How to Pass
如何通过
Management Accounting
管理会计学

LCCI
EXAMINATIONS BOARD

3

David Frederick
Richard Lyall

THIRD LEVEL
第三级

The Official LCCI Examinations Board Guide
伦敦工商会考试局考试指南

广东经济出版社

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LCCIEB 简介

LCCIEB（即 London Chamber of Commerce and Industry Examinations Board 英国伦敦工商会考试局的英文缩写）是国际性的考试机构。它创办于 1890 年，目前已经在世界上 90 个国家和地区设立了考试中心，报读报考无年龄及学历限制，亦可自学自考。每年的 3 月、4 月、6 月、11 月在世界各地举行全球统一考试，由英国伦敦总部统一评卷、统一发证。LCCIEB 所颁发的证书在英联邦国家和东南亚国家受到普遍承认，特别是在英国、加拿大、澳大利亚、新西兰、新加坡和香港等地一直享有“求职通行证”的美誉。LCCIEB 证书还是海外大学接受的入学条件之一。

LCCIEB 在中国

LCCIEB 于 1995 年进入中国，成为首个由国家教育部（NEEA）承认及主办的国际性的职业资格考试，目前已在全国 18 个省及直辖市设有考试点，开设的考试有市场营销、西方会计、文秘和商务研究四大类。其中西方会计系列教材从低到高分为三个级别，包括 6 本书：簿记学一级（Book – keeping Level 1）、簿记与会计学二级（Book – keeping & Accounts Level 2）、会计学三级（Accounting Level 3）、管理会计学三级（Management Accounting Level 3）、成本会计二、三级（Cost Accounting Level 2 + 3）、商务统计二、三级（Business Statistics Level 2 + 3）。

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LCCIEB 与您的未来

随着中国即将加入 WTO，外资企业在中国的数量和规模越来越大，故此，能适应外企运作的及达到国际通用标准的 LCCIEB 专职人才将更受亲睐。LCCIEB 将为你开启通往更高职业的大门！

管理会计学三级（Management Accounting Level 3）

通过这门课程，你将掌握和理解下列基本原理：

1. 短期成本行为：固定、变动和混合成本。混合成本划分为固定及变动成本。成本形态的确认。

2. 短期决策：边际成本、边际贡献理论、本量利分析、机会成本的应用、保本曲线图的绘制，以及保本点的数量及边界。差别成本。现金流量表及其关键因素、限定因素。销售价格的制定。

3. 短期利润控制：利润控制的原则。标准成本的制定及预算，差异分析及报告。标准控制。

4. 现金及营运资金的概念。扩大销售额对营运资金的影响。现金预算。

5. 长期决策及控制：长期财务计划。相关成本。

6. 内部转移价格和性能评估：了解采用内部转移价格的原因，及在一种联系高度紧密的企业结构中内部转移价格引起的一些问题。

About the authors

David Frederick is a Senior Lecturer at London Guildhall University, and is the Course Director for the University's Chartered Institute of Management Accountants (CIMA) programme. He has over 10 years' teaching experience in accountancy and business management subjects at all levels.

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Both authors have worked closely with the LCCIEB on the development of the Fourth Level Executive Diploma in Business Accounting.

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Introduction

This is a study text, specifically written to help those preparing for the LCCIEB Third Level Management Accounting examination paper.

Points of principle relating to the syllabus are fully explained and illustrated as examples in the text. You are recommended to work carefully through each exmple, and not merely to read through it.

At the end of each chapter, one or two past examination questions from LCCIEB Third Level papers are answered and key points explained.

At the end of the complete text, brief notes of guidance are given on study and examination techniques.

Use the books well. Only disciplined, orderly and thorough study leads to examination success.

