

PROJECT SCOPE MANAGEMENT: A PIVOTAL TOOL FOR PROJECT'S SUCCESS

Arupjyoti Nath*

Mohammed Mukit Momin**

ABSTRACT:

This paper presents the importance of Scope Management in relation to the overall success of a project. It also talks about the whole scope management process and all the phases involved in it: initiation, planning, scope definition, verification and then control. An efficacious scope management of a project certifies the successful management of other strategic project management capacities including time, cost and quality. Its main focus is on the methodologies and techniques applied for a successful management of the project's scope. It came out to be that the features and methodologies employed in a project are the project's scope and their deliverance on time ensures the project's success.

Keywords: project management, project scope management, WBS (work breakdown structure), project success and strategy, scope creep, project success factors.

*Warsaw university of technology, Warsaw, Poland (currently) and NIT Silchar, Silchar, India(2008-2012)

** Warsaw university of technology, Warsaw, Poland (currently) and NIT Srinagar, Srinagar, India(2007-2011)

1. Introduction:

This research is concerned with the scope a project control tools in the field of project management. Olden times, the project scope management was all managed by statistical tools and Gantt charts. However, the focus has now moved towards the US army system, Program and Review Technique (PERT) and use of Critical Path Method (CPM). The scope of the project however, is always the fundamental element. The project managers such as Heminu, the architect of the great pyramids of Giza were aware of the importance of scope management. Modern Project Management (PM) says that definition of scope is critical, without which, neither project breakdown structure can be laid down nor the cost or risk analysis be conducted. Mentioning this it was surprising that 46% of Project Managers in a study by Halman and Burger (2002) on the value of project start-ups graded Project purpose and scope as topics to be covered in the project start up Workshop! The scope defines all what is included in a project, it maybe correctly be put forward in a way that the scope insurances 100% of the deliverable a project has to offer. Not concentrating on the scope means you are inviting more of the fundamental uncertainties and the project vagueness level might exceed the pre-set tolerance levels. Therefore you cannot define the project without having defined the scope.

2. Defining the Project's Scope:

The scope of a project can be defined in terms of the functionality which the project is envisioned to offer, accomplish or sustain. Project scope management describes that the project includes all of the work required, and only the work required to complete the project successfully (PM BOK). The main purpose of scope definition is to divide the major deliverables into smaller and more manageable components for easy execution. It also puts forward the intended span of work probable and the expectations about any ensuing postponements.

The basic drive to defining scope is to clearly designate and gain covenant on the coherent boundaries of your project. Scope statements are used to express what is within the precincts of the project and what is outside those boundaries. The more facets of scope you can recognize, the better off your project will be.

Project scope statement should be a clear announcement of the degree and functionality of the facility, between the sponsors, benefactors, designers, architects and the end users or purchasers. A technical scope statement however, is what styles the project's physical features, establishes the design basis and provides input to all the structures and control systems. It may include diagrams, facility sketches, apparatus and instruments lists, bulk take offs of mechanical items, procurement schedules and wear and tear documents.

The reasons put forward by experts for a scope definition failure are very clear: they say that there a number of factors which are controllable and uncontrollable at the same time with varying degrees of impact on the project's scope. For instance, controllable factors like technology expertise, manpower readiness and company specifications have different impacts; technology factor has the highest impact on your scope's definition, Nayyar (1994). On the other hand, intra-corporate communication, market conditions, environmental conditions and equipment availability are uncontrollable factors where intra-corporate communication is having the highest impact, Nayyar (1994).

3. Project scope management at a glance:

Project scope management has various steps:

- Initiation
- Scope planning
- Scope definition
- Scope verification
- Scope change control

3.1 Initiation:

Initiation means that we are going to start a new project and we need to plan for it. Or it may be defined as projecting an existing one into the next phase. In this phase it should be taken care while selecting a new project and its feasibility must be double checked by experts and entrepreneurs.

3.2 Scope planning:

It's a process of producing a written statement as the basis for future project decisions and for determining the project's boundaries. It may include the project's charter, the justifications, its expected constraints and assumptions.

3.3 Scope definition:

Scope definition includes dividing the major project deliverables (as described above) into smaller, more manageable subdivisions to:

- Enhance the accuracy of cost, span, and storage estimates.
- Put down a basis for performance measurement and control.
- Expedite clear accountability assignments.

This part of the scope management process prepares the WBS (work Breakdown Structure).

3.4 Scope Verification:

Scope verification is the process of obtaining formal approval for the project scope by the stakeholders (sponsor, client, customer, etc.). It entails swotting deliverables and work results to ensure that all were delivered correctly and satisfactorily. Verifying the project scope contains swotting deliverables to confirm that each is completed satisfactorily. If the project culminates early, project scope verification should create and essay the level and magnitude of completion. Scope verification does not need to be done in the manner it's written; it needs not its predecessor steps to be complete to carry it out.

