



THE MANAGEMENT INFORMATION SYSTEM IMPLEMENTATION OF SAINT FERDINAND COLLEGE: SUCCESS FACTORS, CHALLENGES, AND IMPACT ON INSTITUTION'S OPERATIONAL EFFICIENCY

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ABSTRACT

This study, completed in 2026, examined the implementation of the Management Information System (MIS) of Saint Ferdinand College, focusing on its status, critical success factors, implementation challenges, and impact on institutional operational efficiency. Using a descriptive research design, data were gathered from 37 respondents composed of end-users and technical support personnel from the Ilagan and Cabagan campuses. The study assessed MIS components such as hardware, software, data, procedures, people, communication networks, and overall effectiveness, as well as success factors related to leadership, school environment, technical systems, personnel, and management processes. Findings revealed that the MIS implementation was perceived as highly effective, with a grand mean of 3.55, indicating strong agreement across system components. Success factors were rated very much influential, particularly leadership and personnel factors. Implementation challenges were perceived as not a problem, suggesting that the institution maintained adequate leadership support, organizational readiness, technical infrastructure, personnel preparation, and process alignment. Statistical tests showed no significant differences in perceived success factors when respondents were grouped according to job title, years of experience, and role. However, significant differences in perceived challenges were found according to job title and role, while years of experience showed no significant effect. The relationship between success factors and challenges was not statistically significant. Overall, MIS implementation contributed to decision-making, operational efficiency, productivity, communication, data accuracy, resource allocation, performance monitoring, customer service, risk management, and organizational performance. The study concludes that

sustained support and continuous enhancement are essential for maximizing MIS benefits.

Keywords: *Management Information System, MIS Implementation, Operational Efficiency, Success Factors, Higher Education Institutions*

INTRODUCTION

Organizations, including educational institutions, are experiencing increased demands to enhance their processes in an increasingly competitive global market. The advancement of Information and Communication Technology (ICT) has compelled many organizations to implement Information Systems (IS) as a strategic approach to improving decision-making and gaining competitive edge, particularly within the education sector and enterprise collaboration.

When integrated into management, Information Systems (IS) transform into Management Information Systems (MIS), which assist top-level management, middle-level management, and frontline staff in improving organizational performance. MIS is widely utilized across various sectors, including education, for tasks such as attendance tracking, enrollment processing, grade monitoring, financial management, and resource allocation. These functions allow institutions to organize data, support decision-making, and improve the efficiency of academic and administrative operations (Laudon & Laudon, 2022; O'Brien & Marakas, 2011).

However, the implementation of Management Information Systems (MIS) presents significant challenges, demanding considerable time, resources, and specialized expertise. Organizations frequently encounter obstacles to change, budgetary limitations, and the need for comprehensive training, all of which can impede successful deployment and affect overall system effectiveness. These challenges are commonly associated with organizational readiness, user acceptance, technical capability, and management support during system implementation (Kornkaew, 2012; Al-Fraihat et al., 2020).

The successful implementation of Management Information Systems (MIS) is driven by key factors such as strong management support, well-defined goals, effective project management, and active user involvement. When executed effectively, MIS enhances efficiency, decision-making, productivity, and financial performance, while also promoting innovation and strengthening stakeholder relationships. Prior studies emphasize that user participation, system quality, information quality, and management support are essential determinants of MIS success and long-term organizational benefits (Petter et al., 2013; DeLone & McLean, 2003; Laudon & Laudon, 2022).

This study sought to provide an in-depth analysis of the Management Information System implementation at Saint Ferdinand College, focusing on the factors that influenced its success, the challenges faced during its deployment, and its implications for enhancing institutional operational efficiency.

Research Questions

This study sought to examine the challenges encountered in the implementation of Management Information Systems (MIS), identified the critical success factors, and assessed the long-term impacts and outcomes of such implementations on the operational efficiency of Saint Ferdinand College. Its overarching objective was to generate insights that could guide organizations in optimizing the utilization of these systems to promote sustainable growth.

Specifically, the study endeavored to address the following research questions to develop a deeper understanding of the barriers or challenges, success, and impact of the Information Systems implementation and to propose evidence-based strategies for enhancing organizational operational efficiency and productivity:

1. What is the profile of the respondents in terms of:
 - a) job title
 - b) years of experience in MIS implementation
 - c) role in MIS implementation?
2. What are the components of Management Information Systems of Saint Ferdinand College?
3. What are the perceptions regarding the status of the implementation of the Management Information System (MIS) of Saint Ferdinand College in terms of:
 - a) Hardware
 - b) Software
 - c) Data
 - d) Procedure
 - e) People
 - f) Communication Networks
 - g) Overall Effectiveness?
4. What are the success factors of the MIS of Saint Ferdinand College in terms of:
 - a) Leadership factors
 - b) School Environment factors
 - c) Technical System factors
 - d) Personnel factors
 - e) Management Process factors?
5. Is there significant difference between the success factors of MIS when group according to Respondents' Profile?
6. What are the challenges of the MIS implementation as experienced by end-users along with:
 - a) Leadership Issues
 - b) Organization Environment Issues
 - c) Management Process Issues
 - d) Personnel Issues, and
 - e) Technical Systems Issues?

7. Is there a significant difference in the challenges of the MIS implementation as experienced by end users when group according to their profile?
8. Is there significant relationship between the success factors and the challenges to the status of the MIS implementation?
9. What is the impact of MIS implementation as to the Intuitional Operational Efficiency in terms of:
 - a) Decision-making
 - b) Operational Efficiency
 - c) Efficiency and Productivity
 - d) Communication and Information Sharing
 - e) Data Management and Accuracy
 - f) Resource Management Allocation
 - g) Performance Monitoring
 - h) Customer Service
 - i) Risk Management
 - j) Overall Organizational Performance?

METHODOLOGY

Research Design

This study was conducted to explore and analyze the challenges, key success factors, effects, and challenges that influence the use and implementation of Management Information Systems (MIS) that influence the organizational performance of Saint Ferdinand College on both the Ilagan and Cabagan campuses.

The study employed the descriptive research method to examine the challenges, key success factors, and effects of MIS implementation in relation to organizational performance. The method according to Calderon and Gonzales (1993), involves the systematic collection, analysis, classification, and interpretation of data concerning existing conditions, practices, processes, trends, and relationships. This method is appropriate for providing a comprehensive description of a phenomenon without determining causality.

Furthermore, Calmorin and Calmorin (2007), emphasized that descriptive research aims to discover and expand knowledge through the identification of prevailing conditions, emerging patterns, and problems requiring resolution. Hence, the descriptive method was deemed suitable for this study as it enabled the researcher to obtain accurate and reliable information regarding MIS implementation within the organization.

It is for this reason that the researcher has been using this method because it is appropriate for exploring the challenges, success key issues, and effects of MIS implementation in relation to organizational performance.

Locale of the Study

This study was conducted at the Ilagan and Cabagan campuses of Saint Ferdinand College, a Catholic higher education institution in the province of Isabela, Philippines. The Diocese of Ilagan owns the majority of the institution's shares, maintaining more than 90% equity ownership.

Since 2000, both campuses had operated using independent legacy versions of the Management Information System (MIS), each having been deployed separately at their respective sites. These systems functioned in isolation and consequently constrained the institution's ability to achieve integrated information sharing and coordinated decision-making.

In Academic Year 2020–2021, SFC implemented an upgraded and unified MIS across both campuses to address these limitations. The enhanced system was supported by a centralized database server with Local Area Network (LAN) and Wide Area Network (WAN) infrastructures, which facilitated efficient and secure inter-campus data exchange. Moreover, the upgraded MIS incorporated advanced features, such as audit trails and strengthened security protocols, which ensured data integrity and protected the institution's information assets.

Selection and Description of Respondents

The respondents of this study consisted of end-users, middle level management, and technical support personnel from both the Ilagan and Cabagan campuses of Saint Ferdinand College (SFC). End-users were defined as faculty, staff, and administrative personnel who directly utilized the institution's Management Information System (MIS) in carrying out their academic, administrative, and operational functions. Technical support personnel, on the other hand, were identified as those who had been responsible for the installation, maintenance, troubleshooting, and overall technical management of the MIS. The inclusion of both groups as respondents ensured that the study captured perspectives from both system users and system maintainers, thereby providing a comprehensive assessment of the MIS in terms of usability, efficiency, technical performance, and operational impact across both campuses.

Table 1
Frequency Distribution of Respondents

Offices	End-Users	Technical support
Ilagan Campus		
College of Information Technology	2	2
College of Business Education	2	
College of Health Sciences	2	
College of Arts & Sciences	2	
College of Education	1	
College of Criminology	2	
Office of the Student Affairs	1	

Registrar's Office	4	
Cashier's Office	3	
Finance Office	6	
Internal Audit	4	
HR Department	1	
Cabagan Campus		
Registrar's Office	2	
Account's Office	2	
Dean's Office	1	
Total	35	2

Data Gathering Procedure

The collection of data for this study followed a systematic and structured process to ensure accuracy, reliability, and ethical compliance. Prior to data gathering, formal permission was secured from the administration of Saint Ferdinand College for both the Ilagan and Cabagan campuses, ensuring institutional support and access to the identified respondents.

After obtaining approval, the survey questionnaires were distributed to the selected respondents, comprising end-users and technical support personnel of the Management Information System (MIS). Clear instructions were provided to guide respondents in completing the questionnaire accurately and comprehensively.

Respondents were given sufficient time to respond, and confidentiality was assured to encourage honest and unbiased feedback.

