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Strategic Project Portfolio Management in Higher Education Institutions

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Abstract

This paper looks at how Strategic Project Portfolio Management (SPPM) can be used to improve the performance and strategic focus of higher learning institutions. The study is mixed-method since it will utilize the survey of academic administrators and project managers on a structured survey, as well as examine the institutional strategic plans on a documental basis. The quantitative data were examined with the help of descriptive statistics and correlation analysis, and the qualitative insights were applied to put the results into perspective. The findings are that the occurrence of strategic alignment, enhancing resource use, and monitoring of the outcomes of projects is more evident in HEIs that have formalized portfolio management frameworks. On the other hand, organizations with unorganized portfolio practices suffer the effects of overlaps in projects, overruns, and lack strong connection between projects and institutional strategy. The research adds to the existing body of literature on project management in higher education because it shows that SPPM is an important governance mechanism and not merely an operational tool. At the end of the paper, policy recommendations are provided to entrench SPPM in the governance framework of HEIs in an effort to foster sustainable development of the institution.

Keywords: Strategic Project Portfolio Management, Higher Education Institutions, Governance, Strategic Alignment, Project Management.



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1. Introduction

Higher education institutions (HEIs) were conventionally considered to be rather stable organizations, whose funding flows can be predicted, relatively established academic organization, and gradual change processes. But this stability has been greatly broken in the last twenty years. The higher education landscape has changed due to globalization, technological changes, performance-based funding models, and the intensified competition pressures on students and research grants as well as the strengthening pressure of accountability. Subsequently, there is a growing need to have HEIs operate as strategically quick organizations, who could handle various initiatives at the same time (Al-Ali Al-Maadeed *et al.* 2025).

Other than the outside forces, the inside forces in the institutions of higher learning make the administration of projects even more complicated. Professional autonomy, collegial decision making and multiple centers of authority characterize HEIs. Projects are often started independently by academic departments, research centers, administrative units, or external partners, based on disciplinary priorities, funding opportunities or compliance requirements. Although this type of decentralization benefits academic freedom and innovation, it also puts pressure on fragmentation and redundancy. In the absence of a portfolio-level view, institutional leaders do not have a view about the total number of current projects, their aggregate resource needs, their role in strategic priorities (Aghajani & Jugdev, 2023).

In addition, the value creation in higher education is widely different as compared to that in the case of the private-sector organization. Knowledge creation, learning by students, contribution to the society, and reputations at institutions are intrinsically hard to measure. The resulting complexity is very likely to cause resistance to both formal management tools seen as over-bureaucratic or uncongenial to academic culture. This has led to the selection of projects being often on previous basis, personal pressure or temporary financial consideration as opposed to long-term strategic evaluation. Quantitative The Strategic Project Portfolio Management is a means of reconciling managerial rigor with academic values through the use of transparent, participatory as well as criteria based decision-making processes (Ahmed & Sultana, 2021).

The increasing focus on measurement of both accountability and performance within the sphere of higher learning also supports the topicality of SPPM. Governments and accreditation authorities are asking organizations to be more transparent about how they spend the government resources as well as the quantifiable change in programs funded. Digital transformation, sustainability and internationalization projects at the macro level are financially consuming and long-term. Ill-fitting or poorly managed project portfolios may put institutions at risk financially, reputationally, and strategically. In this view SPPM is not only a planning tool but also a risk management and accountability tool (Basu & Lee, 2022).

The other dimension that is significant is how leadership is involved in propagating portfolio-level thinking. The concept of strategic leadership in higher education is balancing between the academic priorities and managerial roles. Vice-chancellors, presidents and provosts are becoming more expected to perform the role of institutional strategy steward. Nevertheless, in the absence of trusted information on the portfolio and the decision-support systems, leaders might not be able to make trade-offs across competing initiatives. Strategic Project Portfolio Management, offers structured data on the project status, benefits delivery and consumption of resources, facilitating evidenced-based decision-making at the executive level (Chandra & Rao, 2023).

Management of portfolios has also increased the necessity of coordination due to the advent of digitalization. The fast integration of learning systems, student information systems, research analytics systems, and administrative automation have led to intricate project dependencies. Initiatives involving technology tend to cut across organizational borders and initiatives need to be implemented in harmony to achieve intended goodness. Without coordinating among their portfolios, HEIs may end up with incompatible systems or the inability to achieve the benefits of integration. SPPM helps to direct digital projects in accordance with bigger institutional plans and makes technological investments in order, prioritizing them accordingly (Huang & Xing, 2024).

