1. Introduction

This topic will provide you with a background on business processes. In addition to providing a historical perspective of the field as an academic discipline, this topic will also discuss the basic terminology needed to study the concepts of process management and transition.

While the modern study of business process management can be attributed to Michael Hammer in the study “Reengineering Work: Don’t Automate, Obliterate”, its oldest reference occurs in Frederick Taylor's "Principles of Scientific Management". Taylor's ideas on time and motion studies and sequential activities created the field of industrial engineering. These concepts were refined over the next half century and helped to create efficient work environments and production facilities worldwide.

Objectives:

Upon completion of this topic, you should be able to

- explain a business process
- describe the four types of process transformation
- examine a process as a series of related tasks
- define business process re-engineering
- differentiate between business process re-engineering (BPR) and business process management (BPM)

2. What is a Business Process?

The study of business processes is premised on the notion of a process as a transformation activity. A process is a set of inter-related work activities with defined inputs and outputs, or simply "a method of doing things". The following is a simple illustration of a generic process.
The Generic Process – A Simple View

The generic process is characterised by inputs, which are transformed into outputs. Input may be raw material, machinery, labour, instructions or a combination thereof. Output can be a product, service or information.

3. Process Transformations

Process transformations may be of the following four types:

1. Physical transformation
2. Locational transformation
3. Transactional transformation
4. Informational transformation

Let us review each of these transformations.

How Transformations Differ

The four types of process transformations differ from each other impacting the output in different ways. Let us review each of these transformations and explore what these differences are.

Physical transformation

Definition

Physical transformation is the conversion of raw material or work-in-progress into finished products, together with any information assets related to the conversion.

Example

A traditional steel plant processes iron ore, limestone and coal in the blast furnace to produce hot metal or pig iron. Pig iron can either be sold in the market or used in the foundry to make cast iron. The hot metal is consumed in the steel-melting shops to make steel.

Thus, in the iron-making process in the blast furnace, the input is iron ore, limestone and coal. This undergoes physical transformation to produce an output of pig iron or hot metal.

Locational transformation

Definition

Locational change frequently occurs during transformation when raw materials or semi-assembled goods are shipped or stored for final assembly.

Example

A computer assembler uses parts that are made by different manufacturers. For example,

- Hard disk from Seagate, Samsung
- Chip from Intel
- RAM from Simtronics, JVC

All these components are brought to one place, the assembler’s warehouses, using the distribution network.
Thus, in this process, the locational transformation of the inputs such as hard disks, chips and RAM, available at the manufacturers', results in the output of these items being available at the assembler's.

**Transactional transformation**

**Definition**

Transactional transformations involve value-added exchanges, such as banking or stock brokerage.

**Example**

A bank takes deposits from the depositors. The money is then loaned out to the industry, where it used to finance machinery, land and building or as working capital. While the bank pays some interest to the depositors, it lends the money out at a rate that is higher than the rate paid to depositors.

This process can be explained as the transactional transformation of the input, which is the money received from depositors into the output, which is the money lent to the industry.

**Informational transformation**

**Definition**

Information transformation may range from modification of data to extensive information links across partner organisations for the purposes of electronic commerce.

**Example**

An eLearning company is engaged in converting text-based content into highly interactive digital content, which can be accessed over the Internet.

The process can be explained as the informational transformation of the input, which is text-based content into the output, which is digital content.

Now that you have learned about the various types of transformation, let us review a formal definition of a business process.

**Defining Business Process**

A business process is defined as a group of inter-related work activities providing output of greater value than the inputs, by means of one or more transformations.

In addition to transformation, a process has two additional characteristics, feedback control and repeatability.
A process should have regulatory means by which it can be controlled, measured and regulated. Feedback generally takes the form of information flows to ensure that the process does not degrade. The final property of a process is "repeatability". A process may be executed multiple times in an identical fashion. While this is not a required property for a process, this is what makes a process interesting.

Click the following link to review a simple example of the feedback control characteristic in a process.

