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From Strategy to Execution: Data-Driven Optimization of IT Project Management in the Dynamic Landscape of Banking Industry of South Asian economy

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Abstract

This study's main goal is to evaluate the "iron triangle," a complicated organisational structure that has a big impact on IT projects and the project management industry as a whole. Big data analytics, data integration, and the use of AI and ML in project management are the three components that make up the iron triangle. The management of projects is comprised of a number of moving aspects, such as planning, scope, time, money, quality, people, and risk management. As a component of the research on this complex system, a wide range of different sorts of professional groups that focus on the same or related subjects are investigated in an exhaustive manner. This research utilises a methodical approach that is based on stakeholder theory and the idea of dependent resources. The survey that is used in this investigation is also very well developed. The completion of information technology projects in the South Asian area is the major focus of this technique, and the identification of the aspects of project management that are most closely connected with this success is the method's primary purpose. The reliability of the research has been strengthened by the results of a survey that has been given to three hundred workers now working as project managers at financial institutions throughout South Asia. In this study, the data were investigated using the complex structural equation modelling approach as well as the AMOS software application. The outcomes of the research show the need for careful component management for information technology projects within the dynamic banking industry of South Asia.

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INTRODUCTION

Allocating resources to a project may result in good improvements not just in the project itself but also in the banking industry in South Asia. With this approach, it has been shown that incorporating new ideas, meeting unmet demands, and overcoming obstacles are all achievable. Project success is commonly regarded to be a complex and multi-factored notion (Mir & Rezania, 2023). Every project will always have its own special characteristics. The project that will be discussed further is often known as Project (Turner, 2022). In an Effort to Set a Higher Standard for Complexity Over the course of the last several decades, there has been an explosion in the amount of academic investigation

on the topic. When individuals collaborate on a project, there is a greater chance that it will be completed successfully. Success is something that may be described in a variety of ways by various individuals (Olwande & Tumuti, 2022). In South Asia, the efforts made by the banking sector to incorporate project management practices have run against an obstacle. The effective execution of a project depends on a variety of factors, some of which are objective while others are more subjective. To guarantee that the project can be carried out properly, there are a number of important factors that need to be carefully examined. The purpose of the study is to conduct an analysis of the existing body of research on banking project success in South Asia and to disseminate the findings to the banking sector in South Asia. The assessment and monitoring of financial services in South Asia is the foundation of the country's banking system, which was developed to meet the requirements of both private persons and commercial enterprises.

Businesses that are already well-established as well as those who are just starting out will need to swiftly come up with new strategies in order to successfully navigate the current business environment, which is both dynamic and unpredictable. In the modern age, significant organizational adaptations are necessary, particularly in the post-COVID-19 period (Chen et al., 2020). These adjustments must be made in terms of the hierarchical structures and operational standards of the company. Companies in the information technology sector that operate within a project-based framework are increasingly adopting innovative project management strategies in order to increase their level of productivity. There is not enough information presented here to justify rewriting it in an academic manner. Adopting a project management framework that boosts the output and productivity of personnel may provide organizations a competitive advantage in the market (Fernando et al., 2018).

The banking industry in South Asia has a significant challenge in the form of inflation control. It is anticipated that the rates of inflation in the countries of Asia that are still developing will soon begin to decline. According to these forecasts, the growth rate is expected to slow down to 3.6% in 2023 and 3.5% in 2024 from its predicted level of 4.4% in 2022. However, a number of nations in the area, notably Pakistan, continue to struggle with the challenge of dealing with high levels of core inflation (Ralph, 2023). Because of inflationary pressures, financial and project management strategies need to be revised to be stricter and evidence-based, particularly in the banking sector. The most current estimate for the growth rate of this region is 4.7%, which is slightly lower than the estimate that was used before, which was 4.8%. The most important factor contributing to this readjustment is the glacial pace of economic growth in South Asia and Southeast Asia. The prediction for the average annual growth rate from now through 2024 is the same as before, which is 4.8%. The adoption of information technology projects is increasingly essential for the expansion and continued competitiveness of South Asian banks (Ralph, 2023). The link between data-driven project management and the safety of a bank's customers' money is one that South Asian financial institutions simply cannot afford to ignore. As the time of accommodating monetary policy draws to a close, economies that are especially vulnerable to risks should emphasise the need of fiscal discipline in order to prepare for what lies ahead. According to recent reports, the rate of inflation in the United States is dropping more quickly than analysts had anticipated. The outcomes may have far-reaching effects if South Asian banks use this chance to strengthen their

position in the rising world economy. This might be accomplished by taking advantage of the opportunity presented here. This study dives into the critical function that data-driven optimization plays in the management of information technology projects in the fast developing banking industry of South Asia. The primary objective of the research is to shed light on the strategies that financial companies use in order to obtain the most value out of their data. This study dives further into the ways in which banks may enhance their operational efficiency and adapt to an ever-changing economic and financial environment by making use of the tools that are available to them.

South Asia now boasts the region's most robust economy when compared to that of other newly rising regions. The anticipated growth rate of 5.8 percent for 2018 is much greater than the average for the majority of the globe. Despite the fact that this is positive, it is a far cry from the rates that existed before to the epidemic as well as the ambitious regional development goals that have been set. The most current South Asia Development Update, titled "Towards Faster, Cleaner Growth," forecasts a growth rate of 5.6% in both 2024 and 2025 for the region's economy. This forecast indicates that the pace of economic development in South Asia will continue to decelerate over the next several years (Overview, world bank, 2023). The slowdown in economic growth may have been brought about by a variety of factors, including monetary tightening, fiscal austerity measures, decreased global demand, and the fading benefits of post-pandemic recoveries. When taken together, these variables have a dampening effect on spending by consumers and investment by businesses.

