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COMP3219 Week 6.1 Introduction to Project Management

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Text book

- Pinto, J (2019) Project Management: Achieving Competitive Advantage. 5th ed. Harlow: Pearson ------ Chapter 1

What is a project?

- A project is a temporary endeavour undertaken to create a unique product, service or result. ---by Project Management Body of Knowledge (PMBoK)
- A project is a unique venture with a beginning and end, conducted by people to meet established goals within parameters of cost, schedule and quality.
- Projects are goal-oriented, involved the coordinated undertaking of interrelated activities, are of finite duration, and are all, to a degree, unique.
- A project is organized work toward a predefined goal or objective that requires resources and effort , a unique (and therefore risky) venture having a budget and schedule.

What is a project?

- A project can be considered to be any series of activities and tasks that:
  - Have a specific objective to be completed within certain specifications
  - Have defined start and end dates
  - Have funding limits, if applicable
  - Consume human and nonhuman resources, such as money, people, equipment
  - Are multifunctional (i.e., cut across several functional lines).

Examples of projects (or programmes)

- A retail-clothing establishment buys, stocks, and sells cloth in a continuous cycle?
- A steel plant orders raw materials, makes steel, and ships finished products?
- London 2012 Olympic games?
- NHS patient records (electronic)?
- Apple developed iPod (Portable MP3 player) between 2003-2015?
- MS Windows releases?
- ……
- The 2012 Olympic game is actually what we refer to as a programme (a series of projects that is too large to constitute a single project)

Why are these projects?

- Projects are typically authorized as a result of one or more of the following strategic considerations:
  - A market demand

  E.g. software for mobile phones.

  - A customer request

  E.g. Extension of an existing web service because of increasing demand.

  - A technological advance

  E.g. Migration from tape backups to CD/DVD/RAIDs.

  - A legal requirement

  E.g. Accessibility for web sites, GDPR

Determinations of Project Success

- Triple constraint: Time, Cost and Scope
- The new quadruple constraint: Time, Budget, Performance and Client Acceptance
- Four dimensions of project success importance
  - Project efficiency
  - Impact on the customer
  - Business success
  - Preparing for the future

However…

- Only 16.2% of projects met the project goals on time and on budget.
- More than 32% of IT projects were cancelled before time and budget. (from Kathy Schwalbe, Project Management)
- Do not meet the requirements of the stakeholders
- Complete project failure (worst case)
- Things are getting better, but millions of pounds and thousands of person hours are wasted every year, and most of this could have been avoided with a little forethought

Kathy Schwalbe, An Introduction to Project Management.
http://www.augsburg.edu/ppages/~schwalbe/

Some common problems with IT projects

- Often little or no planning involved
- Unrealistic time scales
- Conflicting objectives of stakeholders and project team
- Poor cost estimating
- Little or no consideration of risks involved
- Little or no contingency planning in place is case of problems

An apocryphal joke in Project Management

You can have it:

- Good
- Fast
- Cheap

Pick Two

Picture from http://www.cvr-it.com/PM_Jokes.htm

Project management

- Good project management involves good planning, sticking to original plans, and following an organised schedule of work - this is good common sense
- Project management frameworks/methodologies
  - Project Management Body of Knowledge (PMBOK) by Project management institute (PMI) in the USA
    - Project Management Professional (PMP) by PMI in the USA
  - Association for Project Management Body of Language (APM BOK) in the UK
  - Projects In Controlled Environments (PRINCE2) by Axelos in the UK
  - Agile – started in 2001 as a software development framework

Project Management Stages

1. Foundation stage
   - Why Project Management? (Chapter 1)
   - Strategy, Structure and Culture (Chapter 2)
2. Planning stage
   - Project selection (Chapter 3)
   - Project leadership (Chapter 4)
   - Scope management (Chapter 5)
   - Team building and conflict (Chapter 6)
   - Risk management (Chapter 7)
   - Cost estimation and budgeting (Chapter 8)

Project Management Stages

3. Implementation stage
   - Scheduling 1 (Chapter 9)
   - Scheduling 2 (Chapter 10)
   - Critical chain scheduling (Chapter 11)
   - Resource management (Chapter 12)
4. Termination stage
   - Project evaluation and control (Chapter 13)
   - Project termination (Chapter 14)

A Project Manager

- A project manager leads and oversees the project development process.
- Main responsibilities of a project manager:
  - Selecting a team
  - Developing project objectives and a plan for execution
  - Performing risk management activities
  - Cost estimating and budgeting
  - Scheduling
  - Managing resources

Traits of a good project manager

- Encourages a shared vision
- Can communicate requirements, concepts etc. effectively
- Acts ethically (follows the law, does not take bribes etc.)
- Has an enthusiastic attitude (positive)
- Is empathetic and realises the competing demands on project members time (i.e. there is a life outside work)
- Is competent and does not take on tasks for which they are not qualified
- Delegates (and trusts) work to others in the project team, yet can monitor the tasks to make sure they are on track
- Good team-worker, and can build effective team-working environment for the team
- Keeps calm even when things go wrong

Common mistakes in IT project management

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- Employing too few staff, and those who are employed do not possess the necessary skills
- The project manager in charge does not have sufficient experience
- Most IT projects doe not employ a repeatable process (or methodology) such as PRINCE2 - we should learn from our mistakes, and be able to take experience from one project to the next
- Getting bogged down in following the process, rather than using it efficiently to get the work done
- No formal tracking of changes to scope (which should always be minimised, and assessed)
- There is a lack of up-to-date information about project progress
- Problems are ignored, rather than being addressed

Common mistakes in IT project management

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- Time is not taken (at the beginning) to clearly define the scope of the project
- Dependencies between projects are not identified (so changes in one project cause major problems for related projects)
- Murphy's law is not considered - if something could go wrong, it will - i.e. they fail to anticipate that there could be problems.
- They do not fully utilise change management (often stuff is built just because it can, without consideration for the users)
- IT department's and project manager's do not "push back" on unreasonable (and often unachievable) deadlines
- There is often poor communication between the IT project team and the project sponsors (stakeholders)