

# Development of the SPMI Model Based on Planning and Sustainability (PCQI) to Improve the Quality of Academic Services at PTS Medan City

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**Abstract.** This research aims to develop an Internal Quality Assurance System (SPMI) model based on Planning and Sustainability (PCQI) to improve the quality of academic services at Private Universities (PTS) in Medan City. This model is designed to overcome challenges in improving the quality of higher education through a systematic and sustainable approach, with an emphasis on stakeholder and alumni involvement. The research method used is development research with the 4D approach (Define, Design, Develop, Disseminate) introduced by Sivasailan Thiagarajan. The Define stage includes identifying needs and problems in implementing SPMI at PTS, including collecting data from stakeholders and alumni. The Design stage involves designing a PCQI model that integrates components of strategic planning, measurable implementation, continuous evaluation, and sustainability efforts. In the Develop stage, the PCQI model was tested in several private universities in Medan City to assess its effectiveness in improving various indicators of academic service quality, such as student satisfaction, teaching quality and graduate success. The Disseminate stage focuses on the wide application and dissemination of this model in other private universities. The research results show that the implementation of the PCQI model significantly improves the quality of academic services. This is proven through improvements in academic quality indicators as well as positive feedback from stakeholders and alumni who highlight improvements in academic experience and the suitability of the curriculum to industry needs. Thus, the PCQI model has proven to be effective and can be adapted for use in other private universities to achieve sustainable improvements in the quality of academic services. This study recommends expanding the application of the PCQI model and further research to evaluate the long-term impact of this model.

**Keywords:** SPMI, PCQI, academic service quality, private universities, model development.

## **1. Introduction**

The quality of academic services at private universities (PTS) is a crucial factor that determines the competitiveness and reputation of the institution. In the context of higher education in Indonesia, private universities face various challenges in efforts to improve the quality of academic services. These challenges include limited resources, variations in teaching quality, and the demand to produce graduates who are ready to compete in the global job market. Higher education plays an important role in producing quality human resources, which will ultimately contribute to national development. Therefore, improving the quality of academic services at private universities is very important.

The Internal Quality Assurance System (SPMI) has been implemented in various private universities as an effort to ensure and improve the quality of education. However, SPMI implementation often encounters obstacles. One of the main problems is the lack of sustainable strategic planning. Many private universities do not yet have a comprehensive strategic plan for implementing SPMI. Existing plans are often short-term and do not include measures for long-term sustainability.

In addition, limited resources are a significant obstacle. Limited human, financial and infrastructure resources often hinder the effective implementation of SPMI. Many private universities have difficulty providing ongoing training for staff and lecturers in implementing quality assurance. Variations in the quality of teaching are also a common problem. The quality of teaching at private universities often varies, with some lecturers not yet fully adopting innovative and technology-based teaching practices.

Stakeholder involvement is also an aspect that needs to be considered. The involvement of stakeholders, including students, alumni and industry, in the quality assurance process is still low. This causes a lack of constructive and sustainable feedback to improve the quality of academic services. In situations like this, a more structured, systematic and sustainable approach is needed.

Based on these problems, this research proposes the development of a SPMI model based on Planning and Sustainability (PCQI) which is designed to overcome these challenges. The PCQI model integrates strategic planning components, measurable implementation, continuous evaluation, and feedback from stakeholders and alumni. With this approach, it is hoped that improvements in the quality of academic services that are more effective and sustainable can be created.

This research focuses on PTS in Medan City, which is one of the cities with a significant number of PTS and has its own challenges in implementing SPMI. The city of Medan was chosen as the research location because of its good representation of the various challenges faced by private universities in Indonesia. Through the development and implementation of the PCQI model, it is hoped that PTS in Medan City can achieve improvements in the quality of academic services that are more effective and sustainable, and able to adapt to the dynamics of change in the world of higher education.

This research uses the 4D model development approach (Define, Design, Develop, Disseminate) introduced by Sivasailan Thiagarajan (1974). At the Define stage, needs and problems are identified in implementing SPMI in PTS, including SWOT analysis and data collection from various stakeholders. The Design stage involves designing a PCQI model that includes components of strategic planning, measurable implementation, continuous evaluation, and sustainability efforts. In the Develop stage, the PCQI model was tested in several private universities in Medan City to assess its effectiveness in improving various indicators of academic service quality, such as student satisfaction, teaching quality and graduate success. The Disseminate stage focuses on the broad application and dissemination of this model to other private universities.