Feedback Control

Let us review a simple example of feedback control in the working of a thermostat, an item found in homes across the world.

As the temperature falls and occupants become uncomfortable, the thermostat can be adjusted in order to raise the temperature.

Once the temperature reaches the desired level, the thermostat works to halt the further increase in temperature. In this way, the temperature is moderated for the comfort of all!

Summary

Feedback control helps a process to monitor its effect on the system it controls and modifies its output accordingly. For example, a thermostat has two inputs, the desired temperature and the current temperature, which is the feedback. The output of the thermostat changes in order to equalise the two inputs.
4. Processes, Sub-processes, Activities and Tasks

Processes, in general, are somewhat more complex than the examples you have reviewed so far. However, each process begins with a defined input and undergoes a pre-specified transformation. In the following process, specified transformations take place at operations $O_1$, $O_2$, $O_3$ and $O_n$. The end result of operation $O_1$ is an output of higher value than its inputs. This output then becomes the input for operation $O_2$ and so on as the process progressively gains value until its last operation, $O_n$.

**Detailed View of A Generic Process**

A generic process has several characteristics that can be better understood by understanding the meaning of specific terms associated with the process. Let us review a few terms.

**Inputs**
Inputs are transformed into outputs through the process.

**Control or Measurement Point**
A point in the process where work may be sampled.

**Reco or Reconciliation Point**
These are redo points in the process to accommodate process failure.

**Outputs**
Outputs are the result of the process.

**Upstream**
Work flows from low value-added to higher value-added are termed upstream.

**Downstream**
Work flows from higher value-added to low value-added are termed downstream.

**Boundaries**
This generic process has well-defined boundaries, which are inputs to the process and outputs from it. Process boundaries define the initial input and final output sides of the process.

To summarise, let us consider the example of an organisation.

This organisation has various departments. Inputs move from Department 1 as an upstream process. These inputs then undergo some specified transformations, $O_1$, in this department. This output, may be sampled at a control or measurement point, $O_2$. This is then combined with some more inputs from the upstream process to create the output, $O_3$, which is the input for Department 2. This input in Department 2 then goes through a redo at the reconciliation point, $O_3$, in case of process failure. These transformations go on till the final output of the process is achieved.

All these operations take place within the confines of the well-defined input and output boundaries. Process boundaries, as you learned, define the initial input and the final output interfaces of the process.

Let us translate the generic process you just explored, to a more familiar context. Consider how a sales representative in an organisation receives orders and fulfils them. Click the following link to proceed.
Order-Entry Process

Order-Entry Process

Let us review the order-entry process in an organisation to understand the concept better.

Let us discuss how this process builds up. The following are the obvious activities in this process:
1. The salesperson receives the order.
2. He or she checks the order for accuracy.
3. He or she verifies that the order is complete.
4. He or she sends the order to the order-entry department.
5. The order-entry department receives the order.
6. The order-entry department verifies the accuracy of the order.
7. The order is entered into the system.

Each of the activities that constitute a process may further be broken down into tasks. For example, Activity 6, Verify accuracy, may consist of tasks such as verification of product name, product code, quantity, check of specifications, etc. Tasks are defined as discrete elements of work and several tasks may combine to form a process.

The order-entry process can be subsumed as part of a larger process – order-fulfilment. The order-fulfilment process adds activities related to customer verification and sending the bill-of-material to the warehouse. In this case, the order-entry process may be referred to as a sub-process of the order-fulfilment process.

Summary

A business process is a collection of related structural activities that produce something of value to the organisation, its stakeholders or its customers. Each business process has inputs, method and outputs. The inputs are a pre-requisite that must be in place before the method can be put into practice. When the method is applied to the inputs, then certain outputs will be created. A business process can be part of a larger, encompassing process and can include other business processes that have to be included in its method. In that context, a business process can be viewed at various levels of granularity.

