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Factors Influencing the Implementation of Integrated Financial Management Information Systems: Study Focus on Bangladesh

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ABSTRACT

Background of the study: Integrated Financial Management Information Systems (IFMIS) can help improve public sector management by giving managers real-time financial data to make better decisions. The Bangladeshi Public Service is currently busy with the implementation of an IFMIS. However, implementing IFMIS such a project has proved to be a demanding undertaking and has not been met with resounding success.

Objectives of the research: The research is primarily focused to identify the factors influencing the implementation of IFMIS in Bangladesh. Along aside, this paper assesses the influence of technical capacity of staff on implementation of IFMIS in Bangladesh's public institutions and staff resistance on the deployment of IFMIS.

Methodology of the research: The paper draws from two theories in investigating the issues of IFMIS adoption for public financial management. The theories include **System Theory and Rodger's Theory.** A simple Random sampling technique is used to collect the information from targeted respondents with a structured questionnaire. Around 80 respondents were selectively targeted.

Findings of the research: One of the Major findings of the study is that the governments have a strategic plan that recognizes political, administrative, and capacity limits that were found to be supported by respondents**.** The study indicates that the government has revised the wage structure to compete with the private sector and to prevent skilled employee turnover. Research shows that employees have the necessary skills and credentials to implement IFMIS. Furthermore, the study looked at how IFMIS deployment is affected by capacity and abilities.

Contributions of the research: The results revealed a significant connection between capacity and skills and IFMIS deployment. However, it is found that the infrastructure is central concern for successful IFMIS implementation. Moreover, the government's interaction with the external consultants is seen to be indecisive. Finally, the study recommends that government should uphold the strategic plan that identifies all the constraints and should have detail plan for maintaining its education system's alignment with information technology.

Keyword: Bangladesh; Integrated Financial Systems; Management Information Systems; Roger's Theory; System Theory.

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1 INTRODUCTION

Financial Management Information Systems facilitate the automation and integration of public financial management activities such as budget formulation, execution (including commitment control, cash/debt management, and treasury operations), accounting, and reporting (FMIS) (World B. 2021). Developing nations' governments are increasingly experimenting with techniques and systems for modernizing and improving public finance management (Chêne 2009:3). For instance, the Integrated Financial Management Information System (IFMIS) has become one of the most widely used financial management reform techniques over the years to promote the efficiency, effectiveness, accountability, transparency, and security of data management comprehensive financial reporting. While the scope and operation of an IFMIS vary by nation, it often represents a large, complex, and intentional reform effort. The sheer size and complexity of an IFMIS provide substantial obstacles and several hazards to the deployment process that extend far beyond the technical risk of failure and insufficient functioning. Implementing an IFMIS might be viewed as an organizational change that deeply affects work processes and institutional arrangements governing public finance management. Challenges and impediments may have a catastrophic impact on the process's implementation and management; therefore, they should not be overlooked (Rodin- Brown 2008:2; Hove & Wynne 2010:8).

Several factors determine the success of IFMIS development and implementation in emerging nations. This article aims to identify some of the challenges and present solutions that can serve as best practice guidelines in implementing IFMIS. Thus, this study aims to address the research problem to identify the challenges of implementing an IFMIS and present best practice guidelines that will facilitate a successful implementation of an IFMIS in the Bangladeshi Public Sector.

An IFMIS, according to Dorotinsky (2003:3) and Rozner (2008:1), is a financial information system that records and summarizes financial occurrences. It helps with management reporting, policy choices, fiduciary obligations, and auditable financial statement preparation. An IFMIS is essentially an accounting system that has been customized to work according to the demands and standards of the environment in which it is placed (Rodin-Brown 2008:2). It refers to the automation of financial processes in general.

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IFMIS, in the context of government operations, refers to the computerization of public financial management activities, ranging from budget preparation and implementation through accounting and reporting, using an integrated financial management system (Lianzuala & Khawlhring 2008:1).

A well-designed Integrated Financial Management Information System (IFMIS) has the following characteristics, according to Diamond and Khemani (2006:99) and Chêne (2009:2): it is a management tool; it provides a wide range of non-financial and financial information; it is a system, and it has an impact on corruption. An IFMIS, according to Hove and Wynne (2010:8), aids management in guaranteeing responsibility for the deployment and use of public resources while also increasing the efficacy and efficiency of public expenditure programs. Management may exert better control over expenditure and increase transparency and accountability in the budget cycle by recording financial events using an automated financial system. Diamond and Khemani (2006:99) say that an IFMIS should enable change management as a management tool.

