



COST ACCOUNTING: CONTROLLING COSTS AND IMPROVING DECISION MAKING

EXTRACT

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1. COSTING SYSTEMS

1.1 INTRODUCTION

In this topic we examine different types of costing systems available and why they are essential for accurately measuring and controlling costs and providing the basis for effective decision making in an organisation. You will look at why the costing system is the foundation of the decision making process, focussing on the need to accurately and efficiently capture, analyse, and understand cost data in a systematic manner.

Organisations exist to meet specific objectives (either to make a profit or achieve other financial or non-financial measures) so it's essential that you have information systems that provide them with the right information to achieve these objectives.

There are a large variety of organisations in terms of size, product or service, geographical location, financing structure and guiding objectives (for-profit, not-for-profit, government services, etc.). Each entity will face its own set of issues and decisions and will therefore require a costing system that is suitably matched. The appropriate choice of system will depend on the type of organisation, and its information requirements.

1.2 TYPES OF COSTING SYSTEMS

1.2.1 Overview of costing systems

Organisations exist to achieve a profit or meet other major business objectives. To effectively achieve these results, managers require information on a variety of internal factors (revenues, costs, quality, timeliness and customer and employee satisfaction) and external influences (competitors, government policy, general economic conditions). While these areas are very important, in this topic we focus on capturing, analysing, and understanding cost data to support effective decision making.

A systematic approach is required in order for the process of identifying, recording, classifying, interpreting, and reporting to work effectively. Without formalised systems and controls it will be impossible to provide timely and accurate cost information.

Whenever an event or transaction affects costs, data relating to that event should be captured. Costing systems must ensure that all relevant data is recorded and processed. Computerised systems allow for a large amount of data to be captured without human intervention (e.g. EDI, bar-code scanning at point of sale).



Costing systems are a formalised process of identifying, capturing, analysing and reporting relevant cost information to support decision-making.

DEFINITION



EXAMPLE

Event information

Event	Documents	Data
Purchase of materials on credit	<ul style="list-style-type: none"> • Requisition • Purchase order • Tax invoice • Delivery docket 	<ul style="list-style-type: none"> • Unit cost • Quantity purchased • Freight • GST
Payroll	<ul style="list-style-type: none"> • Timesheets • Payslips 	<ul style="list-style-type: none"> • Gross earnings • Net earnings • Superannuation • Group tax • FBT • Leave entitlements
Supplier payments	<ul style="list-style-type: none"> • Receipt • Cheque butts • EFT confirmation • Bank statements 	<ul style="list-style-type: none"> • Invoice number • Amount/date of payment • Bank charges

If a system fails to collect and store relevant information, it will be extremely difficult to prepare accurate internal reports (e.g. income statements, budgets, variances), or meet compliance requirements (e.g. group tax, payroll tax, GST).

The first way of thinking about costing systems is based on the type of product or service on offer. The two most common types are:

- process-focussed systems;
- job-focussed systems.

These are applicable to both products and services.

1.2.2 Process costing systems



TIP

Process costing spreads costs across 'like' units.

Some organisations provide a similar (homogenous) product or service, and there is a strong focus on producing a standardised outcome for every customer. In this situation, a process costing system is usually the most suitable. As each product or service is similar or identical to other products or services in the same category, it is easier to consider the process rather than each individual unit. This results in costs being accumulated and spread across similar groups of products or services.



DEFINITION

A **process costing system** is a costing system that traces production or input costs of homogenous items to calculate an average across all units produced.



LongFly golf ball production

LongFly's Equipment division manufactures golf balls. In the previous financial period, LongFly's production data revealed the following:

EXAMPLE

Raw material	\$25,000
Direct labour	\$20,000
Units produced	60,000

Rather than attempt to calculate the cost of each unit individually, a process costing system will spread the cost over all units produced.

$$\begin{aligned} \text{Direct cost per unit} &= \$45,000/60,000 \text{ units} \\ &= \$0.75 \text{ per unit} \end{aligned}$$

'Homogenous' does not mean that an organisation only provides a single product or service that is identical every time. Multiple products or services might still be considered homogenous. For example, consider Centrelink, the Australian Government agency which processes a large number of government distributions (e.g. pensions, return to work, Austudy, etc.). Each of these services are provided in a similar fashion, following a similar set of procedures and protocols (i.e. homogenous).