5. Business Process Re-engineering

The concept of using business processes as outlined above to enhance organisational performance was popularised by Michael Hammer in his seminal article, "Don’t Automate, Obliterate." The ideology that business processes could be used to obtain
significant gains is termed **Business Process Re-engineering (BPR)**. Let us review a formal definition of BPR:

---

**Defining Business Process Re-engineering**

Business Process Re-engineering, or BPR, is a re-design and re-organisation of business activities that results from questioning the status quo. It seeks to fulfil specific objectives and can lead to breakthrough improvement. It is associated with cultural and technological changes.

The following elements of this definition need to be stressed:

1. **Emphasis on business processes:** The focus of BPR is on business processes. It does not focus on functional units, such as finance and marketing, within an organisation. Instead, it examines how work gets done through processes that generally cut across functional disciplines and sometimes across enterprises.

2. **BPR requires an examination of why a process is structured the way it is:** It is not surprising that in most organisations, business processes have evolved over time and are taken for granted. There is never any scrutiny of processes, sub-processes or documentation of activities and tasks. Therefore, the assumptions underlying the construction of a specific process should be examined.

---

**Questioning a Business Process**

Let us now look at a simplified, but expanded, view of the process and the assumptions that it might make.

**Expanded View of the Order-Entry Process**

You have explored the hypothetical process of Order Entry. Let us discuss an example of a simplified, but expanded, view of the process and the assumptions that it might have.

The process starts when the Sales representative takes an order and faxes it to Order Entry. The order is then entered into the system. 7% of the orders are unclear or entered incorrectly and may require clarification. The Order Entry then approves the order based on the stock situation. 10% of the ordered items are not in stock. Then, a customer credit check is conducted. 5% of the orders have credit issues. For the cases with an approved credit, the bill-of-materials is sent to the warehouse. The sales representative is informed of the rejected cases.

The results can be summarised as below.

Order receipt-to-warehouse cycle time is 30 to 48 hours.
79% of the orders are handled without error.
Cost per order as a percentage of revenues is 6%.
The following might be the assumptions behind the process:

- Orders should be entered into the system in batch format.
- A specialised individual (other than the sales person) will enter orders.
- A credit check must be done for all customers.

A question that needs to be addressed when examining the process is whether all assumptions are still valid.

1. **BPR focuses on specific objectives:** If the organisation wants the order receipt-to-warehouse cycle time to be lowered, it needs to determine how much lower. Why is the current 30-48 hours not acceptable? What is acceptable? Is it 20 hours, or 10 hours? An organisation can apply the following techniques to determine its objectives:
   - Industry study
   - Benchmarking of best-in-class organisations
   - Customer expectations

2. **BPR is based on breakthrough results:** If the organisation wishes to achieve incremental improvement (e.g., reduce cycle time to 25 hours), this gain may be achievable by asking salespersons to merely enter an order as it comes in, instead of batch entry. However, should an organisation wish to achieve a significant gain, such as reducing the time to 30 minutes, it needs to clearly examine each element of the process and understand why each activity is performed.

3. **BPR will involve major and radical organisational changes:** A BPR programme requires an organisation's internal and external processes to change significantly.

**BPR and Organisational Change**

Let us take the same example of the order-entry process that you reviewed earlier. Here, let us assume that sales persons are given a laptop to enter orders. The system checks and verifies the orders and instantly sends the bills-of-material to the warehouse. The net gain is significant. However, before this process can be implemented, the organisation needs to:

- Develop an order-entry system, train sales persons to use it and ensure that they do.
- Establish reward structures to incentivise the use of the system.
- Build cross-functional teams to implement this change.

These major efforts form a pre-requisite to the implementation of the new process. Yet, the rewards are amazing – a 100% reduction in cycle time!

**New Order-Entry Process**

The new order-entry process starts when the sales representative enters orders using a laptop. The system then checks for entry errors, inventory and also checks
consumer credit. Once this is done, the bill-of-materials is sent to the warehouse and simultaneously, the invoice with the delivery status is printed and given to the customer.

