

SECTION

9

SPECIFIC JOB ORDER COSTING & PROCESS AND SERVICE OPERATIONS



Cost Accounting

Determining Cost of Operations for Pricing and Control

Introduction

In this section, we will examine the methods used to determine the cost of various products (i.e. goods and services) which is a crucial aspect of pricing control. The main goal is for you to be able to explain the different methods that are used to determine costs and understand how effective decisions regarding pricing strategies are made within business. To achieve this, we will study the characteristics of specific order costing models (by job, batch and contract), identify processing organisations and understand process operations. Furthermore, we will identify service organisations and the nature of the services they provide. At the end of this section, you should be feeling confident working through cost-determination methods and know how they might be applied in various organisational contexts.

At the end of this section, you will be able to

- Describe the characteristics of specific job order costing, including job, contracts and batch
- Identify processing organisations and explain the nature of Process Operations
- Identify service organisations and explain the nature of the services they provide.

Key Ideas:

1. **Job Order Costing** is a costing method used to track and assign costs to specific, individual jobs or projects that are unique and customised. It is typically used when products or services are tailored to client specifications.
2. **Batch Costing** is a costing method where costs are assigned to a batch of identical products or units. It is used when production involves making multiple units of the same product in a batch and costs are divided equally among the units.
3. **Contract Costing** is a form of costing applied to large, long-term contracts, where each contract is treated as a separate unit of cost. It is used in industries such as construction, where costs are accumulated over the duration of the contract.
4. **Process Costing** is a costing method used in industries where production is continuous, and products pass through various stages or processes. Costs are accumulated by process or department and then divided by the total units produced to determine the cost per unit.
5. **Service Costing** is a method used to determine the cost of services provided rather than tangible products. It tracks direct and indirect costs associated with delivering a service.

It is commonly used in industries like healthcare, education and hospitality.

SPECIFIC JOB ORDER COSTING: JOB AND BATCH.

In this part of the section, we will tackle job and batch costing. Emphasis will be placed on the characteristics, advantages and disadvantages of these costing methods

Job Costing

This is a type of specific order costing which assigns cost to specific tasks completed in accordance with customer's requirements. In job costing, a client places a precise order for a task to be completed. Examples of when job costing would be applied are sewing a dress or producing custom-made furniture, where each piece is made according to client specifications.

Characteristics of Job Costing

1. Every job is different.
2. The customer's specifications serve as the basis for production. Before production begins, the job price is agreed with the customer.
3. Cost estimation is the basis for job pricing.
4. Every job has its own set of records.
5. A job card is used to track all expenses associated with a job.

Advantages of Job Costing

1. It is possible to calculate the profit for each piece of work separately.
2. It offers a comprehensive cost analysis of every cost component for each job.
3. It is helpful for estimating the expenses of other tasks.
4. It allows the comparison of estimated and actual costs.
5. It helps in determining jobs that are profitable and unprofitable.
6. It facilitates the provision of accurate product quotations.

Disadvantages of Job Costing

1. It is difficult to avoid unnecessary cost during the production process.
2. When it comes to cost estimation, there is no established procedure.
3. It is not effective for jobs that require high efficiency and fast completion.
4. Estimating cost requires more administrative labour.

5. Keeping costs under control is difficult.

Batch Costing

This is a form of costing method which applies when quantities of similar or identical products are manufactured in a group or as a batch. A batch is treated in production like a job. Every batch has a unique number, and all costs are added up and allocated to the batch. The overall cost is then divided by the quantity of units produced in the batch to calculate the unit cost. For example, a bakery needs to produce a batch of 1,000 loaves of bread. The total cost for ingredients, baking and packaging for that batch is divided by 1,000 to determine the cost per loaf.

Activity 9.1

1. Working in pairs, discuss the meaning of job and batch costing.
2. Identify the characteristics of job costing
3. Summarise the advantages and disadvantages of job costing
4. Identify the differences between job and batch costing
5. Make a poster presentation of your responses and share with another group for feedback

SPECIFIC JOB ORDER COSTING: CONTRACTS

Contract costing

This is a costing method which is used for work that is completed according to the specifications of a client but takes more time to complete than a job or batch. Areas where contract costing is applied include construction and infrastructure, such as building ships, bridges and roads.

Characteristics of Contract Costing

1. A contract is drawn up based on the requirements of clients.
2. The length of time required to complete contracts is usually longer than jobs or batches.
3. Each contract is carried out at the site or location of the customer.
4. Each contract is different from other jobs.
5. Contracts are typically on a different scale to jobs or batches.

