PROJECT MANAGEMENT

Chapter Three

Scope and Success in Project Management

Unit Introduction

The planning process's "project scope" must include a complete summary of the project's objectives, deliverables, tasks, and timelines before it can be considered complete. It must be done before the project can be regarded as thoroughly planned. The documentation that outlines the scope of a project is given the designation "terms of reference," which is also sometimes referred to as "scope statement." It explains the methods that will be used to check and certify the work that has been done, the parameters of the project, the tasks assigned to each individual on the team, and the members to whom those duties will be given (Shenhar & Dvir, 2007).

It is helpful for the project team to maintain concentration throughout the project's duration when they have access to this content since it allows them to stay on track. The scope statement will provide the team with guidelines when deciding how to respond to change requests when the project is already in Progress. It is essential to remember that the project's charter and the scope statement are not the same, as this distinction is crucial. The only purpose served by the charter of a project is to provide evidence that the project exists (Ika, 2009).

Figure 3.1. Illustration of scope in project management (Source: Zilicus, Creative Commons License)

As the large products proceed toward completion, one cannot escape from the modifications that can occur during the process. If the 'project's scope is properly defined at the output, then the approval of the alterations and the management of the implementations of these changes are much more convenient. Project participants should be as specific as they can be when describing the project's scope to avoid scope creep. The concept known as "scope creep" occurs when one or more project components require more work, attention, or energy than initially expected due to inadequate planning or miscommunication (Cooke-Davies, 2002).

The key to scope management success is effective information sharing. It ensures that everyone on the team is conscious of the project's scope and agrees on the precise methods for meeting its objectives (Howsawi et al., 2014). The team captain should prioritize getting approvals and signatures from each of the parties involved as the project progresses (De, 1988). It is crucial to control the project's scope and guarantee that its intended goals will be achieved.

One might argue that "success" is the most cherished term in the project management industry. When discussing projects, there are primarily two types of success: project success and project management success. Both of these factors that influence the successful completion of a project share some similarities and distinctions (De, 1988). The primary difference is that a project's probability of success

is closely related to the result of an evaluation of the overall project goals being achieved. In contrast, the success of project management is linked to more traditional measurements of performance in terms of time, cost, and quality ((Ika, 2009)). However, because there are many alternative models of successful projects and successful project management, it is challenging to create a clear distinction between the two, primarily due to the interdepend their interdependenciesctives

1. Scope in project management
2. Concept of scope statement work
3. Significance of scope in project management
4. Processes used in content in project management
5. The success of project management
6. Important factors that determine the success of project management
7. Tools used in project management to prevent failures

Key Terms

1. Scope
2. Scope Statement of Work (SOW)
3. Project Management Success
4. Failures
5. Tools
6. Project Management Success Breakdown

3.1. Scope in Project Management

The term "scope" is used in business and management to refer to all activities that must be finished to bring the project to fruition. While dealing with project management, it is vital to understand the distinction between the product's scope and the project's scope before proceeding to more sophisticated concepts. The product scope outlines the characteristics and capabilities of a service or item currently under development (Cooke-Davies, 2002). A project's scope defines all the components of the task that must be performed to create a service or product.

Remember:

If product scope is a blueprint of the product, the project scope is a detailed plan on what is needed to develop it.

Therefore, once a project manager is handed over, he should define its scope before beginning the project (McLeod et al., 2012).

3.2. Project SOW (Scope Statement of Work)

The statement that project managers use to describe a project's scope is called the scope statement or scope statement of work.

The scope statement ought to be understandable and specific.

Figure 3.2. Explanation of factors in Scope Statement of Work (SOW) (Source: Hays, Creative Commons License)

It should outline all of the work and requirements that are necessary to finish a project, and it must contain the following components (Gudienė et al., 2013):

1. Justification — explains why the project is required and should be done.
2. Goalescription of the outcomes the initiative hopes to accomplish.
3. Deliverables — includes a rundown of all the deliverables that will be provided to the client once the project is completed, along with an explanation of those items.
4. Limitations include all laws and regulations that must be adhered to while the project is being worked on, such as time limits and financial constraints.
5. Exceptions — a rundown of what will not be included in the project's outcome.
6. Agreement — includes signatures from all important stakeholder groups as evidence that the deal has been reviewed.

