



Question

Stakeholder commitment

Think of some examples of how what organisations might want from employees, suppliers and regulators.

Answer

Employees. Their time, their skills and their motivation. Possibly also flexibility to adapt to new roles of to changes in the organisation.

Suppliers. Timely delivery, of the correct order, and to the right place.

Regulators. Efficient working relationships and the lack of excessive bureaucracy. Good understanding of the business sector and the pressures companies in it face.

Neely and Adams remark that the notion of stakeholder contribution is a vital one, because it explains why there is so much confusion around the concept of stakeholders in the literature.

They suggest that organisations need to get a clear understanding of the 'dynamic tension' that exists between what stakeholders want and need from the organisation, and what the organisation wants and needs from its stakeholders.

4.2 Strengths and weaknesses of the performance prism

The performance prism has a far wider view of stakeholders than the other models in this chapter. It includes a range of stakeholders and considers their wants and needs before setting strategies therefore this model does not derive performance measures solely from internally-derived strategy. In this respect it has a good foundation in the actual strategies that should be adopted based on the organisation's stakeholders.

However, unlike many of the other models we have looked at, it doesn't go into detail on what performance measures should be used for each perspective.

5 Activity-based management

to brief BPP (- CPAA summary - hkiipa) - ACCA FS PS

FAST FORWARD

BPR
BPM

Activity-based management (ABM) includes performing activities more efficiently, eliminating the need to perform certain activities that do not add value for customers, improving the design of products and developing better relationships with customers and suppliers. The goal of ABM is to enable customer needs to be satisfied while making fewer demands on organisational resources.

few resources

Exam focus point



Note the potential links between activity-based management and Porter's Value Chain which we looked at in Chapter 3 earlier in this Study Text.

Activity-based management encourages managers to view businesses as a set of linked activities which add value for a customer. This then encourages managers to eliminate unnecessary activities (and thereby reduce costs) and improve the performance of value-adding activities and processes.

The idea of process improvement also links back to the ideas of continuous improvement and Six Sigma which we discussed in Chapter 11, and possibly, if more radical improvements are required, to Business Process Re-engineering (which we discussed in Chapter 3).

5.1 Definitions of activity-based management

Activity-based costing (ABC) was originally introduced as a method of working out the cost of producing a product. However, organisations can now also use ABC information to help manage costs, and to focus on those activities which add value.

In essence, the emphasis has switched away from using activity-based approaches for product costing to using it to **improve cost management**. The terms activity-based management (ABM) and activity-based cost management (ABCM) are used to describe the cost management applications of ABC. In effect, ABM is ABC in action.

There are a great many different definitions of activity-based management.

Here is Drury's definition (from *Management and Cost Accounting*), with BPP's emphasis.

'ABM views the business as a set of linked activities that ultimately add value to the customer. It focuses on managing the business on the basis of the activities that make up the organisation. ABM is based on the premise that activities consume costs. Therefore **by managing activities costs will be managed in the long term**. The goal of ABM is to enable customer needs to be satisfied while making fewer demands on organisation resources. The measurement of activities is a key role of the management accounting function. In particular, activity cost information is useful for prioritising those activities that need to be studied closely so that they can be eliminated or improved.

In recent years ABM information has been used for a variety of business applications. They include cost reduction, activity-based budgeting, performance measurement, benchmarking and business process re-engineering.'

Hornigren, Foster and Datar in *Cost Accounting: A Managerial Emphasis* define it broadly to include pricing and product-mix decisions, cost reduction and process improvement decisions, and product design decisions'.

In *Managerial Accounting*, Raiborn, Barfield and Kinney include **activity analysis, cost driver analysis, continuous improvement, operational control and performance evaluation** as the concepts covered by activity based management. 'These concepts help companies to produce more efficiently, determine costs more accurately, and control and evaluate performance more effectively.'

Clark and Baxter (*Management Accounting*, June 1992) provide a description, which appears to include every management accounting buzzword.

'The aim of activity-based management (ABM) is to provide management with a method of introducing and managing 'process and organisational change.'

It focuses on activities within a process, decision-making and planning relative to those activities and the need for continuous improvement of all organisational activity. Management and staff must determine which activities are critical to success and decide how these are to be clearly defined across all functions.

Everyone must co-operate in defining:

- (a) Cost pools
- (b) Cost drivers
- (c) Key performance indicators

They must be trained and empowered to act; all must be fairly treated and success recognised.

Clearly, ABM and employee empowerment take a critical step forward beyond ABC by recognising the contribution that people make as the key resource in any organisation's success.

