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Farjana Parvin Chowdhury
Assistant Professor, Department of Management Information Systems
University of Dhaka
Email: farjana@du.ac.bd

Md Ariful Islam*
Assistant Professor, Department of Management Information Systems
University of Dhaka
Email: ariful@du.ac.bd
* Corresponding Author

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Exploring IT Project Selection in the Financial Sector of Bangladesh: Decision-Making Practices and Critical Success Factors

Abstract

This study investigates Information Technology (IT) project selection in Bangladesh's banking sector, emphasizing critical success factors (CSFs) that shape effective decision-making. While prior research has focused on developed economies, this study addresses the limited evidence from developing contexts where institutional pressures and resource constraints present distinct challenges. Using an interpretive case study design, twelve interviews across four private banks were analyzed through template analysis to identify key themes. Findings indicate strengths in business–IT alignment, communication practices, and consistent top management support, but also reveal weaknesses such as informal selection processes, lobbying in vendor decisions, limited stakeholder expertise, poor IT knowledge among senior managers, and lack of project ownership. To address these gaps, the study proposes a dual-process model where resilience emerges from the interaction of regulatory compliance and adaptive capability. Theoretically, it integrates Institutional and Dynamic Capabilities perspectives; practically, it highlights the need for training, adoption of ITPM, and stronger Central Bank support.

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1. Introduction

Organizations today must embrace Information Technology (IT) as a fundamental component of their operations to improve efficiency, productivity, and competitiveness (Daud, 2024). The efficacy of IT applications is particularly pronounced in organizations fostering an innovative culture and actively monitoring technological advancements, leading to enhanced individual performance and cost reduction (Gunes et al., 2003). However, the historical debate surrounding the 'productivity paradox' in the 1980s questioned the tangible gains from IT investment (Solow, 1987). Subsequent research has effectively refuted Solow's productivity paradox, showcasing IT's pivotal role in boosting productivity at both organizational and national levels (Liu et al., 2024; Dedrick et al., 2003). Far from being a mere automation tool, IT serves as a catalyst for substantial productivity improvements, driving transformative changes across various sectors (Dedrick et al., 2003). The vast contribution of IT to the overall improvement of organizational performance (Lin and Mao, 2023; Khan et al, 2021; Bennington and Baccarini, 2004; Kohli and Devaraj, 2003; Brynjolfsson and

Hitt, 1996; Mukhopadhyay et al., 1995) has encouraged most organizations to invest in IT such as acquiring information systems, installing databases, and using the internet and electronic commerce in their daily business operations (Dolci et al., 2014).

Since the strategic integration of IT investments has emerged as a cornerstone for enhancing profitability and elevating product and service quality across industries (Devaraj and Kohli, 2000), organizations, especially from service industries, embrace this opportunity to provide quality services to their customers. The banking industry is a vanguard in leveraging IT to catalyze significant growth among service sectors. This industry has already started to develop more flexible and user-friendly banking services through considerable investments in different IT projects, including mobile banking, internet banking, Enterprise Resource Planning (ERP), Customer Relationship Management (CRM), artificial intelligence (AI)-powered chatbots, blockchain technology, and advanced data analytics (Aithal, 2023; Han et al. 2023; Cîmpeanu et al. 2023; Radenković et al. 2023; Abubakar and Tasmin, 2012). Banks typically invest in IT projects based on their strategic goals, ownership structure, and available financing sources (Boadi et al., 2022; Yang et al., 2020).

However, the impact of IT investment on bank profitability or market share depends on the extent of the network effect (Ho and Mallick, 2006). Ho and Mallick (2006) argue that when the network effect is low, IT investment will provide more significant benefits and vice versa. Similarly, Takemura (2003) shows a strong positive correlation between IT investment and productivity improvements in the banking industry, particularly in software investment. IT has three-fold benefits in banks: (1) lowering operational costs, (2) saving time for customers and employees, and (3) facilitating network transactions (Dangolani, 2011; Ho and Mallick, 2006). Moreover, easy-to-use and reliable IT (e.g., electronic banking system) positively influences customer satisfaction and loyalty (Ganguli and Roy, 2011; Aderonke, 2010), which are critical for the success of banks. Thus, different IT projects have enabled banks to streamline operations, enhance customer experiences and satisfaction, improve security measures, and stay competitive in the rapidly evolving digital landscape.

Despite these facts, most organizations are not reaping the full potential of IT projects (Iriarte and Bayona, 2020), as they lack knowledge of managing these projects effectively and efficiently. To mitigate the challenge, project portfolio management (PPM) theory has been applied in IT project settings (Linenberg et al. 2003). PPM is concerned with selecting and managing organizations' projects. One of the key elements of PPM is selecting the right IT projects to fund, which is a prerequisite for a project's success. There is a distinction between project success and project management success. Project success is the delivery of benefits to the organization from the project. On the other hand, organizations may have efficiently managed projects that do everything they set out to do but deliver absolutely no benefits. Thus, successful project management does not ensure project success. Only selecting the right project reduces the risk of project failure.

However, selecting the right IT project in a rapidly changing and dynamic

technological environment is complex and challenging (Deng and Wibowo, 2008). This process often involves multiple decision-makers, diverse selection criteria, and subjective, imprecise assessments (Guo, 2013). Lee and Kim (2001) indicate that choosing the 'best' IT project is particularly difficult due to project risk, alignment with corporate goals, limited availability of IS resources, and interdependencies among candidate IT projects. Consequently, IT managers employ various methods and techniques to evaluate these investments, ranging from simple computational formulas to sophisticated techniques that integrate quantitative and qualitative analyses (Gunasekaran et al. 2006). Despite these methods, the primary challenge remains efficiently allocating scarce resources to the most appropriate investments and assessing their value and suitability (Dolci et al., 2014). Moreover, Ramos and Mota (2014) demonstrate that employees often express dissatisfaction with IT projects' decision-making process and authority structure, particularly when clients lack knowledge about their requirements and project managers are not adequately prepared to understand clients' needs.

Therefore, identifying the critical success factors (CSFs) related to the IT project portfolio selection process is a crucial area of research, especially for financial organizations like banks. While global studies emphasize managerial support, strategic alignment, and team competence (King & Burgess, 2006), most research has been conducted in developed economies (Ho & Mallick, 2006; Peppard & Ward, 2005; Hitt et al., 1999). Limited evidence (Mohanty, 1992) exists in developing countries, where institutional constraints, informal practices, and resource limitations shape project outcomes. This study addresses that gap by examining IT project selection process in Bangladesh's banking sector. Thus, this study is guided by the following research questions: *1) How do banks select IT projects in Bangladesh? 2) Which factors are inhibiting and enabling the IT project selection process?*

To address these questions, this study undertakes a qualitative case study of four private banks in Bangladesh. It involves an in-depth analysis of these banks' IT project selection processes and related critical success factors (CSFs). By integrating Institutional Theory and Dynamic Capabilities Theory, the study contributes a dual-process model of IT project selection while providing practical recommendations for improving governance and reducing resource inefficiencies. The insights gained from this study will help banks to carefully select the right IT projects, thereby ensuring more tremendous project success.

The article is organized as follows: section 2, literature review, aims to define IT projects with the impact of IT portfolio management and to explain the general project portfolio selection process with related CSFs. Section 3 outlines the research methods used to collect and analyze data. Subsequently, the findings of this study are presented with a comparative discussion (Section 4). The concluding section (Section 5) highlights the findings. It presents opportunities for improving the IT project selection process in the financial sector in Bangladesh, which is followed by limitations and future research directions.

