**Journal of Business Ecosystems**
Volume 4 • Issue 1

# Aligning Project and Benefits Management With Balanced Scorecard Approach to Achieve Project Success

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## ABSTRACT

The organizations have spent an increased amount of financial resources in systems and technology without getting all the potential of their investments or collecting the promise business benefits. Organizational success is widely defined as winning in the marketplace, and firms tend to measure this with financial and economic indicators. There is also a general agreement that although schedule and budget performance alone are considered inadequate as measures of project success, they are still important components of the overall construct. An early identification of the critical success factors (CSF) and project success criteria (PSC) during the initial project assessment is a vital start for ensuring successful project completions. This paper combines project management (PM) and benefits management (BM) practices with balanced scorecard (BSC) approach to align the projects with the organizational strategy. The usage of this mix of different management tools led to more effectiveness in project success.

## KEYWORDS

Balanced Scorecard, Critical Success Factors, Project Management, Project Success, Project Success Criteria

## INTRODUCTION

The difficulties of implementing information systems and technology (IS/IT) and assessing their performance have been acknowledged by scholars (Lueg & Lu, 2012, 2013; Martinsons et al., 1999). Therefore, finding means to overcome these issues and to improve the performance in management of IS/IT systems has been a research focus of the last decades. Grounded by theory of competitive strategy, Brooke (1992) argued that IS/IT can contribute to more profits if it cannot be replicated easily or it can make product differentiation.

Worldwide surveys highlighted the significant global increasing of IS/IT expenditure and referred the large financial resources spent by organizations (Willcocks & Lester, 1999). Many IS/

DOI: 10.4018/JBE.320481 *Corresponding Author

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IT investments appear to go ahead without the use of formal investment appraisal techniques, which results in difficulties on understanding both the impact and implications of the IS/IT implementation due to a lack of organizational processes to evaluate the desired outcomes (Remenyi et al, 2000).

In recent times, IS/IT managers have found it increasingly difficult to justify rising IS/IT expenditures (Counihan, Finnegan & Sammon, 2002). Moreover, the evaluation of these IS/IT investments requires multi-dimensional measures and is a complex tangle of financial, organizational, social, procedural and technical threads, many of which are currently either avoided or dealt with ineffectively (Cronk and Fitzgerald, 2002).

Success is not easily defined or determined. Some researchers such as Dvir et al. (1998) believe that a project is successful when it meets budget, schedule and quality constraints even though it may not have met factors such as customer needs or achieved a quality of the final product.

Researchers have been made a distinction between project success and project management success. De Wit (1988), Munns & Bjeirmi (1996) and Cooke-Davies (2002) clarified that project success is measured against the overall objectives of the project while project management success is measured mostly against cost, time and quality. Baker, Murphy & Fisher (1983) advice to look for the satisfaction of the parties associated with, and affected by the project. Instead of using time, cost and performance as measures for project success, perceived satisfaction should be also measure. Clarke (1999) claimed that in order to ensure that a project is completed successfully, project plans need to be updated regularly and objectives clearly stated at the outset of the project. Meredith & Mantel (2006) suggested that, what appears to be a failure in one project might be a success factor in another one.

## MANAGEMENT TOOLS

### Project Management

In a study over 650 project managers Pinto & Slevin (1988) concluded that project success is something much more complex, in fact, the satisfaction of different stakeholders with the final result has a great deal to do with the perceived success or failure of projects.

Management of projects is typically defined as the process of planning, organizing, directing and controlling a company's resources for a relatively short-term target that has been established to meet specific goals and objectives (Kerzner, 1989). KPMG survey of 600 organizations across 22 countries showed that project complexity, in the IS/IT domain, increased in 88% of organizations and budgets increased in 79% of organizations (KPMG, 2005). The survey also finds that 86% of respondents had project outcomes that "fell short of planned expectations" (KPMG, 2005). Although some improvement has been seen in terms of project success, a relatively high frequency of project failures has been reported elsewhere as well (Cicmil and Hodgson, 2006; Xia and Lee, 2005; Pich et al., 2002).

Traditionally project management success focused on the development of the process dimensions of time, cost and quality (Redmill 1997; Globerson & Zwikael 2002). Further research found that the achievement of those requirements was not sufficient to measure project management success and evaluated dimensions such as the quality of the project management process or the satisfaction of the project stakeholder's expectations (Baccarini 1999; Schwalbe 2004).