An IFMIS provides decision-makers and public-sector managers with the data they require to carry out their duties. An IFMIS, according to Rodin-Brown (2008:3), offers timely, accurate, and consistent data for management and budget decision-making. An IFMIS seeks to improve the quality and availability of information required at different stages of public financial administration, such as budgeting, treasury management, accounting, and auditing, by computerizing a government's budget management and accounting system (Dorotinsky & Matsuda 2001:3). An IFMIS lets users access the system from anywhere on the IFMIS network and retrieve the information they want. A wide range of reports may be created to handle budgeting, funding, treasury, cash flow, accounting, auditing, and day-to-day management issues (Rozner 2008:1).

1.1 Research Objective

The study's primary goal was to determine the factors that influence the deployment of integrated financial management information systems in Bangladeshi government agencies. There are some other specific objectives which are as follows:

i. To determine the influence of management commitment on the implementation of IFMIS in Bangladesh’s public institutions.

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ii. To determine the influence of technical capacity of staff on implementation of IFMIS in Bangladesh's public institutions.
iii. To Measure the influence of project financing on the implementation of IFMIS in Bangladesh's public institutions.
iv. To determine the impact of staff resistance on the deployment of IFMIS in county government.

1.2 Significance of The Research

This Research Project will assist the Bangladesh government as it highlighted the challenges the staff is going through while implementing IFMIS, especially capacity building needs and availing adequate equipment with this information. The government will be able to develop a strategy to bridge the identified gaps and improve the implementation of the IFMIS. Also, the research project will provide information to agencies implementing IFMIS, and the research gives them information that will help them take corrective actions aimed at maximizing the value that Bangladesh's Government can get by having fully implemented information systems. The research project also adds to the existing literature by bridging the gap on the implementation and impact of IFMIS on accountability and transparency. The findings of the research project are beneficial to future researchers since they highlighted areas requiring further research.

1.3 Scope of The Research

This research project mainly examines the status of IFMIS in Bangladeshi public institutions in Dhaka City with a focus on the factors that affect the implementation of FMIS. The reason for selecting Dhaka is that all headquarters of public financial management institutions such as the Ministry of Finance, Accountant General, and the Central Bank located in the city as it is the capital of Bangladesh, and therefore, the information gathered from there could be generalized to the other sub-offices in the country. The research project covers August 2020 to December 2020, focusing on how management commitment, financing, and technical staff influence the implementation of IFMIS in Bangladesh.

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2 LITERATURE REVIEW

The paper draws from two theories in investigating the issues of IFMIS adoption for public financial

management. The theories include **System Theory and Rodger's Theory.** The literature primarily focused on the factors that affect the implementation of IFMIS in the public sector and identify several potential factors that might affect the adoption of IFMIS within the public sector in different countries. Therefore, the above studies provide an essential aspect regarding IFMIS and its components. In addition, they also provide results and conclusions of researches done on IFMIS in different countries and environments.

The theoretical framework of the research project relied on several theories pertinent to financial management in general and IFMIS.

2.1 System Theory

According to Wang (2005), information may be defined as "patterns circulating (due to feedback) in the system that do not necessarily include any conscious mind." In other words, information may be defined as stuff that has the potential to be interpreted as representation but was not generated or provided for that reason. According to Kang" ethe (2002), a system is a group of related and Interacting components, which work together to achieve the desired purpose or set of objectives**.** Opiyo (2017) asserts that in order to achieve the objectives of office secretarial management, there is a need for efficiency and effectiveness, which necessitates ensuring harmony and synergy between the human resource as the core resource that controls other resources on the one hand, and the other tools of the trade, in particular, modern ICT on the other. As a result, there is an obvious need to comprehend human resource perceptions and areas of possible conflict in the context of human resource engagement with modern ICT. Information technology systems, or "InfoTech," are created when computer and communication technologies are integrated. Information technology is a broad word that encompasses any technology that aids in the creation, manipulation, storage, communication, and dissemination of data. When discussing information technology in general, it is likely that the usage of computers and information are linked (Wang, 2005). Emerging Information and Communication Technology (ICT) can play a critical role in combating corruption in public finance systems Opiyo (2017) by encouraging more data comprehensiveness and openness across government agencies. As a

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result, several developing nations have pushed for the implementation of IFMIS as a critical component of their public finance reforms. The IFMIS system comprises different components that work interdependently to ensure that proper financial management and cash management are achieved in the Bangladeshi Public Sector. Based on the discussion on the components of the IFMIS as a system, each component affects the implementation of IFMIS and forms part of the proxy variables that will be used to measure how far the IFMIS implementation is successful.

