#### UNIVERSITY OF INFORMATION TECHNOLOGY

**Faculty of Information Systems** 

Chapter 1

# The Evolution of Business Process Re-engineering

Dr. Cao Thi Nhan

## LEARNING OBJECTIVES

- 1. Understand basic concepts of Business Process Reengineering (BPR) and its importance for organizations.
- 2. Understand BPR Strategies.
- 3. Understand BPR Success and Failures.

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- 1. Business Process Reengineering (BPR)
- 2. BPR Strategies
- 3. BPR Success and Failures

## Business Process Re-engineering

#### **Business Process**

- A Business process is a series of steps performed by a group of stakeholders to achieve a concrete goal.
- In term of university, we have:
  - 1. Course registration
  - 2. Course feedback
  - 3. Graduation process
  - 4. Scholarship assessment

...

It is a backbone of an organization.

- BPR was created to represent a range of activities concerned with the improvement of processes.
- 1860s, "make all your processes the best-in class", Fredrick Taylor. Managers could discover the best process of performing work and reengineering to an extent echoes the classical belief that there is one "best way" to conduct tasks.
- 1900s, "The process of conducting an undertaking towards an objective by seeking to derive optimum advantage from all available resources", Henri Fayol
- 1986, "over 90 per cent of the possibilities for quality improvement belong to the system or process", Deming.

- 1993, "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", Hammer and Champy.
- 1993, BPR is "the ability to rethink, restructure and streamline the business structures, process, methods of working management systems and external relationships through which we create and deliver value", Talwar.

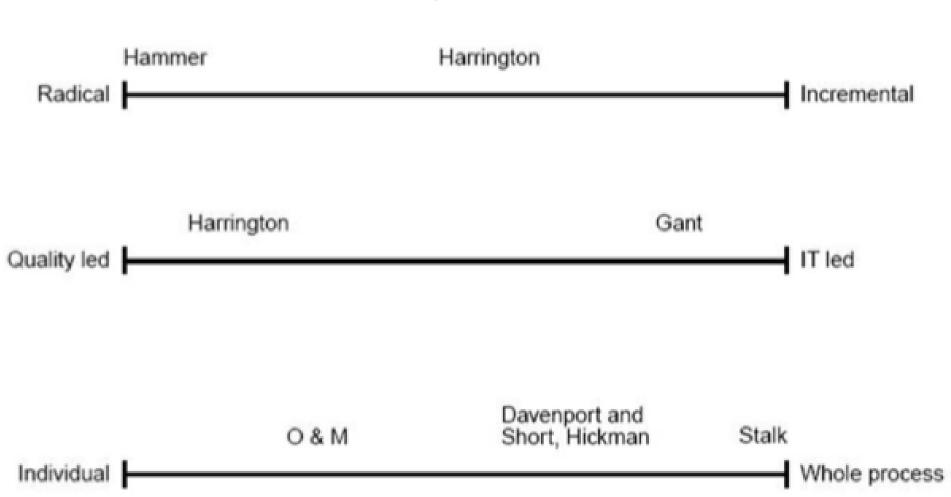
• 2010, "BPR is the fundamental rethinking and radical redesign of business processes and the analysis and design of workflows to achieve dramatic improvements in critical, contemporary measures of performance, such as Cost, Quality, Service, and Speed to achieve substantial gains in the overall organisational performance", Graham R. Sturdy.

- Feature of BPR Programs:
  - 1. Involves the radical redesign of business processes
  - 2. Typically employs Information Technology as an enabler of new business processes
  - 3. Attempts to achieve organisational level strategic outcomes
  - 4. Tends to be inter-functional in its efforts

# Business Process Re-engineering Strategies

#### **BPR Strategies**

Useful Scales of Analysis



- Opportunity: great potential for increasing productivity through reduced process time and cost, improved quality, and greater customer satisfaction
- Challenge: requires a fundamental organisational change to accompany it
- the implementation process can be complex, and needs to be checked against several success and failure factors to ensure successful implementation

 Plan-Do-Check-Act (PDCA) cycle (W. Edwards Deming: 1900-1993)