Contents

1

The role and basic terminology of management accounting

After carefully studying this chapter, you should be able to:

1 *describe the characteristics of good information;*

2 *distinguish between data and information;*

3 *describe the main types of business;*

4 *explain the role of management accounting in business;*

5 *describe the special abilities needed by management accountants;*

6 *understand some of the terms used in management accounting.*

Many students studying Third Level Management Accounting will already have taken some financial accounting and/or cost accounting courses. Such students will find the early parts of this book cover topics with which they are already familiar. However, it is advisable to work through the book from the beginning.

If you have not studied accounting before, welcome. You will find that management accounting is a practical subject which is both logical and interesting.

The characteristics of good information

Management accounting is about providing information to help managers run their businesses. Before we start, it is important that you know the standards that are expected of information if it is to be useful to managers. Good information must be:

- fit for its purpose. This means that information must be reliable and sufficiently accurate for its intended purpose. For instance, most managers do not want to know what last month's profit was to the nearest penny or cent. They may consider the information to be sufficiently reliable if it is accurate to the nearest one hundred thousand pounds or dollars. However, a cost calculation which is to be used as the basis for a price quotation for a small printing job may need to be calculated to the nearest pound or dollar;
- timely. This means that information should be available when the manager needs it. Late information is of no use;
- economic. This means that the value of the information to the manager must be greater than its cost. Information costs will include the cost of obtaining data, analysing it, interpreting it and presenting it as information (usually in the form of a report) to managers.

The difference between data and information

You may have noticed that we talk about collecting *data*. The word 'data', which is plural, does not mean information. Data are facts, observations or measurements about physical phenomena (litres, kilograms etc) or business transactions. Information has been described as data which has a purpose. This means that information is data which has been put into a form which has meaning for its intended user. For instance, your date of birth on your birth certificate is simply data. Once your date of birth is placed on an application form for a driving licence, it becomes information because the user of the form can use it to calculate your age and decide whether you are old enough to drive.

Management accountants collect data from within the business (and sometimes from outside) and use their special skills and knowledge to convert it into information. Most managers do not have the time or the skills to do this, so they must delegate the task to the professional management accountant.

You may already have come across the term 'cost accounting'. Cost accounting is mainly concerned with providing the *data* which can be converted by management accounting techniques into management accounting *information*.

The main types of business

Businesses (ie enterprises) take inputs, such as materials, labour, equipment, land and money and convert them into products, such as pineapples, oil, computers, insurance or medical treatment. All businesses need information about their past, present and future performance. Much of that information will be the same for all types of enterprise. However, what the business produces, and how it is produced, will also influence the information that a business requires.

The business world consists of three broad groups of enterprises: primary producers, manufacturers and service providers. Primary producers carry out 'extractive' activities such as mining, farming and fishing. Manufacturers take primary products, or the output of other manufacturers, and convert them into goods. Services are activities such as transport, education, banking, telecommunications, entertainment and health provision.

Enterprises can also be described in terms of *how* they produce. How businesses produce can be divided into two broad categories: specific order production and continuous production. A continuous production enterprise, such as a soft drink factory, an oil refinery or a power station, works non-stop to produce identical products. Its output cannot be broken down into specific orders from customers or for stock. An enterprise which carries out specific order production, such as a construction company, a software consultancy or a house painter, produces single products or jobs to a customer's requirements. Other specific order producers create batches of products such as aircraft, cakes or accounting graduates, either to customers' requirements or for stock. Customers' requirements will usually be expressed in a special order or a contract.

The distinction between 'job', 'batch' and 'contract' cost in management accounting is not always clear. The Chartered Institute of Management Accountants (CIMA) defines a *job* as a 'customer order or task of relatively short duration'; a *batch* is defined as 'a group of similar articles which maintains its identity throughout one or more stages of production'; and *contract* cost is the 'aggregated costs of a single contract'. It is quite possible that a business may have a *contract* with a customer to produce a *job* which consists of a *batch* of 100 items of a product, such as 100 dresses made to the customer's design. However, the term 'job' usually means a unique piece of work or output; a 'batch' usually means a number of identical items produced together; and a 'contract' usually refers to a large order for a product – which often takes at least a year to produce.