2.2 Rodger's Theory

Rodgers established the diffusion of innovation (DOI) hypothesis in 1962, and it is considered one of the earliest social science ideas. It was first used in communication to describe how an idea or product acquires traction and diffuses (or spreads) through a population or social system over time. This diffusion is that people adopt a new idea, behavior, or product as part of a social system. Adoption means that people do something different from what they had previously (purchasing or using a new product, acquiring and performing a new behavior, etcetera). Adoption depends on the person's perception of the concept, behavior, or product as novel or unique. Diffusion is conceivable as a result of this Sahin (2006). This theory categorizes adopters of innovation into four categories; Innovators, individuals who want to be the first to try the innovation. Then, Early Adopters, people who represent opinion leaders. After that, Early Majority, individuals who need to see evidence that the innovation works before they can adopt it, and, finally, Late Majority, skeptical individuals who only adopt an innovation after the majority and Laggards have tried it. These individuals are very skeptical of change and are the most challenging group to involve in the innovation process Rotich (2015). According to Medlin Kahari (2015), Rodger's theory of innovation's diffusion is the most appropriate in understanding the adoption of a given technology. Therefore, in the current study, the theory mentioned earlier enables the investigation of the adoption of IFMIS by Bangladesh's government institutions. As Rodgers posits, adoption is a decision to fully use innovation as the best course of action available, while rejection is not adopting an innovation. This reasoning will be applied to explain the embracing of and resistance to FMIS in Bangladesh's government institutions.

In tandem with Rodger's theory, four main elements in the diffusion of innovations should be understood. Innovation, communication channels, time, and the social structure are among them Sahin (2006). According to Rodgers (2003), innovation is an idea, practice, or

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initiative that is recognized as a novel by an individual or other unit of adoption. Bangladeshi public financial organizations see IFMIS as an innovation since it fulfills the previous definition. In this light, Bangladeshi public finance institutions regard IFMIS as an innovation since it fits the earlier description. Communication is asserted to be how participants create and share information intending to reach a mutual understanding. Communication is occurring through channels between sources. Enhancing the diffusion of FMIS in Bangladesh's government institutions, it should be ensured that the system is communicated through the most effective channels. It is further observed that the innovation diffusion process includes a time dimension. The nature of the social system affects individuals' innovativeness, which is argued to be the main criterion for categorizing adopters. It is suggested that understanding the invention-decision process is important as one approach to improve the spread of a technology (or innovation). Knowledge, persuasion, choice, execution, and confirmation are the five steps of the process (Rogers, 2003). This study aimed to see how users are informed about the implementation of IFMIS in Bangladesh's government organizations. It would also be prudent to comprehend how relative benefit, compatibility, complexity, trialability, and observability are critical in persuading relevant Bangladesh Government authorities to use FMIS in their operations. Furthermore, it will be critical to comprehend the relevant personnel's choice (if they make the same one) and how the IFMIS is applied. Finally, the researcher can confirm the possible consequences of implementing FMIS by Bangladesh's government institutions using the Rodgers theory.

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Theoretical framework

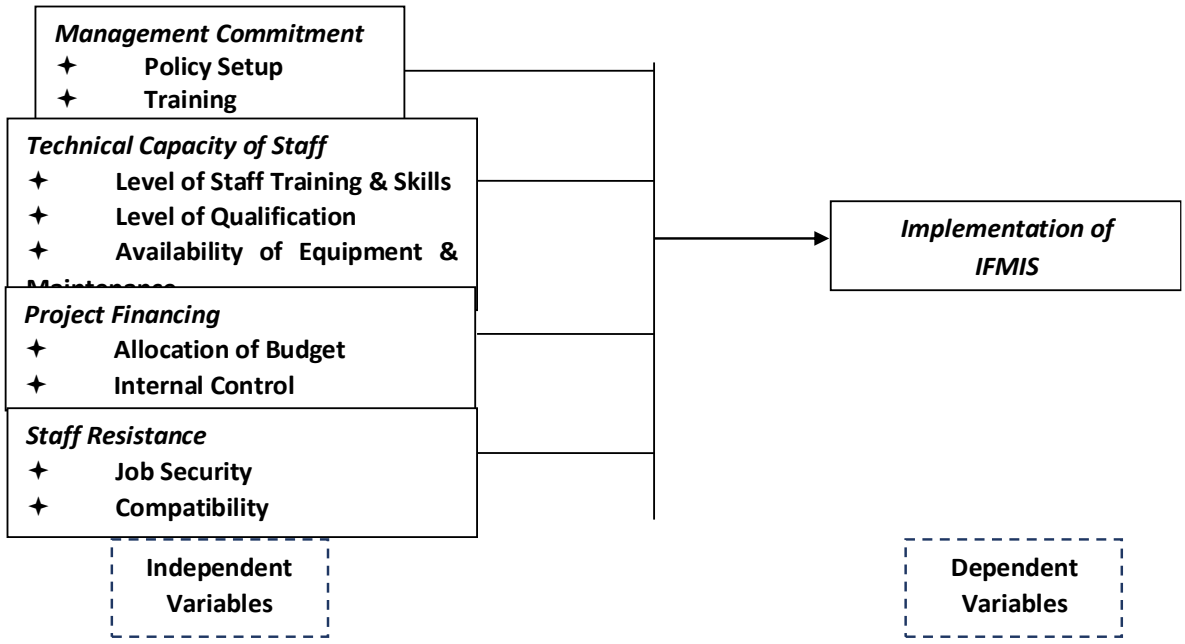

Figure 01: Research Framework

Research was conducted in Kenya for IFMIS ranging from its assistances, elements that affect it, its impact on supply chain management, challenges for federal government, its consequences on performance and performance in projects (Omwoha and Getuno, 2015; Odolo and Gekara, 2015; Lundu and Shale, 2015; Njenga et al., 2014; Kiilu and Ngugi, 2014; Secretariat, 2013; Odago and Mwajuma, 2013).