2. Literature Review

2.1 IT Project

The term 'IT investment' has been

defined in diverse ways. Dedrick et al. (2003) adopt a broad perspective, encompassing investments in computers, telecommunications, hardware, software, and related services. In contrast, Schniederjans et al. (2010) refine the concept by identifying investment in four primary components of management information systems: personnel, application software, system software, and hardware. These definitions highlight both the technical and organizational dimensions of IT investment, yet they also reveal a lack of consensus in the literature. Since IT investments are typically implemented as discrete initiatives, they can be conceptualized as IT projects. In the banking sector, such projects range from customer-facing innovations—mobile and internet banking, digital wallets, AI-powered chatbots, and blockchain-based payment solutions—to back-end and compliance-oriented initiatives such as ERP systems, CRM platforms, core banking system modernization, network infrastructure upgrades, big data analytics, cybersecurity enhancement, and regulatory technologies including anti–money laundering (AML) and know-your-customer (KYC) systems.

2.2 Project Management Challenges in IT Projects

Compared to construction or manufacturing projects, IT projects face greater uncertainty due to rapid technological change and evolving user requirements (Wang et al., 2016). Chen et al. (2009) divide IT project risks into public and private risks. They mention that public risk has an upward impact on the expected returns, while private risk influences the option's value in a contrary way. Liu and Wang (2014) further argue that the effects of risk on performance vary depending on the different types of IT projects, and only strategic importance can moderate the impact of risk and performance. Additionally, measurement challenges are particularly acute in the service sector, where intangible outcomes such as customer satisfaction and organizational flexibility are difficult to quantify (Dedrick et al., 2003). The benefits of IT projects also evolve over time (Alsen & van der Linde, 1994), complicating evaluation.

IT projects have a higher failure rate due to not only technological challenges (e.g., hardware and software misconfiguration, network failure) but also general project management challenges (e.g., deadline, budget constraints, and resource constraints) (Wang et al., 2016; Hsu et al., 2014). For instance, studying 50,000 IT projects worldwide for five years, Standish Group reports that on average, 29% of projects (on time, on budget with a satisfactory result) are successful, 52% are challenged, and 19% are failed (Hastie and Wojewoda, 2015). These persistent failure rates highlight a paradox: despite decades of methodological advances, IT projects remain vulnerable. Risk frameworks provide useful distinctions, yet managers often struggle to apply them in practice, leading to misjudged priorities. Moreover, reliance on quantitative metrics such as time, budget, and scope obscures qualitative dimensions like stakeholder engagement, organizational readiness, and governance structures, which are particularly critical in banking. Specifically in financial institutions, IT projects face five problems: very tight project deadlines, working as both a developer and a project manager, working simultaneously on several projects, difficulty using the project management software, and a lack

of knowledge of the project management methodology (Terlizzi et al. 2016). This underscores the need to move beyond traditional project management toward portfolio-level approaches that emphasize strategic alignment, institutional context, and critical success factors.

2.3 Project Portfolio Management

Linenberg et al. (2003) suggest using Project Management and PPM to manage IT projects to maximize economic benefits. While Project Management concentrates on 'doing projects right,' PPM is focused on 'doing the right projects' (De Reyck et al., 2005). PPM is distinct from Project Management and Programme Management in such a way that while Project Management deals with only a single project and Programme Management concerns the management of a set of projects that are related through interdependencies or shared resources, PPM examines and monitors the complete set (portfolio) of projects of a company to decide which projects should be given priority and added to, or removed from, the portfolio (Lycett et al., 2004).

PPM is a dynamic decision process mainly used for selecting and managing an organization's projects (Thiry and Deguire, 2007). It was initially derived from applying Markowitz's (1952) Modern Portfolio Theory for the financial project selection problem. Later, McFarlan (1981) introduced the foundation for the modern field of PPM for IT projects. According to McFarlan, management should follow a risk-based approach for an IT project portfolio since an unbalanced risk portfolio may disrupt the organization's operation or create an opportunity for competitors to step in.

IT Portfolio Management (ITPM) is defined as "managing IT as a portfolio of assets similar to a financial portfolio and striving to improve the performance of the portfolio by balancing risk and return" (Jeffrey and Leliveld, 2004, p.41). Every ITPM includes the following approach: evaluating options, actively managing the IT portfolio, aligning the IT portfolio with business strategy, and basing portfolio decisions on financial measures such as Net Present Value (NPV), Return on Investment (ROI), and Internal Rate of Return (IRR), ranking IT projects in terms of organizational priorities, centralized project monitoring and standardization of IT across the organization (Jeffery and Leliveld, 2004).

Managing an IT portfolio is a strategic exercise with long-term implications that need to be thoroughly reviewed by senior managers (Pennypacker and Dye, 2002). Besides, the decision-makers may make different decisions on the same project depending on their risk preference from different perspectives or contexts (Miller and Chen, 2004). Larson (2013) highlights that perceived risk from a corporate perspective is likely to differ from that of a business unit perspective.

The benefits of using the ITPM approach include (1) maximizing the value of IT investments while minimizing risk, (2) improving communication and alignment between IT and business leaders, (3) encouraging business leaders to act as team players, and (4) allowing planners to allocate resources and terminate projects more efficiently (Datz, 2003). Further, De Reyck et al. (2005) identify that adopting ITPM shows a positive relation with the return on project portfolio and a negative relation with the number of project-related problems. Despite ITPM's

benefits, the implementation challenges hinder its adoption in organizations. For example, Jeffrey and Leliveld (2004) state the following issues: lack of metrics and measurement processes to estimate the IT benefits, lack of basic financial knowledge among IT staff, and lack of alignment and good understanding between IT managers and business executives.

Different frameworks have been proposed in the ITPM field. For example, Weill and Broadbent (1998) show four dimensions (i.e., informational, strategic, transformational, and infrastructure) of the IT portfolio based on the project's organizational goal achievement. Similarly, Ward (1990) categorizes IT investments based on their role and expected contribution to business performance. These categories (i.e., strategic, high potential, factory, and support) are intended to reveal the relationship between IT investment and business success and help to evaluate and manage IT investments.

2.4 IT Project Portfolio Selection Process

Project selection is a strategically significant process to evaluate and choose individual or group projects for ITPM (Cooper et al., 2001b). Organizations can use an effective project selection process to determine and maintain the right projects meeting their strategic objectives. This process is part of the project management life cycle and ensures the selection of suitable projects in this highly competitive environment (Oueslati, 2016). Since organizations have limited resources such as budget, time, and people, they must select a project that provides good returns. There are different project portfolio selection processes in IT and project management literature, such as the hierarchical process for portfolio selection (Cooper, 2005), the mental decision process for portfolio selection (Englund and Graham, 1999), and the integrated framework for project portfolio selection (Archer and Ghasemzadeh, 1999). Since there is no 'best practice' in the IT project selection process, Hitt et al. (1999) show the IT management process in a financial firm using seven discrete steps, among which the first four steps are related to the selection process. The four steps are discussed below:

2.4.1 Identification of IT Opportunity

Typically, organizations have two approaches to identifying projects: proactive and reactive. According to Oueslati (2016), being proactive is beneficial in different contexts, such as meeting customer demand and improving project quality. Further, proactive organizations have a competitive advantage over the market. At the same time, many organizations are reactive in project selection, following the market trends. However, choosing one of these approaches depends on organizational strategies and objectives. The business unit generally analyses the market within the organization to identify new IT opportunities. When the business unit manager identifies a need for a new system or an upgrade to an existing system, they communicate the idea to the IT department. Next, the IT department reactively responds to the business unit request (Hitt et al., 1999), evaluates the idea's technical feasibility, and develops a project proposal (McConnell, 1997). However, Hitt et al. (1999) argue that the central IT department in banks should not only evaluate the idea and educate clients but also coordinate technology across the organization; thus, this department will have more responsibility in the project selection process.

