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Effective Project Governance in a Full Project Lifecycle

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Abstract

The role of effective project governance across the full project lifecycle cannot be overstated, as it is crucial to the timely and effective delivery of projects. For there to be an effective execution of the project and project success, several actions must be completed by the project manager, team, and all other stakeholders in the project environment. From start to finish, information technology initiatives necessitate a plethora of operations. For the project to be effectively completed, these activities must be closely monitored and coordinated to ensure a smooth flow. Information technology projects are distinctive from other projects because they often combine standard project management techniques with systems development techniques. While requirements research, collecting, and analysis may not be necessary for all projects, they are crucial to information technology initiatives. A review of the literature focused on the management of projects and programs related to information technology was conducted to identify project and governance activities for individual phases of the Project Management Life Cycle (PMLC).

Keywords: Project, Project delivery, Project governance, Project lifecycle.

1 | Introduction

The importance of effective project governance across the full project lifecycle cannot be overstated, nor can it be far-fetched from or beyond the achievement of timely and effective delivery of projects. For there to be an effective execution of the project and project success, several actions must be completed by the project manager, team, and all other stakeholders in the project environment. From start to finish, information technology initiatives necessitate a plethora of operations. For the project to be effectively completed, these activities must be closely monitored and coordinated to ensure a proper flow [1]. Information technology projects are distinctive from other projects because they often combine standard project management

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techniques with systems development techniques [2]. While requirements research, collecting, and analysis may not be necessary for all projects, they are crucial to information technology initiatives [3].

For projects to be completed successfully, project governance is essential. Project governance is concerned with the aspects or components of governance that are related to ensuring the effectiveness of projects. According to Meng [4], project governance combines characteristics of both particular or detailed project management systems and corporate (Or organizational) governance. The responsibilities and obligations for managing performance within an organization are related to corporate governance [5]. The term “governance” is derived from the Greek for “to steer or guide.” Governance is connected to the phrases “government,” “governing,” and “control” [6], [7]. Governance provides a backdrop for moral decision-making and managerial action in an environment where clarity, responsibility, and clearly defined roles are vital [8], [9].

There are two diverse perspectives on project governance. According to the first set of people, each organizational unit needs its own type of project governance. The following papers discuss various forms of project governance [8, 10–14], “on knowledge governance” [15], [16], “on network governance” [17], “on public project governance” [18], and “on project governance” [19]. According to Williams et al. [19], this governance theory was explained and identified as relatively common among project managers, stakeholders in both private and government establishments, and academics specializing in information technology. Their position is that management is responsible for governance, that each governance practice runs separately from the others, and that, in actuality, there is no blending or integration [8]. This is the perspective of the authors, and the assignment is built around it. According to the authors, each discipline or unit within an organization must have its own governance to measure performance effectively.

According to the second group, institutions such as the Organisation for Economic Co-operation and Development (OECD) (OECD, 2014) and the institutions in charge of overseeing stock exchanges all support the notion that government is a process with several features or aspects. They use a governing organization as an illustration, citing numerous topics or issues, such as managing relationships, change management, workforce management, financial management, and viability and sustainability. The governance used to make choices on information technology projects, programs, and/or portfolios is referred to as information technology governance [18]. According to Calefato and Lanubile [20], project governance is defined as the formulation that describes the organization's resources, course of action, communication, reporting, and monitoring procedures for administering a project in accordance with its corporate or strategic aim. It was also emphasized that successful project governance is about ensuring that initiatives deliver the value expected of them.

Project governance is described as the structure that ensures a project has been adequately planned, implemented, or completed in accordance with best project management practices and within the broader framework of the business. By ensuring that all expenditures are suitable for the risks being addressed, an effective governance structure contributes to cost savings. The goal of project governance is to define the terms of reference and operational framework, set the boundaries, and guarantee that planning and execution are done in a way that assures the project produces benefits [21]. This is quite different from micromanagement. To provide the expected and predicted advantages, business results, and benefits to the intended beneficiaries or receivers, project governance entails directing and overseeing the process of realizing value for the organization from the conversion of investment decisions (Department of Treasury and Finance, 2012). The four essential guidelines for efficient project governance are, according to the Department of the Treasury in 2012.

- I. Designate a single point of responsibility or accountability for all activities.
- II. Project ownership is determined by who owns the service delivery.
- III. Stakeholder management and project decision-making must be kept apart.
- IV. Identify or distinguish between project governance and organizational formation.

The functions of governance in project management are provided below.

- I. Creating and overseeing processes.
- II. Ensure policies and procedures are followed.
- III. Managing proposals for change and managing risk, respectively.
- IV. Monitoring and reporting on governance procedures to make sure that standards are being followed.
- V. Ensuring that projects are on pace to produce the desired results.
- VI. Making sure the accurate amount of resources is allocated.
- VII. Outlining or outlining a process plan for carrying out a project.
- VIII. Rigorously adhering to and observing policies and procedures.
- IX. Full transparency or clarity.
- X. Project organization.
- XI. Unbiased supervision.