Upon collection, the questionnaires were checked for completeness and consistency. The data were then encoded, organized, and subjected to appropriate statistical analysis to address the research objectives. Throughout the data-gathering process, the researcher adhered to ethical standards, ensuring voluntary participation, informed consent, and the protection of respondents' personal and professional information.

Statistical Treatment of Data

The statistical tools used in this study were selected to correspond to the nature of the data gathered from the questionnaire, which had been developed based on the research questions. After the responses were compiled and tabulated, descriptive statistics, such as frequency counts, percentages, means, and standard deviations, were employed to summarize the demographic profiles of the respondents and to assess the general trends in the evaluation of the Management Information System (MIS).

For the analysis of relationships and associations between variables, inferential statistical methods were applied. Specifically, correlation analysis and cross-tabulations were used to examine the associations between respondents' profiles, challenges

encountered, success factors, and perceived impact of the MIS on institutional operational efficiency.

Frequency and percentage count. This was used to analyze the demographic profile of the respondents, focusing on their job titles, roles, years of experience in MIS implementation, and the types and sizes of the organizations in which they worked.

Weighted Mean. The weighted mean was employed to summarize respondents' ratings and determine the average level of perception for each survey indicator, which was interpreted using the established qualitative scales.

ANOVA F-Test. It was applied to examine the significant impact of respondents' demographic profiles on the implementation and effectiveness of the MIS at both the Ilagan and Cabagan campuses of Saint Ferdinand College. These statistical treatments provided a systematic framework for interpreting the data and drawing valid conclusions regarding the challenges, success factors, and institutional outcomes of MIS adoption.

Pearson's correlation coefficient (Pearson's r test). It was used to measure the strength and direction of the linear relationship between continuous variables, specifically to test whether a significant relationship existed between the challenges encountered by the organization and the strategies and practices employed during MIS implementation.

These statistical treatments provided a systematic framework for analyzing the data, allowing for valid and reliable conclusions regarding the challenges, success factors, and operational efficiency outcomes associated with MIS adoption at Saint Ferdinand College.

RESULTS AND DISCUSSION

1. What is the profile of respondents in terms of:

a) Job Title

Table 1.a
Frequency and Percentage Distributions of the Profile of the Respondents as to Their Job Title

Job Title	Frequency	Percent
Office Clerk	13	35.10
Finance Officer	1	2.70
Payroll Clerk	1	2.70
Registrar	2	5.40
Dean/Principal	6	16.20
Internal Auditor	1	2.70
Teller	3	8.10
Cashier	1	2.70

Property Custodian	1	2.70
Accounting Clerk	8	21.60
Total	37	100.00

The profile of respondents shows that the majority are Office Clerks (35.14%) and Accounting Clerks (21.62%), representing personnel who engage directly with the Management Information System (MIS) in routine administrative and financial tasks.

This operationally oriented respondent base aligns with earlier findings on MIS hardware of Smith (2021), where reliability and operational support were rated highly, while modernization and data processing efficiency received relatively lower scores. The substantial representation from Deans/Principals (16.22%) provides a degree of managerial perspective, contributing insights into how hardware performance influences institutional operations at a broader scale. However, the limited representation from specialized roles such as Internal Auditors, Finance Staff, and Property Custodians (each 2.70%) suggests that the findings are predominantly reflective of day-to-day system users. This is consistent with the principle that understanding sample composition through descriptive statistics and frequency distributions is essential for interpreting the scope and applicability of research findings according to OpenStax (2019). Consequently, the interpretation of the impact of the MIS hardware on institutional efficiency is grounded more in the operational experience of front-line staff than in strategic or policy-level considerations.

b) Years of Experience in MIS Implementation

Table 1.b
Frequency and percentage distributions of the profile of the Respondents as to their Job year of experience

Years of Experience	Frequency	Percent
1-3 Years	8	21.60
4-6 Years	3	8.10
7-10 Years	11	29.70
More than 10 Years	15	40.50
Total	37	100.00

The dominance of respondents with more than 10 years of job experience (40.50%) and 7–10 years (29.70%) suggests that the study draws heavily from individuals with substantial institutional tenure. Such seasoned professionals are likely to possess deep familiarity with existing processes, organizational culture, and historical challenges in information management. This long-term exposure can provide valuable insights into both the successes and shortcomings of MIS implementation, particularly regarding system alignment with organizational workflows and decision-making structures.

The smaller proportion of respondents with shorter job tenure (1–3 years: 21.60%; 4–6 years: 8.10%) indicates that newer perspectives—potentially more adaptive to emerging technologies—are underrepresented. While veteran employees can offer

critical evaluations grounded in experience, limited participation from newer personnel may result in less emphasis on innovative, user-driven adaptation of MIS functionalities.

Overall, the distribution points to an MIS evaluation that is likely informed by institutional memory and practical application, favoring stability and operational efficiency, but potentially at the expense of capturing fresh, technology-oriented approaches from younger staff. These findings are consistent with local research by Grepon et al. (2025), noting that experienced personnel tend to emphasize system stability and compatibility over rapid technological change in MIS adoption.

c) in terms of role in MIS implementation

Table 1.c
Frequency and Percentage Distributions of the Profile of the Respondents as to their Role in MIS Implementation

	ROLE	FREQUENCY	PERCENTAGE
1	System/MIS Software Tester	31	83.78
2	Training Participant	37	100.00
3	Requirements Contributor	37	100.00
4	Data Entry or Input Providers	37	100.00
5	Feedback Providers	37	100.00
6	System Users	37	100.00
7	Post-Implementation Evaluators	31	83.78

Table 1.c shows that MIS implementation at the institution was highly participatory, as all 37 respondents, or 100%, served as training participants, requirements contributors, data entry/input providers, feedback providers, and system users. This broad involvement indicates that stakeholders actively participated in several stages of the MIS life cycle, supporting the view of Petter et al. (2013) that user involvement is vital for system relevance, usability, and long-term adoption. In addition, 31 respondents, or 83.78%, served as MIS software testers and post-implementation evaluators, showing that most users also contributed to quality assurance, performance monitoring, and system improvement. Overall, the findings suggest that MIS success depends not only on technical design but also on the active involvement of end-users. As Laudon and Laudon (2020) emphasized, user engagement promotes ownership, reduces resistance, and improves MIS effectiveness.

2. What are the components of Management Information Systems of Saint Ferdinand College?

Table 2
Frequency and Percentage Distributions of Management Information Systems as to its Components

	COMPONENTS OF MIS	Frequency	Percent
Financial Performance			
1	Revenue Analysis Report	11	29.73
2	Receivable Analysis Report	17	45.95
3	Budget Analysis/Monitoring Report	12	32.43
4	Cash Advance Monitoring Report	11	29.73
	Collection Monitoring Report		
5	Student's Assessment/Statement of Account Report	17	45.95
7	Collection Monitoring Report	17	45.95
9	Financial Performance Report/Employees Data and Leave	21	56.76
6	Examination Permit Report/Student Info	12	32.43
8	Scholarship/Discount Monitoring Report	17	45.95
14	Supplies and Equipment Report monitoring	16	43.24
9	Financial Performance Report	21	56.76
Enrollment			
10	Grade Completion/Clearance Form Report	21	56.76
11	Student/Enrollment Trend Analysis	21	56.76
12	Student Performance	17	45.95
13	Enrollment Report to CHED	19	51.35
Human Resource (Employee)			
9	Employees Data and Leave	21	56.76

Table 2 shows that the MIS components most frequently used in the school are the Financial Performance Report/Employees Data and Leave, Grade Completion/Clearance Form Report, and Customer/Enrollment Trend Analysis, each with 56.76%, followed by Enrollment Report to CHED and other specialized reports at 51.35%. These findings indicate that MIS is mainly utilized for financial management, academic monitoring, enrollment tracking, and compliance reporting, which support operational efficiency and institutional accountability. Moderately used components, such as receivable analysis, student assessment, collection monitoring, scholarship monitoring, and student performance reports, further show the system's role in improving financial transactions and student services, consistent with Laudon and Laudon (2020). Less frequently used reports, such as revenue analysis and cash advance monitoring, appear more specialized. Overall, the findings support O'Brien and Marakas (2011) and Stair et al. (2020), who emphasized MIS as a tool for data-driven governance and institutional performance.

3. What is the status of the implementation of MIS of Saint Ferdinand College in terms of:

a) Hardware

Table 3.a
Mean Distribution of the Status of MIS Implementation in terms of the Hardware and its Impact on the Institutional Operational Efficiency of Saint Ferdinand College

N O.	ITEMS	MEAN	DESCRIPTION
1	The hardware structure is reliable for MIS operations	3.78	Strongly Agree
2	The hardware supports the smooth processing of data and information in the organization	3.38	Strongly Agree
3	The hardware resources are up-to-date and meet the demands of MIS	3.19	Agree
4	The organization's performance meets the needs of daily operations	3.59	Strongly Agree
	MEAN	3.49	Strongly Agree

Table 3.a shows that the MIS hardware implementation at Saint Ferdinand College is generally effective, with an overall mean of 3.49, interpreted as **Strongly Agree**. Respondents rated hardware reliability highest ($M = 3.78$) and affirmed that the hardware supports daily operations ($M = 3.59$), indicating that the existing infrastructure is dependable for routine MIS functions. However, lower ratings were noted for smooth data processing ($M = 3.38$) and hardware modernization ($M = 3.19$), suggesting that although the hardware is functional, it may require upgrading to meet the growing demands of a dynamic MIS environment. These findings support Laudon and Laudon (2022), who emphasized that adequate and continuously upgraded hardware is essential to MIS efficiency and sustainability. Similarly, Grepon et al. (2025) noted that effective MIS hardware strengthens decision-making, streamlines processes, and supports institutional competitiveness.