2.4.2 Evaluation of Opportunities

Next, the initial idea needs to be evaluated using different tools to transfer it to a project proposal that management should evaluate later for approval or rejection. Traditionally, projects are evaluated using three criteria: time, budget, and requirements (Bakker et al., 2009). However, project selection tools and techniques range from simple single-criteria cost-benefit analysis to multi-criteria scoring and ranking methods based on the nature of IT projects (Lee and Kim, 2001). For instance, Lee and Kim (2001) propose an integrated approach model for interdependent IT project selection using zero one-goal programming, analytic network model, and Delphi method to reflect the group opinion. Besides, IT projects are evaluated using different methods such as a balanced scorecard (Milis and Mercken, 2004), hybrid multi-criteria group decision-making method (Guo, 2013), simulation (Mylonopoulos et al., 1995), and Analytical Hierarchy Process (AHP) (Rahmani et al., 2012). Iamratanakul et al. (2008) categorize different project selection methods into distinct classes such as scoring methods, economical methods (e.g., payback period, NPV, and IRR), simulation and heuristics models, mathematical programming methods, ad hoc models, and real options. They confirm that using a single methodology to address all aspects of project selection is not beneficial because each method has advantages and disadvantages. For example, although scoring methods are comparatively simple and easy to use, the models assume that scores are precise, but in reality, they can be random. The economic methods are simple to use and understand but lack the required information to estimate. Even the payback period does not consider the time value of money. Then, simulation models are well-suited for selecting projects in dynamic organizations but are not suitable for organizations that do not have well-established standards and flow of information. Next, mathematical programming models are widely used in literature and applications but are unsuitable for alignment problems based on the central tendency approach. Further, AHP can measure the preference of subjective to quantitative value and portray the complex decision problem in a graphical hierarchical structure. However, AHP is subjective, where the same criteria have different importance depending on decision-makers, making the calculation complex and monotonous. Finally, the real options approach can translate project options into visualizing effects but requires extensive data and analysis. Therefore, the lack of standard metrics and measurement processes to estimate IT benefits is a significant challenge for ITPM (Jeffrey and Leliveld, 2004).

Another primary concern is how organizations consider the intangible costs (e.g., improved customer satisfaction, organizational flexibility, and lower error rate) and benefits (e.g., resistance to change, inability to change, and temporary loss of productivity due to the learning curve). Especially identifying and managing intangible costs has gotten limited attention in IS investment evaluation literature (Schniederjans et al., 2010). Further, Cooper et al. (2001) identify that organizations normally choose different combinations of quantitative and qualitative tools in IT project evaluation. Hence, different organizations use different tools in practice.

2.4.3 Approval of IT Projects

After the evaluation, the formal project proposal is normally handed to the top-level management to determine the funding opportunity. Most organizations have some form of a committee, known as a 'steering committee,' which is responsible for evaluating, modifying, and approving IT projects. It usually comprises executives and top management. The main purpose of the steering committee is to ensure the alignment of business unit strategy and IT strategy, project coordination across the business units, and education to business unit managers on potential IT opportunities (Hitt et al., 1999).

2.4.4 The Make-Buy Decision

In this stage, sourcing is determined for the approved project. Project sourcing can be defined as whether a project should be performed outsourced or in-house (Willcocks et al., 2011). For sourcing decisions, organizations must consider whether to use internal resources (IT department) or buy from external sources (vendors). The decision normally depends on the internal capability of the organization. However, choosing between the two is not always easy (Yang and Huang, 2000). Liu and Wang (2014) reveal that different types of risks (i.e., social subsystem risk, technical subsystem risk, and project management risk) are associated with IT projects. They further state that the effects of these risks on system performance vary depending on the types of IT projects (i.e., internal or outsourced projects). Since financial organizations like banks generally operate in a highly competitive environment, Baldwin et al. (2001) identify four motives for outsourcing decisions: strategic and organizational reasons, political and other reasons, technical reasons, and economic reasons. Moreover, they observe that the risk-averse culture allows banks to outsource IT project risks to vendors. IT project outsourcing in banks normally occurs "where it is a core business activity and where senior management has control over the IT/IS functions" (Baldwin et al., 2001, p.23). However, Yun et al. (2009) point out some vendor/supplier-related risks, such as the risk of deviation in demand understanding, suppliers' credit risk (e.g., suppliers' bad operation, hiding the facts, not fulfilling the contracts, high charges), suppliers' changing risk, and risk of banking information leakage. Therefore, banks should be careful about selecting vendors for IT projects.

2.5 Critical Success Factors in IT Project Portfolio Selection Process

Every IS establishment requires a major investment. However, many projects fail to be completed on budget or time, deliver expected value, and meet stakeholder expectations (Sauer et al., 2007). As a result, IS literature recognizes IT project success and failure as interesting areas to study (King and Burgess, 2006).

Project managers should be careful about factors that determine the success or failure of IT projects. Digman (1990, p.247) defines CSFs as "the areas where things must go right for the business to flourish". In this sense, CSFs are the main factors that enable organizations to carry out selected projects from initiation to full implementation (Costantino et al., 2015). Pinto and Slevin (1988, 1989) identify ten critical factors for implementing a successful project: project mission, top management support, project schedule/ plan, client consultation, personnel,

technical tasks, client acceptance, monitoring and feedback, communication, and troubleshooting. Further, Pinto and Prescott (1988) show how these factors vary over the stages in the project life cycle; for instance, mission, top management support, client acceptance, and client consultation are significant CSFs in the conceptual and planning stages of the project life cycle.

In the case of IT projects, most of the CSFs are identified from ERP implementation (Ram et al., 2014; Shaul and Tauber, 2013; Rabaa'i, 2009; King and Burgess, 2006; Allen et al., 2002; Somers and Nelson, 2001). For example, Somers and Nelson (2001) rank ERP CSFs as top management support, project team competence, interdepartmental cooperation, clear goals and objectives, project management, interdepartmental communication, management of expectations, project champion, vendor support, and careful package selection. Allen et al. (2002) extend the CSF model provided by Holland et al. (1999), considering the CSFs described by Selvin and Pinto (1987) for the project implementation in a strategic-tactical framework. They identify organizational culture, constructions of past technological implementations, the existing political structures, and communication as key issues in ERP implementation. Powell and Dent-Micallef (1997) reveal that IT investment provides a competitive advantage using flexible culture, strategic planning-IT integration, and supplier relationships. However, several studies have identified different sets of CSFs for specific IT projects, providing a place for criticism (Ngai et al., 2008).

On the other hand, not only different IS success models have been introduced and tested in IS research (Allen et al., 2002; Holland et al., 1999; DeLone and McLean, 1992) but also IS failure is studied (Lemon et al., 2002; Sauer, 1993). Sauer (1993) emphasizes that IS failure has a strong social dimension from the continuous support perspective, which challenges the traditional view of IS failure, concerned with time and budget overruns and defects. Furthermore, to show the interdependency among the CSFs, King and Burgess (2006) propose a dynamic model of ERP success combining the IS innovation process model (Sauer, 1993) and causal model of ERP success/failure (Akkermans and van Helden, 2002).

Since this study will deal with the project selection process in the financial sector to identify the factors especially critical for this stage, CSFs identified in previous IT projects, particularly ERP, have been considered to extract important themes. Three constructs of King and Burgess's (2006) model: (1) organizational context, (2) supporter, and (3) project organization are taken into account to identify CSFs.

The following CSFs are selected based on the project selection process and discussed in detail: (1) formal decision-making process, (2) alignment of business and IT strategy, and (3) communication -are included in terms of organizational context; (4) top management support is included from supporter perspective; and (5) skills and knowledge of project team is included in terms of project organization.

