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Quality assurance in the polytechnic of health, ministry of health : An evaluative study in the polytechnic of health the ministry of health, Bengkulu

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Abstract---This research aims to see the strengths and weaknesses, differences and similarities of SPME standards, and build a hypothetical integration of quality assurance systems. This research type is evaluative research with a qualitative approach. The instrument is an interview guide, observation guide, and documentation. The data analysis used is a SWOT analysis, Mind Mapping, and CIPP. The results are the weaknesses are seen from multiple assignments, different assessment indicators, teamwork, implementation of the MOU has not been optimal, and the assessment period and data are not yet integrated. The threats are inconsistent regulations, different standards, and global competition. This is the first study that evaluated five accreditation quality assurance

systems, ISO 9001: 2015, PDDikti, SAKIP, and ZI. The formulation of a hypothetical model provides SPMI data for the requirement of the SPME. The recommendation from this study is to coordinate the quality assurance center to synchronize the data and integrate data audit instruments in a quality assurance application.

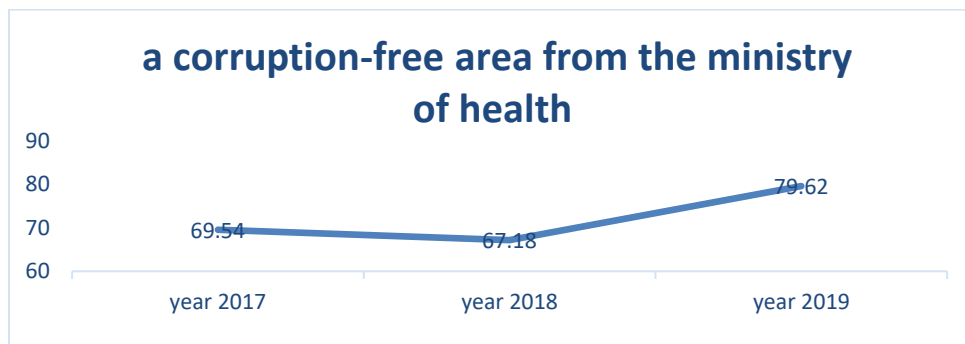
Keywords--quality assurance, evaluative study, polytechnic of health.

Background

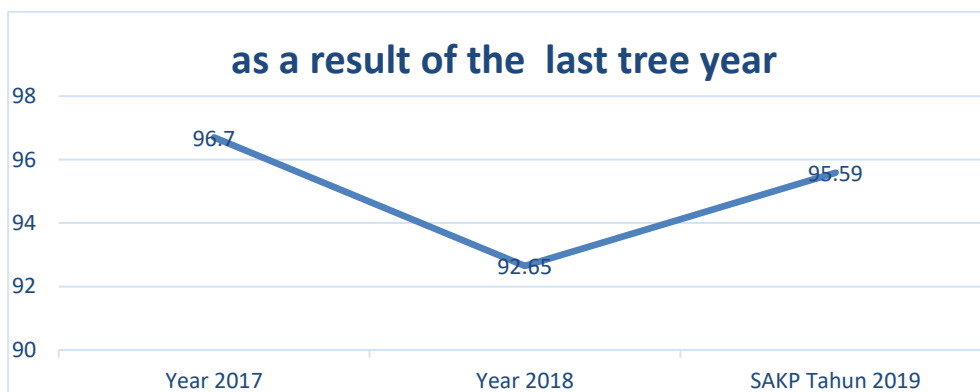
Health Polytechnic Ministry of Bengkulu, as an institution under three ministries, must implement multiple quality assurance systems, as a tertiary institution under the Ministry of Education and Culture must implement the internal quality assurance system (IQAS), external quality assurance system (EQAS)/accreditation quality assurance system and the Higher Education Database (HED), hereinafter abbreviated as college database. As a college under the ministry of health, also called the institution, they must implement an Integrity zone (IZ) and a quality assurance government agency performance accountability system (GAPAS), internal control system (IQS) to achieve a corruption free area (CFA). The bureaucratic area is clean and serves excellent service. Universities under the ministry of finance must implement a quality assurance system for Service Standards Minimum (SSM) and Government Internal Control System, hereinafter abbreviated as government internal control system (GICS).

