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Definition of a technique for characterizing the expected benefits of a project

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Abstract

In the changing global economic landscape, it is vital for organizations to stay competitive and reduce their costs. Replacing outdated technology, improving business processes, and implementing new programs are some examples of activities that organizations have to do to face such demands. The increased pressure to create capital, business, and technology projects within budget, specifications, and schedule makes it necessary to avoid or at least soften risks and challenges that could compromise the desired outcomes of the project. So, it's each time more and more important to plan as much as it is possible to predict, including the benefits management. This paper aims to develop a proposition of a technique that allows the user to predict and monitor all inherent benefits to the conception of a project, aiding the work team in making decisions (especially about the feasibility of the project, or by other words, the go/no go decision), comparing projects and identifying optimizations opportunities.

Keywords: benefits management; go/no go decision; real environment.

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1. Introduction

"Project benefits are referred to as "the measurable improvement deriving from a result perceived as an advantage by one or more stakeholders, which contributes to the achievement of one or more organizational objectives" [1]. In other words, benefits must represent an improvement that results from a given project and these should be an important factor when planning the project, helping in looking into the go/no go decision, in its development, and in the post-project.

The project manager has the responsibility to execute the project as planned, however it's not up to him/her to obtain the benefits from that project. Being so, from a governmental perspective, assigning this role to someone so he/her can obtain the expected benefits is critical to capturing those same benefits. Benefits management is more and more seen as a positive implementation to project investment success and, therefore, project success [2]. A project benefits management methodology is designed to detail how these should be managed, planned, executed, monitored, and controlled.

There are some methodologies that look into the benefits that arise from a project such as BRM (Benefits Realization Management) or CBA (Cost-Benefit Analysis). The first is a project management technique that measures how projects add value to the organization and contributes to the high-level business objectives [3]. The second is an analytical and systematical process that compares the benefits with the costs when deciding if a project is convenient [4].

OKR (Objective and Key Results) is another example. While it doesn't work with benefits directly, it helps defining and tracking the objectives through their individual key results, implementing a simple yet effective way of monitoring what is being done towards a common goal [5].

However, current guides and methodologies do not explicitly combine how to define the benefits, checking if they are attainable and viable, and monitoring their progress through the entire project.

A benefit needs continuous monitoring and controlling since there are many changes and deviations from the planned that can ascend throughout their life cycle, related, for example, to scope, quality and time. Success-related aspects are no exception, and arrangements are required throughout the project to always check whether what was planned reflects in real life. If necessary, there's the need to perform corrective actions, even after defining the benefits of the project.

No methodology for benefits management was found in the literature comprising the benefits success management. In other words, the benefits management methodologies do not currently include specific activities for managing them throughout the project combined with all the other features stated above. This paper seeks first solutions to bridge this gap. The proposal is to integrate all three methodologies found in the literature into one, by incorporating activities for planning, executing, closing, and monitoring and controlling the benefits of the project.

This paper is structured as follows: in the next section a literature review is carried out, focusing on benefits management; the third section describes the research methodology adopted; the fourth section presents the proposal; fifth section contains the conclusions.

2. Literature Review

Following is briefly described some important concepts and relevant approaches in the context of the present work, regarding the *benefits management.*

2.1. Benefits management

When using a project management framework, the goal is to add value to the organization. The value of a project can be measured by three factors: as it satisfies customer needs, aligns the project output with the organization's strategy and gives a return on investment [6].

A benefit can be described as "an advantage on behalf of a particular stakeholder or stakeholder group" [7]. No benefits can be realized without a change in the current state of the organization [8-9]. Besides that, for each aspect of project success (management and investment), measures must be established to define the success criteria [10].

Finally, benefits should be owned and assigned to a certain person or department, who is made responsible for realizing them [11-12].

Project benefits can be reflected by Key Performance Indicators (KPI) [13] and can be financial or non-financial, with the stakeholders always looking for the completion of both financial and non-financial.

Benefits can be tangible and intangible (capable or incapable of being measured) [14]. Usually, the financial benefits are tangible and previously estimated while the non-financial may or may not be tangible.

Ward and Daniel (2006) define benefits management as "The process of organizing and managing such that the potential benefits arising from the use of IS/IT (Information Systems/Information Technology) are actually realized". Benefits management have been evolving through the decades, starting by understanding the expected benefits through the Active Benefits Management (ABM) framework [2] to a point where its use it's common in countries like the United Kingdom

There are multiple reasons why a project can't produce the desired/expected benefits. One of them might be that the initial task of identifying the strategic benefits was not developed, or poorly developed. Another main reason is the fact that the organizations don't use any sort of mechanism to manage these benefits along the timeline of the project.

3. Design Science Research methodology

To support this, a research process was followed. Design Science aims at developing solutions that solve relevant business problems. The process should be robust, based on existing theory and practice, and should contain the accuracy necessary for reliable development and evaluation to be verifiable [15]. In this work, I adopted the Design Science Research (DSR) as shown in Fig. 1.