2.3 Management commitment affects the implementation of FMIS

Management commitment is hypothesized to play an essential role in IFMIS implementation. Wabala. S. (2017) recognize that project leadership significantly influence the successful implementation of IFMIS projects among Kenya's state corporations. There is capacity building and training need to be which enhance the proficiency of the staff in IFMIS. The essential aspects of leadership include management commitment, leaders' attitude towards IFMIS implementation, the positive influence of other stakeholders, management skills, proficient communication, and adequate allocation of human resources to projects. Hendriks (2012) in his study on Integrated Financial Management Information Systems: Guidelines for effective implementation by the public sector of South Africa, found that implementation of an IFMIS is a complex, risky, resource-intensive process that requires significant procedural changes and often

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involves high-level officials and a commitment to change: change in technology; in processes and procedures; as well as changes in skills, responsibilities, and behaviors. According to Peterson Chebet (2013), one of the most commonly mentioned criteria determining the success or failure of an information system is senior management commitment. In his research on the Implementation of Integrated Financial Information Management Systems, Chêne (2009) argues that the Ethiopian case study has demonstrated that what counts most in the process is mid-level management's commitment to reform, as the changes must eventually be implemented at this level.

The World B. (2015) asserts the importance of management commitment when it comes to overcoming the resistance that may stem from complications during implementation and that explicit declaration of reform objectives, regular updates on the progress and challenges, interactions with key stakeholders, and demonstration of intermediate are needed to help in managing potential resistance, building confidence, and maintaining the momentum of the reform process. This research project tends to echo findings Lundu (2015) on the effect of integrated financial management information system (IFMIS) implementation on supply chain management performance in the devolved government systems in Kenya: A case of Nairobi city-county government establishing that top-level management support has a significant effect in IFMIS implementation in SCM in Nairobi City County Government. Therefore, the study recommends that top-level management commitment should be emphasized as it affects IFMIS implementation in the County Government to multiple levels. It would involve offering back up (support) to the top management to increase their commitment and self-motivated towards attending their responsibilities to realize the intended results of IFMIS and SCM performance within the County Government. The research project found that top management support on IFMIS implementation affects SCM performance in Nairobi City County Government to a great extent. From the results, top managers ensure that all the necessary resources are available to a great extent, top management champions for IFMIS to be implemented in the organization for SCM to a great extent, top management shows initiative by attending IFMIS implementation meetings, and training sessions and top management support affect the effective IFMIS implementation to a great extent. According to Dener (2011) IFMIS is a complex and risky system that requires motivation to change to be implemented effectively. IFMIS requires both the top management and the staff to be willing and committed to change in the use of

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technology. Regarding the complexity, the commitment will significantly influence how the IFMIS will be implemented or adopted into the organization. The lack of commitment to change may be attributed to factors like a need for status quo on the use of old manual systems, fear of risks that may occur in implementing the IFMIS.

Moreover, fear of not knowing how to operate the new systems or perception of ease of the system usage Hendriks (2012) another study conducted by Micheni (2017) analyzing the Critical Success Factors of Integrated Financial Management Information Systems in Selected Kenyan Counties echoed that the political class is not supportive of IFMIS as evidenced by over 87% disagreement with research items. Resources allocated to IFMIS implementation were low, as evidence by a low percentage agreement of only 21%. It was not evident if plans are underway to roll out IFMIS to sub-counties revealed by over 90% disagreement with research items. Lastly, the county's strategic plans do not outline long-term plans to support IFMIS, as revealed by over 88% disagreement with research items.

2.4 Technical staff capacity affects IFMIS's implementation

Staff with the relevant knowledge and abilities are required for the practical implementation, operation, and maintenance of IFMIS (Hendriks, 2012). However, he claims that a lack of capacity hampers IFMIS's efficacy. Ghana's implementation process has been delayed due to a lack of capacity, one of the primary factors. In his study, Hendriks (2012) identified one of the most painful derailments to the success of an IFMIS as a lack of capability. According to Brar (2010), one of the primary problems in implementing the IFMIS in developing countries is a lack of competence for system implementation at the subnational level, such as province and regional administrations. According to him, this aspect is particularly relevant in South Africa, with its nine provinces and the resulting demand for skills and expertise, which is already in short supply. Diamond and Khemani Hendriks (2012) argue in their study of developing countries, specifically Ghana, Malawi, Tanzania, Uganda, and Kenya, that necessary measures should be taken to strengthen capacity in the IFMIS project team, as well as the Attorney General's (AG's) office and the budget office, throughout all project phases. At the same time, they emphasize the importance of improving the central IT department's capabilities and capability to offer critical assistance to the IFMIS. The continuity of key people involved in creating and deploying the IFMIS system is critical to the project's success. According to the World Bank Opiyo (2017), most reforms fail not because of the content or technical components of the reform initiatives but

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because of human resource capability and implementation strategy. The lack of a defined government strategy for employee training also makes it difficult to predict how effectively the systems will manage finances.