As well as an effort to achieve quality management and international quality acknowledgment, they also ran the ISO 9001: 2008 quality assurance system and became ISO 9001: 2015. The Multi Assurance System at the Health Polytechnic Ministry of Bengkulu must align with various audit systems to achieve optimal quality assurance. The results of the achievement of the quality assurance system show that the achievements of each quality assurance system are not yet synchronized when compared to one another. On the other hand, the Health Polytechnic Ministry of Bengkulu and 38 Health Polytechnic Ministry throughout Indonesia have not yet received A accreditation from the National Accreditation Board for Higher Education (BAN-PT). The condition indicates that the quality assurance system at the Ministry of Health Polytechnic is not yet optimal.

The following profile of the Health Polytechnic Ministry of Health Bengkulu shows the results of the quality assurance system in 2017, 2018, and 2019. It has been accredited as B ranked institution for the last three years. In Indonesia, all Health Polytechnics Ministry of Health are still accredited B, while out of 14 study programs, only 3 study programs are accredited A, 8 study programs are accredited B and 3 study programs are accredited at least because they are new. The results of the corruption-free area assessment in the last three years are as follows:



The government's performance accountability system as a result of the last three years



The results are still up and down and not consistent and are still ranked 5 - 10 nationally. This result is not following the expected results. It impacts the Health Polytechnic Ministry of Bengkulu, categorized as a second class out of three Health Polytechnic Ministry classification classes in Indonesia [1] [2].

Based on the Audit Area, the average surveillance results carried out from 2012 to 2017 were established from 18 audit areas. The results of the internal quality audit (IQA) and ISO 9001: 2015 audits carried out by the IQA auditor team from the Polytechnic Health Ministry of Bengkulu and the ISO 9001:2015 audit team during that period, there were still two areas whose value was still below one and only four areas with a customer satisfaction score of four or more, the rest the satisfaction value. Customers with a range of more than one and less than four. It shows that customer satisfaction with services at the Bengkulu Health Polytechnic is still low [3].

The quality assurance systems that have been implemented at the Health Polytechnic of the Ministry of Health Bengkulu include IQAS, EQAS (Accreditation, ISO 9001: 2015, HED, GAPAS, IQA, and IZ) are systems that can be integrated because they have the same end goal, according to opinion [4] Higher education requires integrated management which includes strategic management, quality assurance, pedagogical management, and process management as the core management approach. The synchronization of these

quality assurance systems will facilitate continuous quality monitoring and improvement in a university. The benefits obtained will be more effective and efficient in terms of resources and time because each quality assurance system's audit processes and instruments have some similarities or are almost the same [5]. It is based on the existence of various educational regulations that are less progressive, consistent, and integrated. It is relatively complex for interested parties to implement quality assurance, as experienced in the Health Polytechnic Ministry of Bengkulu. The current quality assurance system seems to work independently. Internal quality standards, key performance indicators, and academic and non-academic quality targets to achieve the desired quality of education can be developed with existing quality assurance systems and comprehensive elaboration of quality assurance standards for all types of quality assurance systems. It will be the basis for implementing quality assurance at the Health Polytechnic of the Bengkulu Ministry of Health.

The factor that most spurs the quality assurance movement is the necessity of college to carry out quality assurance and demands for accountability and qualifications. Quality assurance in universities is critical because the goal of education is not only for academics but also for the whole person. However, its presence can be based on other reasons such as dissatisfaction from education staff and students, pressure due to limited funds, and, most notably, the demand for accountability to institutions [6]. Furthermore, the quality of higher education in Indonesia is still inferior to our neighboring countries in Southeast Asia. That is why efforts to improve the quality of education have attracted the attention of education experts and the government to make it happen [7]. Higher education institutions, like other industries, are required to provide services that meet specific standards and needs. The quality of education requires serious attention, both by the education providers, the government, and the community. In the current national education system, concentration on quality and quality is not solely the responsibility of Higher Education and the government. Still, it is a synergy between various components, including the community. Systematic and planned activities are needed to carry out quality assurance in the form of quality management [8].