According to Fanse and Shirbhate [13], the most important functions in project governance relate to.

- I. The direction of the program.
- II. The ownership and sponsorship of projects.
- III. Dynamics of certifying the effectiveness of project management responsibilities.
- IV. Ways of reporting and disclosing issues regarding stakeholder coordination.

The entire project lifecycle stages are covered by the four sections described above. For the sake of this assignment, the following project life cycle, combining project management and systems development activities, was chosen.

- I. Project conception.
- II. Project planning.
- III. Project execution and control.
- IV. Conclusion of the project.

At every step of the project life cycle, there exist different activities associated with project governance activities. This assignment aims to critically discuss effective project governance across the full information technology project cycle, including roles and responsibilities, key activities, communication, control, decision-making, frameworks, models, and key milestones, to achieve success. In addition to adding to the literature and research work in the area of information technology projects, the UK government's Office of Commerce.

A guideline that identifies reasons for project failures was released by the UK government in 2007 in collaboration with the National Audit Office. Governance problems were said to be responsible for six of the eight factors [14]. This demonstrates unequivocally the crucial role governance tasks play in project management and how projects may fail if they are not prioritized. This assignment aims to develop frameworks for information technology governance that can help address the issue of information technology projects failing due to governance problems.

2 | Conceptualization

2.1 | Overview of Field Used

The frameworks were developed based on a review of the literature (Information technology projects and programs) in the field of telecommunications, as well as studies on project management practice. A case study

was conducted in the telecommunications sector. In particular, information technology project governance challenges were addressed in the project and program management literature, as well as updates on the performance of the telecommunications industry.

2.2 | Project Governance Across the Full IT Project Lifecycle

First, discussions on several governance systems from the literature were conducted. In Fareed, Su, Naqvi, Batool, and Aslam's [12] project delivery framework, each phase of the project life cycle is depicted together with its associated deliverables. According to Turner's [18] study, a project's life cycle comprises five stages, each with distinct requirements for key governance documents, important governance activities, major milestones, critical approvals, and vital checkpoints. Governance actions for each phase were specified in governance documents [17]. There were phases for key approvals and issues that needed to be examined to ensure governance activities were accomplished before moving on to the next level [22].

This stringent structure is necessary to ensure that no governance activity is overlooked, thereby guaranteeing the smooth completion of projects. A paradigm for three-step project governance was proposed in Ralf Müller's book, "Project Management (PM) Concepts."

- I. The methodology, the direction-finding committee, reviews, and audits make up the first phase. At this level, the limits and enablers include "very strong technology focus" and "better Project results required."
- II. The second stage includes the project management office, project support office, and mentorship. "Strong project control focus" is the constraint here, whereas "Role and career for project managers" is the facilitator.
- III. Advanced training, Benchmarking, and Maturity models make up the third phase. The facilitator "Project management as a strategic capability" and the constraint "Resistance to change existing practices" are what limit what can be done.

In 2014, Too and Weaver [11] published a project governance model. Four layers of management were explored, as reduced to three in Ralf Müller's study, namely:

- I. Project/program management is responsible for overseeing the project delivery system.
- II. Senior management oversees the management system.
- III. Executive management oversees the governance system.
- IV. Governing board: this oversees the management system [16].

2.3 | Components of Project and Program Governance

According to the layers of management, the four essential interconnected components that enable good project and program governance are

- I. Portfolio management.
- II. Project sponsors.
- III. Strategic project management office.
- IV. Effective project and program management.

Project governance in a multi-project setting serves two primary purposes, according to Lam et al. [23].

Making a choice regarding which initiatives to authorize, finance, and promote is the first task. These options are then conveyed to management for possible implementation. The following are critical outcomes from this component of the project governance framework:

- I. Provisions about the obligations of significant participants (Partners or stakeholders) in the projects.
- II. Standards and decision-making strategies.

- III. Development of the critical framework/model for selecting the “right” initiatives to pursue, including a fair understanding of what “right” means for each company.
- IV. Oversight and assurance serve as the second purpose of the project governance system.

2.4 | Review of project and program managers

This section entails the review of literature that focused on the management of projects and programs related to information technology, to identify the project and governance activities for individual phases of the Project Management Life Cycle (PMLC), stakeholders' roles and responsibilities, prominent deliverables and milestones within the life cycle, the major governance issues, etc. The waterfall paradigm, also known as the systems development life cycle, is frequently used in system development. According to Lam et al. [23], the phases of the waterfall model include design, coding, construction, analysis, implementation, testing, deployment, and maintenance.