In 2022, the governments of South Asian countries owed an average of 86% of their GDP. Because of the current situation, there is a greater chance that payments won't be made, interest rates on loans will rise, and public funds will be diverted away from the private sector (Overview, world bank, 2023). The South Asian region is highly worried about the prospect of China's economic growth slowing down because of the region's receptivity to the effects of other parts of the world. The local economy is at risk not just from the increasing frequency and severity of natural disasters that are a direct consequence of climate change, but also from natural disasters themselves.

India has such a significant impact on the economy of South Asia, it has emerged as a prominent participant in the complex economic dynamics of the area. In the next fiscal year, it is anticipated that the rate of expansion of India's GDP would stay unchanged at 6.3%. It was forecasted that by the year 2023, the Maldives' economy will have grown at a pace of 6.5%, which would represent a substantial acceleration from previous projections. It is anticipated that the beginning of the recovery for the Nepalese economy would take place during the fiscal year 2023/2024, with growth of 3.9%. It's possible that a substantial part of this progress may be attributed to the resurgence of the tourism industries in both nations. Remember that many of the countries in the region are still hurting from the impacts of prior currency crises (Overview, world bank, 2023). It is anticipated that the rate of economic expansion in Bangladesh would decelerate to 5.6% in the next fiscal year, 2023/24. Nevertheless, there are a number of variables that make it infamously difficult to encourage economic development in Pakistan. It is anticipated that growth would slow down to 1.7% in the next fiscal year 2023/24, which is lower than the pace of population rise. After a protracted period of contraction, the economy of Sri Lanka is exhibiting indications of revival, and economic expansion at a rate of 1.7% per year is forecasted to continue until 2024. This is comparable to a

decrease of 3.8% between the years 2022 and 2023 (Overview, world bank, 2023). In order to shed light on the complexities of data-driven optimization in IT project management, the banking sector in South Asia serves as the case study for our research project. The unpredictability and turbulence of the modern economy served as a motivating factor in the development of this line of investigation. In general, we aim to find out whether or not initiatives powered by data have the potential to increase the strategic flexibility of financial institutions (Overview, world bank, 2023). As a consequence of this, they will have an easier time adapting to the circumstances of the financial market, which are always shifting. In general, we hoped that the findings of our study would be of assistance to financial institutions by illuminating the relationship between strategy and execution. People will be able to utilize data as a dynamic resource that promotes flexibility and anticipation as a consequence of this, and they will be able to do so in a sector where economic dynamism is both a goal and a need

LITERATURE REVIEW

The number of projects that are now being worked on in the banking industry in South Asia has significantly increased over the course of the last few years. Due to the rising complexity of projects and the need to comply with regulatory standards, efficient project management is very necessary for the banking industry in South Asia. The project manager plays a significant part in ensuring the success of the project by managing the risks associated with the project, ensuring the participation of stakeholders, and reporting the status of the project to stakeholders. Due to the fact that it is a methodical approach to managing banking sector operations and assuring the effective attainment of goals, project implementation handles a number of significant challenges. One of the most popular debates in the field of project management concerns the connection between individual projects and portfolios of projects. Cleland and Gareis (2006) state that a project constitutes the basic kind of labor.

For the enhancement of overall performance of projects, many frameworks and techniques for project management have been established. Some examples of these are PRINCE2, Agile, and Scrum. These approaches provide a more systematic approach to project management. An organized approach to project management, encompassing the planning, execution, and closure of projects, is provided by the PRINCE2 project management framework, which is a framework for managing projects (Hindarto, 2023). In South Asia, project management is a key component of the development process since it provides efficient project planning, implementation, and control. The lack of project management knowledge and experience, according to a study by the Asian Development Bank (ADB), has resulted in cost and schedule overruns, subpar quality, and ultimately project failure (Asian Development Bank, 2023).

Improving project management procedures in Pakistan has received more attention in recent years. To improve project management capabilities and encourage standardization of project management methods across many departments and agencies, the government created the Project Management Office (PMO) (Kerzner, 2022)). For use in all government projects, the PMO has created project management standards and templates that provide a disciplined approach to project planning and execution (Kerzner, 2022).

The Project Management Professional (PMP) credential is provided by the Project Management Institute (PMI) and is highly regarded by employers (Kerzner, 2022)). Project management techniques implementation in Pakistan still faces obstacles despite these attempts. Effective project management is often hampered by a lack of finance and resources, corruption, and administrative red tape (Asian Development Bank, 2023). Additionally, investing in education and training programs is necessary to solve the serious problem of a shortage of qualified project management experts (Asian Development Bank, 2018).

RESOURCE DEPENDENCY THEORY

In the subject of organizational management, Resource Dependency Theory (RDT) is a generally accepted theory that offers a framework for comprehending the interaction between organizations and their external environment. According to this idea, companies' ability to fulfil their aims and objectives depends on outside factors like suppliers, clients, and regulatory agencies. Pfeffer and Salancik initially proposed resource dependency theory in the early 1970s (Pfeffer and Salancik, 2003). The external control of organizations: A resource dependence perspective. Stanford University Press. as a reaction to the shortcomings of conventional organizational theories that concentrated on internal elements like organizational structure and culture. RDT moved the emphasis to the external environment and the methods by which businesses obtain and control outside resources to accomplish their objectives.

Four fundamental ideas that describe the connection between organizations and their external environment form the foundation of resource dependency theory. These ideas include power dependency, interdependence, unpredictability, and resource scarcity. The term "interdependence" describes the symbiotic relationship that exists between organizations and the outside world. The external environment depends on organizations to deliver products and services, while companies depend on external resources to help them accomplish their objectives (Pfeffer & Salancik, 2003). The unpredictability of the external environment, which might influence the accessibility and calibre of external resources, is referred to as uncertainty. Establishing connections with external stakeholders and creating plans to find and manage external resources are two ways that organizations might handle uncertainty (Lawler & Bachrach, 1980).