1.2.3 Job costing systems



Job costing traces costs to specific jobs.

TIP

Some organisations produce a unique or customised product or service for each client and the completion of each job is treated as a unique event. A job costing system that attempts to collect all of the relevant direct costs of the job is often more suitable in this situation.



A **job costing system** is a costing system that traces relevant costs to unique items.

DEFINITION



LongFly golf course design

LongFly has three open contracts to design golf courses in a variety of settings. The relevant costs for each course are provided below:

EXAMPLE

Cost centres	Sand-belt	Forest	Country
Design labour	\$25,000	\$30,000	\$20,000
Project management	\$5,000	\$10,000	\$5,000
Legal and accounting fees	\$6,000	\$9,000	\$7,000
Total	\$36,000	\$49,000	\$32,000

In this situation, a process costing system would not provide an accurate representation of each item's cost – the courses are not similar enough to be costed on average. A job costing system more accurately reflects the cost of each job, providing better information about each project's performance.

Some organisations use alternative systems instead of these simple job or process costing systems, for example, a doctor may deal with a patient as a specific, unique event. However, at a higher level, hospitals use case-mix funding and other techniques to treat similar consultations, surgeries or other processes as homogenous, rather than as unique events.

Larger organisations with a diverse range of products or services may utilise both types of costing systems, for example, larger banks may provide mergers and acquisitions (job costing) as well as mortgages (process costing).

Even within a type of product/service there is opportunity for some portions to be homogenous, while others are unique, for example, a margin lending provider may treat high net-worth individuals differently to mainstream clients in relation to interest rates, transaction assistance, loan-to-value ratios (LVRs), cleared funds, and service standards.

1.2.4 Standard costing systems



A standard costing system allows users to compare budgeted costs with actual costs.

TIP

Another way of viewing costing systems is as a tool to budget and control performance.

Standard costing systems provide standard prices (based on historical or expected costs) so that you can work against an estimate and compare performance. A standard costing system may be a process or job costing system.

An advantage of standard costing systems is a pre-determined expectation of events, rather than having to wait until actual costs have been collected, collated and reported. However, standard costing systems may build in inefficiencies and may not allow for innovation and continuous improvement.



A **standard costing system** is a costing system in which all inputs are recorded at a standard or pre-determined cost, enabling comparison against actual costs.

DEFINITION



Activity 1

LongFly uses standard costing as part of its job costing system for the golf course design division. This provides the benefit of having an idea of the cost (and therefore profit) at the start of a project, as well as a tool throughout the project for tracking performance.

Calculate the variance for the sand-belt course and consider what these variances may mean.

Sand-Belt Costs	Standard	Actual	Variance
Design labour	\$20,000	\$25,000	?
Project management	\$8,000	\$5,000	?
Legal and accounting fees	\$8,000	\$6,000	?
Total	\$36,000	\$36,000	?



When you have completed this activity, check your work against the suggested answers at the back of the learning material.

SUGGESTED ANSWERS

The importance of having an accurate and effective costing system is demonstrated by the collapse of ION Limited, an Australian car parts manufacturer, in 2004. The company failed to win key supply contracts and suffered cost blowouts on new production lines.



Activity 2

In McGrath Nichol Partners' 'Report to Creditors' on ION Limited, one of the causes of the plant's poor operating performance was 'poor financial controls and an unreliable standard costing system'.

Which of the factors listed below might create such an unreliable standard costing system?

- Price fluctuations.
- Participatory standard setting.
- Overhead allocation method.
- Time and motion studies.
- Faulty input data.
- Setting of practical standards.



When you have completed this activity, check your work against the suggested answers at the back of the learning material.

SUGGESTED ANSWERS

1.2.5 Overhead



Overhead costs are difficult to allocate because the cause-and-effect relationship is not always obvious.

TIP

In any costing system, the purpose is to allocate costs to a cost object (usually a department or product). Many of these costs are directly traceable but some costs are not easily or cost effectively identifiable. These indirect costs are called 'overhead' and they need to be allocated in some way that hopefully reflects the true final cost. In reality, allocation of overhead is often arbitrary. These overheads are often allocated based on volume measures (e.g. labour hours) that have no obvious cause-effect relationship to the cost object.



An **overhead** is the administrative or operational expenses of a business which cannot be directly traced in a cost effective manner to any specific business activity or product/service.

DEFINITION