

MANAGEMENT ACCOUNTING: DECISION AND CONTROL

STUDY TEXT

Qualifications and Credit Framework

AQ2016

The material in this book may support study for the following AAT qualifications:

AAT Professional Diploma in Accounting – Level 4

AAT Diploma in Business Skills

AAT Professional Diploma in Accounting at SCQF – Level 8

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library.

Published by
Kaplan Publishing UK
Unit 2, The Business Centre
Molly Millars Lane
Wokingham
Berkshire
RG41 2QZ

ISBN: 978-1-78740-518-9

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INTRODUCTION

HOW TO USE THESE MATERIALS

These Kaplan Publishing learning materials have been carefully designed to make your learning experience as easy as possible and to give you the best chance of success in your AAT assessments.

They contain a number of features to help you in the study process.

The sections on the Unit Guide, the Assessment and Study Skills should be read before you commence your studies.

They are designed to familiarise you with the nature and content of the assessment and to give you tips on how best to approach your studies.

STUDY TEXT

This study text has been specially prepared for the revised AAT qualification introduced in September 2016.

It is written in a practical and interactive style:

- key terms and concepts are clearly defined
- all topics are illustrated with practical examples with clearly worked solutions based on sample tasks provided by the AAT in the new examining style
- frequent activities throughout the chapters ensure that what you have learnt is regularly reinforced
- 'pitfalls' and 'examination tips' help you avoid commonly made mistakes and help you focus on what is required to perform well in your examination
- 'Test your understanding' activities are included within each chapter to apply your learning and develop your understanding.

ICONS

The study chapters include the following icons throughout.

They are designed to assist you in your studies by identifying key definitions and the points at which you can test yourself on the knowledge gained.



Definition

These sections explain important areas of knowledge which must be understood and reproduced in an assessment.



Example

The illustrative examples can be used to help develop an understanding of topics before attempting the activity exercises.



Test your understanding

These are exercises which give the opportunity to assess your understanding of all the assessment areas.

Quality and accuracy are of the utmost importance to us so if you spot an error in any of our products, please send an email to mykaplanreporting@kaplan.com with full details.

Our Quality Co-ordinator will work with our technical team to verify the error and take action to ensure it is corrected in future editions.

Progression

There are two elements of progression that we can measure: first how quickly students move through individual topics within a subject; and second how quickly they move from one course to the next. We know that there is an optimum for both, but it can vary from subject to subject and from student to student. However, using data and our experience of student performance over many years, we can make some generalisations.

A fixed period of study set out at the start of a course with key milestones is important. This can be within a subject, for example 'I will finish this topic by 30 June', or for overall achievement, such as 'I want to be qualified by the end of next year'.