Advantages of Contract Costing

1. Work can be finished without any delay.
2. The entire cost of the contract, the cost of each component and the profit margin on each contract can all be determined by the contractor.
3. Since the contract recovers all incurred costs, there is minimal chance of suffering a loss.
4. The process of submitting quotes and tenders is streamlined and simplified.
5. The contractee can exercise control over how of the contract is delivered by having retention money.
6. By including escalation clauses, the contractor benefits in the event that prices rise.
7. The contractor can expect to receive a set percentage of profit.

Disadvantages of Contract Costing

1. When work is not done according to schedule, contracts end up becoming time consuming.
2. Production delays might lead to higher costs.
3. Inaccurate accounting records may result in inaccurate profit calculations.
4. The contract can require pre-financing from the contractor.

Activity 9.2

1. In pairs, discuss the meaning of contract costing
2. Identify the characteristics of contract costing
3. Summarise down four (4) advantages and four (4) disadvantages of contract costing
4. Compare your responses with another pair for feedback and discussion.

You could use a table such as the one below to record your answers.

Contract costing	
Definition	
Characteristics	
Advantages	Disadvantages
1.	1.
2.	2.
3.	3.
4.	4.

Activity 9.3

Visit a local business or search online to learn about their job costing.

Before your visit, prepare a set of questions you would like to ask as part of a discussion.

Alternatively, your teacher may provide you with a case study from a business that breaks down their approach to costing based on either the job, batch or contract model.

In groups, work complete a costings exercise based on either:

- The model and examples you saw on your visit to the local business
- The case study provided by your teacher

Be prepared to share your work with another group, or the wider class, for discussion and feedback.

Extended task 1

Answer the following questions to support the review of your learning

1. Differentiate between job and contract costing
2. Explain three (3) advantages and three (3) disadvantages of job costing

Explain three (3) advantages and three (3) disadvantages of contract costing

PROCESSING ORGANISATIONS AND THE NATURE OF PROCESS OPERATIONS

We will now focus on the costing methods suitable for processing and service organisations. We will look at what each of these methods looks like, their purpose and the advantages and disadvantages of using them in these organisations.

Process Costing

Process costing is a costing method that is used in manufacturing standardised goods. It is employed in situations where similar goods are produced in large quantities and where it is impossible to distinguish between the costs of producing each individual output unit.

Process costing is a method of cost procedure that can be used in industries that produce standard items continuously and in large quantities. Breweries, oil refineries, chemical processing, food manufacturing, water distilleries are a few examples of industries that produce goods through process production.

Main Purpose of Process Costing

1. To calculate the cost per unit of products.
2. To determine the average production cost at the end of each production phase.
3. To calculate the value of work in progress (i.e. ongoing work)
4. To account for both normal and abnormal production losses.
5. To match the actual cost of the product against its associated cost.

Characteristics of Process Costing

1. The whole production activity is grouped into a number of process cost centres or departments meaning production takes place in multiple stages
2. The production is continuous.
3. The product is similar.
4. The process is standardised.
5. The output of one process becomes the raw material of another process and so on until the final product is completed.
6. The output of the final process is transferred to the finished stock.
7. Costs are compiled for each process by preparing a separate account for each process.
8. Unit cost of production cannot be independently ascertained. The total cost of each process is divided by the total units produced to ascertain the unit cost of productions

9. The finished products are identical and cannot be easily distinguished unless batch coding is done.

Advantages of Process Costing

1. **Cost Uniformity:** Process costing spreads costs evenly across all of the units produced during a given period, making sure every unit is treated the same, no matter its individual differences.
2. **Simplicity:** Process costing is easier to use and manage than job costing, especially in industries with repetitive and standardised production processes.
3. **Accurate Costing:** It gives a clear picture of costs at each production stage. This helps to achieve better cost control and decision-making.
4. **Inventory Valuation:** Process costing helps to value work in progress and finished goods at different production stages, which is useful for financial reporting and managing inventory.
5. **Performance Evaluation:** It helps to assess how well each production process or department is performing. This assists in identifying areas where improvements can be made and where costs can be reduced.
6. **Standardisation:** By promoting standardised production processes, process costing can lead to greater efficiency, less waste, and improved quality control.
7. **Cost Tracking:** Process costing assigns costs to specific processes or departments, making it easier to track and understand cost variances and their causes.
8. **Cost Control:** With detailed cost information for each process, management can take steps to control costs, optimise resource use and reduce waste.