Let us summarise the results from the above example.

Order receipt-to-warehouse cycle time is instantaneous. 65% of the orders are handled without error. Cost per order as a percentage of revenues is 3.5%.

**Reading: Phases of Business Transformation**

Read the following articles for a glimpse at the amount of planning that is needed with any BPR effort:

Goonan, B. "Business Transformation: Doing It Right (Part I)"

Goonan, B. "Business Transformation: Doing It Right (Part II)"

Goonan, B. "Business Transformation: Doing It Right (Part III)"

**Building the Business Case**

The examples that you reviewed do not take into account the costs of moving to the new, re-engineered, process. Often process changes can result in requirements for new equipment or technology. In these cases, managers should build – and present to management – a business case for moving forward with the BPR initiative. One way in which to build the business case is to build and present to the management a Net Present Value (NPV) analysis of the costs and benefits involved with the reworked process.

An NPV analysis examines amounts of money to be spent or gained in future times, and evaluates the dollar values back to today's dollar. As an example, if we know that we need to spend US$100 a year from now, we can invest a lesser amount at this point in time. The money, when invested, will accrue interest over the year. NPV analysis works with the same calculation. PV yields the present value of an amount plus interest accrued over a stated period of time, and is calculated through the following formula:

\[
PV = \frac{1}{(1+i)^n}
\]

Where:

- \( PV \) = present value
- \( n \) = year (time)
- \( Y \) = payment; some portion of principal
- \( i \) = interest rate
Building a Business Case for BPR

A firm is presented with an opportunity to invest in a new system. It is explained that the system will bring a yearly benefit of US$60,000 for each of 5 years, and that there is a one-time cost of US$43,700. Further, yearly maintenance costs are projected at US$29,700, and the relevant interest, or discount, rate is 12%. This information can be used to construct the following table:

<table>
<thead>
<tr>
<th>Year</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net benefit</td>
<td>0</td>
<td>60,000</td>
<td>60,000</td>
<td>60,000</td>
<td>60,000</td>
<td>60,000</td>
</tr>
<tr>
<td>i (12 %)</td>
<td>1.00</td>
<td>.8929</td>
<td>.7972</td>
<td>.7118</td>
<td>.6355</td>
<td>.5674</td>
</tr>
<tr>
<td>NPV total benefit</td>
<td>0</td>
<td>53571</td>
<td>47832</td>
<td>42706</td>
<td>38131</td>
<td>34046</td>
</tr>
<tr>
<td>NPV accum benefit</td>
<td>0</td>
<td>44,643</td>
<td>84,503</td>
<td>120,092</td>
<td>151,867</td>
<td>216286</td>
</tr>
<tr>
<td>One-time cost</td>
<td>43,700</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recurring cost</td>
<td>0</td>
<td>29,700</td>
<td>29,700</td>
<td>29,700</td>
<td>29,700</td>
<td>29,700</td>
</tr>
<tr>
<td>i (12 %)</td>
<td>1</td>
<td>.8929</td>
<td>.7972</td>
<td>.7118</td>
<td>.6355</td>
<td>.5674</td>
</tr>
<tr>
<td>NPV total cost</td>
<td>0</td>
<td>26517</td>
<td>23676</td>
<td>21139</td>
<td>18874</td>
<td>16852</td>
</tr>
<tr>
<td>NPV accum cost</td>
<td>43,700</td>
<td>70217</td>
<td>93893</td>
<td>115032</td>
<td>133906</td>
<td>150758</td>
</tr>
<tr>
<td>Overall NPV</td>
<td>216286 – 150761 = 65524</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the example, note that the NPV analysis is only carried over a five-year period. This is because the new system has a useful lifespan of five years (expected). This is especially critical when dealing with shorter-range problems. The calculations should never exceed the useful lifetime of the system (or investment), as it is expected that the organisation will gain no further benefit from the system beyond this point.

The term Business Process Management (BPM) has become as much a part of an organisation’s vocabulary as BPR.