According to Crawford (2002) project success is an important project management issue, it is one of the most frequently discussed topics and there is a lack of agreement concerning the criteria by which success is judged (Pinto and Slevin 1988; Freeman & Beale 1992; Shenhar, Levy & Dvir 1997; Baccarini 1999). Baccarini (1999) identified two distinct components of project success:

1. **Project management success:** Focuses upon the project process and, in particular, the successful accomplishment of cost, time, and quality objectives.
2. **Product success:** Dealing with the effects of the project's final product.

The factors that contribute to the success of projects are known as critical success factors (CSF) and the success on projects is judged by project success criteria (PSC). From a project management perspective, CSFs are "characteristics, conditions, or variables that can have a significant impact on the success of the project when properly sustained, maintained, or managed" (Milosevic & Patanakul, 2005, 183). Pinto and Slevin (1988) suggested that the importance of each dimension changes along time. Internal factors, such as budget, time schedule and technical performance are important at the beginning of a project but in more advanced phases the external factors, such as customer satisfaction, tend to become more relevant. Baker et al. (1983) suggested that overruns in budget and time cease to be important after the project is terminated, while customer satisfaction, and its relation to the project organization, continues to be important in the termination phase, and beyond. Pinto and Covin (1989) claimed that not only does the relative importance of success dimensions vary with the project's progress, but the critical success factors (CSFs) are different for each phase of the project. Pinto and Mantel (1990), after interviewing experienced project managers, identified three distinct aspects of project performance as benchmarks against which the success or failure of a project can be assessed:

1. The implementation process itself.
2. The perceived value of the project.
3. Client satisfaction with the delivered project output.

Over the past several decades, numerous research studies have been performed in the area of project management to identify critical success factors that influence the success and/or failure of projects (Pinto and Mantel, 1990; Belassi and Tukel, 1996; Tukel and Rom, 2001; White and Fortune, 2002). Researchers also agree that there are differences in project management among different industry types (Cooke-Davies and Arzymanow, 2002; Ibbs and Kwak, 2000; Zwikael and Globerson, 2006). Dvir et al. (1998) suggest that project success factors are not universal to all projects. Murphy, Baker and Fisher (1974) used a sample with data provided primarily by project managers on the factors contributing to project success. They found ten factors that were strongly linearly related to perceived success.

DeLone and McLean (1992) distilled the resulting huge range of IS/IT project success measures into an integrated view of IS/IT project success represented by the following six dimensions:

1. **System Quality:** Measure of the information processing system itself.
2. **Information Quality:** Measure of information system output.
3. **Information Use:** Measure of recipient consumption of the output of an information system.
4. **User Satisfaction:** Measure of recipient response to the use of the output of an information system.
5. **Individual Impact:** Measure of the effect of information on the recipient.
6. **Organizational Impact:** Measure of the effect of information on organizational performance.

Atkinson (1999) has studied the success of IT projects. The results reveal that the success can be categorized in four areas such as:

7. **Project performance:** Time, cost, and quality.
8. **Project results:** System maintainability, reliability, validity and information-quality use.
9. **Benefits for the organization:** Improved efficiency, improved effectiveness, increased profits, strategic goals, organizational learning and reduced waste.
10. **Benefits for the stakeholders:** Satisfied users, social and environmental impact, personal development, professional learning, content project team, and economic impact on the surrounding community.

Murray (2001) describes nine factors for IT project success:

1. Appropriate senior management levels of commitment to the project.
2. Appropriate project funding.
3. A well-done set of project requirements and specifications.
4. Carefully development of a comprehensive project plan that incorporates sufficient time and flexibility to anticipate and deal with unforeseen difficulties as they arise.
5. An appropriate commitment of time and attention on the part of those outside the IT department.
6. Accurate reporting of the status of the project and of potential difficulties as they arise.
7. A critical assessment of the risks inherent in the project.
8. The development of appropriate contingency plans that can be employed should the project run into problems.
9. An objective assessment of the ability and willingness of the organization to stay the project course.

