

# Activity-Based Costing System

Revealing the True Cost of Products and Services





# Introduction to Activity-Based Costing



1

## Strategic Imperative

Accurately determining manufacturing costs is vital for effective decision-making and competitive positioning in the market

2

## Traditional Limitations

Traditional absorption costing may not adequately address overhead allocation complexities for multiple products and services

3

## ABC Advantage

ABC system accumulates overhead costs by organizational activities, then assigns them to specific cost objects

4

## Implementation Consideration

Cost-benefit analysis is essential as ABC system implementation requires higher investments in time and analytical resources

5

## Multiple Drivers

When overhead represents substantial product costs, multiple cost drivers provide superior allocation accuracy

# Origin and Development of ABC

## Historical Context

The 1980s marked critical period when absorption costing limitations became increasingly apparent to organizations.

## Global Adoption

ABC model became integral to management accounting curricula and organizational cost allocation methods worldwide.



## Market Evolution

Traditional systems worked when companies operated limited product ranges with relatively low overhead costs.

## Pioneering Research

David Cooper and Robert Kaplan developed ABC concept, publishing foundational articles in 1990 and 1992.



# Key Definitions and Terminology



## Activity Definition

Any event that incurs costs within the organizational operational framework and resource consumption patterns.

## Activity Cost Pool

Total overhead costs allocated to specific activity types or related operational activity groupings.



## Activity-Based Costing

Cost attribution to cost units based on benefits received from indirect activities per CIMA terminology.



## Cost Object

Any product, service, process, or project requiring separate cost measurement for strategic decision-making purposes.



## Cost Driver

Any factor or activity directly influencing resource consumption patterns and associated cost allocation requirements.





# Overview of the Related Costing Systems



## Absorption Costing

Accounts for total product costs using a single overhead rate based on production characteristics and volume

## Optimal Usage

Traditional systems are effective when direct labor constitutes a significant portion; the ABC system is used when technology dominates costs

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## Direct Costing

Assigns only variable costs to products, emphasizing contribution to cover indirect operational expenses

## Key Differentiator

ABC employs multiple cost drivers versus traditional systems relying on single cost driver allocation

## Strategic Orientation

Traditional systems are cost-driven while ABC systems maintain process-driven strategic operational focus



# When is ABC System Worth Using?



Overheads are high in amount



Products or customers are diverse



Business processes are complex



Pricing pressure and competition are intense



Product or service profitability is unclear

**N.B.:** Not using the ABC system in such environments is far more expensive than implementing it. So, better implement it rather than facing consequences in the form of incorrect product or service or customer costs leading to incorrect price settings. Incorrect pricing is the major reason behind product failure in the market.

# The Framework of ABC System

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## Core Process

ABC distributes overhead costs across multiple activity cost pools, then assigns them using specific cost drivers.

2

## Implementation Steps

Identify necessary activities, assign overhead costs, determine cost drivers, calculate predetermined rates, allocate costs.

3

## Strategic Application

Serves as both a planning tool and management control mechanism for pricing and profitability analysis.

4

## Accuracy Enhancement

Establishes a clear relationship between overhead costs and production activities through relevant activity levels.

5

## Decision Support

Underpins critical business decisions including pricing strategies, inventory valuation, and overhead allocation optimization.



# Cost Drivers and Activity Levels



## Batch-Level Activities

Costs incurred per batch production include purchase orders, machine setups, and comprehensive quality testing.



## Facility Support

Administrative costs include depreciation, taxes, security, insurance, accounting, and management salaries.



## Unit-Level Activities

Costs directly related to individual units include direct materials, labor, and machine maintenance operations.



## Product-Line Activities

Costs specific to product lines include engineering changes, design modifications, and warehousing requirements.

