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## ANALYSIS OF MANAGEMENT INFORMATION SYSTEM FOR FINANCIAL DATA MANAGEMENT (XYZ POLYTECHNIC CASE STUDY)

**Az Zahra Izaaz**

Master of Accounting Program, Faculty of Economics and Business, Universitas Indonesia  
[az.zahra05@ui.ac.id](mailto:az.zahra05@ui.ac.id)

**Tubagus Muhamad Yusuf Khudri**

Master of Accounting Program, Faculty of Economics and Business, Universitas Indonesia  
[Yusufkhudri@gmail.com](mailto:Yusufkhudri@gmail.com)

# ANALYSIS OF MANAGEMENT INFORMATION SYSTEM FOR FINANCIAL DATA MANAGEMENT (XYZ POLYTECHNIC CASE STUDY)

*Az Zahra Izaaz\*, Tubagus Muhamad Yusuf Khudri*

Master of Accounting Program, Faculty of Economics and Business, Universitas  
Indonesia

## ABSTRACT

Abstract. This study aims to evaluate the ability of XYZ Polytechnic to implement Management Information Systems (MIS) in managing financial data and provide recommendations for improving the capabilities needed to support MIS implementation using the Technology-Organization-Environment (TOE) Framework. This research used a descriptive method with qualitative approach, also interview for data collection. This study shows that the implementation of MIS is influenced by three contexts of TOE Framework, namely Tecnological Context, Organizational Context and Environmental Context. MIS implementation has been regulated by government regulation No. 23 of 2005 articles 25 and 32, and MIS development also requires top management decisions to consider and select developers for providing MIS, as well as the quality of human resources and technological compatibility to manage financial data in MIS.

**Keywords:** *Financial Data Management 1, Management Information System (MIS) 2, Polytechnic 3, Technology-Organization-Environment (TOE) Framework 4.*

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\* Corresponding Author's Email: [az.zahra05@ui.ac.id](mailto:az.zahra05@ui.ac.id)

## 1. INTRODUCTION

Based On Government Regulation Number 23 of 2005 Article 25 that Badan Layanan Umum (BLU) applies a financial management information system in accordance with the needs and sound business practices. On the Article 32 also states that BLU financial responsible persons who are obliged to organize a financial management information system. Management Information Systems (MIS) is the role of information systems in organizations to provide information and data needed by management levels. Management information systems can be defined as a collection of interactions between information systems responsible for collecting and managing data to provide useful information for all levels in planning and control activities (Ma, 2020).

Currently, information technology is not only placed as an auxiliary tool for organizational activities but has become an organizational strategy to achieve goals. Higher education institution is an academic organization that uses information technology in shaping information technology that can shape various business processes. In general, the current management information system is constrained by various problems such as the lack of integration of existing computerized systems in higher education, limited human resources in computer operations, data collection systems that have not been centralized so as to provide information needed by all levels management.

From 2015 to 2020, XYZ Polytechnic has used a Management Information System (MIS) provided by Gajah Mada University (UGM) as the developer. Then, XYZ Polytechnic has switched developers and collaborated with Politeknik Elektronika Negeri Surabaya (PENS) by creating a Management Information System (SIM) since 2021 until now. It can function as SIAKAD (Academic Information System) and SIMKEU (Financial Management Information System) at once. The academic part part of the MIS is for academic administration such as student active period status information, student marksheet information and academic schedule information. Meanwhile, the financial management information system is for managing lecturer and employee pay slips, checking employee account data, employee taxes, and single tuition fee for all students.

In using and managing the MIS in the finance department, there are still shortcomings faced by users as staff of the XYZ Polytechnic financial services unit due to the limited development of MIS. Users still make payslips manually first with excel, then input them into the MIS. This makes them feel uncomfortable and inefficient. Then another shortcoming is the lack of transparency regarding lecturer honorarium information in the MIS, there will be a negative stigma caused between lecturers and the management of the XYZ Polytechnic financial services unit and there is no provision for user schedules for approval of lecturer honoraria. So, in terms of technology, it has not developed and innovated reliably in its use, then in terms of organization, members who use MIS in managing financial data are also only two staff from the financial services unit, internal regulations from XYZ Polytechnic are still in the process of preparing Standard Operating Procedures (SOP). These problems are not in accordance with the implementation based on PP No. 23 of 2005 articles 25 and 32.