Higher education is more concerned with accreditation or External Quality Assurance Standards, hereinafter abbreviated as EQAS, rather than Internal Quality Assurance Standards, hereinafter abbreviated as IQAS. Indeed, accreditation has always been the goal of improving the quality of study programs or universities. Once the accreditation is out, the institution will no longer carry out internal quality evaluations. In Law Number 12 of 2012, the IQAS process must be carried out by universities at least once a year. If study programs or universities only improve their quality to achieve good accreditation scores, there is a tendency that internal quality will not increase. The most important thing to achieve good accreditation is to apply the Continuous Quality Improvement (CQI) pattern. By improving the internal quality first, the accreditation process will undoubtedly be reasonable [9].

State of the art, this evaluation supervisor needs to be carried out, such as research that has been carried out in France integrating quality management, quality culture and work quality, for continuous quality improvement with the

conclusion “.....*Developing a technique for fine warranty assessment (PQAA), because it integrates good management, both subculture and good painting, for non-stop good mint-enhancing, may wish to consequently be a profitable contribution to non-stop painting on better structures in various training institutions*”[10].

This research is important because the research in Vietnam exploring the factors that have helped the successful implementation of quality assurance in Vietnam indicated that internal stakeholders are the main contributors to the successful implementation of quality assurance. “.....*Good Element This element consists in recognition of: the significance of the guarantee fines from the leadership of the institution, academics, and students, higher management through the means of the institutional manager, assistance from the institutional body of workers and students, and the obligations and joys of the subtle guarantees of the workers' bodies. However, those findings have been most effectively determined based primarily on the part in stakeholder perspectives*”[11]

The research conducted in Nigeria concludes that all quality assurance measures ranging from funding for secondary education, provision of physical facilities, teacher motivation, relevance of secondary school curriculum, school-community relations, teacher professional development, and overall school evaluation are carried out to a low level in middle school. “...*There has been a large variation with the suggestion of the rankings of principals and instructors by recognizing how well guarantee measures are being carried out in secondary schools. However, each mean suggested rating to a variety of good guarantee measures confirms that those measures are being carried out to a low extent*”[12]

This research is in line with the research conducted in Zimbabwe. They examined the quality assurance framework (QAF) as the best practice in improving the quality of research and innovation globally and in Zimbabwe, with results....” *Self-assessment confirms that, despite sincere desirability of intervention and requirements mentioned in the QAF, there are still gaps regarding doctoral education and support systems for research*”[13]

This research is in line with research from several countries through literature studies by the United Arab Emirates, Saudi Arabia and Pakistan that higher education institutions strive to provide high-quality education to their students to prepare them for the competitive world of work, in conclusion.... “*There is a strong desire for companies to incorporate the enjoyable practices of Quality Management Systems (QMS) into their learning practices. The shift to Outcome-Based Education (OBE) technique is one step in which universities incorporate subtle warranty techniques. However, to maintain both the redundant and regular requirements there is a desire to harmonize OBE exercises with QMS*”[14]

Theoretical Study and Research Methodology

Quality improvement is one of the prerequisites so that humans can enter the era of globalization which is full of healthy and quality competition. The existence of Higher Education as an educational institution will be inseparable from the global competition. For this reason, quality improvement is the main agenda in

improving the quality of higher education to survive in the global era. Total Quality Management (TQM), or what we usually know as Integrated Quality Management, is an integrated quality improvement concept in management. Factors that cause the low quality of higher education are due to the lack of optimal management of higher education, limited facilities and learning support facilities, and there are still human resources for lecturers who have not mastered or have not met the requirements [6]

The definition of quality assurance is the process of determining and fulfilling management quality standards consistently and continuously so that consumers, producers, and other interested parties obtain satisfaction with services and or services. So we need a continuous process in the form of a comprehensive quality assurance system commonly called TQM. TQM is an ongoing process that organizations, including universities, use to improve quality and performance that will meet customer expectations. It can be achieved when planning and executing activities well, including managing quality design and development, quality control and maintenance, quality improvement, and quality assurance [7]

To ensure the quality of higher education, the government has issued Law Number 12 of 2012 concerning Higher Education. Chapter III of the Higher Education Law confirms the integration of Higher Education Quality Assurance in a system with a name change from the Higher Education QTM to the Higher Education Quality Assurance System, which consists of the IQAS and or accreditation and the HED. With the Higher Education MSS regulation in a law, namely the Higher Education Law, every higher education institution is obliged to implement SPMI as one of the sub-systems in the Higher Education MSS [8]. The achievement of quality assurance goals through IQAS will ultimately be controlled and audited through an external quality assurance system called accreditation so that IQAS and EQAS will work in synergy and higher education quality can be maintained and improved [8].

