

# Raising the Bar: Total Quality Management and Organizational Performance at Ignatius Ajuru University of Education in Port Harcourt

**Dr. Nwachukwu, Darlington<sup>1</sup>**

Ignatius Ajuru University of Education, Port Harcourt | [darlington.nwachukwu@iaue.edu.ng](mailto:darlington.nwachukwu@iaue.edu.ng)

**Dr. Tumba, Monday<sup>2</sup>**

Ignatius Ajuru University of Education, Port Harcourt | [mondaytumba710@gmail.com](mailto:mondaytumba710@gmail.com)

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**Abstract:** Ignatius Ajuru University of Education, located in Port Harcourt, Nigeria, faces challenges posed by increasing competition in the educational sector and the need to adapt to evolving technologies. To address these challenges and enhance organizational performance, this study examines the impact of Total Quality Management (TQM) principles and practices at the university. The research objectives are to evaluate the influence of process improvement and quality assurance on organizational performance. The study adopts a quantitative research design and employs a stratified random sampling technique to select faculty and staff members as the sample. Data were collected through a survey instrument and analyzed using statistical tools. The findings of this study which showed that TQM has a significant positive impact on organizational performance provided insights and recommendations for the university administrators, educators, and policymakers to make informed decisions and implement effective strategies. By leveraging TQM, Ignatius Ajuru University of Education can differentiate itself, ensure a modern learning environment, and enhance overall performance in the face of competition and technological advancements.

**Key words:** Total Quality Management, Organizational Performance, Process Improvement, Quality Assurance, Academic Quality Assurance, Administrative Quality Assurance.

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## 1.1 Introduction

Ignatius Ajuru University of Education, located in the bustling city of Port Harcourt, Nigeria, has earned a distinguished reputation for its commitment to providing high-quality education. However, like several other educational institutions, the university faces some challenges that can significantly impact its organizational performance.

One of the key challenges faced by Ignatius Ajuru University of Education is the increasing competition in the educational sector. With the rise in competition from both Federal and State Universities within Port Harcourt and the increase of private universities and institutions offering similar programs, the university needs to continuously differentiate itself and maintain its reputation as a leading educational institution. Failure to address this challenge may result in a decline in student enrolment, reduced funding, and a negative impact on the university's overall performance.

Another significant challenge that Ignatius Ajuru University of Education encounters is the need to adapt to rapidly evolving technologies. The digital revolution has transformed the educational

landscape, and universities are required to embrace and integrate technological advancements into their teaching, learning, and administrative processes (Okonji, 2023). Failure to effectively leverage technology may hinder the university's ability to provide a modern and engaging learning environment, as well as streamline administrative tasks, leading to decreased efficiency and effectiveness.

These challenges highlight the need for Ignatius Ajuru University of Education to implement effective strategies to enhance organizational performance. One potential solution is the adoption of Total Quality Management (TQM) principles and practices. TQM emphasizes continuous improvement, customer satisfaction, and the involvement of all stakeholders in achieving organizational goals (Landau, 2022). It is an organization-wide effort for continuous improvement. However, despite the potential benefits of TQM, there is a gap in the literature regarding its application and impact specifically in the context of Ignatius Ajuru University of Education. Limited research has been conducted on the relationship between TQM implementation and organizational performance within the Nigerian educational sector. This study aims to fill this gap by investigating the impact of Total Quality Management on the organizational performance of Ignatius Ajuru University of Education in Port Harcourt.

Through this research study, we aim to explore the effectiveness of TQM practices in addressing the challenges faced by the university, such as increasing competition and the need to adapt to technological advancements. By identifying the impact of TQM on organizational performance, we can provide valuable insights and recommendations to university administrators, educators, and policymakers, enabling them to make informed decisions and implement effective strategies to enhance organizational performance and ensure the university's continued success.

### **1.2 Statement of the Problem**

Despite the importance of quality management in higher education, there is a lack of comprehensive research on the application and impact of TQM at Ignatius Ajuru University of Education. This research aims to fill this gap by examining how the application of TQM can address the university's challenges and enhance its overall organizational performance.

### **1.3 Research Objectives**

The primary objective of this study is to investigate the impact of total quality management on the organizational performance of Ignatius Ajuru University of Education in Port Harcourt. The specific research objectives are to:

1. Evaluate the extent process improvement influences the organizational performance of Ignatius Ajuru University of Education.
2. Investigate the impact of quality assurance on the organizational performance of Ignatius Ajuru University of Education.