2.5 Project Financing Affects Implementation of IFMIS

Financial systems reforms are complex and risky, make intensive use of resources, and require significant procedural changes (Chêne, 2009). Further, high-level officials and individual agencies often have no incentive for IFMIS implementation and allocate inadequate funds to the project. Inadequate funding is also due to wide-ranging resistance to change towards IFMIS, from those who benefit from existing practices to end-users whose work might be radically transformed by new systems Kimwele (2012) asserts that implementation of IFMIS had been hindered by financing due to reliance on donor funding. Further, operational/running costs were met by the government with donor funding (capital and human resource requirements), ending with the first project phase. Another study conducted in Jordan on Challenges and Factors Affecting the Implementation of E-Government in Jordan found that several challenges hinder the implementation of E-government, including the IFMIS, such as inadequate funding.

The budgets for such projects were inadequate; there lacked ICT policies and master plans to guide investment. The importance of financing was challenged by Peterson (2006) in Ethiopia, where IFMIS implementation recorded immense success though the country had limited resources, capacity, infrastructure, and changes in government, and dependency on foreign donors. However, a prudent and pragmatic approach ensured that IFMIS were promptly delivered at a relatively low cost and then gradually updated into technically robust, sophisticated systems meeting international standards. Automation was delivered on budget, ahead of schedule, and beyond specification. IFMIS is consistent with findings of Gichoya (2005), Odago (2013), and Al-Shboul (2014) who noted that lack or inadequate funding, poor infrastructure, and bureaucracy are considered as significant factors for the failure of ICT adoption at government institutions. Therefore Hoe (2013) reports that developing countries have invested heavily in information management systems to benefit from advances in information technology, enabling firms or organizations to redefine business processes and develop new business models. Kimwele (2012) asserts that implementation of IFMIS had been hindered by financing due to reliance on donor funding.

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2.6 Staff Resistance

IFMIS is primarily a new concept or system granted that it is yet to take sufficient roots, especially in the county governments. As a result, the employees responsible for putting this system in place will almost certainly oppose it. Besides overcoming employees' resistance, change management aims to maximize the institution's capacity to achieve success through involved, educated, and committed personnel.

According to Indeje and Zheng (2010), implementing a new information system such as IFMIS alters the way activities are carried out, necessitating a carefully managed approach to avoid any worker opposition. As a result of this process, a new organizational culture emerges and a shift in the way the company functions. A comprehensive functional study of processes, procedures, user profiles, and requirements that the system will support should precede an IFMIS (Chêne, 2009). The changes associated with the implementation of IFMIS should be communicated to the staff in order for them to embrace it (Peterson, 1998). The management of the changes associated with an IFMIS implementation is viewed as one of the most important yet one of the most overlooked aspects of IFMIS reforms (Peterson, 1998). Any reform's effectiveness is determined by an institution's ability to adapt, manage change, and endure change. He also warns that change opposition may come from a variety of organizational stakeholders. People with vested interests, such as employees who benefitted from prior techniques or public servants who see the change as a direct danger to their employment, may be among them. However, for individuals who resist change simply because they dread the unknown.

Immediately following the conception of an IFMIS project, change management methods should be created. Politicians, senior officials, heads of departments, IT personnel, and civil workers, among others expected to support the new system, should be considered (Rozner, 2008). It is cautioned that if this issue is not addressed early in the project, maybe even before it begins, the IFMIS will encounter opposition and derailment from executive authorities, elected political leaders, and workers who will be using the project system regularly.

According to Rodin-Brown (2008), the most practical way to overcome change resistance is to provide clear communication, education and training, and 'early wins' that illustrate the shift's advantages. Seminars, workshops, training sessions, the organization's website,

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conferences, and newsletters are examples of communication methods. In addition, every business has an unspoken set of rules for managing the change process.

3 RESEARCH METHODOLOGY

This chapter covers the various steps that will be used to facilitate the execution of the research project to satisfy the objectives. These steps include research design, study population, sample and sampling techniques, data collection instruments, validity and reliability of research instruments, data collection procedures, and data analysis techniques.