College standards which minimum consists of IQAS

and EQAS must be based on HED. It means that the data and information used for IQAS must be identical to the data and information used for EQAS. For example, suppose the evaluation activities in the IQAS found that the percentage of lecturers with a master's degree is 70%, then in the EQAS or accreditation. In that case, that number must also be used. Thus, each university must establish a HED that stores accurate, valid, and up-to-date data and information that can be used to measure the achievement or fulfillment of Higher Education Standards in the higher education SPMI. At the same time, it can also be used by an Independent accrediting agency for health colleges or National Accreditation Higher Education to carry out accreditation [15].

This research is evaluation research using a qualitative approach based on post positivism or interpretive philosophy. Between researchers and reality must be interactive. Therefore, it is necessary to use the principle of triangulation, namely various methods, data sources, data, and others [15]. The main instrument of this research is the researcher himself by maintaining the moderate participation instrument in the form of interview guidelines, observation guidelines, and Focus

Group Discussion (FGD). Data collected information through interviews and observations. The research subjects are all managers of each quality assurance quality document. [17]

Data analysis using Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis and the context input process product (CIPP) model looked at four dimensions, namely the Context dimension, the Input dimension, the Process dimension, and the dimension [18]. Product. The uniqueness of this model is in each type of evaluation related to the decision-making device (decision) concerning the planning and operation of a program, mind mapping [19] to evaluate similarities and differences, as well as hypothetical analysis techniques for the development of a quality assurance model with a redesign type design repeating an existing design.

The researcher is the main instrument of research. Thus, the researcher must become a participant in the research process. Qualitative research, which becomes the instrument or research tool, is the researcher himself [20]. Therefore, the researcher as an instrument must also be "validated." Research validation as an instrument includes validation of the understanding of qualitative research methods, mastery of insight into the field being studied, and the readiness of researchers to enter the object of research both academically and logistically. Those who carry out the validation are the researchers themselves through self-evaluation of how far their understanding of qualitative methods is, mastery of theory and insight into the field under study, and readiness and provision to go into the field. Informants were selected and used as sources of information for data analysis in the research on the quality assurance model of the Health Polytechnic of the Ministry of Health Bengkulu.

Informants in this study were determined based on the criteria for ownership of the most accurate information or those that were closely related to the research objectives, namely those directly involved with quality assurance at Health Polytechnic of Bengkulu or they had important information about the object of this research. Relevant informants came from the director and deputy director for one academic field, deputy director for two general administration and finance and state property, deputy director for three student affairs and collaborations, Head of Quality Unit, Head of internal control system Unit, Head of Sub-Division of General Administration, Head of Sub-Division of Adak and Head of Sub-Department of Student Affair, Head of District Head, Head of Secretariat Study Program, Head of other supporting units and Head of Affairs and Markets for auditors and auditees as well as Educators, Education Personnel and Students. Although the informant has been determined, because the informant refers to a person, not a position, in this study, the researcher will conduct and determine the choice of informants based on certain criteria [21]. The research was carried out at the Health Polytechnic of the Ministry of Health Bengkulu. The research was carried out from October 2020 to February 2021.

Research Paradigm and Road Map

Information that must be included in the road map is: The stages or activities that must be carried out for each program and activity are as follows: postpositivism

or interpretation between researchers and reality must be interactive. Thus, it is necessary to use the principle of triangulation, namely the use of various methods, data sources, data, and others [15]. The main instrument of this research is the researcher himself by maintaining the moderate participation instrument in the form of interview guidelines, observation guidelines, and Focus Group Discussion (FGD). The data collected information through interviews and observations. The research subjects are all managers of each quality assurance and documents. [17].

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Research Results and Discussion

Accreditation has similarities with four guarantee systems (ISO 9001: 2015, HED, IQA and IZ) as stated in the following table.