Disadvantages of Process Costing

1. **Loss of Product Uniqueness:** Process costing lumps all units together as if they are identical. This can be a problem if you are in a business where customising or varying products is important.
2. **Overhead Allocation Problems:** Using fixed rates to allocate overhead costs can lead to inaccurate cost distribution. This might result in either overestimating or underestimating product costs which, in turn, can affect decision-making.
3. **Harder Cost Control:** Process costing might not provide enough detailed information for effective cost management. Costs are often tracked at a general process or department level, which can make it difficult to control expenses precisely.
4. **Time and Resource Intensive:** Setting up and maintaining a process costing system can be quite demanding. It involves detailed documentation of production processes, cost allocations methods and overhead rates which requires significant time and resources.

5. **Not Ideal for Small Operations:** Process costing works best for large-scale, repetitive production. For small-scale or custom manufacturing, it may not be practical or necessary.

Activity 9.4

Your teacher will share with you photographs or short videos showing processing operations in different industries.

You may also watch the short films below:

- <https://www.youtube.com/watch?v=b543tIbjoo8>
- <https://www.youtube.com/watch?v=g5dZpT51IY4>

Make notes while you watch the films on the types of process operations and the types of costs that would need to be considered for each of these businesses.

Be prepared to share your thoughts as part of a wider class discussion.

Activity 9.5

1. In pairs, discuss the meaning of process costing
2. Summarise four (4) purposes of process costing
3. Identify the characteristics of process costing
4. Write down four (4) advantages and four (4) disadvantages of contract costing
5. Compare your responses with another pair for feedback and discussion.

You could record your answers on a worksheet such as the one below.

Process costing	
Definition	
Purposes	<ol style="list-style-type: none"> 1. 2. 3. 4.
Characteristics	
Advantages	Disadvantages
1.	1.
2.	2.
3.	3.
4.	4.

IDENTIFYING SERVICE ORGANISATIONS AND THE NATURE OF SERVICES PROVIDED

Service costing

Service costing is a type of operating costing used for businesses or departments that provide intangible products, known as services, which cannot be stored. This method is applied to organisations such as restaurants, hospitals, transportation companies etc. It also covers the activities of professionals like teachers, lawyers, doctors, pastors etc.

Essentially, service costing helps to determine the costs associated with delivering services.

Characteristics of Service Costing

1. Lack of inventory —There is no inventory for services.
2. Expiration—Since services cannot be stored for future use, services cannot expire or perish like normal goods.

3. Inseparability—The production of the service cannot be separated from the owner.
4. Uniqueness—The production of services is unique and different. Every service produced is different from the other.

Objectives of Service Costing

1. To determine the cost per unit of service for which sales revenue may be earned.
2. To price the services provided.
3. To ascertain the profit or loss made in the provision of a service.
4. To provide management with cost information for cost control and improvement in services provided.

Examples of organisations that use service costing and the cost units associated with their services

Applications	Cost units
Hospitals	In-patient days, number of surgeries, number of outpatients attended to, etc.
Consultancy	Client hours or days
Schools	School hours or days, numbers of learners, types of programmes
Canteen/ Restaurants	Number of meals served
Maintenance services	Maintenance hours/days
Power generation organisations	Kilowatts used
Soliciting firms	Court days/ hours
Hotels	Occupied beds/ rooms, conference rooms, subscriptions for use of spa and gym centres
Library	Subscription for use of the library, library days/ hours
Transport services	Tonnes/ kilometre covered, number of passengers, distance covered

Advantages of Service Costing

1. **Clear cost overview:** Service costing gives a detailed view of the costs involved in each service a business offers, helping to manage costs and set better prices.

2. **Efficient resource allocation:** It helps businesses allocate resources more effectively by highlighting the costs of delivering each service, allowing them to focus on services that are more profitable or in higher demand.
3. **Performance evaluation:** Service costing aids in assessing the profitability and effectiveness of each service, helping management find areas that need improvement or further investment.
4. **Informed decision-making:** It provides key insights that support decisions on pricing, resource use, outsourcing and investments in new services or technologies.
5. **Customer profitability analysis:** Service costing allows businesses to assess how profitable individual customers or customer groups are by assigning costs to the specific services they use.
6. **Benchmarking:** By comparing the costs and profits of similar services in the industry, service costing helps businesses measure their performance and identify ways to reduce costs and improve efficiency.

