

# Improving Project Performance: A Review of Business Cases Utilization

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**Abstract.** Undoubtedly, we know many projects have a success rate that is far from satisfactory due to wasted expenditure. This paper reviews the business case's utilization throughout the project life, its benefit regarding project performance, and its potential positive impact on project success. We aim to determine the extent to which business cases on IT projects are implemented in a company and its impact on project performance. The current study extends knowledge from past research by perusing selected publications on the business case. We conducted a systematic literature review of literature published between 32 papers, that discuss business case and project performance. However, our findings suggest that a well develop business case have a significant impact on project performance. Finally, future research directions for developing business cases are identified.

**Keywords:** Business case, project management, information technology, project performance

## Introduction

With the increasing need for companies to invest in information technology, there are also increasing projects to conduct procurement in this information technology sector. So, IT Consulting and System integration service provider companies also take part in implementing it for companies that want to invest in information technology. The aim of these companies can improve and improve the efficiency of their business processes by implementing a new information technology system. The use of projects in organizations has increased steadily in

the past few decades. Although there are already some indications that the project is becoming more successful, there is still evidence that many projects do not meet objectives or expectations (Allen et al., 2014).

The increasing demand for the implementation of information technology systems has made IT Consulting and System integration service providers handle more implementation projects in companies in need. Here the role of a project manager is to plan, direct, and control resources to meet technical, cost, and time constraints for a project.

Thus, the study of methods or approaches regarding Project Management and the use of business cases to be implemented is fascinating to be explored again. To help a company improve quality as the company's goal to succeed in every project it handles. Likewise, it seeks to increase value, competitive advantage, and generate business benefits in the areas of business the company is engaged in. Awareness of the importance of strategies for managing projects in this business is increasing rapidly. One crucial reason arises from the belief that project management and business strategies have a relationship in increasing opportunities for organizations or companies to achieve their strategic goals and improve performance. In this sense, project management is a basic science of getting the results of a project, managing contributors therein and its results, and meeting the needs or interests of different stakeholders.

## **Literature Review**

### **Business Case**

A business case justifies initiating a project or program and assesses the advantage, value, and opportunity of other options. For this purpose, a business case provides a rationale for the recommended solution and demonstrates the proposed investment plan. Senior management reviews and assesses a detailed business case to make a go/no go decision while the idea phase of the project life cycle. The project or program is controlled by the sponsor, who has ultimate responsibility for guaranteeing that the advantages are realized. Though, the project or program manager will generally be accountable for developing the business case, probably with specialist support.

When affirmed, the business case requirement is stayed up with the latest, following endorsed modifications. Along these lines, it very well may be utilized as the essential archive at entryway surveys to decide whether the work should proceed. Projects in business These are where IT deliverables support the company. The

following context gives you an insight into its specific facets and success rate. Coombs (2015) study said deliverables alone are insufficient, particularly in the case of business IT and subsequent business changes will be required to benefit from them. The purpose of a business case is to clarify, justify and get management assurance and permission to proceed (Maes, Van Grembergen, & De Haes, 2014). It is definitely not a structured document and can not be considered a 'business case.' It summarizes the expected benefits for all stakeholders in the light of alternative options and proposes the preferred choice for all stakeholders (Krell & Matook, 2009). The business case also offers a synthesis of work scope, costs, time frame, and risks, OGC (2009) said. Finally, it must provide a summary of what might be needed if the project is not approved or carried out successfully (OGC, 2009). In summarizing the business case can lead to project performance and minimize risk and impact of failure in the following ways, Einhorn & Marnewick (2016) summarize:

- The business case includes the progressing defense for the project. By making and following it, partners improve comprehension of the advantages, expenses, and risks of the project, prompting educated choices
- The advantages are observable and measurable, accountable and the commitments taken to achieve them are improved.
- Inspections of the business case allow the project to be continually optimized in response to company adjustments and changes, both inside and outside the company.
- The business case finally requires the outcomes to be equal to the proposed gain after the deliverables are live and thereby guarantees that nothing is missed.

### **Project Performance**

Its achievement typically calculates the performance of project management according to clear parameters such as scope, time and costs, known as the iron triangle or the triple limit (Atkinson, 1999).