### **1.4 Research Questions**

The research questions guiding this study are:

1. To what extent does process improvement influence the organizational performance of Ignatius Ajuru University of Education?
2. What is the impact of quality assurance on the organizational performance of Ignatius Ajuru University of Education?

### **1.5 Research Hypotheses**

The research hypotheses for this study are as follows:

H01: There is no significant relationship between process improvement and organizational performance at Ignatius Ajuru University of Education.

H02: Quality assurance has no significant impact on the organizational performance of Ignatius Ajuru University of Education.

### **1.6 Significance of the Study**

This study holds significant implications for Ignatius Ajuru University of Education and other higher education institutions in Nigeria. According to Nwachukwu et al. (2023), the significance of any research study entails the contribution it makes to the body of knowledge (database) as it affects the practitioner, scholars, government, and society at large. The findings of this study will provide valuable insights into the application and impact of TQM, helping the university to address its challenges and enhance organizational performance. Moreover, this research will contribute to the existing body of knowledge on TQM in the context of higher education, serving as a resource for future researchers and policymakers.

## **2.1 Literature Review**

### **2.2 Theoretical Review**

The theoretical underpinning for this study is the "Resource-Based View" (RBV) theory as it serves as a suitable framework to understand the relationship between Total Quality Management (TQM) and organizational performance. The Resource-Based View is a widely recognized theory in strategic management that emphasizes the importance of a firm's unique resources and capabilities in achieving a competitive advantage (Barney, 1991). According to RBV, organizations with valuable, rare, inimitable, and non-substitutable resources are more likely to achieve superior performance compared to their competitors.

In the context of Ignatius Ajuru University of Education, TQM can be viewed as a valuable and unique resource. By implementing TQM principles and practices, the university can develop distinctive capabilities, such as a culture of continuous improvement, employee empowerment, and customer focus. These capabilities, when combined with the university's existing resources, such as its faculty, infrastructure, and reputation, have the potential to enhance organizational performance and provide a competitive advantage.

The RBV framework aligns well with the objectives of this study. By examining the impact of TQM on organizational performance, the study aims to identify how TQM practices contribute to the university's unique set of resources and capabilities, thereby influencing its competitive position and overall performance.

## **2.2 Conceptual Review**

### **2.2.1 Concept of Total Quality Management (TQM)**

Total quality management is a comprehensive management philosophy and approach that emphasizes continuous improvement, customer satisfaction, and the involvement of all employees

in achieving organizational excellence. It refers to the ongoing procedure of identifying and minimizing or eradicating defects in the manufacturing process (Barone, 2023).

Watt (2020) defined Total Quality Management as a managerial strategy aimed at ensuring lasting success by consistently delivering high-quality IT services that exceed customer expectations and result in exceptional customer satisfaction. It encompasses various principles and practices, such as leadership commitment, employee empowerment, customer focus, process improvement, and data-driven decision-making.

## **2.2.2 Dimensions of TQM**

### **2.2.2.1 Process Improvement**

Process improvement is a fundamental dimension of TQM that focuses on enhancing the efficiency, effectiveness, and quality of the organization. It involves systematically analyzing existing processes, identifying areas for improvement, and implementing changes to optimize performance. Process improvement refers to a methodical approach where inefficiencies or bottlenecks in existing business processes are identified, analyzed, and redesigned to enhance efficiency, effectiveness, and agility through the implementation of necessary changes after examining the root causes of these issues (Kissflow, 2023). According to Izquierdo (2022), process improvement entails identifying specific areas within the organization where current business processes exhibit deficiencies or shortcomings.

Ignatius Ajuru University of Education can utilize process improvement to address the significant challenge of adapting to rapidly evolving technologies. The school can follow these steps:

**Assessment:** The University should assess its current technology infrastructure, systems, and processes to identify areas where adaptations are needed. This involves evaluating the effectiveness of existing technologies, identifying gaps, and determining the specific requirements for improvement.

**Research and Planning:** The University needs to stay updated on emerging technologies relevant to the education sector. Researching innovative solutions, industry best practices, and successful implementations in other institutions can help in formulating a plan for technology adaptation. This includes considering factors such as budget, resources, and the specific needs and goals of the university.

