Projects and project management

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Understanding projects

In modern organizations projects are everywhere. No new product or service launch is complete without a project to design and build a prototype or bring a product to market. This article explores what a project is, and how it relates to project management.

Project definition

A project is a temporary endeavour undertaken to create a unique product, service, or result. This 'temporary' nature implies a definitive start and end, making each project a unique journey towards fulfilling a specific set of goals or objectives.

An example of a project is a company bringing a new product to market. There are two types of work needed to achieve this.

1. Technical work
This is the work required to specify, design, build, test, and launch the product. This type of work is often performed by specialists, e.g. designers, or software engineers.

2. Management
This is the work required to plan, manage, execute the work, track and report progress, manage risks and issues, and communicate with stakeholders. This type of work is performed by a project manager.

Both types of work are included within the realm of a project.

Business as usual

Business as usual (BAU) refers to the ongoing everyday operations that takes place within an organization. The work which is done as part of BAU is repetitive, and often follows documented policies, procedures and standards that have been defined by the organization. This enables the operational work to be carried out in uniform, low-risk, repeatable ways.

Projects are different from BAU in the ways described below.

Project characteristics
There are 4 characteristics of a project which makes it different from business as usual.

1. Temporary
Projects can last anywhere from a few weeks to many years, they all have a definitive start and end.

2. Unique
Even if two projects seem similar, varying factors like team composition, the outputs, location, resources, and timing create a distinct identity for each project.

3. Change
A project delivers one or more outputs (deliverables) that will enable the organization to achieve one or more outcomes. These outcomes change the way that business as usual operations are performed. These improvements are measured in the form of benefits that the organization gets in return in its investment of time, money, and resources in the project.

4. Risky
Projects are riskier than business as usual. Often projects do work which has not been done before in the organization, and that's why projects are inherently riskier. To counter this, projects require effective risk management to mitigate the negative effect of these risks.

Understanding project management

Project management definition
Project management is the disciplined application of knowledge, skills, tools, and techniques to meet the project's requirements and expectations. It is a systematic approach that guides a project from its inception to its conclusion.

Individuals might perform project management in their daily lives, for example when they move house. But mainly, project management is discussed in the context of organizations developing new products or services or improving their existing internal operations.

Importance of project management
The importance of project management is twofold:

1. It ensures the project aligns with strategic goals and objectives.

2. It provides a structured framework for the project's successful execution.
Project management allows organizations to better control scope, manage resources, manage risks, and deliver quality outcomes within agreed timelines and budgets, and realise the expected benefits.

Project management standards and methodologies
There are a plethora of project management approaches, frameworks, and standards. The most well-known is published by the Project Management Institute (PMI).

The Project Management Body of Knowledge

PMI publishes the Project Management Body of Knowledge (The PMBOK® Guide) [1] which is regarded as a standard for project management. The PMBOK® describes a set of 12 project management principles that serve as foundational guidelines for strategy, decision-making and problem solving on projects. They are intended to guide the behaviour of the people involved in projects.

The PMBOK® Guide also defines eight project performance domains which form related activities critical for the delivery of project outcomes.

A key aspect of the PMBOK® 7th edition is its emphasis on tailoring. This is about adapting a project management approach, so it meets the needs of a specific project.

PRINCE2

PRINCE2, which is a project management methodology, defines similar concepts to the project performance domains within the PMBOK®. In PRINCE2 these are known as themes, but PRINCE2 also defines a set of seven processes which are performed by the project management team throughout the project life cycle.

Whether a project manager follows the PMBOK® or PRINCE2, they essentially follow the same path to get from the start of a project, through the middle of the project, and all the way through to the end of the project. Practices that are required include setting goals, planning, stakeholder engagement, communication, risk management, benefits management, monitoring and reporting, and change management.

Project management life cycle

Until the last 10 years or so, in most project management literature, there used to be a single project life cycle known as the linear, or waterfall approach. With the advent of adaptive (agile) approaches, these lifecycles have expended to include iterative, and incremental life cycles. Where projects have adopted a mixture, for example both linear and iterative approaches, this is classed as a hybrid life cycle.

All projects will undergo one of these lifecycles but which ever life cycle is adopted, the project management team must still perform the common practices listed above.

Importance of projects in organizations

Projects play a vital role in implementing and achieving organizational strategy. They enable organizations to turn their vision into reality by delivering specific outcomes that contribute to strategic goals.

Projects are how organizations achieve change, whether it's developing new products, improving processes, or implementing new technology. By aligning projects with strategic goals, organizations ensure that every project contributes value and moves the business towards its intended direction.

Effective project management is therefore crucial for the successful execution of the organization's strategy.

Relationship to programmes and portfolios

Contributing to programmes

Often projects are standalone. They are not related in any way to other projects being delivered within an organization. However, often a project is one of a set of projects which forms part of a programme.

Projects contribute to programmes by delivering specific outputs that, when combined with the outputs of other related projects, create a cumulative effect, leading to the achievement of the broader outcomes

envisioned by the programme. Every project within a programme plays a distinct role, and successful completion of each project is crucial for realizing the programme's objectives.

Contributing to portfolios

It is also possible that a project might be part of a portfolio of projects and programmes. Each programme or project within a portfolio should align with the organization's strategic goals. The collective performance of these programmes and projects determines the success of the portfolio. By delivering their specific outputs (projects) and outcomes (programmes), they contribute to the achievement of strategic objectives encapsulated within the portfolio.

Project management roles

There might be several roles which together form the project management team. It is important to understand that not every role is performed by one person. Some roles, for example, project support is often performed by a team of people.