NO	Other QA Accreditation	ISO 9001: 2015	HED	IQA	IZ
1	Criterion I Vision, Mission, Goals and Strategy	Organizational context leadership planning			
2	Criterion II Governance, Governance and Cooperation	Leadership performance evaluation		Evaluation, Performance Measurement	- Public quality improvement - Counseling on performance activities - HR Management
3	Criteria III Students	Operations Leadership	Lecturer and Student Data	planning, Evaluation	
4	Criterion IV HR	oppression Organization	Lecture Data		
5	Criterion 5 Infrastructure Finance	Planning		Measurement	Governance
6	Criterion 6 Education	Operation Organization	Curriculum		
7	Criterion 7 Recovery	Operation Organization	Lecture Data		
8	Criterion 8 Community service	Organization			

9	Criterion 9 Outcomes and Achievements of Tri Dharma College	Organization	study card result and student		
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Differences in SPME standards applied at the Bengkulu Health Ministry Health Polytechnic

The results of the visualization of CIPP Quality assurance (Institutional Accreditation, ISO 9001: 2015, HED, IQA and IZ) at the Health Polytechnic of the Bengkulu Ministry of Health, the difference between each quality assurance Accreditation and quality assurance (ISO 9001: 2015, HED, IQA and IZ) as stated in the following table:

Table 2
Recapitulation of CIPP similarities and differences between SPME for Institutional Accreditation with Quality Assurance System (ISO 9001:2015, HED, IQA and IZ)

N O	Evaluation Dimensions	Objective	Planning	Action	outside
1.	Accreditation	<ul style="list-style-type: none"> • Goal: to get quality education • Legal basis: Law no 12 of 2012 • Needs: as a source of information about graduates • Beneficiaries: institutions, graduates and graduate users • Problem: data synchronization • Environment: universities, study programs, accrediting institutions 	<ul style="list-style-type: none"> • User: who accesses the data • Strategy: Feder implementation of data tools • Design: preparation of standard completion, preparation of master plan for strategic development status and budget plan • Scope: all 9 elements of internal and external criteria and factors and development strategy • Development: Pioneering Excellence accreditation 	<ul style="list-style-type: none"> • Develop: accreditation instruments according to science and technology developments • Implement: the accreditation process from preparation to evaluation results • Activities: government and community monitored accreditation • Feedback: the better the accreditation, the more attractive prospective students and graduate users are 	<ul style="list-style-type: none"> • Impact: quality of education improves • Effectiveness: can reduce promotion costs • Transparency: public view of accreditation status • Arrangement: independent agency appointed and supervised by the government

2.	ISO 9001:2015 clause	<ul style="list-style-type: none"> Goals: customer satisfaction and continuous improvement Legal basis: Regulation of the Minister of Research, Technology and Higher Education No.44/2015 Needs: improvement of management processes to international standards Beneficiaries: lecturer managers and stakeholders Problem: management tends to the proposal unit Environment: administration and SOP 	<ul style="list-style-type: none"> Users: the academic community and stakeholders as well as the community Strategy: plan do check act Design: preparation of standard completeness of documents Scope: quality assurance system standards Strategy: comettmmen and auditees at the top of the registration training Develop ment: to a more education-specific ISO 	<ul style="list-style-type: none"> Develop: existing standards Implement ation: application of standards and documents Activities: ISO is monitored from the implementation of quality management standards Feedback: measuring customer satisfaction 	<ul style="list-style-type: none"> Standard: work is documented and makes it easier for employees Effectiveness: become an instrument of improvement Transparency: orderly documentation Sustainability: upgradeable to international accreditation Arrangement: by international ISO Institute
3.	HED	<ul style="list-style-type: none"> Goal: get quality education Legal basis: Law no. 12/2012 Needs: availability of PD Dikti Fider data Beneficiaries: Lecturers, Alumni students and Users Problem: data not in sync Environment: College data finder 	<ul style="list-style-type: none"> Users: alumni government and the institutions where alumni work Strategy: data collection, processing and presentation Plan: preparation of completeness of student data, lecturers and curriculum Scope: activity value of student study results and teaching history 	<ul style="list-style-type: none"> Develop: existing standards valid and easily accessible data Implement ation: application of standards and documents Activities: ISO is monitored from the implementation of quality management standards Feedback: measuring customer satisfaction Implement ation: feeder 	<ul style="list-style-type: none"> Impact: all transactional data on Dikti can be saved Effectiveness: easily know the correctness and accuracy of the data Sustainability: the higher education database can be used continuously Arrangements: by the ministry of education and culture

