Enhancing Efficiency in Mobile Banking Application Development through Structured Project Lifecycle Management

CONTENTS

INTRODUCTION

Figure: Mobile banking

Source: (Megargel, Shankararaman and Walker, 2020)

Mobile banking is another innovation in the banking system of developed countries and it is crucial for financial institutions to have mobile applications. In this particular report, the author focuses on the aspect of project management within the framework of creating a mobile banking application, discussing the key phases that includes in the concept (Kumar et al., 2020), In this context, organizations can define all the stages of the project, its functions and goals, and monitor its progress to complete the work on time, allocate the necessary resources, and achieve the highest quality at each stage of the project. It gives an overview of the initiation process, planning process, the execution process, the progress tracker and controller and the closure process, stating major practices and their importance. It ends with an outline of conclusions and suggestions for improving subsequent projects which necessitated integrated solutions based on the utilization of agile frameworks and frameworks, effective risk mitigation, and sustainable engagement with stakeholders (Megargel, Shankararaman and Walker, 2020).

CHAPTER ONE - PROJECT LIFE CYCLE AND THEIR SIGNIFICANCE IN EFFICIENT PROJECT MANAGEMENT
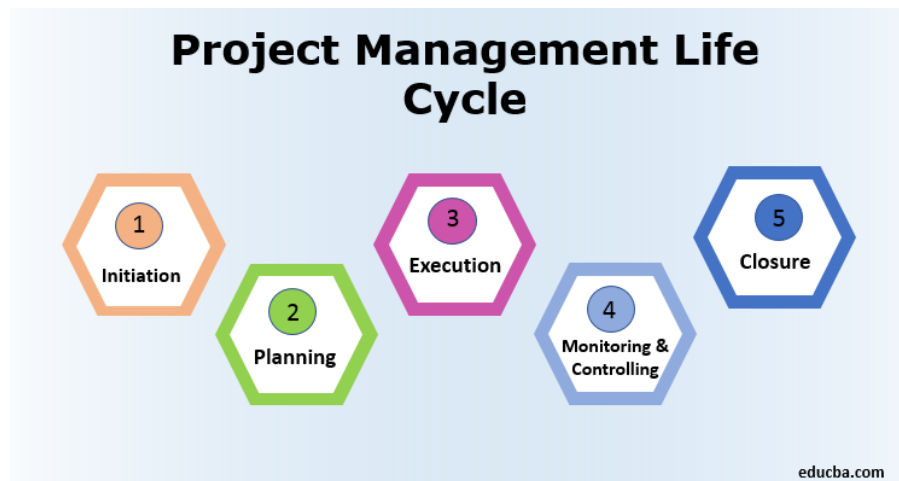
Project Life Cycle Phases

Figure: Project Life Cycle Phases

Source: (Stark, 2022)

Initiation Phase

Objectives:

This will involve defining the why, when, where, who and how of the project as well as its objectives and limitations (Stark, 2022).

Specify the root expectations of stakeholders.

Conduct a feasibility study.

Develop a project charter.

Significance:

The initiation is the groundwork for the whole project since it is the starting point of the plan. In this phase the objectives of the project, the area of working scope and the possibility of execution of the project are defined which are useful to outline the project with the business strategy of the organization (Stark, 2022). Defining stakeholders and knowing their expectations as well as requirements make their needs met which minimize future inceptions. Here the role of the project charter has been identified as a formal document that sanctions the project and sets the basis for the beginning of the elaboration phases and a point of orientation for the further developments.

Planning Phase

Objectives:

The project plan should be developed in a comprehensive and specific manner.

Planning helps in defining tasks that need to be done as well as putting into consideration the time frame (Lăzăroiu et al., 2022).

Set up every day, weekly, monthly, and yearly budgets and analyze how much money one can afford to spend and when.

Create an overarching risk management plan, communication plan, and quality management plan (Lăzăroiu et al., 2022).