2.5.1 Formal Decision-Making Process

PPM literature suggests building up formal structures for organizing and supporting decision-making. Powell and Buede (2008) state that a planned process helps to reduce mistakes and create opportunities built into the process to correct emerging

errors. However, the assumption of PPM as a rational decision process is poorly satisfied in practice and the context of portfolio management (Martinsuo, 2013). Organizations mostly select the project in an unstructured way or in a more or less impulsive way, which can negatively influence the entire management process (Oueslati, 2016; Powell and Buede, 2008). Even organizations with corporate governance do not use governance for IT project decision-making (Marnewick and Labuschagne, 2011). Gutiérrez and Magnusson (2014) identify that a formal decision-making process is unsuitable for solving the challenges of evaluating and selecting different ideas and projects. They further recommend using a flexible decision-making process. Similarly, Martinsuo (2013, p.801) proposes to view PPM "as negotiation and bargaining, and as structural reconfiguration". Olausson and Berggren (2010) suggest using formal and informal approaches to manage highly uncertain and complex IT projects. However, Ballantine and Stray (1998) identify that the lack of a clearly defined IS/IT appraisal procedure is a major challenge for IT investment decision-making.

2.5.2 Alignment of Business and IT Strategy

To ensure project success, IS/IT planning should always align with business strategic planning (Peak et al., 2005; Teo and Ang, 1999). Cooper et al. (2001b) state that the performance of a project portfolio depends on the organization's strategy alignment rather than its focus on financial indicators. Alignment of business and IT strategy can be facilitated by business management responsibility for information-based developments, extensive interaction between business and IT/IS staff, development of IT/IS understanding in business managers, and development of business skills in IT/IS managers (Broadbent and Weill, 1993). Jeffrey and Leliveld (2004) identify that lack of alignment and good understanding between IT managers and business executives is a major challenge for ITPM adoption.

2.5.3 Communication

Communication is always considered a significant CSF for IT projects. Since a project team comprises different professionals, Grant (2003) stresses the importance of communication between business and IT personnel. Sumner (2000) argues that a communication plan should not only include senior management and project team members. Rather, it should encompass the whole organization. Strong communication, especially in the ERP implementation process, provides employees with an understanding of what is going on and why change is important to benefit the organization, which ensures the success of the change management program (Mandal and Gunasekaran, 2003). Thus, it is particularly important for decision-makers to involve all stakeholders in the initial stage. Allen et al. (2002) describe communication as a political process as top management takes different communication approaches. Although organizational culture has been considered an important CSF (Davison, 2002), Muriithi and Crawford (2003) reject the idea. Ramos and Mota (2014, p.356) explain why lack of communication is a determinant factor in IT project failure instead of organizational culture, stating that "communication is linked to how the organization interacts and how the organizational culture of the company is established". Besides, the culture depends

on the leader's behavior (Fishman and Kavanaugh, 1989). Therefore, the nature of communication leads to failure or success of IT projects.

2.5.4 Top Management Support

IS literature (Iriarte and Bayona, 2020; Ram et al., 2014; Shaul and Tauber, 2013; Rabaa'i, 2009; Kazanchi and Reigh, 2008; Young and Jordan, 2008; Bingi et al., 1999; Jarvenpaa and Ives, 1991; Doll, 1985) suggests that strong top management support is required to complete the large-scale IT project successfully. Top managers define the projects, compose project teams, and structure the organizational context of IT projects (Boonstra, 2013). Boonstra (2013) further defines five behavioral categories for top management in the case of resources, structural arrangements, communication, expertise, and power. However, the support needs to extend from the initiation and facilitation stage of the IT project to full implementation (Al-Mashari et al., 2003). Naranjo-Gil (2009) suggests that top managers should act like project champions to ensure IT project success. Although top management support ensures that projects will not be terminated early (Green, 1995), getting continuous support is still challenging for IT projects (Sauer, 1993). Thus, Boonstra (2013) characterizes top management support as multidimensional, likely changing over time. Moreover, top management power can be used in different ways, such as lobbying. In particular, the IT project selection process is found to be biased by human factors (Yelin, 2005; Englund and Graham, 1999).

2.5.5 Skills and Knowledge of Project Team

People play a vital role in any project. Especially the IT project team should have both sound business and technical skills (Pecherskaya et al., 2016; Al-Mashari et al., 2003; Somers and Nelson, 2001; Shanks et al., 2000) to carry out the project successfully. This team normally creates the preliminary and full-detailed project plan (Umble et al., 2003). However, Ballantine and Stray (1998) find that knowledge-related problems (e.g., difficulty with interpretation of results and calculation of discount rate and unfamiliarity with project appraisal technique) are associated with the IT project decision-making process. For example, many IT staff do not have basic financial knowledge (Jeffrey and Leliveld, 2004). Besides, IT project managers must have certain behavioural competencies to successfully complete the project (Dillon and Taylor, 2015). Therefore, to improve the skills and knowledge of the project team, providing training using consultants is important (Clemons, 1998; Barki et al., 1993). Similarly, Crawford et al. (2006) emphasize the importance of ensuring a well-trained and managed project team for IT project success. Additionally, project selection depends on the decision-maker's experience. Thus, another term, 'optimism bias', which refers to the tendency of people to believe that they are more likely to experience positive events than other people, normally arises during the planning stage of the project and specifically in estimation activities (Meyer, 2014; Flyvbjerg, 2008) which require experiences. Meyer (2014) states there are also in-project and post-project optimism biases to continue with a failing project. Top management should be careful in this regard. Finally, lack of information (e.g., identifying and quantifying project benefit and cost) and unreliable data to evaluate IT project decisions is another challenge of the selection process (Cooper

et al., 2001a; Ballantine and Stray, 1998).

In summary, organizations have started to use different IT projects to gain a competitive advantage. However, the present statistics of IT project success are not satisfactory at all. Most projects are being challenged and failed. Thus, only project management is insufficient; PPM, specifically ITPM, should be employed to change the scenario. Selecting the right project for the organization is one of the components of ITPM, which ensures project success. Since organizations have limited resources, it is significant for them to choose the right project that provides good returns. Many projects have failed to select the wrong projects, which could not deliver the expected benefits to the organization. Therefore, the IT project portfolio selection process is an interesting area in which to explore the existing project selection practices in the financial sector in Bangladesh. The general project selection process consists of four stages: identifying IT opportunities, evaluating opportunities, approving IT projects, and deciding. Besides, to have an in-depth understanding of this process, CSFs need to be identified. However, the CSFs of a specific project are still complex. Different studies propose different sets of CSFs for a particular IT project, meaning that CSFs are highly context dependent. Therefore, what works in one organization does not necessarily work in another. Even CSFs vary depending on the stages of the project life cycle. Literature review shows that most CSFs are studied in the ERP implementation area. Finally, CSFs (i.e., formal decision-making process, alignment of business and IT strategy, communication, top management support, and skills and knowledge of project team), which are highly related to the IT project portfolio selection process, are considered for this study.

3. Methodology

3.1 Research Design

An interpretive case study approach was employed to investigate IT project selection processes in Bangladesh's banking sector. This research design was chosen because it allows for indepth exploration of organizational practices and contextual factors shaping project decisions. Four private commercial banks were selected, each undertaking distinct IT projects—core banking software upgrade, network infrastructure development, internet banking, and mobile banking—providing variation in project type and scope.

3.2 Data Collection

A total of 12 indepth interviews were conducted with managers and employees from both business units and IT departments (see Table 1). Participants were purposively selected for their extensive experience (Neuman, 2005) with ongoing IT projects, ensuring informed perspectives on project selection. Snowball sampling was used to expand the pool of respondents, a strategy appropriate for accessing knowledgeable participants within a relatively homogeneous group. Guest et al. (2006) suggest that thematic saturation can be achieved with 12 interviews in such contexts, and no new themes emerged after the tenth interview, confirming adequacy of the sample size.

Interviews followed a semistructured schedule focusing on two areas: (1) IT project selection process and (2) CSFs related to IT project selection process. Eight interviews were conducted via Skype and

audiorecorded with participant consent, while notes were taken for the remaining four. Each recording was transcribed verbatim, requiring approximately four hours per session. Ethical standards were upheld by maintaining confidentiality and anonymity throughout the study.