3.5 Scope change control:

Scope change control is concerned with:

- Impelling the features that create scope changes to guarantee that changes are settled upon.
- Determining that a scope change has occurred.
- Running the actual changes when and if they occur.

The change in the functionality of a project can be of different types Nayyar (1994):

- Capacity of functionality: changes in the span of work

- Quality of functionality:
- Change in functionality: changing the design overall

The buyers and other stakeholders are very intensely involved in trying to change the scope on the regular interim. It is the project manager's task to stay parallel with the scope baselines. If you are going to make alterations in the scope, the cost and time may alter accordingly and can create a difficulty. So, the best process is to study the impact on other limitations as well while changing the scope's set standards.

Project manager's vigilance is pivotal when handling change, why? Because Nayyar (1994) says in his article that owners of permanent facilities and factories are more often willing to advance on the basis of scarce scope definitions because they have no engineering knowledge or the market pressure and interest rates are so crushing that they have no other option. And because project owners have to be involved in any case, it needs a lot of explanation from the project manager to detail the problems associated.

If you cannot put up with the change, the final explanation may be less valuable than it should be, or it may, in fact, be useless. Therefore, you want to empower the client to have the aptitude to suggest changes during the project when required. The problem arises when the project manager does not proactively handle changes on the project. Every project should have a process in abode to manage change efficiently. The process should include recognizing the change, defining the business significance of the change, determining the influence of the change on the project, and then taking the subsequent information to the project guarantor for its assessment.

4. Why managing scope is important:

Managing the scope of a project is vital to the success of any project. If it is not keenly controlled throughout the course of a project, there are a number of issues which may ascend:

- The project assails its schedule
- The project goes beyond its finances

In either of these cases, there is a risk that the project gets annulled either because the budget is immovable or it has a delivery deadline that is not accessible. Even if there is some suppleness in budget or timescales, there is a much greater problem which is reliability. The project loses credibility if it is unable to control budget or timescale and when it has lost credibility, those who are the main stakeholders are more likely to cancel the project to avoid further fatalities. The main reservation against this may be on the project management team that the primary processes of probability should have exposed the prospective for the project to flop and should have cautioned the client to abandon or redefine the scope. The labours of the project team will not trade in a project for success that is already destined to fail because of poor early decision making and wrong definition of scope.

There is always a target set by the customer and as a project manager you need to reach that target. You need to get those deliverables done. There must be some pre-set features of the deliverable (product scope) and to attain those skins you need to perform some work (project scope). Remember that at the initiation stage of the project, scope can be narrow and as work advances, it becomes much distinct and according to that you need to sustain and poise the scope baselines pre-set in the planning stage.

Scope creep is a term which refers to the creeping forward of a scope of a project. It can cause cost over runs and schedule delays which end up with the failure of the whole project. If the scope of the project is not managed properly, project can go into project creep which can result in huge monetary losses. Most of the project managers identify large scope changes but are not as industrious on smaller changes. There is an inclination to just go ahead and add to the supplementary work without too much understanding. Scope creep is what happens when a project receives a large number of small fluctuations. When all of these small changes are combined, the team grasps that it has taken on too much extra work and can no longer make its financial plan and must suspend all the guarantees promised.

Project management does not begin and end up with outlining and fantasizing the project. If you don't raise a strong scope-change management, your project's success could be in a big problem. You must ensure that the work you agreed upon to deliver is accomplish within the

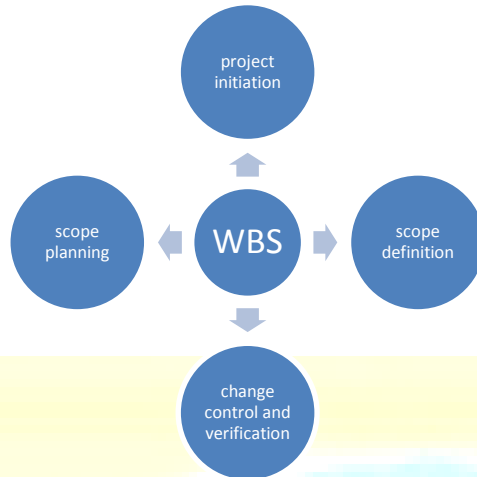
timeframe and finances allotted. Part of the plan process is arranging for the inevitable fact that, once the project commences, the client will undoubtedly end up asking for supplementary (or different) tasks than what was formerly settled to. This is when you must incorporate scope management. If you don't, you will end up trying to deliver more toil than what was originally agreed to and budgeted for. In other words, you will be directing your project towards big trouble.