- (a) It nurtures good communication and team work
- (b) It develops quality decision-making
- (c) It leads to quality control and continuous improvement

Some accountants do not appear to understand that ABM provides an essential link to total quality management (TQM) and its concepts of 'continuous improvement'.

Internal
Cost/
Quality

ABM helps deliver:

(a) Improved "quality"

(b) Increased customer satisfaction? not \$, not measurable quantifying

(c) Lower costs

(d) Increased "profitability"

product

'It provides accountants and other technical managers with a meaningful path into the business management team.'

Perhaps the clearest and most concise definition of ABM, however, is offered by Kaplan *et al* in *Management Accounting*.

Key term

Activity based management (ABM) is '...the management processes that use the information provided by an activity-based cost analysis to improve organisational profitability. Activity-based management (ABM) includes performing activities more efficiently, eliminating the need to perform certain activities that do not add value for customers, improving the design of products, and developing better relationships with customers and suppliers. The goal of ABM is to enable customer needs to be satisfied while making fewer demands on organisational resources.'

In the following paragraphs we examine some of the aspects of ABM mentioned in the definitions above.

5.2 Cost reduction and process improvement

Traditional cost analysis analyses costs by types of expense for each responsibility centre. ABM, on the other hand, analyses costs on the basis of cross-departmental activities and therefore provides management information on why costs are incurred and on the output of the activity in terms of cost drivers. By controlling or reducing the incidence of the cost driver, the associated cost can be controlled or reduced.

must ABC

limitation

activity

This is fundamental to ABM. At its heart is the recognition that the activities people undertake (to produce products or deliver services) consume resources, so controlling these activities allows managers to control costs at their source.

cost

The difference between traditional cost analysis and activity-based analysis is illustrated in the example below of the activity of processing customer orders.

reduction
opportunities

Traditional analysis

	\$
Salaries	5,700
Stationery	350
Travel	1,290
Telephone	980
Equipment depreciation	680
	<u>9,000</u>

ABC analysis

	\$
Preparation of quotations	4,200
Receipt of customer orders	900
Assessment of customer creditworthiness	1,100
Expedition of orders	1,300
Resolution of customer problems	1,500
	<u>9,000</u>

activities
cost
drivers

"real life"

Suppose that the analysis above showed that it cost \$250 to process a customer's order. This would indicate to sales staff that it may not be worthwhile chasing orders with a low sales value. By eliminating lots of small orders and focusing on those with a larger value, demand for the activities associated with customer order processing should fall, with spending decreasing as a consequence.

5.2.1 Problems associated with cost reduction and ABM

- (a) The extent to which activity based approaches can be applied is very dependent on an organisation's ability to identify its main activities and their associated cost drivers.
- (b) If a system of 'conventional' responsibility centres has been carefully designed, this may already be a reflection of the key organisational activities. For example, a despatch department might be a cost centre, but despatch might also be a key activity.
- (c) In some circumstances, the 'pooling' of activity based costs and the identification of a single cost driver for every cost pool may even hamper effective control if the cost driver is not completely applicable to every cost within that cost pool. For example, suppose the cost of materials handling was allocated to a cost pool for which the cost driver was the number of production runs. Logically, to control the cost of materials handling the number of production runs should be controlled. If the cost is actually driven by the weight of materials being handled, however, it can only be controlled if efforts are made to use lighter materials where possible.

*
same disadvantage as normal ABC

5.3 Activity analysis

The activity based analysis above provides information not available from a traditional cost analysis. Why was \$1,500 spent on resolving customer orders, for example. An **activity analysis** usually **surprises managers** who had not realised the amount being spent on certain activities. **This leads to questions about the necessity for particular activities** and, if an activity is required, whether it can be carried out more effectively and efficiently.

ABC

Such questions can be answered by classifying activities as value added or non-value added (or as core/primary, support or diversionary/discretionary).

5.3.1 Value-added and non-value-added activities

general classification

Key term

An activity may increase the worth of a product or service to the customer; in this case the customer is willing to pay for that activity and it is considered **value-added**. Some activities, though, simply increase the time spent on a product or service but do not increase its worth to the customer; these activities are **non-value-added**.
(Rayborn, Barfield and Kinney, *Managerial Accounting*)

As an example, getting luggage on the proper flight is a value-added activity for airlines, dealing with the complaints from customers whose luggage gets lost is not.

The time spent on non-value-added activities creates additional costs that are unnecessary. If such activities were eliminated, costs would decrease without affecting the market value or quality of the product or service.

The processing **time** of an organisation is made up of four types.

