AGILE PROJECT MANAGEMENT

How to deliver Projects successfully in Agile?

Complex Software Development

- A software development project's complexity can be assessed looking at:
    - **Software Requirements**
        - In traditional software development projects, the team freezes the requirements at the beginning of the project. This limits the project to adapt to any later enhancements or changes.
        - In product development projects, the requirements may not be clear from the beginning. The product might need to evolve per dynamic market conditions, and customer feedback over a period of time; requirements emerge over a period.
    - **Technology**
        - More projects require interfaces that bring data from upstream systems and send data to downstream systems.
        - Many of these interfaces tend to become complex.
        - In product development projects, there could be a requirement to leverage the latest technological advances to deliver a better product. For example, a software application must allow for accessing it on multiple devices such as smartphones, tablets, desktops, and laptops. This increases the complexity of the project.
    - **People**
        - People developing the software have different skills, intelligence levels, experience, viewpoints, and attitudes.

- In the following graph, the complexity of project is plotted with Technology and Requirements.

  - If requirements are agreed upon or frozen upfront, the project becomes simpler. If requirements are not agreed upon and constantly changing, then the project becomes complex.
  - If technology is easy (software development is only in one language), then the project is simple. However, if an application stack is involved (database, business logic, and presentation layers along with a few interfaces), it becomes complex.
  - If both requirements and technology are too complex, it may lead projects to chaos and anarchy.
  - If the project is simple (per this complexity assessment), Scrum may not be useful. Scrum is useful for complex projects.

Project Complexity Assessment Graph

Requirements complexity

Far from agreement

Chaotic / Anarchy

Complicated

Complex

Simple

Complicated

Close to agreement

Close to certainty

Technology complexity

Far from certainty