This is in line with the research of Rahmadi et al., (2022) regarding the impact of management information systems and information needs greatly affects the level of

quality of education, superior processes must be supported by systems and tools that can provide appropriate guidelines and information, as well as good management. In line with that, Lee's research (2016) mentioned that technological capabilities affect process and product innovation, technological capabilities must be evaluated objectively as one of the most important factors in technological competitive advantage and to ensure sustainable business advantage. Aboelmaged (2014) mentioned that the evaluation of technological capability for organizations aims to increase the ability of the skills and abilities needed to apply technology. Technology adoption capability can be measured using the Technology Organization and Environment (TOE) framework (Chong & Olesen, 2017)

The Technology-Organization-Environment (TOE) framework is an organizational process for adopting technology which is influenced by three contexts, namely the technology context, organizational context and environmental context (Malik et al., 2021). The TOE framework was first developed by Tornatzky and Fleischer in 1990 as a technology adoption framework at the organizational level. In line with the research, the researcher will evaluate the adoption of the current application of the XYZ Polytechnic management information system and to optimize SIM in the future based on the TOE framework with three contexts, namely the technological context consisting of relative advantage, complexity and suitability/compatibility. Then, the organizational context which is divided into human resources, organizational size and management support. The environmental context is industry characteristics and government regulations.

Based on the background that has been explained, there are problem formulations that will be raised in this study with research question: How do the Technology-Organization-Environment (TOE) framework factors influence the adoption of the XYZ Polytechnic Management Information System for financial data management?

There are several objective of this research, namely:

1. To evaluate the influence of the Technology-Organization-Environment (TOE) framework factors in adopting the application of Management Information System (MIS) for financial data management.
2. To provide recommendations based on the TOE framework in optimizing the implementation of SIM in XYZ Polytechnic.

## **2. LITERATURE REVIEW**

### **2.1. POLYTECHNIC**

Based on Government Regulation of The republic of Indonesia Number 4 of 2014 concerning the implementation of higher education and higher education management article 1, Politechnics are higher education institutions that organize vocational education in various families of science and / or technology and if qualified, Polytechnics can organize professional education. The leader of higher education at Polytechnics, Academies and Community Academis is the Director. According to the XYZ Polytechnic performance report, a Polytechnic is a higher education institution that organizes vocational education in a number of fields of science and technology directed at the application of certain expertise.

## **2.2. BADAN LAYANAN UMUM (BLU)**

The issuance of Law Number 1 of 2004 concerning State Treasury articles 68 and 69, the government introduced the Public Service Agency Financial Management Pattern (PPK-BLU) for work units (satker) that provide services to the public, then also translated in Government Regulation Number 23 of 2005 concerning the Public Service Agency Financial Pattern (PK-BLU). This directs work units in government agencies to be able to manage finances flexibly and apply productivity, efficiency and effectiveness in every form of resource utilization. The Public Service Agency is expected to become a reference for other agencies in implementing performance-based financial management.

The financial management of public service agencies provides flexibility for business practices to improve services to the wider community in order to advance public welfare and educate the nation's life. BLU financial management practices have been regulated by Law Number 23 of 2005 Article 16 which contains the following matters:

1. Planning cash receipts and disbursements
2. Collecting revenue or bills
3. Keeping cash and managing bank accounts
4. Making payments
5. Source funds to cover short-term deficits
6. Utilizing short-term cash surpluses to generate additional revenue.

Based on Government Regulation number 23 of 2005 article 25 that BLU implements a financial management information system in accordance with the needs and sound business practices. The BLU financial officer as referred to in paragraph (1) letter b functions as a financial person who is obliged to:

- a. coordinate the preparation of the Business and Budget Plan (RBA);
- b. preparing BLU budget implementation documents;
- c. perform revenue and expenditure management
- d. organizing cash management
- e. conducting debt and credit management
- f. formulating policies for the management of goods, fixed assets, and BLU investments;
- g. organizing financial management information systems; and
- h. organizing accounting and preparing financial reports

## **2.3 MANAGEMENT INFORMATION SYSTEM (MIS)**

Management Information System (MIS) is a network of data processing procedures developed in an (integrated) system with the intention of providing information (internal and external) to management as a basis for decision making. The purpose of studying MIS is to see that the value of information is very valuable, therefore it must be managed properly. As an entrepreneur, management staff or especially as a manager must be able to appreciate and be able to manage information for the progress of the company or business (Kaukab, 2020).