- (a) **Production or performance time** is the actual time that it takes to perform the functions necessary to manufacture the product or perform the service.
- (b) Performing quality control results in **inspection time**.
- (c) Moving products or components from one place to another is **transfer time**.
- (d) Storage time and time spent waiting at the production operation for processing are **idle time**.

(a) **Production time is value added. The other three are not. The time from receipt of an order to completion of a product or performance of a service equals production time plus non-value-added time.**

JIT would of course eliminate a significant proportion of the idle time occurring from storage and wait processes but it is important to realise that **very few organisations can completely eliminate all quality control functions and all transfer time**. If managers understand the non-value-added nature of these functions, however, they should be able to **minimise** such activities as much as possible.

Sometimes non-value-added activities arise because of inadequacies in existing processes and so they cannot be eliminated unless these inadequacies are addressed.

e.g.

X

- (a) The National Health Service (NHS) is a classic example of this. Some heart patients on the NHS wait up to four months for critical heart surgery. During this time they are likely to be severely ill on a number of occasions and have to be taken to hospital where they spend the day receiving treatment that will temporarily relieve the problem. This non-value-added activity is totally unnecessary and is dependent on an inadequate process: that of providing operations when required.
- (b) Customer complaints services can be viewed in the same way: eliminate the source of complaints and the need for the department greatly reduces.
- (c) Setting up machinery for a new production run is a non-value-added cost. If the number of components per product can be reduced the number of different components made will reduce and therefore set-up time will also reduce.

Normally one of the **costliest** things an organisation can do is to **invest in equipment and people to make non-value-added activities more efficient**. The objective is to **eliminate them altogether or subject them to a major overhaul, not make them more efficient**. For example, if a supplier of raw materials makes a commitment to supply high-quality materials, inspection is no longer required, and buying testing equipment and hiring more staff to inspect incoming raw material would waste time and money.

However, there are occasions when non-value-added activities are **essential to remain in business**. For instance, pharmaceutical companies need to meet Food and Drug Agency regulation on quality assurance which add nothing to the product or process.

*non-value added
"support activity"
"might be useful"*

5.3.2 Core/primary, support and diversionary/discretionary activities

This is an alternative classification of activities.

Key terms

A core activity or primary activity is one that adds value to a product, for example cutting and drilling materials and assembling them.

A secondary activity is one that supports a core activity, but does not add value in itself. For example setting up a machine so that it drills holes of a certain size is a secondary activity.

Diversionary activities or discretionary activities do not add value and are symptoms of failure within an organisation. For instance repairing faulty production work is such an activity because the production should not have been faulty in the first place.

*relevant cost
- must check which relevant cost to decide to cut or keep*

The aim of ABM is to try to eliminate as far as possible the diversionary activities but, as with non-value-added activities, experience has shown that it is usually impossible to eliminate them all, although the time and cost associated with them can be greatly reduced.

5.4 Design decisions

In many organisations today, roughly 80% of a product's costs are committed at the product design stage, well before production begins. By **providing product designers with cost driver information** they can be encouraged to **design low cost products that still meet customer requirements**.

The identification of appropriate cost drivers and tracing costs to products on the basis of these cost drivers has the potential to **influence behaviour to support the cost management strategies of the organisation**.

For example, suppose product costs depend on the number and type of components. A product that is designed so that it uses fewer components will be cheaper to produce. A product using standard components will also be cheaper to produce. Management can influence the action of designers through overhead absorption rates if overheads are related to products on the basis of the number of component parts they contain. Hitachi's refrigeration plant uses this method to influence the behaviour of their product designers and ultimately the cost of manufacture.

5.5 Cost driver analysis

To reflect today's more complex business environment, recognition must be given to the fact that costs are created and incurred because their cost drivers occur at different levels. Cost driver analysis investigates, quantifies and explains the relationships between cost drivers and their related costs.

Classification level	Cause of cost	Types of cost	Necessity of cost
Unit level costs	Production/acquisition of a single unit of product or delivery of single unit of service	Direct materials Direct labour	Once for each unit produced
Batch level costs	A group of things being made, handled or processed	Purchase orders Set-ups Inspection	Once for each batch produced
Product/process level costs	Development, production or acquisition of different items	Equipment maintenance Product development	Supports a product type or a process
Organisational/ facility costs		Building depreciation Organisational advertising	Supports the overall production or service process

(Adapted from Raiborn *et al*)

Traditionally it has been assumed that if costs did not vary with changes in production at the unit level, they were fixed rather than variable. The analysis above shows this assumption to be false, and that costs vary for reasons other than production volume. To determine an accurate estimate of product or service cost, **costs should be accumulated at each successively higher level of costs.**

Unit level costs are allocated over number of units produced, batch level costs over the number of units in the batch, product level costs over the number of units produced by the product line. These costs are all related to units of product (merely at different levels) and so can be gathered together at the product level to match with revenue. Organisational level costs are not product related, however, and so should simply be deducted from net revenue.