The research results show that the implementation of the PCQI model can significantly improve the quality of academic services. This is proven through improvements in academic quality indicators as well as positive feedback from stakeholders and alumni who highlight improvements in academic experience and the suitability of the curriculum to industry needs. Thus, the PCQI model has proven to be effective and can be adapted for use in other private universities to achieve sustainable improvements in the quality of academic services. This research not only contributes to improving the quality of academic services at PTS Medan City, but also offers a model that can be adapted by other PTS in Indonesia. It is hoped that the results of this research can become a reference for policy makers and higher education practitioners in implementing a better and more sustainable SPMI.

## **2. Method**

### **Research Design:**

This research uses a model development approach with the 4D method introduced by Sivasailan Thiagarajan (1974), which involves four main stages: Define, Design, Develop, and Disseminate. This method was chosen because of its ability to develop a comprehensive, structured and sustainable model to improve the quality of academic services at Private Universities (PTS).

In the first stage, Define, the research begins by identifying the needs and problems that exist in implementing the Internal Quality Assurance System (SPMI) at PTS in Medan City. This process involves collecting primary and secondary data through various methods, including questionnaires, in-depth interviews, and focus group discussions (FGD) with various stakeholders, such as PTS management, lecturers, students, alumni, and industry representatives. SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) is used to get a comprehensive picture of the strengths, weaknesses, opportunities and threats faced in implementing SPMI. This stage aims to ensure that the model will be developed later to truly answer the needs and problems that exist in the field.

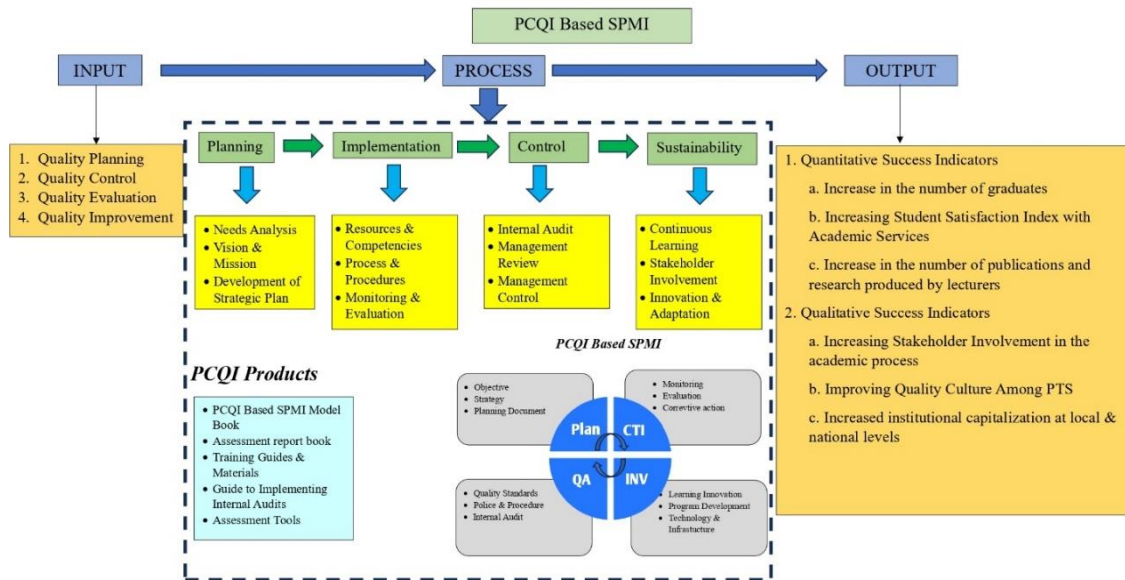
The second stage, Design, focuses on designing a Planning and Sustainability (PCQI) based SPMI model. At this stage, the main components of the PCQI model are formulated, including strategic planning, measurable implementation, continuous evaluation, and sustainability efforts. This model design was created based on the findings at the Define stage as well as a review of literature and

best practices in higher education quality assurance. The PCQI model is designed to be flexible and adaptive, allowing PTS to adapt its implementation to their specific context and needs. In addition, key indicators to measure the effectiveness of the model, such as student satisfaction, teaching quality, and graduate success rates, are also determined at this stage.