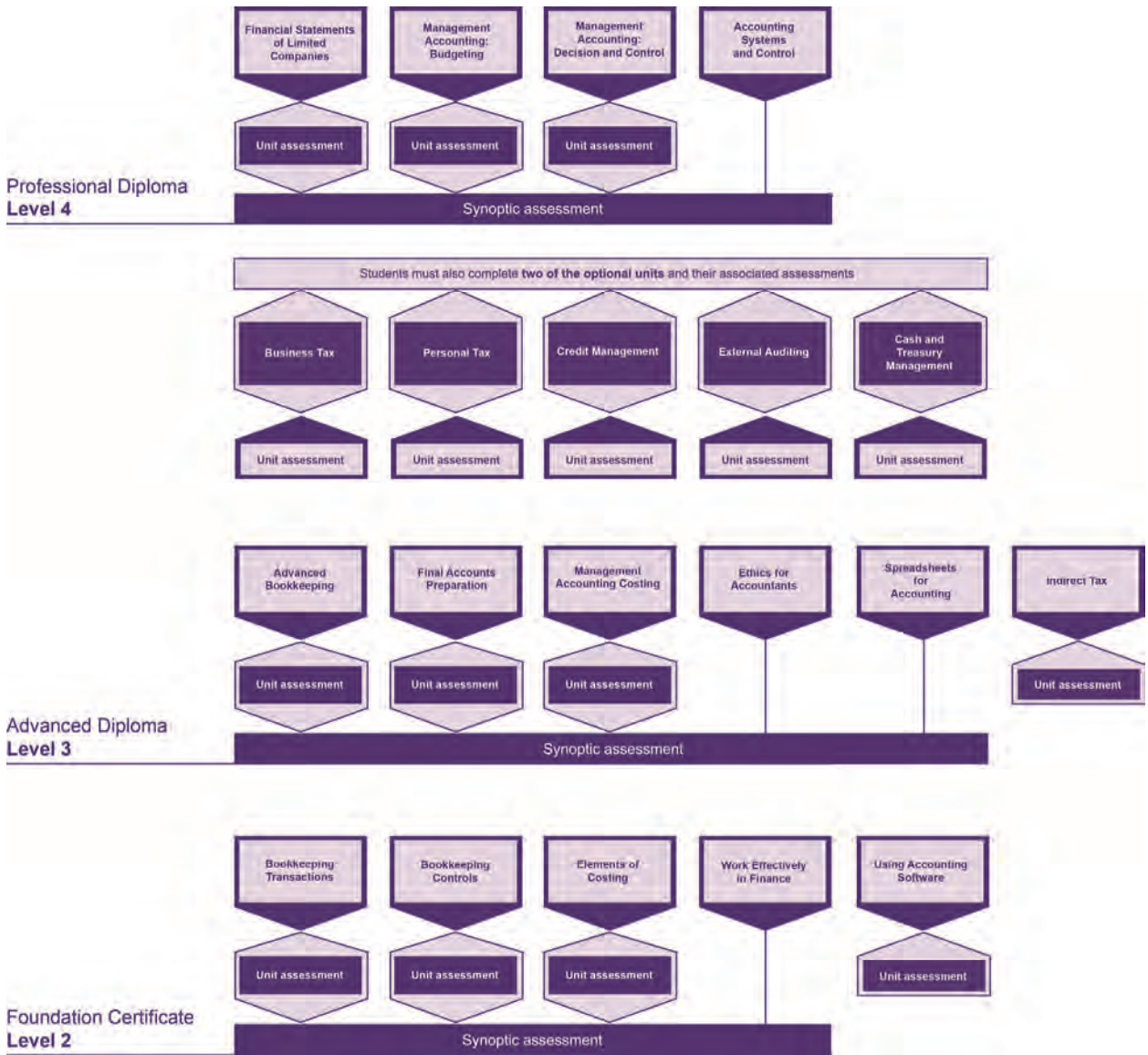
Your qualification is cumulative, as earlier papers provide a foundation for your subsequent studies, so do not allow there to be too big a gap between one subject and another.

We know that exams encourage techniques that lead to some degree of short term retention, the result being that you will simply forget much of what you have already learned unless it is refreshed (look up Ebbinghaus Forgetting Curve for more details on this). This makes it more difficult as you move from one subject to another: not only will you have to learn the new subject, you will also have to relearn all the underpinning knowledge as well. This is very inefficient and slows down your overall progression which makes it more likely you may not succeed at all.

In addition, delaying your studies slows your path to qualification which can have negative impacts on your career, postponing the opportunity to apply for higher level positions and therefore higher pay.

You can use the following diagram showing the whole structure of your qualification to help you keep track of your progress.

MANAGEMENT ACCOUNTING: DECISION AND CONTROL



UNIT GUIDE

Introduction

This unit is one of the mandatory Professional level units. It takes students from Advanced level costing principles and prepares them to be valuable members of a management accounting finance team. This unit was formerly known as Financial Performance.

A student who has successfully completed this unit, together with the Professional level unit, Management Accounting: Budgeting, should be a useful member of a management accounting team. Working with little supervision, the student could be expected to liaise with key business unit managers and/or budget holders in order to: prepare a basic budget and/or standard cost budget; create budgetary reports, control reports and standard costing control reports; and prepare key performance indicators and workings to aid management decision making.

This unit teaches students management accounting principles and concepts. Students will understand the nature and importance of different concepts such as cost behaviour, cost analysis, standard costing and contribution theory. They will know when each technique should be used to aid the planning and decision making of an organisation and the subsequent analysis for control purposes.

They will learn the key performance indicators that should be used to aid the performance monitoring of an organisation and the techniques for assessing changes to an organisation (what-if analysis). The student will build a toolbox of techniques, understand the nature of these techniques and know when each technique should be used.

Management Accounting: Decision and Control is a mandatory unit and builds on the fundamental concepts and techniques introduced in Foundation level Elements of Costing and Advanced level Management Accounting: Costing.