## Balanced Scorecard

Kaplan and Norton (1992) in their seminal article published in the Harvard Business Review proposed an integrated framework for the implementation of financial and nonfinancial performance measures that help organizations align their initiatives with the organization's strategy. So, BSC is a strategic planning and management system that is used extensively in business and industry, government, and non-profit organizations worldwide to align business activities to the vision and strategy of the organization. BSC improve internal and external communications, and monitor organization performance against strategic goals. The term 'Balanced Scorecard' reflects the balance between short-term and long-term goals, financial and non-financial measures, outcome (lag) and driver (lead) indicators, and external and internal performance perspectives (Hepworth, 1998). According to Ahn (2001) the BSC bridges the gap between the development of a strategy and its realization by supporting and linking four critical management processes:

1. Clarifying and translate vision and strategy.
2. Communicate and linking strategic objectives and measures.
3. Planning, set targets, and aligning strategic initiatives.
4. Enhancing strategic feedback and learning. The BSC is labelled as a comprehensive system of strategically aligned performance measures (Decoene & Bruggeman, 2006).

BSC design is about the identification of a small number of financial and non-financial measures and attaching targets to them, so that when they are reviewed it is possible to determine whether current performance 'meets expectations'. The idea behind this is that by alerting managers to areas where performance deviates from expectations, they can be encouraged to focus their attention on these areas, and hopefully as a result trigger improved performance within the part of the organization they lead.

BSC has evolved from an improved measurement system to a core management system that is not only used to clarify and communicate strategy, but also to manage strategy (Kaplan & Norton, 1996). In the recent developments, measures are selected based on a set of "strategic objectives" plotted on a "strategy map". With this modified approach, the strategic objectives are distributed across the four measurement perspectives, to form a visual presentation of strategy and measures.

A well designed balanced scorecard should be able to describe the strategies through the objectives and measures previously chosen (Niven, 2002). Huang and Hu (2007) show how to align IS/IT capabilities and activities with business objectives and business requirements using the BSC. They illustrate measures to adjust the traditional perspectives.

Despite its popularity, many critics have raised concerns against the BSC. Nørreklit (2000) challenges the mechanistic assumptions of the BSC, which assert that cause-and-effect relationships can be determined ex-ante by top-down management. Moreover, Ittner & Larcker (2003) document a case where a by-the-book-implemented BSC is abandoned by an organization due to subjectivity of top management evaluators, and insensitivity for middle managers values.

## Benefits Management

Every project represents an investment made by a sponsoring organization with the intention to obtain some business benefits. In fact, the essence of a project is a unique piece of work designed to deliver beneficial change, so managing project benefits underpins all aspects of project success. Projects and programmes are generally driven by a need to realize specific benefits through structured change. Benefits management and realization has recently risen as a practice that seeks to move forward from the traditional investment appraisal approach and focus on the active planning of how benefits will be realized and measured (Glynne, 2007). Benefits management can be described as "The process of organizing and managing such that potential benefits arising from the use of IT are actually realized' (Ward & Daniel, 2006,384).

The essence of benefits realization is "not to make good forecasts but to make them come true ... and IS/IT on its own does not deliver benefits" (Ward, Taylor, & Bond, 1996, 215). Initiatives involving IS/IT may positively contribute to the organization in three ways:

1. By facilitation things to be done which could not be done before.
2. By improving the things already done.
3. By enabling the organization to cease activities that are no longer needed (Ward & Daniel 2006).

The benefit of having IS/IT can only be established through use by the business organization (Tiernan & Peppard 2004).

The Benefits Dependency Network (BDN) (Ward & Elvin, 1999) is the main tool, and it is particularly useful for critically evaluating the targeted benefits, and how these will be achieved, at a project's outset. More specifically, it has been designed as a means of enabling the investment objectives of a specific IS/IT project and their resulting benefits to be linked in a structured way to the business, organizational and IS/IT changes, required to realize those benefits (Ward & Daniel, 2006). The principle of the benefits dependency network (BDN) is that between the IS/IT input and the desired business objectives are several necessary change management steps. IS/IT functionality enables a business change that delivers a business outcome that achieves benefits and so the original intent of the content is satisfied (Ward & Elvin, 1999). Managers have to make decisions in order to achieve benefits, which are not automatically delivered by content. So, in planning an IS/IT system, project management tools should be supplemented by a map linking IS/IT functionality through enabling changes business changes and business benefits to investment objectives. Some of these in themselves may have more than one layer of cause and effect. BDN it was very useful in helping to focus the project stakeholders, as well as all the team members, on the system's overall purpose, as well attainment of specific benefits and value from the project.