Defining Business Process Management

BPM is the ongoing management of a re-engineered process with a focus on monitoring and continuous improvement. After a process is recreated through BPR, it is implemented and diffused into the environment. The continuous scrutiny of the process is referred to as BPM.

BPR and BPM in Perspective

The discussion of processes, activities and tasks is intended to convey the message that BPR (and BPM) do not focus only on the minute details of how work gets done. On the contrary, BPR can have different foci or intended targets. It can be macro in nature, beginning with an organisational or strategic context – how to reorient the organisation to develop a new market. While this exercise may well result in an examination of detailed processes, the entry point for the BPR methodology is much broader in nature.

Yet, BPR is just as effective when the entry point is very well-defined as in the case of the order-entry process discussed earlier in this topic. The flexibility of the methodology lends itself well to different contexts. The case of Mobil Oil Australia is an example to show the broad reach of the methodology. Click the following link to review how this case example applies to the more general nature of the BPR process.

Mobil Oil Australia – An Example

Mobil Oil Australia – An Example

Let us review the case of Mobil Australia as an example of the general BPR process.


BPR Context

Mobil Oil Australia or MOA is the Australian unit of the Mobil Corporation, headquartered in Melbourne, employing 2,500 people at two refineries, various manufacturing units, plants and offices around Australia. The company has a market share of 20% in the country.

BPR Need

The size of MOA had increased steadily, but there was a decline in its financial performance. This led the organisation to undertake an internal examination and an
assessment of how to improve its Return on Capital Employed, or ROCE.

**BPR Targets**
A senior Mobil executive led the initial analysis of the organisation. The result of this examination was a project termed Phoenix, designed to achieve the following objectives:

1. A net improvement of 3%+ in ROCE with an aim to become the lowest-cost producer in the industry
2. Become customer-focused, internally and externally, and profit-driven
3. Become an organisation consisting of team-oriented, motivated and committed employees.

**BPR Initialisation**
Senior management formed a venture team to initiate the next phase of the process. The venture team formed teams of cross-functional employees, called Natural Work Teams or NWTs, to assess existing business processes and design future versions of them. The NWTs were asked to examine processes in the following areas:

1. Business planning and optimisation
2. Management information
3. Sales force effectiveness
4. Customer service
5. Marketing
6. Conservation of expenditure
7. Logistics and Operations

**BPR Processes and Teams**
The NWTs examined detailed processes in each of the areas. Over a period of nine weeks, they developed an understanding of issues relevant to each process. The teams also made recommendations about how to redesign the processes to make them radically different in order to achieve the change goals.

**BPR Implementation**
The NWTs made their recommendations to the venture team, who then formalised the following changes:

1. Re-organise the company from functional units to strategic business units.
2. Reduce the management layers in the organisation by two levels on average and increase spans of control typically by between two and four positions.
3. Redesign all relevant business processes.
4. Cut expense budgets by 10%, other categories by 5% and reduce the entertainment budget by 60%.

**Summary**
The net result of the exercise was an increase in ROCE from 2% to 7%. Expense savings totalled US$27.5 million in the first year. Long-term efforts are still in effect in the organisation to sustain the gains made. Post-review teams examine the changed environment on an ongoing basis for further improvement opportunities.

In this case, the entry point of the BPR intervention was a broad problem – declining financial performance. In this context, every process was examined and recreated and the exercise led the organisation to achieving its target of becoming the lowest cost producer in the petroleum industry.
The following web quest will help you round off your understanding of the concepts learned so far:

**Web Quest: Business Process Re-engineering and Management**

To begin with your web quest, type the following keywords in your search engine:

Michael Hammer, business process management

**Reading Task 1:** From the results displayed, visit the webpage [Business process reengineering - Wikipedia](https://en.wikipedia.org/wiki/Process_reengineering). Read the history of BPR, right from the time when Frederick Taylor published his article "The Principles of Scientific Management" to Michael Hammer and James Champy publishing their book "Reengineering the Corporation."