			<p>of lecturers</p> <ul style="list-style-type: none"> • Strategy: preparing permanent staff of SRPAS and incentives for university database managers • Development: server feeder and higher education report forum 	<p>application and report management</p> <ul style="list-style-type: none"> • Activities: data collection, processing and presentation • Feedback: from students about the teaching and learning process 	
4.	IQA	<ul style="list-style-type: none"> • Objective: accountability for performance improvement • Legal basis: PP 29/2014 • Need: to improve policies and innovate performance • Beneficiary: community • Problem: although the results of IQA are good, it does not affect the quality assurance results • Environment: performance management and administration 	<ul style="list-style-type: none"> • Users: all government agencies • Strategy: alignment between performance documents and results • Design: keep government agencies as public servants • Scope: strategic plan, information on program and policy evaluation performance • Strategy: improved performance accountability • Development: HR and E-IQA 	<ul style="list-style-type: none"> • Develop: E-IQA • Implementation: work planning for the implementation of performance-based budgeting • Activities: strengthening the performance accountability system • Feedback: performance evaluation results 	<ul style="list-style-type: none"> • Impact: accountable governance • Effectiveness: work unit commitment, government support, evaluation guidelines and quality/quantity of human resources • Sustainability: government programs and activities • Arrangements: by respective ministries
5.	IZ	<ul style="list-style-type: none"> • Goal: improve service effectiveness and efficiency • Legal basis: Minister of State Apparatus Empowerment Regulations 60/2012 	<ul style="list-style-type: none"> • Users: the academic community and society • Strategy: Joint commitment of management and employees, proper 	<ul style="list-style-type: none"> • Actions: Develop service ranking innovations to the community • Implementation: bureaucratic reform and structuring 	<ul style="list-style-type: none"> • Outcomes: • Impact of changes in employee mindset and work culture • Effectiveness of the education

	<ul style="list-style-type: none"> Needs: to meet community expectations Beneficiary: community Problem: performance management Environment: institutions 	<ul style="list-style-type: none"> Design: Declaration of ZI development Scope: all government agencies bureaucratic changes Development: the ability of human resources to build public trustat 	<ul style="list-style-type: none"> government administrators Activities: building employee integrity Public service feedback is assessed by the community 	<ul style="list-style-type: none"> management process system Continuity of recognition of areas free from corruption at the national level and recognition of clean and serviceable bureaucratic areas Arrangements by the Ministry of Health, Ministry of State Apparatus, Obsman and the Anti-Corruption Commission
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From the CIPP recap of the five EQAS evaluated, it turns out that there are more differences when compared to similarities both in terms of objectives, action planning, and outcomes. On the other hand, complementing and supporting each other to achieve the desired quality of education. The differences in the quality assurance system were also presented in the CIPP Recap of the five evaluated EQAS, which turned out to be more different when compared to similarities in terms of objectives, action planning, and outcomes. On the other hand, complementing and supporting each other to achieve the quality of education are required.

The differences in the quality assurance system are also presented in detail in mind mapping as follows: a) the institution in charge of the quality assurance program, b) the quality assurance program has begun, c) the legal basis, d) program objectives, e) program stages, f) auditor requirements/ appraiser, g) appraisal component, h) appraisal result, i) appraisal period as follows: as follows: a) the institution in charge of the quality assurance program, b) the quality assurance program has begun, c) the legal basis, d) the objectives of the program, e) the stages of the program, f) the requirements of the auditor/appraiser, g) the components of the assessment, h) the results of the assessment, i) the assessment period is as follows:

Discussion

- This study evaluates in a comprehensive and integrated manner the institutional accreditation of ISO-9001: 2015, HED, SAKIP, and ZI and finds strengths and weaknesses as well as opportunities and threats. There has been no previous research evaluating all five quality assurance systems.

Triangulation is not only FGD but also multiple ways of collecting data, re-checking, and conducting theoretical deepening of research findings.

