

# Process design and analysis at Dell

Case duration (Min): **45-60**

Operations Management (OPs)

**Process design and analysis****Worldwide****Case summary:**

The challenges of the global external environment, through strategies, drive organizations to search out ways to reduce costs, deliver the products and services customers need and when they need them. This forces a focus on efficiency and effectiveness. In this case we focus on how work is organised and performed within the organization. Our focus on how work is performed will be illuminated through an exploration of business processes. We identify what business processes are and how they are designed and managed. The success of any organization depends upon the performance of each of the three elements which comprise the organization: its products and services, i.e. its deliverables; business processes and the fabric which supports them, and people, i.e. its employees and suppliers, (Jones 1994). Processes are the essential link between customer or client requirements and the delivery of products or services. They are the means whereby the organization and its employees fulfil their purpose or "mission". Work activities transform inputs into outputs (products and services) for the benefit of customers, adding value along the way; a collection of related work tasks and activities is typically labelled as a business process. Such processes may be operational, management or supportive. Well-designed processes are both effective and efficient and contribute to organisational capabilities. Dell is a large sized international company through which issues of managing processes are presented for students to engage with the variety of problems presented.

**Learning objectives:**

Explain what is meant by the term 'business process'.

Describe the four types of process used to produce goods and services.

**Case problem:**

Define what is meant by a business process and explain how processes are designed and managed.

Computer Peripherals

**Company**

Dell

[www.dell.com](http://www.dell.com)

Founded in 1984 by Michael Dell, Dell is a leading computer systems company – designing, building and customizing products and services to satisfy a range of customer requirements (from the server storage and professional service needs of the largest global corporations, to those of consumers at home). Dell deals directly with customers i.e. there are no intermediaries. They attribute much of their success to a strong customer focus – working hard to meet the needs of each customer 'with carefully tailored standards-based computing solutions'. Dell has a broad product portfolio and range of services and seeks to offer choice, support and value to customers. Uniquely enabled by its direct business model, Dell sells more systems globally than any computer company, placing it No. 25 on the Fortune 500. Dell's climb to market leadership is the result of a persistent focus on delivering the best possible customer experience by directly selling standards-based computing products and services. Annual Revenues exceed \$50 billion and the company employs approximately 78,700 team members around the globe.

First, if you are taking a taught management course then consult with your tutor and ensure that the case has not been scheduled into a teaching class or tutorial. If it has not:

1. Play/ read the media associated with the case. You may need to access the Internet and enter a URL to locate any video clips.
2. Attempt the Case study questions.

Consider attempting the case study as a group exercise; you could form a study group with fellow students.

3. Check the suggested answers - remember these are suggestions only and there are often many possible answers.

Discuss questions and answers with other students.

4. If you feel your answer(s) were weak then consider reading the relevant suggested readings again (also see the case study suggested references).

## Title/ Media type

## URL/ Media description

The Origins of Dell, Inc.

<http://ecorner.stanford.edu/authorMaterialInfo.html?mid=1743>

### Film

Michael Dell, CEO and founder of Dell, Inc., describes how the idea for Dell, Inc. originated. Dell was fascinated by the emerging field of the personal computer and disenchanted by the way technology was being provided to the consumer. To challenge what he noticed was a very lengthy and expensive process, he experimented with the concept of selling the product directly to the customer.

Overcoming Some of the Early Mistakes of Dell, Inc :

<http://ecorner.stanford.edu/authorMaterialInfo.html?mid=1748>

### Film

In 1989, following the year when Dell, Inc. went public, Dell explains how the organisation had a large problem with inventory management. As a result, the company failed to transition properly in the industry from one technology to the other. However, because of this critical mistake, the organisation learned how to manage its inventory correctly, and according to Dell, became the best in the world at it. Later on, Dell also notes the company did not have the systems and processes to deal with rapid growth. This experience, however, proved to be another learning point for the company, as it installed a much better set of processes that helped further its growth.

Implementing Processes in a Fast-Growing Company :

<http://ecorner.stanford.edu/authorMaterialInfo.html?mid=1753>

### Film

Michael Dell :

To implement processes at Dell, Inc., the company studied what other corporations were doing and came up with a unique set of processes to complement its culture and business. Dell points out that the processes were centred on executing efficiently, since the company was selling to hundreds of thousands of customers daily. Without these specialized processes, Dell, Inc. Would not have been able to succeed, he adds.

Self-Disruption at Dell, Inc :

<http://ecorner.stanford.edu/authorMaterialInfo.html?mid=1751>

### Film

Dell describes the process of self-disruption at Dell, Inc. He explains how the company examines its internal processes and constantly considers recreating ways to do them better. The company also adopts a mindset of looking at how these processes would be done differently if they were to start from scratch.