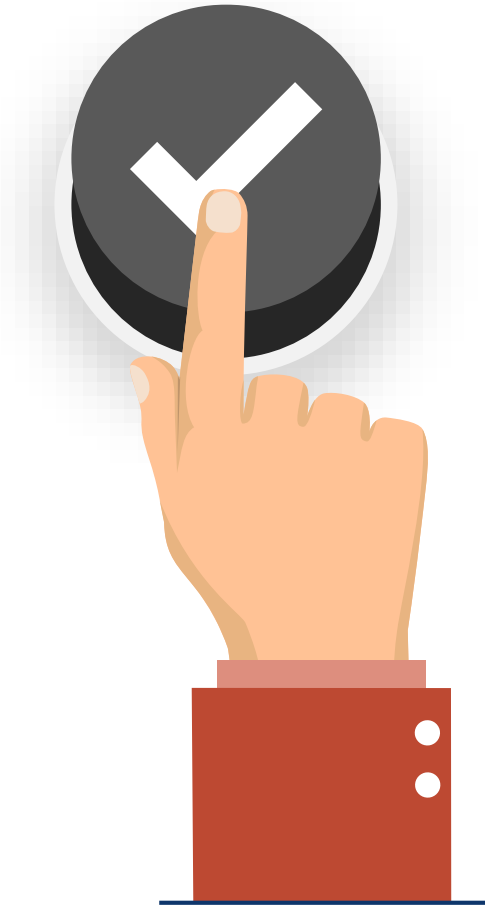


## Driver Categories

Transaction drivers count occurrences; duration drivers measure time; intensity drivers weight resource consumption.

# Advantages of ABC System

- 1 Cost Accuracy**  
Provides precise product and service costing through direct activity linkage, improving financial decision-making.
- 2 Overhead Understanding**  
Management gains clearer visibility into overhead cost drivers and their operational impact on profitability.
- 3 Process Integration**  
Aligns effectively with Six Sigma and continuous improvement initiatives, facilitating enhanced operational efficiency.
- 4 Waste Identification**  
In-depth overhead analysis highlights non-value-added activities, enabling better production waste control measures.
- 5 Performance Management**  
Supports comprehensive performance management frameworks and balanced scorecard development for strategic alignment.
- 6 Strategic Benchmarking**  
Facilitates benchmarking against other products and enables comprehensive performance comparisons across business units.





# Drawbacks and Implementation Challenges



## Implementation Costs

Requires a larger initial budget compared to traditional costing methods with ongoing maintenance expenses

## Profit Reporting

Often gives different product margins than traditional systems, potentially creating management confusion

## IFRS Compliance

Reports don't adhere to IFRSs / IASs under ABC, requiring dual cost systems for internal and external reporting



## Employee Buy-in

Requires convincing employees of ABC benefits and securing strong top management support throughout implementation

## Resource Requirements

Demands cross-functional team design, consultant engagement, and specialized software selection with expert guidance

## Time Investment

More time-consuming to implement and operate, therefore, necessitating objective collection of cost driver information



# Industries Using ABC Successfully



## Pharmaceuticals

Understands research, development, and production costs, facilitating superior budgeting and pricing for the strategic initiatives

## Manufacturing Sector

Effective in complex production environments where overhead costs vary significantly between different product lines

## Telecommunications

Enables accurate cost assignment to different service lines, improving profitability analysis and strategic decision-making

## Healthcare Organizations

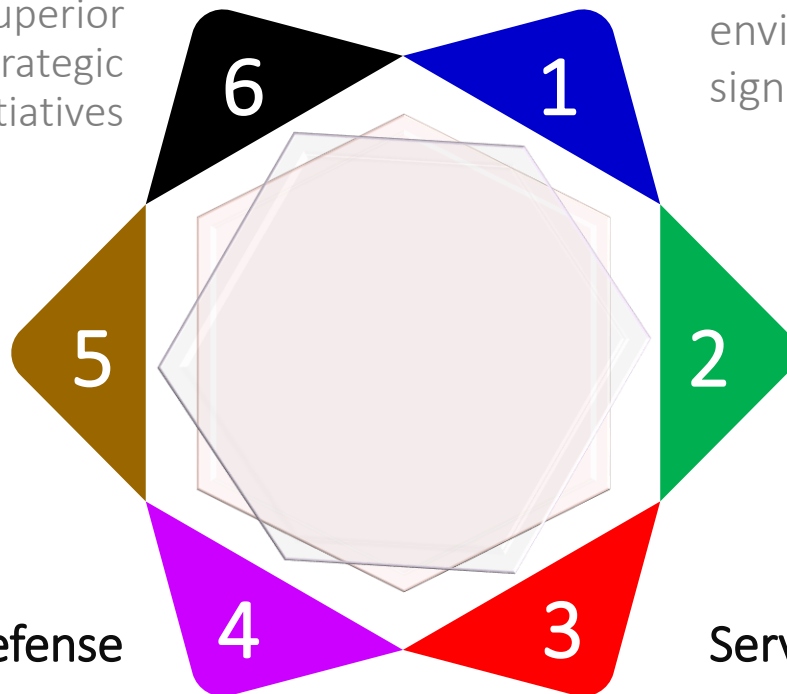
Helps understand patient care costs, enabling informed financial decisions and strategic resource allocation optimization