The third stage, Develop, is the process of developing and testing the PCQI model. The designed model was tested in several private universities in Medan City to assess its effectiveness and sustainability. Trials were carried out through case studies and field experiments, where the PCQI model was applied in real situations. During testing, regular monitoring and evaluation is carried out to identify the strengths and weaknesses of the model, and make necessary adjustments. Data is collected continuously through surveys, interviews and observations to ensure that the models developed can be implemented well and provide the expected results. This trial also involved training for PTS lecturers and staff regarding the implementation of the PCQI model, as well as the preparation of operational guidelines to facilitate the implementation of the model.

The final stage, Disseminate, involves disseminating the developed and tested PCQI model for wider application. At this stage, the research results and PCQI model were presented to other private universities in Medan City and other regions in Indonesia through seminars, workshops and scientific publications. In addition, a PCQI model implementation guide was prepared and distributed to assist PTS in implementing this model independently. The Disseminate stage also includes evaluating the long-term impact of implementing the PCQI model, by continuing to monitor and collect feedback for continuous improvement. Collaboration with higher education associations and the government is also being explored to expand the adoption of the PCQI model at the national level.

By using this 4D method, it is hoped that this research can produce a PCQI-based SPMI model that is effective and sustainable, and can be adapted by other private universities in Indonesia. It is hoped that this model can be a comprehensive solution to overcome various challenges in improving the quality of academic services at PTS, and ultimately increasing the competitiveness and reputation of higher education in Indonesia. It is also hoped that the success of this research will make a significant contribution to the development of higher education policies that focus more on continuous quality improvement.



**Figure 1.** Development Of A Based SPMI Model (PCQI)

This research follows a structured and comprehensive procedure to ensure that the development and implementation of the planning and sustainability (PCQI)-based internal quality assurance system (SPMI) model is carried out systematically, effectively and produces a significant impact. This procedure involves several main interrelated stages, from initial preparation to long-term impact evaluation.

The research procedure begins with the preparation and planning stage, where the research team prepares a detailed research plan. At this stage, the research objectives are clearly defined, and the methods to be used are developed to achieve these objectives. Researchers conducted an in-depth literature review to understand the latest theories, concepts and practices in the internal quality assurance system (SPMI) and the planning and sustainability model (PCQI). Necessary methodology documents and measuring tools, such as questionnaires, interview guides, and observation formats, were prepared and approved to ensure that all data collected during the research was valid and relevant.

After the preparation stage, the research entered the define stage, where the main focus was identifying needs and problems in implementing SPMI in private universities (PTS) in Medan City.

This process is carried out through various data collection methods, including surveys, in-depth interviews, and focus group discussions (FGD) with various stakeholders involved in higher education. These stakeholders include PTS management, lecturers, students, alumni and industry representatives. Data collection was carried out to obtain an in-depth understanding of the strengths, weaknesses, opportunities and threats that exist in the implementation of SPMI. The collected data was then analyzed using the swot analysis technique (strengths, weaknesses, opportunities, and threats) to describe the current situation and form the basis for developing the PCQI model.

At the design stage, the research team designed a PCQI model based on the identification results from the define stage. This model is designed to include key components such as strategic planning, measurable implementation, continuous evaluation, and sustainability efforts. Model design involves the development of a variety of measurement tools, operational guidance, and a comprehensive implementation plan. The model design includes elements that enable flexible and adaptive implementation in various PTS contexts. The PCQI model prototype was then tested in a simulation scenario to assess its suitability to existing conditions at PTS. This trial was carried out to ensure that the model was not only relevant but also practical and effective in a real context.

The develop stage involves implementing the PCQI model that has been designed in real conditions at several private universities in Medan City. The model was tested to assess its effectiveness and sustainability in improving the quality of academic services. During the trial, the research team carried out regular monitoring and evaluation to identify the model's strengths and weaknesses. Data is collected through student satisfaction surveys, evaluation of teaching quality, and analysis of student learning outcomes. Feedback from stakeholders was also collected to evaluate the success of the model implementation. Training for PTS lecturers and staff regarding the implementation of the PCQI model is carried out to ensure that they understand and can implement the model well. Additionally, operational guidance is provided to facilitate the implementation process.