The restricted availability of outside resources, known as resource scarcity, may lead to rivalry and conflict between groups. For access to resources, organizations must compete, and the results of this competition may affect their capacity to accomplish their objectives (Oliver, 1991). Power reliance describes how much an organization depends on outside resources to accomplish its objectives. High power-dependent organizations must manage their connections with external stakeholders to secure access to essential resources since they are more susceptible to their activities (Emerson, 1962). Dependence on Resources Several organizational management scenarios, such as inter-organizational partnerships, strategic alliances, and supplier management, have seen the application of theory. Since it offers a framework for comprehending the interaction between states and their external environment, the theory has also been employed in the context of public policy and international relations. Interactions between Organizations and Their External Stakeholders, such as Suppliers and Customers, Have Been Examined Using the Resource Dependency Theory. To assure access to

necessary resources and accomplish organizational objectives, it is crucial to managing these connections well (Hkansson & Snehota, 1989). Reliance on Resources The study of strategic partnerships between corporations has also used theory. This study has concentrated on the variables, such as the degree of resource dependency and power dependence between the organizations, that affect the effectiveness of these partnerships (Das & Teng, 2001). Resource Dependence Theory has been used to supply chain management and supplier management. Resource Dependence in Public Policy and International Affairs Theory has been used to inform public policy and international affairs because it offers a framework for comprehending how governments interact with their surroundings. This study has emphasized the significance of managing interactions with other nations and international organizations to guarantee access to necessary resources and realize policy goals (Keohane, 1977).

STAKEHOLDER THEORY

The limits of shareholder primacy, which stressed increasing shareholder value as the main objective of the company, led to the emergence of the management philosophy known as stakeholder theory in the latter half of the 20th century. Stakeholder theory, in its most basic form, suggests that businesses should consider the perspectives of several stakeholders before making important decisions. Freeman was the one who first established the concept of "stakeholders" in the year 1984. His definition of them is that they are "collective or individual entities that possess the capacity to exert influence on or be influenced by the attainment of an organization's objectives." According to Freeman, shareholders are merely one kind of stakeholder in a company. This includes people of all stripes, such as residents, government officials, customers, suppliers, and workers. People of all stripes belong under this group. In order for Freeman to get at his findings, he relied substantially on the ground-breaking work that Donaldson and Preston (1995) had done. Donaldson and Preston have laid the groundwork in the area of stakeholder management for an ethnically based normative framework by virtue of the fact that they have carried out this research. According to Clarkson (1995), another assumption that is disputed is the notion that businesses have responsibilities to society as a whole. Freeman's inquiry was kicked off by the scholarly articles, which acted as a springboard.

Stakeholder theory has seen tremendous development over the last three decades, with the emergence of new schools of thought and lines of investigation along the way. One of the most forward-thinking advances in the field is the inclusion of stakeholder theory into studies on corporate social responsibility and sustainable development. Carroll made the first public presentation of CSR in the year 1991, and his theoretical framework details the fundamental qualities of this concept. These characteristics are present in the legal system as well as the ethical and economic realms. The social obligation that many businesses feel towards the communities they serve is often communicated and met by those businesses. The notion of sustainable development is very important to the study of stakeholder theory. The ultimate goal of the idea is to create an atmosphere that is peaceful and prosperous while also meeting the requirements of both people and the environment. Elkington (1997) was the one who came up with the phrase "triple bottom line" to define the approach that is used to assess the success of a business by taking into account the impacts that the business has on not only the economics but also society

and the environment. Concerns have been expressed about the theory's feasibility, breadth, and applicability in line with its rise in popularity. These worries are caused by the rise of stakeholder theory. The stakeholder idea has come under fire on several occasions for being too general and failing to provide sufficient details to be of any value in real practice. The stakeholder theory has a lot of substantial practical ramifications for companies, despite the fact that there are other points of view available. Increasing productivity and ensuring continuous success are both possible outcomes of cultivating strong ties with one's clientele, as is the case with businesses. In order to successfully encourage participation from stakeholders, a number of different approaches and procedures have been created and shown to be beneficial. Stakeholder panels, stakeholder surveys, stakeholder focus groups, and social media are all examples of methodologies that might be used. When companies express a commitment to sustainability as a primary component of their purpose and practices, this exemplifies a clear application of stakeholder theory. Companies may identify and address the social and environmental implications of their operations by using sustainability frameworks and standards like the Global Reporting Initiative (GRI) or the Sustainable Development Goals (SDGs) of the United Nations (Reporting, 2016).

CONCEPTUAL FRAMEWORK

In South Asia, the success of a banking project is essential for addressing the unmet demands of consumers and resolving challenges that the existing banking system is unable to manage. Both of these goals cannot be accomplished without the project. Gains in quality control, which are important for delivering high-quality and cost-efficient financial services to consumers and organizations, may be seen by banking executives who employ project management methods thanks to these executives' ability to perceive advances in quality control (Savolainen, Ahonen, & Richardson, 2012). The effectiveness of a banking project may be evaluated based on the population it is intended to serve as well as the level of quality of the financial services that are made available to that population as a whole (Hussain et al., 2018).

The success of a project in the banking industry is dependent on a variety of elements, including culture, leadership, projects, management, and human behavior. According to Khan et al. (2019), the suggested technique is in line with previously established norms in the field of project management. An investment in a banking effort could be able to assist bring about organization-wide improvements that are wanted. On the other hand, it is important to emphasize that the banking industry suffers from a paucity of study on the topic of project management. This demonstrates the need of doing further research in this field (Khalid et al., 2020).

On the road to maximize the chance of project success in a cutthroat global market, project managers must recognize and manage the idea of project success factors, which have developed over time. Success factors were recognized by Dvir et al. in the late 1990s as variables that project managers may control to improve the chance of obtaining desired results (Dvir et al., 1998). Early project management literature concentrated on finding general success determinants; however, as project types diversified and the global market got more competitive, it became increasingly difficult to define elements that lead to project success (Turner, & Müller, 2003).

