

The Software Team Structure

Software organizations are mushrooming everywhere. With diversity in resources, skill sets and quick obsolescence of technology, structure team has become a crucial issue.

Mantei suggested three generic team structure.

1. Democratic Decentralized (DD)

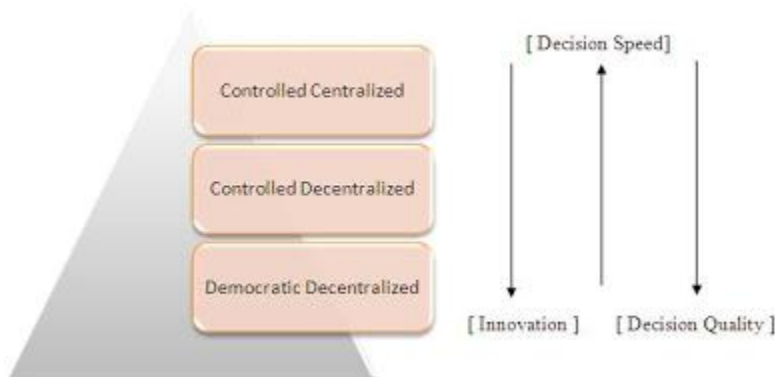
This team structure is driven by group cohesiveness in making group decisions and solving problems with consensus. There is **no group leader** as such. A task coordinator is chosen for short duration based on skill or experience level. The communication is **horizontal**. On completion of task, the coordinator may be **replaced** by other.

2. Controlled Decentralized (CD)

Unlike DD, here team has a **specific leader** whose primary task is to **divide the project into tasks** and assign groups to accomplish them. He may choose a **task coordinator for each group**. The communication in group will be horizontal and between groups, communication will be vertical. Here groups and individuals are involved for decision making and problem solving.

3. Controlled Centralized (CC)

The structure is almost similar to CD, but communication and involvement differs. Communication is **always vertical**. Decision are made by top level management people. There is **very little or no involvement of groups** in decision making.



In the image, direction of arrow shows low to high transition. CC encourages less innovation compared to DD. Similarly decision speed is higher in CC compared CD.

Mantei suggested following factors for considerations before structuring a team

- Difficulty of the problem
- Size of the resultant program(s) in lines of code or function points
- Team lifetime
- Degree of Modularization
- Required Quality and System Reliability

- Rigidity of the delivery date
- Degree of communication required for the project
Because a centralized structure completes tasks faster, it is the most adept at handling simple problems.

Decentralized teams generate **more and better solutions than individuals**. Therefore such teams have a **greater probability of success** when working on **difficult problems**.

Since the CD team is centralized for problem solving, either a **CD or CC** team structure can be successfully applied to **simple problems**. A **DD** structure is best for **difficult problems**.