Such an approach gives a far greater insight into product profitability.

5.6 Using **ABC in service and retail organisations**

ABC was first introduced in manufacturing organisations, and for a long time it was only considered to be relevant to manufacturing.

However, to varying degrees, all organisations have processes and activities in place which allow them to provide the products or services required by their customers or users. Therefore ABC can be used equally well in other types of organisation, including service companies, public sector organisations or non-for-profit organisation.

For example, when the management of the US Post Office introduced ABC they analysed the activities associated with cash processing as follows.

Activities	Examples	Possible cost driver
Unit level	Accept cash	Number of transactions
	Processing of cash by bank	Number of transactions
Batch level	'Close out' and supervisor review of clerk	Number of 'close outs'
	Deposits	Number of deposits
	Review and transfer of funds	Number of accounts
Product level	Maintenance charges for bank accounts	Number of accounts
	Reconciling bank accounts	Number of accounts

Retail organisations are considered in more detail in the context of direct product profitability later in this text, but they too can use ABC.



Question

ABC and retail organisations

Complete the following table to show activities and drivers that might be used in a retail organisation.

Activities	Possible cost driver

Answer

Activities	Possible cost driver
Procure goods	Number of orders
Receive goods	Number of orders or pallets
Store goods	Volume of goods
Pick goods	Number of packs
Handle returnables/recyclables	Volume of goods

5.7 Continuous improvement

“ quality ” sector ↓ *non-value add activities*

Continuous improvement recognises the concept of eliminating non-value-added activities to reduce lead time, make products or perform services with zero defects, reduce product costs on an ongoing basis and simplify products and processes. It focuses on including employees in the process as they are often the best source of ideas.

5.8 Operational control

To control costs, managers must understand where costs are being incurred and for what purpose. Some of this understanding will come from differentiating between value-added and non-value-added activities. Some will come from the better information generated by more appropriate tracing of overhead costs to products and services. Some will come from viewing fixed costs as long-term variable overheads and recognising that certain activities will cause those costs to

change. Understanding costs allows manager to visualise what needs to be done to controls those costs, to implement cost reduction activities, and to plan resource utilisation.

.....By better understanding the underlying cost of making a product or performing a service, managers obtain **new insight into product or service profitability**. Such insight could **result in management decisions** about expanding or contracting product variety, raising or reducing prices, and entering or leaving a market. For example, managers may decide to raise selling prices or discontinue production of low-volume speciality output, since that output consumes more resources than does high-volume output. Managers may decide to discontinue manufacturing products that require complex operations. Or, managers may reap the benefits from low-volume or complex production through implementing high-technology processes.'

(Raiborn *et al*, with BPP emphasis)

Innes and Mitchell ('*Activity Based Costing*') report that, in some organisations,

'ABCM has also been used in **make-or-buy decisions** and has led to the sub-contracting of certain activities. In another engineering company the ABCM information on purchasing **concentrated managers' attention** on problems such as **late deliveries, short deliveries and poor-quality raw materials**. This information enabled this engineering company to identify twenty problem suppliers and take the necessary corrective action, which varied from changing suppliers to working with others to overcome the existing problems.'

5.9 Performance evaluation

ABM encourages and rewards employees for developing new skills, accepting greater responsibilities, and making suggestions for improvements in plant layout, product design, and staff utilisation. Each of these improvements reduces non-value-added time and cost. In addition, by focusing on activities and costs, ABM is better able to provide more appropriate measures of performance than are found in more traditional systems.

To monitor the effectiveness and efficiency of activities, performance measures relating to volume, time, quality and costs are needed.

- (a) **Activity volume** measures provide an indication of the throughput and capacity utilisation of activities. For example reporting the number of times an activity such as setting-up is undertaken focuses attention on the need to investigate ways of reducing the volume of the activity and hence future costs.
- (b) To increase customer satisfaction, organisations must provide a speedy response to customer requests and reduce the time taken to develop and bring a new product to the market. Organisations must therefore focus on the **time taken** to complete an activity or sequence of activities. This time can be reduced by eliminating (as far as is possible) the time spent on non-value-added activities.
- (c) A focus on value chain analysis is a means of enhancing customer satisfaction. The value chain is the linked set of activities from basic raw material acquisition all the way through to the end-use product or service delivered to the customer. By viewing each of the activities in the value chain as a supplier-customer relationship, the opinions of the customers can be used to provide useful feedback on the **quality of the service provided** by the supplying activity. For example the quality of the service provided by the processing of purchase orders activity can be evaluated by users of the activity in terms of the speed of processing orders and the quality of the service provided by the supplier chosen by the purchasing activity. Such qualitative evaluations can be supported by quantitative measures such as percentage of deliveries that are late.
- (d) **Cost driver rates** (such as cost per set-up) can be communicated in a format that is easily understood by all staff and can be used to motivate managers to reduce the cost of performing activities (given that cost driver rate \times activity level = cost of activity). Their use as a measure of performance can induce dysfunctional behaviour, however. By splitting production runs and therefore having more set-ups, the cost per set-up can be reduced. Workload will be increased, however, and so in the long run costs could increase.

