

Data Mining & Data Warehouse

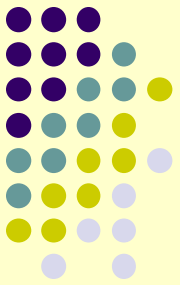
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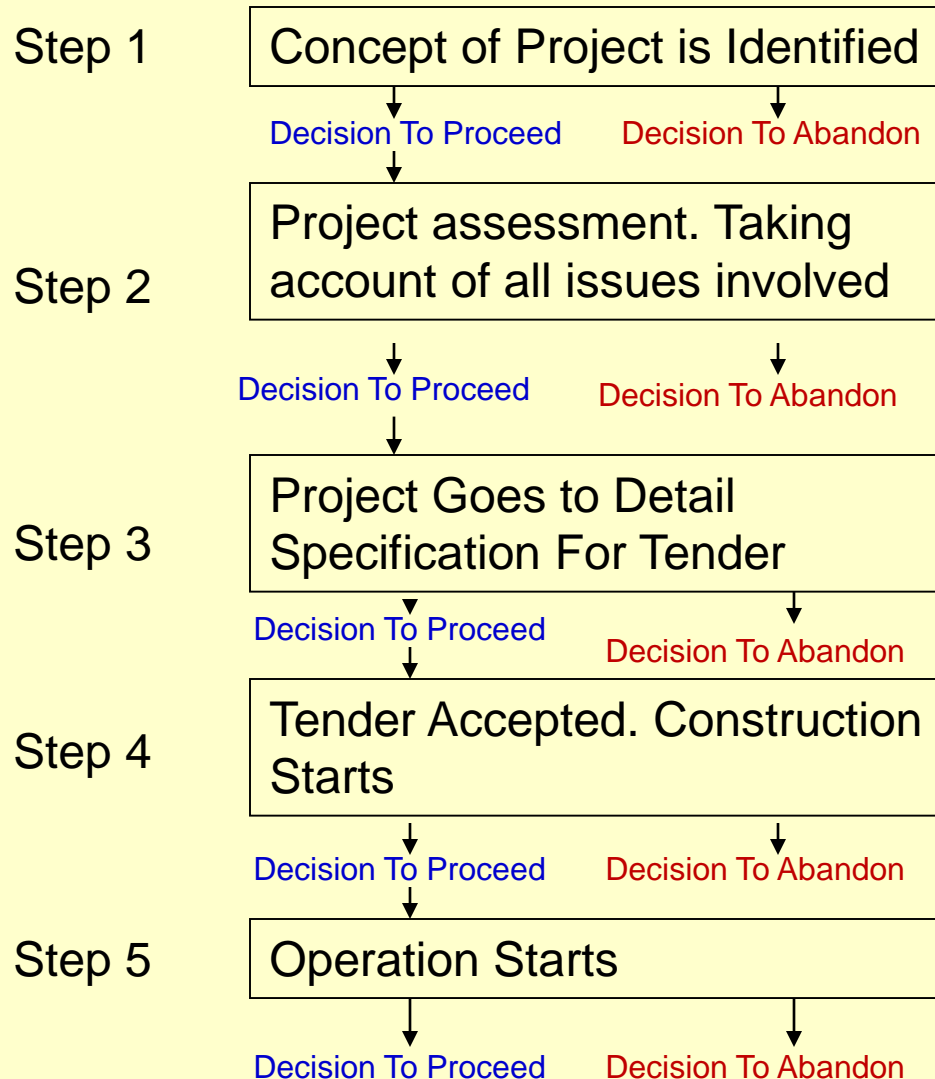
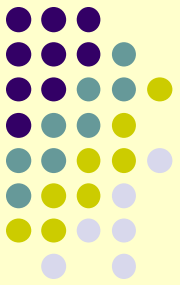


Decision Support System

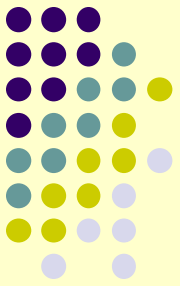


- A **Decision Support System** (DSS) is an interactive computer-based system or subsystem intended to help decision makers use communications technologies, data, documents, knowledge and/or models to identify and solve problems, and make decisions.
- Decision Support System is a general term for any computer application that **enhances a person or group's ability to make decisions.**

Essential steps in the process of making a decision

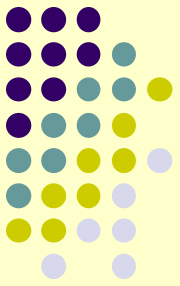


Step 1



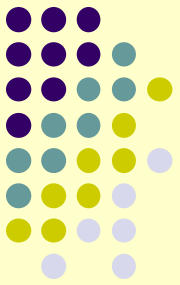
- The **conceptual need** for a project arise mainly as a result of an basement of future requirements.
- It may be made by a **team of experts**.
- Typically a conceptual study will identify the **technical solution required**, the **economic merits**, and **acceptability of project**.
- It may require discussion with financial institutions whether or not they will provide **necessary funds**.

Step 2



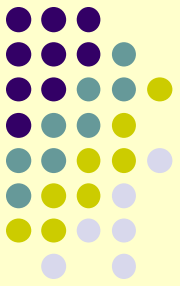
- Assuming the decision has been made to develop the project further then a **detailed assessment** will have to be made of all **technical**, **economic** and **more details**.
- The details may be quantitative and based on subjective knowledge.
- A major decision making is about **novelty of project**.

Step 3



- If the outcome of step 2 is to proceed the project, then a **tender specification** has to be prepared.
- It should define, exactly what work the tender is required to do. Ideally it has to **define every thing** that has to be done.
- Before a tender specification is issued it is careful to confirm that the project is acceptable to regulatory authorities and that the adequate finance is available.

Step 4 ,5



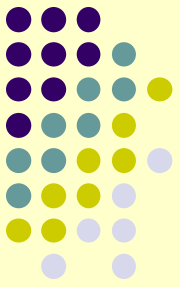
- Step 4

- The first action is to **decide** if one of the tender should be accepted.
- The tenderer should have the appropriate experience, capability and adequate financial resources.

- Step 5

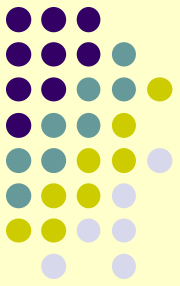
- Assuming all steps completed satisfactorily, a decision has to be taken to start the project.
- Even if the project starts, it might have to be stopped if the environment it operates is changed.

Decision making characteristics



- Decision is made based on the **information** available.
- At each part of the assessment, there may have to be **iterative development** to take in account improvement in data that take place as the project proceeds.
- A project will not go ahead unless there is adequate **funding**.

Data Mining



- Main purpose is to provide decision support to managers and business professionals through **knowledge discovery**
- Analyzes vast store of historical business data
- Tries to discover patterns, trends, and correlations **hidden in the data** that can help a company improve its business performance

