

"management" "BPR" "BPM"

2 Business process re-engineering

Process efficiency has become increasingly important in modern business, as increased competition has forced organisations to ask questions such as: 'How should work be designed?' 'Who should do it?' and 'Where should they do it?'

Such questions indicate that process improvement and business process re-engineering (BPR) can play an important part in an organisation's strategy for sustained competitive advantage. However, the link with achieving competitive advantage means that any BPR projects should not be carried out as standalone exercises but in the context of the organisation's overall strategic position and business strategy.

In particular, it is important to identify the organisation's objectives, goals and critical success factors, in order to establish which processes link directly to these. It follows that improvements in these key processes are likely to lead to improvements in the organisation's strategic performance, and therefore suggests that these processes should be the ones which the organisation looks to improve in a BPR exercise.

Very generic definition

FAST FORWARD

Business process re-engineering involves focusing attention inwards to consider how business processes can be redesigned or re-engineered to improve efficiency!

any action

Business process re-engineering involves focusing attention inwards to consider how business processes can be redesigned or re-engineered to improve efficiency. It can lead to fundamental changes in the way an organisation functions. In particular, it has been realised that processes, which were developed in a paper-intensive processing environment, may not be suitable for an environment that is underpinned by IT.

The main writing on the subject is Hammer and Champy's *Reengineering the Corporation* (1993), from which the following definition is taken.

Key term

Business Process Re-engineering (BPR) is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service and speed.

new idea

The key words here are **fundamental, radical, dramatic and process.**

" zero each time instead of incremental to last period "

*

(a) **Fundamental and radical** indicate that BPR is somewhat akin to zero base budgeting: it starts by asking basic questions such as 'why do we do what we do', without making any assumptions or looking back to what has always been done in the past. ?

(b) **Dramatic** means that BPR should achieve 'quantum leaps in performance', not just marginal, incremental improvements.

(c) **Process.** BPR recognises that there is a need to change functional hierarchies: 'existing hierarchies have evolved into functional departments that encourage functional excellence but which do not work well together in meeting customers' requirements' (Rupert Booth, *Management Accounting*, 1994).

Key term

A process is a collection of activities that takes one or more kinds of input and creates an output.

For example, order fulfilment is a process that takes an order as its input and results in the delivery of the ordered goods. Part of this process is the manufacture of the goods, but under BPR the aim of manufacturing is not merely to make the goods. Manufacturing should aim to deliver the goods that were ordered, and any aspect of the manufacturing process that hinders this aim should be re-engineered. The first question to ask might be 'Do they need to be manufactured at all?'

A re-engineered process has certain characteristics.

(a) Often several jobs are **combined** into one.

ways to do it, how cutting non-value add, improve the process

(b) Workers often **make decisions**.

(c) The steps in the process are performed in a **logical order**.

(d) **Work is performed where it makes most sense.**

quality workers

delete non-value adding zero based - computerized process - automation

activities

- (e) Checks and controls may be reduced, and **quality 'built-in'**.
 - (f) One manager provides a **single point of contact**.
 - (g) The advantages of **centralised and decentralised** operations are combined.
- quality*
delegation of structure
(ref & control)

2.1 Hammer's principles of BPR

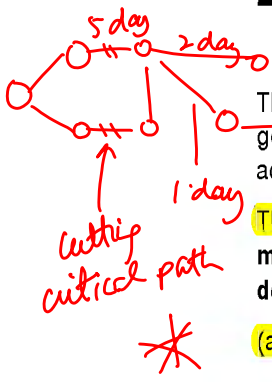
- (a) Processes should be designed to achieve a desired **outcome rather than** focusing on existing **tasks**.
- (b) **Personnel who use the output** from a process should **perform the process**. For example, a company could set up a database of approved suppliers; this would allow personnel who actually require supplies to order them themselves, perhaps using on-line technology, thereby eliminating the need for a separate purchasing function.
- (c) **Information processing should be included in the work, which produces the information**. This eliminates the differentiation between information gathering and information processing.
- (d) **Geographically dispersed resources should be treated** as if they are **centralised**. This allows the benefits of centralisation to be obtained, for example, economies of scale through central negotiation of supply contracts, without losing the benefits of decentralisation, such as flexibility and responsiveness.
- (e) **Parallel activities should be linked rather than integrated**. This would involve, for example, co-ordination between teams working on different aspects of a single process.
- (f) **'Doers' should be allowed to be self-managing**. The traditional **distinction between workers and managers can be abolished**: decision aids such as expert systems can be provided where they are required.
- (g) **Information should be captured once at source**. Electronic distribution of information makes this possible.

