FEASIBILITY ANALYSIS

INTRODUCTION

Feasibility is the determination of whether or not a project is worth doing. The process followed in making this determination is called a feasibility study. This type of study determines if a project can and should be taken. Once it has been determined that a project is feasible, the analyst can go ahead and prepare the project specification which finalizes project requirements. It guides stakeholders in determining the system's viability and aligning it with the organization's goals and capabilities.

1. **TECHNICAL FEASIBILITY**

The engineering feasibility of the project in viewed in the technical feasibility. Certain important engineering aspects are covered which are necessary for the designing of the project like civil, structural and other relevant aspects. Technical capability of the projected technologies and the capabilities of the personnel to be employed in the project are considered. In certain examples especially when projects are in third world countries, technology transfer between cultures and geographical areas should be analysed. By doing so productivity gain (or loss) and other implications are understood due to the differences in fuel availability, geography, topography, infrastructure support and other problems.

In the setting of a project management system, the feasibility of implementing the proposed system from a technological perspective is assessed through technical analysis. This involves evaluating whether the required technology, infrastructure, and expertise are accessible or obtainable within reasonable means to create and uphold the project management system. This evaluation includes a comprehensive examination of hardware, software, networking requirements, and any potential obstacles regarding integration. Technical analysis investigates whether this system can operate effectively and efficiently within the existing technological environment of the organization. It explores matters such as system compatibility, scalability, security measures, performance considerations, and the capacity to support the expected user base and workload.

- **Do stakeholders have the expertise needed?**

Stakeholders have a vital role in the triumph of a project management system, bringing diverse skills and viewpoints to the table. The proficiency of stakeholders in this venture is multifaceted and encompasses a wide array of abilities and understanding that are necessary for various stages of the project. Initially, project sponsors and executives offer strategic expertise by aligning the project with the objectives of the organization. They steer the project's course, ensuring it aligns with the overarching strategic goals and yields value to the organization. Their proficiency lies in comprehending the business environment, market

trends, and long-term vision, empowering them to make well-informed decisions regarding the project's scope and priorities. Secondly, project managers and team leaders contribute expertise in project planning, execution, and monitoring.

- **Are additional resources needed in this including infrastructure, skills-set or job aids?**

In terms of technical possibility, evaluating the necessity for extra resources is vital. It involves assessing if the existing structure can sufficiently support the project's technical requirements. This may involve examining server abilities, network abilities, and storage abilities. Furthermore, comprehending the accessible skill sets within the team and recognizing any skill gaps is crucial. If the project requires expertise in particular technologies or methodologies not presently possessed by the team, contemplating training or hiring is necessary. Work aids such as updated manuals or specialized software may also be needed. Recognizing and planning for these resource requirements ensure that the project can be executed seamlessly from a technical standpoint, minimizing any potential obstacles and optimizing project success.

- **Is this system ready in terms of the technology required?**

To determine if this system is technically feasible, one must assess its level of planning in terms of the necessary technology. This involves examining whether the required technological infrastructure, software, and expertise are readily available or can be obtained within the project's limitations. It is crucial to verify if the hardware and software meet the system's requirements, if the networking and integration capabilities are sufficient, and if scalability and performance demands can be effectively addressed. Furthermore, it is essential to evaluate the availability of skilled personnel with expertise in the required technologies. If the assessment confirms that the technology requirements can be satisfactorily met, then the system can be considered technically ready. However, if any gaps or challenges are identified, additional measures such as upgrades, training, or acquiring additional resources may be necessary to ensure the system's technological planning.

2. ECONOMIC FEASIBILITY

Economic feasibility refers to the feasibility of the considered project to produce economic benefits. A benefit-cost analysis is needed. Furthermore, the economic feasibility of a project can also be evaluated by a breakeven analysis. In order to facilitate the consistent basis for the evaluation, the tangible and intangible facet of a project must be translated into the economic terms. Economic feasibility is critical even when the project is non-profit in nature.

The economic feasibility of this project involves conducting a thorough analysis of its financial feasibility and potential economic advantages. It assesses the expenses associated with the development, implementation, and maintenance of the project management system,

taking into account factors such as software licenses, hardware, development resources, and ongoing operational costs. At the same time, it evaluates the potential returns and cost savings that the system could bring, such as improved efficiency, reduced administrative expenses, and increased productivity. By utilizing cost-benefit analysis and return on investment calculations, the economic feasibility helps determine whether the benefits outweigh the costs and if the project is financially viable and worth pursuing.

- **Do the resources needed exist?**

  Economic feasibility, evaluating the accessibility of required resources is crucial. It involves assessing whether the monetary, personnel, and substance resources needed for the project management system exist within the organization or can be obtained within budget restrictions. Monetary resources include funding and capital required for development, implementation, and maintenance. Personnel resources relate to the skilled workforce necessary for system design, development, and ongoing support. Substance resources encompass hardware, software, and any physical components essential for the system. Assessing their accessibility helps determine if the organization can afford the project and sustain its operations effectively.

- **Will the proposed system or initiative lead to better use of resources to improve project outcomes, when compared with other options?**

  The evaluation of economic feasibility determines whether the suggested project management system or initiative is a wise financial venture. It entails contrasting the expenses and advantages of the project to ascertain if it will result in better use of resources and improved project results in comparison to other available choices. This analysis includes an assessment of initial development costs, ongoing maintenance expenditures, potential cost reductions or revenue generation, and the expected return on investment (ROI). If the evaluation indicates that the suggested system provides a favourable cost-benefit ratio, optimizes resource efficiency, and enhances project outcomes compared to alternative choices, it is considered economically feasible. This evaluation is crucial to guarantee that the project aligns with organizational financial objectives and justifies the allocation of resources for its successful implementation.

3. OPERATIONAL FEASIBILITY

Operational feasibility means evaluating whether a suggested project or system can practically function within the current operational environment. It includes inquiring questions like: Can we run this system with our existing resources? Will it blend into our daily workflow smoothly? Is it simple for our team to utilize and oversee? Essentially, it's about guaranteeing that the suggested solution is a suitable fit for how the organization operates,

and it won't result in significant disruptions or inefficiencies when implemented. If the response is affirmative, it's operationally feasible.

The operational feasibility of this project examines whether it is practical and achievable to implement the suggested project management system within the organizational framework. The focus is on comprehending how well the system aligns with existing procedures, workflows, and the day-to-day activities of the organization. Additionally, it is crucial to assess operational feasibility by evaluating users' willingness to embrace the change and determining if the benefits outweigh any disruptions to current operations. If the system proves to be operationally feasible, it indicates that it can be seamlessly integrated into the organization's operations, enhancing efficiency and contributing to the success of project management.

- **Do existing system procedures and protocols support the new service or initiative?**

  Practical feasibility, in the context of current system procedures and protocols supporting a new service or initiative, revolves around assessing if the current organizational processes and rules can seamlessly accommodate the proposed change. It involves evaluating if the introduction of the new service aligns with established protocols or necessitates adjustments. However, if major overhauls or disruptions are required in established systems, this could pose practical challenges. A smooth alignment between the new service and existing protocols indicates a higher level of practical feasibility, ensuring the initiative can be effectively integrated without significant resistance or workflow disruptions.

- **How will key collaborators be involved?**

  In considering practical feasibility for this project, involving key partners is crucial to success. Their involvement ensures that the project aligns with the organization's strategies and practical goals. Consultations and feedback sessions with partners help in understanding their specific needs and concerns, allowing for necessary adjustments to the project plan. By involving them in decision-making processes and regularly updating them on project progress, potential obstacles can be identified and addressed early. This cooperative approach ensures that the project remains operationally feasible.