Relevant parties have reviewed, comprehended, and accepted the understanding that the scope declaration falls within the scope parameters. Everything mentioned in the documents section and everything that is not specified in the document is regarded as being outside the document's scope. A scope statement paper has additional components, such as timetables, significant milestones, or a comprehensive list of stockholders; nonetheless, the six parts discussed above are elements for effectively detailing the project (Machado & Martes, 2015.

3.3. Importance of Scope in Project Management

According to Project Smart, a well-defined scope can distinguish between a project that succeeds and one destined to fail.

Project managers must have complete control over the project and complete it in a way that pleases the shareholders, even with a defined cost and rigid deadlines dragging them down.

Thanks to a scope statement, project managers can focus solely on what is inside the scope thanks to a scope statement, cement consultants and other vital shareholders from succumbing to the desire to change the project after it has started (Young, 2007).

The scope statement is crucial for project management since it:

a) Acts As Evidence Of The Agreement's Conditions;
b) Reminds People Of All The Conditions Necessary To Finish A Project;
c) Keeps People From Taking On More Work Than Is Needed,
d) Restrains The Project Requirements From Becoming Out Of Control.

3.4. Statement of the Project Scope (+ Template)

Customizable scope samples have proven to be very effective in project management, regardless of the project kind you are dealing with. Scope management "involves the activities needed to assure that the project contains all the tasks required," according to the Project Management Body of Knowledge (PMBOK) (Radujković & Sjekavica, 2017). Defining and regulating what is and is not a project's component is the nucleus of scope management. It determines the steps required to finish the project and ensures everything goes as planned during its execution phase. Writing a project scope statement that covers specifics on the project deliverables is one of the first things to be done when planning a project. The following are some of the benefits that a project scope statement can provide to any organization that is beginning a new venture (Kerzner, 2022):

a) It explains the project's requirements so that all involved parties know what is expected of them.

b) It offers a road map for managers to employ in properly assigning responsibilities, scheduling work, and budgeting;
c) It helps keep team members focused on goals; and
d) keeps projects, especially more intricate ones, from deviating from the primary idea of the enterprise.

Establishing the project scope ensures that the duties will be carried out in a concentrated manner and according to the plan. The area acts as a solid foundation are steering a project as it progresses and helps avoid efforts from being wasted or misdirected on items that are outside of the project's ambit (Bryde, 2005).

3.5. Processes for Managing the Scope of the Project

Six processes define the strategy of scope management. These processes are mentioned in the illustration below:

Figure 3.3. Schematic of project scope management (Source: Kissflow, Creative Commons License)

a) Planning scope management
b) Collecting requirements

c) Defining scope
d) Creating WBS (work breakdown structure)
e) Validating scope, and
f) Controlling scope.

Go through each process in detail.

3.5.1. Planning Scope Management

Planning scope management is considered the initial step of scope management. It can be carried out either several times as the project progresses or once as the Progress begins to generate the following (Westerveld, 2003):

1. *The scope management plan* specifies how the scope statement and work breakdown structure will be developed and how authentication will be gained.
2. *The requirements management plan:* It describes how specifications will be written, managed, and analyzed, as well as how changes will be handled. It is also referred to as the business analysis plan.

To accomplish this, it is required to carry out a thorough investigation of the:

Figure 3.4. Illustration of scope management process (Source: Avantika Monnappa, Creative Commons License)

a) The project charter,
b) The project management plan,
c) The organizational policies, and

d) The enterprise's environmental factors.

Clearly stated, scope management's planning phase establishes strategies for how the subsequent five processes will be carried out (Thomas, 2014).

3.5.2. Collecting Requirements

A project manager must gather data from clients, funders, and other essential stakeholders to ascertain and list their wants, desires, and prerequisites for the project before trying to establish scope.

The following techniques are frequently used to gather requirements:

1. Interviews,
2. Questionnaires
3. Benchmarking
4. Surveys,
5. Focus groups.

Similar to scope management planning, this approach can be carried out either once at the start of project planning or several times as the project progresses, with the following results:

a) *The requirements documentation* — a statement of the requirements and an explanation of how they relate to the project's business requirements.

b) *The requirements traceability matrix* — a grid that follows requirements from inception to completion. It is frequently displayed as a table. It ensures that all initially identified needs are met satisfactorily upon project completion.