Disadvantages of Service Costing

1. **Complexity:** Service costing can be complex, especially for businesses offering a variety of services with different cost structures and revenue streams. Accurately assigning overhead and indirect expenses to each service can be difficult.
2. **Intangibility of services:** Unlike physical products, services often include intangible factors like customer experience and satisfaction, which makes it hard to measure and allocate costs accurately.
3. **Subjectivity:** Allocating costs to services often involves some level of subjectivity, particularly when distributing shared resources or indirect costs. This can lead to biases and inconsistencies in cost distribution.
4. **Challenges in cost measurement:** Some services don't have clear cost drivers or units of measurement, making it difficult to find the right basis for cost allocation. This can result in random allocations and an inaccurate analysis of profitability.
5. **Customer variability:** Customers may have different usage patterns and resource needs, making it hard to accurately assign costs to individual customers or customer groups.

Activity 9.6

Click on the links below to watch a short video showing service operations in different industries.

- [Service Industry Definition, Types & List - Lesson | Study.com](#)

Make notes while you watch the films on the types of services and the types of costs that would need to be considered for each of these industries.

Share your thoughts as part of a wider class discussion.

Activity 9.7

1. In pairs, discuss the meaning of service costing
2. Summarise four (4) objectives of process costing
3. Identify the characteristics of service costing
4. Write down five (5) advantages and five (5) disadvantages of service costing
5. Compare your responses with another pair for feedback and discussion.
You could record your answers on a worksheet such as the one below.

Service costing	
Definition	
Objectives	1. 2. 3. 4.
Characteristics	
Advantages	Disadvantages
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

Activity 9.8

1. Complete the table to identify the costing method that might be used to determine the total cost of producing goods or services in the following industries.

s/n	INDUSTRY	COSTING METHOD
1	Pharmaceutical industry	
2	Specialised equipment manufacturing	
3	Food processing (e.g., bakery goods)	
4	Infrastructure projects (e.g., highways, bridges)	
5	Custom furniture manufacturing	
6	Cement production	
7	Education (schools, universities)	
8	Shipbuilding	
9	Hospitality (hotels, resorts)	
10	Crude oil refining	

2. Share your answer with a colleague for feedback

Extended task 2

Answer the following questions to support the review of your learning

1. Differentiate between service costing and contract costing
2. Describe three characteristics of service costing
3. Describe the types of organisations that use service costing and their units of cost.

Review Questions

1. Evaluate the role of cost accounting systems in supporting strategic decision-making in companies that use job order, batch or contract costing methods.
2. Explain how the choice between job, batch or contract costing depends on the nature of the industry and the type of products or services produced.
3. Assess the impact of technological advancements, such as automation and digitisation, on the relevance and applicability of traditional costing methods like job order, batch and contract costing.
4. Propose strategies for overcoming the disadvantages associated with service costing.

Answers To Review Questions

Question 1

The vital role that cost accounting systems play in supporting strategic decision-making, particularly in companies that use job order, batch, or contract costing methods is summarised below:

1. *Accurate Cost Allocation:* These systems ensure precise allocation of direct and indirect costs to specific jobs, batches, or contracts, allowing companies to assess the true profitability of each. This helps in making informed pricing, production and resource allocation decisions.
2. *Cost Control and Efficiency:* By providing detailed cost breakdowns, cost accounting systems help companies identify areas where costs can be controlled or reduced, improving overall operational efficiency.
3. *Profitability Analysis:* For companies using job order, batch, or contract costing methods, understanding the profitability of individual jobs or batches is critical. Cost accounting systems help in analysing which jobs or contracts are most profitable, supporting decisions on future projects or pricing strategies.
4. *Budgeting and Forecasting:* These systems provide data for budgeting and forecasting future costs, revenues and resource needs. This is essential in long-term strategic planning, helping companies anticipate challenges and opportunities.
5. *Decision Support for Custom Orders:* In environments where customised production is key, like job order or contract costing, cost accounting systems help determine whether to accept or reject specific orders based on cost-benefit analysis.

In conclusion, cost accounting systems enable companies to better manage costs, improve profitability and support strategic decisions such as pricing, resource allocation and long-term planning.

Question 2

The choice between job costing, batch costing, or contract costing depends on the nature of the industry and the type of products or services produced.