**Reading Task 2:** Visit the website [CSC World Online](http://www.cscworldonline.com). Go to the Back Issues section and download the June 2003 - August 2003 issue of the magazine (available as a PDF). You can read an interesting interview, "Michael Hammer and Howard Smith on Process Thinking", (page 28-30) between Michael Hammer, one of the originators of business process redesign, and Howard Smith of Computer Sciences Corporation (CSC).

**Reading Task 3:** Finally, visit the website [Business Process Management - The Third Wave](http://www.businessprocessmanagement.com) (one of the displayed results of your search). Go to the Published Articles section and read through the following article:

Business Processes: From Reengineering to Management

Based on your reading, try to answer the following questions:

- Why do you think business process reengineering (BPR) lost its focus in the late 90s? How is business process management (BPM) different?
- Think of an example of a business scenario, which BPR failed to address, and could be addressed by BPM.

The following exercise will help you test your understanding of BPR and BPM as you join Rudy Waldow in convincing Duke Weatherman about how BPR would help them overcome their quality and delivery issues. Click the following link to continue.

Eleganture – The Magic of BPR

---

**Eleganture – The Magic of BPR**

A furniture company, Eleganture, is engaged in manufacturing different types of chairs for industrial and office furniture requirements.

The following is the complete process of order placement, manufacturing and order fulfilment.
1. Sales person accepts the order and accesses the order-booking system.
2. Order is booked and the requirement is reported to stores and to manufacturing.
3. Once the requirement is reported, stores check availability of material, manufacturing schedules the job completion and job completion data is entered into the order status system.
4. After stores has checked on the material availability status, the sales person reverts to the customer with the exact data.
5. Once the job completion data is entered, production begins.
6. Chairs are made and QA checks them.
7. Chairs are then dispatched to the warehouse that is nearest to the customer

With the upcoming BPR implementation, Eleganture offices are rife with speculation. The CEO's address early this month emphasised that
- the BPR implementation will require an analysis of each process, sub-process, task and activity. Each of these will be analysed about the way in which they contributed to the overall process
- the implementation will also result in automation of some repetitive processes

Let us review in detail the Manufacturing and Quality Assurance processes and their interface at Eleganture.

The production and QA process comprises the following four steps:

**Chair frames assembly**
The hydraulic or spring system is incorporated into the frame. Wheels are added, and the pipes are welded to create the complete frame of the chair.

**Chair Cushion Manufacturing**
This process uses fabric, foam and springs as input material to create cushions for the chairs.

**Final Chair Assembly**
The cushions and the armrests are added to the frame. The chair is then packed for dispatch.

**Quality Check**
The chairs are then checked for quality. In the past year, the following trends were seen:

Of all the defects found:
- 50% were found in frames
- 30% were found in cushions
- 20% related to the assembly

At this point, it is important to note that the defects that are found in frames lead to dis-assembling of the chair in most cases. The chairs are taken apart, the defect in the frame is corrected and then the chair is assembled again. This re-routing to the Chair Frames Assembly division requires two complete days. The same is true for almost 60% of the cushion defects.

Let us join Duke Weatherman, who heads all the three divisions of the chair shop and Rudy Waldow, who heads the Quality Assurance department. Their discussion on quality is an ongoing tussle for the past 6 years. Duke despised the stringent quality measures that Rudy's team imposed on each chair, which brought back at least one in every 10 chairs that Manufacturing sent out.

Scheduling the rework disrupted normal production, which led to re-scheduling and
allocating workforce. Rudy felt his QA department could help...if only Duke would listen! Today, he had made up his mind!