- This study resulted in a hypothetical model in the form of an integrated quality assurance system in the form of SPMI and SPME databases under the coordination of the Health Polytechnic Ministry of Bengkulu quality assurance center. The data is expected to be collected in one system, and the data will be coded. Next, develop a data matrix with the following criteria: a) same code 1, b) different code 2, c) equivalent to code 3, d) specifically for code 4, then group the aspects being compared, including purpose, function, nature, indicator, time and implementation.
- Plan to establish a quality assurance system on data bank application and search for documents effectively and efficiently.
- Plan for the preparation of quality audit instruments (AMI, SPIP, ISO 9001:2015). Preparation of accreditation in one application and each quality assurance system is assigned its own co

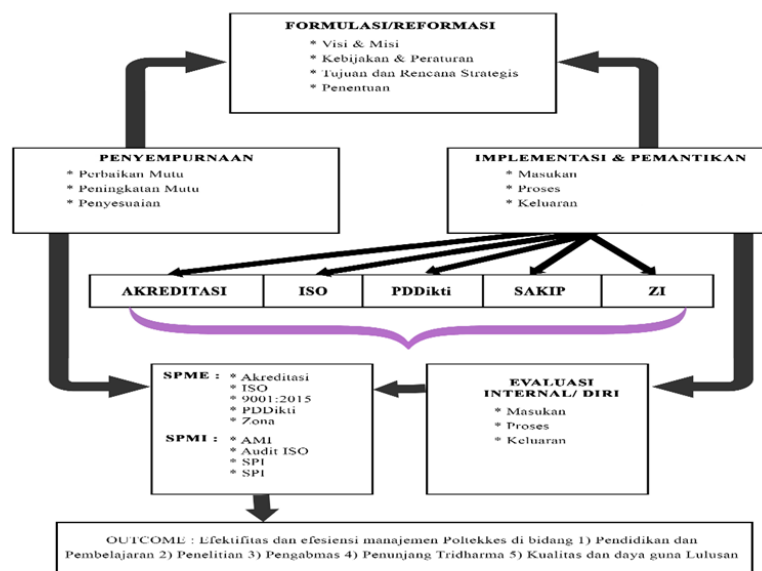


Figure 3. model of multi-system quality assurance in Health Polytechnic Ministry of Bengkulu

A hypothetical model in the form of a quality assurance system for the Health Polytechnic Ministry of Bengkulu has been categorized in each standard. Documents and instruments are managed by each person in charge and their team. Data is stored on laptops or cupboards in their respective rooms, and only the person concerned knows the data or document. It is expected and integrated [22] under the coordination of the quality assurance center. The collection of data and documents in the form of standard completeness is centralized in one system, and the data is coded or coded. The next plan is to establish and prepare a quality assurance system application where data is stored for all standards in an SPMI and SPME document center data center to search for documents effectively and efficiently, followed by the preparation of audit instruments

including (AMI, SPIP, ISO 9001: 2015, Accreditation, and academic) preparation of accreditation in one application and each quality assurance system is assigned its own code. The outcome of the integrated application of the effectiveness and efficiency of health education management is focused on the areas of 1) education and learning, 2) research, 3) community service, 4) supporting the tridharma, 5) quality and usability of graduates. According to stakeholder expectations. This integrated data is then mapped using the Zachman Framework work steps based on application data needs and business processes that are in accordance with APT accreditation.

3.0 [23]

Suggestion

Institutional accreditation at the Health Polytechnic Ministry of Bengkulu needs to be maximized by strengthening SPMI through the accreditation of ISO, HED, SAKIP ZI by making audit instruments in an integrated quality assurance system which is summarized in a supra system. Integrating quality assurance system standards into an application is future demand. Therefore, standards and documents, accreditation, National Accreditation Body for Higher Education, ISO 9001:2015, HED, GAPAS, and ZI health polytechnic educational institutions in Indonesia will benefit and will consistently improve effectiveness in the implementation of the quality assurance system to achieve institutional excellence, increase competitiveness and ensure sustainability. Further research is also needed with a quality assurance system of more than two models. In addition to IQAS and EQAS, information technology management audits use the ISO 21001: 2018 standard, which follows the world of education and international accreditation.

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