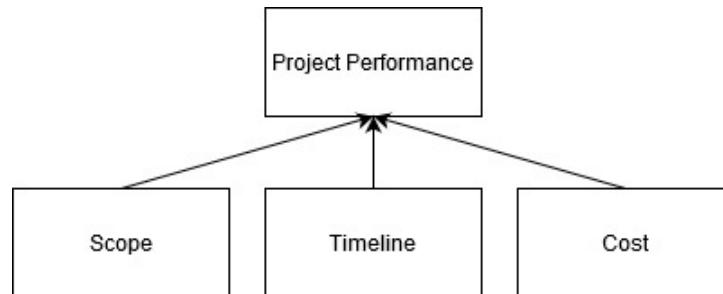


Figure 1. Project Performance measurement

This analysis reveals triple constraint and uses it as a criterion for the success of the project in this study. The Standish Group (1995) announced a list of project success/failure factors in the CHAOS Report in terms of success or failure factors that would affect project performance. Consistent statement of requirements were the three key success factors (13%), management support (14%) and user engagement (16%). The Standish Group has recently published a list of the project success/failure factors in 2015. Executive support (15%), user engagement (15%) and emotional maturity are three of the key success factors in project success: the selection of essential behaviors of how people function together (15%). The leading cause of project success or failure by 2000 was executive support. Cooke-Davies (2002), which collected data from 23 organisations, carried out 136 European projects (mostly) from 1994 to 2000, identified 12 primary factors contributing to the successful implementation of the project. The 12 success factors which large multi-national corporations have implemented or are implementing were as follows:

1. Organizational preparation in risk control concepts adequacy
2. Company's mechanisms for allocating risk ownership
3. Risk Registry Visibility
4. Access to a revised risk management plan
5. Accuracy of organizational project transparency reports
6. Project period restriction, if necessary, to less than three years
7. Scope adjust only by managing the formal scope
8. Preservation of the integrity of the fundamental output calculation
9. Existence of efficient management and provision of benefits
10. Efficient control of the portfolio and programs
11. A collection of project, program and portfolio measurement

## 12. Efficient ways to learn from project experience

Cooke-Davies (2002) noted that the first six factors are related to on-time performance; 7 and 8 are connected to on-cost performance; 9 is vital for progress on a specific project; 10, 11, and 12 contribute to the success of projects consistently. Neither of the twelve factors was correlated specifically with human factors, although it has been generally accepted that the people deliver programs, not structures or procedures. Cooke-Davies (2002) said that could be because the study was based on what workers and organizations did, not on the effectiveness of their human relationships or decision-making methods. They were focused on the project scope, performance, schedule and budget for the measures they were using in their study.

### **Research Methodology**

The systematic literature review is conducted by examining Q1 and Q2 Scimago Journal Ranking (SJR) project management journals. We apply some restrictions in detail reviewed phase to establish the scope and framework of the research. The search strategy and flow of systematic review are shown in detail in Figure 1.

Table 1. Term and Criteria

Term	Criteria
Project Performance	The article describes important factors or criteria or attributes and the assessment of project performance difference, knowledge gap, and how to improve it by using specific attributes and methods
Business Case	This article explains the use of business cases in fulfilling, maintaining, and developing a project to customers

The systematic literature review is continued by searching related articles through the published International Journal of Project Management database. Each term definition and the criteria for article selection are shown in Table 1.