Management information system is also known as an integrated human or machine system to present information to support the functions of organizational operations, management and decision-making processes within an organization, that this system uses computer hardware and software, procedural guidelines, management and decision models and a database called database( Bratha, 2022).

## 2.4 TECHNOLOGY-ORGANIZATION-ENVIRONMENT (TOE)

The TOE framework was developed by Tornatzky and Fleischer in 1990 to explain the decision to adopt technological innovation by an organization based on three contexts: technology, organization and environment. These three contexts can affect the organizational process of adopting, implementing and using technological innovation. Based on these three contexts, it is presented in Figure 1

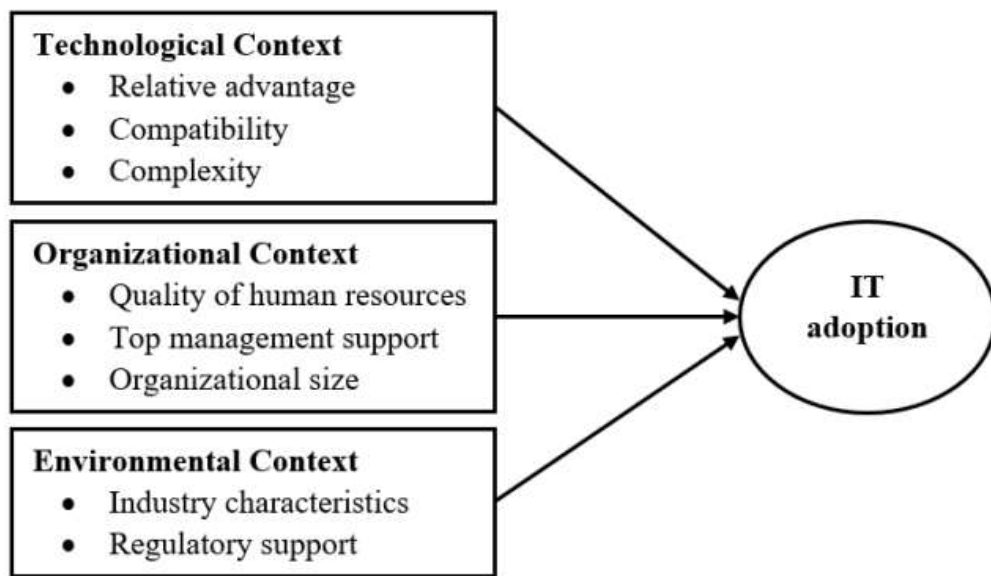


Figure 1 Technology-Organization-Environment Framework

Source: Chong and Olesen (2017)

### 2.4.1 TECHNOLOGICAL CONTEXT

According to J. Baker (2012), the technological context consists of all relevant technologies in relation to the organization, including technologies that are already in use internally and externally available technologies that have not yet been implemented or developed in the organization. Thus, the technological context consists of internal and external technologies related to existing technology in the organization, which is important in the technology adoption process because focusing on the structure, quality and characteristics of technology can affect the adoption process of an innovation. The technological context in the TOE framework consists of relative advantage, compatibility and complexity.

Relative advantage is the extent to which innovation can make changes that are better than previously applied methods . Organizations are more likely to implement

technological innovation if the technology can bring perceived organizational benefits such as better performance and higher economic returns. Compatibility is the degree to which an innovation is perceived to be consistent with the existing values and business activities of potential adopters (Chong & Olesen, 2017).

#### **2.4.2 ORGANIZATIONAL CONTEXT**

Human resource quality, top management leadership, and organizational size are the most frequently discussed factors with organizational context that influence innovation adoption. Human resource quality refers to the extent to which technical knowledge is available within an organization. The tendency to use innovative technology is supported by organizational commitment in developing employee skills (Effendi et al., 2020).

