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Investigating the Roles, Responsibilities and Practices of Portfolio Managers in Australia: A Literature Review and Research Outline

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ABSTRACT

Project Portfolio Management (PPM) is increasingly adopted by organizations in Australia. In order to select, prioritize and monitor simultaneous on-going projects with limited resources, there is a need for PPM to optimize investment by utilising a PPM governance structure to deal with constant change and focus on achievement of organizational strategy. This is particularly relevant in order to build on national and global recovery.

PPM, due to its ambiguity and complexity, brings a great challenge for the portfolio manager to manage its processes, people and practices. However, literature indicates that PPM practices vary and need to be adapted to organizational situations according to project types and environmental complexity.

The aim of the research discuss in this paper is to investigate the roles, responsibilities and practices of project portfolio managers in services and products organizations in Australia. It also aims to relate the relationship between project types and environmental complexity of organization with the practices, roles and responsibilities of Portfolio Manager. Their influences to ensure that the best projects are selected and investments are optimized are the concern of this paper.

By reviewing the literature on PPM, this paper hypothesizes that project types and environmental complexity will influence the roles, responsibilities and practices of the project portfolio manager. Based on these findings, a research model is proposed, and further research to test the validity of the model is suggested.

1. Introduction

Project Portfolio Management (PPM) is now a widely used approach by organizations in Australia to achieve business strategies. It brings great opportunities for organizations to embrace changes and lead their strategies into reality. PPM is used for selection and resourcing of research and development projects where project management methods are used *to do project rights* and portfolio management methods are used *to do the right projects* (Cooper, Edgett, & Kleinschmidt, 2000).

The increased use of projects as a means to deliver products and services has led to adoption of PPM as the governance method for selection and prioritization of projects in many industries. However, there are managerial problems associated with PPM which have been identified by Elonen & Artto (2003). They identified six major areas which include inadequate project activities, lack of resources, competencies and methods, lack of management support, unclear roles and responsibilities, inadequate portfolio level of activities, inadequate communication management regarding projects and inadequate management of project orientation.

Bloomquist and Muller (2006a) indicate that PPM roles are intertwined with traditional line management roles. Further study of PPM roles and responsibilities has been suggested by Bloomquist and Muller to focus on different industry and geographical area to develop clearer recommendations for organizations on how to best to organize for the benefit of results has been suggested.

So the research question of this paper is:

What are the different roles, responsibilities and practices of project portfolio Managers in Australia?

The unit of analysis is the project portfolio manager. This paper continues by reviewing literature from the portfolio management realm and from this developing a research model to guide further research.

2. Literature Review and Theory

In this section, we review literature on portfolio management: origin and recent research on project portfolio management, theoretical perspective, project types and environmental complexity.

2.1. Origin of and Recent Research on Project Portfolio Management

The concept of PPM is based on the earlier theories of portfolio selection in the field of finance. PPM owes its origins to Harry Markowitz who wrote a seminal paper on Modern Portfolio Theory (MPT) in 1952. MPT allows specific mix of investments to generate the highest return for a given level of risks. MPT distinguished between

efficient and inefficient portfolios and calculated the risk return of the portfolio as a whole.

General Electric/McKinsey and Boston Consulting Group (BCG) developed a portfolio technique and showed a business's competitive position and market prospects in a matrix or grid. Different positions on the grid suggested different marketing strategies (Goold & Luchs, 1996). From such a corporate perspective, the optimum portfolio was often defined as one in which the products in the Cash Cows quadrant generate adequate cash flows to produce sufficient returns for shareholders, as well as cash to further develop the products in the Question Marks and Stars quadrants to replace the Cash Cows in the future. Over time, the technique became a standard method for selecting projects for organizations. Research & Development (R&D) organizations especially used the technique to guide the decisions for project selection and resource assignments. To that end, portfolio management helped to *do the right projects*; whereas the complementary project management methods were used to *do the projects right* (Cooper, Edgett, & Kleinschmidt, 2000).