The management accounting systems that an enterprise uses will depend on:

- what it produces, ie its products, and;
- how its products are produced, ie whether they come from a continuous production system or whether they are produced to order.

The costing system used by enterprises in the continuous production of either goods or services is called *process costing*. Process costing averages the production costs in a period of time across the output of that period.

The costs of specific order producers are collected together in job, batch or contract costing systems to obtain the total cost of each job, batch or contract. There is very little difference between job, batch or contract costing systems.

The role of management accounting in business

The introduction to the LCCIEB's Third Level Management Accounting extended syllabus states that: *'Management Accounting is concerned with the provision and interpretation of information which assists management in planning, controlling, decision-making and appraising performance'*.

Let us look at each part of this definition in detail.

Management accounting is an activity carried on within a business. Management accounting is not the same as financial accounting; it is a separate type of accounting activity. It is carried out by management accountants who need to have special abilities. The special abilities which management accountants need are described below and you must know what they are to help you in your study of management accounting.

Management accounting is concerned with the *provision of information.* This involves gathering and analysing data to produce information. Much of this data, such as production quantities, working times, materials costs and selling prices, will be numerical. So management accountants must be numerate. They must also be able to set up and operate information gathering and analysing systems.

Management accounting is also concerned with the *interpretation of information*, so the information which has been gathered must be converted into a form which has meaning. Therefore, management accountants must understand what the information they have gathered means. To do this they need to understand the way the business works, its production methods, its products and its markets.

Management accounting involves gathering, analysing and interpreting *information which assists management.* This information is communicated to managers in the form of reports. These reports may be regular, such as monthly profit statements, or one-off reports responding to special requests from managers. Therefore, management accountants must be able to design reports and set up reporting systems. They must also be able to understand what it is that managers want to know.

Management accounting information *assists management in planning,* so it is used by managers to help them to organise the future activities of the business. Planning information is forward looking. It consists of forecasts and estimates. These may be based on information about the business's past performance. A major area where management accounting information is used for planning is in the annual operating budget for a business. Therefore, management accountants must be forward looking, good at estimating and experts at budgeting.

There are several ways in which management accounting information assists managers in *controlling* the operations of the business. One is by producing reports which compare the past (or forecast) quantities, costs and revenues for a period with the budgeted costs. This is known as budgetary control. Another type of reporting system, called standard costing, compares each individual product's actual costs and revenues with its planned costs and revenues. The management accountant must be able to identify and explain the causes of any differences between planned and actual costs (known as variances) to managers so that they can take any necessary action. So management accountants must possess good investigative skills. They must also be tactful and persuasive to gain the co-operation of their colleagues in other parts of the organisation.

Producing information to assist managers in *decision-making* is a major role for management accounting. Decisions may be short term, such as: which products to make, how to make them, in what quantities they should be made, and at what price they should be sold. They may be long-term decisions, such as: whether to develop a new product, whether to invest in new equipment and if so, which equipment to choose, whether to expand a business or close it down, and whether to make a product or to buy it from outside. Management decisions can be improved if they are based on reliable and relevant information.

Management accountants must be able to identify the information needed for a particular decision, then be able to find the relevant data, analyse it, interpret the results of their analysis and communicate the results. So, if management accountants are to provide useful decision-making information they must:

- be able to distinguish between relevant and non-relevant data;
- be expert at choosing and applying the right analytical technique to the data;
- be able to interpret the results of their analysis correctly;
- and then be able to communicate their advice clearly to managers.

Management accounting information can be used to assist managers in *appraising the performance* of individual managers, departments, products and enterprises. Appraisal information on departments and products may come from budgetary control or standard costing systems. A business's performance can also be analysed using ratios, such as the ratio between profits and sales or the ratio between profits and capital invested in the business. Management accountants must be able to interpret correctly the information which they produce for appraisal purposes if they are to help managers make the correct judgements on performance. If appraisal information is misleading it could harm a business by encouraging unsuccessful managers and/or failing to recognise and encourage successful managers.

