneration methods

- Employees who agree to work shifts, in particular different shifts over a period of time, receive extra wage payments. These extra payments are known as **shift allowances.**

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Page 29 of 54

JOB, BATCH AND PROCESS COSTING

Sunday, October 18, 2020 7:53 AM

Job costing

- Job costing is a form of specific order costing in which costs are attributed to individual jobs.
- Job costing is the costing method used where each cost unit (job) is separately identifiable.

Aim of job costing

- The aim of job costing is simply to collect the cost information shown below.
-

	$
Direct materials	X
Direct labour	X
Direct expenses	X

Direct cost	X
Production overhead	X

Total production cost	X
Administration overhead	X
Selling overhead	X

Cost of sales	X

- To the final figure is added a profit 'mark-up' and the total is the selling price of the job.
- **A job** is a cost unit which consists of a single order or contract.
- With other methods of costing it is usual to produce for inventory
- In job costing on the other hand, production is usually carried out in accordance with the special requirements of each customer. It is therefore usual for each job to differ in one or more respects from every other job, which means that a separate record must be maintained to show the details of a particular job.
- The work relating to a job is usually carried out within a factory or workshop and moves through processes and operations as a continuously identifiable unit.

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Page 36 of 54

Procedure for the performance of jobs

- The normal procedure in jobbing concerns involves the following.
  (a) The prospective customer approaches the supplier and indicates the requirements of the job.
  (b) A responsible official sees the prospective customer and agrees the precise details of the items to be supplied, for example, the quantity, quality and colour of the goods, the date of delivery and any special requirements.
  (c) The estimating department of the organisation then prepares an estimate for the job. The total of these items will represent the quoted selling price.
  (d) At the appropriate time, the job will be 'loaded' on to the factory floor. This means that as soon as all materials, labour and equipment are available and subject to the scheduling of other orders, the job will be started.

Collection of job costs

- Each job will be given a number to identify it. A separate record must be maintained to show the details of individual jobs. The process of collecting job costs may be outlined as follows.
  (a) Materials requisitions are sent to stores.
  (b) The materials requisition note will be used to cost the materials issued to the job concerned, and this cost may then be recorded on a job cost sheet.

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Sunday, October 18, 2020 8:28 AM

THE SPREADSHEET SYSTEM

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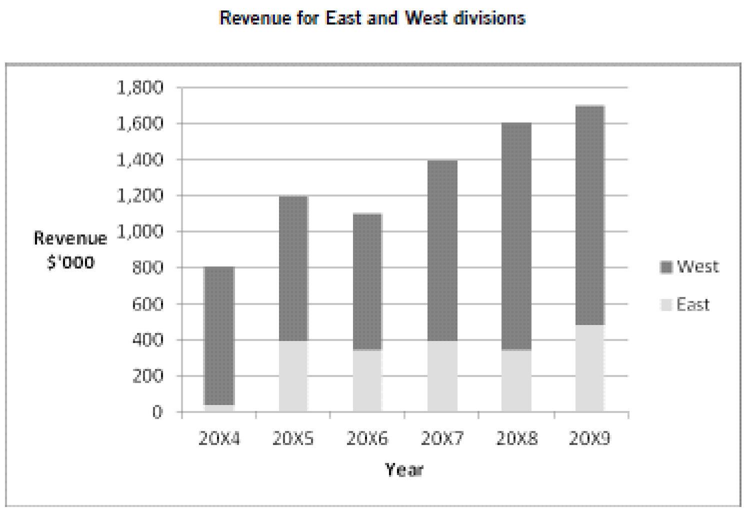
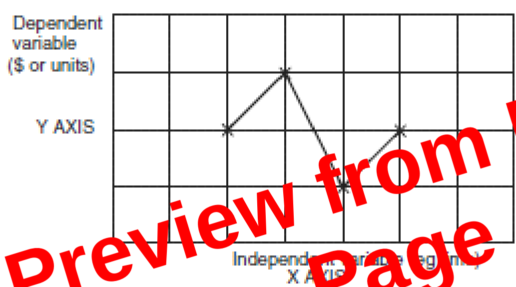
Page 41 of 54



A **component bar chart** would show the same information but the data would be presented on a **horizontal scale**.

Line graphs

- Line graphs are often used in commercial contexts, to display a wide variety of information. They are particularly useful for demonstrating trends: the progress of events or the fluctuation over time of variables such as profits, prices, sales totals, customer complaints.



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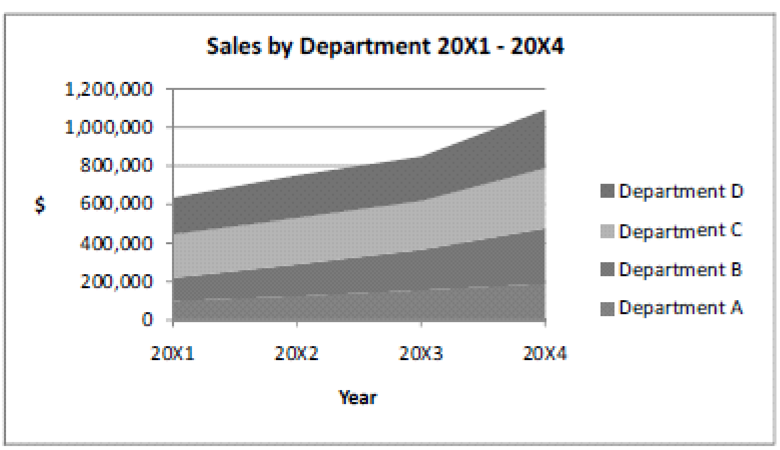
Page 47 of 54

Area charts

Area charts are much like line graphs, but they display shading in the areas below the lines. This colourful visual display distinguishes the data more clearly.
Area charts emphasise the magnitude of change over time and can be used to draw attention to the total value across a trend.



Pie charts