Rudy says, *Duke, my boys are putting in overtime almost every day. Every second piece that your shop sends out is potentially defective. A 10% defect rate is not something that we can speak about in a lighter vein!*

Duke answers back, *You are right on that! But, you should share the blame. Your people turn up their noses on each little microscopic wrinkle or wrinkle in the cushions, or on each 1/8” difference in the frame heights. No wonder your people never reach home in time. To speak of quality, rework doesn’t do wonders for quality either!*

To this Rudy replies, *I think we exist only because we make sure that only the best quality reaches the customer.*

Duke is not impressed and says, *Anyway, your rework puts a lot of pressure on me. Right now, I have some re-scheduling to do for the red chairs! So will you come straight to the point?*

Rudy says, *We can think in terms of re-engineering our processes.*

Duke says, *Oh yes! I’ve been hearing a lot of talk about it. What exactly is this BPR?*

Q1. Based on your understanding of BPR, which three of the following statements do you think Rudy will include in his answer to Duke?

1. BPR is business process re-engineering.
2. It involves using engineering methods to bring about drastic changes in the processes.
3. BPR is the science of using new, automated process designs to gain efficiencies.
4. BPR is an analysis of business activities that leads to re-design and re-organisation of business activities.
5. BPR leads to substantial improvements in processes and leads an organisation to competitive advantage.

If you identified option 1, BPR is business process re-engineering, option 4, BPR is an analysis of business activities that leads to re-design and re-organisation of business activities and option 5, BPR leads to substantial improvements in processes and leads an organisation to competitive advantage as the correct answer, you identified correctly. BPR is business process re-engineering. BPR is an analysis of business activities that lead to re-design and re-organisation of business activities and result in substantial improvements in processes. As a result, the organisation gains competitive advantage. We can analyse our processes and see where we can make changes, so that the defects reduce and quality improves.

Let us return to the discussion.

Duke says, *Okay! As I understand, you want to go ahead, turn the entire process of manufacturing upside down and re-engineer it...expecting to gain substantial improvements. If someone set up the process the way it is, he must have had a good reason to do so. Don’t you think?*

Q2. Which three of the following statements should constitute Rudy’s reply to Duke?

1. The basic premise on which the concept of BPR rests is questioning the current state and the reasons behind it.
2. It is true that the business processes in our organisation have evolved over a period of time, so there must be a sound explanation behind continuing with...
them.
3. In fact, BPR provides us another viewpoint to evaluate the processes. Both the technology and need behind a particular process are also subject to change.
4. BPR questions the need to cling to a process that has seen inefficiencies and redundant activities built in.

If you identified option 1, The basic premise on which the concept of BPR rests is questioning the current state and the reasons behind it, option 3, In fact, BPR provides us another viewpoint to evaluate the processes. Both the technology and need behind a particular process are also subject to change and option 4, BPR questions the need to cling to a process that has seen inefficiencies and redundant activities built in as the correct answer, you identified correctly. The basic premise on which the concept of BPR rests is questioning the current state and the reasons behind it. In fact, BPR provides us another viewpoint to evaluate the processes. Technology as well as the need behind a particular process is also subject to change. BPR questions the need to cling to a process that has seen inefficiencies and redundant activities built in.

To return to the conversation, Duke then asks, Do you mean to say that you will put the manufacturing process under a scanner and decide whether it is useful; chop it off and re-organise it as you wish?

Q3. Which three of the following statements should constitute Rudy's reply to Duke?
   1. BPR focuses on eliminating or replacing redundant processes and re-organising others. So, if a process is chopped off, it will happen only because it was not useful.
   2. BPR is not a chance-based process. It focuses on specific objectives. We will first determine our objectives and then systematically review the processes.
   3. BPR begins with measuring the process based on what your customers want, doing the process, measuring the results and then identifying improvement opportunities based on the data you collected.
   4. BPR examines processes across functions. So it will not be just manufacturing that will go under the scanner, but also the QA and other related functions.