McFarlan (1981) is considered to be a pioneer providing the basis for the modern field of PPM approach to IT assets and investment. McFarlan observed that management should employ a risk based approach to the selection and prioritization of IT PPM. Risk-unbalanced portfolios could lead an organization to suffer operational disruptions, or leave gaps for competitors to step in.

The Aggregate Project Plan framework was developed by Wheelwright and Clark (1992) to identify gaps in the portfolio, or potential resource shortages. This plan considers the extent of changes made to the product, and the degree of process change. This framework is useful to identify resource shortages and gaps in derivative projects, platform projects, breakthrough projects and R&D projects.

PPM has evolved to support the management of project-based organizations (Dye and Pennypacker, 1999). Thorp (1999) published the "Information Paradox", putting PPM in a broader framework called "Benefits Realization". According to Thorp, PPM techniques are fundamental for getting value from IT projects. Gareis (2000) suggested that the project-oriented organization applies project and program management practices to perform relatively unique business processes. The main idea is that enterprises not only have to manage single projects successfully to meet competition but also need to manage a large portion of their business through projects. Other goals for a PPM processes are generally to maximize the financial value of the portfolio, to limit the number of projects to fit with organizational capacity, to ensure balance among projects, and to ensure that the portfolio reflects the business's strategy (Cooper and Edgett, 2003; Dawidson, 2004). Killen, Hunt and Kleinschmidt (2008) reviewed the literature and empirical evidence pertaining to PPM for New Product Development. They classified the main themes into four groups; goals, decision-making process, method and practices for PPM.

Gershon (2008) reviewed and recommended to the Australian Government a "major program of administrative reform and cultural change" to centrally coordinate ICT investments through portfolio management methodologies. This was intended to slash costs across the \$16 billion annual computer and communications spend by federal government agencies in Australia. Crawford & Helm (2009) found two government agencies in their recent case study where PPM is used effectively to manage their overall investment in projects across the organization in order to maximize benefits delivered and maintain alignment to strategy.

2.2 Theoretical Perspective

Portfolio management provides governance structures adopted to minimize the overall costs in converting "input" to "output" through projects. The study discussed in this paper will employ Transaction Cost Economics (TCE) theory to explain the relationship between governance practices and project transactions. Williamson (1985) explains the balance required in organizational governance mechanism to lowering of the cost to the organization by economizing existing scales and resources such as in portfolio management. This identifies portfolio management as the linkage between corporate governance and TCE. Williamson's TCE claims that different governance structures are required in different types of transactions. The extent that organizations apply portfolio management as governance practices is, therefore, seen to differ by project type.

Governance structures are also seen to differ by the degree of uncertainty/complexity of an organization. Based on Simon's 1957 *bounded rationality* argument, Williamson (1975, p. 22-23) states that "When transactions are conducted under conditions of uncertainty/complexity, in which event it is very costly, perhaps impossible, to describe the complete decision tree, the bounded rationality constraint (that humans exercise intended, but only limited, rational behavior in decision-making) is binding and an assessment of alternative organizational modes, in efficiency respects, becomes necessary".

2.3 Project Types and Portfolio Management

The differences in project type that depend on the extent of the project goals and the method to achieve this goal has been identified by Turner and Cochrane (1993). This two dimensional model identifies four project types which depend on the degree of clarity of objectives and methods. Each of these project types requires a different approach to achieve the project's objectives. Other similar research by Nobeoka and Cusumano (1995) identifies the different business results with multi-project strategies for different product types and different degrees of project complexity.

Shenhar's (2001) popular model uses a two-dimensional matrix of technological uncertainty and project scope to identify different project types with different management requirements. Elonen and Artto (2003) found problems in project interdependencies, competition of resources and problem solving. Crawford, Hobbs and Turner (2004) indicate that project grouping is an essential step in portfolio

management. Bloomquist and Muller (2006a) identify project type as product related projects and indicate that roles of program and portfolio managers depend on project types.

2.4 Environmental Complexity

According to most management literature, organizations adopt different management style to meet the situational demands of the environment .This approach is based on contingency theory that claims the characteristics of leadership and the situational requirements must match in order to produce the best possible results for an organization (Burns & Stalker, 1961). Pethis & Saias (1978) identify the extent of change in complex environments and define the stability ranges from stable to turbulent (or dynamic) environments.