Learning outcomes

On completion of this unit the learner will be able to

- Analyse a range of costing techniques to support the management accounting function of an organisation
- Calculate and use standard costing to improve performance
- Demonstrate a range of statistical techniques to analyse business information
- Use appropriate financial and non-financial performance techniques to aid decision making
- Evaluate a range of cost management techniques to enhance value and aid decision making.

Scope of content

To perform this unit effectively you will need to know and understand the following:

	Chapter
1 Analyse a range of costing techniques to support the management accounting function of an organisation	
1.1 Distinguish between different cost classifications and evaluate their use in a management accounting function	
Students need to know:	
<ul style="list-style-type: none"> • product costing and the elements of direct and indirect costs, cost classification into materials, labour and production overhead • cost classification by behaviour (fixed, variable, stepped fixed and semi-variable) and the relevant range for fixed costs • prime cost, full production cost and marginal cost • the differences between cost centres, profit centres and investment centres • the High-Low method of cost estimation. 	2
Students for semi-variable costs need to be able to:	
<ul style="list-style-type: none"> • use the high-low method to extract the fixed and variable elements, including making adjustments for a step up in cost or a quantity discount. 	

Delivering this unit

Unit name	Content links	Suggested order of delivery
<p>Management Accounting: Budgeting</p> <p>Cash and Treasury Management</p>	<p>To deliver this unit effectively, tutors need to have a solid understanding of the topics that make up Management Accounting: Decision and Control (formerly known as Financial Performance).</p> <p>This unit brings together many fundamental techniques –mathematical and management accounting.</p>	<p>Students may find it useful to study Management Accounting: Decision and Control and Management Accounting: Budgeting concurrently, as there are many overlapping concepts.</p>

THE ASSESSMENT

Test specification for this unit assessment

Assessment type	Marking type	Duration of exam
Computer based unit assessment	Partially computer/ partially human marked	2 hours 30 minutes

The sample assessment for this unit consists of 8 compulsory, independent, tasks.

The competency level for AAT assessment is 70%.

Learning outcomes	Weighting
1 Analyse a range of costing techniques to support the management accounting function of an organisation	10%
2 Calculate and use standard costing to improve performance	40%
3 Demonstrate a range of statistical techniques to analyse business information	10%
4 Use appropriate financial and non-financial performance techniques to aid decision making	30%
5 Evaluate a range of cost management techniques to enhance value and aid decision making	10%
Total	100%

UNIT LINK TO SYNOPTIC ASSESSMENT

AAT AQ16 introduced a Synoptic Assessment, which students must complete if they are to achieve the appropriate qualification upon completion of a qualification. In the case of the Professional Diploma in Accounting, students must pass all of the mandatory assessments and the Synoptic Assessment to achieve the qualification.

As a Synoptic Assessment is attempted following completion of individual units, it draws upon knowledge and understanding from those units. It may be appropriate for students to retain their study materials for individual units until they have successfully completed the Synoptic Assessment for that qualification.

With specific reference to this unit, the following learning objectives are also relevant to the Professional Diploma in Accounting Synoptic Assessment.

- LO1 Analyse a range of costing techniques to support the management accounting function of an organisation
- LO2 Calculate and use standard costing to improve performance
- LO4 Use appropriate financial and non-financial performance techniques to aid decision making
- LO5 Evaluate a range of cost management techniques to enhance value and aid decision making

STUDY SKILLS

Preparing to study

Devise a study plan

Determine which times of the week you will study.

Split these times into sessions of at least one hour for study of new material. Any shorter periods could be used for revision or practice.

Put the times you plan to study onto a study plan for the weeks from now until the assessment and set yourself targets for each period of study – in your sessions make sure you cover the whole course, activities and the associated questions in the workbook at the back of the manual.

If you are studying more than one unit at a time, try to vary your subjects as this can help to keep you interested and to see the relationships between subjects.

When working through your course, compare your progress with your plan and, if necessary, re-plan your work (perhaps including extra sessions) or, if you are ahead, do some extra revision/practice questions.

Effective studying

Active reading

You are not expected to learn the text by rote, rather, you must understand what you are reading and be able to use it to pass the assessment and develop good practice.

A good technique is to use SQ3Rs – Survey, Question, Read, Recall, Review.

1 Survey the chapter

Look at the headings and read the introduction, knowledge, skills and content, so as to get an overview of what the chapter deals with.

2 Question

Whilst undertaking the survey ask yourself the questions you hope the chapter will answer for you.

3 Read

Read through the chapter thoroughly working through the activities and, at the end, making sure that you can meet the learning objectives highlighted on the first page.