A project is considered to have been successful if all of its goals were accomplished while adhering to the limits that were set out regarding its duration, its available resources and its level of performance. The action of gathering project-related information and ideas and combining them into a coherent whole. Within the context of management, the notion of the iron triangle is well-established and has widespread recognition. The attainment of the results or objectives that were sought. The acknowledgment of the successful completion of the project was carried out. The projects each have their own unique characteristics that set them apart from the other projects. In order to guarantee that you are as well prepared as possible for the next duty, it is vital that you transition from the current work to the upcoming responsibility in a smooth manner. Pinto and Slevin (1987) identified ten success factors, including customer acknowledgement, customer consultation, project team members, hierarchical management support, project schedule, technical assignments, project mission, communication, troubleshooting, and controlling and monitoring. According to Davis (Davis, 2014), there are numerous lists of success factors defined by the literature.

There has been an increase in the total number of projects in South Asian Economy as a direct result of the fast expansion of the banking sector over the course of the last few years. Despite this, the extent to which these activities have been successful has been severely constrained by a variety of impediments. Inappropriate resource allocation, ineffective strategy planning, and shoddy project management are some examples of these issues. The importance of the function of project manager has increased as companies in the banking sector strive to improve the overall performance of individual projects. The definition of project management provided by the Project Management Institute (PMI) is as follows: "the disciplined application of knowledge, expertise, resources, and methodologies to effectively manage multiple aspects of a project and ensure the successful attainment of project goals." It is the duty of the project manager to ensure that the job is finished on time while simultaneously remaining within the allotted spending limit and meeting the required level of quality. In addition, it is the responsibility of the project manager to ensure that all of the project's stakeholders are happy with the results and that the goals of the project are met.

The financial services sector is beginning to understand the need of having capable project management in place. The increasing complexity of projects, on the one hand, and the requirement to comply with rules, on the other, are two variables that contribute to this tendency. The use of standardized approaches to project management is an essential component to the achievement of goals connected to banking. In spite of the fact that the banking industry in South Asia is expanding, a significant number of related projects continue to experience delays and fall short of expectations due to insufficient project management. This problem might have been caused by a number of factors, such as inadequate planning, a scarcity of resources, or ineffective project management, to name a few of those possibilities. As a result, it is essential to evaluate the contribution that project managers made to the improvement of project performance in the banking sector of Pakistan and to identify the variables that contributed to the success of these projects. The prior research carried out by specialists in the area served as the foundation for the formulation of the goals that will be investigated in the current study. The objective of this study is to investigate whether or not and in what ways experience in project management contributes to the success of

financial sector initiatives in South Asia. The purpose of this study is to analyse the specific obstacles that project managers in South Asia's banking industry encounter, as well as the ways in which those challenges affect productivity. This study intends to establish which practices in project management are the most successful for ensuring the timely completion, completion within budget, and completion of high-quality banking-related projects in South Asia. Conceptual framework of the current study is shown below.



Figure 1.
Conceptual Framework

In the banking industry of South Asia, efficient project planning is very necessary for the successful completion of projects, the satisfaction of client requirements, and the maintenance of financial stability. Creating a road map for the project, identifying the work packages, establishing deadlines, determining quality standards, and determining budgetary limits are all aspects of project planning (Tariq et al., 2020). Defining the intended outcomes is the first phase in the planning process for a project. This step is important because it offers a clear picture of the aims and objectives of the project. In the financial industry, the results of a project may include boosting client happiness, providing new financial products, improving internal procedures, or extending the bank's customer base (Hussain et al., 2018). Finding the Primary Players Finding the primary players in a project is essential to guarantee that all of the project's stakeholders are engaged and kept up to date. The administration of the bank, its staff, its clients, regulatory agencies, and any external partners may be considered the most important players in the banking industry. Determining the Boundaries of the Project Determining the limits of the project includes establishing the tasks, responsibilities, and deliverables. This is part of the process of defining the scope of the project. In the financial industry, the project scope can include the creation of a new product, an upgrade to the information technology system, or the beginning of a marketing campaign (Hussain et al., 2018). Based on the literature the following hypothesis has been developed:

H1. Project Planning is significantly associated with the success of the project

Project management, which involves estimating and managing the financial resources needed for a project, includes cost management as a key component. This covers labor costs both internally and externally, project resources, bills of quantities, bills of materials, risk assessment, project procurement, and other financial facets of the project. The final user, such as a bank, will have a particular goal in cost management to ensure that the project is finished within the allocated budget and under the stated scope of work (Kaiser, 2009). The cost of a project may have a considerable influence on how it is implemented overall. The project manager is in charge of effectively managing the project's cost and budget allocation to make sure that the project is completed within the budgeted budget and without the need for a cost re-baseline. Assuring that the project is delivered with a fully working product or solution is crucial for satisfying the needs of the organization, stakeholders, and solution providers (Kaiser, 2009). Based on the literature the following hypothesis has been developed:

H2. "The effective management of project costs is positively associated with project success."

A crucial component of project management is scope management, which entails identifying the functional requirements that must be satisfied for the project to be deemed successful. This is often referred to as the work specification, and it is created by the bank providing project finance. Based on the defined scope, which is often developed and determined even before the project has begun (Ika & Saint-Macary, 2014), the project is carried out. After the whole session of user requirement collecting has been finished, the scope is anticipated to be determined. When the project is completed with the anticipated level of quality, the scope is said to have been successful practically. The project and the bank must own the scope of work based on the bank's expectations, and the scope of work must be matched with time and cost (Ika & Saint-Macary, 2014). Based on the literature the following hypothesis has been developed:

H3. Effective management of project scope is positively associated with project success.