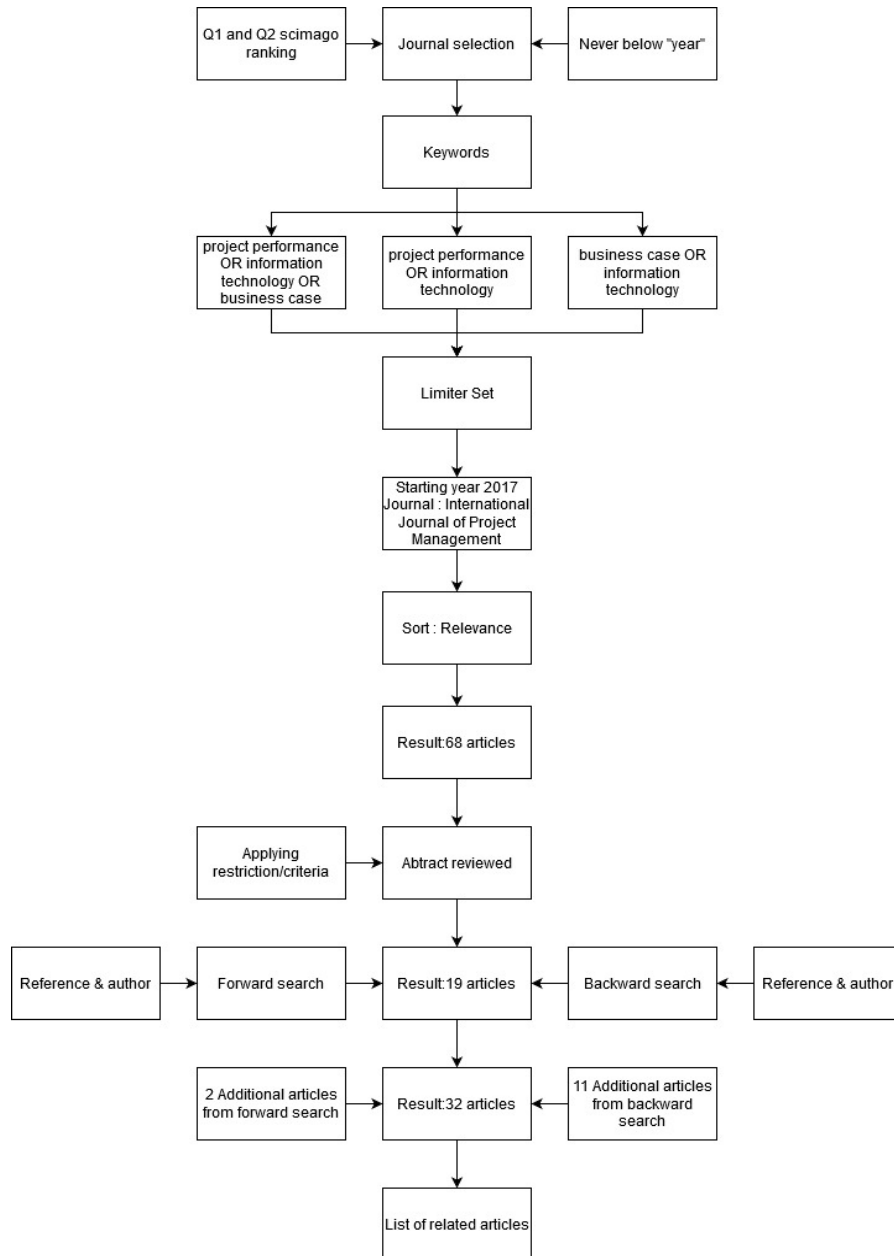


Figure 2. Search strategy for systematic review

Some articles are eliminated because the point of discussion is excluded from the criteria. The highest-ranking for the number of articles that passed the evaluation came from the International Journal of Project Management following the Business Case Research on information technology project, project management on information system, project success criteria, measuring project performance on information system project. Backward and forward search techniques are conducted on each of the nineteen selected articles. Finally, a total of thirty-two articles included in this review

### **Result and Analysis**

From the resulted articles by systematic literature review, we noticed that not all of these articles indeed inform the business case's influence on the project performance. We determine that the articles fit with the research objectives are 32 articles. In the following section, we identified several unique insights from the selected publications:

#### *The effect of the business case on the project*

The first article states that a business case has a contribution to the success of a project. However, in its implementation, a business case is considered not easy to be fully implemented during the implementation period by focusing on process theory in developing business cases (F. Einhorn et al., 2019). Other articles also state that a business case is an indispensable tool to help increase the success of an IT project or investment. In this article, the business case is defined as the nine essential elements of IT investment, which are then divided into three theoretically distinct categories. When combined, they form an integrative framework as a guide for developing business cases for IT projects. Combining the nine elements is analyzed to get its effect on the estimated initial cost of an IT project. Both articles that use different methods in building a business case can contribute to the success of a project from strategic profits to initial cost estimates.