Top management leadership describes the role of executive leadership in driving and facilitating innovation within the organization's overall strategy. Smaller organizations may find it easier to use innovations because they have less bureaucratic inertia and more flexible structures, allowing them to benefit from lower communication, coordination and influence to gain advantage. (Chong & Olesen, 2017).

#### **2.4.3 ENVIRONMENTAL CONTEXT**

In the environmental context, industry characteristics and regulatory factors are the dominant factors that influence the adoption of a technology. Companies in fast-growing industries tend to innovate faster. However, in mature or declining industries, their innovation practices become unimportant (Tornatzky LG, & M, 1990). Regulatory support is identified as a key environmental factor influencing technology adoption in the TOE framework, government regulations can motivate or discourage organizations to adopt technological innovations (Effendi et al., 2020).

### **3. RESEARCH METHODS**

The method used in this research is a descriptive method with a qualitative approach. qualitative research is one of the research methods that aims to deeply understand and interpret the phenomena encountered by researchers, which describes in detail and completely about the phenomenon (Sugiyono, 2018).

The data collection used in this research is observation, interview and review of the application of management information systems. This research uses primary data in the form of data obtained directly in the form of interview results and written reports based on predetermined sources. Interviews were addressed to three experienced resource persons in the Financial Services Unit and Digital Transformation Unit at XYZ Polytechnic who were involved in the implementation of management information systems (SIM).

According to Miles and Huberman (2018), qualitative data processing methods or techniques can be carried out through three stages, namely data reduction, data presentation and conclusion drawing. The following is an explanation of each of the three stages:

- a. **Reducing Data**  
Data obtained by sources with a certain amount is then subjected to data reduction which means summarizing, selecting key things, focusing on important things, making abstractions and making modifications. This research will focus on the application of management information systems at XYZ Polytechnic as the object of research. Researchers conducted an interview process with sources, then selected the interview data into three contexts, namely technology, organization and environment in the TOE framework.
- b. **Data Presentation**  
After being reduced, the next stage is to display or present the data so that it has clearer visibility. Through the presentation of data translated into text in the form of chapters or subchapters, the data is organized, arranged in a relationship pattern, making it easier to understand. The explanation presented is divided into three groups, namely the technological context, organizational context and environmental context in accordance with the TOE framework.
- c. **Conclusion**  
The last process of the data analysis method is conclusion. In the analysis process, researchers will start by obtaining and collecting data, noting patterns, explanations and causal flow of the analyzed cases.

#### **4. ORGANIZATION PROFILE**

XYZ Polytechnic has been designated as a Public Service Agency Financial Management Pattern (PPK BLU) work unit by the Ministry of Education and Culture as a government agency based on KMK. XYZ Polytechnic has been established for forty years, initially XYZ Polytechnic was part of one of the state universities in Indonesia, but based on the Decree of the Minister of Education and XYZ Polytechnic turned into an independent university, which administratively stood alone and was not part of the university.

In 2021, XYZ Polytechnic has seven departments and thirty-eight study programs, as well as two Postgraduate programs at S2 (Applied Masters) level, the programs consist of: one D1 level study program, fifteen D3 level study programs, twenty D4 level study programs. The number of human resources of XYZ Polytechnic is 685 people consisting of 337 lecturers, 29 PPNPN lecturers and 156 civil servants, 163 PPNPN Education Personnel.



## **5. RESULT AND DISCUSSION**

### **5.1 TECHNOLOGICAL CONTEXT**

According to Baker (2012), the technological context consists of all relevant technologies in relation to the organization, including technologies that are already in use internally and externally available technologies that have not yet been implemented or developed in the organization. The technological context in the TOE framework consists of relative advantage, compability and complexity.

#### **5.1.1 RELATIVE ADVANTAGES**

Ngah, Zainuddin & Thurasamy (2017) state that relative advantage is the extent to which innovation can make changes that are better than previously applied methods. Organizations are more likely to implement technological innovation if the technology can bring perceived organizational benefits such as better performance and higher economic returns (Chong & Olesen, 2017).