b. Software

Table 3.b
Mean Distribution of the status of MIS Implementation in terms of the Software and its Impact on the Institutional Operational Efficiency of Saint Ferdinand College

NO.	ITEMS	MEAN	DESCRIPTION
5	The software used for our MIS is user-friendly and easy to navigate	3.65	Strongly Agree
6	The software supports efficient data processing and decision-making in the organization	3.54	Strongly Agree

7	The software is regularly updated to meet the evolving needs of the organization	3.51	Strongly Agree
8	The software applications integrate well with other systems used in the organization	3.54	Strongly Agree
	MEAN	3.56	Strongly Agree

Table 3.b indicates that the MIS software of Saint Ferdinand College is highly effective in supporting institutional operations, as shown by the overall mean of 3.56, interpreted as Strongly Agree. The highest rating was given to user-friendliness and ease of navigation ($M = 3.65$), showing that the software is accessible and convenient for end-users. Respondents also strongly agreed that the software supports efficient data processing and decision-making ($M = 3.54$), integrates well with other systems ($M = 3.54$), and is regularly updated ($M = 3.51$). These findings imply that the software improves operational efficiency and helps the institution respond to changing information needs. This supports Laudon and Laudon (2022), who emphasized usability, integration, and continuous updating as essential to MIS effectiveness, and Grepon et al. (2025), who viewed MIS software as a strategic tool for institutional efficiency and evidence-based decision-making.

c. Data

Table 3.c
Mean Distribution of the status of MIS Implementation in terms of the Data and its Impact on the Institutional Operational Efficiency of Saint Ferdinand College

NO.	ITEMS	MEAN	DESCRIPTION
9	The data collected in MIS is accurate and up to date	3.51	Strongly Agree
10	The organization uses the data in the MIS for effective decision-making	3.59	Strongly Agree
11	The data is easily accessible to authorized personnel when needed	3.57	Strongly Agree
12	Data security measures in place effectively protect sensitive information	3.57	Strongly Agree
	MEAN	3.56	Strongly Agree

Table 3.c shows that the MIS data component of Saint Ferdinand College is highly effective in supporting institutional functions, with an overall mean of 3.56, interpreted as **Strongly Agree**. The highest rating was given to the use of MIS data for effective decision-making ($M = 3.59$), indicating that the system supports organizational strategies and management decisions. Respondents also strongly agreed that data are accessible to authorized personnel and protected by security measures ($M = 3.57$), showing that the MIS balances information availability with data protection. Although data accuracy and timeliness received a slightly lower mean ($M = 3.51$), it still reflects reliable data management practices. These findings support Laudon and Laudon (2022), who emphasized accuracy, accessibility, and security as foundations of MIS effectiveness, and Grepon et al. (2025), who viewed effective MIS data management as essential to accountability, strategic responsiveness, and institutional efficiency.

d. Procedure

Table 3.d
Mean Distribution of the Status of MIS Implementation in terms of the Procedure and its Impact on the Institutional Operational Efficiency of Saint Ferdinand College

NO.	ITEMS	MEAN	DESCRIPTION
13	The procedures used for data collection and management are well-defined	3.54	Strongly Agree
14	The procedures in place ensure data integrity and accuracy	3.59	Strongly Agree
15	The organization's MIS procedures are regularly reviewed for improvements	3.57	Strongly Agree
16	The Employees are well-trained to follow proper procedures for data handling and MIS rate.	3.51	Strongly Agree
	MEAN	3.55	Strongly Agree

Table 3.d indicates that the MIS procedures of Saint Ferdinand College are highly effective in supporting institutional efficiency, with an overall mean of 3.55, interpreted as Strongly Agree. The highest-rated item was the assurance that procedures maintain data integrity and accuracy ($M = 3.59$), showing the institution's commitment to reliable information for decision-making. Respondents also strongly agreed that MIS procedures are regularly reviewed for improvement ($M = 3.57$) and that data collection and management procedures are clearly defined ($M = 3.54$). Although employee training in MIS procedures received a slightly lower mean ($M = 3.51$), it still reflects strong support for staff competence. These findings support Laudon and Laudon (2022) and Stair and Reynolds (2020), who emphasized that well-defined and regularly reviewed procedures strengthen MIS efficiency, while Grepon et al. (2025) viewed procedures as essential to accountability and sustainable institutional operations.

e. People

Table 3.e
Mean Distribution of the Status of MIS Implementation in terms of People and its Impact on the Institutional Operational Efficiency of Saint Ferdinand College

NO.	ITEMS	MEAN	DESCRIPTION
17	The people involved in managing an operating the MIS are highly skilled	3.49	Strongly Agree
18	The staff receives adequate training to effectively use the MIS	3.68	Strongly Agree
19	There is good communication and collaboration among team members involved with the MIS	3.51	Strongly Agree
20	Management supports and encourages the use of the MIS to improve organizational performance	3.57	Strongly Agree
	MEAN	3.56	Strongly Agree

Table 3.e shows that the people component of MIS implementation at Saint Ferdinand College is highly effective, with an overall mean of 3.56, interpreted as Strongly Agree. The highest rating was given to adequate staff training in using the MIS ($M = 3.68$), emphasizing the importance of continuous capacity-building in maximizing system use. Respondents also strongly agreed that management supports and encourages MIS utilization ($M = 3.57$) and that communication and collaboration among team members are evident ($M = 3.51$). However, the slightly lower rating on the skills of MIS personnel ($M = 3.49$) suggests the need for further professional development and specialized training. These findings support Grepon et al. (2025), Laudon and Laudon (2022), and Stair and Reynolds (2020), who emphasized that training, institutional support, collaboration, and human capability are essential to successful MIS implementation and institutional efficiency.

f. Communication Networks

Table 3.f
Mean Distribution of the status of MIS Implementation in terms of the Communication Networks and its Impact on the Operational Efficiency of Saint Ferdinand College

NO	ITEMS	MEAN	DESCRIPTION
21	The communication networks support the timely and accurate exchange of information across the organization.	3.51	Strongly Agree
22	The network infrastructure is reliable and rarely experiences downtime	3.59	Strongly Agree
23	The data communication networks provide secure access to MIS data for authorized personnel	3.51	Strongly Agree
24	The networks enable seamless communication between different departments and teams	3.59	Strongly Agree
	MEAN	3.55	Strongly Agree

Table 3.f shows that the communication networks supporting MIS implementation at Saint Ferdinand College are highly effective, with an overall mean of 3.55, interpreted as Strongly Agree. The highest-rated indicators were network reliability with minimal downtime ($M = 3.59$) and seamless communication among departments and teams ($M = 3.59$), showing that strong connectivity supports collaboration and continuous institutional operations. Respondents also strongly agreed that the networks provide secure access to MIS data and allow timely and accurate information exchange ($M = 3.51$), reflecting the system's balance of accessibility, efficiency, and security. These findings support Laudon and Laudon (2022) and Stair and Reynolds (2020), who emphasized the importance of communication systems in information exchange and decision-making. Likewise, Grepon et al. (2025) noted that reliable communication infrastructure promotes coordination, transparency, responsiveness, and institutional efficiency.

g. Overall Effectiveness

Table 3.g
Mean Distribution of the status of MIS Implementation in terms of the Overall Effectiveness and its impact on the Institutional Operational Efficiency of Saint Ferdinand College

NO.	ITEMS	MEAN	DESCRIPTION
25	The overall effectiveness of the MIS supports the organization's strategic goals.	3.54	Strongly Agree
26	The MIS components work cohesively to improve operational efficiency.	3.62	Strongly Agree
27	The organization's MIS enhances decision-making at all levels of management	3.54	Strongly Agree
28	I am satisfied with the overall performance of the organization's MIS	3.59	Strongly Agree
	MEAN	3.57	Strongly Agree

Table 3.g shows that the overall effectiveness of MIS implementation at Saint Ferdinand College is highly rated, with an overall mean of 3.57, interpreted as Strongly Agree. Respondents strongly agreed that MIS components work cohesively to improve operational efficiency ($M = 3.62$), indicating the system's ability to integrate processes and support institutional operations. They also expressed satisfaction with the overall MIS performance ($M = 3.59$) and recognized its contribution to decision-making at all management levels ($M = 3.54$). These findings suggest that MIS effectiveness results from the combined influence of technology, procedures, people, data, leadership, and communication networks. This supports Laudon and Laudon (2022), who emphasized the importance of reliable communication systems for timely decision-making and data integrity. Likewise, Grepon et al. (2025) highlighted that MIS infrastructure serves as a strategic enabler of coordination, transparency, responsiveness, and institutional efficiency.

Table 3.h
Summary of the Status of MIS Implementation and Its Impact on the Institutional Operational Efficiency of Saint Ferdinand College

ITEMS	MEAN	Qualitative Description
3.a Overall Effectiveness	3.57	Strongly Agree
3.b Software	3.56	Strongly Agree
3.c Data	3.56	Strongly Agree
3.d People	3.56	Strongly Agree
3.e Procedures	3.55	Strongly Agree
3.f Communication Networks	3.55	Strongly Agree
3.g Hardware	3.49	Strongly Agree
GRAND MEAN	3.55	Strongly Agree

Table 3.h presents the summary of the status of Management Information System (MIS) implementation and its impact on the institutional operational efficiency of Saint Ferdinand College. The grand mean of 3.55, interpreted as Strongly Agree, indicates that the respondents perceived the institution's MIS implementation to be highly effective across all dimensions. Among the seven dimensions, Overall Effectiveness obtained the highest mean (3.57), followed by Software, Data, and People (3.56 each). Procedures and Communication Networks shared the next highest mean (3.55), while Hardware received the lowest mean (3.49), although it remained within the Strongly Agree category. Overall, the findings suggest that all major components of the MIS are well implemented and collectively contribute to enhancing the operational efficiency of Saint Ferdinand College.

