

**Module 4 Assignment**

***Short Answer (4 to 5 sentences)***

1. *Define project risk and risk management.*

The word project risk describes the risk or risks that can occur in connection with a project. The risks of a project can and in most cases do affect things such as schedules or budgets and in the worst case can lead to the failure of the project. Risk management is there to identify these risks in advance and to manage or counteract them. Tasks of risk management are thus different things, like risk identification, risk analysis, risk evaluation and risk accomplishment. In order to carry out a project meaningfully, a good work of risk management is of great importance.

2. *Briefly define the four key stages of risk management.*

Risk management has four main phases. The first phase is to identify the risks. The second phase is the phase in which the risks are evaluated. In the third phase, the risks are tried to be solved in order to eliminate them. In the fourth phase, a company then makes sure that the risk does not reoccur and tries to refine things in the management for the upcoming problems.

3. *In the text, the risk identification stage may identify various types of risk. Pick any two to define and provide an example of.*

One risk that may arise in connection with risk identification is financial risk. This risk refers to the financial risk to which a company exposes itself during the construction of a project. For example, if a company constructs a building but has not yet sold it, a financial risk arises. Another risk is technical risk. This type of risk involves a company having to use new technologies in the project that it has not worked with before and is not familiar with. An example of this is new features and apps that are fundamental to the project.

4. *There are four risk mitigation strategies. Briefly define them.*

The first risk reduction strategy is avoidance, which is to ensure that risks can be avoided in advance by refraining from actions. The second strategy is the reduction strategy, in which actions are carried out that reduce possible risks. The next strategy is the risk transference strategy, in which risks are transferred to third parties. The fourth risk reduction strategy is acceptance, in which risks are accepted because they are within an acceptable range.

5. *Define cost estimation. Describe why it is important in the project management process.*

Cost estimation describes the process in which the potential and actual costs of a project are analyzed and evaluated in advance. On the basis of the analysis and the resulting evaluation, a sum is compiled, which describes the prospective costs of a project. This cost estimation is a great help for the project management to make spending as well as investment decisions. A project management can be guided by the cost estimation and make sure that the project stays within budget and uses its own finances and resources wisely and correctly.

6. *List the common sources of project costs. There are five. (no need to define them!)*

- Labor
- Materials
- Subcontractors
- Equipment and Facilities
- Travel

7. *Compare and contrast direct and indirect costs. Secondly, compare and contrast fixed and variable costs.*

Direct costs are costs that can be allocated to a specific service. In contrast, indirect costs are costs that cannot be directly related to a product. Fixed costs are costs that occur permanently regardless of the employment situation of a company. An example of fixed costs are monthly rental costs. Variable costs are costs that can change. In contrast to the fixed costs the employment situation as well as the production quantity play a role. The fixed and the variable costs form the image of all costs of an enterprise.

8. *What is a parametric cost estimate and how does it differ from an analogous estimate?*

Parametric costing is a means of deriving costs from technical descriptions of a project. This type of costing also provides an estimate of the scope, content and budget of the project. Analog estimating, on the other hand, uses known core variables from completed projects to prepare an estimate. In addition, the analog cost estimates are prepared at an early stage, even if data and information about the project are still missing.

9. *What is a learning curve and why is it important?*

The learning curve provides information about the success and progress in learning of a person over a certain period of time. The progress in relation to the time spent can be shown on the basis of the curve. For a manager this curve is of great importance, because he can analyze and evaluate his employees on the basis of this curve. He can see in which learning area there are difficulties and try to design new learning opportunities to advance the progress faster. Also, the curve can be used to see a comparison between the different employees and their skills.

10. *What are some reasons why developing an accurate cost estimate can be difficult?*

An accurate cost estimate can be problematic because new costs that were not considered can arise due to situations that arise. Thus, additional costs are due for the customer, to which he does not react positively. Above a certain amount, customers are not obliged to pay this increase in costs, and so the entrepreneur is stuck with the costs. It is therefore very important to consider all scenarios when making an estimate and to send it only when you are aware of the situation. Due to problems or situations, the estimate can always change spontaneously.

11. *Compare and contrast top-down and bottoms-up budgeting.*

Top-down budgeting is a method in which managers set a budget that is adapted to the company's goals. In this method, as can be seen from the name, the decisions are made at the top and are then passed on piece by piece. Bottom-up budgeting is just the opposite. In this method, employees estimate a budget that they need to do their job. This method ensures that managers and regular employees take responsibility.

12. *Define activity-based costing.*

Activity-based costing is an accounting model in which cost and activity accounting is supplemented. In it, various company processes are analyzed. Based on this analysis, optimizations can then be made which relate to various areas of the company. Both resources and costs can be optimized and made more sustainable.