critical success factor
CSF factor
- Competitive advantage
↓
KPI
key performance indicator
↓
measure
common "other tool"

5.10 Strengths and weaknesses of ABM

Activity-based management focuses on managing the activities in the organisation that ultimately bring **value to the customer**. In this respect, ABM can focus management attention on key value-added activities, to help an organisation maintain or increase its competitive advantage. ABM also highlights the need for businesses to be focused on quality and continuous improvement.

To the extent that ABM highlights the importance of analysing the way activities add value for the customer, it has a degree of overlap with some of the other models we have looked at in this chapter (for example, the balanced scorecard and the performance pyramid, which also highlight the importance of creating value for the customer).

More specifically, ABM could be useful to organisations in helping to:

- (a) Design products and services that meet or exceed customers' expectations and can be produced and delivered at a profit
- (b) Identify where improvements (either continuous, or one-off transformations) are required in quality, efficiency and speed
- (c) Negotiate with customers about prices, product features, quality, delivery and service.

However, ABM should not be seen as a panacea.

- (a) **ABM will not, by itself, reduce costs.** It can help organisations understand their costs better in order to know what activities they have to address to reduce costs. However, the necessary actions still have to be taken to improve or re-design these activities in order to reduce the costs.
- (b) ~~*~~ Also, the **amount of work** required to set up the ABC system and in data collection must be considered, to assess whether the cost of setting up the system outweighs the benefits of having it.
- (c) **Organisational and behavioural consequences.** Selected activity cost pools may not correspond to the formal structure of cost responsibilities within the organisation (The purchasing activity may spread across purchasing, production, stores, administrative and finance departments) and so determining 'ownership' of the activity and its costs may be problematic. We have already mentioned the behavioural impact of some performance measures.

Moreover, it is important not to forget the point (which is a weakness of activity based costing in general) that it can sometimes be difficult to find out what costs apply to a particular activity. Some areas of activity overlap and may be difficult to separate.

Exam focus point

An exam question on Activity-based management could be written, or require calculations, or be a mixture of both.

Exam questions may also test your knowledge of Activity-based costing (which is assumed knowledge brought forward from F5.)

The December 2010 exam required candidates to evaluate an absorption costing system compared to an ABC system, and then comment on any action that management should take in relation to product pricing. This question combined calculations and a written report, because candidates had to perform an ABC calculation on the figures given in the scenario, and then use their findings from the calculation to identify what action management should take.

6 Value-based management

FAST FORWARD

VBM aligns an organisation's overall aspirations, analytical techniques, and management processes with the **key drivers of value**. So, VBM takes the idea of creating value through return on future cash flow and embeds this in the organisational culture in its strategy, as well as making this a performance measure to be used throughout the organisation.

acca

Focuses management attention on key value-added activities (which enhance value to customer and to customer satisfaction), key customers and key products.

Takes ABC cost analysis and uses it to improve organisational profitability.

cpaa

Part A: Activity-Based Costing (ABC)

Part B: Strategic revenue and cost management

Activity-Based Management (ABM)

Business Process Management (BPM)

Social and environmental value chain analysis

“Activity-based management (ABM)” *post & best*

Aspects of ABM

- **Cost reduction** (controlling/reducing the incidence of cost drivers) and process improvement.
- **Activity value analysis:**
 - Value-added and non-value adding.
 - Eliminate non-value adding activities to reduce costs without affecting revenue.
 - Core/primary support and diversionary/discretionary
- **Design decisions** (providing cost driver information to ensure production of low cost products meeting customers' requirements).
- **Cost driver analysis.** *specific*
- **Continuous improvement/Kaizen** (eliminating non-value-added activities).
- **Performance evaluation** (using measures relating to volume, time, quality and cost driver rates).
- **Benchmarking** (internal, functional, competitive and strategic).

CVP

*direct labour
direct material*

ABM "COST" focus need "ABC"

*ABC only do
indirect cost !!*