3.1 Target Population

The study population is simply an aggregate of all objects, subjects, or members that conform to a set of specifications (Polit & Hungler, 1999). The population to whom the study's findings will be generalized included all the management and finance/accounting staff of Public Organizations in Bangladesh. The study's target population consisted of Bangladesh government management/administrative and finance/accounting personnel. The target population comprises 80 respondents, as illustrated in Table 1 (management/administrative and finance/accounting staff drawn from different Ministries of Bangladesh, Central Bank of Bangladesh.

Table 01: *Study Population*

Office	Management Staff	Finance/Accounting Staff	Total
Ministry of Finance	40	15	55
Central Bank (Bangladesh Bank)	4	1	5
Accountant General Office	4	2	6
Ministry of Planning	3	1	4
Ministry of Commerce	4	2	6
Ministry of Information	3	1	4
Total	**58**	**22**	**80**

3.2 Data Collection Instrument

The researcher used structured questionnaires with closed-ended questions to obtain primary data from the respondents. The claim justifies the use of structured questionnaires that are simple to administer to respondents.

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3.3 Validity Test

Validity simply refers to the "correctness of measure." According to Galvan (2006), there are many forms of validity depending on scope, relevance, predictive quality, and connection. Content validity, construct validity, criterion-related validity, and face validity are a few of them. The most crucial factor in this study is content validity. It is maintained that this sort of validity is not statistically quantifiable. To assess the validity of the study instrument, the researcher sought the professional judgment of his university supervisors.

3.4 Reliability Test

Lanyon and Goodstein (1982) defined reliability as a measurement of repeatability of dependability. Temporal stability (consistency of findings over time) and internal consistency (the degree to which individual items in a test or set of items correlate with each other or with the total score on the test) are the two most frequent kinds of dependability, according to Muijs (2004). The suggested study is mainly interested in the latter sort of dependability. This study will use the Cronbach alpha calculation, one of the most frequently used methods for assessing internal consistency (Galvan, 2006). Cronbach alpha scores vary from 0.00 to 1.00, with values of 0.75 or above indicating sufficient internal consistency reliability when just one scale is involved Galvan (2006), and 0.7 or higher when five or more subscales are included (Galvan, 2006). As demonstrated in Table 2, all of the research variables had alpha values better than 0.7, indicating that they were trustworthy.

Table 02: *Reliability Result*

Study Variables	No. of Items	Alpha Values
Staff Resistance	8	0.77
Capacity and Skills of IFMIS Users	10	0.79
Implementation of IFMIS	5	0.81

3.5 Data Processing and Analysis

The procedures done on a given collection of data to extract the needed information in a suitable form, such as diagrams, reports, and tables, are referred to as data processing by Mugenda and Mugenda (1999). Data analysis, they claim, is the process of putting order, structure, and

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meaning into the information gathered. On a 5-point Likert scale, responses to the research variables were categorized as factors. After the data has been collected, it will be processed and analyzed. This method included grouping surveys, editing, and coding replies, and then putting the processed data via the Statistical Package for Social Sciences (SPSS) program. In order to analyze the data, the researcher used Pearson's Product Moment Correlation Coefficient (PPMC). Next, the data were analyzed using descriptive statistics (frequency, percentages, means, and standard deviations) and inferential statistics (Correlation). Finally, tables were used to present the information.

4 FINDINGS AND ANALYSIS OF THE STUDY

4.1 Descriptive Analysis for Staff Resistance

The study looked at how respondents felt about how the Government's resistance to IFMIS impacts its implementation. Table 3 summarizes the key findings. The government's statement has a strategic plan that recognizes political, administrative, and capacity limits that were found to be supported by respondents (mean 4.05; standard deviation > 1.000). Simultaneously, the government has devised practical methods for dealing with change resistance; government stakeholders who benefited from previous methods perceive change as a threat to their jobs and thus resist it; government develops change management strategies as soon as an IFMIS project is conceived. The notions that the government has instituted CMS for successful IFMIS implementation, that the government can make changes, manage changes, and survive while changing, that the government has instituted strategies to minimize resistance to change, and that the government has formulated guidelines for successful IFMIS implementation were met with apathy (mean 3.24; standard deviation > 1.000).

Table 03: *Descriptive Statistics for Staff Resistance*

SL	Particulars	n	Min	Max	Mean	Std.
1	Govt has instituted CMS for successful IFMIS implementation.	80	1	5	2.76	1.163
2	Govt can make changes, manage changes and survive while changing.	80	2	5	3.10	1.120

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3	Govt has instituted strategies to minimize resistance to change.	80	1	5	2.98	1.214
4	Govt has formulated guidelines for successful IFMIS implementation.	80	1	5	3.24	1.321
5	Govt develops change management strategies immediately after an IFMIS project is conceived.	80	2	5	3.34	1.366
6	Govt stakeholders who benefitted from previous methods perceive change as a threat to their jobs, hence resist it.	80	2	5	3.80	1.320
7	Govt has devised convenient methods of overcoming change resistance.	80	2	5	3.50	1.124
8	Govt has a strategic plan that identifies political, administrative & capacity constraints.	80	2	5	4.05	1.061