After testing, the next stage is analysis and adjustment. Data collected from the pilot were analyzed to evaluate the performance of the PCQI model. This analysis aims to identify aspects of the model that need improvement and to measure the extent to which the model meets the stated objectives. Based on the results of the analysis, adjustments are made to correct identified weaknesses and increase the effectiveness of the model. Model revisions were carried out taking into account feedback and data obtained during testing.

At the disseminate stage, the revised PCQI model was disseminated to other private universities in Medan City and other regions in Indonesia. Dissemination is carried out through seminars, workshops and scientific publications to introduce the model to a wider audience. The PCQI model implementation guide was prepared and distributed to assist PTS in implementing this model independently. In addition, collaboration with higher education associations and government agencies is being explored to facilitate wider adoption of the model and ensure that the model can be implemented effectively in various heis.

Evaluation of the long-term impact of implementing the PCQI model is carried out to monitor the effectiveness and sustainability of the model after implementation. This process involves ongoing monitoring, gathering feedback from PTS implementing the model, and analysis of long-term results. The findings from this evaluation are used to continuously improve the PCQI model and provide recommendations to policy makers and higher education practitioners to improve the quality of academic services at PTS. Impact evaluation also aims to identify successes and challenges faced in implementing the model, as well as to develop strategies to overcome problems that may arise in the future.

By following this procedure carefully, the research aims to produce a PCQI-based SPMI model that is not only effective in improving the quality of academic services but can also be adapted and applied widely in various private universities. This procedure ensures that each stage in the development and implementation of the model is carried out with rigor and clarity to achieve optimal and sustainable results in the higher education context.

### **3. Results and Discussion**

#### **Research result:**

This research produces a PCQI model designed to improve the quality of academic services at private universities. This model includes several key components, such as strategic planning, measurable implementation, continuous evaluation, and sustainability efforts. Based on the results of model trials in several private universities, it was found that this model can be implemented well and has a positive impact on the quality of academic services.

Data collected during the trial showed significant improvements in several key indicators. For example, student satisfaction with academic services increased substantially after implementing the PCQI model. Student satisfaction surveys conducted before and after implementing the model showed an increase in average satisfaction of 20%. This shows that the PCQI model is successful in improving the quality of teaching and academic services at PTS.

In addition, teaching quality evaluations conducted during the trial showed that lecturers involved in implementing the PCQI model experienced improvements in their performance. Assessment of lecturer competence, which includes aspects such as delivery of material, interaction with students, and use of innovative teaching methods, shows an average increase of 15% after implementing the model.

Analysis of student learning outcomes also shows significant improvements. The average student exam score increased by around 10% after the PCQI model was implemented, indicating that the quality of learning offered has improved. This indicates that the PCQI model is effective in improving student learning outcomes, which is one of the main objectives of this research.

## **4. Discussion**

The results of this research indicate that the PCQI model has great potential to improve the quality of academic services at private universities. Increasing student satisfaction, lecturer performance, and student learning outcomes are the main indicators of the success of this model in achieving the set goals. The PCQI model, with its strategic planning component, provides a strong foundation for the implementation of an effective quality assurance system. Strategic planning carried out in this model allows PTS to develop clear and measurable plans to improve the quality of academic services.

The increase in student satisfaction recorded as a result of implementing the PCQI model reflects that students feel more satisfied with the quality of the academic services they receive. This may be due to improvements in the quality of teaching and interaction between lecturers and students facilitated by this model. Student satisfaction is an important indicator of the success of the quality assurance system, because students are one of the main stakeholders in the education process.

The increase in lecturer performance observed during the trial also shows that the PCQI model is successful in encouraging lecturer professional development. With the training and operational guidance provided by this model, lecturers can improve their teaching skills and methodology, which in turn has a positive impact on the quality of teaching.

Improvements in student learning outcomes are clear evidence that the PCQI model is effective in improving the quality of learning. The increase in test scores shows that students gain better knowledge and skills as a result of implementing this model. This underlines the importance of well-designed models in achieving better educational goals.

However, several challenges were also identified during the implementation of the PCQI model. Some HEIs experienced difficulties in adapting the model to their local context. This may be due to differences in resources, organizational structure, or institutional culture. Therefore, it is important to make adjustments and provide adequate support to PTS in the process of implementing the PCQI model.