PMLC should include project initiation, project analysis, project planning, project design, project execution, project monitoring, project controlling, project construction, project implementation, project closing, project testing, project deployment, and finally project maintenance, according to the Project Management Institute (PMI).

Overall, the investigation uncovered four critical concerns that project governance systems must solve. Their names are as follows:

- I. Roles and responsibilities encompass the steering committee, project team, and stakeholders.
- II. Tools and methodologies: this entails project, quality, financial, and change management.
- III. Control mechanisms encompass financial, deliverable, confidentiality, communication, and human resources management.
- IV. Risk management encompasses various aspects, including change, financial, delivery, legislative, technological, political, organizational culture, human management, and others.

A concept for a project first emerges from strategy, rivalry, or operations. The concept is carefully considered, in addition to the mission and goals of the organization. If a proposal passes the initial business case evaluation, business permission is provided to begin a full feasibility study of the project to determine what it will take to produce the project's conclusion, including related costs, connected risks, the number of personnel needed, etc. A feasibility study is required for decision-maker evaluation and approval. Before implementation can begin, the business feasibility study must be both authorized [21].

Before the commencement of implementation, a kick-off meeting is required to gather stakeholders and establish ground rules and procedures, including reporting, communication plans, escalation paths, resource matrices, and responsibilities of other teams [24]. The sharing of project information is governed by a communication strategy, reporting, and escalation process tools during implementation [20].

After deployment, the project proceeds to the testing phase, where the delivered product is compared to the acceptance criteria. Different test kinds are necessary for projects. System tests, user acceptance tests, regression tests, and in some situations, dry runs or simulation tests are among the crucial must-do test scenarios. Every sort of test is anticipated to meet predetermined acceptance standards and yield results that are within the customer-preferred limits [17]. The project is to be Ready-For-Service (RFS) once all necessary tests have been carried out and the findings have been approved by senior users, clients, and operations personnel. Later, it would be ready for a live environment, and after RFS was obtained. New systems introduced into the workplace and being utilized for the first time often undergo a straightforward switch-on before being enabled for use in the real environment [21]. In contrast, a thoroughly thought-out migration strategy would be needed for the replacement of an existing system with a new one. To prevent database mistakes, missing data, and duplicate data, among other things, this would be essential [23].

Some project types just require a smooth transfer from the development environment to the live environment; as a result, project closure can start right away following life [25]. Conversely, a product launch is required if a project presents a new product or results in a significant shift in how businesses operate. Customers are informed through advertisements and other forms of communication when a product is launched [18].

The product introduction raises brand recognition among users (both within and outside the organization), which promotes the early benefit realization mentioned in the business case. After going live and launching, a project is handed over to the operations department of a company [19]. Up to the termination of the product's life, operations are in charge of managing the product daily. The project manager must deliver to operations using the established handover checklist. According to Fanse and Shirbhate [13], project closure is the last milestone that must be reached for a project to be considered finished. This includes submitting handover paperwork, removing the team and resources, recording lessons learned for the project library, and scheduling the project closure review. As best practice, it is recommended that the project be evaluated at least six months after implementation to assess benefit realization. For turn-key projects, it is also standard practice to entail a stabilization phase. This gives suppliers the opportunity to observe the deployed system over time before the final handover to the customer, and it also allows them to offer assistance and help the client develop new skills.

3 | Conclusion

This assignment's main goal was to investigate existing knowledge and past research on successfully managing information technology projects. In 2007, the UK government's Office of Commerce and the national audit released a guideline that identifies eight reasons why projects fail. According to Dallago [8], six of the eight factors were ascribed to problems with governance. This demonstrates unequivocally the crucial role governance tasks play in project management and how projects may fail if they are not prioritized.

To address the issue of information technology projects failing due to governance problems, this assignment was designed to produce information technology governance frameworks.

A survey of the literature on information technology projects and programs was conducted, focusing in particular on questions of governance. The frameworks were also created using literature, critical analysis, and other sources. To ensure the practical completion of information technology projects, governance frameworks outline project management procedures, activities, governance, roles, and responsibilities of key stakeholders, among other key elements. Without project governance, project delivery encourages corruption, standards and quality compromise, inefficiency, delayed projects, improper communication and reporting, project finance challenges, ownership and direction concerns, and other problems.

The first phases of information technology projects are fundamental and must be methodically carried out to ensure success. This is accomplished by adhering to the proper protocols and practices, interspersed with approvals before moving on to the next step. The project's success depends on the project governance activities, which should not be confused with project activities.

Author Contributions

AAG: conceptualization, introduction, editing, resources, visualization. OTO: conceptualization, literature review, editing, and resources. AIM: design, conceptualization, editing. AOA: editing. The authors read and approved the manuscript.

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