2.2 Business processes and the technological interdependence between departments

The value chain describes a series of activities from input of raw materials to output of finished goods/services for the customers. These activities may be organised into departments even though the actual process of adding value may cross departmental boundaries.

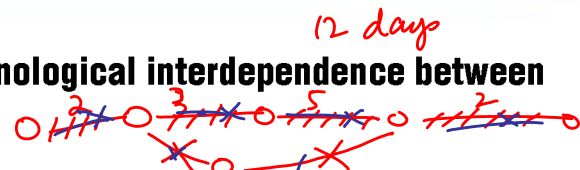
The **links between different departments of a business can vary**, however, and hence the **need to manage the relationships between them**. **Interdependence** is the extent to which **different departments depend on each other** to accomplish their tasks. It is possible to identify three types of interdependence.

- (a) In **pooled interdependence**, each department/section works **independently** of the others, subject to achieving the overall goals of the organisation.
- (b) **Sequential interdependence** is when there is a sequence (or a **linked chain of activities**) with a **start and end point**. An example is an assembly line: raw materials are taken, moulded to the right sizes and shapes and are assembled into a product. The **outputs of each stage sequence must be precisely tailored to the inputs of the next** – standardisation of outputs, might be one form of co-ordination used. The first activity must be performed correctly before the second can be tackled. **Management effort** is required to ensure that the **transfer of resources between departments is smooth**. They therefore need information about the process as a whole.
- (c) **Reciprocal interdependence** exists when a **number of departments acquire inputs from and offer outputs to each other**. In other words, while resources have to be transferred, there is **no preset sequence**. The output of one department might be sent to another for processing, and then returned to the original department.

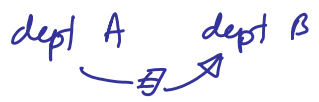


process understanding
so can improve

buy or make
- transaction cost theory
- transfer pricing
- agency theory



You should now have some idea as to the complexities of business processes overlapping different departments. **Some organisations have redesigned their structures on the lines of business processes**, adopting BPR to **avoid** all the co-ordination problems caused by reciprocal interdependence.



ABC/ABM
 - improve
 ⇒ ↓ cost
 - custom
 vs (difference)
 changes to
 firm
 ⇒ examples
 of what
 was done
 (not
 limited by
 activity costing)

2.3 Key characteristics of organisations which have adopted BPR

- (a) **Work units change from functional departments to process teams, which replace the old functional structure.**
- (i) For example, within a functional framework, a sales order may be handled by many different people, in different departments or business functions. (One person takes the order in the department, and one person delivers).
- (ii) In process teams, the people are grouped together. A case team might combine to do all the work on a process and this applies not only to one-off projects but to recurring work.
- Multi-skilling** also means that one individual does many of the tasks in a process.
- (b) **Jobs change.** People do more, as team members are responsible for results. This ties in with **job enlargement** and **job enrichment**.
- (c) **People's roles change.** They are empowered to make decisions relevant to the process.
- (d) **Performance measures concentrate on results** rather than activities. Process teams create 'value' which is measurable.
- (e) Organisation structures change from **hierarchical to flat** (ie delayered).
- (i) When a process becomes the work of a **whole team**, managing the process is the **team's responsibility**. Interdepartmental issues become matters the team resolves itself, rather than matters requiring managerial intervention.
- (ii) Companies require less managerial input. **Managers have less to do**; there are fewer of them and so fewer layers.
- (iii) Organisation structure determines lines of communication, and in many organisations is a weighty issue. This is not the case in process organisations, as **lines of communication 'naturally' develop around business processes**.

2.4 Implications of BPR for accounting systems

Issue	Implication
Performance measurement	Performance measures must be built around processes not departments: this may affect the design of responsibility centres.
Reporting	There is a need to identify where value is being added.
Activity	ABC might be used to model the business processes.
Structure	The complexity of the reporting system will depend on the organisational structure. Arguably the reports should be designed round the process teams, if there are independent process teams.
Variations	New variations may have to be developed.

Exam focus point

Benchmarking, which we discussed in [Chapter 1](#) of this Study Text, could also be useful in the context of a BPR exercise.