Significance:

The planning process involves outlining the most appropriate strategies and approaches for reaching the desired aims and objectives of the project. A fully documented project plan highlights the activities and time when they are to be accomplished, with roles defined, understood by team members. Resource management makes it possible to organize the availability of such resources as people, funds, and materials at the right time, all the time focusing on achieving organizational goals (Lăzăroiu et al., 2022). Planned control on expenditures enables an organization to regulate costs and avert excessive payments.

Execution Phase

Objectives:

Implement the project plan.

Decide where to put people and what tasks they should do (Larsson and Larsson, 2020).

Ensure compliance and achievement of project goals.

Engage and communicate with the different stakeholders involved in the process (Larsson and Larsson, 2020).

Significance:

In the execution stage, the project plan is implemented and the management focuses on the activities of the project. This phase is important because this phase entails physical implementation of the mobile banking application (Larsson and Larsson, 2020). Other conditions that can serve as significant determinants are the proper distribution of resources and effective distribution of tasks. Effective monitoring and controlling of the project Also ensure that there is consistent check of the performance of the project to determine whether it meets the planned performances or not, and there is identification of areas that require corrective action . Stakeholders are involved and communication channels are kept open so that all the parties would be aware of the progress of the project as well as complications that might be encountered, in order to make decisions and receive help at the right time (Larsson and Larsson, 2020).

Monitoring and Controlling Phase

Objectives:

Monitor the results of the tasks in relation to the planned targets (Rehman et al., 2022).

Regulate impact of change on the specifications, time and budget of the project.

Maintain the quality and 'cleanliness' of the work (Rehman et al., 2022).

Identify and mitigate risks.

Significance:

This phase becomes active throughout the execution phase and is crucial for check and balance in the project. Performance tracking helps the project managers to ensure that actual performance is

aligned to the planned performance of the project and if there is any difference then that is determined at this stage (Rehman et al., 2022). About any modifications in the project scope, time-frame, and cost, which are significant for the project, there is a need to provide approbation of the change management. Many stakeholders involved in the project management process identify that quality assurance procedures are important as they ensure the project deliverables match to the anticipated quality level. The highlighted risks indicate that risk identification and risk control are continuous processes that facilitate the prevention of challenges that may harm the overall outcome of the project (Rehman et al., 2022)

Closure Phase

Objectives:

Finalize all project activities.

Handover the final service/product to the customer(Wang, Liu and Liu, 2020).

The fifth component of project communication management is to get formal approval for the project deliverables.

This is a very important step towards effective management of projects, and should be done at the end of the project (Wang, Liu and Liu, 2020).

Significance:

The closure phase involves extending and closing of the project and signifies the end of the project (Wang, Liu and Liu, 2020). It is the last and ultimate step that signifies that all the project performance processes are completed, all the tasks are properly closed and all pertinent project records are updated. Mobile banking clients are thus waiting to receive the final app from the developers and give them their official stamp of approval which is the sign that the project goals were achieved. Evaluation also comes in handy after the project in order to identify areas that that has done well or areas where improvement could be made in the future (Wang, Liu and Liu, 2020). This communication is crucial in that it captures lessons learned, which aids in sharing knowledge and improving the outcomes of future projects.

Importance of Each Phase for Efficient Project Management

Initiation:

This understanding allows for managing expectations, avoiding favoring unrealistic objectives and Midcourse; bring focus towards a commonly agreed direction (Raja et al., 2022).

Planning:

It may reduce risks since the general direction is clear and potential problems can be anticipated and prevented, or controlled or minimized which is useful for managing resources, time and costs (Raja et al., 2022). Risk management and communication planning also prevent situations where such problems may arise and reviewing long-term strategic goals helps in eradicating them.

Execution:

Implementation is a critical factor, which is often an enabler of execution to transform plans into action (Raja et al., 2022). Project work is oriented and effectively delivered since efficient tasking and resource managing facilitate the accomplishment of all the project's activities, stakeholder interactions maintained on a constant basis so that everyone stays on the same page.