#### Factors:

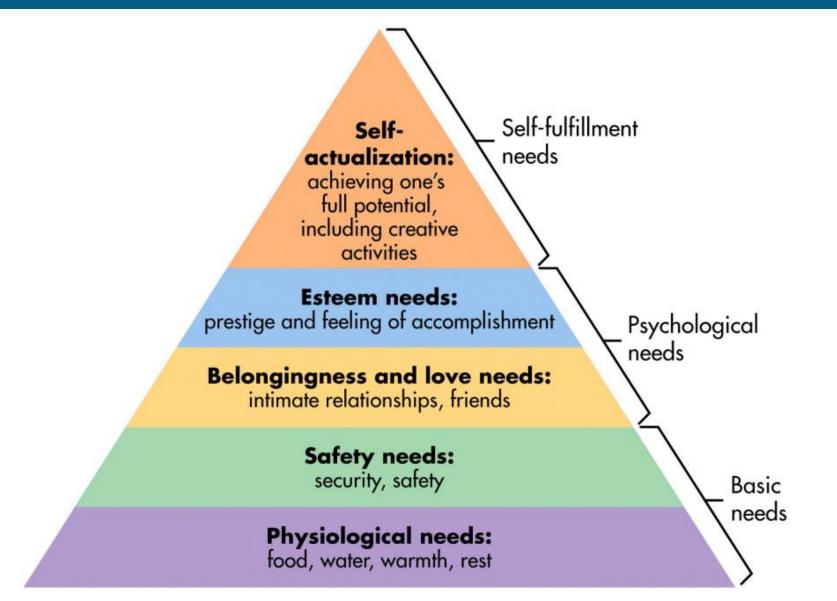
- 1. Change of management system and culture
- 2. Management competency and support
- 3. Organisational structure
- 4. BPR Project management
- 5. IT infrastructure

#### 1. Change management systems and culture

- The management of change is an essential skill to facilitate the insertion of newly-designed processes and structures into working practices, and to deal effectively with resistance.
- "Revision of reward systems, communication, empowerment, people involvement, training and education, creating a culture for change, and stimulating receptivity of the organisation to change are the most important factors related to change management and establishing a culture of performance measures" [Zairi and Sinclair, 1995]

- 1. Change management systems and culture
  - a. Effective communication
  - b. Empowerment
  - c. People involve
  - d. Training and education
  - e. Creating an effective culture for organisational change
  - f. Revision of motivations and reward systems

## [Review] Maslow's Hierarchy of Needs



- 2. Management competency and support
  - a. Committed and strong leadership
  - b. Championship and sponsorship
  - c. Management of risk

#### a. Committed and strong leadership

- Leadership "must provide a clear vision of the future" and this vision must be clearly communicated to a wide range of employees.
- Leadership has to be effective, strong and visible
- It requires creative thinking and understanding
- There must be commitment to and support for the BPR effort
- The support from senior management must be constant throughout the lifetime of the BPR program.

#### 3. Organisational structure

- BPR creates new processes that define jobs and responsibilities across the existing organisational functions
- The organisation must have the ability to create the new organisational structures without disrupting the existing manufacturing capabilities

- 3. Organisational structure
  - a. Adequate job integration approach.
  - b. Effective BPR teams
  - c. Appropriate job definitions and responsibilities allocation

#### 4. BPR project management

- a. Alignment of BPR strategy with corporate strategy
- b. Effective planning and use of Project management teachniques
- c. Setting performance Goals and Measures
- d. Adequate resources
- e. Appropriate use of methodology
- f. External orientation and learning
- g. Effective use of consultants
- h. Building BPR vision
- i. Effective process redesign
- j. Integrating BPR with other improvement approach
- k. Adequate identification of BPR values

#### 5. IT infrastructure

- a. Adequate alignment of IT infrastructure and BPR strategy
- b. Building an effective IT infrastructure
- c. Adequate IT investment and sourcing decisions
- d. Adequate measurement of IT infrastructure
- e. Effectiveness on BPR proper IS integration
- f. Effective reengineering of legacy IS
- g. Increasing IT function competency
- h. Effective use of software tools

- 1. Change management systems and culture
  - a. Problems in communication
  - b. Organisational resistance
  - c. Lack of organisational readiness for change
  - d. Problems related to creating culture for change
  - e. Lack of training and education

- 2. Management competency and support
  - a. Problems related to Commitment support and leadership
  - b. Problems related to Championship and sponsorship

- 3. Organisational structure
  - a. Ineffective BPR teams
  - b. Problems related to integration mechanism.
  - c. Problems related to job definitions and responsibilities allocation

#### 4. BPR project management

- a. Problems related to planning and Project management
- b. Problems related to Goals and Measures
- c. Inadequate focus and objectives
- d. Ineffective process redesign
- e. Problems to BPR resources
- f. Unrealistic expectations
- g. Ineffective use of consultants
- h. Miscellaneous problems

#### 5. IT infrastructure

- a. Problems relating to IT investment and sourcing decisions
- b. Improper IS integration
- c. Inadequate IS development
- d. Reengineering of legacy IS
- e. Miscellaneous problems

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