1. **Job Costing:** Used when products or services are produced to meet specific customer orders or unique requirements. It's suitable for industries like custom manufacturing, construction, or professional services (e.g., legal firms, consultants), where each job or project is distinct, and costs need to be tracked individually.
2. **Batch Costing:** Applied when similar products are manufactured in groups or batches. It is appropriate for industries that produce goods in set quantities, such as pharmaceuticals, textiles, or food production, where costs are accumulated for a batch and the cost per unit is calculated based on the total batch.

- 3. Contract Costing:** Suitable for industries that work on long-term projects, such as construction, shipbuilding, or large infrastructure projects. It involves tracking costs for each contract, which could span months or years and is used when projects are extensive and need detailed cost tracking over time.

Question 3

Technological advancements, such as automation and digitisation, have significantly impacted the relevance and applicability of traditional costing methods like job order, batch and contract costing in the following ways:

- 1. Increased Efficiency:** Automation streamlines the data collection and processing required for these costing methods, reducing manual effort and human error. It allows for more accurate, real-time tracking of costs, improving decision-making processes.
- 2. Customisation:** With digitisation, cost allocation can be more precisely tailored to specific jobs, batches, or contracts, leading to a more refined understanding of cost drivers. This enhances the relevance of these traditional methods in industries that require customised products or services.
- 3. Complexity of Costing:** As businesses adopt more complex production techniques due to technological advancements, traditional costing methods may struggle to capture the true costs of automated processes. Overhead allocation becomes more complex, making it harder to rely on traditional methods without adjustments.
- 4. Integration with Modern Tools:** Modern Enterprise Resource Planning (ERP) systems often integrate traditional costing methods with advanced analytics and reporting, ensuring that these methods remain relevant but more adaptable to current business environments.
- 5. Shift to Activity-Based Costing (ABC):** With greater automation, indirect costs (overheads) have increased. Traditional methods like job order costing might become less relevant as more businesses shift toward Activity-Based Costing (ABC), which offers better accuracy for allocating overheads in automated environments.

In conclusion while traditional costing methods remain relevant in specific contexts, technological advancements demand their integration with modern tools or a shift toward more refined costing approaches.

Question 4

Here are some brief strategies for overcoming the disadvantages associated with service costing:

- 1. Enhanced Data Collection:** Implement robust data collection systems to accurately track time, resources and indirect costs involved in providing services. This reduces the risk of underestimating costs.

2. **Activity-Based Costing (ABC):** Adopt ABC to allocate overheads more accurately. By focusing on the activities that drive costs, this method improves precision in cost assignment.
3. **Regular Cost Audits:** Conduct frequent reviews of cost structures to identify inefficiencies and areas where costs may be misallocated or understated. This helps ensure that service costing reflects actual expenses.
4. **Standardised Costing Frameworks:** Develop and implement standardised costing frameworks across services to maintain consistency in cost allocation, making it easier to compare and control costs across different service offerings.
5. **Technology Integration:** Leverage modern costing software to automate and streamline the service costing process, reducing manual errors and enhancing accuracy in tracking direct and indirect costs.
6. **Staff Training:** Provide regular training to staff involved in costing activities to improve their understanding of cost drivers and how to capture relevant cost data effectively.
7. **Client-Specific Customisation:** Tailor service costing models to the specific needs of different clients or service types, ensuring that costs are appropriately matched to the nature and complexity of the service delivered.

EXTENDED READING

- Eric Oduro (2012), *Principles of Cost Accounting for Senior High Schools* 4th Edition, Terror Publications. (**Pages 205 – 330**)
- Dadzie Barnabas (2013) *Costing for “U”*, 5th Edition. Obuasi: For U Printing House (**Pages 174-251**)

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7. NaCCa (2023), Business Studies Curriculum.

GLOSSARY

- Contractee** The person or entity that hires the contractor to carry out the project or service. The contractee pays the contractor for completing the agreed-upon work.
- Contractor** The individual or organisation responsible for executing a contract or project, usually providing goods, services, or labour in exchange for payment.
- Escalation Clauses** Provisions in a contract that allow for adjustments in the contract price due to changes in costs, such as materials or labour, often used to account for inflation or price volatility during the project timeline.
- Operating Costing** It is a method of costing used to determine the cost of providing a service rather than producing goods. It is commonly applied in industries like transportation, healthcare and utilities, where services are provided continuously.
- Profitability** The financial performance measure indicating the extent to which the revenue from a contract exceeds the total costs involved in completing the project. It reflects the contractor's ability to generate profit from the contract.
- Retention Money** A portion of the contract payment withheld by the contractee to ensure the contractor completes the work to the required standards. It is usually released after the project is fully completed and approved.

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