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Investigating Association of Benefits and Barriers in Project Portfolio Management to Project Success

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Abstract

Projects are increasingly initiated by organisations across Australia in alignment with the corporate strategies. This paper investigates and analyses the application of PPM in Australia by conducting a questionnaire survey with senior project, program and portfolio managers across Australia. The results suggested improvement in decision making, maximizing resource usage, alignment with business strategy and organisational risk reduction are the most common benefits found when implementing PPM. On the other hand, internal politics and culture, lacking organisational management support, and disagreement on a common project prioritization approach are the main barriers impeding the application of PPM.

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Keywords: project management; project portfolio management; project success; portfolio management practices

1. Introduction

According to the Chaos Report 2015 [1] which measures project success for information technology projects, success rates for projects continue to be a problem and well below 50%.

The group's definition of a successful project was redefined in 2015 to include a measure of perceived value by the customer in addition to the triple constraint of delivering on time, within budget and to the required scope. As a result of adding perceived value project success rates further dropped by 7% [1]. It has been estimated that one third of the world's economy is generated through projects [2]. The tangible benefits of projects may include increasing sales, improved efficiencies, improved profit margins and cash flows through increased revenue or reduced costs are amongst these. Intangible benefits might include areas of safety, improving customer service, relationships with stakeholders, and organizational capability [3].

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Organizations are increasingly realizing that corporate strategy is delivered through projects, and selecting the right projects is key to their ability to deliver their strategic intent is required for strategic alignment [4]. Managers must decide how best to use available resources, manage the level of project and portfolio risk and other considerations such as strategic alignment in the selection and governance of projects. The decision making processes for project portfolio selection, tools and capability to select the chosen projects carefully to achieve the desired benefits will impact on project success [5]. In 2013, the Project Management Institute (PMI), a leading global project management association, reported that project failure rates remain high [6] and continue to be a global problem. Projects and programs are increasingly used by organizations across Australia to achieve corporate strategy with the scarcity of resources and the management of uncertainty being common problems shared by organizations. Portfolio management practices support organizations in prioritizing and selecting the right projects to meet strategic objectives and improve project success rates. A seminal paper written in 1952 by Harry Markowitz on Modern Portfolio Theory (MPT) addresses that the goal of MPT is to optimize a portfolio to generate the highest level of return for given levels of risk. It distinguishes between efficient and inefficient portfolios calculating the risk return as a whole [7].

2. Research Methodology

The research data was collected from 35 executives who have experienced project portfolio management practices across different sectors in Australia. The data were gathered using online questionnaire survey which was designed to be a structured questionnaire with closed and open questions. The closed questions were to obtain definite and concrete answers, while the open questions were limited to the form of 'Other (please specify)' to invite the respondent's opinion other than the provided options. The analysis of the collected data was conducted using three means: descriptive analysis, Kruskal-Wallis Test and Spearman Rank Order Correlation (rho).

The descriptive analysis was employed to generate overview results of the respondents and project portfolio management (PPM) in Australia. Kruskal-Wallis Test, a test for non-parametric statistics, was utilized to conduct between-groups analysis when the studied variables are in three or more groups [8]. The study questioned if benefits and barriers of PPM were the same in all studied sectors and if benefits and barriers of PPM were associated to project success. The statistical analysis using Spearman rho was conducted to indicate the relationships between benefits and barriers of PPM practices and project success. The process of data analysis followed the four steps modified from Creswell and Plano [9] including 1) Preparing the data for analysis, 2) Exploring the data, 3) Analyzing the collected data, and 4) Representing the data analysis. The analysis was performed using Statistical Package for the Social Sciences or Statistical Product and Service Solutions (SPSS). It is to be mentioned that the analysis of this research employed non-parametric test which is commonly used when the small sample size and categorical data are obtained [8]. In this research the nominal data and ordinal scale (or ranking scale) were used to form categories of the studied objects or individuals. Although the nominal and ordinal data can provide magnitude within choice selection and rankings, for example, lowest to highest or most to least, the data contains unequal unit size and an absolute zero [10].

3. Respondent Information

The results of the questionnaire survey obtained from 35 research participants consisted of 26% telecommunications, 14% information and technology, 12% transport and logistics, 11% government, 11% banking, finance and insurance and 11% education, 9% energy and 6% construction sectors. The respondents in this research were mainly program managers (31%) and senior project managers (17%). Amongst the research participants, the positions were 31% program managers, 23% project managers, 11% other managers, 9% PMO managers, 3% chief information officers, 3% general managers and 3% portfolio managers. Forty per cent of the respondents reported their experience in the addressed positions from 2 to 5 years whereas the same 17% was found in the groups of experience less than 1 year, from 1 to 2 years and from 5 to 10 years. Nine percent of the respondents reported their experience of greater than 10 years.