Moreover, the COVID-19 pandemic has highlighted the need of organizational agility in higher education. The institutions had to quickly put up emergency projects in the online teaching, student support, and health and safety. Although numerous HEIs proved to be incredibly adaptive, project prioritization and reallocation mechanisms showed their weaknesses during the crisis. Institutions that had a well-established portfolio management experiences were in a better position to put non-essential projects on hold, shift resources and expedite strategic projects. The result of this experience is the increased scholarly and practical interest in SPPM as a resilience and crisis-response capability (Johnson & Ali, 2025).

Theoretically, SPPM implementation in the context of higher education leads to the enhancement of the wider discussion of the management of the sphere of public and non-profit sectors. HEIs are halfway between the public service organizations and competitive organizations. The analysis of the portfolio management in this respect generalizes the current theories of strategic management, governance, and organizational change. It also poses normative inquiries concerning how the managerial practice can be modified to align to the mission driven organizations without compromising their core values (Zhurakovskaya & Olicheva, 2021).

To accommodate these pressures, universities and colleges are undertaking an increasing number of projects that are oriented towards institutional transformation. These projects include curriculum redesigning and online learning initiatives to research capacity building, development of campus infrastructure and upgrades in the administrative systems. Although projects are vital implementations of the strategy, the dissemination of uncoherent projects may end up consuming institutional capacity and weaken strategic focus (Piterska et al. 2019).

Strategic Project Portfolio Management (SPPM) has become a governance method that allows the organizations to select, prioritize and manage projects systematically in response to the strategic goals. Contrary to the traditional approach to project management that is aimed at delivering single projects in an efficient manner, SPPM is focused on creating value at a portfolio level. It guarantees the resources of limited nature are channeled to the projects that overall contribute to organizational strategy (Killen, 2017).

The use of SPPM has been prevalent in the corporate world as a tool of ensuring strategic alignment and the maximization of resource usage. Nevertheless, its use in higher education is not well-balanced and under-investigated. There are several significant ways in which HEIs differ with the private sector organizations: shared governance, various stakeholders, and mission-oriented but not profit-oriented purpose. These attributes pose significant questions concerning ways in which SPPM can be greatly aligned to the institutional context of higher education (Haung, 2024).

Although the number of projects being undertaken by HEIs is on the rise, most institutions are still found to be using fragmented decision-making processes. Departmental or faculty initiatives have been known to start up projects without thorough evaluation of its strategic and resource

implications of the projects. This leads to duplication of efforts, funding and manpower squandering and problems with institutional impact measurements (Inga, 2021).

This paper contends that SPPM is a systematic approach to the issues as it gives a topical perspective on the institutional project investments. Transparency, accountability, and strategic coherence can be improved by incorporating portfolio management in the process of strategic planning and governance in HEIs.

1.1 Research Objectives

The primary goals of the given research are to:

The anticipated research will consider the existing project portfolio management in institutions of higher learning.

Examine the correlation between strategic alignment and Maturity of portfolio management in HEIs.

Determine the challenges and success factors in the implementation of SPPM in HEIs.

Recommend policy suggestions towards improving project portfolio governance in higher education.

1.2 Research Questions

The research question that will drive the study is as follows:

What is the current management of project portfolios in institutions of higher learning?

What is the extent to which strategic project portfolio management helps in institutional strategic alignment?

Which tools and techniques are utilized by HEIs to run project portfolio?

What are the policy actions that can help to adopt SPPM successfully in higher education?

2. Literature Review

The concept of Strategic Project Portfolio Management is presented below:

Project Portfolio Management (PPM) can be defined as the management of one or more portfolios of projects within a centralized management in order to attain strategic goals. Based on the existing literature, SPPM is associated with the assessment of projects in terms of strategic fit, risk, value, and resource availability. It changes the emphasis to doing the right projects and not doing projects right (Ahmed et al., 2021).

2.1 One of the principles of SPPM is strategic alignment:

Researchers underline that organizations benefit optimally when projects are clearly connected with strategic objectives and reviewed at certain time intervals in order to maintain relevance. Another important concept is portfolio balancing that provides a combination of the short-term and long-term initiatives and innovation and operational improvement projects (Inga, 2021).

2.2 SPPM to Higher Education.

The use of SPPM in HEIs is developing. The HEIs are governed by intricate governance structures with academic senates, governing councils and external regulatory agencies compared to the private-sector organizations. There is a tendency towards decentralization in decision-making and that makes portfolio-level coordination difficult (Haug, 2024).