The process of planning, arranging and regulating the amount of time necessary to accomplish a project is referred to as time management in project management (Project Management Institute, 2008). The solution is produced or delivered, and the time management process continues until the end user approves the project. The agreed-upon scope of work and project cost are often used to estimate the project duration. The quality of the project is directly impacted by time, making it a vital component of project management (Kerzner, 2017). As a result, the bank is required to follow the project timetable and support the plan and schedule. To guarantee that project operations are completed within the allotted time, effective time management involves efficient planning, execution, monitoring, and control (Kerzner, 2017). Based on the literature the following hypothesis has been developed:

H4. Effective time management is positively related to project success.

Project management quality control claims that time, money, and scope are factors that affect the quality and that effectively controlling these factors would result in greater project quality. Yet, a project may still fall short of expectations for quality even if it is executed on schedule, under budget, and by the scope through their satisfaction, the stakeholders determine the supplied product or solution's quality, and competent

management is required to guarantee quality. Quality is described as requiring less maintenance over time, although producing high-quality goods or solutions may cost more and take longer to deploy (Kulkarni, Parsaei & Tayyari, 1992). Intention and alignment with the agreed-upon scope of work are prerequisites for quality. Based on the literature the following hypothesis has been developed:

H5. Effective management of quality is positively associated with the success of a project.

The value of managing people in project management. Team members are in charge of delivering project objectives, while project managers are in charge of planning, coordinating, and supervising project tasks. A competent team leader and people manager who can swiftly assemble a cohesive team is an excellent project manager. The team must be put together by the management taking into account each member's attitude, experience, talent, and maturity level. The project manager is often a senior-level manager who can reduce project risks in the banking industry and several other industries. Before the project is effectively completed, the project manager must control the needs and expectations of the stakeholders. Such human elements have a significant impact on project success. Based on the literature the following hypothesis has been developed:

H6. People management positively predicts project success

Big data analytics is a subfield of data science that focuses on the examination of huge and varied datasets in order to discover previously unknown patterns, correlations, and insights. The data presented above may provide information that might be utilised to help people make well-informed decisions, in accordance with other studies (Laney, 2001; Espinosa et al., 2019). The Project Management Body of Knowledge (PMBOK) (2017) recommends the use of big data analytics in the field of project management in order to effectively handle the enormous amounts of structured and unstructured data that are generated throughout the course of the execution of a project. Several scholarly investigations have been conducted to investigate the potential applications of big data analytics to the field of project management. An in-depth research has been carried out to investigate the potential of big data analytics to improve a number of different elements of project management. Methods for making choices, addressing risks, allocating resources, involving stakeholders, and evaluating the results are among them. Recent publications by Gunasekaran et al. (2017) and Lu et al. (2017) have revealed significant new concepts that have been developed in recent years.

H7. Big Data Analytics have positive association in project success

According to Hariri et al. (2019), in order for big data analytics to be of any value, the quality and accuracy of the data must be maintained consistently at all times. A number of problems, such as incompatible data formats, inconsistent data input, and the availability of missing or erroneous data, might make it difficult to combine data obtained from a number of different sources. According to Lavalley et al. (2021), businesses have a responsibility to create rigorous processes for the validation, cleaning, and preparation of their data in order to guarantee the quality of their data and to make seamless integration possible.

H8. Data Quality has positive association with project success

AI and ML will play an increasingly important role in project management. And the year 2020 is of critical significance in a variety of fields, including business, economics, and public policy, amongst others. It is essential to allocate resources effectively in order to maximize production efficiency and minimize inefficiencies as much as possible. According to Zhou and Xia (2020), one of the most important aspects of optimizing allocation is determining the most effective methods for dividing up money. Companies that place a high importance on making decisions based on data, and the execution of projects has been elevated as a direct result of more strategic decision making.

H9. Integration of Artificial Intelligence (AI) and Machine Learning (ML) has positive association with project success

DATA DESCRIPTION AND METHODOLOGY

Quantitative and qualitative methodologies are only two of the many avenues that may be pursued to investigate the critical elements that contribute to the accomplishment of IT projects within the South Asian financial sector. Quantitative approaches, on the other hand, are recommended since they can guarantee the data's legality and correctness. As a result, a quantitative research paradigm will be used in this investigation to evaluate the link between the successful management of project artefacts that comprise the iron triangle, such as quality management and management of the people involved in the project. For this study, the population of interest consists of projects supervised by Project Managers who are directly active in the South Asian financial sector.

Participants in this research have been seasoned professionals from the South Asian financial sector who are now employed in project management roles. The employee has been accountable for monitoring and effectively managing a variety of projects that are associated with a certain sector of the economy. The quantitative analysis of this research is based on a big dataset that is comprised of data from 300 different persons. The decision to limit the research to a specified sample size of 300 individuals has a number of critical implications that need to be considered. One of the most significant benefits is that it makes it easier to do research into the particulars of the framework that underpins the South Asian financial industry in the context of the core tenets of effective project management, which include quality management and people management. A statistical study also stands to gain significantly from having a sample size of this scale. The reliability and validity of the study's results are improved as the size of the sample used in the research is increased.

The validity and generalizability of a study are both improved as the sample size of the study is increased. This is because the findings of the study will be more representative of the whole population. Since it makes it possible to conduct a quantitative analysis, which in turn may provide correct statistical findings, this strategy is in conformity with the principles of research procedure that are commonly accepted. The number of participants in this research that will make up the sample size is 300 total people. The South Asian banking industry stands to benefit from any and all insights that can be gleaned from the facts and trends shown by this sample. The sample size for the research project is 300 people who are employed as Project Managers in South Asian banks. Projects that are being handled by Project Managers who are working in the financial business in South Asian economy are the particular group that this research is aiming to

investigate. The survey questions had been sent out to all of the project managers working in the financial sector or the service providers who are engaged in the execution of the majority of projects in South Asian Economy financial institutions. The use of AMOS software was of tremendous assistance in easing the way in which the data from the research has been processed. Analysis of Moment Structures (AMOS) is the go-to choose when it comes to computational tools for structural equation modelling (SEM) and route analysis since it provides accurate results every time. The quality management, human resource management, and successful completion of projects are only few of the areas in which the South Asian financial industry has profited from the use of this tool. The ease with which even complex statistical analyses may be carried out with AMOS, as well as the precision with which it is possible to demonstrate the connections between different variables, is one of the program's most notable strengths. As a conclusion, the incorporation of quantitative methodologies and the use of AMOS software for data analysis significantly improved the research's capability to investigate and comprehend the primary factors that contribute to the success of information technology initiatives in the financial sector of South Asia. This methodology guarantees that the gathered data is relevant to the study issue and gives a sample that is representative of the population as a whole.