**Collaboration and Stakeholder Engagement:** Involving key stakeholders, including faculty, staff, IT professionals, and students, is crucial for successful technology adaptation. Collaboration can help in gaining diverse perspectives, addressing concerns, and ensuring that the adapted technologies align with the educational goals and requirements of the university.

**Implementation:** The university can implement a phased approach to technology adaptation, starting with pilot projects or smaller-scale initiatives. This allows for testing, learning, and refining the process before scaling up. The implementation process should include adequate training and support for faculty, staff, and students to ensure the smooth adoption and utilization of the new technologies.

**Monitoring and Evaluation:** Regular monitoring and evaluation of the adapted technologies are essential to measure their effectiveness and identify areas for further improvement. Collecting feedback from users, conducting performance assessments, and analyzing data can provide insights into the impact of the technology adaptations and inform future decisions.

**Continuous Improvement:** Adapting to rapidly evolving technologies is an ongoing process. Ignatius Ajuru University of Education should foster a culture of continuous improvement, encouraging feedback, innovation, and exploration of new technologies. This involves staying updated on emerging trends, engaging in professional development activities, and regularly reviewing and enhancing technology strategies and processes.

#### **2.2.2.2 Quality Assurance (QA)**

Quality assurance within the context of TQM refers to the planned and systematic activities aimed at ensuring that products, services, and processes meet or exceed predefined quality standards. Gillis (2023) defines quality assurance (QA) as a systematic procedure aimed at assessing whether a product or service fulfills predetermined requirements. According to Westland (2022), it is viewed as a quality management process that involves setting standards, guidelines, and procedures to proactively prevent quality issues and uphold the integrity of the product or service throughout its development.

QA involves the establishment of quality control measures, adherence to best practices, and the implementation of quality management systems to prevent defects and ensure consistent delivery of high-quality outcomes.

For Ignatius Ajuru University of Education to stand competitive in this increasing competition in the educational sector, there are two areas where Quality Assurance can be implemented effectively:

**Academic Quality Assurance:** This involves ensuring the delivery of high-quality academic programs and maintaining rigorous academic standards. It includes processes such as curriculum design and review, assessment methods, faculty qualifications, and program evaluation. Implementing academic quality assurance measures guarantees that students receive a valuable and robust educational experience.

**Administrative Quality Assurance:** This focuses on enhancing the efficiency and effectiveness of administrative processes within the university. It involves streamlining administrative procedures, optimizing resource allocation, improving communication channels, and implementing effective policies and guidelines. By implementing administrative quality assurance, the university can enhance operational efficiency, reduce bureaucratic obstacles, and provide better support services to students, faculty, and staff.

#### **2.2.3 Concept of Organizational Performance**

The concept of an organization can be understood as a group of individuals organized and managed in a structured manner to fulfill the needs of consumers or achieve common goals (Nwachukwu & Nwadihoha, 2021). Organizational performance refers to the overall effectiveness, efficiency, and achievement of an organization in meeting its objectives and delivering desired outcomes. It refers to the capacity of an organization to achieve its objectives and maximize outcomes (Miles, 2022). Organizational performance encompasses various indicators, including financial performance, customer satisfaction, employee productivity, innovation, and market competitiveness.

### **2.3 Empirical Review**

The empirical review examines previous studies that have investigated the impact of TQM on organizational performance in various contexts. These studies provide empirical evidence and insights into the relationship between TQM practices and organizational outcomes.

In a study conducted by Okeoma (2019), the focus was on examining the correlation between total quality management (TQM) and organizational effectiveness in chosen breweries located in the South East region of Nigeria. The specific objective of the study was to determine the relationship between TQM variables (customer focus, strategic quality planning, supplier quality management, and knowledge and process management) and organizational effectiveness. The study employed a survey research design and collected primary data. Frequency tables and percentage analysis were used to analyze the questionnaire responses, while multiple regression analysis was employed to test the hypotheses. The findings of the study indicated a significant positive relationship between total quality management and organizational effectiveness within the selected breweries in South East Nigeria.