5. Managing the scope successfully...how?

Successfully managing the Scope Management phase of your project will help you create and uphold the Scope Statement that summaries the deliverables you need to yield by the end of your project.

Create a smooth and workable Work Breakdown Structure. The work breakdown structure breaks project deliverables down into gradually smaller and more practicable mechanisms which, at the lowest level, are called work packages. This tiered structure tolerates for more refinement in scheduling, costing, monitoring, and controlling the whole venture.

A consistent Work Breakdown Structure (WBS) can be helpful in this regard. It should be focused on project deliverables rather than the accompanying tasks. Your WBS is not to be used as a checklist of all the things that you need to complete (in that case your project plan will help you out) you can concentrate on its original intent, which is to aid you establish and explain the overall project scope. At its bottommost level in the hierarchy, your WBS should consist of work packages that will permit you to precisely estimate your project costs while also empowering you to produce a project timetable.



When the Scope has been clearly defined, a work breakdown structure has been organized, and the customer has officially acknowledged the scope of the project, it is time to actually manage and regulate the scope to dodge scope creep. Scope creep (as mentioned above) refers to the incremental growth of the scope of the project, which may contain and present more rations that were maybe not the part of the initial planning chapters, but may add costs and time to the original project.

To commendably observe and control the scope of the project, make sure you have a customary process for handling change requests. All requests should be scrutinized and ratified before they get announced into the project. The budget and schedule of the project should also be improved to return the new changes. All the desired changes should get a formal approval from the customer or key stakeholder before ensuing. It is crucial that you diligently monitor and control the scope to side-step resentful customers, brimming over cost sheets, and projects that aren't delivered on time.

6. Conclusion:

In the end it is only the project's success that matters the most to the stakeholders especially your customers. The project's success can be evaluated in three ways, (Munns and Bjeirmi, 1996):

- The implementation: which is the techniques and methodologies employed
- Perceived values: these are the expectations associated with the project especially of the end users

- Client satisfaction: this signifies how successful the project has been throughout; the deliverables

It is crystal clear now after all the above mentioned points which clarify the critical role of managing scope successfully in order to conclude the project magnificently. The productivity and your client's satisfaction and your brand name are all reliant on the project's accomplishment and it is dependent on the spot-on and durable management of its scope.

Correct techniques along with timely methodologies to handle change are to be put in place in order to make the venture successful.

References:

1. Atkinson, R., Crawford, L. and Ward, S. (2006). Fundamental uncertainties in projects and the scope of project management. *International journal of project management*, 24(8), pp.687--698.
2. Baguley, P. (2008). *Project management*. 1st ed. [New York]: McGraw-Hill.
3. Khan, A. (2006). Project scope management. *Cost engineering*, 48(6), pp.12--16.
4. Mochal, T. (2004). *Poor scope-management practices could precipitate project failure*. [online] TechRepublic. Available at: <http://www.techrepublic.com/article/poor-scope-management-practices-could-precipitate-project-failure/>[Accessed 14 May. 2014].
5. Munns, A. and Bjeirmi, B. (1996). The role of project management in achieving project success. *International journal of project management*, 14(2), pp.81--87.
6. Papworth, A. and », V. (2014). *Five techniques to successfully manage scope* / *businessanalystmentor.com*. [online] Businessanalystmentor.com. Available at: <http://businessanalystmentor.com/2009/10/10/five-techniques-to-successfully-manage-scope/>[Accessed 12 May. 2014].
7. Projectmanagementdocs.com, (2014). *Scope Management Plan Template*. [online] Available at: <http://www.projectmanagementdocs.com/project-planning-templates/scope-management-plan.html>[Accessed 13 May. 2014].
8. Scwong.myweb.uga.edu, (2014). *scope management*. [online] Available at: http://scwong.myweb.uga.edu/edit7550/task2/Scope_Management.htm[Accessed 14 May. 2014].

9. Simplilearn.com, (2014). *Project Scope Management and its importance*. [online] Available at: <http://www.simplilearn.com/resources/project-management-articles/project-scope-management-and-its-importance-rar89> [Accessed 14 May. 2014].
10. Stronge, B. (2008). *How to successfully execute the scope management phase of a project*. [online] TechRepublic. Available at: <http://www.techrepublic.com/blog/tech-decision-maker/how-to-successfully-execute-the-scope-management-phase-of-a-project/>[Accessed 14 May. 2014].
11. Warner, J. (2010). *Best Practices for Scope Management*. [online] AtTask Blog. Available at: <http://blogs.attask.com/best-practices-for-scope-management/>[Accessed 14 May. 2014].