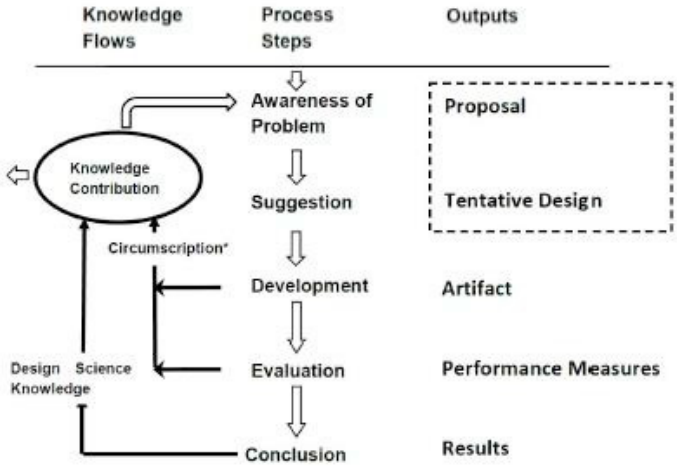

Fig. 1. Research methodology adopted [15].

There wasn't found a methodology that can accompany the benefits from their birth stage to their final stage, while helping the team in decision moments (Awareness of Problem). In order to analyze different possibilities for the solution of the identified problem, a literature review on the benefits management was carried out. It was found some methodologies that together could solve the problem. This led to a proposal for an integrated model (Suggestion). From the awareness of the problem and the suggestion of a possible solution, in the continuation of the present work it will be built (Development) a model integrating these methodologies. The new model will incorporate benefits management activities in project planning, executing, closing, and monitoring and controlling.

4. Proposal (research in progress)

In order to conceive a trustworthy model, valid and in accordance with the current reality of IST projects and, more specifically, possible to be applied in a real context, an in-depth literature review was carried out. The proposed approach will follow a set of criteria that must be met by the project team, each of which must be assessed and quantified. A set of instructions will be given to be followed by the person implementing the technique, which must be followed by the project leader at an early stage and by the entire team involved throughout the project. Some aspects will be measured in order to finally reach a score that will be indicative of the correct development of the work or vice versa, allowing to discover whether there were benefits or harms relative to the beginning of the project.

To improve the forecasting and monitoring of the benefits of a project, and the project itself, 5 phases are defined, with durations in the form of percentages that serve as guides, and the time percentages obtained may actually be completely different. The technique was called Transfer of Benefits Monitoring (TBM) and follows the following outline (fig. 2):