4. What are the success factors of the MIS of Saint Ferdinand College in terms of:

- a) Leadership Issues

Table 4.a
Mean Distribution of the Factors that Lead to Successful MIS Implementation in terms of Leadership Issues, its Impact on the Institutional Efficiency of Saint Ferdinand College

NO.	ITEM	MEAN	DESCRIPTION
1	Leadership in the school is actively involved in the planning and implementation of the MIS	3.46	Very Much
2	Senior Management provides adequate support for the successful implementation of MIS	3.46	Very Much
3	The leadership team is knowledgeable about the benefits and challenges of implementing MIS	3.68	Very Much
4	There is a clear vision from leadership on how the MIS will support the organization's strategic goals.	3.59	Very Much
5	Leadership fosters a culture that encourages the adoption of MIS within the organization	3.43	Very Much
	MEAN	3.52	Very Much

Table 4.a shows that leadership is a major success factor in MIS implementation at Saint Ferdinand College, with an overall mean of 3.52, interpreted as **Very Much**. The highest-rated indicator was the leadership team's knowledge of the benefits and challenges of MIS implementation ($M = 3.68$), suggesting that informed leaders are better able to guide technology-based initiatives. Respondents also affirmed the presence of a clear leadership vision for aligning MIS with strategic goals ($M = 3.59$) and active leadership involvement in planning and implementation ($M = 3.46$). Although fostering a culture supportive of MIS adoption received the lowest rating ($M = 3.43$), it remained strongly positive. These findings support Laudon and Laudon (2022), Stair and Reynolds (2020), Grepon et al. (2025), Ngai et al. (2007), and Al-Omari et al. (2020), who emphasized leadership commitment, vision, and technical understanding as essential to successful MIS adoption.

b) School Environment Issues

Table 4.b
Mean Distribution of the factors that Lead to Successful MIS Implementation in terms of School Environment Issues, its Impact on the Institutional Efficiency

NO.	ITEM	MEAN	DESCRIPTION
6	The school environment supports the successful implementation of MIS	3.57	Very Much
7	The organizational culture is adaptable to changes brought about by the MIS implementation	3.43	Very Much
8	Employees in the organization are open to new technology and system changes associated with MIS	3.73	Very Much
9	There is adequate communication throughout the organization regarding the MIS implementation	3.38	Very Much
10	Management processes are regularly reviewed to ensure they effectively utilize the MIS	3.41	Very Much
	MEAN	3.50	Very Much

Table 4.b indicates that the school environment at Saint Ferdinand College strongly supports MIS implementation, with an overall mean of 3.50, interpreted as **Very Much**. The highest-rated indicator was employees' openness to new technology and system changes (M = 3.73), showing strong adaptability and technological readiness among staff. Respondents also affirmed that the school environment supports MIS implementation (M = 3.57) and that the organizational culture adapts to MIS-related changes (M = 3.43). However, organizational communication about MIS (M = 3.38) and regular review of management processes (M = 3.41) received relatively lower ratings, suggesting areas for improvement. These findings support Laudon and Laudon (2020), Stair and Reynolds (2020), Grepon et al. (2025), Ngai et al. (2007), and Al-Omari et al. (2020), who emphasized that institutional readiness, cultural adaptability, communication, and leadership support promote successful MIS adoption and sustained utilization.

c) Technical System Issues

Table 4.c
Mean Distribution of the factors that Lead to Successful MIS Implementation in terms of Technical System Issues, its Impact on the Institutional Efficiency

NO.	ITEM	MEAN	DESCRIPTION
11	The technical systems (hardware, software, and network infrastructure) required for MIS implementation	3.46	Very Much
12	The current technical systems meet the needs of the MIS implementation without frequent failures or downtime.	3.49	Very Much
13	Technical challenges during MIS implementation have been adequately addressed by IT support	3.65	Very Much
14	The school has sufficient resources (e.g., IT staff, equipment, and budget) to manage the MIS systems.	3.49	Very Much

15	Technical training for staff involved in managing the MIS systems has been provided and is sufficient.	3.46	Very Much
	MEAN	3.51	Very Much

Table 4.c shows that technical system factors strongly contribute to successful MIS implementation at Saint Ferdinand College, with an overall mean of 3.51, interpreted as Very Much. The highest-rated indicator was the adequate response of IT support to technical challenges ($M = 3.65$), emphasizing the importance of responsive assistance in maintaining MIS stability and continuity. Respondents also affirmed the reliability of technical systems with minimal downtime and the availability of sufficient resources such as IT staff, equipment, and budget ($M = 3.49$). However, slightly lower ratings for required systems and technical training ($M = 3.46$) suggest the need for continuous modernization and capacity-building. These findings support Laudon and Laudon (2020), Stair and Reynolds (2020), DeLone and McLean (2003), and Grepon et al. (2025), who emphasized system quality, technical support, and training as essential to MIS effectiveness.

d) Personnel Issues

Table 4.d
Mean Distribution of the factors that lead to Successful MIS Implementation in terms of Personnel Issues its impact on the Institutional Efficiency

NO.	ITEMS	MEAN	DESCRIPTION
16	The staff has received sufficient training to effectively use the MIS	3.51	Very Much
17	Employees are motivated to use the MIS in their daily tasks	3.43	Very Much
18	There is adequate involvement of personnel in the MIS implementation process	3.70	Very Much
19	The personnel have the necessary skills to manage and operate the MIS successfully	3.32	Very Much
20	Employees feel supported by management and peers in using the MIS to perform their jobs.	3.65	Very Much
	MEAN	3.52	Very Much

Table 4.d shows that personnel factors strongly support successful MIS implementation at Saint Ferdinand College, with an overall mean of 3.52, interpreted as **Very Much**. The highest-rated item was the adequate involvement of personnel in the MIS implementation process ($M = 3.70$), highlighting the importance of inclusive participation in promoting system adoption and institutional alignment. Respondents also affirmed strong support from management and peers ($M = 3.65$), as well as sufficient training for MIS use ($M = 3.51$), indicating a collaborative and prepared workforce. However, lower ratings on employee motivation ($M = 3.43$) and personnel technical skills ($M = 3.32$) suggest the need for continued professional development and motivational strategies. These findings support Laudon and Laudon (2022), Stair and Reynolds (2020), DeLone and McLean (2003), and Chigona et al. (2020), who emphasized user training, competence, motivation, and support as essential to MIS effectiveness.

e) Management Process Issues

Table 4.e
Mean Distribution of the factors that lead to Successful MIS Implementation in terms of Management Process Issues its impact on the Institutional Efficiency

NO.	ITEMS	MEAN	DESCRIPTION
21	The MIS aligns with and enhances the existing management processes in the school	3.51	Very Much
22	The implementation of the MIS has led to improvements in decision-making processes at all levels	3.41	Very Much
23	The management processes have been adapted to ensure they are compatible with the MIS	3.62	Very Much
24	MIS implementation has streamlined communications and information flow in the organization	3.54	Very Much
25	Management processes are regularly reviewed to ensure they effectively utilize the MIS	3.49	Very Much
	MEAN	3.51	Very Much

Table 4.e shows that management process factors greatly influence successful MIS implementation at Saint Ferdinand College, with an overall mean of 3.51, interpreted as Very Much. The highest-rated item was the adaptation of management processes to ensure compatibility with MIS ($M = 3.62$), indicating that institutional workflows have been adjusted to maximize system use. Respondents also affirmed that MIS streamlined communication and information flow ($M = 3.54$), aligned with existing processes ($M = 3.51$), and encouraged regular review of management practices ($M = 3.49$). However, the lower rating for improved decision-making processes ($M = 3.41$) suggests that the MIS still needs to be further utilized for data-driven strategic decisions. These findings support Laudon and Laudon (2022), Al-Fraihat et al. (2020), DeLone and McLean (2013), and Stair and Reynolds (2021), who emphasized process redesign, automation, continuous monitoring, and system alignment as essential to MIS success.

Table 4.f
Summary of the Mean Distribution of the Factors that Lead to Successful MIS Implementation and their Impact on Institutional Efficiency

Success Factors	MEAN	DESCRIPTION
Leadership Issues	3.52	Very Much
Personnel Issues	3.52	Very Much
Technical Issues	3.51	Very Much
Management Process Issues	3.51	Very Much
School Environment Issues	3.50	Very Much
Grand Mean	3.51	Very Much

Table 4.f summarizes the factors contributing to successful Management Information System (MIS) implementation and their impact on institutional efficiency. The grand mean of 3.51, interpreted as Very Much, indicates that respondents perceived all identified success factors as highly influential in achieving effective MIS implementation. Leadership and personnel issues obtained the highest ratings ($M = 3.52$), followed by technical system and management process issues ($M = 3.51$), while school environment issues ranked lowest ($M = 3.50$), although all dimensions remained within the Very Much category.

The findings suggest that successful MIS implementation depends on the effective alignment of leadership commitment, organizational readiness, technical capability, personnel competence, and management processes. This finding is consistent with Kornkaew (2012), who identified leadership support, organizational readiness, user participation, management processes, and technical preparedness as critical success factors influencing MIS implementation outcomes. Likewise, DeLone and McLean (2003) emphasized that system quality, information quality, and user engagement are fundamental determinants of information systems success, while Laudon and Laudon (2022) argued that organizations achieve greater operational efficiency when technological resources are integrated with effective managerial practices and organizational support. Furthermore, Petter et al. (2013) concluded that management support, user involvement, and organizational capability consistently contribute to improved information system performance and organizational effectiveness. Collectively, the findings indicate that successful MIS implementation at Saint Ferdinand College is driven by the combined influence of organizational, managerial, human, and technological factors, thereby strengthening institutional efficiency.