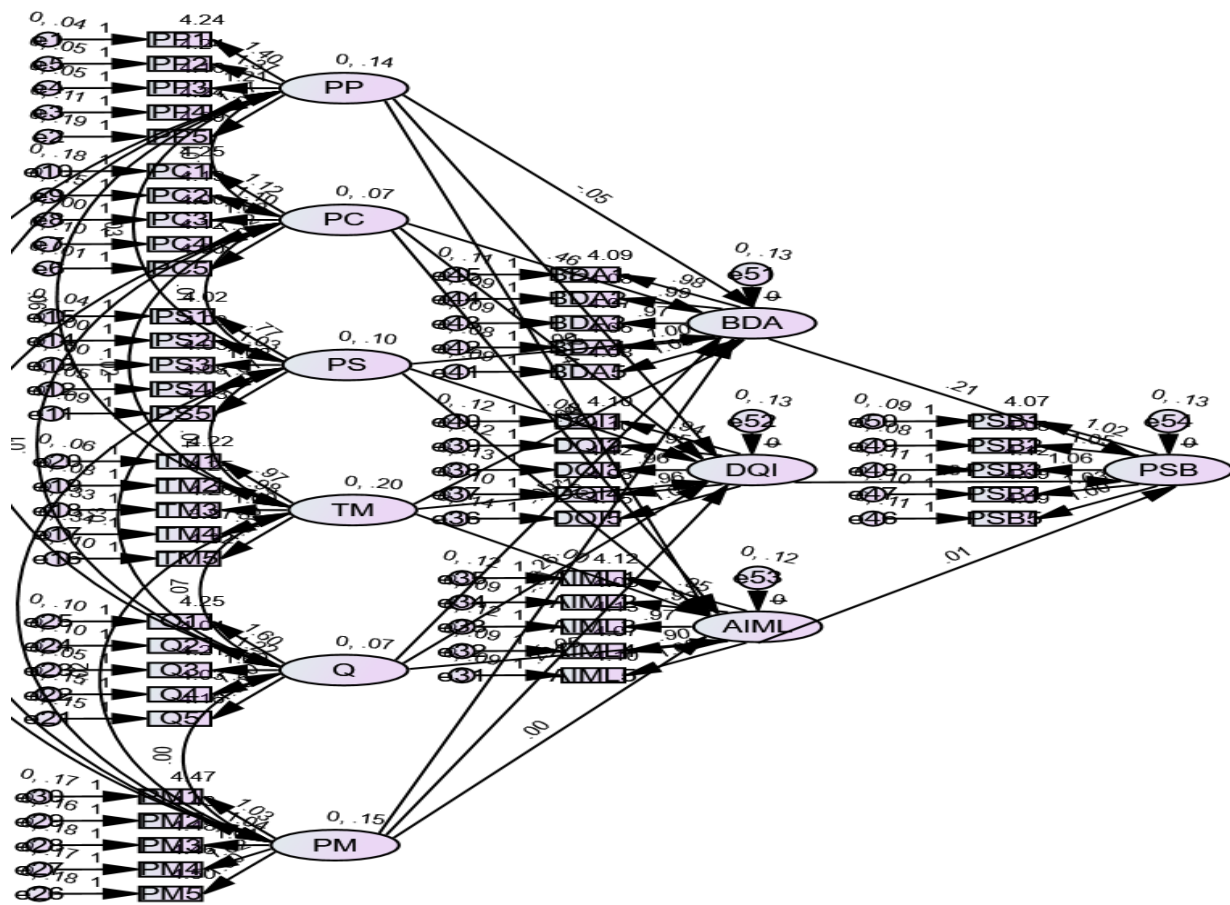


Figure 2. AMOS Result

Table 1.
Regression Table

Label			Estimate	S.E.	C.R.	P
BDA	<---	PP	-.045	.071		-.636 ***
BDA	<---	PC	.461	.089		5.172 ***
BDA	<---	PS	.001	.074		.014 ***
DQI	<---	PP	.000	.075		-.006 ***
AIML	<---	PP	.035	.070		.503 ***
DQI	<---	PC	-.122	.092		-1.332 ***
AIML	<---	PC	.031	.084		.368 ***
DQI	<---	PS	.083	.079		1.048 .294
AIML	<---	PS	-.029	.073		-.396 ***
BDA	<---	TM	.037	.068		.545 ***
DQI	<---	TM	.106	.072		1.459 ***
AIML	<---	TM	.000	.066		.004 .997
BDA	<---	Q	-.047	.127		-.372 .710
DQI	<---	Q	-.256	.137		-1.867 ***
AIML	<---	Q	.045	.124		.367 .714
AIML	<---	PM	-.001	.062		-.019 .985
DQI	<---	PM	.255	.072		3.562 ***
BDA	<---	PM	-.008	.064		-.129 .898
PSB	<---	BDA	.214	.065		3.285 ***
PSB	<---	DQI	.040	.063		.631 .528
PSB	<---	AIML	.012	.072		.173 .863
PP5	<---	PP	1.000			
PP4	<---	PP	1.174	.099		11.875 ***
PP3	<---	PP	1.212	.093		13.014 ***
PP2	<---	PP	1.371	.103		13.369 ***
PP1	<---	PP	1.395	.103		13.527 ***
PC5	<---	PC	1.000			
PC4	<---	PC	1.122	.074		15.108 ***
PC3	<---	PC	1.034	.032		32.470 ***
PC2	<---	PC	1.100	.090		12.280 ***
PC1	<---	PC	1.121	.097		11.541 ***
PS5	<---	PS	1.000			
PS4	<---	PS	1.013	.070		14.542 ***
PS3	<---	PS	1.029	.057		17.959 ***
PS2	<---	PS	1.025	.058		17.680 ***
PS1	<---	PS	.770	.056		13.685 ***
TM5	<---	TM	1.000			
TM4	<---	TM	.802	.087		9.182 ***
TM3	<---	TM	1.003	.090		11.085 ***
TM2	<---	TM	.981	.059		16.680 ***
TM1	<---	TM	.966	.057		17.071 ***
Q5	<---	Q	1.000			
Q4	<---	Q	1.197	.144		8.309 ***