4.2 Descriptive Analysis for Capacity and Skills of IFMIS Users

As indicated in Table 4, respondents agreed (mean = 3.89; standard deviation = 1.424) that the government has revised the wage structure to compete with the private sector to prevent skilled individuals from leaving. On the other hand, the respondents were split on whether the government had taken the required steps to strengthen the IFMIS project team's capacity (mean 3.77; standard deviation > 1.00). Also, the government has personnel with the requisite knowledge & expertise for effective IFMIS implementation, operation, and maintenance; Government has aligned the education system with IT to meet the demand of ICT personnel. Moreover, the government engages external consultants with extensive experience in public sector financial management, conducts capacity building for its personnel through training, and has taken necessary measures to develop the requisite skills and capacity of the central IT department. In addition, the government takes great care when outsourcing technical assistance from external consultants; skilled personnel is incentivized to join the government, and that county government ensures continuity of key personnel involved in the system's development and implementation. However, the relatively more significant standard deviations (std dev > 1.000) implied that some respondents had extreme views regarding the capacity and skills of IFMIS users.

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Table 04: *Descriptive Statistics for Capacity and Skills of IFMIS Users on its Implementation*

SL	Particulars	n	Min	Max	Mean	Std.
1	Govt ensures continuity of key personnel involved in system's development & implementation.	80	1	5	2.90	1.13
2	Skilled personnel are incentivized to join the Govt.	80	2	5	3.05	1.21
3	Govt takes excellent care when outsourcing technical assistance from external consultants.	80	2	5	3.12	1.29
4	Govt has taken necessary measures to develop requisite skills & capacity of the central IT dept.	80	2	5	3.25	1.053
5	Govt conducts capacity building for its personnel through training.	80	2	5	3.33	1.179
6	Govt engages external consultants with extensive experience in public sector financial management.	80	2	5	3.47	1.342
7	Govt has aligned the education system with IT to meet the demand of ICT personnel.	80	2	5	3.62	1.371
8	Govt has personnel with the requisite knowledge & expertise for effective IFMIS implementation, operation, & maintenance.	80	2	5	3.70	1.310
9	Govt has taken necessary measures to reinforce capacity in the IFMIS project team.	80	2	5	3.77	1.313
10	Govt has reviewed salary structure to compete at par with the private sector to deter trained personnel exit.	80	2	5	3.89	1.424

4.3 Descriptive Analysis for Implementation of IFMIS

As shown in Table 5, the respondents agreed (mean 4.00; standard deviation 1.00) that ICT personnel has the necessary skills and credentials to implement IFMIS and that the government supports it at the county level. Furthermore, it was agreed (mean 3.90; standard deviation 1.00) that appropriate infrastructure ensures efficient IFMIS implementation; the government has embraced IFMIS, and the government has sufficient employees to ensure IFMIS implementation. However, the modest standard deviations across all categories suggested that respondents did not have strong feelings about the ideas put up to them.

Table 05: *Descriptive Statistics for Implementation of IFMIS*

SL	Particulars	n	Min	Max	Mean	Std.
1	Govt has adequate staff to ensure IFMIS implementation.	80	1	5	3.21	0.962

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2	Govt has embraced IFMIS.	80	2	5	3.42	0.861
3	There is sufficient infrastructure that ensures effective IFMIS implementation.	80	2	5	3.90	0.731
4	Govt supports IFMIS implementation at the district level.	80	2	5	4.40	0.618
5	ICT staff have the requisite expertise & qualifications for IFMIS implementation	80	3	5	4.46	0.512

4.4 Relationship between Staff Resistance and Implementation of IFMIS

As shown in Table 6, the study findings revealed a substantial, negative, and statistically significant link between staff resistance and IFMIS implementation (r = -0.365; p 0.01). It suggests that IFMIS implementation is hampered by employee opposition. The adoption of IFMIS is jeopardized as employee opposition grows and vice versa. In other words, IFMIS adoption will be less effective if employee opposition is high. Therefore, the government should guarantee that employee opposition is handled to improve the system's implementation. The results agreed with Indeje and Zheng's (2010) conclusion that IFMIS might meet opposition from the employees.

Table 06: *Relationship between Staff Resistance and Implementation of IFMIS*

		Implementation of IFMIS
Staff Resistance	Pearson Correlation	−. 365**
	Sig. (2-tailed)	.000
	n	80

** Correlation is significant at the 0.01 level (2-tailed).

4.5 Relationship between Capacity and Skills, and Implementation of IFMIS

Furthermore, the study looked at how IFMIS deployment is affected by capacity and abilities. In other words, it aimed to determine how the competence and abilities of the person charged with implementing IFMIS influenced the process. The relevant findings are shown in Table 7. The results revealed a substantial, positive, and statistically significant connection (r = 0.819; p 0.01) between capacity and skills and IFMIS deployment. The deployment of IFMIS was aided by increased capacity and expertise. It may be concluded that increasing the capacity and abilities of IFMIS users will improve the system's implementation. The research agreed with Diamond and Khemani's (2006) conclusion that appropriate steps should be taken to strengthen the IFMIS project team's capabilities.