4 Recall

At the end of each section and at the end of the chapter, try to recall the main ideas of the section/chapter without referring to the text. This is best done after short break of a couple of minutes after the reading stage.

5 Review

Check that your recall notes are correct.

You may also find it helpful to reread the chapter to try and see the topic(s) it deals with as a whole.

Note taking

Taking notes is a useful way of learning, but do not simply copy out the text. The notes must

- be in your own words
- be concise
- cover the key points
- well organised
- be modified as you study further chapters in this text or in related ones.

Trying to summarise a chapter without referring to the text can be a useful way of determining which areas you know and which you don't.

Three ways of taking notes

1 Summarise the key points of a chapter

2 Make linear notes

A list of headings, subdivided with sub-headings listing the key points.

If you use linear notes, you can use different colours to highlight key points and keep topic areas together.

Use plenty of space to make your notes easy to use.

3 Try a diagrammatic form

The most common of which is a mind map.

To make a mind map, put the main heading in the centre of the paper and put a circle around it.

Draw lines radiating from this to the main sub-headings which again have circles around them.

Continue the process from the sub-headings to sub-sub-headings.

Annotating the text

You may find it useful to underline or highlight key points in your study text – but do be selective.

You may also wish to make notes in the margins.

Revision phase

Kaplan has produced material specifically designed for your final examination preparation for this unit.

These include pocket revision notes and a bank of revision questions specifically in the style of the new syllabus.

Further guidance on how to approach the final stage of your studies is given in these materials.

Further reading

In addition to this text, you should also read the 'Student section' of the 'Accounting Technician' magazine every month to keep abreast of any guidance from the examiners.

TERMINOLOGY

There are different terms used to mean the same thing – you will need to be aware of both sets of terminology.

UK GAAP IAS

Profit and loss	Income statement
Sales	Revenue
Balance sheet	Statement of financial position
Fixed assets	Non-current assets
Stock	Inventory
Trade debtors	Trade receivables
Trade creditors	Trade payables
Capital	Equity
Profit	Retained earnings

Standard costing

Introduction

In this chapter, we examine how standard costs are set for the various inputs that go into production. This is called 'standard costing'. In later chapters we examine how and why the actual results may vary from the standard.

ASSESSMENT CRITERIA

- How standard costs can be established (2.1)
- The different types of standard (ideal, target, normal and basic) (2.1)
- How the type of standard can affect behaviour (2.1)
- Prepare standard cost cards from given information (2.2)

CONTENTS

- 1 Standard costing
- 2 Methods of developing standards
- 3 Setting standards
- 4 Standard cost card – absorption costing
- 5 Types of standard
- 6 Advantages and disadvantages of standard costing

1

Standard costing

1.1 Introduction

Standard costing provides detailed information to management as to why actual performance differs from expected performance.

Standard costing systems are widely used because they provide cost data which can be used for many different purposes, including the following:

- (a) To assist in budget setting and evaluating performance.
- (b) To act as a control device by highlighting those activities that do not conform to plan and thus alerting managers to those situations which may be 'out of control' and hence in need of corrective action.
- (c) To provide a prediction of future costs to be used in decision-making.
- (d) To simplify the task of tracing costs to products for inventory valuation.
- (e) To provide a challenging target that individuals are motivated to achieve.

An effective standard costing system relies on standard cost reports, with variances clearly identified, presented in an intelligible form to management as part of the overall cost reporting cycle.



Definitions

A **standard cost** is a predetermined cost which is calculated from management's standards of efficient operation and the relevant necessary expenditure. It may be used as a basis for fixing selling prices, for valuing inventory and work in progress, and to provide control over actual costs through the process of variance analysis.

Standard costing is the preparation and use of standard costs, their comparison with actual costs, and the analysis of variances to their causes.

2 Methods of developing standards

2.1 The nature of standards

Whenever identical operations are performed, or identical products are manufactured time and time again, it should be possible to decide in advance not only what they are likely to cost but also what they ought to cost. In other words, it is possible to set a standard cost for each operation or product unit, taking account of:

- (a) technical standards for the quantities of material to be used and the working time required
- (b) cost standards for the material prices and hourly rates that should be paid.

2.2 Standards from past records

Past data can be used to predict future costs if operating conditions are fairly constant between past and future time periods. This method may not be appropriate for newly introduced operations.

The main disadvantage with this method is that past data may contain inefficiencies which would then be built into the standards.