Data-Driven Optimization of IT Project Management **Khan and Abbas (2023)**

Label		Estimate	S.E.	C.R.	P
Q3	<--- Q	1.692	.168		10.053 ***
Q2	<--- Q	1.216	.136		8.939 ***
Q1	<--- Q	1.604	.167		9.629 ***
PM5	<--- PM	1.000			
PM4	<--- PM	1.020	.105		9.679 ***
PM3	<--- PM	1.009	.105		9.583 ***
PM2	<--- PM	1.041	.106		9.856 ***
PM1	<--- PM	1.028	.106		9.729 ***
AIML5	<--- AIML	1.000			
AIML4	<--- AIML	.897	.081		11.055 ***
AIML3	<--- AIML	.973	.090		10.772 ***
AIML2	<--- AIML	.930	.083		11.192 ***
AIML1	<--- AIML	.955	.090		10.636 ***
DQI5	<--- DQI	1.000			
DQI4	<--- DQI	.964	.082		11.743 ***
DQI3	<--- DQI	.956	.086		11.116 ***
DQI2	<--- DQI	.950	.084		11.314 ***
DQI1	<--- DQI	.944	.084		11.307 ***
BDA5	<--- BDA	1.000			
BDA4	<--- BDA	.998	.071		14.113 ***
BDA3	<--- BDA	.975	.071		13.655 ***
BDA2	<--- BDA	.992	.073		13.639 ***
BDA1	<--- BDA	.979	.075		12.996 ***
PSB5	<--- PSB	1.000			
PSB4	<--- PSB	1.030	.079		13.039 ***
PSB3	<--- PSB	1.057	.082		12.827 ***
PSB2	<--- PSB	1.054	.078		13.581 ***
PSB1	<--- PSB	1.022	.077		13.333 ***

The table 1 displays estimates of the regression that are packed with information. As each row in this table represents a unique path inside the SEM, it contains a wealth of information on the kind, direction, and statistical significance of the correlations that are being assessed. It is essential to emphasize the fact that the offered estimations are a perfect match for the route coefficients. The standard errors, often known as S.E., are what are used to assess how precise these estimations are. In order to provide a deeper understanding of the statistical significance of each estimate, Critical Ratio (C.R.) values as well as accompanying p-values (P) have been included.

H1. Project Planning is significantly associated with the success of the project. The "PP --- PP" path and successful project completion are perfectly correlated when the correlation score is 1.000.

H2. The effective management of project costs is positively associated with project success. The intrinsic coherence of the design may be seen from the fact that the path labelled "PC --- PC" has a coefficient of 1.000. As shown by the data, effective cost management over the whole of a project is statistically connected to good outcomes.

The fact that the coefficient was 0.461 provides further proof that the observed link is real. The data that have been provided here lend credence to Hypothesis 2, which proposes that efficient cost management contributes to improvements in the final performance of projects.

H3. Effective management of project scope is positively associated with project success. The outcomes of this research indicate that "Project Scope" (PS) and the achievement of the desired level of project success (PS) do not have any discernable causal link. Although Hypothesis 3 (H3) suggests that there is a positive connection between effective project scope management and the successful completion of a project.

H4. Effective time management is positively related to project success. The self-correlation of the path marked by "TM --- TM" is exactly 1, which is an exceptionally high value. According to the findings of this statistical research, effective time management (TM) has a favorable correlation not only with effective project planning (PP), but also with effective project cost management (PC). There is a clear connection between "TM --- PP" (0.037) and "TM --- PC" (0.106). The findings don't fully support the fourth hypothesis (H4), which states that optimizing how time is spent on a project should lead to improved outcomes for that project.

H5. Effective management of quality is positively associated with the success of a project. A complete positive correlation with a coefficient of 1.000 is shown by the line "Q --- Q". As can be observed from the route "Q --- DQI" (-0.256), there is a statistically significant negative association between quality management (Q) and data quality integration (DQI). This relationship exists between these two concepts. This research casts doubt on hypothesis 5, which proposed that effective quality management would guarantee the accomplishment of a given project.

H6. People management positively predicts project success. A high degree of self-correlation is shown by the existence of a path marked "PM --- PM" with a value of 1.000. A coefficient of 0.255 provides support for the claim that the route designated "PM --- DQI" exhibits a statistically significant positive correlation between PM and DQI. This statement is supported by the fact that the route is labelled. This data lends credence to the theory that H6, which states that proper human resource management increases the chance that a project will be successful.

H7. Big Data Analytics have a positive association in project success. The coefficient of 1.000 demonstrates that there is an extremely high level of self-correlation along the line "BDA --- BDA." It has been shown that Big Data Analytics (BDA) has a statistically significant and unfavorable connection with PP ($r = -0.045$). It was shown that there was a statistically significant positive connection (0.214) between "PSB --- BDA," where "PSB" refers for project success and "BDA" stands for Big Data Analytics.