3.5.3. Defining Scope

Once the scope management strategy has been finalized and all requirements have been gathered, you should characterize the project's scope. It is the stage in which the project manager develops the SOW (scope statement of work) that will govern the project's Progress (Papke-Shields et al., 2010).

3.5.4. Designing WBS (Work Breakdown Structure)

The project manager provides a full summary of the tasks that must be completed to finish the project in the fourth stage of scope management planning, considering all previously produced material. The work breakdown structure, in essence, splits vast pieces of a project into tiny segments that are simpler to complete.

The following are the primary outcomes of this process (Mir & Pinnington, 2014):

a. The scope baseline consists of WBS, scope statement, and the WBS vocabulary in their final accepted form.

b. Updates to project documents – any previously prepared material that needs to be modified.

1. *The scope baseline* — consists of the scope statement, the WBS, and the WBS vocabulary in their final approved form

2. *The Updates to project documents* — any previously prepared material that should be modified.

3.5.5.Validating Scope

The most crucial process in scope management is scope validation. A typical misunderstanding regarding this process is that it corresponds to the proof, i.e., the scope's authorization, whereas it is concerned with accepting the project's deliverables. The project manager may have gathered all the prerequisites and finalized the outcomes, but those outcomes must now be fully endorsed by substantial parties involved (Radujković & Sjekavica, 2017).

At this point, stakeholders may seek revisions to the deliverables; if this occurs, the project manager returns to the drawing board. Scope validation is a process that must be carried out throughout the project following the submission of each deliverable. Delays in approving deliverables may result in snags with other related deliverables (Radujković & Sjekavica, 2017).

The following are the significant outcomes of scope validation:

1. Accepted deliverables – official documents bearing the signatures of all parties involved and listing the authorized deliverables

2. Work performance information – documents outlining the project's success rate and all deliandeither declined or approved.

3. Change requests – paperwork that lists the declined deliverables, the grounds for their refusal, and the official change requests.

4. Updates to project documents – any formerly prepared material that must be altered (Radujković, 2000).

3.5.6.Controlling Scope

The decision to narrow the scope must be made repeatedly, as it is not a one-time option. Continuous scope control is used throughout the project to monitor it, regulate changes, and ensure that all change orders go through the predetermined Change Control process. This is a significant phase in project management and scope management because it aids in assisting scope creep — the potential for projects

to spiral out of control due to repeated tries to change or add prerequisites without matching modifications to the deadlines and budget.

> **Did you know?**
>
> According to the 10th Global Project Management Survey from 2018, 52% of the projects completed over the course of the year experienced scope creep.

This is a somewhat concerning figure, given that research published in the IEEE Access magazine discovered that 92% of projects fail to owe to — you guessed it — scope creeps (Pinto & Slevin, 1988).

The following are the primary scope control deliverables:

1. Work performance information — summarises the project's performance and compliance with the project scope, as well as all modifications and their influence on the timeline and the budget.
2. Change requests – a document containing officially completed change requests.
3. Project management plan updates —modifications in the project management plan's core materials
4. Updates to project documents — all previously prepared paperwork that must be revised.

3.6. Project Management Success

Although there is no agreed-upon definition of a successful project, experts concur that a project manager's good decisions can lead to success (Gewanlal & Bekker, 2015).