2.3 Engineering standards

This involves engineers developing standards for materials, direct labour and variable overheads by studying the product and the production process, possibly with the help of time and motion studies. This method is particularly useful when managers are evaluating new products.

The main disadvantage is that engineering standards may be too tight as they may not allow for the behaviour of the workers.

3

Setting standards

3.1 Standard material usage

In setting material usage standards, the first stage is to define what quantity of material input is theoretically required to achieve one unit of measured output.

In most manufacturing operations the quantity or volume of product emerging will be less than the quantity of materials introduced. This type of waste is normal to most operations and the usage figure would be increased by an allowance for this normal waste.

3.2 Standard time allowed

The standard or allowed time for an operation is a realistic estimate of the amount of productive time required to perform that operation based on work study methods. It is normally expressed in standard hours.

Various allowances may be added to the theoretical operating time, to take account of operator fatigue and personal needs, and periodic activities such as machine setting, clearing up, regrinding tools and on-line quality inspection. An allowance may also be made for spoiled work, or for rectification of defects appearing in the course of processing.

3.3 Basic approach to price standards

When setting cost standards, there are two basic approaches:

- (a) **To use the prices or rates which are current at the time the standards are set.**

This has the advantage that each standard is a clearly known fact. On the other hand, if prices are likely to change then the standards based on these prices will have limited value for planning purposes.

The standards would have to be revised in detail from time to time to ensure that they are up to date. If this is not done, then any differences between standard and actual costs are likely to be largely due to invalid standards.

- (b) **To use a forecast of average prices or rates over the period for which the standard is to be used.**

This can postpone the need for revision, but has the disadvantages that the standard may never correspond with observed fact (so there will be a price variance on all transactions) and the forecast may be subject to significant error.

3.4 Material price standards

In setting material price standards, a particular item of material may be purchased from several suppliers at slightly different prices; which price shall be adopted as standard? There are three possible approaches:

(a) **To identify the major supplier and to use their price as the standard**

This is particularly appropriate where there is no intention of buying large quantities from the alternative suppliers, but merely to use them as a means of ensuring continuity of supply should there be any delay or failure by the principal supplier.

(b) **To use the lowest quoted price as the standard**

This method can be used if it is desirable to put pressure on the buyer to obtain price reductions from other suppliers.

(c) **To forecast the proportion of supplies to be bought from each supplier and to calculate a weighted average price as the costing standard**

This is the most satisfactory method for control purposes if the required forecast can be made with reasonable accuracy.

Another question in relation to material price standards is whether to include the cost of carriage inwards and other costs such as non-returnable packing and transit insurance.

The objective always will be to price incoming goods at their total delivered cost, so these costs should be included in the standards.

3.5 Standard labour rates

When setting standard labour rates, one can either use basic pay rates only, or incorporate overtime premiums as well. The nature of the overtime work and the approach to cost control adopted by management will decide this issue.

(a) If a normal level of overtime work can be identified and is accepted as necessary, or if overtime is planned for the company's convenience, then the relative overtime premium payments will normally be included in the standard labour rate.

(b) If it is a management objective to reduce or eliminate overtime working, the standard rate may be restricted to basic pay.

4

Standard cost card – absorption costing

A standard cost card is built up using the appropriate standards for one unit.

A simple standard cost card is as follows:

Standard cost card – absorption costing	
For one unit of output:	£
Direct material: 1.5 sq m @ £28 per sq m	42.00
Direct labour: 4 hours @ £5.25 per hour	21.00
Variable overheads: 4 hours @ £3 per hour	12.00
Fixed overheads: 4 hours @ £7 per hour	28.00
	———
Total standard cost	103.00
	———

You can see that:

- (a) Standard direct material cost
= Standard quantity of material × standard material price.
- (b) Standard direct labour cost
= Standard direct labour hours × standard labour rate.
- (c) Standard variable overhead cost
= Standard direct labour hours × standard variable overhead rate.
- (d) Standard fixed overhead cost
= Standard direct labour hours × standard fixed overhead rate.



Test your understanding 1

North manufactures a single product which has the following specification:

- Raw materials – 1 tonne @ £75 per tonne
- Direct labour – 3 hours @ £10 per hour
- Variable overheads – 3 hours @ £5 per hour
- Fixed overheads – 3 hours @ £2 per hour

Complete the standard cost card using absorption costing principles.