Table 1: Collected Data

Respondent	Position	Project Name	Pseudonym
R1	Project Manager (Business)	Mobile banking	Bank A
R2	Senior Project Director	Mobile banking	Bank A
R3	System Analyst	Mobile banking	Bank A
R4	Business Analyst	Network infrastructure development	Bank B
R5	System Analyst	Network infrastructure development	Bank B
R6	Project Director (System)	Internet banking (In-house)	Bank C
R7	Project Director (Business)	Internet banking (In-house)	Bank C
R8	IT Project Manager	Core banking software upgradation	Bank D
R9	System Analyst	Core banking software upgradation	Bank D
R10	IT Project Assistant Manager	Core banking software upgradation	Bank D
R11	Business Analyst	Core banking software upgradation	Bank D
R12	Business Analyst	Core banking software upgradation	Bank D

3.3 Data Analysis

Data analysis was conducted using manual template analysis (King, 2012). Transcripts were meticulously reviewed, annotated, and coded. The iterative process involved inserting, deleting, and merging codes until a coherent framework was established. Initial codes were informed by literature on IT Project Management (ITPM) and Critical Success Factors (CSFs), then refined to reflect the Bangladeshi banking context. For example, the category "skills and knowledge of project team" was broadened to "skills and knowledge of stakeholders" to capture the interplay between IT staff, business units, and top management.

The finalized coding framework was structured into two major dimensions: IT Project Selection Process and Critical Success Factors (CSFs). Within these dimensions, themes and subthemes were identified and supported by illustrative quotations from respondents. Appendix 1 presents the consolidated coding framework, showing how interview data were organized into themes such as identification of IT opportunities, evaluation of projects, approval mechanisms, and make–buy decisions under the project selection process, alongside CSFs including formal decision-making, business–IT alignment, communication practices, top

management support, and stakeholder skills and knowledge.

Multiple quotations were included under each subtheme to ensure that findings reflected a range of perspectives rather than isolated accounts. By systematically linking respondent views to established literature and highlighting both areas of convergence and divergence, the analysis provides a balanced and transparent interpretation of the data.

3.4 Theoretical Framework

This study adopts a dualtheory framework to strengthen the analysis of IT project selection in Bangladeshi banks. Institutional Theory explains how organizational practices are shaped by regulatory mandates, hierarchical authority, and cultural norms, highlighting the role of legitimacy and conformity in structuring decision processes (DiMaggio & Powell, 1983; Scott, 2014). Dynamic Capabilities Theory complements this by examining how organizations adapt through sensing opportunities, seizing resources, and transforming structures to remain competitive (Teece, Pisano, & Shuen, 1997; Barreto, 2010). Together, these theories provide a balanced lens: Institutional Theory captures stability and compliance, while Dynamic Capabilities Theory explains adaptation and innovation. Their integration ensures that both external pressures and internal capabilities are considered in analyzing IT project selection, making the framework theoretically robust and contextually relevant.

4. Findings And Discussion

4.1 IT Project Portfolio Selection Process

The IT project portfolio selection process stages derived from literature are similar in Bangladesh. However, Bangladeshi banks differ in their practices. Although the differences are minor, they provide an interesting ground to explore how banks select the right IT projects. The IT project portfolio selection process in the financial sector in Bangladesh is explained using a comparative discussion as follows:

4.1.1 Identification of IT Opportunity

In Bangladesh, all the studied banks are, in part, at least, reactive in identifying IT opportunities and carrying out the requirements of the Central Bank (i.e., Bangladesh Bank). For example, when Bangladesh Bank mandated commercial banks to collect utility expenses and passport fees online, these banks invested in IT projects (e.g., building software in-house or by purchase) to comply with this regulation.

Previous literature (Hitt et al., 1999) shows that the business unit (bank in this case) generally identifies IT opportunities and requests their IT department to act accordingly in financial sectors. This study also supports this finding. Respondents of three banks stated that the business unit initiates most IT projects. However, the IT department sometimes initiates projects, depending on the type of project. Typically, the IT department is mainly responsible for executing projects agreed upon.

"Normally business unit initiates and the IT department executes IT projects. But in the context of Bangladesh, this sector is still not matured; thus, the IT department must lead the whole project." (IT Project Manager)

However, respondents from another bank observed that all their IT projects are

initiated by the IT department, a finding that contrasts with the prevailing views in the existing literature.

"We get project ideas from two sources: 1) the Bank branch manager communicates the customer demand directly to the head of the IT department, and 2) Employees of the IT department who have friendly relations with employees of other banks collect project ideas and inform their chief. In both cases, the IT department initiates IT projects." (Business Analyst)

Therefore, the initiation of IT projects varies from bank to bank in Bangladesh. It purely depends on individual banks' policies and practices.

4.1.2 Evaluation of Opportunities

Previous literature (Bakker et al., 2009) generally uses three criteria: time, budget, and requirements similar to those found in this research to evaluate initial project ideas. In Bangladesh, most banks outsource their IT projects. Three of the studied banks are using vendors for their ongoing projects. Thus, respondents mainly emphasized the requirement part of the evaluation. However, no specific quantitative or qualitative tool was used. Half of the respondents did not use any cost-benefit analysis tool.

"We have no written cost-benefit analysis tool. Rather, we discuss with top-level management about the extent of benefits the specific department will get using the product." (Senior Project Director)

"We do not use exact cost-benefit analysis for each case. However, we consider the expected benefits of the product. Besides, we survey the market to identify the amount other banks pay for that product." (Project Director (Business))

However, respondents stated that they collect quotations from several vendors and compare them based on some selected criteria.

"Though we do not use any tool, we check for vendor requirements and experience, market practice, 5 years of bank growth, hardware reputation, and most importantly, service level. Finally, we consider the price." (IT Project Manager)

"We verify vendor profile, capability, financial condition, reputation and service to other banks." (Business Analyst)

Further, most respondents confirmed that they do not calculate intangible costs and benefits. Only one respondent (IT project manager) mentioned considering intangible costs in selecting a project, saying the following:

"When we decided to change our core banking software, firstly, we considered user resistance to using new software, which helped us to decide to upgrade existing software. Since users are familiar with the existing software, they will adapt easily." (IT Project Manager)

Therefore, the studied banks used some predetermined basic criteria for vendor selection. This contradicts previous literature (Cooper et al., 2001) that explains that organizations normally choose different combinations of quantitative and qualitative tools. In the case of this research, all banks used only one method with little consideration of intangible costs and benefits. Thus, it seems that respondents are not aware of other available tools.

4.1.3 Approval of IT Projects

All respondents confirmed that they have specific IT project selection committees

that support the previous literature (Hitt et al., 1999). Top-level managers and executives are normally included in the committee. However, one respondent (Business Analyst) indicated that it is not always named "steering committee". Rather, the name varies from project to project. This committee exercises power and, most importantly, helps in every sphere of IT projects. Besides, some respondents confirmed that lobbying is vital, especially in vendor selection.

4.1.4 The Make-Buy Decision

In-house or outsourcing decisions usually depend on the internal capability of the organization. For instance, the senior project director of a bank with a good in-house team illustrated that by saying:

"We have a good in-house team. Thus, whenever any IT project is initiated, we always try to use our in-house team first. If it is not feasible, we look for vendors based on reputation and expertise." (Senior Project Director)

Next, Liu and Wang (2014) mention that risks vary depending on the types of IT projects. This view is supported by this study. Respondents expressed that banks normally outsource big projects with high risk. This finding also supports the observation of Baldwin et al. (2001) confirming banks' 'risk-averse culture'.

Similarly, two vendor-related risks, (1) hiding facts and (2) not fulfilling contracts identified by Yun et al. (2009), are revealed as prominent problems by the respondents.