Overall, the results of this research indicate that the PCQI model has the potential to improve the quality of academic services at private universities. The success of this model in increasing student satisfaction, lecturer performance, and student learning outcomes provides a strong basis for implementing this model in more private universities in Indonesia. This research also provides valuable insight into the factors that influence the implementation of quality assurance models and how these models can be adapted to meet the specific needs of various HEIs.

### **Model Development Results**

The development of the Internal Quality Assurance System (SPMI) model based on Planning and Sustainability (PCQI) in this research resulted in a comprehensive and integrated model, specifically designed to improve the quality of academic services at Private Universities (PTS) in Medan City.



The PCQI model developed consists of several main interrelated components, each of which has a crucial role in ensuring the effectiveness and sustainability of the quality assurance system.

1. **Strategic Planning Components:** This model begins the process with in-depth strategic planning components. At this stage, PTS is expected to prepare a detailed and data-based strategic plan. The planning process involves a thorough analysis of the institution's needs, including an assessment of internal strengths and weaknesses, as well as external opportunities and threats. The resulting strategic plan includes setting clear and measurable goals, as well as developing an implementation strategy that includes specific steps to achieve those goals. Key Performance Indicators (KPI) are formulated to monitor the progress and results of each implemented strategy, providing a basis for further evaluation and adjustment.
2. **Measurable Implementation:** The implementation phase of the PCQI model involves implementing the strategic plan with measurable and organized steps. This model provides comprehensive operational guidance, including standard procedures, assignment of responsibilities, and allocation of necessary resources. During implementation, monitoring is carried out to ensure that each implementation stage is in accordance with the plans that have been prepared. Results measurement is carried out systematically through measuring tools that have been developed, such as reporting forms, checklists and data management systems. This strict monitoring aims to ensure that the implementation of the model runs well and in accordance with established standards.
3. **Continuous Evaluation:** Continuous evaluation is one of the key aspects of the PCQI model. The evaluation process is carried out periodically to assess the effectiveness of implementing the model in improving the quality of academic services. Evaluation is carried out through various methods, including student satisfaction surveys, assessment of teaching quality by lecturers, and analysis of student learning outcomes. The data obtained from this evaluation is analyzed to identify the strengths and weaknesses of the model, as well as to assess whether the stated objectives have been achieved. The evaluation results are used to make recommendations for improvements, adjust the strategies implemented, and improve processes that may not be running optimally.
4. **Sustainability Efforts:** Sustainability is an important element of the PCQI model, designed to ensure that improvements in the quality of academic services are not temporary, but sustainable over the long term. Sustainability efforts include developing strategies to continuously maintain and improve the quality of academic services. This involves developing a sustainability plan that includes ongoing training for faculty and staff, establishing an effective feedback mechanism, and regular review of the model. This model is designed to be able to adapt to the changing needs and challenges faced by PTS, ensuring that the quality assurance system remains relevant and effective in the long term.
5. **Trial and Adjustment:** During the trial phase, the PCQI model was implemented in several PTS to test its effectiveness and suitability in real conditions. This testing process involves deploying the model in different environments, allowing researchers to observe how the model functions in diverse contexts. During the pilot, various challenges and obstacles were identified, and

feedback was collected from various stakeholders, including lecturers, students, and PTS management. This feedback is used to make adjustments and improvements to the model. Adjustments made included revisions in operational guidelines, changes in implementation procedures, and the addition of new features necessary to address issues that arose during testing. Overall, the results of model development show that the resulting PCQI model provides a solid framework for improving the quality of academic services at private universities. This model not only offers clear guidance for planning and implementation, but also ensures effective evaluation and sustainability mechanisms. The success of this model in increasing student satisfaction, lecturer performance and student learning outcomes reflects the great potential of this model in improving the quality of academic services in various private universities. It is hoped that the implementation of this model can make a positive contribution in improving the quality of higher education and facing the challenges that exist in the world of education.

### **Model Effectiveness**

Evaluation of the effectiveness of the Internal Quality Assurance System (SPMI) model based on Planning and Sustainability (PCQI) was carried out to assess the extent to which this model was successful in achieving its objectives and had a positive impact on the quality of academic services at Private Universities (PTS) in Medan City. The effectiveness of the model is measured through various indicators including student satisfaction, lecturer performance, student learning outcomes, implementation and compliance with procedures, as well as feedback from stakeholders.