## Aerospace Defense

Manages intricate costs in high regulatory environments with sophisticated production and project management requirements

## Service Industries

Consulting and IT services benefit through improved insights into service delivery costs and pricing strategies





# Software Solutions for ABC System



1

## Enterprise Solutions

Oracle NetSuite, SAP Business By Design, and Microsoft Dynamics 365 provide comprehensive ABC functionality

2

## Specialized Platforms

Sage Intacct and IBM Cognos Analytics offer dedicated cost management and business intelligence capabilities

3

## Industry-Specific Tools

Infor CloudSuite provides industry-specific solutions with extensive ABC capabilities for detailed cost tracking

4

## Dedicated Solutions

CostPerform focuses exclusively on ABC with extensive cost analysis functionality for comprehensive management insights

5

## Performance Management

Prophix and Workday Adaptive Planning support ABC methodologies within broader financial planning frameworks

6

## Visualization Integration

Tableau integrates with ABC data, providing insightful analytics and comprehensive reporting for strategic decision-making



# Manufacturing Company Example



## ABC Implementation

Multiple cost drivers including machine hours, purchase orders, and setups provided more accurate cost allocation.

## Traditional Costing

Single overhead rate of USD. 4 per labor hour resulted in Product A: USD. 265, Product B: USD. 302.50 per unit.

## Alpha Ltd

Manufacturing Products A and B with identical processes but different overhead allocation requirements and cost structures.



## Cost Comparison

ABC results: Product A: USD. 255.60 (3.55% lower), Product B: USD. 396.50 (31.07% higher) than traditional costing.

## Strategic Impact

Traditional system overstated Product A costs while understating Product B, requiring ABC implementation for accuracy.

# Service Company Example

## Resource Allocation

Provides insights for strategic resource allocation and operational efficiency improvements across service delivery activities

## Strategic Value

ABC enables consulting firms to understand activity-specific costs and make informed pricing decisions



## XYZ Consulting

Management consulting firm with USD. 100,000 overhead allocated across client meetings, research, and report preparation

## Activity Rates

Client meetings: USD. 200 per meeting,  
Research: USD. 100 per hour, Report preparation: USD. 1,000 per report

## Client D Analysis

5 meetings, 20 research hours, and 3 reports resulted in a total service cost of USD. 6,000 per client

# Trading Company Example

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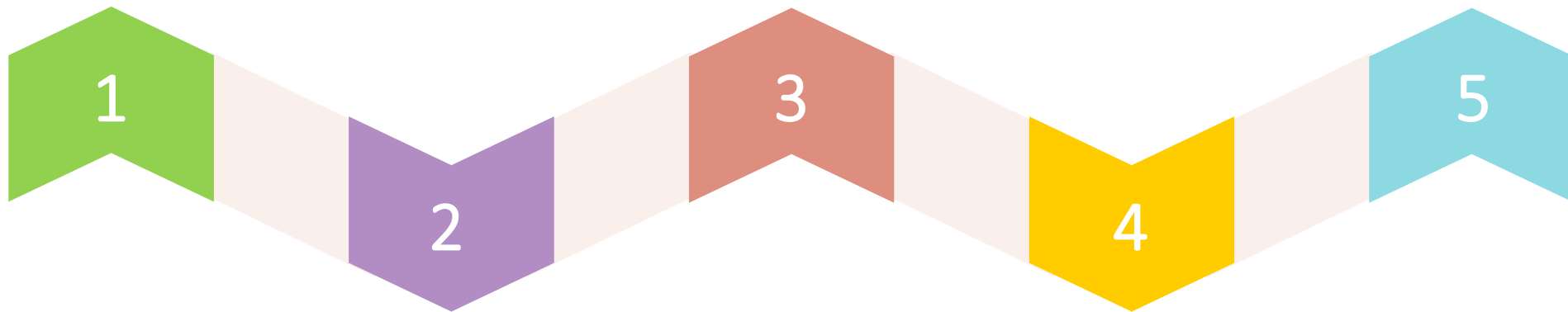
Electronics trading company with 5,000 annual units across order processing, warehousing, shipping, and customer service

## Total Cost

Total budgeted operational costs of USD. 30,000 with cost per unit of USD. 6 for electronic trading operations