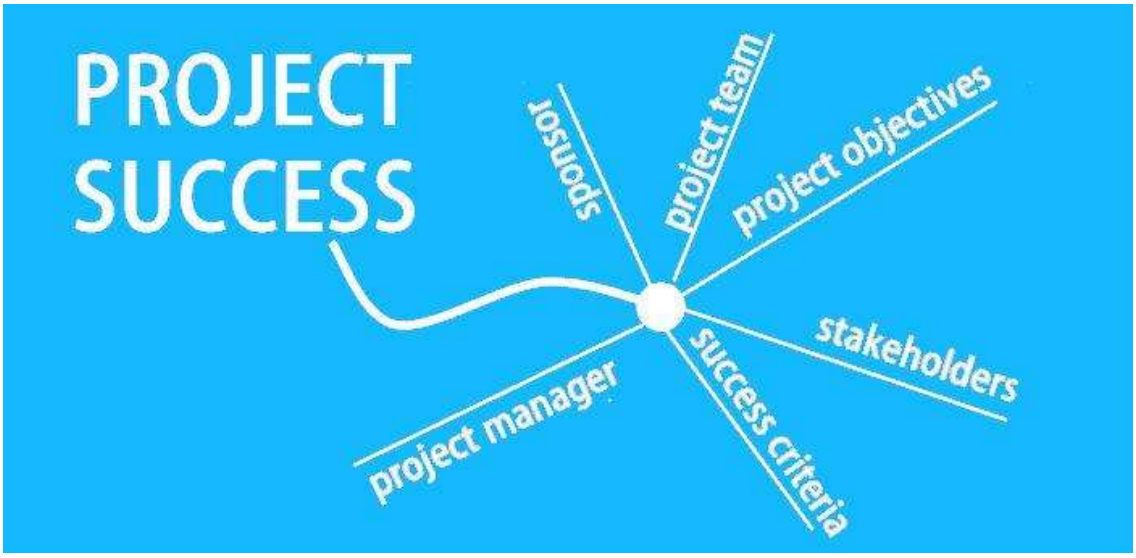

Figure 3.5. Image of project success (Source: PMLink, Creative Commons License)

Intending to advance current knowledge and methods, particularly in the field of construction management, this article discusses project management success. For most governments, customers, and communities, the success of building projects is a core concern, so it is essential never to cease looking for innoalways to continue to increase construction management performance (Gudienė et al., 2013).

Four components will be used to accomplish this goal. A thorough survey of the literature is provided in the first section, establishing several definitions and theories of successful project management through time. The success elements of project management are stated in a breakdown structure in the second section. Project management competency, organizational components, and project management tools, techniques, methodologies, and approaches, make up the structure. In the third section, management of public, EU-funded water projects is used to describe the breakdown structure. In the fourth part, suggestions for further development are provided.

Project management is the process of planning, arranging, supervising, and regulating every aspect of a project while encouraging everyone involved to finish it safely and within the set timetable, budget, and performance parameters (Lukianov et al., 2019). According to the definition of project management, this discipline is focused on the brief components of project success, such as schedule, quality, and budget requirements. The "iron triangle" model was the first practical project management approach, but it has since been proven to account for just a percentage of the project's overall performance (De, 1988). From this point of view, it is simple to see how a project might be successful while project management fails and vice versa. A project could be productive regardless of the lousy management if it fulfilled lousy and prolonged goals. Short-term goals may not be accomplished when project management finishes. Still, long-term goals may be met because a wider variety of purposes, rather more extensive than the limited purposes that project management concentrates on, are met (Munns & Bjeirmi, 1996).

Figure 3.6. Illustration of project success factors (Source: Andres Kruse, Creative Commons License)

Various other approachesKrusebe employed in addition to the "iron triangle" to ensure project management success (Munns & Bjeirmi, 1996). The individual who bears the primary responsibility for the project's success is the project manager, as he is responsible for not only timing, budget, and quality management but also communication, integrations, scope, personnel management, risk, and contract administration.

In light of this, it is unquestionably conceivable to expand the "iron triangle" to include theories that account for the management of stakeholders' contentment, advantages to the organization that controls the project, and long-term effects on the project environment (Maylor, 2001; Ribeiro et al., 2013).

How can the success of project management be accessed? The time, cost, quality, scope, resource, and activity criteria, as well as success measurement methods like PMPA - Project Management Performance Assessment or institutional maturity models like Project Excellence Model®, can be used to quantify project success. Considering that project management provides both tangible and intangible

benefits, providing a concrete answer to measuring success is difficult (Westerveld, 2003; Thomas, 2014).

As previously mentioned, a good project may get completed without successful project management; however, profitable project management can increase the success rate of a project. Project management techniques and success are positively correlated (Papke-Shields et al., 2010). Project management success is among the elements of project success since it is nearly impossible without it.

3.6.1. Tools for Preventing Project Failure

Organizations were compelled to start depending more heavily on digital tools after the pandemic broke out in 2020. Leaders selected investing in the appropriate technologies as one of the three essential aspects contributing to actual performance in the PMI 2020 study (32%).