Based on the attribute of relative advantage, so far the management information system has provided many benefits in providing appropriate data and information, this is in line with Chandra and Kumar's research (2018) that the role of the relative advantage factor of technology in influencing the adoption of augmented reality in organizations for e-commerce purposes. However, the information regarding the salary slips of lecturers and employees is not in accordance with the characteristics proposed by Romney and Steinbart (2021) that the information provided must be timely to make decisions. This needs to be improved by the developer to integrate data that matches the field so that the information can be provided in a timely manner and there are no obstacles.

#### **5.1.2 COMPABILITY**

Compability is the degree to which an innovation is considered consistent with the existing values and business activities of potential adopters (Rogers, 2010). Implementation of technology initiatives can be driven by technology that is more compatible with the organization's technology, processes and work application systems (Chong & Olesen, 2017). Employees of the financial services division argue that the use of management information systems is still necessary and needed to make it easier to provide information to employees, lecturers and students. In addition, there are still weaknesses in the management of the Management Information System (MIS).

For the management of salary slips, a system that has been integrated automatically in SIM with the same format and as needed so that staff do not repeat their work in making salary slips. Then, it is necessary to review the Basic Teaching Tariff (TDM) by making hourly lecturer honorarium data according to each lecturer's status consisting of Civil Servants (PNS), Civil Servant Candidates (CPNS) and part timers and regular audits are needed so that the calculation of the Basic Teaching Tariff (TDM) becomes precise and accurate.

### **5.1.3 COMPLEXITY**

Complexity is the degree of difficulty users have in attempting to understand and use the system (Hoti, 2016). For more complex technology initiatives, employees may take longer to understand and adapt to new technology (Chong & Olesen, 2017). The research is in line with the opinions of two staff users that the use of the XYZ Polytechnic Management Information System (SIM) is still easy to use because the features are still simple, but there are things that are complicated when making employee and lecturer payslips manually.

The Management Information System still has shortcomings in making employee pay slips in SIM by using different formats manually, so that user staff feel complicated and inefficient. On the other hand, the use of SIM with simple and user friendly features, along with a menu of steps for using SIM makes all users, both students, employees and lecturers feel quite easy to use.

## **5.2 ORGANIZATIONAL CONTEXT**

According to Chong & Olesen (2017), the organizational context refers to the characteristics, structures, processes and resources that limit or facilitate the adoption of technological innovations. the quality of human resources, top management leadership, and organizational size are the factors most often discussed with the organizational context that affect innovation adoption.

### **5.2.1 HUMAN RESOURCES**

The quality of human resources refers to the extent of technical knowledge available in an organization (Chong & Olesen, 2017), the greater the capacity of human resources available, the greater the chances of success in implementing new technology (Cooper & Molla, 2014). In addition, the tendency to use innovative technology is supported by the organization's commitment to developing the skills of its employees (Effendi et al., 2020).

In terms of technical capabilities, the users have also been able to manage and use it well because they have been using it for two years. However, training needs to be held more than once, around two to four times so that all employees at XYZ Polytechnic also understand the use of SIM. At XYZ Polytechnic, there are also no internal professionals in the IT field to develop innovations and handle Management Information Systems (MIS), so they only rely on external professionals who can support to develop innovative Management Information Systems (MIS), which only require developers to create and develop Management Information Systems (MIS).

### **5.2.2 MANAGEMENT SUPPORT**

According to Chong & Olesen (2017) top management leadership describes the role of executive leadership in encouraging and facilitating innovation in the organization's overall strategy. This is in line with the results of research conducted by Cooper and Molla (2014) which states that top management commitment is an important factor in directing organizations to adopt information technology. So, top

management also has an important role in adopting more developed technological innovations.

This is in accordance with PP No. 23 of 2005 article 32 states that BLU financial officials function as financial responsible persons who are obliged to organize financial management information systems and performance reports for XYZ Polytechnic, the Director has the duty and authority to organize a reliable information and communication technology-based management information system so as to support the management of tridharama universities, accounting and finance, personnel, student affairs and alumni. Also, the availability of a management information system through the XYZ Polytechnic website to achieve transparency or openness of governance means that information related to governance can be accessed by XYZ Polytechnic stakeholders based on Information and Communication Technology (ICT).