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Table 07: *Relationship between Capacity and Skills, and IFMIS Implementation*

		Implementation of IFMIS
Capacity and Skills	Pearson Correlation	.819**
	Sig. (2-tailed)	.000
	n	80

****. Correlation is significant at the 0.01 level (2-tailed).**

4.6 SUMMARY OF THE ANALYSIS AND FINDINGS

It was agreed that the government has a strategic plan that identifies political, administrative, and capacity constraints; the government has also devised convenient methods of overcoming change resistance. Furthermore, government stakeholders who benefitted from previous methods perceive change as a threat to their jobs, hence resist it; and that government develops change management strategies immediately after an IFMIS project is conceived. It was, however, unclear that the government has instituted CMS for successful IFMIS implementation; Governments can adapt to change, manage change, and thrive in a changing environment.; Government has instituted strategies to minimize resistance to change, and the county government has formulated guidelines for successful IFMIS implementation. Further, correlation analysis illustrated a strong, negative, and statistically significant relationship between staff resistance and IFMIS implementation ($r = -0.365$; $p < 0.01$).

It was also discovered that the government had revised its wage structure to bring it in line with the private sector to prevent trained employees from leaving. However, respondents were split on whether the government has taken the required steps to strengthen the IFMIS project team's capability or if the government has employees with the appropriate knowledge and expertise for efficient IFMIS implementation, operation, and maintenance. However, the government has aligned the education system with IT to meet the demand of ICT personnel; Government engages external consultants with extensive experience in public sector financial management. In doing so, the government conducts capacity building for its personnel through training; Government has taken necessary measures to develop the requisite skills & capacity of the central IT department. Moreover, the government takes great care when outsourcing technical assistance from external consultants; government incentivizes talented individuals to join the organization, and the organization assures the continuity of key personnel involved in the system's creation and implementation. Further research revealed a substantial, sound, and

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statistically significant link between IFMIS users' ability, abilities, and implementation ($r = 0.819$; $p < 0.01$).

It was openly stated that ICT personnel had the necessary experience and credentials for implementing IFMIS and that the national government encourages county-level implementation. It was also acknowledged that the infrastructure is in place to guarantee successful IFMIS implementation, that the government has embraced IFMIS, and that the government has sufficient employees to ensure IFMIS implementation.

5 CONCLUSIONS AND RECOMMENDATIONS

The study concluded that the government had a strategic plan that identifies political, administrative, and capacity constraints and devised convenient methods of overcoming change resistance. In line with the above, it is further concluded that government develops change management strategies immediately after an IFMIS project is conceived. In addition, the study found that government stakeholders were resistant to change because they saw it as a danger to their employment. Furthermore, the opposition was conceivable due to the county government's concern about its ability to make changes, manage changes, and exist while changing. It was also concluded that there is ambiguity about whether the government has implemented methods to reduce opposition to change and if guidelines for successful IFMIS implementation have been developed.

It was inferred that the government had reviewed salary structure to compete at par with the private sector to deter trained personnel exit. Government efforts to reinforce the IFMIS project team's capacity and ensure continuity of key personnel in the system's development and implementation were unclear. It was also determined that there were doubts about the availability of employees with the necessary knowledge and experience for successful IFMIS implementation, operation, and maintenance. The government conducts capacity building for its personnel through training, and that skilled personnel is incentivized to join the government was inconclusive. Furthermore, the government's interaction with the external consultants was seen to be indecisive.

The study recommended that government should uphold the strategic plan that identifies all the constraints that derail the implementation of IFMIS. Further, it is recommended that the

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government enhance its capacity to make changes, manage changes, and survive while changing. In addition, the government should institute strategies to minimize resistance to change and formulate guidelines for successful IFMIS implementation. Furthermore, the government should conduct capacity-building activities to ensure that the IFMIS teams and key people have the required capabilities to support IFMIS and its implementation effectively.

The study also recommended that the government focus on building capacity in the IFMIS project team and ensuring continuity of key personnel in the system's development and implementation by maintaining a salary structure and terms of employment that are comparable to the private sector, as well as conducting capacity building training for its personnel. Furthermore, only individuals with the necessary knowledge, experience, and competence for implementing, operating, and maintaining IFMIS should be hired. In addition, the government should establish an enabling environment to attract external consultants with the necessary skills and capabilities. Finally, in the long run, the government should maintain its education system's alignment with information technology to address the low need for ICT workers.

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