Brown & Eisenhardt (1995) suggest that dynamic environments require experiential product development using frequent iterations, testing, and milestones. The environments can be modeled where simple environments are those that are well understood and for which reliable, effective ways of dealing with them exist and complex environments where approaches are not known to many in the organization.

Portfolio management is mainly used either by diversified firms that use portfolio planning techniques to aggregate business for strategic analysis and repositioning, or by organizations to guide diversity away from low-growth sectors (Bettis and Hall, 1981). This study indicates that companies using portfolio management better fit their environment. After implementing portfolio management, two out of the three firms assessed in the study substantially improved their market position relative to their competitors.

Bloomquist & Muller's (2006a) findings show that higher complexity leads to the use of specific portfolio management practices but the use of tools is low. Higher environmental complexity appeared to be associated with clearer roles. However, PPM managers are found to split their time between other management roles and PPM.

Martinsuo and Lehtonen (2007) identified that complexity in terms of the number of personnel was a significant variable contributing to the relationship between single-project practices and portfolio management efficiency and pointed toward studying other contingency factors in portfolio management success.

Based on reviewing literatures on portfolio management realm, three hypotheses can be developed:

How does **project types** determine the use of Portfolio Management in service and manufacturing organizations in Australia?

•**H1**: Different Project Types are directly related with the use of Portfolio Management.

How is **uncertainty** affecting the practices, roles and responsibilities of Portfolio Manager in service and manufacturing organizations in Australia?

•**H2**: Uncertainty is directly related to different practices, roles and responsibilities of Portfolio Manager in service and manufacturing organizations in Australia.

How does **asset specificity** influence the practices, roles and responsibilities of Portfolio Manager in service and manufacturing organizations in Australia?

•**H3**: The asset specificity is directly related to different practices, roles and responsibilities of Portfolio Manager's in service and manufacturing organizations in Australia.

3. Research Model

To reflect the findings from the literature review and illustrate the hypotheses, a research model is developed (fig 1). In this model, we can see the relationship between project types, environmental complexity and roles, responsibilities and practices of portfolio managers.

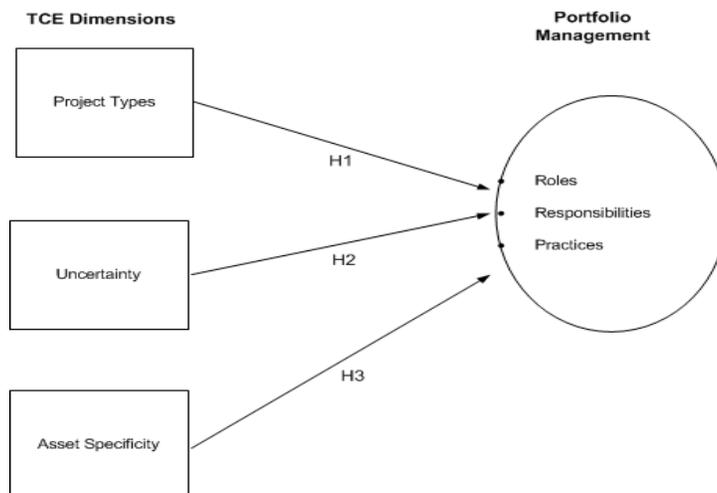


Fig 1: Research Model

4. Conclusions

Portfolio management as a sound methodology to embrace change and achieve high level strategies has been increasingly adopted by organizations. The focus of the research is to investigate portfolio manager's roles, responsibilities and practices in service and product development organizations in Australia is investigated. Based on the literature and analysis, a research model is presented. This model reflects the relationship between different project types and portfolio management's roles and responsibilities. The methodology proposed for this research involves (1) validating the research model; (2) using focus groups to identify the constructs, and refine the related hypotheses; (3) conducting two case studies through interviews with selected service and product development organizations -qualitative study; (4) developing a web based questionnaire – quantitative study; (4) data collection and analysis – to build on the results of the first qualitative phase.

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