Figure 3.7. Explanation of factors leading to failures (Source: Vartika Kashyap, Creative Commons License)

The areas expected to have the most gains over the next five years are technology advancement (49%) and digitalization (44%). The effects of the rapid increase in digitalization were evident. 2020 was predicted to break all records after a consistent annual rise in the proportion of enterprises reporting experiencing scope creep. Surprisingly, though, things began to improve by 2021. Organizations reporting scope creep decreased from 52% in 2018 to 34% in 2019. Similarly, after holding steady at roughly 12% for the preceding seven years, wasted investments decreased to 9.4% (Atkinson, 1999).

 **Tip:** In 2021 PMI made a distinction between gymnastic and traditional organizations, i.e. those that were agile and ready to embrace change and those that were not.

In 2021, gymnastics businesses—pioneers in digital advancement—faced 4% less scope creep than conventional businesses, according to PMI's 2021 Survey.

These figures are not shocking given that current project metamodern, like Play, offer a wide range of practical features such as (Radujković, 2000):

a) Centralizing document sharing
b) Monitoring teams and projects
c) Enabling team communication
d) Assessing Progress
e) Facilitating team communication, and
f) Organizing workload and personal tasks

Utilizing digital resources is a quick and easy technique to increase project d productivity and efficiency. Software for managing projects will undoubtedly raise your likelihood of success because it will streamline management and put all necessary information at your fingertips without increasing your budget or adding to your workforce (Turner et al., 2009).

Project scope can be thought of as the project's foundation. It is among the initial management parts defined during a project's life cycle.

Figure 3.8. Illustration of agile management technique for project management (Source: ActiTime, Creative Commons License)

The project's scope outlines all of the available resources, needs, and goals of the project, in addition to a comprehensive timeframe for extended project deliverables. A firm scope keeps every person related to the project on the same level. It alerts all participants of the standards they agreed on before the commencement of before, preventing the project from spiraling out of control. As a result, the project scope is regarded as an essential part of the plan of project management, which serves as the foundation for every subsequent decision that will be made regarding the project (Radujković & Sjekavica, 2017).

3.6.2.Essential Factors for Project Success

Intelligent People: If you want your project to succeed, you'll need talented teammates. Any project can deviate from its original path at any time. The project workers and other project participants must show enthusiasm and dedication for this. The team should aim for success and set reasonable project goals. If the team members are lacking in any aspect, the project manager will have to face several issues in the journey toward a successful project. A project may fail due to ineffective leadership and an unorganized crew. The project is disorganized, making each team member allocate the appropriate task, and everyone gets along well (Yang et al., 2011).

Figure 3.9. Diagram of critical success factors in project management (Source: Shubhangi Pandey, Creative Commons License)

Comprehensive Planning: The odds of a project's success are increased from the outset when there is a thorough plan. From the start, the staff and clients should be conscious of the project's objective. With careful planning, the team can stay organized and meet crucial deadlines (Feger & Thomas, 2012).

Thoughtful planning has many advantages because a reasonable schedule can be defined in the project's initial step. It gives a specific deadline for creating cost estimates and aids in the detailed documentation of explicitly documenting things more accessible as the process develops. Planning establishes an alert system and specifies the resources needed. The alert system will provide a clear picture of if there is a void (Nahod & Radujković, 2013).

According to 'Learning Legacy: The scope and entanglement of building location and infrastructure for the London 2012 Olympics generated a program structure of almost 50 distinct projects, "Lessons Learned from the Lon 2012 Games Construction Project." The scope, specifications, and starting budgets for the entire program were determined in 2007 with meticulous planning, which aided in completing the London 2012 Olympics' physical infrastructure. To permit thorough evaluations and an integrated program overview, each project was also expected to produce specific information on the fiscal situation, Progress, and other issues, monthly. The program administration of this significant athletic event, which included numerous sub-projects, raised the norms of the centralized UK construction industry (Radujković & Sjekavica, 2017).

