**1. What is Decision Analysis? When is it most useful? Briefly outline a generic Decision Analysis process. How can a decision maker clearly communicate the objectives of a decision?**

Solution 1:

Decision Analysis is a methodology and set of probabilistic framework for facilitating high quality, logic discussion which illuminate difficult decision and lead to clear and compelling action by the decision maker. Decision analysis includes many procedures, methods, and tools for identifying, clearly representing, and formally assessing important aspects of a decision. It uses various statistical tools such as decision tree analysis, influence diagrams and probabilistic forecasting to achieve this objective. Decision analysis can be applied to any decision that you make, but it is most beneficial to those decision you deem significant and or difficult.

The decision analysis is most useful when a decision maker is faced many alternatives and a risk filled or uncertain future. It is useful in different professional fields including engineering, business, psychology and economics as it provides a systematic procedure to identify, analyses, and set alternatives that help the decision maker to make a decision. It becomes widely applied in various industries and government agencies for making all type of decisions.

A Generic Decision Analysis Process includes:

1) Identify the decision.

2) Clarify the objectives.

3) Create alternatives.

4) Evaluate those alternatives.

5) Choose the best alternative.

6) Implement the alternative.

The decision maker must also clearly communicate the objectives of the decision by asking the following:

1) Why are we doing this?

2) What do we expect to gain from it?

3) How will we know if we are successful?

4) What metrics will indicate we are on the right path?

5) The most importantly, what objective criteria will be used to trade-off one alternative against another? This must be answered before any evaluation work is performed so that we can minimize the analysis rework and keep an objective view of the alternatives

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2.**Briefly discuss key measures of merit that a company or organization can use to assess potential projects**

During recent history, the need for projects has changed constantly, and good governance is considered to be the primary driver for the success of the economy and available projects. To ensure that the plans are well maintained, various organisations have devised different methods of assessing their programs. With this in mind, organisations across the world have been grappling with external and internal demands having the pressure of implementing the required reforms and improvements of public management.

Productivity

Measurement of productivity manages to give an overview of what the project can provide to the investors. It will also determine the worth people get after their investment to a project. Knowing using revenue created by each employee is the best metric that is supposed to be used in analyzing the productivity level of an organization. The output that is on measurement should be well categorized so that the organization can cater the value of the customers (Hubbard, 2014).

Cost of quality

The use of this assessment tries to analyze the amount of money that various organization put across and determine the services that are not done right. For an organization, overhead costs, materials and labor are some of the attributed imperfections that are measured within an organization that do not meet the required specifications. The determination of quality can also involve scrapping of rejects, inspection, refunds and rework so that it prevents damage of reputation.

Cost performance

Cost performance is used to measure the efficiency of cost invested in a project. Usually, it is determined through different work performed through actual expenses that are incurred to accomplish the earned value. There is also the ability of forecasting on potential setbacks thus allowing an organization to allocate the required capital to particular projects.

Employee Satisfaction

Satisfaction of employees will indicate the number of workers needed and the level of morale within an organization. There is the use of hard and soft measures that help one determine the importance of predictor satisfaction levels. With proper motivation and employee satisfaction, the organization can realize the highest best output from employees because of the exemplary environment created between the organization and workers (Kerzner, &Kerzner, 2017).