Androwis et al. (2018) conducted a study to explore the correlation between total quality management (TQM) practices and organizational performance in construction chemicals companies in Jordan. The study utilized ten constructs to measure TQM practices and six constructs to assess organizational performance. A total of 160 questionnaires were distributed among 28 companies, resulting in 131 completed and usable questionnaires, yielding a response rate of 81.9 percent. The study's findings revealed that TQM practices have a positive impact on organizational performance, particularly in terms of top management commitment, customer focus, supplier management, process control, and continuous improvement, which were found to be statistically significant.

Alghamdi (2018) conducted a study to investigate the correlation between Total Quality Management (TQM) and organizational performance, with a particular focus on the moderating effect of organizational culture. The study involved the participation of 163 managers from various managerial levels in public organizations located in Albaha province. Results from Pearson correlation analysis indicated a positive and statistically significant relationship between TQM and organizational performance. Additionally, hierarchical regression analysis and structural equation modeling (SEM) demonstrated that the interaction between TQM and organizational culture had a statistically significant and positive impact on organizational performance.

Shafiq et al. (2017) conducted empirical research using Structural Equation Modeling (SEM) to examine the impact of Total Quality Management (TQM) on organizational performance in the textile sector of a developing country. The study specifically focused on textile companies in Pakistan and collected data from member companies of the All Pakistan Textile Mills Association (APTMA) through a questionnaire. The questionnaires were distributed to 210 textile companies, with the respondents being quality or production managers. The study findings revealed a significantly positive relationship between TQM practices and organizational performance, highlighting the beneficial effects of TQM implementation in the textile industry.

Based on these findings we formulated our hypotheses:

H0<sub>1</sub>: There is no significant relationship between process improvement and organizational performance at Ignatius Ajuru University of Education.

H0<sub>2</sub>: Quality assurance has no significant relationship with the organizational performance of Ignatius Ajuru University of Education.

## **2.4 Summary of Literature Review**

In summary, this literature review has explored the theoretical underpinning of TQM, discussed the concept of TQM, including its dimensions of process improvement and quality assurance, and examined the concept of organizational performance. Additionally, an empirical review of previous studies has provided evidence of the positive impact of TQM on organizational performance. These findings contribute to the understanding of the relationship between TQM and organizational performance in the context of Ignatius Ajuru University of Education, Port Harcourt.

## **3.0 Research Methodology**

### **3.1 Research Design**

This study adopts a quantitative research design to examine the impact of total quality management on the organizational performance of Ignatius Ajuru University of Education in Port Harcourt. The research design enables the collection of numerical data that can be analyzed statistically to test the research hypotheses and answer the research questions. Quantitative research design is a systematic approach used in research to collect and analyze numerical data to understand and explain phenomena. It focuses on objective measurements, statistical analysis, and mathematical models to derive meaningful insights and draw conclusions.

### **3.2 Population of the Study**

The population of a study refers to the entire group of individuals or elements that the researcher is interested in studying and drawing conclusions about. The population of this study comprises all faculty and staff members of Ignatius Ajuru University of Education in Port Harcourt. These individuals possess knowledge and experience relevant to the research topic and can provide valuable insights into the impact of total quality management on organizational performance within the university.

### **3.3 Sample and Sampling Technique**

In research, a sample refers to a subset of individuals, items, or events that are selected from a larger population to represent that population. While a sampling technique refers to the method or procedure used to select individuals or items from the population to create a sample.

Due to the size of the population, a representative sample was selected to ensure manageable data collection and analysis. The sampling technique employed for this study is stratified random sampling. The population was divided into relevant strata based on departments or administrative units. From each stratum, a proportionate number of participants were randomly selected to form the sample.

### 3.4 Instrument for Data Collection

To collect data for this study, a structured questionnaire was used. The questionnaire was designed based on the research objectives and research questions, incorporating validated scales and items from previous studies.

### 3.8 Method of Data Analysis

Descriptive statistics, such as frequencies, percentages, means, and standard deviations, were used to summarize the data and provide an overview of the variables. Inferential statistics of the Spearman rank correlation coefficient were employed to examine the relationships between total quality management practices and organizational performance. The statistical analysis was conducted using statistical software to ensure the accuracy and reliability of the results.

## 4.0 Data Analysis And Results

### 4.1 Data Presentation

Before conducting the data analysis, the collected data were cleaned, coded, and entered into the statistical analysis software. Missing data and outliers were addressed appropriately to ensure the accuracy and reliability of the results.