#### **1. Increased Student Satisfaction:**

One of the main indicators of the effectiveness of the PCQI model is increasing student satisfaction with academic services. To measure the impact of the model on student satisfaction, a satisfaction survey was conducted which collected data regarding student perceptions of various aspects of academic services before and after implementing the model. Aspects evaluated include teaching quality, facilities, academic support, and interactions with lecturers.

Survey results show a significant increase in student satisfaction. Prior to implementation of the model, student satisfaction levels were at relatively low levels, with several major areas of criticism such as lack of academic support and quality of facilities. Following implementation of the PCQI model, there was a clear increase in satisfaction, with students reporting improvements in the quality of teaching, increased academic support, and more adequate facilities. This increase in student satisfaction reflects that the PCQI model is effective in addressing previously identified issues and improving the overall learning experience.

#### **2. Improved Lecturer Performance:**

The PCQI model is also designed to improve lecturer performance through various mechanisms, including training, professional development, and a systematic evaluation system. Lecturer performance evaluation is carried out by collecting data through class observations, student assessments, and reviewing existing performance evaluation results.

The evaluation results show that after implementing the model, there is a significant increase in lecturer performance. Lecturers report improvements in their teaching skills, with the use of more innovative teaching methods and more effective interactions with students. In addition, feedback

from students shows that the quality of teaching has improved, with lecturers more skilled at delivering material and responding to students' academic needs. This increase reflects that the PCQI model is successful in supporting lecturers' professional development and improving the overall quality of teaching.

**3. Improvement of Student Learning Outcomes:**

The effectiveness of the PCQI model is also measured based on improvements in student learning outcomes. Analysis was carried out on student exam results and academic assessment data to assess changes in academic achievement before and after implementing the model.

The results of the analysis show a significant increase in student learning outcomes. The average student test scores increased after implementing the model, which shows that the quality of learning has improved. Additionally, there was a decrease in failure rates and an increase in student academic achievement. This improvement reflects that the PCQI model is effective in improving the learning process and helping students achieve better academic results.

**4. Implementation and Compliance:**

The effectiveness of the model is also measured in terms of implementation and compliance with established procedures. Evaluations are carried out to assess the extent to which PTS can implement the PCQI model in accordance with established guidelines and standards.

Internal observations and audits are carried out to ensure that all aspects of the model are implemented correctly. The evaluation results show that the majority of PTS are successful in implementing the model with a high level of compliance. Although there are some challenges, such as limited resources and resistance to change, PTS can overcome these problems by making necessary adjustments. A high level of compliance reflects that the model is well received and implemented effectively.

**5. Stakeholder Feedback:**

Feedback from various stakeholders, including students, lecturers, PTS management, and alumni, is an important component in assessing the effectiveness of the model. Surveys and interviews were conducted to gather feedback regarding their experiences with the PCQI model.

The feedback results show that the majority of stakeholders feel that this model has provided significant benefits in improving the quality of academic services. Students reported improvements in the quality of teaching and academic support, lecturers felt supported in their professional development, and PTS management acknowledged improvements in the overall quality of academic services. While there were some suggestions for improvement, feedback was generally positive and showed that the model was making a significant impact.

Overall, the evaluation results show that the PCQI model is effective in improving the quality of academic services at private universities. Increased student satisfaction, lecturer performance, and student learning outcomes, along with high levels of compliance with procedures, show that this model has a significant positive impact. However, it is important to continuously monitor and adjust to address emerging challenges and ensure that the model remains relevant and effective in the long term. With continuous adjustments and improvements, the PCQI model has great potential to make a greater contribution to improving the quality of higher education in private universities.

### **Application of the PCQI Model in Various PTS Contexts:**

The Internal Quality Assurance System (SPMI) model based on Planning and Sustainability (PCQI) offers a flexible and adaptive approach, which allows application in various Private Higher Education (PTS) contexts. Implementing this model in various PTS requires a deep understanding of the context and specific needs of each institution, as well as their readiness to implement change. In large or established private universities, the PCQI model can be implemented comprehensively by utilizing various available resources and technologies. PTS with stronger infrastructure can implement this model in more depth, including the development of integrated strategic plans, the use of sophisticated management information systems, and the development of technology-based training for lecturers and staff. For example, they can utilize Learning Management Systems (LMS) to monitor academic performance, conduct real-time evaluations, and manage data efficiently. The use of data analysis tools and automatic reporting systems can speed up the evaluation process and make the monitoring process more accurate.