Research has shown that HEIs often do projects in silos and this creates inefficiencies and misalignment. The lack of formal portfolio governance mechanisms is mentioned by the research on university transformation projects as a significant obstacle to successful implementation (Killen, 2017).

2.3 Institutional Performance and Strategic Alignment.

The association of strategic alignment and better performance of an organization has been found to be a cross-sector association. In higher education, alignment holds the significance of ensuring that projects add to the major missions of teaching, research, and–social interactions. According to empirical research, institutions that have more effective alignment mechanisms have superior utilization of resources and clearer performance results (Korhonen & Martinsuo, 2014).

2.4 SPPM Tools and Frameworks.

The tools commonly employed in SPPM are scoring models, balanced scorecards, risk matrix, and portfolio dashboards. Qualitative assessment tools are usually preferable in HEIs because it is hard to measure academic value. Yet, according to recent research, hybrid models of both qualitative judgment and quantitative analysis are recommended (Leach, 2014).

2.5 Higher education Governance Structures and Project Portfolio Decision-Making.

Governance is very much important in determining the way project portfolios are developed and managed in institutions of higher learning. In contrast to the hierarchical corporate structure, the models of shared governance are common to the structure of HEIs that decentrate authority among the governing boards, executive leadership, academic senates, and faculty committees. Although such a structure of participation is beneficial in terms of legitimacy and inclusivity, it makes it more difficult to formulate a strategy regarding prioritizing projects. According to the literature, when there is no clarity on how the governance is arranged, then it may lead to overlapping of mandates and slow decision making process, which deteriorates the effectiveness of the portfolio management processes (Milkovich, 2016).

Some of the studies have pointed out that decision making in the portfolio in HEIs is often quite decentralized and faculties and departments have significant freedom in initiating projects. The positive aspect of this autonomy, with respect to academic innovation, is that it may result in incoherent portfolios. Scientists believe that successful SPPM in higher education must involve a biased form of governance which incorporates centralized strategic control and decentralized implementation. Portfolio steering committees are a combination of academic and administrative leaders and are seen as a potential tool of balancing these competing requirements (Muler & Turner, 2007).

Additionally, the transparency of the decision making criteria is noted as a very essential success factor. Stakeholder resistance is high when there is a sense of opaqueness or politeness as pertains to the process of project selection and prioritization. The literature places significant emphasis on the importance of well-articulated evaluation criteria that are associated with institutional strategy, mission, and performance indicators. These criteria increase the confidence and help to accept the hard decisions as project termination or reallocation of resources (Pinto, 2020).

2.6 Culture and Resistance in Organizations to Portfolio Management Practices.

The organizational culture has been largely accepted as a critical factor behind adoption of management practice in higher education. The academic culture is based on autonomy, peer review, and disciplinary identity that may be in conflict with the conventional management

structures. In literature review on the adoption of project and portfolio management tools in higher education, it is common to find that academic members are resistant to these tools which they consider to be projects of managerialism (Sage & Rouse, 2009).

Literature differentiates between technical resistance, which is caused by skills or understanding deficiency, and normative resistance, which is caused by values and beliefs. The normative resistance remains especially relevant in the framework of the SPPM, where the portfolio management is presented with the clear prioritization and comparative appraisal of the projects. These practices do not support the classical belief that all academic projects are valuable and worthy of attention (Turner, 2002).

Additional recent research, though, posits that resistance may be addressed using participatory design and adaptive delivery of portfolio frameworks. Academics are more likely to regard SPPM as a supportive and not a controlling mechanism when they take part in the selection of the portfolio criteria and the governance structure. In addition, by considering the management of portfolios as the facilitation of academic excellence and the safeguarding of core missions, it becomes possible to make it more consistent with institutional values (Shenhar & Dvir, 2007).

2.7 Strategy Project Portfolio Management and optimization of resources.

There is always a problem with resource scarcity in the sphere of higher education, especially the state-funded institutions that have limited financial resources and must deal with the pressure of rising costs. Resource optimization is a major reason as to why SPPM should be adopted, which is constantly found in the literature. Portfolio management offers a methodical tool of harmonizing the decisions made on resource allocation with strategic priorities thus containing waste and enhancing efficiency of the institutions (Milkovich, 2016).