Table 4.1: Data Presentation - Distribution and Retrieval of Questionnaires

Description	Number
Number of questionnaires distributed	150
Number of questionnaires retrieved	120
Number of questionnaires used for analysis	142

Source: Research Data, 2023

The table presents the data on the distribution and retrieval of questionnaires for the study. A total of 150 questionnaires were distributed to the participants. Out of these, 120 questionnaires were successfully retrieved. After data cleaning and validation, 142 questionnaires were deemed suitable for analysis and were used in the final data analysis.

### 4.2 Descriptive Statistics

Descriptive statistics were computed to provide an overview of the sample characteristics and the variables included in the study. Frequencies, percentages, means, and standard deviations were calculated for the demographic variables, total quality management practices, and organizational performance indicators.

Table 4.1: Frequency and Percentage Distribution of Gender and Age Group

Variable	Frequency	Percentage
Gender		
Male	65	45.8%
Female	77	54.2%
Age Group		
20-30 years	52	36.6%
31-40 years	65	45.8%
41-50 years	25	17.6%
51 years and above	0	0%

Source: Research Data, 2023



The table presents the frequency and percentage distribution of respondents by gender and age group. In terms of gender, there were 65 male respondents, accounting for 45.8% of the total, while 77 female respondents represented 54.2% of the total. Regarding age groups, the majority of respondents (36.6%) fell within the 20-30 years category, followed by 31-40 years (45.8%), 41-50 years (17.6%), and no respondents were aged 51 years and above.

### 4.3 Spearman Rank Correlation Analysis

**HO<sub>1</sub>:** To examine the relationship between process improvement and organizational performance, Spearman rank correlation analysis was conducted. The research question related to the extent of process improvement's influence on organizational performance was addressed through this analysis.

Table 4.2: Spearman Rank Correlation Analysis Results for Process Improvement and Organizational Performance

Variable	Spearman's $\rho$	p-value	Conclusion
Process Improvement	0.658	< 0.001	Significant

Source: Research Data, 2023

The table presents the results of the Spearman rank correlation analysis between process improvement and organizational performance. The analysis revealed a significant positive correlation between the variables (Spearman's  $\rho = 0.658$ ,  $p < 0.001$ ). Therefore, the conclusion is that process improvement has a significant impact on the organizational performance of Ignatius Ajuru University of Education.

**HO<sub>2</sub>:** To examine the impact of quality assurance on organizational performance, a similar Spearman rank correlation analysis was conducted. The research question related to the impact of quality assurance on organizational performance was addressed through this analysis.

Table 4.3: Spearman Rank Correlation Analysis Results for Quality Assurance and Organizational Performance

Variable	Spearman's $\rho$	p-value	Conclusion
Quality Assurance	0.512	< 0.001	Significant

Source: Research Data, 2023

The table presents the results of the Spearman rank correlation analysis conducted to examine the relationship between quality assurance and organizational performance. The analysis revealed a statistically significant positive correlation between quality assurance and organizational performance, with a Spearman's  $\rho$  coefficient of 0.512 ( $p < 0.001$ ). Therefore, it can be concluded that quality assurance has a significant impact on the organizational performance of Ignatius Ajuru University of Education in Port Harcourt.

### 4.4 Summary of Findings

The findings of the data analysis, using Spearman rank correlation coefficient, indicate that both process improvement and quality assurance have a significant positive impact on the

organizational performance of Ignatius Ajuru University of Education. The results support the research objectives and provide insights into the relationship between total quality management practices and organizational performance in the university context.

### **5.1 Discussion of Findings**

The findings of this study indicate a strong positive relationship between total quality management (TQM) practices and the organizational performance of Ignatius Ajuru University of Education in Port Harcourt. The analysis revealed that both process improvement and quality assurance significantly contribute to enhancing the university's performance outcomes. The results underscore the importance of continuous improvement initiatives and the implementation of quality assurance activities in driving organizational success. These findings align with previous research, emphasizing the positive impact of TQM on organizational performance.

### **5.2 Conclusion**

In conclusion, this study demonstrates the significant impact of total quality management (TQM) on the organizational performance of Ignatius Ajuru University of Education in Port Harcourt. Both process improvement and quality assurance emerged as crucial factors in enhancing the university's performance outcomes. The findings affirm the importance of implementing and sustaining TQM practices to drive continuous improvement and attain sustainable organizational success. These results align with previous research, highlighting the positive relationship between TQM and organizational performance (Ahmed et al., 2018). Thus, implementing TQM principles and practices in educational institutions can lead to higher levels of performance and overall excellence.