"It is difficult to identify vendor's true capability." (Senior Project Director)

"Especially after one year of software implementation, sometimes our requirement changes or we have to add new requirements over time, but then vendor does not provide a good level of service." (IT Project Assistant Manager)

These statements also highlighted the importance of vendor support in ensuring project success, thereby corroborating the findings of Somers and Nelson's study (2001). All respondents were in agreement regarding the issue of subpar service quality provided by vendors.

Further, this study identified two key reasons vendors failed to meet their commitments, offering valuable insights from the Bangladeshi context. Firstly, changes in service location significantly disrupt the level of service provided. As an IT Project Manager noted:

"Sometimes, we have problems in vendor support. For example, some foreign vendors have stopped their operations here and started providing offshore support. It has interrupted our regular operation." (IT Project Manager)

This shift to offshore support often leads to inefficiencies and interruptions in service delivery. Secondly, resource scarcity among vendors hampers their ability to maintain service quality. A Business Analyst highlighted this issue:

"One of the reasons for not giving continuous service is vendor resources. For example, an expert of a vendor switches to another organization. If the vendor cannot arrange a better replacement for that position, it will fail to provide the previous service level. In this case, the vendor should be more professional." (Business Analyst)

This statement underscores vendors' need to adopt more professional and resilient resource management strategies

to ensure consistent and reliable service delivery. The findings of this study contribute to the existing literature by providing context-specific, empirically grounded explanations for service failures, highlighting the critical importance of addressing location stability and resource management to enable vendors to fulfil their commitments effectively.

In summary, the IT project portfolio selection process in Bangladeshi banks follows global stages of identification, evaluation, approval, and make–buy decisions. Practices, however, are shaped by regulatory mandates, organizational maturity, and informal power structures. Identification is often reactive, reflecting Institutional Theory's emphasis on external pressures and hierarchical authority. Occasional IT-led initiatives show emerging Dynamic Capabilities in sensing and seizing opportunities. Evaluation is vendor-driven, with limited use of formal tools. This scenario illustrates how institutional norms constrain analytical rigor. Limited consideration of intangible costs, such as user resistance, demonstrates adaptive resource reconfiguration to reduce risk. Approval is committee-based but influenced by lobbying and executive preferences, highlighting the tension between formal governance and informal practices. Finally, make–buy decisions reveal a risk-averse outsourcing culture. Selective in-house development signals adaptive capacity, though vendor dependency continues to create service quality challenges.

4.2 Critical Success Factors in IT Project Portfolio Selection Process

The themes generated from previous literature are used to explore CSFs in Bangladesh's IT project portfolio selection process. Most of the themes from the literature are also identified as critical in the Bangladeshi context. However, there are some minor areas where this study extends the present IS literature. This is because no literature studies IT projects, particularly in Bangladesh. The findings regarding CSFs are discussed as follows:

4.2.1 Formal Decision-Making Process

One of the themes is the formal decision-making process, which is critical to reducing mistakes and creating opportunities to correct emerging errors in PPM (Powell and Buede, 2008). This study looked for IT policy and guidelines to explore the existence of a formal decision-making process in studied banks. All respondents confirmed that they have their own IT policies, which are aligned with the Central Bank's guidelines.

Although banks have specific decision-making processes for project selection, four respondents indicated that these processes are often informal and verbal. This observation aligns with previous studies by Martinsuo (2013) and Powell and Buede (2008), highlighting that project selection is not always formal or rational. For instance, one respondent noted:

"Our project selection process is informal, and top management is satisfied with it." (Project Director (System))

Furthermore, the notion proposed by Gutiérrez and Magnusson (2014) that formal decision-making processes may not be suitable for addressing the challenges of evaluating and selecting diverse ideas and projects is supported by this study. Three respondents emphasized that the IT project selection process varies depending on the type of project:

"Since we do not have any standard method, we use different methods for different projects." (System Analyst)

"There are differences between the Core banking software gradation selection process and other regular IT projects. The business unit normally initiates regular projects on behalf of a specific department. However, Core banking software is the bank's base and will not benefit only a few divisions. Thus, this project is initiated by the IT department." (IT Project Manager)

The studied banks utilize diverse selection processes for their IT projects, which are predominantly informal and adaptable by design. This adaptability allows the banks to customize their decision-making processes to suit the unique requirements and contexts of each project, despite the lack of a standardized approach.

4.2.2 Alignment of Business and IT Strategy

The alignment of business and IT strategy has been consistently recognized in the literature as a crucial critical success factor (CSF) for project success (Peak et al., 2005; Teo and Ang, 1999). All respondents in this study emphasized the importance of this alignment, acknowledging it as a key factor. While Jeffrey and Leliveld (2004) highlight the difficulty in achieving a good understanding between IT managers and business executives, seven study respondents expressed satisfaction with their current alignment and reported good relationships. They identified two critical factors for maintaining this alignment: (1) the project team and (2) bridging personnel.

"We have business analyst and system analyst in the project team; the outcome of the project actually depends on their efficient work." (IT Project Manager)

"We use bridging people to compensate the knowledge gap of IT and business executives." (Business Project Manager)

However, three respondents from the IT side noted some issues regarding this collaboration. They pointed out challenges related to the business side's inability to specify requirements clearly, frequent changes in requirements, and scheduling difficulties for crucial meetings.

"People in the business unit always fail to specify their requirements. Most of them lack technical knowledge, so sometimes they don't even realize when their requirement is fulfilled. Additionally, they frequently change their requirements and are unsatisfied with our delivery. Another problem is that they often postpone important meetings to clarify IT issues. This, in turn, demotivates customers because the business unit cannot handle them properly." (System Analyst)

Additionally, an IT project manager expressed frustration over IT project ownership, highlighting the lack of proper project closure and the subsequent failure to achieve expected benefits.

"In every IT project, the IT department works dedicatedly, but in the end, the business unit does not lead or own the project to completion. As a result, projects are not properly closed, or if they are, they do not provide the expected advantages." (IT Project Manager)

Conversely, respondents from the business side reported no significant issues with alignment and emphasized their satisfaction with the collaboration process.

"I have not found any problems. I am happy to clarify my requirements while

working on the project." (Business Analyst)

"Normally, we have a good relationship with the IT team. Although we initially face some problems working on the project, later we start to speak the same language." (Business Analyst)

Broadbent and Weill (1993) assert that extensive interaction between business and IT/IS staff is vital for aligning business and IT strategy. This study confirms that project teams serve as a valuable platform for such interaction, with bridging personnel facilitating effective alignment. Finally, the issue of IT project ownership emerged as a significant concern that needs to be addressed for successful project outcomes.

4.2.3 Communication

Seven respondents highlighted communication as a significant CSF for IT projects. Previous literature (Iriarte and Bayona, 2020; Grant, 2003; Sumner, 2000) underscores the importance of effective communication between business and IT personnel, senior management, and other stakeholders to ensure project success. Although respondents were brief, four emphasized the importance of meetings for maintaining clear communication. They acknowledged misunderstandings between business and IT teams and suggested regular meetings as a solution.

"We hold weekly meetings for knowledge sharing to reduce misunderstandings among different parties." (IT Project Manager)

"Additional meetings with branches and vendors are needed to identify and resolve gaps and issues." (System Analyst)

Allen et al. (2002) note that the nature of communication is influenced by top management. While no communication gaps were reported with top management in this study, regular meetings with various parties were emphasized to ensure smooth communication. This research supports the literature (Iriarte and Bayona, 2020), affirming that effective communication is essential for successful project outcomes.

4.2.4 Top Management Support

The findings of this study align with previous IS literature (Iriarte and Bayona, 2020; Ram et al., 2014; Shaul and Tauber, 2013; Rabaa'i, 2009; Kazanchi and Reigh, 2008; Young and Jordan, 2008; Bingi et al., 1999; Jarvenpaa and Ives, 1991; Doll, 1985) emphasizing the critical role of strong top management support for IT projects. For instance, all respondents highlighted the significance of top management support from project initiation to full implementation, echoing the findings of Al-Mashari et al. (2003). Contrary to Sauer's (1993) identification of obtaining continuous support as a challenge, none of the respondents expressed frustration regarding the consistency of support. They consistently portrayed their top management in positive terms.