Empirical research indicates that HEIs that have mature portfolio management practices can better manage conflicting demands in the financial, human, and physical resources. To illustrate, the portfolio level of analysis helps institutions to recognize projects that are under-performing, redistribute resources to projects that have the greatest impact and to not over-pin their limited expertise. This is particularly essential in cross cutting projects like digital transformation and sustainability projects which demand co-ordinated investment in various units (Maceta, 2013).

The role of benefit realization management in SPPM frameworks is also mentioned in the literature. Benefit realization does not only concentrate on the delivery of the project, but on the long term value of the projects. The benefits in higher education can be better student performance, increase in research capacity, or even better links to the community. According to scholars, inclusion of the realizations of benefits in the portfolio reviews will enable the institutions to stay focused, and evaluate whether the projects are making significant contribution to institutional objectives (Hobbs & Aubry, 2007).

2.8 Maturity Models and Capability Development of Higher Education SPPM.

In the literature, maturity models are typically employed to determine development of the project and portfolio management capabilities. These models usually exist between ad hoc practices and processes at an optimistic level of an ever improving system. The results of the studies that use maturity models to the higher education indicate that the majority of institutions are working at the lower and intermediate maturity levels with inconsistent processes and the lack of strategic integration (Ghafari & Tofighi, 2021).

Capability development is found to be a learning process and gradual. Scientists point out that, in most cases, the failure to innovate highly complex portfolio systems is likely to occur due to lack of institutional preparedness. Rather, it is suggested to adopt the change in an incremental manner with training and pilot programs. In the literature, the author adds that to move to higher maturity levels, it is necessary to have leadership commitment and long-term investment in portfolio management infrastructure (Emerson, 2018).

All these studies together help to support the thesis statement that Strategic Project Portfolio Management in higher education is not only a technical process but also a socio-organizational change. Effective implementation requires harmonization of governance structures, cultural norms and practices of managing resources with the strategic goals. These lessons are a conceptual basis of the empirical study in the following sections of this paper (Farid & Ashraf, 2025).

3. Research Methodology

3.1 Research Design

This study adopts a mixed-methods research design combining quantitative and qualitative approaches.

3.2 Data Collection

- **Survey:** A structured questionnaire was administered to 120 respondents, including senior administrators, deans, and project managers across selected HEIs.
- **Document Analysis:** Institutional strategic plans and project documentation were reviewed.

3.3 Tools and Techniques

- Descriptive statistics
- Likert-scale analysis
- Correlation analysis
- Portfolio scoring matrices

4. Results and Interpretation

Table 1: *Level of Portfolio Management Maturity*

Maturity Level	Percentage of HEIs
Informal	42%
Developing	38%
Formalized	20%

Interpretation:

The results indicate that a majority of HEIs operate with informal or partially developed portfolio management practices, highlighting the need for structured frameworks.

Table 2: *Relationship Between SPPM and Strategic Alignment*

Variable	Correlation Coefficient
SPPM Maturity Vs Alignment	0.68

Interpretation:

A strong positive correlation suggests that higher levels of SPPM maturity are associated with improved strategic alignment.

Table 3: Key Challenges in Implementing SPPM

Challenge	Mean Score
Resource Constraints	4.2
Decentralized Decision-Making	4.0
Lack of Expertise	3.8

Interpretation:

Resource limitations and governance complexity are perceived as the most significant barriers.

5. Conclusion

As is seen in this study, Strategic Project Portfolio Management is important in relation to improving strategic alignment and institutional effectiveness in institutions of higher learning. The results indicate that formal portfolio management practices are not yet well developed although most of the HEIs accept the need to run several projects in a strategic manner. Organizations with well-organized SPPM models are more coordinated, have more strategic focus, and monitor project performance more effectively (Farid, 2023).

The study utilizes the contribution to the theory and practice by placing SPPM into a specific governance and mission-focused context of higher education. It points to the necessity of shifting past project management to portfolio management to provide institutional strategy in the long run (Ashraf & Adnan, 2022).

6. Policy Recommendations

Popularize Portfolio Governance: HEIs must create offices of portfolio management or committees according to the strategic planning units.

Capacity Building: Training opportunities are to be designed in order to increase the portfolio management skills of academic leaders.

Strategic Integration: Project approval processes are to be clearly connected to institutional strategic purposes.

Performance Monitoring: The adoption of portfolio dashboards should be implemented in the institutions to track progress and risks and strategic contribution.

Policy Frameworks: SPPM adoption by the national higher education authorities ought to be promoted by governance guidelines and funding incentives.

Conflict of Interest

The authors showed no conflict of interest.

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