The five principles for realizing benefits through IT are:

1. **IT has no inherent value:** Just having technology does not confer any benefit or create value.
2. **Benefits arise when IT enables people to do things differently:** Benefits emerge only when individuals or groups within an organization, or its customers or suppliers, perform their roles in more efficient or effective ways.
3. **Only business managers and users can release business benefits:** Benefits result from changes and innovations in ways of working, so only business managers, users, and possibly customers and suppliers, can make these changes.

4. **All IT projects have outcomes, but not all outcomes are benefits:** Many IT projects produce negative outcomes, sometimes even affecting the very survival of the organization.
5. **Benefits must be actively managed to be obtained:** Benefits are not outcomes that automatically occur (Peppard et al., 2007).

Lin & Pervan (2003) suggested several reasons for organizations not getting the benefits they expected:

1. Immediate results of an investment are rarely the expected benefits.
2. Necessary means for benefits realization are not identified.
3. Benefits do not occur where and when they are planned.
4. The "right" benefits are difficult to identify up front.
5. Projects are too narrowly defined for effective delivery of benefits.
6. Organizations often have a limited ability to manage change.

## Combining Frameworks

According to the BM approach (Ward and Daniel, 2006), the business objectives and the related benefits should be identified through the realization of two workshops. These meetings can be carried out in client´s facilities and are meant to gather all the relevant stakeholders in the initiative. The final target is to build a consensus in order to identify the main objectives and their related benefits, as well as assigning them to the BSC perspectives. The resulting business plan must provide answers to two different sets of questions:

1. **Benefits achievement:** Why must we improve? What improvements are necessary or possible? What benefits will be realized by each stakeholder if the investment objectives are achieved? How will each benefit be measured? Who owns each benefit and will be accountable for its delivery? What changes are needed to achieve each benefit? Who will be responsible for ensuring that each change is successfully made? How and when can the identified changes be made?
2. **Projects alignment:** Are all the investors' interests considered? Are strategic goals chosen considering the customer needs? Is the process perspective directed at objectives related to internal processes? Does the potential perspective refer to constant improvement of employee's qualification?

During the workshops, the organization and the client discuss the PSC and CSF from a list collected from literature review, from the industry and organization experience. A wide open discussion and a final election rank the PSC and CSF based on the number of times that each criterion is identified by the respondents. The creation of a BDN is recognized as being an important first step towards ensuring that the initiative maintained a clear focus on the delivery of value (Ward & Daniel, 2006).

BDN is a documented diagram that evolves, over time, through an on-going process of review and refinement, in line with the stakeholders' growing understanding of the scope and the potential impact of the system (Figure 1). To reach the project success we need to potentiate the obtaining of the CSFs, for this task we apply the benefits management cycle to each factor.

The concept of the BSC can be visualized in a strategy map (Figure 2). The strategy map depicts the organization's path for value creation, mapping the value we should provide to our customers in order to realize our financial goals, and mentioning what and how we can improve our internal business processes and enhance our capability to support those processes. The strategy map facilitates discussions among people in organizational management process, not only by creating a general representation of these interrelationships but also reflecting the adequacy of the organizational strategy implementation. Figure 2 depicts the result of combining the approaches presented along this paper,

