

Selection of Strategic Projects

Subjects: Transportation

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Strategic projects are large scale, complex, and require significant investments and resources. These projects aim at gaining long-term social and economic benefits. Therefore, organizations focusing on strategic projects should use a consistent approach that suits their strategy, capability, and long-term expectations.

Keywords: Strategic Project, decision making, management

1. Introduction

Strategic projects can be categorized based on time, investments, sustainability, or long-term business or social values. These projects require significant investments and resources; therefore, their alignment with the long-term organizational capability^[1] and sustainability becomes very important. Therefore, strategic projects are prioritized for immediate take-up or holding, or cancellation^[2].

Regardless of whether projects are deployed using portfolio management or program management, their prioritization becomes challenging^[3], especially in the public sector. In public-sector strategic projects, national priorities over the long-term become necessary^[4]; therefore, project selection should also focus on operational sustainability. On the other hand, strategic project selection in the private sector should focus on survivability and capability improvements^[5]. Such private sector projects can be for a new product line or a change in the business model^[6].

The strategic project selection requires the analysis of projects in different steps. Authors have provided different selection frameworks, but they are usually specific to a given project situation or project type. Further, project selection is also subject to changes in the business environment and the associated risk. Therefore, resulting projects may have problems in project coordination and management^[5]. In addition, the selection process should also consider organizational managerial capabilities such as resource management^[7], value management^[8], governance^[9], risk management^{[10][11]}, and stakeholder management^{[12][13][14]}. These managerial capabilities support resource optimization and competitive value generation^[15] to achieve organizational goals^[16]. Good governance management promotes organizational mechanisms to ensure organizational growth^[17]. The current research focuses on selection methods, but it is not explicit about the dynamic situation for a project selection cycle. Also, the importance of managerial capabilities has often been not considered explicitly. Naaranoja et al. ^[18] mention that an organization's managerial capabilities can support project sustenance. Therefore, this paper aims to fill the gap to develop a generic framework that considers the selection steps and managerial capabilities.

2. Conclusions and Research Direction

The steps, managerial capabilities, and strategic project selection techniques are provided through a systematic review using the content analysis method. One of the paper's main contributions is the development of a project selection framework, obtained through the content analysis, which shows that strategic project selection can be covered through the four generic processes. Based on the review, it is shown that the feasibility of obtaining sustained project value depends on the overarching managerial capabilities of an organization. Based on the review, six critical managerial capabilities of an organization have been identified and discussed. It is also shown that appropriate managerial capabilities must be assessed and utilized in the selection steps.

The review shows that both qualitative and quantitative models can be used in project selection steps, but they have to be correlated with the applicable managerial capabilities. The proposed strategic project selection framework is not a prescription but a suggestion for systematic analysis of strategic projects. Based on the review, it is recommended that the analysis of management capabilities should form an integral part of the project selection process. It is identified that the perspectives of risk, quality, stability, sustainability, governance, resources, organizational strategy, value, and stakeholder management are essential in project selection.

A few considerations are mentioned below for possible future research in strategic project selection based on the review.

- There can be competing strategies, such as sustainability and resource availability, need for services and cost optimization, and social well-being and near-term project outcomes for project selection. While more quantitative aspects can be considered in the earlier steps of strategic project analysis, competing strategies can be considered mainly in the decision option step. A decision support system that uses suitable multi-objective analysis or multi-criteria analysis can be developed to support the overall process of strategic project selection. One comprehensive decision support system with multiple objectives (cost, energy, and employment) is given in^[19]. Such a decision support system for project selection is also mentioned in [20]. Another type of decision support is also mentioned in [21]. The decision support system can incorporate a library of relevant methodologies and libraries to help develop various decision options.
- Each step in the strategic project selection has implications from a managerial perspective. The current frameworks do not explicitly consider this integrative analysis of managerial capabilities. Some of the research on individual managerial capability for projects are given in^{[6][8][9][13][18][22]}. There are some quantitative methods reported by authors for individual managerial capabilities. For example, the use of survey method is used for risk analysis^{[11][13][23]}, stakeholder prioritization^[12], and resource analysis^{[15][24][25]}. Therefore, the research can focus on developing and integrating quantitative methods or frameworks to assess managerial strength and link them to appropriate steps to select projects. Some basic works for such methods have been mentioned in^{[26][27][28][29][30]}. However, their applicability and extension to integrate multiple managerial capabilities would need rigorous research. If such a method can be developed, it can provide an avenue to simulate project scenarios based on selection steps and managerial capabilities for a dynamic decision-making situation.
- Even when a single managerial capability is considered, for example, value management, they are often focused on a single project^[3] and may consider financial or sustainability. However, in a strategic project situation, the value management aspect should be holistic and consider value obtained through projects. While financial gain can be more important during the earlier stage of project selection, sustainability can be more important during the decision-making step^[31]. Therefore, further research can focus on the integrated impact of individual managerial capabilities. Research can also be focused on developing quantitative models to assess benefits on a variety of performance measures like sustainability, social factors, and ecological factors^[8].
- Another area of research can be extended to analyze resource competition for the projects. Resource competition becomes important in multiple projects due to inherent problems on project time and cost performance against the need to optimize the limited resources. One such method is also proposed in^[32] by using game theory models. Generalizing and extending such models can be useful for the researchers considering selecting a strategic project.
- The six managerial capabilities that assess organizational strength on selecting and handling strategic projects are based on the emphasis given in the literature. The authors could not locate additional managerial capabilities that might have been used in practice for strategic project selection. Identifying managerial performance measures and clustering them for detailed analysis can provide new managerial knowledge for strategic project selection. Empirical studies of large-scale cross-country projects can support this type of study.

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