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An investigation of the influence of organizational design on project portfolio success, effectiveness and business efficiency for project-based organizations

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Abstract

Many researchers have investigated the organizational structural factors and their influence on project success. Later, researchers moved towards investigating the portfolio success and effectiveness as a new area of study. We note that all such constructs are a product of strategy, and if not aligned correctly, a dichotomy will appear between strategy (portfolio) and its translation (structure) with an effect on performance. Our literature review revealed that no research has investigated the relationship between structure and portfolio elements. In this research we present the portfolio success and the Project Portfolio Management (PPM) effectiveness in one global construct which represents business efficiency for the project-based organization. A significantly strong relationship was then established between the project manager's influence on the organization – as part of its structure/design — and the business efficiency constituent variables. We also investigated steering committee's level of involvement which successfully acted as a moderator for the research established relationships.

Keywords: Project portfolio success; Project portfolio management efficiency; Project manager influence; Steering committee level of involvement

1. Introduction

Effective management of organizations calls for effective management of its projects (Grundy, 2000). This includes projects external to the organization, in which case they are mostly revenue generating projects, and internal with the purpose of improving, structuring and involving processes which leads to better internal efficiency and external effectiveness and success (Artto and Dietrich, 2007).

This paper considers the influence of project portfolios within organizations and their extensions, represented by project departments, standalone portfolios and/or business units. A business unit in this case is taken to mean the "logical element or segment of [the organization] – such as accounting, production, marketing, etc. – representing a specific business function and a definite place on the organizational chart, under the domain of a manager … [a]lso called department, division, or a functional area" (Business Dictionary, 2012).

The paper will explore, through the literature and from primary empirical data, the relationship between the organizational design and the effective management for the project portfolios which leads to their success. The authors posit that the selection processes for managing the constituent projects in a business unit have a significant role in the success of the business and the overall success of the organization in realizing its strategic intent.

Previous studies have looked at the success of standalone projects. For example, Besner and Hobbs (2006) and Besner and Hobbs (2008) looked at practices which enhance the success of projects, particularly the tools and techniques used in

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different management practices and different stages of the project lifecycle. Morledge et al. (2006) linked project success to the internal and external procurement strategies applied to them.

It was not until recently that researchers started looking at the effective management and the success of project portfolios and how that reflects on the business. Beringer et al. (2012) looked at the filtration process; Patanakul (2015) looked at the attributes of effectiveness for portfolios conducting a qualitative approach to define effectiveness; Unger et al. (2012) looked at the appropriate timing to terminate projects and the positive effect that leaves on effectiveness and strategy accomplishment; Jonas et al. (2013) looked at success factors and how they are linked to the quality of management represented in "information quality, cooperation quality and resource allocation quality"; Voss (2012) looked on the customer integration and the success of portfolios; Martinsuo (2012) summarized more than 22 relevant recent research papers which covered research conducted on portfolios in the era covered between 2006 and 2013.

No research to date has looked into the organizational elements and tested them against the success of project portfolios or the effectiveness of their management — which is the intention of this paper. Similar research was conducted on the project management field previously as carried out by Gray et al. (1990), Gobeli and Larson (1985) and Lechler and Dvir (2010). In their research, they broke the organizational structure down into different forms and attributes in a bid to correlate them to individual project success. Our research extends the role of organizational structure to success at the portfolio level.

To achieve sustainable growth for projectized organizations, the sole management and consideration of projects in isolation from each other may not be the answer. Managing projects without having an overview of the portfolio of projects in the business is generally rebuffed by scholars and practitioners alike (Muller et al., 2008; Sanchez and Robert, 2010). The surge of interest in program and portfolio management is a further indication that projects warrant combined and collective consideration in their management as a legitimate part of the portfolio, which will ultimately enhance the efficiency of the business where the portfolio resides and help achieve the wider strategic intent of the parent organization.

The research presented in this paper concerns the factors which enhances the effectiveness of portfolios and leads to their success. In particular, we try to establish a link between the design of the organization and the success of portfolios. Hence the paper is focused on the following research question:

RQ: Can we establish a beneficial link between the organizational structure/design on the one hand, and the effectiveness of project portfolio management and the success of the portfolio on the other hand?

2. Project portfolio management (PPM)

A project portfolio is an assortment of projects managed collectively to achieve the benefits of the portfolio and to realize the overall strategy of the organization. This assortment does not necessarily have to encompass projects of a similar nature; but it is their strategic direction and objectives that gets them into the portfolio and keeps them inside the portfolio. The portfolio manager's responsibility lies in deciding which set of projects makes best fit for the portfolio (Lycett et al., 2004).

Organizations aim to build a solid and reliable backlog that constitutes carefully selected projects. The perfect balance of such a project pool reflects the technological capabilities and the investment needs that are tuned into the organization's resources and processes (Archer and Ghasemzadeh, 2007; Cooper et al., 2000; Wheelwright and Clark, 1992). The difficulty in maintaining this balance stems from the wide range of possible project combinations which form a portfolio under organizational structural and other constraints. Such constraints could be represented by resources, technology, and the organizational capabilities which can stand between the organization and its desire to align with innovative and often inter-sectorial opportunities.

According to Reyck et al. (2005), the effective management of the various constraints can lead to a solid and effective portfolio with fewer project issues. It can improve financial behavior and risk management while ensuring the accountability of project selection. The research by Reyck et al. (2005, p. 525) highlights the "strong correlation between … increasing adoption of PPM processes and a reduction in project related problems … and [increase in] project performance".

Effective portfolio management is carried out by the application of carefully designed set of processes with the intention to achieve the overall growth and success of the organization (Levine, 2005). Dye and Pennypacker (1999) defined portfolio management as the "art and science of applying a set of knowledge, skills, tools and techniques to a collection of projects in order to meet or exceed the needs and expectations of an organization's investment strategy". Jeffery and Leliveld (2003) proposed a framework for the periodic review of projects to better optimize and balance the portfolio. Such a framework ensures the alignment of the portfolio with the overall strategy.

Portfolio failures have variously been attributed to poor strategic management (Matheson and Matheson, 1998), lack of involvement from business leaders (Kebdall & Rollins 2003), and the wrong team skill set in designing and managing the portfolio (Jeffery and Leliveld, 2003). The lack of portfolio management leads to poor control and coordination between projects, conflicting objectives, un-met deadlines, resistance to change, and most importantly lack of benefit realization (Payne, 1995). McGrath and Macmillan (2000) add to this list: loss of revenue, non-efficient use of resources, loss of strategic alignment and an unbalanced set of projects within the portfolio.

The literature on portfolio management is linked to the literature on benefit management. The realization of project or organizational envisaged benefits can be achieved through implementing portfolios successfully. The ultimate purpose of delivering projects, programs and portfolios is to benefit the organization with their output. Benefits can be utilized as a measure to determine the strategic effectiveness of the portfolio through examining the expected values of their constituent projects (Patanakul, 2015).

Benefits may be confused with the created project deliverables and thus may be poorly measured or managed.