Monitoring and Controlling:

This phase is in handy when it comes to ensuring that the project is on the right course. Responding to the need to maintain control over the project's progress throughout its life cycle, one can monitor the deviations that occur periodically and, if necessary, manage the changes to avoid their growth into critical situations (Raja et al., 2022). Effective quality control and risk management make certain that the project achieves its specific goals and objectives without significant time or cost overruns.

Closure:

Closing-out a project effectively allows finalization of all the project activities to their logical conclusion and confirms the final project deliverables with the client (Raja et al., 2022). Review and reporting of experience gained during and after the project help in assessment of lessons acquired for future undertaking.

CHAPTER TWO – PROJECT ON MOBILE BANKING APPLICATION DEVELOPMENT

The use of mobile banking has nowadays become a necessity for financial organizations to improve the way it delivers convenient and secure services to its customers. The present work discusses the project life cycle of a mobile banking application having integrated ideas and approach to managing the project and translating it to success (Bao et al., 2022). Every single project life cycle stage will be explained describing the major processes and procedures involved and their importance. The conclusion will be given in this case, with regards to the revelations made, recommendations to future projects will be made at the end of this paper.

Project Lifecycle Procedures

Initiation Phase

Key Procedures:

Project Purpose and Scope Definition: These are the following: Identify the goals of the mobile banking application Privileges of the application they also need to clearly determine the purpose of the mobile banking application, and its major functions which consist of checking account details, history of transactions, transfers of funds, mobile bill payments, and security features (Haakman et al., 2021).

Stakeholder Identification and Analysis: The first step involves analyzing the project and identifying those who benefit from its applications, such as the bank's executive team, heads of IT, compliance officers, and potential users of the applications developed through Blockchain technology (Haakman et al., 2021). Interview the students and ask them about their requirements and expectations from such facilities.

Feasibility Study:
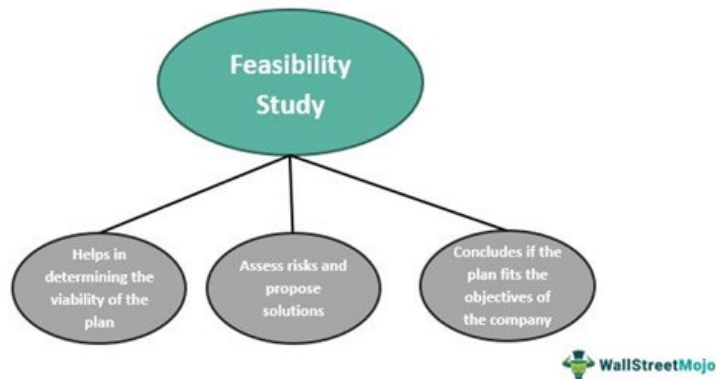
Features of Feasibility Study

Figure: Feasibility Study

Source: (Haakman et al., 2021)

Meeting on the Realism of the Foreseen Project The realist approach should involve the evaluation of the technical feasibility, the financial feasibility, as well as the operational feasibility of the intended project (Haakman et al., 2021). Understand before proceeding: the state and character of market, availability of technologies, available funding, and risk profile.

Project Charter Development: Formulate a project charter to clearly define the project goals, tasks to be accomplished and involved parties, resources, budgets, and project calendars. It is also necessary to consult senior management in an organization to agree on the changes that are to be made.

Planning Phase

Key Procedures:

Project Plan Development: The WBS tool can be used to decompose the project work into less complex parts and for measuring the performance too (Megargel, Shankararaman and Walker, 2020). Specify which activities shall the preceding activity precede and which activities shall follow it and the expected duration of each activity.

Timeline and Schedule Creation: Utilize Gantt charts and Critical Path Method (CPM) to develop an elaborate plan for the project in terms of time; make a clear representation of project

activities, their interdependencies, and the corresponding time frames (Megargel, Shankararaman and Walker, 2020).

Resource Planning: Determine current and potential resources required to complete the task: human resources, financial resources, and material resources (Megargel, Shankararaman and Walker, 2020). Divide the authorities of actions among the underling teammates.