5. Is there significant difference between the respondents' perceptions on the Success Factors of MIS when grouped according to their Profile?

Table 5
Significant Difference Between the Respondents' Perceptions on the Success Factors of MIS when Grouped According to their Profile

Profile	Significance F	Decision	Remarks
Job Title	.985	Ho is Accepted	Not Significant
Years of Experience	.775	Ho is Accepted	Not Significant
Role	.251	Ho is Accepted	Not Significant

Table 5 shows the ANOVA results on the differences in respondents' perceptions of MIS success factors when grouped according to job title, years of experience, and role. The significance values for job title ($F = .985$), years of experience ($F = .775$), and role ($F = .251$) were all greater than the 0.05 level of significance; therefore, the null hypothesis was accepted. This indicates that there were no significant differences in respondents' perceptions across the identified profile variables. The findings suggest that respondents

share a common understanding of the factors contributing to MIS success, regardless of position, experience, or role. This consistency implies that the MIS was implemented and communicated inclusively across the institution. The result supports Al-Fraihat et al. (2020), Petter et al. (2013), and Laudon and Laudon (2022), who emphasized that MIS success depends on organizational alignment, system integration, broad adoption, and shared institutional engagement.

6. What are the challenges of the MIS implementation as experienced by end-users along with:

a) Leadership Issues

Table 6.1
Mean Distribution of Challenges in MIS Implementation Encountered by End-users in Relation to Leadership Issues

NO.	ITEMS	MEAN	DESCRIPTION
1	The leadership team does not provide clear communication regarding the goals and expectations of the MIS implementation.	1.27	Not a Problem
2	Senior management is not actively involved in addressing challenges during the MIS implementation.	1.27	Not a Problem
3	There is lack of support from top management when issues arise during the MIS implementation process.	1.27	Not a Problem
4	Leadership does not allocate sufficient resources to support the MIS implementation.	1.24	Not a Problem
5	The vision and strategic objectives for the MIS implementation are unclear, leading to confusion among end-users.	1.24	Not a Problem
	MEAN	1.26	Not a Problem

Table 6.1 presents the respondents' assessment of leadership-related challenges in the implementation of the Management Information System (MIS) at Saint Ferdinand College. The overall mean of 1.26, interpreted as Not a Problem, indicates that leadership was not perceived as a barrier to MIS implementation. All indicators, including leadership communication, stakeholder involvement, implementation support, resource allocation, and strategic direction, received mean ratings ranging from 1.24 to 1.27, all interpreted as Not a Problem. The findings suggest that the institution's leadership effectively supported the implementation of the MIS through clear communication, active involvement, and adequate resource provision. Such leadership practices have been recognized as key enablers of successful MIS implementation, organizational efficiency, and effective system adoption, consistent with previous studies conducted by Al-Mamary et al. (2014) and Ali & Younes (2013). This result is further corroborated by Osei & Ackah (2023), who emphasize that the absence of perceived leadership challenges reflects a culture of proactive management and collaborative engagement—both of which are widely recognized as determinants of effective MIS integration.

In effect, these insights suggest that leadership at Saint Ferdinand College functions as a facilitator rather than a barrier to MIS adoption, thereby reinforcing the

institution's capacity to leverage MIS as a strategic tool for strengthening decision-making, improving operational performance, and advancing institutional efficiency.

b) Organization Environment Issues

Table 6.2
Mean Distribution of Challenges in MIS Implementation Encountered by End-Users in Relation to Organization Environment Issues

NO.	ITEMS	MEAN	DESCRIPTION
6	The organization is resistant to the changes brought by the MIS implementation.	1.30	Not a Problem
7	Employees are not adequately prepared for the organizational changes that came with the MIS system.	1.24	Not a Problem
8	There are delays in the implementation timeline, affecting the overall organizational workflow.	1.30	Not a Problem
9	The organization lacks a well-defined roadmap or plan for the implementation process.	1.27	Not a Problem
10	The implementation of the MIS creates confusion or disruptions in regular operations and workflow	1.27	Not a Problem
	MEAN	1.28	Not a Problem

Table 6.2 presents the respondents' assessment of organizational environment-related challenges in the implementation of the Management Information System (MIS) at Saint Ferdinand College. The overall mean of 1.28, interpreted as Not a Problem, indicates that organizational environment factors were not perceived as barriers to MIS implementation. All indicators, including resistance to change, organizational readiness, workflow continuity, implementation planning, and operational clarity, obtained mean ratings ranging from 1.24 to 1.30, all classified as Not a Problem.

These findings suggest that the institution maintained a supportive organizational environment for MIS implementation. This result is consistent with the studies of Al-Fraihat et al. (2020) and Ojo (2017), which emphasize the importance of organizational readiness and effective change management in successful MIS implementation. Similarly, Laudon & Laudon (2022) and Buba & Tanko (2017), identified a supportive organizational culture as a critical factor in achieving effective system integration and organizational performance. Overall, the findings indicate that the organizational environment facilitated, rather than impeded, the successful implementation of the MIS at Saint Ferdinand College.

c) Management Process Issues

Table 6.3
Mean Distribution of Challenges in MIS Implementation Encountered by End-users in Relation to Management Process Issues

NO.	ITEMS	MEAN	DESCRIPTION
11	The MIS is not fully aligned with existing management processes, causing inefficiencies.	1.27	Not a Problem
12	Key processes are not optimized or streamlined before the MIS implementation.	1.27	Not a Problem
13	The implementation of the MIS disrupts ongoing management processes, affecting productivity.	1.32	Not a Problem
14	The MIS is not flexible enough to adapt to the organization's specific management processes.	1.32	Not a Problem
15	There is a lack of integration between the MIS and other management tools used by the organization, leading to inefficiencies.	1.24	Not a Problem
	MEAN	1.29	Not a Problem

Table 6.3 presents the respondents' assessment of management process-related challenges in the implementation of the Management Information System (MIS) at Saint Ferdinand College. The overall mean of 1.29, interpreted as Not a Problem, indicates that management process issues were not perceived as barriers to MIS implementation. All indicators, including process alignment, process optimization, productivity, system flexibility, and integration with existing management tools, obtained mean ratings ranging from 1.24 to 1.32, all classified as Not a Problem.

The findings suggest that the institution maintained well-aligned management processes that supported effective MIS implementation. This is consistent with Kornkaew's (2012) study, who proposed that successful MIS implementation depends on the integration of organizational processes, management practices, and information technology to support decision-making and organizational performance. Likewise, Laudon & Laudon (2022) as well as Petter et al (2013), Sedera & Gable (2010) and Al-Fraihat et al. (2020), emphasize that process alignment, system integration, and organizational readiness are critical determinants of information system success. Overall, the findings indicate that management processes facilitated, rather than hindered, the successful implementation of the MIS at Saint Ferdinand College.

d) Personnel Issues, and

Table 6.4
Mean Distribution of Challenges in MIS Implementation Encountered by End-users in Relation to Personnel Issues

NO.	ITEMS	MEAN	DESCRIPTION
16	The personnel involved in the MIS implementation are not sufficiently trained to handle the new system.	1.22	Not a Problem
17	End-users experience frustration due to a lack of training and support during the MIS implementation.	1.32	Not a Problem
18	There is insufficient involvement from key personnel in the decision-making process regarding the MIS system.	1.51	Not a Problem
19	Employees' struggle to adapt to the new roles or processes introduced by the MIS.	1.27	Not a Problem
20	The change in roles and responsibilities due to the MIS implementation creates uncertainty among employees.	1.16	Not a Problem
	MEAN	1.30	Not a Problem

Table 6.4 presents the respondents' assessment of personnel-related challenges in the implementation of the Management Information System (MIS) at Saint Ferdinand College. The overall mean of 1.30, interpreted as Not a Problem, indicates that personnel-related issues were not perceived as barriers to MIS implementation. All indicators, including training adequacy, implementation support, personnel involvement, role adaptation, and role clarity, obtained mean ratings ranging from 1.16 to 1.51, all classified as Not a Problem.

The findings suggest that the institution effectively prepared its personnel through adequate training, stakeholder involvement, and implementation support. This is consistent with Kornkaew (2012) who emphasized that competent users, effective management practices, and organizational support are fundamental to successful MIS implementation. Similarly, Al-Fraihat et al. (2020) and Hossain et al. (2019), and Petter et al. (2013) identified user readiness, continuous training, stakeholder participation, and organizational support as key determinants of information system success. Overall, the findings indicate that personnel served as facilitators, rather than barriers, to the successful implementation of the MIS at Saint Ferdinand College.

e) Technical Systems Issues

Table 6.5
Mean Distribution of Challenges in MIS Implementation Encountered by End-users in Relation to Technical Systems Issues

NO.	ITEM	MEAN	DESCRIPTION
21	The technical infrastructure (hardware/software/network) is not adequately prepared for the MIS implementation.	1.32	Not a Problem

22	There are frequent system downtimes or technical glitches during the MIS implementation process.	1.35	Not a Problem
23	The MIS software does not meet the technical requirements necessary for smooth operation.	1.41	Not a Problem
24	There are compatibility issues between the MIS and existing systems or databases.	1.27	Not a Problem
25	The MIS does not perform as expected, causing delays or inefficiencies in work processes.	1.19	Not a Problem
	MEAN	1.31	Not a Problem

Table 6.5 presents the respondents' assessment of technical system-related challenges in the implementation of the Management Information System (MIS) at Saint Ferdinand College. The overall mean of 1.31, interpreted as Not a Problem, indicates that technical issues were not perceived as barriers to MIS implementation. All indicators, including technical infrastructure, system reliability, software adequacy, database compatibility, and system performance, obtained mean ratings ranging from 1.19 to 1.41, all classified as Not a Problem.

