Effective Decision-Making in Project Based Environments: A Reflection of Best Practices

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ABSTRACT

Effective decision-making requires economic analysis to be beneficial in a project environment. Producing effective economic decisions is based on various factors and methods, including payback period (PBP), internal rate of return (IRR), and net present value (NPV). Once projects are identified, a managerial team can begin the financial process of determining whether the project should be accepted. The team should use one of the mentioned tools. By analyzing past research, it is concluded that NPV is a vital tool that leads to the most effective project evaluation. NPV, in comparison to PBP and IRR, provides more realistic and effective value with little marginal error. This article illustrates the superiority of NPV by presenting evidence from existing research, scenarios, limitations, and future direction to use this tool in economic decision-making.

KEYWORDS

Decision-Making, Economics, Internal Rate of return (IRR), Payback Period (PBP), Project Management, Net Present Value (NPV)

1. INTRODUCTION

Economic decisions are necessary to estimate and choose the most profitable option amongst alternatives. In many cases, efficient economic decision-making involves cost-benefit analysis. Before project execution, all alternate options are analyzed to measure their profitability. Making an effective economic decision is critical in a project because it directly impacts success. Making an incorrect decision can translate to vast loss in resources.

There are several techniques to conduct cost-benefit analysis in project environments. The three most widely used include PBP, IRR, and NPV (Vitez, 2015). While each takes a different approach and cost-benefit calculation, the goal is identical—to discern which alternative has the greatest cost-benefit margin. All methods may also be used in conjunction (Vitez, 2015; Avery, Flaherty, & Rhee, 2011). Since these methods are popular amongst economists, they can also be used in effective economic decision-making in project environments. Thus, this paper discusses and compares each method to determine which is most effective for decision-making in project environments.

The objective of this study is to understand the effective economic decision-making tools in the context of project environments. In the context of project environment, the study sought to examine what economic decision-making tools and to better understand how project leaders and team members can use these elements to their advantage to improve project effectiveness.

The paper is organized in the following manner: section 2 presents the research methodology; section 3 presents the analysis of the study. Section 4 discusses the findings and their implications from the study and section 5 concludes the study with presenting the conclusion and summary of the findings.

DOI: 10.4018/IJAIE.2018010103

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2. RESEARCH METHODOLOGY

This literature review process was comprised of two major steps (Svejvig and Andersen, 2015). The first was less structured and required uncovering useful knowledge including inputs from economic decision-making in project management and other areas. The second part was the structured review process that required the use of databases and specific search strings. Furthermore, as part of the second part, we had to scan the table of contents for two journals pertaining directly to the field being studied.

2.1. Part 1: Explorative and Unstructured Literature Review

Since the study yearns to rethink economic decision-making in project management, the first part required searching for publications about economic decision-making (Winter et al., 2006b). We uncovered many pertinent research fields, including project management (Bradley, 2010; Breese, 2012; Ward and Daniel, 2012), business value of economic decision-making (Kohli and Grover, 2008; Schryen, 2012), business and organization value (Smyrk and Zwikael, 2011; Zwikael and Smyrk, 2012), and project success and economic decision-making (Andersen, 2014; Andersen et al., 2006; Atkinson, 1999; Shenhar et al., 2001). We identified 41 relevant journal articles and 6 books in this part. We then used the keywords found in each of the 47 total publications to be incorporated into search terms for the second part, the structured review process.

2.2. Part 2: Structured Literature Review

The next part incorporated a structured and systematic approach that applied methods from both other reviews (Bakker, 2010; Schryen, 2012; Söderlund, 2011) and literature about conducting reviews (Rowe, 2014; Tranfield et al., 2003; Vom Brocke et al., 2009; Webster and Watson, 2002). Four phases were incorporated in this part, including (1) planning and scoping, (2) conceptualizing the review, (3) searching, evaluating, and selecting literature, and (4) analyzing all the selected literature.

The review scope in phase (1) was limited to merely project-relevant research about marketing and strategic planning. One of these topics, or both, had to be the central concept in the studied literature. As a result, we hoped to produce substantial evidence in combination with a representative selection of value-adding journals.

Phase (2) required bringing in other concepts alongside economic decision-making to create a more robust corpus of knowledge. These concepts include project management, business value, economic decision-making, and organizational value. We reached the decision that success, evaluation, and impact were too vague of concepts to produce a workable and smaller list of pertinent results.

In phase (3) we planned to create a relevant range of results. We achieved this by searching in several databases. With Business Source Complete, EBSCO, ABI/Inform Global, ScienceDirect, Elsevier, and ProQuest, we uncovered 35 conference-paper results and 37 journal-related results. Our final number of results was 72 (conference paper and journal paper combined).

After this search, we scanned the Table of Contents for key journals such as International Journal of Project Management and the Project Management Journal. We did this so that all relevant articles would be captured, even if they did not match the keywords. These were the chosen journals because they may be considered the premier specialty journal for economic decision-making in project management (Söderlund and Bakker, 2014). As shown in Figure 1 (inspired by Bakker, 2010), our search and selection process involved 3 streams. First was the explorative and unstructured search. Next was the structured search via search strings, and third was scanning the key journals’ Table of Contents.

Pursuing each stream in Figure 1 helped narrow down the final result to 20 publications that would be studied in the analysis. During the selection process, the authors made a rough selection of 17 and 14 results by limiting the results in scope to merely academic journal articles, literature reviews, conference papers and proceedings, books, and specific book chapters. Next, the authors applied triangulation methods (Bryman, 2008: 379). The first selection was made to determine if the
Intelligent Management Information System
www.igi-global.com/chapter/intelligent-management-information-system/42631?camid=4v1a

Application of Hybrid Firefly Algorithm-Tabu Search Technique to Minimize the Makespan in Job Shop Scheduling problem