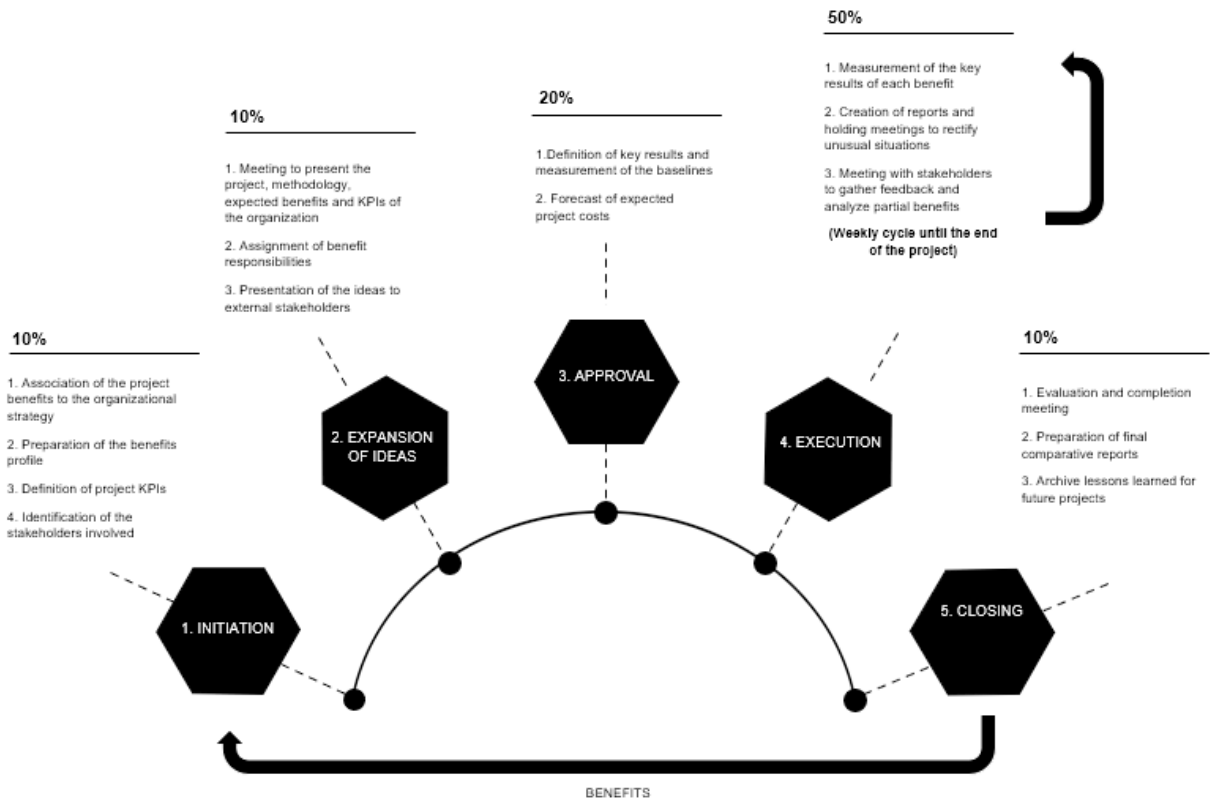

Fig. 2. Model Proposal.

We use the abbreviations ph1 to ph5 to represent the phases of the pentagons in figure 2. In the Initiation phase, the project manager along with his personal team must align their organizational strategy with their expected benefits so that the next steps are affiliated with the strategic objectives of the organization (ph1.1). They also must elaborate a benefits profile, containing all the expected benefits that will arise from the project (ph1.2). After that, it is important to identify the KPIs of the project or simply recognize them because, once the benefits are identified, the fact that they are using the same measurement units as the organization's strategic KPIs can be used to create the link between

individual projects, through their benefits, and organizational objectives (ph1.3). Finally, the stakeholders involved must be identified (1.4).

In the Expansion of Ideas, the project manager and his personal team should extend their ideas to the rest of the departments (ph2.1). The next step is to assign responsibilities for each benefit (ph2.2), so that everything is clear to communicate to the external stakeholders (ph2.3).

The Approval phase is very important because there's a possibility that the project could end. The first step (ph3.1) is to define the key results (KR) for each benefit. Each project benefit must have at least one key result, sometimes having multiple key results to achieve a single benefit.

A benefit must be documented as a succinct, non-technical and non-metric description of something you want to achieve that obviously impacts the organization in a positive way.

A key result is a measurable result that is absolutely necessary to achieve the benefit. This contains a metric with a starting point (baseline) and target value (benefit). Key results measure progress toward benefit through the following formula:

(1)

$$Reached = \frac{Done}{Total\ to\ be\ done} = \frac{Result - Baseline}{Goal - Baseline}$$

The baseline of a benefit is understood as the starting point, that is, its current state, being translated into a numerical value. Baseline benefits and target values are used to assess the feasibility of the cost and the level of benefit contribution for each of the different investment options. Taking into account a target benefit value, if the baseline indicates that x benefit is unattainable, a review of the benefits profile will be necessary in order to adjust the values (ph3.1). The second and final part is to predict the costs and see if it's viable to continue with the project (ph3.2).

In case a benefit has more than one key result it must have its progress measured through the combined results of its key results. For this purpose, the previous formula cannot be used, and a new value must be assigned to each key result referring to the weight it has in relation to reaching a benefit. In case all key results have the same weight, or if you consider that the weight of the key results is irrelevant, the values must be assigned to the weights according to the following formula:

(2)

$$Key\ results\ weight = \frac{1}{Total\ number\ of\ key\ results}$$

Whether the weight of a key result has been obtained by the previous formula or not, you must use a new formula that incorporates the weights that each key result carries (ph4.1):

(3)

$$Reached = \sum_{i=1}^{n} KRi\ x \frac{KRi - Baseline\ KRi}{KRi\ Goal - Baseline\ KRi}$$

Afterwards, the teams should create reports to document the information and hold meetings to rectify possible problems (ph4.2). The final step is to gather feedback from the stakeholders regarding the progress made and analyze potential partial benefits (partial benefits are all those that are obtained halfway through obtaining the full benefits, whether these are intentional or consequential) (ph4.3). This phase must be done every week as a cycle until the end of the project to keep the benefits in check.

The final phase consists in the final meeting of evaluation and completion (ph5.1), the making of the final reports (ph5.2) and the documentation of the lessons learned for future projects (ph5.3).

5. Conclusion

This paper contributed to the scientific community with a theoretical model, based on the literature carried out. Although it has not been validated with a practical application, it has also contributed to the community of practitioners as a starting point for future implementation in a real environment.

That said, during the course of this investigation other interesting interpretations were obtained, which sharing also contributes to the advancement of knowledge. It was found that although all projects have a defined life cycle, the benefits are reused in future projects, that is, after obtaining them, they continue to influence the organization planning. In addition, present key results can also see their obtaining methodologies reused in the future.

However, as in any investigation, this study had some limitations. One of the limitations was the fact that the artifact developed in this paper cannot be evaluated and validated by research methods. This is because it would require a large number of professionals to be consulted, increasing the sample size. The time set for the investigation was also a limitation.

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