The findings suggest that the institution possessed adequate technical readiness to support successful MIS implementation. This is consistent with Kornkaew (2012), who identified information technology infrastructure, system integration, and technical support as essential components of effective MIS implementation. Likewise, Laudon & Laudon (2022) and Chou & ChanLin (2015), Malatsico and Manayan (2024), emphasize that system quality, technical reliability, infrastructure readiness, and user support are critical determinants of information system success. Compared with the challenges reported by Zulueta et al. (2021). In other Philippine higher education institutions, the findings suggest that Saint Ferdinand College's investment in stable infrastructure and system compatibility contributed to minimizing technical barriers. Overall, the results indicate that technical readiness served as an enabler, rather than a barrier, to the successful implementation of the MIS at Saint Ferdinand College.

Table 6.6
Summary of the mean Distribution of Challenges in MIS Implementation
Encountered by End-users

Profile	Significance F	Decision	Remarks
Job Title Registrar and Accounting Clerk	.001	Ho is Rejected	Significant
Years of Experience	.274	Ho is Accepted	Not Significant
Role More roles	.000	Ho is Rejected	Significant

Table 6.6 presents the differences in the perceived challenges of Management Information System (MIS) implementation encountered by end-users when grouped

according to their profile. The results revealed statistically significant differences based on job title ($p = .001$) and role ($p < .001$), leading to the rejection of the null hypothesis. In contrast, years of experience did not show a statistically significant difference ($p = .274$), indicating that respondents perceived similar implementation challenges regardless of their length of service.

The significant differences observed across job titles and roles suggest that users' responsibilities and functional involvement influence their perceptions of MIS implementation challenges. This finding is consistent with Kornkaew (2012), who emphasized that users' organizational roles and responsibilities shape their interaction with MIS and influence implementation outcomes.

7. Is there a significant difference in the challenges of the MIS implementation as experienced by end users when grouped according to their profile?

Table 7
Results of the Test on the Significant Difference in the Challenges of the MIS Implementation when Grouped According to their Profile

Profile	Significance F	Decision	Remarks
Job Title Registrar and Accounting Clerk	.001	Ho is Rejected	Significant
Years of Experience	.274	Ho is Accepted	Not Significant
Role More roles	.000	Ho is Rejected	Significant

Table 7 presents the results of the test of significant differences in the perceived challenges of Management Information System (MIS) implementation when respondents were grouped according to their profile. The results revealed statistically significant differences based on job title ($p = .001$) and role in MIS implementation ($p < .001$), leading to the rejection of the null hypothesis. In contrast, years of experience did not show a statistically significant difference ($p = .274$), indicating that respondents had comparable perceptions of MIS implementation challenges regardless of their length of service.

The significant differences across job titles and implementation roles suggest that users' organizational responsibilities and functional involvement influence their perceptions of MIS implementation challenges. This finding is consistent with Kornkaew (2012), who emphasized that organizational roles, management practices, and user participation are critical factors influencing MIS implementation outcomes. Similarly, Petter et al. (2013), identified user characteristics and task context as important determinants of information systems success, while Allingham and O'Connor (1992) and Martinsons and Chong (1999) reported that perceptions of information systems vary across organizational functions and user roles. The absence of significant differences

based on years of experience suggests that the challenges encountered were associated more with users' functional responsibilities than with professional tenure. These findings highlight the importance of adopting role-specific implementation strategies, training programs, and user support mechanisms to enhance the effectiveness of MIS implementation.

8. Is there significant relationship between the success factors and the challenges to the status of the MIS implementation?

Table 8
Result of the Test on the Significant Relationship Between Success Factors and Challenges to the Status of the MIS implementation

Group	Probability <i>r</i>	Decision	Remarks
Success Factors and Challenges to the Status of the MIS implementation	.072	Accept Ho	Not Significant

Table 8 presents the results of the correlation analysis between the success factors and the challenges associated with the status of Management Information System (MIS) implementation. The analysis revealed a very weak positive correlation ($r = .072$) that was not statistically significant ($p > .05$), leading to the acceptance of the null hypothesis. This indicates that the identified success factors were not significantly associated with the challenges encountered during MIS implementation.

The findings suggest that the factors contributing to successful MIS implementation and the challenges experienced by end-users operate as distinct dimensions rather than as directly related constructs. This result is consistent with Ifinedo (2007), who argued that organizational and technological enablers do not necessarily eliminate implementation challenges because these may arise from different organizational, cultural, or contextual conditions. Similarly, Al-Fraihat et al. (2020) emphasized that information system success depends on simultaneously strengthening critical success factors and addressing implementation barriers, as these constructs independently influence overall system performance. While DeLone and McLean (2003) conceptualized system success as a multidimensional process influenced by interrelated quality and organizational factors, the present findings indicate that, in the context of Saint Ferdinand College, the presence of favorable success factors was not significantly associated with the level of implementation challenges. These results underscore the importance of addressing implementation challenges independently while sustaining organizational and technical factors that contribute to successful MIS implementation.

9. What is the impact of MIS implementation as to the Intuition's Operational Efficiency in terms of:

- a) Decision-making

Table 9.1
Mean Distribution of the Impact of MIS Implementation on Institutional Operational Efficiency with Respect to Decision-Making

NO.	ITEMS	MEAN	DESCRIPTION
1	The MIS provides accurate, timely, and relevant data that support effective decision-making in the organization	3.51	Very Much
2	Managers and decision-makers in the organization rely on the MIS for key insights and data-driven decision	3.51	Very Much
3	The MIS enhances the organization's ability to make strategic decisions	3.59	Very Much
4	The decision-making process in the organization has become more efficient and effective due to the use of MIS	3.57	Very Much
5	The MIS helps in forecasting and planning, which positively impact long-term organizational goals	3.62	Very Much
	MEAN	3.56	Very Much

Table 9.1 presents the respondents' assessment of the impact of Management Information System (MIS) implementation on institutional operational efficiency with respect to decision-making. The overall mean of 3.56, interpreted as Very Much, indicates that the MIS substantially enhances decision-making processes at Saint Ferdinand College. All indicators were rated Very Much, with mean scores ranging from $M = 3.51$ to $M = 3.62$. The highest-rated indicator was the contribution of the MIS to forecasting and planning ($M = 3.62$), whereas the provision of accurate, timely, and relevant information and managers' reliance on MIS-generated insights both obtained the lowest mean ($M = 3.51$).

The findings indicate that the MIS functions as an effective decision-support tool by providing reliable information for operational, tactical, and strategic decision-making. This finding supports Kornkaew (2012), who emphasized that the primary objective of an MIS is to transform organizational data into meaningful information that improves managerial planning, control, and decision-making. Likewise, Laudon and Laudon (2022) asserted that MIS enhances organizational decision quality through timely and accurate information, while Turban et al. (2021) highlighted the role of decision support systems in strengthening strategic planning and organizational responsiveness. Similarly, O'Brien and Marakas (2011) identified MIS as a key contributor to forecasting, planning, and organizational performance. Overall, the findings demonstrate that the MIS has a substantial positive impact on institutional decision-making, thereby contributing to improved operational efficiency at Saint Ferdinand College.

b) Operational Efficiency

Table 9.2
Mean Distribution of the Impact of MIS Implementation on Institutional Operational Efficiency

NO.	ITEMS	MEAN	DESCRIPTION
6	The MIS has improved the efficiency of day-to-day operations in the organization	3.65	Very Much
7	Operational processes are automated and streamlined in organizational operations	3.57	Very Much
8	MIS has reduced the time required to complete routine tasks and processes	3.62	Very Much
9	The MIS has minimized errors and redundancies in organizational operations	3.62	Very Much
10	The efficiency of cross-departmental collaboration has improved due to the use of the MIS	3.59	Very Much
	MEAN	3.61	Very Much

Table 9.2 shows that MIS implementation has greatly improved the institutional operational efficiency of Saint Ferdinand College, as reflected by the overall mean of 3.61, interpreted as Very Much. The highest-rated indicator was the improvement of day-to-day operations ($M = 3.65$), while automation and streamlining of operational processes received the lowest mean ($M = 3.57$), though still rated Very Much. These results indicate that the MIS helps improve routine operations, reduce processing time, minimize errors and redundancies, and strengthen collaboration across departments. The findings support Kornkaew (2012), who emphasized that MIS integrates organizational processes and information resources to improve performance and managerial effectiveness. Likewise, Laudon and Laudon (2022), O'Brien and Marakas (2011), and Al-Mamary et al. (2014) affirmed that MIS enhances efficiency through automation, improved information flow, resource utilization, productivity, and better decision-making.

c) Efficiency and Productivity

Table 9.3
Mean Distribution of the Impact of MIS Implementation on Institutional Operational Efficiency with Respect to Efficiency and Productivity

NO.	ITEM	MEAN	DESCRIPTION
11	The MIS helps identify bottlenecks and inefficiencies in organizational processes	3.59	Very Much
12	The implementation of the MIS has led to improvements in process flow and speed	3.54	Very Much
13	The use of MIS has led to the standardization of key business processes	3.57	Very Much
14	The MIS has helped optimize resources allocation in the organization	3.62	Very Much

15	The organization's processes are continuously reviewed and improved based on insights from the MIS	3.59	Very Much
	MEAN	3.58	Very Much

Table 9.3 presents the respondents' assessment of the impact of Management Information System (MIS) implementation on institutional operational efficiency with respect to efficiency and productivity. The overall mean of 3.58, interpreted as Very Much, indicates that the MIS has substantially enhanced institutional efficiency and productivity. All indicators were rated Very Much, with mean scores ranging from M = 3.54 to M = 3.62, reflecting consistently positive perceptions of the MIS in improving operational processes.