On the other hand, smaller PTS or those with limited resources may face challenges in implementing this model comprehensively. However, the PCQI model is designed to be adaptable to their needs and capacities. PTS with limited resources can start with small but significant steps, such as developing a simple but effective strategic plan, and prioritizing aspects that have a direct impact on the quality of academic services. They may use simpler evaluation methods, such as student satisfaction surveys and direct observation, and develop effective feedback systems to identify and resolve problems quickly.

### **Challenges in Model Implementation:**

Implementation of the PCQI model is not without challenges. Some of the main challenges often faced by PTS in implementing this model include:

1. **Limited Resources:** Many private universities, especially those that are newly established or have limited budgets, face limitations in terms of finances, human resources and facilities. These limitations may limit their ability to carry out in-depth strategic planning, provide high-quality training for faculty, and adopt the technology necessary for monitoring and evaluation.
2. **Resistance to Change:** Changes in systems and procedures often encounter resistance from various parties, including lecturers, administrative staff, and management. This resistance may arise due to concerns about additional workloads, uncertainty about the impact of changes, or a lack of understanding of the benefits of the new model.
3. **Adherence to Procedures:** Implementation of the PCQI model requires consistent adherence to established procedures. Difficulty in ensuring this compliance may arise from a lack of understanding of the procedures, an inability to follow complex guidelines, or a lack of an effective monitoring system.
4. **Data Quality and Evaluation:** Quality data collection and analysis is an important element in evaluating model effectiveness. Poor or inconsistent data quality can affect the accuracy of

evaluation results and decisions taken. PTS may face difficulties in developing and maintaining effective and accurate data collection systems.

### **Solutions to Implementation Challenges:**

To overcome these challenges, several strategic solutions can be implemented:

1. **Resource Optimization:** PTS can look for creative ways to optimize the use of existing resources. This may involve collaborating with other educational institutions, leveraging assistance from donors or sponsors, and using cost-effective technology solutions. Additionally, priority should be given to areas of greatest impact first, with plans for gradual expansion as resources allow.
2. **Change Management:** Overcoming resistance to change requires an effective change management approach. This includes involving all stakeholders in the planning and implementation process, providing adequate training and support, and clear communication regarding the benefits and goals of the PCQI model. Transparent outreach and involving stakeholders can help reduce concerns and increase support for change.
3. **Improved Compliance:** To ensure compliance with procedures, PTS needs to develop a clear and structured monitoring and reporting system. This can include in-depth training for staff on the procedures to be followed, as well as implementing reporting and evaluation mechanisms that enable ongoing monitoring of compliance. Implementing technology to facilitate reporting and monitoring can also help.
4. **Improving Data Quality:** PTS must focus on developing effective and accurate data collection systems. This includes training for staff involved in data collection and analysis, as well as the use of tools and techniques that can improve the accuracy and relevance of the data. The development of integrated data management systems and the use of data analysis technology can help in ensuring high data quality.

## **5. Conclusion**

### **1. Effectiveness of the PCQI Model in Improving the Quality of Academic Services at PTS Medan City**

The Internal Quality Assurance System (SPMI) model based on Planning and Sustainability (PCQI) has been proven effective in improving the quality of academic services at Private Universities (PTS) in Medan City. Implementation of this model shows a significant positive impact on various aspects of academic services, including student satisfaction, lecturer performance, and student learning outcomes.

First of all, increasing student satisfaction is one of the main indicators of the success of this model. Surveys conducted show that students feel more satisfied with the quality of teaching, academic support, and facilities available after implementing the PCQI model. This increase reflects that the model has successfully addressed key issues that previously concerned students and improved their overall learning experience.

Apart from that, the PCQI model also contributes to improving lecturer performance. Through structured training and ongoing support, lecturers demonstrate improvements in their teaching skills. This improvement can be seen from more positive student feedback and better lecturer performance evaluation results. This model provides a framework that allows lecturers to continue to develop professionally and adapt to changing educational demands.