The importance of the business case in the project is also mentioned in the article. There will be some negative consequences that might be obtained if a project without a business case, such as the possibility of project objectives that are not in line with company strategy, there are benefits that may be overlooked and then not realized and not the identification of benefit proposals that exceed investment costs. The following is also the absence of crucial information from the project portfolio review on the organizational side (Franken et al., 2009).

### *The business case is part of benefit management*

One article by Terlizzi et al. (2017) states that business case is one of the tools of benefits management, which contains reliable benefit indicators but is difficult to use directly by non-specialist professionals. Therefore, simplifying is expected to be easily understood by stakeholders to eliminate barriers that are difficult to understand so that the benefits of the project are maintained during the lifecycle (Berghout et al., 2011; Espinoza, 2014; Giaglis et al., 1999; Ward et al., 1996). Not only that, but the process of benefits management must also guarantee the independence of the project owner and supported by proper control mechanisms (Terlizzi et al. 2017). According to Badewi (2016), suggested that building a business case is one part of the benefits management process, and combining it with excellent project management methods is needed to improve the performance or success of a project significantly. These results are in line with another article that examines that companies that apply project management practices and benefits management get better results than those who do not (Badewi, & Shahab, 2016).

The business case, which is the basis of the initiation of a project, promises valuable benefits for a company's resources. Marnewick (2015) states that mature companies should have implemented benefit management practices and are aware of the importance of the business case and the benefits promised therein. However, the project owner was also asked to define and formulate the project's expected benefits clearly.

Thus, the business case as an initial indicator determines the benefits of a project that has been approved by the executive committee (Aron and Smith, 2011; Lederer and Mirani, 1995, Mantinsuo and Killen, 2014) so project implementation needs to be monitored from the beginning to the end to ensure benefits realize as expectation. That way can prevent the incompatibility between the benefits that are defined in the business case with the actual benefits delivered.

### *Business case as the basis for decision making dan project strategy*

We can see it from the portfolio and project side; according to Kopman et al. (2015), business case is a function to assist in strategic planning in a project. From the portfolio side, Nguyen et al. (2018) state that the business case can show the benefits of a company's investment in the project and how value can be created from the project, therefore it can be used as a basis for decision making on a project.



Similar findings were expressed by Einhorn et al. (2019), that the business case contains information to decide, or the decision itself will affect the follow-up process that is different from the process of action. Therefore, the business case explains more general information and project decision information than other activities, as stated in the project plan.

Other articles also state that the business case should provide relevant and realistic information related to the project as a basis for making decisions on a project. Because it is recognized as the strongest predictor of successful governance of a project (Musawir et al., 2017)

### **Discussion and Conclusion**

From several insights that have been revealed, we can see the effect of the business case on IT projects' performance from the start to the end of the project. We see that the development of business cases in IT projects still needs to be further developed. The better the business case will help the company improve performance in delivering projects optimally. The development of a good business case helps the project manager manage and make decisions in the project and as a management tool to ensure that company values are still applied in the project. This study can be developed further by getting different perspectives from the project owner, project manager, and every individual who has an interest in the project. Regarding its influence on project performance, some notable findings are:

1. Several studies state that a proper business case development does not have a significant effect on project performance
2. However, the development of a good business case and excellent project management applications can make project performance significantly increase
3. The business case is the primary tool for measuring the benefits of a project from a financial to intangible perspective so that it can measure projects based on value for money.
4. The business case is the main reference document for obtaining and delivering the intended benefits
5. The business case is a document that is built with a strategic objective, which regulates the project from the main objectives, needs, timeframe to the limitations contained in the project.
6. Finally, business cases are a decision-making tool that looks from financial considerations for the project manager, so a more complete and detailed

business case can help project managers make more realistic and accurate decisions

Finally, we hope that this study can provide additional insight and more structured knowledge about the business case's effect on project performance or even other components. A well-developed business case for an IT project keeps resources in two approaches. First, it brings to light vital indicators that alert managers to economically unviable and/or failing projects; this indicates a need to examine for a new way of improving project performance. Second, it channels resources to the evaluation of core elements that are crucial to project success.

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