## NOTES:

## Case study questions...

Action	Pre/During/After class
<b>1</b> <b>WHAT IS A PROCESS?</b> What is a process?	During
<b>2</b> <b>PROCESSES :</b> Consider Dell, generally do they produce in response to customer orders or in anticipation of them? How do they produce their goods: custom made to order, assembled to order or standard-made to stock? Discuss your answer.	During
<b>3</b> <b>PRODUCTION PROCESSES :</b> Identify and describe the four principal types of process used to produce goods and services at Dell-explain your answer.	During
<b>4</b> <b>PROCESS DESIGN :</b> Discuss how processes are created within organisations. Discuss how Dell creates its processes at a high level and then discuss process design activities in more detail.	During
<b>5</b> <b>PROCESS ANALYSIS AND IMPROVEMENT :</b> Organisations seek to improve their business processes continuously. Discuss why this should be so.	During

# Answers...

## PROCESS

set of interrelated or interacting activities which transforms inputs into outputs

## PROJECT

unique process, consisting of a set of coordinated and controlled activities with start and finish dates, undertaken to achieve an objective conforming to specific requirements, including the constraints of time, cost and resources

## JOB SHOP PROCESSES

Organized around particular types of general-purpose equipment that are flexible and capable of customizing work for individual customers

## FLOW SHOP PROCESSES

Organized around a fixed sequence of activities and process steps, such as an assembly line to produce a limited variety of similar goods or services

## CONTINUOUS FLOW PROCESS

A type of manufacturing process that closely resembles a production line process. The main difference is the form of the product, which usually cannot be broken into discrete units. Examples include yarns and fabric, food products, and chemical products such as oil or gas.

## Question/ Answer

### 1 WHAT IS A PROCESS?

What is a process?

Commenting on the 1990's, Davenport suggests the contemporary business world is abound with references to the concept of process—a noun denoting how work is done, (Davenport 1994). He starts by asking what a Process is, defining it as a structured set of activities designed to produce a specified output for a particular customer or market. It has a beginning, an end, and clearly identified inputs and outputs. A process is therefore a structure for action, for how work is done. Processes also have performance dimensions— cost, time, output quality, and customer satisfaction—which can be measured and improved. Davenport argues that because the definition of process necessarily involves a customer receiving an output, taking a process approach implies adopting the customer's point of view. Processes are therefore the structure by which an organization does what is necessary to produce value for its customers. Process management is not strategy; it is a means of executing strategy - a tool for operational management, not strategic management, (Davenport 1994:145). A specified way to carry out an activity or a process is termed a procedure.

People use processes and technology to produce products and services. Any activity or set of activities that uses resources to transform inputs to outputs can be considered as a process. For organizations to function effectively, they must identify and manage numerous interrelated and interacting processes. Often, the output from one process will form the direct input to the next process (see systems thinking). The systematic identification and management of the processes employed within an organization and particularly the interactions between such processes is referred to as the "process approach".

Choosing appropriate processes and designing them to interface effectively with each other is vital for an effective and efficient value chain argues Collier and Evans (2009:114). Process design is an important operational decision that affects both the cost of operation and customer service. It often involves making trade-offs amongst cost, quality, time and other priorities. In this case study we will use Dell to examine business process concepts, process choice decisions, process design, analysis and improvement.

### 2 PROCESSES :

Consider Dell, generally do they produce in response to customer orders or in anticipation of them? How do they produce their goods: custom made to order, assembled to order or standard-made to stock? Discuss your answer.

Dell are a demand-led company i.e. They only produce finished goods on receipt of an order and therefore may be described as an assemble-to-order (process) company. They take standard parts, that can be configured in a number of ways, and allow the customer to specify which parts they require building into their overall product (computer or printer etc). Their production process is based on a direct business model.

### 3 PRODUCTION PROCESSES :

Identify and describe the four principal types of process used to produce goods and services at Dell- explain your answer.

**Project** - unique process, consisting of a set of coordinated and controlled activities with start and finish dates, undertaken to achieve an objective, conforming to specific requirements, including the constraints of time, cost and resources.

**Job shop processes** - Organized around particular types of general-purpose equipment that are flexible and capable of customizing work for individual customers.

**Flow shop processes** - Organized around a fixed sequence of activities and process steps, such as an assembly line to produce a limited variety of similar goods or services.

**Continuous flow process** - A type of manufacturing process that closely resembles a production line process. The main difference is the form of the product, which usually cannot be broken into discrete units. Examples include yarns and fabric, food products, and chemical products such as oil or gas.

The production process at Dell is more likely to be a flow shop process-better suited for assemble to order; flow shops have a low setup time and are best suited for highly similar products.

#### 4 **PROCESS DESIGN :**

Discuss how processes are created within organisations. Discuss how Dell creates its processes at a high level and then discuss process design activities in more detail.

**Processes are about work: tasks and activities (and decisions); the value chain describes a collection of interrelated processes.**

**Process design activities include defining the purpose/objectives of the process; describing how work is currently performed; considering and evaluating alternative process designs; identifying and defining appropriate performance measures for the process; and then implementing.**

**Students may discuss benchmarking, best practice, flow processes, decision flow diagrams, process mapping etc.**

#### 5 **PROCESS ANALYSIS AND IMPROVEMENT :**

Organisations seek to improve their business processes continuously. Discuss why this should be so.

**Processes are analysed and improved in order to make the organisation more effective and efficient, reduce costs, increase agility, improve quality etc.**

### **Case study references**

Cole, G A. and Kelly, P P. (2011) 'Management Theory and Practice', Ed. 7. Cengage EMEA.

Collier, D. and Evans, J. (2009) 'OM', Ed. 1. Cengage Learning.

Kelly, P P. (2009) 'International Business and Management', Cengage Learning EMEA.