Management accounting can be of great benefit to an organisation by providing its managers with key information to help them to run the business better. However, if the management accounting information provided to managers is inaccurate, inappropriate, incomplete, confusing or late, it could do more damage than good. As a result the ability and expertise of the individual management accountant and the speed and reliability of the information collecting, analysis and reporting systems that she or he uses are very important.

EXAMPLE 1

Angela Modd is the Chief Executive of SoPacEl Ltd, a company which makes electrical components for the motor industry. The company has grown rapidly and now needs a management accountant. Three candidates have applied for the post.

Required

Advise Angela Modd of the qualifications and abilities she should consider when selecting a person as a management accountant.

Solution

The abilities a management accountant requires can be put into three groups: technical knowledge, experience and personal characteristics.

(a) Technical knowledge:

The candidate should be able to:

- set up and operate information gathering systems;
- design reports and set up reporting systems;
- distinguish relevant from non-relevant information;
- choose the correct analytical technique to apply to solve a problem;
- interpret the information produced by management accounting systems to assist managers in:
  - planning
  - controlling
  - decision-making
  - appraisal.

(b) Experience:

The candidate must understand:

- the way the business works, ie how it is organised, its products, what its production methods are, what its markets are and who its major customers are;
- what it is the managers of the business will want to know, ie the strategic, tactical and operational information needed to run the business effectively;
- how to take advantage of up-to-date computer systems and software in order to be able to use them effectively to gather, analyse and report information.

(c) Personal characteristics:

The candidate should be:

- numerate;
- a good communicator, both verbal and written;
- forward looking;

- good at estimating (estimating requires judgement as well as experience);
- a skilled investigator, able to discover how the business works, where information can be obtained and why the figures are as they are;
- a tactful and persuasive teamworker so as to gain the confidence and co-operation of colleagues;
- able to organise and control staff.

Notes to the solution

1. In order to achieve the required technical ability candidates must have studied management accounting to a high level and preferably have obtained a professional qualification.
2. The above list does not include the more general characteristics, such as integrity, attention to detail and reliability which one would expect all accountants to possess.
3. Management accountants are not expected to make business decisions (except about their own department). Their task is to assist and advise the managers who do make decisions.

Terminology of management accounting

Management accounting, like all other specialist activities, has its own professional body and its own terminology. The Chartered Institute of Management Accountants (CIMA) is the professional body for many of the world's management accountants. CIMA publishes *Management Accounting Official Terminology*, a 100-page guide to the language used in management accounting. Do not despair, you will not need to learn 100 pages of definitions to study management accounting. However, whenever possible we do use CIMA's *Management Accounting Official Terminology* to define management accounting terms in this book. The terms that you must know to begin with are covered in this section.

Costs are usually grouped into three categories: material costs, labour costs and expenses. These three categories may then be subdivided into (a) product-related costs and (b) support costs such as selling, distribution, administration and management.

The *materials* contained in manufactured products consist of raw materials (such as timber, flour, oil, steel) and components (such as bulbs, batteries, wheels, microchips, engines). Service products do not contain any materials, although materials may be used to produce the service, for example, the fuel used by a taxi, bus, aircraft or train. Materials are usually purchased in advance and kept in a store until required. Materials' purchases are recorded on invoices and are shown in the stores' records as receipts. A *materials' requisition* will be used to order materials from the stores whenever materials are required for products. Once material has been issued from the stores, the price of the materials issued can be entered on to the requisition. Materials' requisitions then become a key source of management accounting data as they record the quantity of each type of material issued, the prices of the materials and the products that the materials were used for. We can then obtain the costs of materials used by multiplying quantities and prices.