## Operational Insights

Helps trading companies optimize cost structures and make strategic operational decisions based on activity analysis



## Activity Costs

Order processing: USD. 10,000, Warehousing: USD. 2,000, Shipping: USD. 12,000, Customer Service: USD. 6,000 annually

## Cost Structure

ABC implementation enables understanding of actual trading activity costs and informed pricing decision-making processes



# Important Question

**When the ABC system is embedded in most of the ERPs, what is the purpose of all the above discussions? The ERP vendor does all the job as a part of the implementation exercise.**

Even though ABC is embedded in most modern ERP systems, the discussion of ABC remains essential because an ERP only runs a costing model. It does not design it, challenge it, or think for management. Software can allocate costs once activities, cost pools, and drivers are defined, but it cannot understand how the business truly works. Only management can decide which activities really consume resources, which ones add value, and which ones exist only because of poor processes or weak controls.

Vendors and consultants can technically configure ABC inside an ERP, but they cannot judge whether a customer order, a machine setup, a design change, or a sales visit is the real driver of cost in your business. They also cannot decide how costs should be interpreted for pricing, product mix, outsourcing, customer profitability, or market strategy. These are economic and managerial judgments, not IT decisions.

If management does not understand ABC, the ERP will simply automate bad assumptions. Wrong cost drivers, poorly defined activities, or incomplete cost pools will still produce neat-looking reports, but the numbers will be misleading. This creates a dangerous situation where managers trust the system while being guided by distorted cost information, leading to wrong pricing, loss-making customers being subsidized, and profitable products being dropped.

ABC is therefore not a software feature. It is a way of thinking about how resources are consumed by activities and how those activities serve products, services, and customers. The ERP only provides speed, scale, and data handling. The real value of ABC comes from management using that information to challenge processes, remove waste, redesign workflows, and make better strategic choices. In short, ABC must be understood and actively used by management. Without that understanding, an ERP will only make a poor costing model run faster, not make it correct.



# Utilizing ABC System in the Strategic Decision-Making Process



ABC system supports some of the most important business decisions, such as:

## Product Pricing Decisions

ABC shows the true cost of serving each product and customer. This costing method prevents underpricing or overpricing of products or services.

## Making Customer Profitability Analysis

Some customers order small quantities, demand fast delivery, require many changes, and call support often. ABC reveals whether they are worth keeping.

## Product Design Finalization

ABC highlights which design (features) drives cost more or less, thus allowing engineers to design products for higher profitability.

## Outsourcing Expensive Activities

ABC shows which activities are more expensive internally and may be cheaper outside, thus allowing outsourcing of such activities.

## Production Capacity Management

ABC separates unused capacity from used capacity, thus making inefficiencies visible to management.



# Activity-Based Management Approach



1

## Strategic Framework

ABM uses ABC insights to optimize processes, reduce costs, and enhance overall organizational effectiveness

2

## Performance Improvement

Emphasizes continuous improvement by identifying inefficiencies in processes and operational activities systematically

3

## Cost Control

Understanding activity-specific costs enables informed decisions to minimize waste and optimize resource utilization

4

## Strategic Alignment

Encourages alignment of activities with strategic objectives, ensuring effective resource allocation and operational focus

5

## Data-Driven Decisions

Relies on comprehensive data analysis to guide management decisions, making it more strategic than traditional approaches

6

## Proactive Management

Focuses on strategic management and process improvement rather than reactive budgeting and basic cost control



# Activity-Based Budgeting Framework



## Strategic Purpose

ABB plans future expenses by setting budgets based on activities required to achieve organizational goals.



## Planning Focus

Uses ABC insights to create budgets reflecting resources needed for performing planned strategic activities.

## Implementation Process

Define objectives, identify required activities, estimate costs using ABC data, and compile comprehensive strategic budgets.

## Resource Alignment

Results in well-structured budgets aligning spending with strategic priorities and ensuring efficient resource allocation.

## ABC Integration

Builds upon ABC cost information to estimate future activity costs and create comprehensive organizational budgets.



## Beyond Costing, Toward Better Management



The ABC system delivers accurate product and service costs by allocating overheads based on the activities that actually consume resources, rather than spreading them uniformly across all outputs.

It, therefore, goes beyond costing and becomes a way of understanding how the business truly operates through its cost drivers and activities.

This visibility allows management to see where money is spent, why it is spent, and how processes, products, and customers can be managed more efficiently and effectively.



*thank  
you!*