"Our Managing Director (MD) is actively involved in every IT project. Whenever we encounter challenges, the MD promptly offers solutions. Overall, our top management is highly supportive and actively engaged. Given their authority over critical project decisions, their assistance is indispensable. Thus far, we've encountered no issues with our management." (IT Project Manager)

On the contrary, previous studies (Yelin, 2005; Englund and Graham, 1999) suggest that human factors such as lobbying can influence the project selection process. This study sheds light on top management's influence on vendor selection.

"We encounter challenges in vendor selection. Often, we feel pressure from top management to choose a specific vendor, possibly benefiting certain individuals financially. While we strive to avoid such situations, it's crucial for top management to prioritize the organization's interests." (Business Analyst)

All respondents reported being satisfied with the level of support provided by top management for IT projects. Nevertheless, they recommended minimizing lobbying efforts to prioritize the organization's interests. This study largely corroborates the significance of top management support, with only minor discrepancies found in the existing literature.

4.2.5 Skills and Knowledge of Stakeholders

Skills and knowledge within the project team, particularly strong business, and technical acumen are widely acknowledged as pivotal for project success (Pecherskaya et al., 2016; Al-Mashari et al., 2003; Somers and Nelson, 2001; Shanks et al., 2000). This study reaffirms this notion, though it unveils an interesting dynamic between the IT and business spheres of the project team. While previous literature often points to a lack of financial understanding among IT professionals (Jeffrey and Leliveld, 2004; Ballantine and Stray, 1998), business respondents refrained from accusing IT counterparts of such gaps in this study. Conversely, IT respondents highlighted challenges arising from unclear requirements from business stakeholders, hindering their work.

"People in business unit struggle with technical jargon and often alter their requirements." (System Analyst)

"Business unit typically lacks IT expertise, leading to challenges in sourcing vendor information." (Project Director (System))

Three respondents stressed the necessity of IT training for business personnel, aligning partially with existing literature (Clemons, 1998; Barki et al., 1993).

"Business personnel need IT training at least once annually. IT personnel normally have 90% of business knowledge working in the backend and can learn the remaining working with business personnel." (System Analyst)

Moreover, respondents acknowledged leveraging the project team to address knowledge gaps, particularly by including subject matter experts.

"Project teams must include skilled individuals. Sometimes, choosing the wrong people can delay project completion" (Project Director (Business))

However, this study reveals a new dimension: the IT knowledge gap within top management that influences project selection decisions.

"Top management has limited IT knowledge. Thus, it always depends on the IT department for project selection. Sometimes, it becomes difficult to convince top management to invest in IT projects." (System Analyst)

Further, this study aimed to gauge respondents' familiarity with ITPM. Surprisingly, many seemed unfamiliar with the term.

"What is it? We normally take multiple projects at a time. For example, one developer may be involved in different projects at the same time." (Project Manager (Business))

"I have not seen any written document on this matter. Most probably, our IT head uses something like this informally." (Business Analyst)

These responses reveal a significant knowledge gap regarding ITPM among the participants. While confirming existing literature on project team skills and knowledge, this study sheds light on the IT knowledge gap among top management in project selection. Moreover, it highlights respondents' lack of understanding of ITPM, signaling a need for further awareness, education, and training.

In summary, the exploration of CSFs indicates that Bangladeshi banks acknowledge themes consistent with global literature—formal decision-making, business–IT strategy alignment, communication, top management support, and skills and knowledge of stakeholders. Yet their practices reveal distinct context-specific dynamics. CSFs ultimately determine whether project selection remains rigid under institutional pressures or evolves into adaptive strategies that foster resilience and innovation. Decision-making is often informal, where institutionalized routines replace formal governance. At the same time, adaptability appears in tailoring processes to project type, consistent with Dynamic Capabilities in reconfiguring decision structures. Alignment between business and IT strategy is generally positive. Bridging personnel facilitate the integration of knowledge flows, reflecting adaptive practices. Yet unclear requirements and weak ownership expose institutional barriers to accountability. Communication through regular meetings helps reduce misunderstandings. This reliance on formalized interaction reflects institutional norms, while also serving as an adaptive learning mechanism. Top management support is strong and ensures continuity. However, lobbying pressures distort executive authority, revealing the limits of institutional governance. Stakeholder competence remains decisive. Gaps in IT knowledge among executives and limited awareness of IT portfolio management constrain strategic oversight. Training initiatives and the inclusion of subject matter experts represent adaptive investments in capacity building.

4.3 Proposed Dual-Process Model

Taken together, the findings across the IT project portfolio selection process and its critical success factors point to a deeper dynamic: project selection in Bangladeshi banks is not simply a sequence of technical steps, nor merely a set of enabling conditions. It is best understood as a dual-process system, where institutional compliance and adaptive capability building operate simultaneously, mediated by CSFs. This study introduces a dual-process model of IT project selection in Bangladeshi banks, as presented in Figure 1.

The dual-process model illustrates how Institutional Theory and Dynamic Capabilities Theory jointly explain IT project selection in Bangladeshi banks. At the foundation lies the external environment, shaped by regulatory mandates, market norms, and resource constraints. These forces establish the conditions under which banks make portfolio decisions, anchoring the model in the broader institutional and competitive context.

From this environment, the Institutional Theory compliance path emerges. Regulatory mandates, hierarchical authority, and cultural norms drive reactive identification, vendor-driven evaluation, committee approvals, and risk-averse outsourcing. These practices secure legitimacy and conformity but also constrain innovation. Distortions such as lobbying and vendor instability further highlight the unique vulnerabilities of the Bangladeshi context.

Mediating between compliance and adaptation are the Critical Success Factors (CSFs). Decision-making clarity, business–IT alignment, communication routines, top management support, and stakeholder competence determine whether institutional structures remain rigid or evolve into adaptive strategies. Strong CSFs enable banks to balance regulatory conformity with innovation, while weak CSFs reinforce dependency, inefficiency, and accountability gaps.

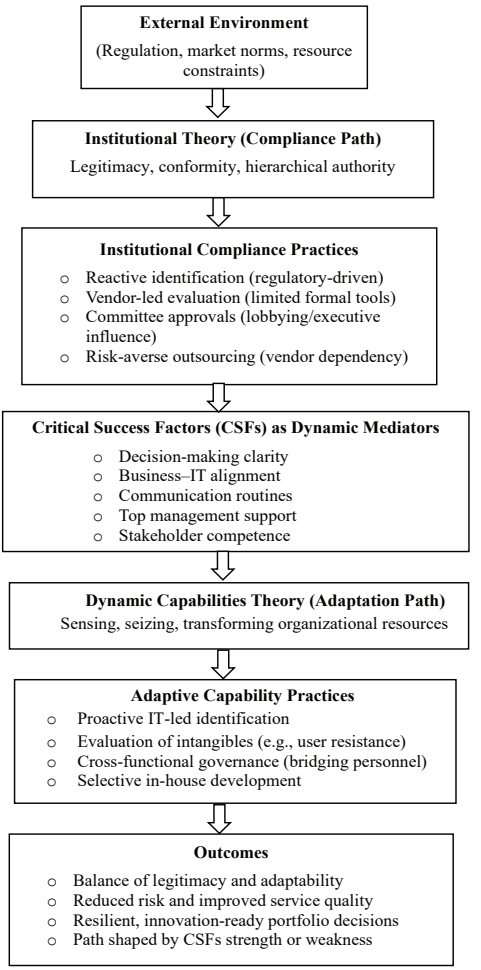

Figure 1: Dual-Process Model of IT Project Selection

On the adaptive side, the Dynamic Capabilities path highlights efforts to reconfigure resources. IT-led initiatives, bridging personnel, cross-functional communication, and selective in-house development reflect practices of sensing, seizing, and transforming resources. These adaptive mechanisms remain fragile without systematic education and greater awareness of IT portfolio management, but they signal emerging resilience.