**Figure 1. Cause-effect network for an IS/IT project**

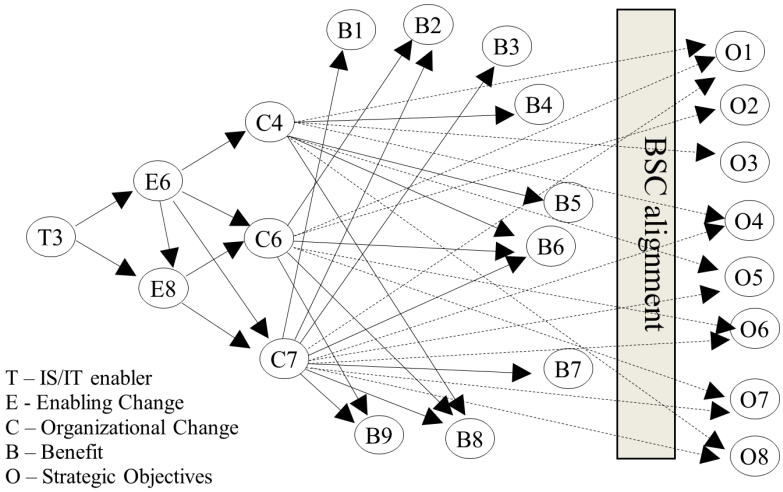
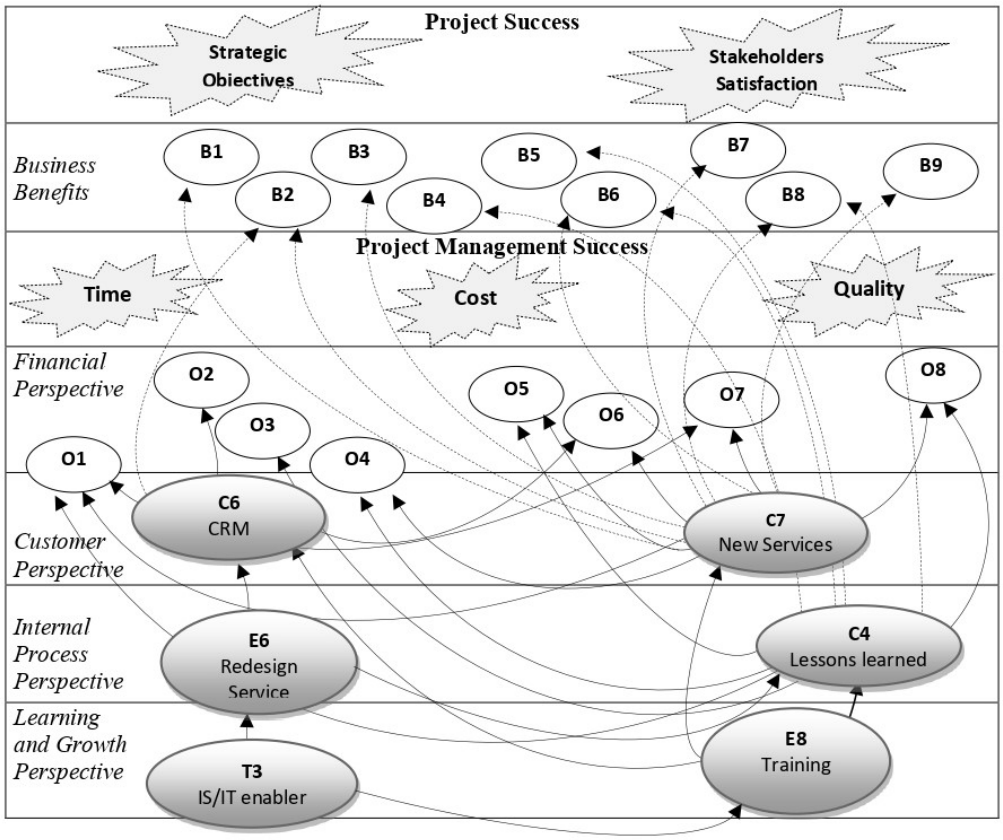



**Figure 2. Strategic map for an IS/IT project**



making the traditional BSC strategic map enriched with elements that show the necessary alignment able to provide successful projects.

## CONCLUSION

Numerous authors have been researched on project success, but the concept still remains ambiguously defined. Despite the fact that project success is recognized by practitioners and project managers as being connected to the fulfillment of the traditional "iron triangle" criteria, it is more a multidimensional variable that challenges traditional definitions. The project management success would be neither a necessary nor a satisfactory condition for project success. We've seen that the idea of considering a successful or a failure project when it meets or fails the time, cost and quality purposes, is outdated. It then became crucial to consider the downstream effect of the end project product or service, evaluating other "dimensions" of success, like the stakeholder's satisfaction or even the project impact on the organization and business objectives.

Based on these findings and on the importance of the BSC as a classical instrument for monitoring organizational performance, we explained and exemplified how to integrate and combine project management and benefits management approaches with the BSC strategic map perspectives. Furthermore, in this enriched version of the strategic map, we've represented the less traditional project success factors, framing their use in a more clear alignment with the organization's strategy.

We are aware that this integration is not easy to achieve and practice. However, we are also confident that we emphasize the need to align investments in projects with the organization's strategy, combining practices that are commonly used separately. Thus, practitioners now have a more detailed insight into the most appropriate success criteria for approving and evaluating projects, managing the expectations of all stakeholders more realistically.

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