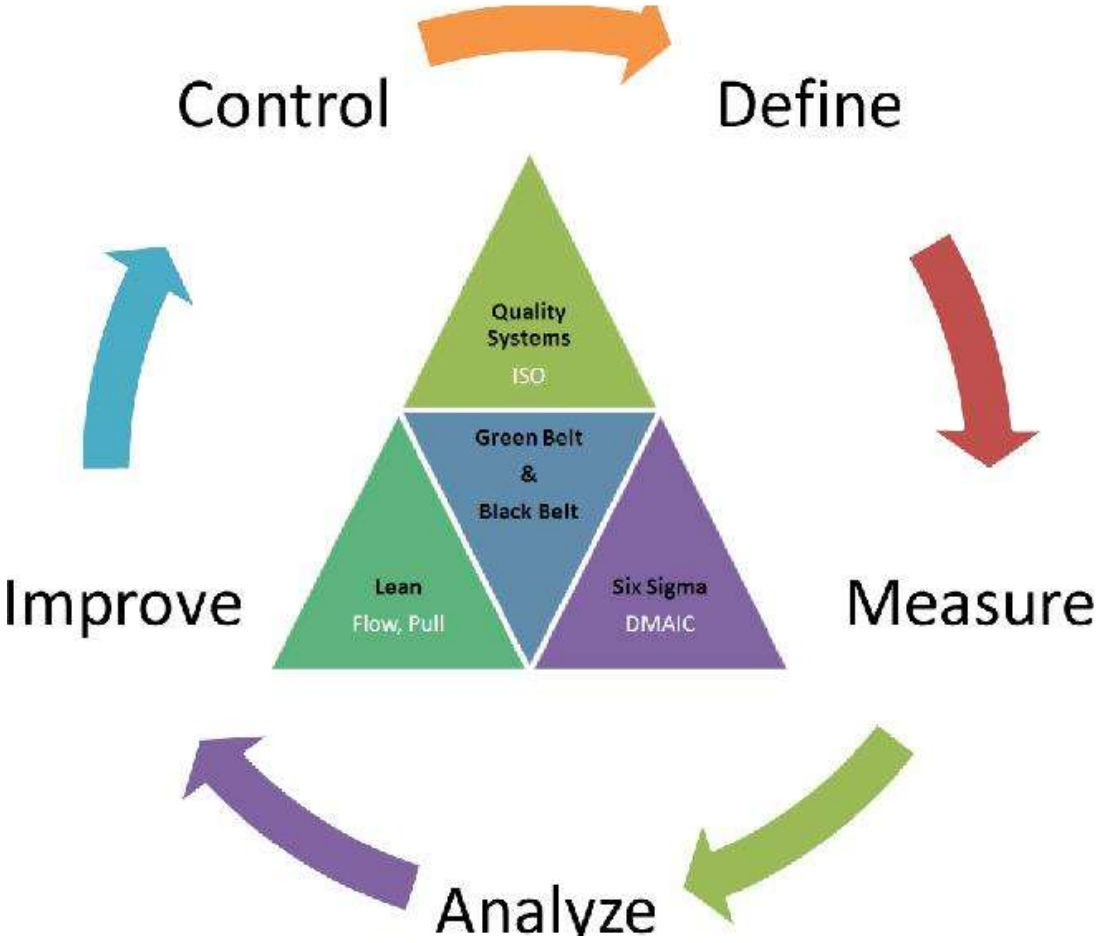

Figure 3.10. Illustration of essential steps in project success (Source: Maryam Orouji, Creative Commons License)

Open Communication: An available communication channel is significant for project success. When working under a deadline, the team must stay updated about every aspect of the project. Making promises one cannot fulfill is highly immoral. As a project manager, learn when to say no, and tell the truth regarding what you can supply and when you can deliver it (Besner & Hobbs, 2006).

Proper Risk Management: Projects frequently fail to meet their deadlines. Some projects fail spectacularly, while others fail terribly due to dangers that arise throughout the project. According to PMI's "Pulse of the Profession: The High Cost of Low Performance," organizations currently lose USD 109 million for every $1 billion invested in projects and programs. Create a risk journal with an implementation plan to address hazards that arise during the project. As the project manager, ensure that all parties know the backup plan. Hence, if something terrible happens, your team can deal with it promptly because of the set goal. This gives clients trust in the project's Progress and provides the team with confidence while dealing with project risks (Chou et al., 2013).