Finally, the model culminates in outcomes. When compliance dominates, banks achieve legitimacy and stability but risk inefficiency and vendor dependency. When adaptive capabilities are strengthened, banks build resilience, improve service quality, and create innovation-ready portfolios. Ultimately, the balance between institutional conformity and dynamic adaptation—mediated by the strength of CSFs—determines whether IT project selection produces rigid structures or evolves into flexible, future-oriented strategies.

The proposed dual-process model extends Institutional Theory by showing how lobbying, vendor instability, and executive IT knowledge gaps uniquely distort governance in a developing-country banking sector. It refines Dynamic Capabilities Theory by demonstrating that adaptive mechanisms—such as bridging personnel and communication practices—are necessary but insufficient without systematic education and portfolio management awareness. The novelty of this study lies in positioning CSFs not merely as enablers of project success but as dynamic mediators that bridge compliance and adaptability, offering a new lens for IT governance in regulation-heavy, resource-constrained environments.

5. Conclusion

This study identified critical factors that both enable and restrain effective IT project selection in Bangladesh's financial sector. The main findings indicated that there are areas of strength, weakness, and opportunity for the banks. Strengths include alignment between business and IT strategy, fair communication, and consistent top management support. Weaknesses, however, remain in stakeholder skills and knowledge, limited familiarity with ITPM and evaluation tools, poor IT expertise among senior managers, informal selection processes, lobbying in vendor decisions, and lack of project ownership. These shortcomings highlight systemic inefficiencies that risk wasting scarce resources in a developing economy where financial institutions play a central role in sustaining growth.

The proposed dual-process model demonstrates that resilience in IT project selection emerges from the interaction of regulatory compliance and adaptive capability. For Bangladeshi banks, strengthening critical success factors (CSFs) offers a pathway to transform regulatorydriven practices into adaptive strategies that sustain competitiveness and innovation. More broadly, the model provides a lens for understanding IT governance in resourceconstrained, regulationheavy environments, with relevance for financial institutions across other developing economies.

Current practices reveal substantial room for improvement. A relatively modest investment in training and education—particularly in IT, ITPM, and evaluation tools—would quickly mitigate skills and knowledge gaps. The Central Bank should lead these initiatives, mandating

structured use of ITPM and encouraging collaboration among banks. Developing institutional capacity for project selection and management promises rapid returns and longterm dividends, as lessons from other sectors can be applied with minimal delay. Addressing systemic failures to adopt best practices offers banks genuine opportunities to strengthen governance, minimize waste, and contribute more effectively to national economic growth.

This study has certain limitations. The small sample size restricts generalizability, and its cross sectional design provides only a snapshot of practices at a single point in time. Future research should therefore expand to a broader set of organizations and employ longitudinal approaches that track project activity over time, offering evidence of actual practices rather than relying solely on reported experiences. There is also scope for action research in collaboration with banks, enabling scholars to support agenda change and document its outcomes in real time. Replicating this study across other developing economies at different stages of growth would further validate the findings and uncover wider opportunities. From a theoretical perspective, future work could extend the proposed dual-process model by testing it quantitatively across diverse contexts. Such research would refine understanding of how Institutional Theory and Dynamic Capabilities Theory interact in shaping IT governance, deepen insights into resilience in project selection, and broaden applicability beyond the financial sector.

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Author Contributions:

The authors confirm their contributions to the paper as follows:

- **Study conception and design:** Farjana Parvin Chowdhury
- **Data collection:** Farjana Parvin Chowdhury and Md Ariful Islam
- **Analysis and interpretation of results:** Farjana Parvin Chowdhury and Md Ariful Islam
- **Draft manuscript preparation:** Farjana Parvin Chowdhury and Md Ariful Islam
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The authors declare no conflict of interest.

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Appendix 1 Coding Framework

Major Theme	Theme	Subtheme	Illustrative Quotes
IT Project Selection Process	Identification of IT Opportunity	Business vs. IT initiation	"Normally business unit initiates and the IT department executes IT projects… IT department must lead the whole project." (IT Project Manager) "We get project ideas from two sources… branch manager demand… IT staff relations… IT department initiates IT projects." (Business Analyst)
	Evaluation of Opportunities	Lack of formal tools	"We have no written cost benefit analysis tool… discuss with top level management." (Senior Project Director) "We do not use exact cost benefit analysis… survey the market to identify the amount other banks pay." (Project Director –Business)
		Vendor criteria & profiles	"We check for vendor requirements, experience, market practice… service level… consider the price." (IT Project Manager) "We verify vendor profile, capability, financial condition, reputation and service to other banks." (Business Analyst)
		Intangible costs	"We considered user resistance to using new software… decided to upgrade existing software." (IT Project Manager)
	Approval of IT Projects	Committee involvement	"Our project selection process is informal, and top management is satisfied with it." (Project Director – System) "Since we do not have any standard method, we use different methods for different projects." (System Analyst) "Core banking software… initiated by the IT department." (IT Project Manager)
	Make–Buy Decision	Inhouse vs. outsourcing	"We have a good inhouse team… if not feasible, we look for vendors based on reputation and expertise." (Senior Project Director)
		Vendor capability & service	"It is difficult to identify vendor's true capability." (Senior Project Director) "After one year… vendor does not provide a good level of service." (IT Project Assistant Manager) "Foreign vendors stopped local operations… offshore support interrupted our regular operation." (IT Project Manager) "Vendor resources… expert switches jobs… service level fails." (Business Analyst)

Major Theme	Theme	Subtheme	Illustrative Quotes
CSFs	Formal Decision Making Process	Informal & varied methods	"Our project selection process is informal… top management satisfied." (Project Director – System) "No standard method… different methods for different projects." (System Analyst) "Core banking software… initiated by IT department." (IT Project Manager)
	Business–IT Alignment	Analysts & bridging personnel	"We have business analyst and system analyst… outcome depends on their efficient work." (IT Project Manager) "We use bridging people to compensate the knowledge gap of IT and business executives." (Business Project Manager)
		Requirement & ownership issues	"Business unit fails to specify… frequently change requirements." (System Analyst) "Business unit does not lead or own… projects not properly closed." (IT Project Manager)
		Positive collaboration	"I have not found any problems… happy to clarify requirements." (Business Analyst) "Normally, we have a good relationship with the IT team… later we start to speak the same language." (Business Analyst)
	Communication	Meetings & coordination	"We hold weekly meetings for knowledge sharing to reduce misunderstandings." (IT Project Manager) "Additional meetings with branches and vendors… resolve gaps and issues." (System Analyst)
	Top Management Support	Active involvement	"Our Managing Director (MD) is actively involved in every IT project… their assistance is indispensable." (IT Project Manager)
		Influence on vendor selection	"We encounter challenges in vendor selection… pressure from top management to choose a specific vendor." (Business Analyst)
	Skills & Knowledge of Stakeholders	Requirement challenges	"People in business unit struggle with technical jargon and often alter their requirements." (System Analyst) "Business unit typically lacks IT expertise… challenges in sourcing vendor information." (Project Director – System)
		Need for training	"Business personnel need IT training at least once annually… IT personnel learn remaining with business personnel." (System Analyst)

Major Theme	Theme	Subtheme	Illustrative Quotes
		Importance of skilled teams	"Project teams must include skilled individuals. Sometimes, choosing the wrong people can delay project completion." (Project Director – Business)
		IT knowledge gap in management	"Top management has limited IT knowledge… difficult to convince them to invest in IT projects." (System Analyst)
		Lack of ITPM awareness	"What is it? We normally take multiple projects at a time… one developer may be involved in different projects." (Project Manager – Business) "I have not seen any written document… IT head uses something informally." (Business Analyst)