The findings suggest that the MIS contributes to organizational efficiency through improved resource utilization, process standardization, workflow optimization, and continuous process improvement. This is consistent with Kornkaew (2012), who identified MIS as an essential mechanism for integrating organizational processes and information to improve operational performance. Similarly, Laudon and Laudon (2022) emphasized that MIS enhances organizational efficiency by streamlining business processes and supporting effective resource management, while Al-Mamary et al. (2014) reported that effective MIS implementation improves productivity and organizational performance. Overall, the findings indicate that the MIS serves as a strategic resource for enhancing institutional efficiency and productivity at Saint Ferdinand College.

d) Communication and Information Sharing

Table 9.4
Mean Distribution of the Impact of MIS Implementation on Institutional Operational Efficiency with Respect to Communication and Information Sharing

NO.	ITEMS	MEAN	DESCRIPTION
16	The MIS facilitates seamless communication across departments and teams	3.59	Very Much
17	The information shared through the MIS is readily accessible to employees when needed	3.54	Very Much
18	The MIS has improved transparency and accountability in the organization	3.62	Very Much
19	The MIS ensures that relevant information is available to all authorized personnel in real-time	3.62	Very Much
20	The communication flow within the organization has been improved due to the uses of the MIS	3.54	Very Much
	MEAN	3.58	Very Much

Table 9.4 presents the respondents' assessment of the impact of Management Information System (MIS) implementation on institutional operational efficiency with respect to communication and information sharing. The overall mean of 3.58, interpreted as Very Much, indicates that the MIS has substantially enhanced communication and information sharing at Saint Ferdinand College. All indicators were rated Very Much, with

mean scores ranging from $M = 3.54$ to $M = 3.62$, demonstrating consistently positive perceptions of the system's ability to facilitate information exchange and collaboration.

The findings suggest that the MIS strengthens institutional communication by improving information accessibility, transparency, accountability, and interdepartmental collaboration. This is consistent with Kornkaew (2012), who emphasized that MIS enhances organizational communication by integrating information across functional units to support coordination and decision-making. Similarly, Laudon and Laudon (2022) identified information sharing and communication as core functions of MIS that improve organizational coordination and operational effectiveness. These findings are further supported by Al-Mamary et al. (2014), who reported that effective MIS implementation enhances communication, information quality, and organizational performance. Overall, the findings indicate that the MIS serves as an effective platform for promoting timely information sharing and collaborative institutional operations.

e) Data Management and Accuracy

Table 9.5
Mean Distribution of the Impact of MIS Implementation on Institutional Operational Efficiency with Respect to Data Management and Accuracy

NO.	ITEMS	MEAN	DESCRIPTION
21	The MIS has improved the accuracy of data and reduced the manual data entry errors.	3.62	Very Much
22	The data stored in the MIS is reliable and consistently up to date	3.57	Very Much
23	The MIS supports proper data management practices, such as data validation and integrity	3.57	Very Much
24	The data analysis features of the MIS have enhanced our ability to track key performance indicators	3.54	Very Much
25	The organization uses the MIS to track and report on important metrics related to business performance	3.62	Very Much
	MEAN	3.58	Very Much

Table 9.5 presents the respondents' assessment of the impact of Management Information System (MIS) implementation on institutional operational efficiency with respect to data management and accuracy. The overall mean of 3.58, interpreted as Very Much, indicates that the MIS has substantially improved data management and accuracy at Saint Ferdinand College. All indicators were rated Very Much, with mean scores ranging from $M = 3.54$ to $M = 3.62$, reflecting consistently positive perceptions of the system's effectiveness in ensuring data quality and supporting organizational performance.

The findings indicate that the MIS enhances institutional operations by improving data accuracy, reliability, integrity, and performance monitoring. This finding is consistent with Kornkaew (2012), who emphasized that the primary function of an MIS is to provide accurate, timely, and reliable information to support organizational decision-making and performance. Similarly, Laudon and Laudon (2022) identified data quality and information

accuracy as fundamental determinants of effective MIS, while DeLone and McLean (2003) recognized information quality as a key dimension influencing information system success and organizational effectiveness. Overall, the findings demonstrate that effective data management through the MIS contributes to improved institutional operational efficiency.

f) Resource Management Allocation

Table 9.6
Mean Distribution of the Impact of MIS Implementation on Institutional Operational Efficiency with Respect to Resource Management Allocation

NO.	ITEMS	MEAN	DESCRIPTION
26	The MIS has helped the organization manage its resources (e.g., personnel, equipment, budget) more effectively	3.57	Very Much
27	The MIS enables better visibility into resource usage and allocation across departments	3.57	Very Much
28	The organization's resource allocation decisions are better informed due to insights from the MIS	3.65	Very Much
29	The MIS has contributed to cost savings by identifying inefficiencies in resource use	3.62	Very Much
30	The MIS has improved the organization's ability to prioritize resources based on business needs and performance metrics	3.62	Very Much
	MEAN	3.61	Very Much

Table 9.6 presents the respondents' assessment of the impact of Management Information System (MIS) implementation on institutional operational efficiency with respect to resource management and allocation. The overall mean of 3.61, interpreted as Very Much, indicates that the MIS has substantially enhanced resource management at Saint Ferdinand College. All indicators were rated Very Much, with mean scores ranging from $M = 3.57$ to $M = 3.65$, reflecting consistently positive perceptions of the MIS in supporting resource allocation and utilization.

The findings suggest that the MIS facilitates informed resource allocation, improves resource visibility, and enhances operational efficiency through data-driven management practices. This is consistent with Kornkaew (2012), who emphasized that MIS supports managerial planning and resource utilization by providing timely and reliable information. Similarly, Laudon and Laudon (2022) asserted that MIS enables organizations to optimize resource allocation and improve operational performance through integrated information systems. These findings are further supported by DeLone and McLean (2003), who identified information quality and system use as critical factors influencing organizational performance, and Al-Mamary et al. (2014), who reported that effective MIS implementation enhances resource utilization, organizational productivity, and operational effectiveness. Overall, the findings demonstrate that the MIS serves as a strategic tool for improving institutional resource management and operational efficiency.

g) Performance Monitoring

Table 9.7
Mean Distribution of the Impact of MIS Implementation on Institutional Operational Efficiency with Respect to Performance Monitoring

NO.	ITEMS	MEAN	DESCRIPTION
31	The MIS help the administration track progress towards goals and identify areas for improvement	3.59	Very Much
32	The MIS allows continuous monitoring and evaluation of management performance	3.59	Very Much
	MEAN	3.59	Very Much

Table 9.7 presents the respondents' assessment of the impact of Management Information System (MIS) implementation on institutional operational efficiency with respect to performance monitoring. The overall mean of 3.59, interpreted as Very Much, indicates that the MIS has substantially enhanced performance monitoring at Saint Ferdinand College. Both indicators received identical ratings ($M = 3.59$), reflecting respondents' strong agreement that the MIS effectively supports goal tracking, performance evaluation, and continuous organizational improvement.

The findings suggest that the MIS provides timely and reliable performance information that strengthens monitoring, evaluation, and managerial control. This supports Kornkaew (2012), who emphasized that MIS facilitates planning, control, and performance assessment through integrated information. Similarly, DeLone and McLean (2003) identified information quality and system use as key determinants of organizational effectiveness, while Laudon and Laudon (2022) argued that MIS enhances performance management by enabling continuous monitoring and evidence-based decision-making. Overall, the findings demonstrate that the MIS serves as an effective mechanism for strengthening institutional performance monitoring and operational efficiency.

h) Customer Service

Table 9.8
Mean Distribution of the Impact of MIS Implementation on Institutional Operational Efficiency with respect to Customer Service

NO.	ITEMS	MEAN	DESCRIPTION
33	The MIS enables the customization of products and services to meet client needs	3.51	Very Much
34	The MIS leads to higher customer satisfaction	3.54	Very Much
	MEAN	3.53	Very Much

Table 9.8 presents the respondents' assessment of the impact of Management Information System (MIS) implementation on institutional operational efficiency with

respect to customer service. The overall mean of 3.53, interpreted as Very Much, indicates that the MIS has substantially enhanced customer service at Saint Ferdinand College. Both indicators were rated Very Much, with mean scores ranging from $M = 3.51$ to $M = 3.54$, reflecting positive perceptions of the MIS in supporting customer-oriented services.

The findings suggest that the MIS contributes to improved customer service by facilitating responsive service delivery and enhancing user satisfaction. This is consistent with Kornkaew (2012), who emphasized that MIS supports organizational effectiveness by providing timely and relevant information for service delivery. Likewise, DeLone and McLean (2003) identified user satisfaction as a fundamental dimension of information systems success, while Laudon and Laudon (2022) argued that MIS enhances service quality by improving the accessibility, accuracy, and responsiveness of organizational information. Overall, the findings indicate that the MIS serves as an important enabler of customer-focused service delivery and institutional operational efficiency.

I) Risk Management

Table 9.9
Mean Distribution of the Impact of MIS Implementation on Institutional Operational Efficiency with Respect to Risk Management

NO.	ITEMS	MEAN	DESCRIPTION
35	The MIS helps the administration identify potential risks and vulnerabilities	3.49	Very Much
36	The MIS provides a tool for risk assessment, mitigation, and monitoring	3.51	Very Much
37	The MIS helps the administration develop strategies to minimize the effect of an unforeseen event	3.51	Very Much
	MEAN	3.50	Very Much

Table 9.9 presents the respondents' assessment of the impact of Management Information System (MIS) implementation on institutional operational efficiency with respect to risk management. The overall mean of 3.50, interpreted as Very Much, indicates that the MIS has substantially strengthened risk management practices at Saint Ferdinand College. All indicators were rated Very Much, with mean scores ranging from $M = 3.49$ to $M = 3.51$, reflecting consistently positive perceptions of the MIS in supporting risk identification, assessment, and mitigation.