Once an organisation has identified which its key processes are, it will also then have to decide which of them need to be re-engineered. This will depend on the performance of the organisation's processes compared to its competitors or to other organisations in different industries which use similar processes.

In order to make this decision, the organisation will need to compare the performance of its processes with the other organisations', which it can do by benchmarking its processes.



Case Study

The case of **Taco Bell** is one of the examples quoted in Hammer and Champy's book. (The emphasis added is BPP's.)

In the 1980s, the company was entrenched in a command and control hierarchy that claimed to understand what customers wanted, but did not ask directly. But major re-engineering efforts – automating, changing the organisational structure and management system, reducing kitchen space, and increasing customer space – focusing on what customers really wanted, greatly simplified their processes.

These changes have had a huge impact on the company. It went from a failing regional Mexican-American fast food chain with \$500 million in sales in 1982, to a \$3 billion national company 10 years later, with a goal to expand further to \$20 billion.

One BPR initiative was the **K-Minus program, or kitchenless restaurant**. Based on the belief that they were a service company, not a manufacturer, a large majority of the restaurants' food preparation now occurs at central commissaries rather than in the restaurant, **pushing 15 hours of work a day out of the restaurant, improving quality control and employee morale, reducing employee accidents and injuries, and resulting in substantial savings on utilities**. The K-Minus program saves Taco Bell about \$7 million a year.

2.5 Examples of business process re-engineering

- (a) A move from a traditional functional plant layout to a JIT cellular product layout is a simple example.
- (b) **Elimination of non-value-added activities**. Consider a materials handling process, which incorporates scheduling production, storing materials, processing purchase orders, inspecting materials and paying suppliers.

This process could be re-engineered by sending the production schedule direct to nominated suppliers with whom contracts are set up to ensure that materials are delivered in accordance with the production schedule and that their quality is guaranteed (by supplier inspection before delivery).

Such re-engineering should result in the elimination or permanent reduction of the non-value-added activities of storing, purchasing and inspection.



Case Study

Example of BPR.

A company employs 25 staff to perform the standard accounting task of matching goods received notes with orders and then with invoices. A process review established that 50% of employees' time was spent trying to match the 20% of document sets that do not agree.

One way of improving the situation would be to computerise the existing process to facilitate matching. This would help, but BPR would go further.

A BPR approach may question why any incorrect orders are accepted. To enable incorrect orders to be identified before being accepted, all orders could first be entered into a computerised database. When goods arrive, they either agree to goods that have been ordered (as recorded in the database) or they don't.

Goods that agree to an order are accepted and paid for. Goods that are not agreed are sent back to the supplier. Time is not wasted trying to sort out unmatched documents.

Gains would include staff time saved, quicker payment for suppliers, lower inventory costs, and lower investment in working capital.

Popular in the 1990s as a technique for rethinking business processes and reducing value chain costs.

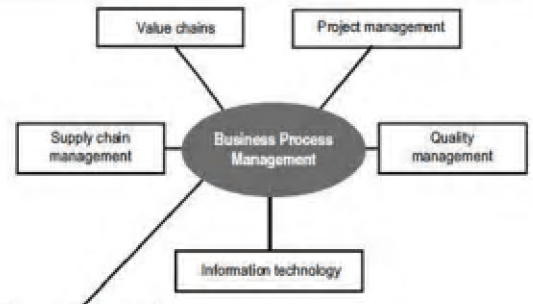
cpaa



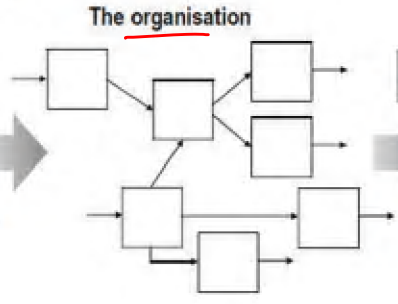
Business process management (BPM)

The fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical contemporary measures of performance such as cost, quality, service and speed.

A process is a collection of activities that takes one or more kinds of input and creates an output.



- ABC*
- Inputs**
- ✓ People
 - ✓ Materials
 - ✓ Money
 - ✓ Information



- Outputs**
- Goods
 - Services
 - Profits
 - Taxes

value chain

Aim: fundamental examination of all parts of a process with the intention of lowering the value chain cost.

ABM is not limited by cost

ABC any process, any part of firm