### **5.2.3 ORGANIZATIONAL SIZE**

As larger organizations are associated with bureaucratic inertia and less flexible structures, they have more difficulties in accepting and implementing technological change (Damanpour, 2010). Meanwhile, smaller organizations may find the facilitation of innovation adoption easier as they have less bureaucratic inertia and more flexible structures, allowing them to benefit from lower communication, coordination and influence to gain advantage (Chong & Olesen, 2017).

In the bureaucracy to make decisions in every adoption of management information systems to improve innovation still has little bureaucratic inertia because it only needs consideration from the Director and several Deputy Directors. However, in managing the management information system in the financial services unit, it is necessary to have additional user staff to handle each management information system service, where there are nine financial section services consisting of SPP payments, salary applications, honorarium applications, tax applications, approval of teaching lecturer honoraria, browse lecturer attendance, master bank accounts and H2H bills.

## **5.3 ENVIRONMENTAL CONTEXT**

According to Chong & Olesen (2017), in the environmental context, industry characteristics and regulatory factors are the dominant factors that influence the adoption of a technology. Companies in a rapidly growing industry tend to innovate faster.

### **5.3.1 INDUSTRY CHARACTERISTIC**

In previous research, namely Chong & Olesen's research (2017), industry characteristics consist of competitive pressure and pressure from trading partners. XYZ Polytechnic as a university, of course, has quality competition in education with other universities to improve its performance. To support in improving this quality also requires good management. So, the hope of the two staff users is to improve the quality and efficiency of using a better Management Information

System (SIM), such as automatically generating employee and lecturer salary slip data on the XYZ Polytechnic SIM website, calculating accurate Basic Teaching Rates (TDM) and providing timely information about employee and lecturer salary slips.

### **5.3.2 REGULATORY SUPPORT**

Regulatory support is identified as a major environmental factor affecting technology adoption in the TOE framework, government regulations can motivate or prevent organizations from adopting technological innovations (Effendi et al., 2020). The provision and use of Management Information Systems (SIM) has been regulated by the government with Government Regulation number 23 of 2005 article 25 that BLU implements a financial management information system in accordance with the needs and sound business practices. Article 32 also states that BLU financial officials function as financial responsible persons who are obliged to organize financial management information systems.

The hope is that the making of the SOP can become a guideline and reference or regulation for carrying out operational activities of the management information system in accordance with functions and responsibilities, and minimize the risks and problems that occur.

## **6. CONCLUSION AND RECOMMENDATION**

### **6.1 CONCLUSION**

The purpose of this study is to evaluate XYZ Polytechnic in applying Management Information System (MIS) for financial data management. The analytical tool used to assess the ability to use information technology is the technology-organization-environment framework, or TOE framework. This framework is designed to explain that the adoption of technological innovations in an organization depends on technological, organizational, and environmental factors. The data collection method used involved interviews, which were conducted with five administrators at the mosque, namely the deputy director 2, heads of subdivisions, staff user 1, staff user 2 and staff digital transformation unit.

The factors in the technological context that influence adoption decisions are relative advantage, compatibility, and complexity. In the organizational context, the decision to implement technology is influenced by the availability of human resources, management support, and organizational size, while in the environmental context, the factors influencing the adoption of new technology consist of industry characteristics and regulatory support.

The results of the study demonstrate that based on the framework, MIS must be supported by top management support in the development of MIS innovation from the decision of the director and several deputy directors to choose a developer as an MIS provider, in addition, it is also necessary to evaluate MIS improvements as needed from problems in managing financial data such as basic teaching rates, integrating financial data and creating Standard Operating Procedures (SOPs). The

quality and needs of human resources are also needed to manage financial data efficiently. The implementation of the MIS has been regulated by government regulation No. 23 of 2005 articles 25 and 32.

## **6.2 RECOMMENDATION**

This needs to be considered to improve the ability of an adequate Management Information System (SIM). Especially in management and regulatory support that affects the adoption of SIM implementation, where top management provides solutions to Management Information System (SIM) problems that occur so that there are firm decisions and policies, such as conducting evaluations and considering developers to support SIM availability. As well as, regulators from the Government based on Government Regulation of the Republic of Indonesia Number 23 2005 articles 25 and 32 which can be a reference for Public Service Agencies to provide Management Information Systems (SIM). From the problems in developing innovative management information systems, it needs to be improved again by the developer, such as the Basic Teaching Tariff (TDM) which is adjusted to each lecturer's status and calculations that need to be regulated from the XYZ Polytechnic, and audited regularly so that the provision and calculation of lecturer fees is accurate.