If you identified option 1, BPR focuses on eliminating or replacing redundant processes and re-organising others. So, if a process is chopped off, it will happen only because it was not useful, option 2, BPR is not a chance-based process. It focuses on specific objectives. We will first determine our objectives and then systematically review the processes and option 4, BPR examines processes across functions. So it will not be just manufacturing that will go under the scanner, but also the QA and other related functions as the correct answer, you identified correctly. BPR is not a chance-based process. It focuses on specific objectives, so we will first determine our objectives and then systematically review the processes. It focuses on eliminating or replacing redundant processes and re-organising others. So, if a process is chopped off, it will happen only because the process was not useful. BPR examines processes across functions. Therefore, not just manufacturing will go under the scanner, but also the QA and other related functions.

Let us summarise what we learned.

Upon conducting BPR, many of the manufacturing processes were found wanting in workforce training and routing of jobs. It was also acknowledged that the QA team should be repositioned at the end of the
   • Chair Frames Assembly process
   • Chair Cushions Manufacturing process
7. Discussion

Discussion: Business Process Management

Read the case study "What A Zoo Can Teach You," found in Stewart, T.A. and Jacoby, R. "The Search for the Organization of Tomorrow," Fortune 125 no.10 (18 May 1992): 92-99. The case study ends with five short questions:

1. How has the San Diego Zoo adopted a process perspective?
2. Contrast the process management approach used by the zoo with the traditional functional approach.
3. How has individual behaviour changed since the transformation? Give examples.
4. What new roles can top zoo executives not perform? What were they previously doing that they do not need to do as much any more?
5. How should the success of the zoo's transformation be measured?

Choose any two of the above questions and post an answer.

8. Self-Assessment

Now, try the self-assessment questions to test your understanding of the topic. Click the following link to open the Self-Assessment in a new window.

Self-Assessment

Q1. You are going to create the claims-handling process of an insurance company's back office. Which one of the following is the first step that you will take in defining the process?
   1. Provide a structure for finding the root causes of the problem.
   2. Identify key inputs, activities and outputs of the proposed process.
   3. Define roles and responsibilities of the team members.
   4. Define the goals and objectives of the project.

Q2. A moulded plastic furniture manufacturing company melts plastic, pours it into moulds and makes plastic furniture that is either sold directly through its own retail showrooms, or supplied nationwide, through wholesalers. The wholesalers buy the merchandise from the manufacturer and store it at their warehouses before sending them to the retailers. Which one of the following transformation types is reflected in the above case?
   1. Physical and transactional
   2. Physical and locational
   3. Locational and informational
   4. Informational and physical
Q3. A glass container manufacturer moulds glass containers according to the specifications provided. Which one of the following is true about the mechanics of this process?

1. Upstream processes, such as those for melting, work from low value-added to higher value-add.
2. This process will include the sub-process of retailing the glass containers.
3. Control or measurement points in this process will help in re-doing a part of the process in case of failure.
4. The reconciliation point in this process is that point where work may be sampled.

Q4. A training organisation has implemented business process re-engineering. Which two of the following are correctly mapped?

1. It determines that its target for BPR was to be the best in the national training industry.
2. It determines that it will begin by focusing on incremental improvements in training feedback.
3. It deploys change agents in the form of senior and middle-level managers to manage transition.
4. It understands the need of ongoing management of the re-engineered process and sets up a framework for it.

9. Summary

This topic covered the following main points:

- A process can be defined as the transformation of some inputs into desired outputs.
- The following are the four types of process transformation:
  - Physical
  - Locational
  - Transactional
  - Informational
- Of these, physical transformation is the one that is most often associated with processes.
- Processes can be analysed into the following hierarchy:
  - Process > Sub-process > Activity > Task
  - Business process re-engineering is a management approach that examines all aspects of a business and its interactions. It involves re-design and re-organisation of business activities. It seeks to fulfil specific objectives and can lead to breakthrough improvement. It is often associated with significant cultural and technological changes.
  - For re-engineering a business process, the following steps are taken:
    - The context of change is determined.
    - The need for BPR is established.
    - Targets for BPR are set.
    - A team is set up.
    - Processes are analysed and re-organised.
    - Results are measured.
  - Business process management (BPM) involves scrutinising re-engineered processes so that they do not degenerate.

References