The most important part of *labour* costs consists of the wages and salaries of production, selling, administration and managerial staff. Other important labour costs are the social security charges levied on employers by the state and any contributions which employers make to employee benefit schemes such as health insurance and pension schemes. Labour can be broken down into two categories: 'productive labour' which is involved in making a product, and 'non-productive labour'. Neither category is superior to the other. Both categories are necessary as labour is needed to make the product and labour is needed to carry out all the other functions involved in obtaining resources and getting output to customers. Time spent at work will be recorded for pay purposes, and the time spent on particular tasks will be recorded for planning and control purposes. These wages, salary and time records can then be used to obtain the costs of labour in a period or the labour cost of a particular product or activity.

Expenses are payments for goods, services and charges, such as stationery, power, rent, insurance, property taxes, royalties and licensing fees. Only a few expenses, such as power, royalties and licensing fees can be directly related to products. Most expenses are described as *overhead*. However, overhead costs are more than just bought-in goods, services and charges. CIMA defines overhead costs as:

> Expenditure on labour, materials or services which cannot be economically identified with a specific saleable cost unit.

This means that any cost which cannot easily be analysed and matched to output can be called an overhead.

CIMA's definition of overhead costs refers to 'a saleable cost unit'. CIMA defines *cost units* as:

> A unit of product or service in relation to which costs are ascertained.

Typical saleable cost units are bottles (drinks, cleaning fluids), kilowatt hours (electricity), copies (books, magazines), jobs and contracts (engineering, building, software development), batches (electronic components, clothing).

The introduction to the LCCIEB's extended syllabus for Third Level Management Accounting states, '*It should be noted that there is no realistic dividing line between Management Accounting and Cost Accounting and therefore candidates must be totally familiar with basic cost accounting principles and methods*'. Cost accounting is defined by CIMA as:

> The establishment of budgets, standard costs and actual costs of operations, processes, activities or products; and the analysis of variances, profitability or the social use of funds.

The sections on cost behaviour (Chapter 2); budgeting (Chapter 5); standard costing (Chapter 6); absorption costing, marginal costing and process costing (Chapter 10) and activity based costing (Chapter 11), will take you through the cost accounting techniques that you need for the Management Accounting examination.

We have used the term *budget* already, but you should be quite clear what it means. The noun 'budget' is defined by CIMA as:

> A quantitative statement, for a defined period of time, which may include planned revenues, expenses, assets, liabilities, and cash flows.

The verb 'to budget' means to produce a complete budget, or to calculate a planned figure.

Certain parts of this book, in particular Chapter 7 on cash management and Chapter 12 on performance evaluation, require a basic knowledge of financial accounting, especially the contents and meaning of the balance sheet and the profit and loss account. If you do not already possess this knowledge, you are advised to gain it before you study these two chapters. However, there are some financial accounting terms which you will need to know almost immediately. The equipment, land and stocks of materials, finished products and money used by an enterprise are called *assets*. Assets are either *fixed assets*, such as land, machines and vehicles which are kept by the business and not held for resale or conversion into products, or *current assets*, such as cash, amounts owed to the business (debtors' balances) or stocks of materials and finished products.

The opposite to an asset is a *liability*, which is any amount owed by a business to someone else. Typical business liabilities are *current liabilities,* for instance, amounts owed to firms which have provided goods and services on credit (creditors), bank overdrafts and the taxes which are owing to the state. Long-term borrowing and mortgages, but not share capital, are described as *long-term liabilities*.

Capital is the amount invested in the business. The precise meaning of the term 'capital' can vary. Sometimes it means the total amount invested by both shareholders and lenders in a company; sometimes it means the difference between the amount of assets and the amount of liabilities; and sometimes it means the total assets used by a business. You should always be certain which meaning applies before answering a question in which the word 'capital' is used.

Most people are clear what the term *profit* means; it is the difference between income and the costs of achieving that income. 'Profit' is usually subdivided into *gross profit* which is the difference between sales and the cost of those sales, and *net profit* which is gross profit less the general expenses of running the business.

This section has dealt with the terminology you need to get started in your study of management accounting. As you proceed through the book your management accounting vocabulary will grow, and there is a glossary at the end of the book which defines the terms we have used – just in case your memory fails you!