

Tutorial 8 solution

Activity 1

1. What types of test are performed on IT projects?

- Unit testing
- Integration testing
- System testing
- Stress testing – performance/load
- User acceptance testing

2. Explain the difference between outsourcing and insourcing.

Outsourcing – obtaining goods/services from outside the company:

- Performed via contract (SLA)
Note: SLA (Service Level Agreement) is not mentioned in the lecture video.
A service-level agreement (SLA) is a contract between a service provider and its internal or external customers that documents what services the provider will furnish and defines the performance standards the provider is obligated to meet.
- Has specific performance measures
- May contain rewards and penalties (both generally monetary)
- Exit clauses defined

Insourcing:

- Providing services internally
- The movement of a business process within a company, to an internal entity within the same company, that specialises in that operation

Offshoring is outsourcing to an overseas company. If it is just an overseas individual, it is still considered outsourcing.

3. Discuss the difference between an RFQ and RFP.

RFP is used to ask for proposals from prospective suppliers or vendors. RFQ is used to ask for quotes or bids from prospective suppliers or vendors.

A company wanting to accomplish a project will start with RFP first if they do not know how exactly the project can be accomplished. The vendors then will explain their approach to complete the project in the proposal that they send back. The company then will shortlist the proposals and send the shortlisted vendors an RFQ. If the company knows exactly how they want the project to be completed, the RFP may be skipped. The company simply describes the approach they are looking for in the RFQ and vendors reply back with a quote.

4. Discuss the importance of developing a SOW.

In the SOW, the company should provide enough information about the project or the items to be procured to the vendors so that the proposals and quotes from the vendors become more accurate.

Homework:

1. What is the purpose of project quality management?

- To make sure what we deliver is what the customer wanted -> main purpose
- To follow standards, rules, and procedures
- To make the work more reusable and maintainable

2. What is a maturity model?

- The degree of formal and optimal processes from ad-hoc to optimised processes
- Frameworks for helping organisations improve their processes and systems.
- It describes an evolutionary path of increasingly organised and systematically more mature processes.
- Many maturity models have five levels, with the first level describing characteristics of the least organised or mature organizations, and level five describing characteristics of the most organised and mature organizations.

Capability Maturity Model Integration (CMMI) — A process improvement approach that provides organisations with the essential elements of effective processes

3. What are the main processes in project quality management?

- Plan quality management – Setting quality targets
- Perform quality assurance
- Monitoring and Controlling – perform quality control and any quality issues are identified and resolved quickly

4. What is procurement?

Procurement is the acquisition of goods, services, or works from an external source. The goods, services, or works must be appropriate for the needs of the project and they must be procured at the best possible cost to meet the needs of the acquirer in terms of quality, quantity, time, and location.

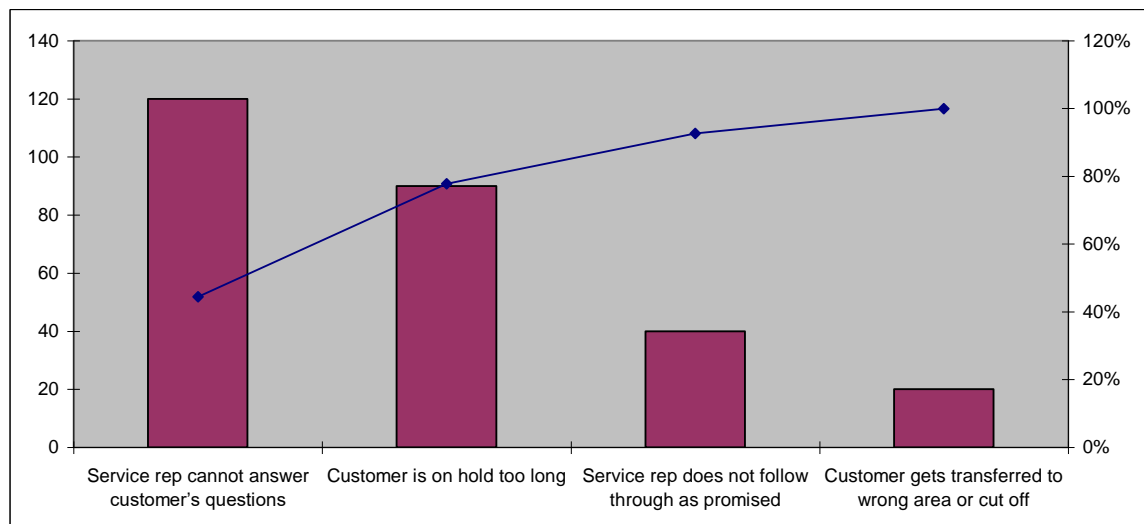
Activity 2: Quality Control

Create a Pareto chart based on the information in the following table. First, create a spreadsheet in Excel using the data in the table. List the most frequent customer problems first.

Customer Complaints	Frequency/ Week
Customer is on hold too long	90
Customer gets transferred to wrong area or cut off	20
Service rep cannot answer customer's questions	120
Service rep does not follow through as promised	40

Solution:

Customer Complaints	Frequency/week	% of Total	Cum %
Service rep cannot answer customer's questions	120	44%	44%
Customer is on hold too long	90	33%	78%
Service rep does not follow through as promised	40	15%	93%
Customer gets transferred to wrong area or cut off	20	7%	100%
Total complaints	270		



We can identify that 44% of the complaints is due to the fact that the service rep cannot address the customers' queries. They should investigate on the root cause of this issue.

Instructions:

- If doing manually, we will have to rearrange the table as above and work out the cumulative %. Then proceed to draw the graph as shown in the solution.
- If using Excel (refer to Excel spreadsheet), we do not need to rearrange the table. Just highlight the table and select: Insert --> Charts --> Insert Statistic Chart
For more information, on creating pareto chart in Excel 2016, please refer to this [video](#)

Activity 3

Most colleges or universities have specific quality standards for instructors, such as the level of education completed, amount of experience, teaching evaluations, performance at interviews, quality of references, etc.

Note for students:

For more information about developing quality management plan, you can also visit this website: <https://pma.doit.wisc.edu/plan/3-2/what.html>

Activity 4

Let d = the number of days you need the equipment. Set up an equation where the lease equals the buy as follows:

$$\$240d = \$6,800 + \$70d$$

$$\$170d = \$6,800$$

$$d = 40$$

Therefore, after 40 days, the lease cost will be the same as the purchase cost. If you need the equipment for only thirty days, you should lease it.