PRINCE2 defines nine project management roles that should be performed on a PRINCE2 project. The PMBOK® Guide defines only two roles – the project sponsor and project manager.

Project manager role

The project manager role plays a pivotal role in steering a project towards its goals. It is responsible for project planning, execution, and closure while ensuring the project stays within the agreed constraints. The person performing this role must be highly organized and a skilled communicator, as they act as the liaison between the project team and the stakeholders.

Project sponsor role

The project sponsor (executive in PRINCE2) role is typically performed by a senior manager within the organization with a vested interest in the project's success. The person performing this role provides strategic direction, ensures resource availability, and performs high-level decision-making. They also support the project manager by championing the project at higher management levels.

Project team

The project team is made up of individuals specialist in their area of work. For example, architects, designers, builders. They work together to execute the project plan and produce the deliverables. Each member brings unique skills and expertise to the table and contributes to achieving the project's objectives.

Skills for project managers

Effective project management requires a project manager to have a diverse set of skills. These include:

- Leadership to inspire and guide teams.
- Risk management to identify and mitigate risks.
- Strong planning and organizing abilities to oversee the smooth execution of tasks and activities.
- Negotiation skills to negotiate scope with stakeholders.
- Time management to ensure the important tasks get done first.
- Clear communication skills to ensure clear, timely information exchange among all stakeholders.

Project management case study

The XYZ Software Company was commissioned to develop a customized software solution for a client in the finance industry. The project had a tight schedule of 10 months, and a budget constraint was in place.

Planning and organization

The project manager started by developing a comprehensive project plan, outlining key milestones, deliverables, and resource allocation. An agile project management approach was chosen to provide flexibility and allow for incremental development and feedback.

Communication and stakeholder management

Effective communication was central to the project's success. The project manager organized weekly meetings with the team and monthly meetings with the client. During these meetings, progress was reported, issues were raised, and solutions were discussed, ensuring all stakeholders were aligned and informed.

Risk management

A risk management plan was put in place to identify potential risks and prepare mitigation strategies. When a key software engineer fell ill, the risk plan was invoked, and a previously identified backup was able to take over, causing minimal disruption to the project.

Delivery and closing

The project was successfully completed within the set timeframe and budget. The client was satisfied with the software, which met all their requirements and was easy to use. A post-project review was conducted to identify lessons learned and opportunities for improvement.

The effective management of the XYZ project demonstrates the importance of thorough planning, clear communication, proactive risk management, and structured delivery and closing processes in successful project management. The learnings from this project were documented and used to refine the project management approach for future projects.

Final thoughts

Project management is a disciplined, organized, and systematic approach to converting vision into reality. It involves a careful balance between various factors like cost, time, quality, and risk.

By understanding the concept of projects, the role of project management, the various roles within a project team, and the project management life cycle, a project manager will be better equipped to embark on their project management journey.

References

[1] Project Management Institute. A Guide to the Project Management Body of Knowledge (PMBOK® Guide) – Seventh Edition and The Standard for Project Management (ENGLISH) (p. 254). 2021. ISBN 9781628256666 (kindle edition)

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Projects FAQ

What are the key elements of project management?
Key elements of project management include:

1. Scope management
Clearly defining and managing the work required to complete the project.

2. Time management
Developing and maintaining a schedule that ensures timely completion of the project.

3. Cost management
Estimating, budgeting, and controlling costs to meet the project budget.

4. Quality management
Ensuring the project will satisfy the stated or implied needs for which it was undertaken.

5. Risk management
Identifying, analysing, and responding to project risks.

6. Resource management
Effectively managing project resources, including people, materials, and equipment.

7. Communication management
Ensuring timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information.

8. Stakeholder management
Identifying the people, groups, or organizations that could impact or be impacted by the project and developing strategies to engage them.

9. Integration management
Ensuring that project elements are properly coordinated.

10. Procurement management
Obtaining necessary products or services from outside the project team.

What is higher than project management?
Above project management in the hierarchy of organizational structures are programme management and portfolio management. Programme management oversees a group of related projects to achieve a larger, strategic objective. Portfolio management, at an even higher level, manages a collection of projects, programs, and operations grouped together to achieve strategic business objectives. The highest level typically corresponds to strategic planning and executive leadership roles in an organization.

What is the project lifecycle?

The project lifecycle refers to the series of phases that a project passes through from its initiation to its completion. These phases typically include:

1. Initiation

This is the conception phase where the project idea is examined for its feasibility. The project's goals, requirements, and outcomes are defined, and a project charter is developed.

2. Planning

This phase involves developing a detailed project plan that outlines the scope, schedule, costs, quality standards, risks, and stakeholder roles. The necessary resources and tasks to achieve the project objectives are identified and scheduled.

3. Execution

This phase involves carrying out the project work as defined in the project plan. The project team produces deliverables and works towards meeting the project objectives.

4. Monitoring and control

Running parallel with execution, this phase involves tracking, reviewing, and regulating the progress of the project to meet the performance objectives defined in the project management plan. Changes to the plan may be proposed and implemented as necessary.

5. Closure

This final phase involves formally completing and closing the project. It includes handing over deliverables to the relevant stakeholders, releasing project resources, documenting lessons learned, and providing a final project report.

What is the definition of a project?

A project is a temporary endeavour undertaken to create a unique product, service, or result. It has a defined start and end, and it is conducted to meet unique goals and objectives, typically to bring about beneficial change or added value.

The temporary nature of projects indicates a definite beginning and end, contrasting with routine operations which are ongoing and repetitive. The uniqueness of projects differentiates them from routine business operations or tasks.