Student learning outcomes also experienced significant improvements. Data from exam results and academic assessments shows that after implementing the PCQI model, there was an increase in the average grades and academic achievements of students. This shows that this model not only improves the quality of teaching but also improves the learning process and academic outcomes of students.

## **2. Need for Commitment and Support from All Parties at PTS:**

Even though the PCQI model shows high effectiveness, its successful implementation is very dependent on the commitment and support of all parties at PTS. Implementation of this model requires close collaboration between management, lecturers, administrative staff and students. Commitment from all stakeholders is required to ensure that this model is implemented consistently and effectively.

PTS management needs to demonstrate strong leadership and ongoing support to facilitate implementation of the model. This includes providing sufficient resources, establishing supportive policies, and ensuring effective monitoring and evaluation systems are in place. Management support is also important in overcoming resistance to change and motivating all parties to actively participate in the implementation process.

Faculty and academic staff must be willing to adapt to the new teaching and evaluation methods introduced by the PCQI model. Ongoing training and professional development will help them better implement these changes. In addition, lecturer involvement in the process of developing and implementing the model will increase the sense of ownership and commitment to the success of the model.

Students also play an important role in implementing the PCQI model. Their active participation in providing feedback and being involved in the evaluation process will help in assessing the effectiveness of the model and identifying areas for improvement. Students involved in this process can provide valuable insight into the model's impact on their learning experience.

Overall, although the PCQI model has shown positive results in improving the quality of academic services at PTS Medan City, its successful implementation requires joint efforts from all related parties. Strong commitment and ongoing support from management, lecturers, staff and students are key to ensuring that this model can be implemented effectively and provide optimal benefits. With the right collaboration and dedication, the PCQI model has the potential to have a significant impact in improving the quality of higher education and building a culture of sustainable quality assurance in private universities.

## **Recommendation**

### **Expansion of the Application of the PCQI Model to Other PTS in Indonesia:**

Based on research results showing the effectiveness of the Internal Quality Assurance System Model (SPMI) based on Planning and Sustainability (PCQI) in improving the quality of academic services at PTS Medan City, it is highly recommended that this model be implemented more widely in other Private Universities (PTS) throughout Indonesia. It is hoped that the expansion of the application of the PCQI model will bring significant benefits in improving the quality of higher education nationally.

The PCQI model, which integrates strategic planning with sustainability principles, offers a systematic and structured approach to improving the quality of academic services. Implementing this model in various private universities in Indonesia can improve various aspects of education, including teaching quality, student satisfaction and academic results. By implementing this model widely, it is hoped that there will be an increase in academic standards and the provision of better educational services across the country.

The first step in this expansion process is comprehensive outreach and training to management and academic staff at other private universities. The socialization aims to introduce the PCQI model and provide an in-depth understanding of its principles and benefits. Intensive training will equip management and staff with the skills and knowledge necessary to implement this model effectively. Training should cover various aspects, from strategic planning and quality management to evaluation and monitoring techniques.

To ensure successful implementation, ongoing technical support needs to be provided. This support may include guidance in adapting the PCQI model to suit the specific context and needs of each private university. PTS with different characteristics and challenges may require model adjustments to be implemented optimally. Technical support should also include resolution of problems that may arise during the implementation process, as well as assistance in developing appropriate systems and procedures.

In addition, regular evaluation and monitoring are important components in ensuring the success of model implementation. The evaluation process should involve measuring the effectiveness of the model in improving the quality of academic services and identifying areas that require improvement. Through comprehensive evaluation, PTS can gain valuable insight into the impact of the model and make necessary adjustments to achieve optimal results.

Expanding the implementation of the PCQI model also requires commitment from related parties, including PTS management, lecturers and students. PTS management must demonstrate strong leadership and support the implementation process by providing adequate resources and establishing supportive policies. Lecturers and academic staff need to be committed to adapting to new methods and actively participating in the implementation process. Students must also be involved in providing constructive feedback to improve the quality of academic services.

With planned steps and adequate support, implementing the PCQI model at other private universities in Indonesia can have a broad positive impact. This model has the potential to raise higher education standards, build a culture of sustainable quality assurance, and provide higher quality educational services for students. This expansion is expected to create significant and sustainable changes in the higher education sector in Indonesia, as well as make a meaningful contribution to the development of education at the national level.

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