Furthermore, the format of employee salary slips that need to be equated to the printout of the Civil Servant (PNS) salary application automatically to be efficient. Then, integrate data and information in an actual and timely manner. To fix these problems, the XYZ Polytechnic has planned to switch to another developer from one of the state universities in Indonesia with a budget of around 0.03% to 0.05% of the goods expenditure PAGU of eighty-one billion owned. In addition, for the addition of staff in the management information system in the financial sector, about five to ten staff users are also needed to manage each financial service. It is hoped that the Standard Operating Procedures (SOP) made by XYZ Polytechnic can carry out operational activities of the management information system in an organized and orderly manner.

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## REFERENCES

- Chong, J. L. L., & Olesen, K. (2017). A technology-organization-environment perspective on eco-effectiveness: A meta-analysis. *Australasian Journal of Information Systems*, 21, 1–26. <https://doi.org/10.3127/ajis.v21i0.1441>
- Damanpour, F. (2010). An Integration of Research Findings of Effects of Firm Size and Market Competition on Product and Process Innovations. *British Journal of Management*.
- Effendi, M. ., Sugandini, D., Istanto, Y., Arundati, R., & Adisti, T. (2020). *The Technology-Organization-Environment Framework: Adopsi Teknologi Pada UKM* (Issue 1).
- Heriansyah, F. (2017). Authority of the Public Service Agency in. *Reformasi Hukum*, XXI(1), 31–59.
- J. Baker. (2012). The technology-organization-environment framework. *Information System Theory*, 231–245.
- Joko, B. S. (2010). Sistem Informasi Manajemen Perguruan Tinggi Dalam Bidang Pendataan Pendidikan Tinggi. *Jurnal Pendidikan Dan Kebudayaan*, 16(2), 146–156. <https://doi.org/10.24832/jpnk.v16i2.442>
- Kaukab, M. E. (2020). Sistem Informasi Manajemen. *Universitas Sains Al-Qur'an Wonosobo Indonesia*.
- Ma, Y. (2020). The construction of group financial management information system. *IOP Conference Series: Materials Science and Engineering*, 750(1). <https://doi.org/10.1088/1757-899X/750/1/012025>
- Malik, S., Chadhar, M., & Chetty, M. (2021). Factors affecting the organizational adoption of blockchain technology: An Australian perspective. *Proceedings of the Annual Hawaii International Conference on System Sciences, 2020-Janua*, 5597–5606. <https://doi.org/10.24251/hicss.2021.680>
- Ngah, A. H., Zainuddin, Y., & Thurasamy, R. (2017). Applying the TOE framework in the Halal warehouse adoption study. *Journal of Islamic Accounting and Business Research*, 8(2), 161–181. <https://doi.org/10.1108/JIABR-04-2014-0014>
- Peraturan Pemerintah Republik Indonesia Nomor 23. (2005). *Pengelolaan Keuangan Badan Layanan Umum*. Pasal 10, Bagian Pertama.
- Rachmad Gesah Mukti Prabowo, SE. Ak, M. (2012). Sistem Informasi Manajemen: Tujuan Sistem Informasi Manajemen. *Blogspot*, 1. <http://max21487.blogspot.com/2012/04/tujuan-sistem-informasi-manajemen.html>
- Rahmadi, F., Munisa, M., Rozana, S., Rangkuti, C., Ependi, R., & Hariyanto, E. (2022). Dampak Sistem Informasi Manajemen Terhadap Dunia Pendidikan. *Prosiding Fakultas Ekonomi Dan Bisnis Universitas Dharmawangsa*, 1(1), 85–90. <https://doi.org/10.46576/prosfeb.v1i1.41>
- Romney, M.B., & S. (2021). *Accounting Information Systems (15th Edition ed.)*. Pearson Education.
- Sugiyono. (2018). *Metode Penelitian Kombinasi (Mixed Methods)*. CV Alfabeta.
- Tornatzky LG, & M, F. (1990). *The Processes of Technological Innovation*. Lexington Books.