The findings suggest that the MIS enhances institutional resilience by providing timely information for identifying potential risks, monitoring vulnerabilities, and supporting informed risk management decisions. This finding is consistent with Kornkaew (2012), who emphasized that MIS supports managerial control by delivering accurate and timely information for planning and decision-making. Similarly, Laudon and Laudon (2022) argued that MIS strengthens organizational control and risk management by improving information quality and facilitating proactive decision-making. These findings are further

supported by DeLone and McLean (2003), who identified information quality and system use as key determinants of organizational effectiveness. Overall, the findings demonstrate that the MIS serves as an effective tool for strengthening institutional risk management and operational efficiency.

j) Overall Organizational Performance

Table 9.10
Mean Distribution of the Impact of MIS Implementation on Institutional Operational Efficiency with Respect to Overall Organizational Performance

NO.	ITEMS	MEAN	DESCRIPTION
38	The overall performance of the organization has improved due to the implementation of the MIS	3.54	Very Much
39	The MIS has contributed to achieving the organization's strategic goals	3.53	Very Much
40	The use of MIS has led to measurable improvements in productivity and efficiency across departments	3.54	Very Much
41	The organization has achieved a competitive advantage due to the successful use of MIS	3.51	Very Much
42	The organization has experienced positive financial outcomes because of implementing and utilizing the MIS	3.54	Very Much
	MEAN	3.53	Very Much

Table 9.10 presents the respondents' assessment of the impact of Management Information System (MIS) implementation on institutional operational efficiency with respect to overall organizational performance. The overall mean of 3.53, interpreted as Very Much, indicates that the MIS has substantially enhanced the overall performance of Saint Ferdinand College. All indicators were rated Very Much, with mean scores ranging from $M = 3.51$ to $M = 3.54$, reflecting consistently positive perceptions of the MIS in supporting strategic objectives, productivity, operational efficiency, competitiveness, and organizational performance.

The findings suggest that the MIS serves as a strategic organizational resource that improves institutional performance by supporting informed decision-making, enhancing operational efficiency, and facilitating the achievement of strategic goals. This finding is consistent with Kornkaew (2012), who emphasized that MIS integrates organizational information to improve managerial effectiveness and organizational performance. Similarly, DeLone and McLean (2003) identified system quality, information quality, and system use as fundamental determinants of organizational benefits, while Laudon and Laudon (2022) argued that effective MIS implementation strengthens productivity, organizational performance, and strategic competitiveness. These findings are further supported by Melville et al. (2004), who demonstrated that information technology creates organizational value by enhancing business processes and overall organizational performance. Overall, the findings indicate that the MIS contributes substantially to institutional effectiveness and long-term organizational performance.

Table 9.11
Summary of the Mean Distribution of the Impact of MIS Implementation on Institutional Operational Efficiency

Dimension	MEAN	DESCRIPTION
Operational Efficiency	3.61	Very Much
Resource Management and Allocation	3.61	Very Much
Performance Monitoring	3.59	Very Much
Efficiency and Productivity	3.58	Very Much
Communication and Information Sharing	3.58	Very Much
Data Management and Accuracy	3.58	Very Much
Decision Making	3.56	Very Much
Customer Service	3.53	Very Much
Overall Organizational Performance	3.53	Very Much
Risk Management	3.50	Very Much
Grand Mean	3.57	Very Much

Table 9.11 summarizes the impact of Management Information System (MIS) implementation on institutional operational efficiency across ten operational dimensions. The grand mean of 3.57, interpreted as Very Much, indicates that the MIS has substantially enhanced institutional operational efficiency at Saint Ferdinand College. All dimensions were rated Very Much, with mean scores ranging from $M = 3.50$ to $M = 3.61$, demonstrating consistently positive perceptions of the MIS across organizational functions. The highest-rated dimensions were Operational Efficiency and Resource Management and Allocation ($M = 3.61$), whereas Risk Management obtained the lowest mean ($M = 3.50$), although it remained within the Very Much category.

The findings indicate that the MIS functions as a strategic organizational resource that enhances decision-making, operational processes, resource utilization, communication, data management, performance monitoring, customer service, and overall organizational performance. This is consistent with Kornkaew (2012), who emphasized that MIS integrates organizational information to improve planning, control, coordination, and managerial effectiveness. Likewise, DeLone and McLean (2003) identified system quality, information quality, and system use as key drivers of organizational benefits, while Laudon and Laudon (2022) argued that effective MIS implementation improves organizational efficiency, strategic decision-making, and institutional performance. These findings are further supported by Melville et al (2004), who demonstrated that information technology creates organizational value by enhancing business processes and organizational capabilities. Collectively, the results suggest that the MIS has become an integral strategic asset that supports institutional effectiveness and sustained operational excellence.

Conclusions

The findings demonstrate that the Management Information System (MIS) at Saint Ferdinand College is implemented to a high degree and is supported by strong leadership, organizational readiness, technical capability, personnel competence, and effective management processes. Respondents likewise perceived implementation challenges as not a problem indicating a favorable institutional environment for sustained MIS utilization.

The study further confirms that the MIS contributes substantially to institutional operational efficiency by enhancing decision-making, operational processes, communication, data management, resource allocation, performance monitoring, customer service, risk management, and overall organizational performance. These findings underscore the strategic value of MIS in supporting evidence-based management and improving organizational effectiveness.

Moreover, significant differences in perceived implementation challenges were observed across job titles and institutional roles, whereas years of experience showed no significant influence. The absence of a significant relationship between success factors and implementation challenges suggests that favorable implementation conditions and perceived challenges represent distinct dimensions of MIS implementation. Overall, the findings affirm that sustained organizational support and continuous system enhancement are essential to maximizing the long-term benefits of MIS in higher education institutions.

Recommendations

Based on the findings of the study, the following recommendations are proposed to sustain and further enhance the implementation of the Management Information System (MIS) at Saint Ferdinand College.

1. For the Administration of Saint Ferdinand College

- 1.1 Sustain strong leadership commitment by integrating MIS initiatives into the institution's strategic plans, quality assurance mechanisms, and governance framework to ensure long-term organizational support.
- 1.2. Continue investing in modern and secure technological infrastructure, including system upgrades, cybersecurity measures, disaster recovery mechanisms, and regular maintenance, to maintain high system reliability and operational continuity.
- 1.3. Institutionalize data-driven governance by requiring the use of MIS-generated reports in academic planning, financial management, resource allocation, performance monitoring, and institutional decision-making.
- 1.4. Develop role-specific capacity-building programs and technical support mechanisms, particularly for personnel whose job functions and MIS responsibilities significantly influence their perceptions and utilization of the system.

1.5. Establish a periodic MIS evaluation and monitoring framework that regularly assesses system quality, information quality, user satisfaction, and organizational benefits to support continuous improvement.

2. For Faculty, Staff, and Other End Users

2.1. Participate actively in continuous professional development programs to strengthen digital competencies and maximize the effective utilization of MIS in academic and administrative functions.

2.2. Provide regular feedback on system functionality, usability, and emerging operational requirements to facilitate evidence-based system enhancement.

2.3. Promote consistent use of the MIS in teaching, student services, records management, financial transactions, and other institutional processes to improve productivity, transparency, and service quality.

3. For Institutional MIS Administrators and System Developers

3.1. Continuously enhance system functionality by integrating emerging technologies such as business intelligence dashboards, predictive analytics, mobile accessibility, and workflow automation to further improve institutional efficiency.

3.2. Conduct regular system security assessments, data quality audits, and performance evaluations to ensure data integrity, information security, and compliance with institutional and regulatory standards.

3.3. Strengthen interoperability between the MIS and other institutional information systems to improve data sharing, process integration, and organizational coordination.

4. For Future Researchers

4.1. Conduct comparative studies involving public and private higher education institutions to validate the generalizability of the present findings across different organizational settings.

4.2. Employ advanced analytical approaches, such as Structural Equation Modeling (SEM), Partial Least Squares-SEM (PLS-SEM), or mixed-methods designs, to examine the causal relationships among MIS implementation, critical success factors, implementation challenges, and institutional performance.

4.3. Investigate the influence of emerging technologies—including artificial intelligence, machine learning, cloud computing, and predictive analytics—on the effectiveness of Management Information Systems in higher education.

4.4. Extend future investigations to include additional organizational outcomes, such as institutional governance, organizational resilience, employee productivity, service quality, digital transformation maturity, and student satisfaction, to provide a more comprehensive evaluation of MIS effectiveness.

Compliance with Ethical Standards

This study was conducted in accordance with established ethical standards in research. Prior to data collection, permission was secured from the appropriate authorities of Saint Ferdinand College, and the respondents were properly informed about the purpose,

scope, and significance of the study. Participation was voluntary, and informed consent was obtained from all respondents before they answered the survey questionnaire. The confidentiality and anonymity of the respondents were strictly observed, and all information gathered was used solely for academic and research purposes. The researcher ensured that no respondent was subjected to harm, pressure, or discrimination during the conduct of the study. Data were treated with integrity, accuracy, and objectivity, and the findings were presented honestly without manipulation or misrepresentation. Overall, the study upheld the principles of voluntary participation, informed consent, confidentiality, privacy, and responsible handling of research data.

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