	Workings:	£
Raw material		
Labour		
Variable overhead		
Fixed overhead		
Standard cost for one unit		



Test your understanding 2

South manufactures a single product which has the following specification:

- Raw materials – 5 kg @ £7.50 per kg
- Direct labour – 2 hours @ £7.50 per hour
- Variable overheads – 2 hours @ £2 per hour
- Fixed overheads – 2 hours @ £5 per hour
- Complete the standard cost card using absorption costing principles.

	Workings:	£
Raw material		
Labour		
Variable overhead		
Fixed overhead		
Standard cost for one unit		

5

Types of standard

5.1 Introduction

The way in which control is exercised, and the interpretation and use of variances from standards, will depend on which type of standard is used.

5.2 Basic standards

A basic standard is one which, having been fixed, is not revised with changing conditions, but remains in force for a long period of time. It may be set originally having regard to either ideal or expected conditions. Under circumstances of rapid technological change or of significant price changes, basic standards are of limited value in relation to the achievement of the benefits outlined above since they will be out of date.

5.3 Normal standards

Normal standards are those which give consideration to the usual level of activity managed by the company. They are more recent than the basic standard and are usually based on what the company manages to achieve on a regular basis.

5.4 Target standards

In other cases the standards set will be those which give consideration to the state of efficiency which can be achieved from the existing facilities. The target set will be 'stretching' and a positive effort will be made to achieve a high level of efficiency, but there is no question of going beyond what is attainable.

The aim should be to set the standard cost which is likely to be the most realistic for the business concerned. It should be remembered that standards are the yardstick against which efficiency is measured and therefore, if they are unrealistic then any variances calculated will be of little meaning. Management and staff are usually motivated using this method.

5.5 Ideal standards

In some cases standards are established on the assumption that machines and employees will work with optimal efficiency at all times, and that there will be no stoppages and no losses of material or services. Such standards would represent an ideal state of affairs and therefore the objectives they set are never achieved.

Managers who are responsible for the costs can hardly approve of targets which they can never reach and which, therefore, result in large adverse variances from the standards. This is demotivating for managers (and their staff), particularly if there is an element of performance-related pay in their remuneration. Managers and staff have often been found to 'give up' when faced with these standards.



Test your understanding 3

The setting of ideal standards is motivational to employees.

True

False

6

Advantages and disadvantages of standard costing

6.1 Advantages

The advantages of standard costing fall into two broad categories: planning and control.

Planning

Predetermined standards make the preparation of forecasts and budgets much easier. If the standards are to be used for these operational decisions then they must obviously be as accurate as possible. This again means that standards should be revised on a frequent basis.

Control

Control is primarily exercised through the comparison of standard and actual results, and the isolation of variances. This is done by breaking down the simple variance identified in a budgetary control system into components based upon an expected outcome. This will highlight areas of apparent efficiency and inefficiency, and as necessary investigations as to the causes of the variance can be made. If these investigations discover the causes of the variances, then corrective action can be taken to improve efficiency in the future or alter the standards if necessary.

In addition to the above, there are subsidiary advantages such as:

- (a) if the standards are perceived to be attainable, then they will serve to motivate the employees concerned
- (b) a standard costing bookkeeping system can be set up that will fulfil all requirements, for both internal and external reporting
- (c) recording of stock issues is simplified, as it is done at the standard price.

6.2 Disadvantages

A standard costing system is costly to set up and maintain, and standards must be revised on a regular basis to maintain effectiveness. It is for this reason that standard costing is most effective for well-established and repetitive processes, so that the revisions of standards are kept to a minimum.

7 Summary

In this chapter we have looked at the various ways of establishing standard costs within a standard cost reporting system.

Test your understanding answers

 Test your understanding 1

	Workings:	£
Raw material	1 tonne × £75 per tonne	75.00
Labour	3 hours × £10 per hour	30.00
Variable overhead	3 hours × £5 per hour	15.00
Fixed overhead	3 hours × £2 per hour	6.00

Standard cost for one unit		126.00

 Test your understanding 2

	Workings:	£
Raw material	5 kg × £7.50 per kg	37.50
Labour	2 hours × £7.50 per hour	15.00
Variable overhead	2 hours × £2 per hour	4.00
Fixed overhead	2 hours × £5 per hour	10.00

Standard cost for one unit		66.50

 Test your understanding 3

False. It is impossible to be 100% certain, since different managers will react in different ways, but generally ideal standards will demotivate since adverse variances will continually be reported.