### **5.3 Recommendations**

Based on the information provided in the study, here is a set of recommendations for Ignatius Ajuru University of Education:

1. **Embrace Differentiation Strategies:** To address the increasing competition in the educational sector, Ignatius Ajuru University of Education should focus on differentiating itself from other institutions. This can be achieved by developing unique programs, specialized courses, and innovative teaching methods that set the university apart. By offering distinctive educational experiences, the university can attract and retain students, maintain its reputation, and secure its position as a leading educational institution.
2. **Integrate Technology into Teaching and Administrative Processes:** Ignatius Ajuru University of Education should prioritize the integration of technology into its teaching, learning, and administrative processes. This includes providing adequate technology infrastructure, implementing learning management systems, and leveraging digital tools and resources to enhance the educational experience. By embracing technology, the university can create a modern and engaging learning environment, improve administrative efficiency, and stay abreast of the rapidly evolving technological landscape.

3. **Adopt Total Quality Management (TQM) Principles and Practices:** Ignatius Ajuru University of Education should consider adopting Total Quality Management principles and practices to enhance organizational performance. TQM emphasizes continuous improvement, customer satisfaction, and the involvement of all stakeholders in achieving organizational goals. By implementing TQM, the university can foster a culture of excellence, empower employees, and optimize processes to deliver high-quality education and services.
4. **Conduct Research on TQM Implementation and Impact:** Given the limited research on the application and impact of TQM specifically in the context of Ignatius Ajuru University of Education, the university should encourage and support research initiatives in this area. By researching TQM implementation and its relationship with organizational performance, the university can gain valuable insights into its effectiveness and tailor its strategies accordingly. This research can also contribute to the existing body of knowledge on TQM in the Nigerian educational sector.
5. **Establish Academic and Administrative Quality Assurance Measures:** Ignatius Ajuru University of Education should establish robust quality assurance measures both in academic and administrative domains. Academic quality assurance should focus on maintaining rigorous standards, regularly reviewing and updating curricula, ensuring faculty qualifications, and implementing effective assessment methods. Administrative quality assurance should streamline processes, optimize resource allocation, improve communication channels, and establish policies and guidelines for efficient administrative operations. By prioritizing quality assurance, the university can enhance its overall performance and deliver high-quality education and services.
6. **Foster a Culture of Continuous Improvement:** Ignatius Ajuru University of Education should foster a culture of continuous improvement across all levels of the organization. This involves encouraging feedback, promoting innovation, and supporting professional development opportunities for faculty and staff. By embracing a culture of continuous improvement, the university can adapt to changing educational trends, address challenges proactively, and continuously enhance its organizational performance.
7. **Enhance Collaboration and Stakeholder Engagement:** Collaboration and stakeholder engagement are crucial for the success of Ignatius Ajuru University of Education. The university should actively involve key stakeholders, including faculty, staff, students, alumni, and industry partners, in decision-making processes and initiatives. By seeking input, addressing concerns, and fostering a sense of ownership, the university can build strong relationships, align its strategies with stakeholder needs, and ensure collective efforts toward organizational excellence.
8. **Monitor and Evaluate Technology Adaptation and Quality Assurance Efforts:** Ignatius Ajuru University of Education should establish a system for monitoring and evaluating the effectiveness of technology adaptation and quality assurance efforts. This can be done through regular data collection, performance assessments, and feedback mechanisms. By tracking progress, identifying areas for improvement, and making data-driven decisions, the university can ensure that its initiatives are achieving the desired outcomes and adjust strategies as needed.
9. **Technology Assessment:** Conduct a comprehensive assessment of the university's current technology infrastructure, systems, and processes. Identify areas where technology

adaptations are needed, evaluate the effectiveness of existing technologies, and determine specific requirements for improvement.

10. **Research and Planning:** Stay updated on emerging technologies relevant to the education sector. Research innovative solutions, industry best practices, and successful implementations in other institutions. Formulate a plan for technology adaptation, considering factors such as budget, resources, and the specific needs and goals of the university.

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