Budgeting and Cost Management: To effectively address this, a detailed budget has to be developed that should contain estimates for development, testing, deployment and maintenance (Saeeda et al., 2020). The other measure is to found ways of minimizing cost through observation and prudent expenditure.

Risk Management Plan: Protect yourself from future harm that might occur on the job by evaluating threats, evaluating effects, and creating coping mechanisms (Saeeda et al., 2020). It is necessary to facilitate a document that would enable the identification and documentation of all the risks that may be faced in the project throughout its duration.

Communication Plan: Clear lines of communication and procedure for the sharing must be clarified within the intended communication area (Saeeda et al., 2020). Communicate frequently with the stakeholders and it is advisable to have set meetings on regular and fixed dates to discuss the progress of the project.

Quality Management Plan: An example of a best practice or recommendation of the PCoP is to define what quality standards and metrics and how to measure them (Saeeda et al., 2020). Formulate testing strategies aimed at ascertaining whether the application satisfies the user needs and offers optimal functionality.

Execution Phase

Key Procedures:

Task Implementation: Lay the foundation of the development of the mobile banking application based on the detailed project plan (Kumar et al., 2020). Employ Agile methods to release small new portions and to obtain feedback continually.

Resource Allocation: Bring out a list of responsibilities then distribute them among members of the team in accordance to skills, and time of availability (Kumar et al., 2020). Check for wastage of resources in the unit as well as the course as a whole.

Performance Monitoring: Project monitoring can also be enhanced by the use of software that tracks the happenings of a project against what was planned (Kumar et al., 2020). Monitor performance through performance indicators and feedback, generated from KPIs like the rate in terms of task accomplishment and whether the project proceeds according to schedule.

Stakeholder Communication: Reporting: keep the stakeholders informed by providing periodic updates, holding meetings, and running demonstrations (Kumar et al., 2020). Always respond to concerns raised and them into the project.

Monitoring and Controlling Phase

Key Procedures:

Performance Tracking: Always quantify the work being done and compare the results with work defined in a schedule (Hasan et al., 2021). This calls for using measurement techniques such as Earned Value Management (EVM) to not only assess the performance but also highlight variances.

Change Management: Provide for a change control process to review and authorize all variations to the project's scope, time or cost plan (Hasan et al., 2021). Record behaviors and modifications making sure to include the respective effects .

Quality Assurance: Carry out implementation and quality checks with the objective of ascertaining whether an application is fit for purposes that have been set (Hasan et al., 2021). Make proper use of the automation testing tools to easily detect as well as correct the defects.

Risk Management: Such risks should be actively managed through the updates of risk register in the organization (Hasan et al., 2021). Address those risks which have been deemed relevant through instituting risk management measures to address them and refer major concerns to higher authorities for consideration.

Closure Phase

Key Procedures:

Finalization of Activities: It is vital always to check that all the project tasks are done to the expected standard, and all the documentation is in order. Carry out a final sensitivity analysis to search for any possible failures (Pal et al., 2020).

Product Delivery: Prepare and submit the developed mobile banking application to the concerned client. To achieve this, management should provide a proper training and support program for the Organization's representatives to facilitate the transitioning process with ease (Pal et al., 2020).

Formal Acceptance: Receive endorsement of the results achieved in the project from the side of the client. As a rule, make certain all the agreed terms have been complied with (Pal et al., 2020).

Post-Project Evaluation:

Figure: Project Evaluation

Source: (Liébana-Cabanillas et al., 2021)

In this case, it is advised to perform a post-project evaluation to evaluate the projects' success and effectiveness (Liébana-Cabanillas et al., 2021). Empower people and capture knowledge in the form of lessons learnt from the project.

Project Closure Report: Lastly, develop a project closure report that comprises a listing of the final deliverables, project success and failure in achieving its goals and objectives, and the various clues gathered from the project (Liébana-Cabanillas et al., 2021). The evolutionary approach is particularly important for sharing this report with senior management and project stakeholders.

