

COMP2332: Enterprise Healthcare Business Process Modelling

Business Process Modelling

Time: **Tuesday+ Thursday: 12:50-14:05**

Location: **Masri110**

Section: **1**

HiCure

Excellence in Health Informatics Integrated Curricula

Prof Adel Taweel
Birzeit University



Business Process Modelling

- Introduction & Fundamentals
- Motivation
- BP: Life Cycle
- BP: Components
- BP modelling languages

Business Process Modelling: What?

- Business process modelling (BPM) is:
 - the activity of representing processes of an enterprise, so that the current process may be analysed and improved.
- BPM is performed to improve process efficiency and quality, typically by business analysts & managers
- Process improvements may or may not involve IT, but IT is a common driver behind modelling a business process.

BPM: For What?

- Business models are an excellent communication tool
- Business professionals can model alternative options
- Business models are key element for designing physical IT architectures
- Helps to utilise IT for improving business outputs
- BPM seeks to improve an organisation's process flow to be
 - more effective,
 - more efficient and
 - capable of adapting to changing business needs
- BPM is employed to reduce:
 - miscommunication between stakeholders
 - human error in process design and
 - define clear roles for stakeholders for each of the business processes.

BPM: Why?

- Business process modelling helps organisations:
 - To become more process-oriented
 - To optimise business processes using process change management (i.e. long term planning, execution & control of processes)
 - To document and manage processes continuously
 - To simulate processes before enacting them
 - e.g. using Monte Carlo simulation & Discrete Event Simulation

BPM: Why?

- Enables to answer key organisational questions :
 - Which steps are really **necessary**?
 - **Who** should do them (i.e. defining Roles)?
 - Should they be kept **in house** or **outsourced**?
 - **How** they should be done?
 - What **capabilities** are needed?
 - What **results** do we expect and how will they be monitored?
- Without clear business processes, answers are often vague and different for different organisations

BPM: Benefits

- Formalize existing processes
- Identify needed **improvements**
- Facilitate **automated**, efficient process flow
- Reduce **time** by automating tasks
- Increase **productivity**, decrease wasting **resources**
- Helps to solve difficult **problems**
- Simplify regulations and compliance issues.

Motivation: Why Process modelling?

What...

- Does it represent a process that can eventually work in real-life?
- How is all information interconnected?
- How do we know which are the process requirements and responsibilities?
- How can we be sure an activity flow is correctly defined?
- How important an activity is and how is it efficiently executed?

How?

- Takes into account all parameters and simulates all alternatives
- Depicts and models the correlations
- Describes the resources needed with appropriate roles assigned
- Incorporates the business rules, the legal framework requirements and all supportive information to explain why everything is happening
- Defines priorities and intelligently routes the “traffic”

BPM is Important, because

- For Economical reasons
 - Competition
 - Cost reduction
 - Merge/Acquisition
 - Performance
- For better IT decisions
 - Decentralized/centralized
 - Web services/BPML
 - Integration
 - Multiple platform

BPM Key objectives

- To describe business processes and business data.
- To model business processes beyond just functional boundaries and company boundaries
- To reveal inefficiencies in existing organisational process structure
- To define clear definition of responsibilities

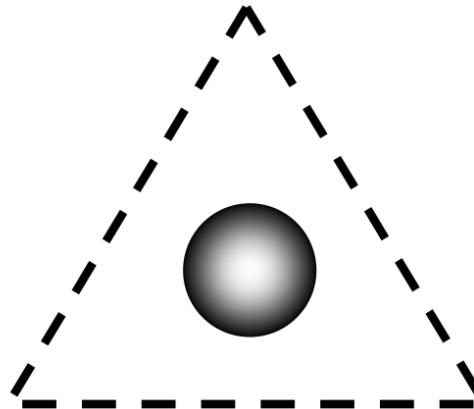
=> Achieve transparency of business processes

BPM Key objectives



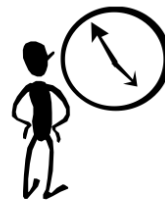
Quality

- Aligning added-value with the client's interests
- Lowering the incidence of mistakes



Costs

- Avoidance of nonproductive activities
- Optimize resources usage



Time

- Reduction of waiting times
- Reduce delivery time
- Time to market