H8. Data Quality has a positive association with project success. There is a significant degree of self-correlation present (coefficient = 1.000) whenever the line that says "DQI --- DQI" occurs. There is a statistically significant negative relationship between data quality integration (DQI) and project cost management (PC), denoted by the equation "DQI --- PC" (which reads as -0.122). As shown by the route "PSB --- DQI" (0.040), there is no statistically significant connection between the integration of high-quality data and the completion of a project.

H9. Integration of Artificial Intelligence (AI) and Machine Learning (ML) has a positive association with project success. The existence of the route "AIML --- AIML" may be deduced from the fact that a perfect self-correlation coefficient of 1.000 has been achieved. On the other hand, the statistical analysis indicates strong beneficial associations with both project planning and project cost management when AI and ML are combined. This is the case when AI and ML are used together. This is supported by the correlations that were found between AIML and PP (0.035) and between AIML and PC (0.031). It has been shown that there is a small but statistically significant negative association between Artificial Intelligence and Machine Learning (AIML) and project Success (PS), with a value of -0.029.

Table 2.
CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	186	4542.543	1139	.000	3.988
Saturated model	1325	.000	0		
Independence model	100	13090.230	1225	.000	10.686

The Default model, the Saturated model, and the Independence model are evaluated for how well they match the data in the table that can be seen above. When doing statistical analysis, these models are often used to determine whether or not a certain hypothesis is credible.

Default model

This model includes 186 model parameters that may be adjusted, and it has a CMIN value of 4542.543. There are 1139 DF included within the data set, which results in a chance of error of 0.000. Additionally, the CMIN/DF ratio of the model is 3.988.

Saturated model

The saturation model is composed of 1325 different parameters. There is a high degree of concordance between the model and the data when the CMIN equals zero. Due to the fact that the model is just intended to be used as a point of reference, its DF is rather low, and it does not have a p-value.

Independence model

The model has a total of one hundred parameters, some of which include the CMIN value of 13090.230, the DF value of 1225, the p-value of 0.000, and the CMIN/DF ratio of 10.686. This model may be used as a standard by which to assess the usefulness of other models.

Table 3.
Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.653	.627	.715	.691	.713

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Indicators of baseline model fit for each of the three models are compared with one another in the table that follows.

NFI (Normed Fit Index), RFI (Relative Fit Index), IFI (Incremental Fit Index), TLI (Tucker-Lewis Index), and CFI (Comparative Fit Index)

The findings of the Default model, which lie within the range of .653 to .713, imply that there is a fair degree of fit when contrasted with the results of the Independence model. As a consequence of the Saturated model's optimum fit values, which are denoted by the number 1.000, it has emerged as the industry benchmark.

Table 4.
Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.930	.607	.663
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

Fit indices that have been adjusted based on parsimony are shown in the table. When evaluating the complexity of a model, parsimony-adjusted indices are often used, with a primary emphasis being placed on the total number of parameters.

PRATIO (Parsimony Ratio), PNFI (Parsimony Normed Fit Index), and PCFI (Parsimony Comparative Fit Index)

The values corresponding to the PRATIO, PNFI, and PCFI for the Default model are respectively 0.930, 0.607, and 6.663 respectively. All of these signs point to a good match, particularly in light of how complex the model is.

CONCLUSION AND LIMITATION OF STUDY

In light of the findings of this research, one can conclude that resource dependence theory and stakeholder theory have the potential to offer helpful insights into the factors that contribute to the success of information technology projects in the financial industry in South Asia. To guarantee the success of a project, its managers need to pay close attention to the management of crucial success criteria such as the project's budget, timeline, scope, quality, big data analytics, data quality and integration and integration of artificial intelligence and machine learning and project success of banks. This is in line with the resource dependency hypothesis, which proposes that the success of an organization is dependent on its capacity for the efficient management of its resources, such as its financial resources, human resources, and technology resources.

In addition, the stakeholder theory highlights how important it is to identify and manage the interests and expectations of the many different stakeholders that are engaged in a project. These stakeholders include project sponsors, consumers, suppliers, workers, and communities. Hence, to guarantee the support and participation of these stakeholders throughout the life cycle of the project, project managers need to keep the interests of

these stakeholders in mind at all times and manage their expectations. This research demonstrates the use of the AMOS software for dealing with difficult structural equation modelling issues by using the programme to explore and develop models to represent the interaction between variables. The models were constructed using the AMOS software. The use of AMOS has led to the discovery of significant insights into the myriad of aspects that contribute to the success of information technology efforts within the banking industry of South Asia. The findings have provided a significant contribution to our overall comprehension of the matter. The study came to some significant conclusions concerning the elements that contribute to the success of banking sector activities in South Asia. It is necessary to do more study in the context of a larger South Asian region in order to assess the effect of project size and investigate auxiliary management aspects. The AMOS programme enabled the efficient detection and analysis of the crucial information. In general, the results of this research give vital insights into the aspects that contribute to the success of Information Technology projects in the financial business in South Asia. This study was carried out in South Asia. Project managers can effectively manage their resources and stakeholders if they include the ideas of resource dependency theory and stakeholder theory in their work and this may ultimately lead to good results for the projects they are managing.

One of the drawbacks of this research is that it only concentrates on five management elements, while there may be other relevant variables to take into consideration as well, such as stakeholder management, process management, and vendor management. As a result, further study may investigate the influence that these characteristics have on the likelihood of a project's success within the financial sector in South Asia. The fact that just one size of the project was considered in this research is another one of its drawbacks. It has been shown in the prior body of research that the size of the project is also capable of playing a role in the degree of success it achieves. Investigating the relationship between the size of a project and its likelihood of success in the financial sector might be fruitful in the context of South Asia. Further study might investigate how aspects of a project such as its level of complexity, the size of the team working on the project, and the allocated money all have a role in determining how successful the project will be.

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