Recommendations

Adopt Agile Methodologies: Adopt processes of Agile that would support flexibility and responsiveness in their work arrangements (Trabelsi-Zoghlami, Berraies and Ben Yahia, 2018). Flexibility combines the best of both worlds: iterative development and feedbacks can be useful in responding to changes in the requirements and making the product better in the end.

Invest in Training and Development: This involves making sure that each of the members of the team has the right skills and knowledge required to perform the objective of the project (Trabelsi-Zoghlami, Berraies and Ben Yahia, 2018). The training to be established should include the most current technologies and tools, as well as an effective project management.

Enhance Stakeholder Engagement: With reference to stakeholders engage them in a good rapport and inform them of the planned projects (Trabelsi-Zoghlami, Berraies and Ben Yahia, 2018). Communicate with them frequently, consulting on status and receiving their opinions, and resolving issues swiftly.

Implement Robust Risk Management: Strategize as to how to effectively reduce and avoid potential diverse risks that may affect the project greatly. Risk management is also important and must be done in consultation with legal advice and involve creating of a risk management plan with the latest updates included on the basis of acquired new information and changed conditions (De Leon, Atienza and Susilo, 2020).

Focus on Quality Assurance: Quality assurance activities have to be incorporated as key activities that have to be accomplished in order to guarantee the mobile banking application meets the users' needs and is without defects (De Leon, Atienza and Susilo, 2020). Employ testing robots and engage in quality checks always to ensure that flaws are spotted from an early time.

Conduct Post-Project Reviews: In order to control the entire project effectively gauge the level of performance and determinology Found appraisal of post-project analysis (De Leon, Atienza and Susilo, 2020). Convey this feedback back to the organization for higher project performance in the next projects by learning and enhancing the organizational knowledge.

CONCLUSION

Mobile banking application development is composed of a set number of phases designed to structure the project, so that it is completed within the given time, at the set cost and standard. Every single phase starting from initiation to the closure of the project contributes towards attainment of these goals. They also highlight the importance of planning and control and ongoing monitoring of operations and alternatives in order to facilitate the management of challenges in each of the phases involved and make certain of delivering a successful product. This approach, therefore, suggests that future projects will start with higher success potential, by embracing agility and investing in training, engaging more stakeholders, and adopting sound risk and quality management approaches that will be learned in this paper.

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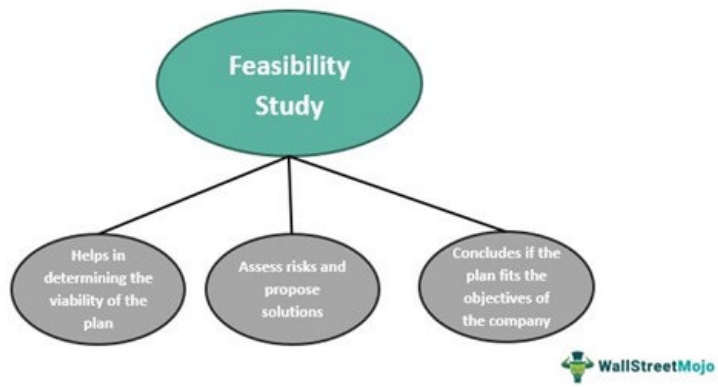
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APPENDIX

Project Evaluation Stages

1 Pre-Project Evaluation

2 Ongoing Project Evaluation

3 Post-Project Evaluation

Features of Feasibility Study

Feasibility Study

Helps in determining the viability of the plan

Assess risks and propose solutions

Concludes if the plan fits the objectives of the company

WallStreetMojo

Project Management Life Cycle

1 Initiation
2 Planning
3 Execution
4 Monitoring & Controlling
5 Closure

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Mobile Banking

Mobile banking is a facility that enables access to banking services through mobile devices.

QR code scanning and payments
Loans
Forex
Fund Transfer
Stock Market
Pay
Mobile Banking
Flight Tickets
Phone Banking
Shopping
Account Info.
Insurance
WallStreetMojo