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Evaluating the Accreditation Results of Christian Colleges in Indonesia Using the Context, Input, Process, and Product (CIPP) Model

Jungjungan Simorangkir^{ID}, Marina Letara Nababan*^{ID}
Winarti Agustina^{ID}, May Rauli Simamora^{ID}, Arjun Sinamo^{ID}
Institut Agama Kristen Negeri Tarutung
North Sumatra, Indonesia

Johanes Waldes Hasugian^{ID}
Sekolah Tinggi Teologi Sumatera Utara
North Sumatra, Indonesia

Abstract. Accreditation is an external quality assurance system authorized institutions use to provide formal recognition. Christian colleges in Indonesia, which have been around for decades, should be able to have excellent accreditation. There are still very few Christian colleges that are accredited with excellence while very many Christian colleges are well-accredited. The purpose of this study is to identify the conformity of the Good Accredited Christian College (GACC) target with the results of the accreditation assessment, analyze the recommendations given by the evaluators in the results of the accreditation assessment, and produce GACC strategies in improving the quality of education to have competitiveness. Mixed-method with qualitative and quantitative approaches were used in this study. The evaluation with model Context, Input, Process, and Product (CIPP) is used as design research. The evaluation results show that GACC can improve accreditation quality and status by considering the accreditation assessment matrix requirements as a different strategy. GACC must strive to meet the standard of excellence in each component of the accreditation instrument to be able to compete nationally and internationally.

Keywords: evaluation; accreditation; CIPP model; Christian College; Indonesia

1. Introduction

Colleges must use digital learning because everything demands rapid changes. Likewise, Christian colleges in Indonesia must try their best to keep up with

* Corresponding author: *Marina Letara Nababan; marinaletara@gmail.com*

these changes to produce excellent human resources. In order to achieve this, Christian colleges must prepare everything such as curriculum, learning methods, lecturer capacity, educational infrastructure, and others. The readiness of this component brings changes in a better direction to improve prospective graduates' competence so that they can face competitiveness in the world of work. Moreover, the quality of these components can be seen from the assessment of higher education accreditation.

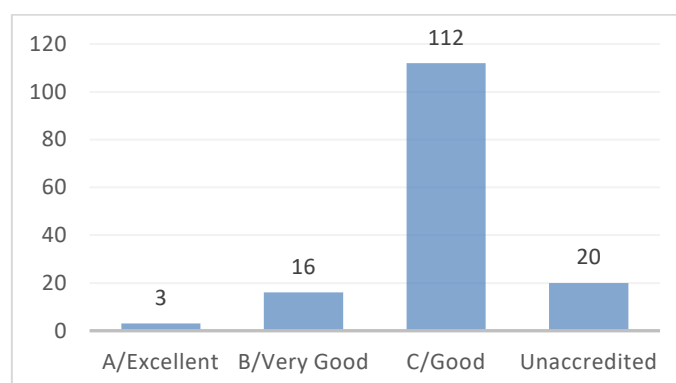
Accreditation

Accreditation in English comes from Latin, namely *credit*, which means trust. The public needs to believe that they pursue a decent effort when a student begins a college education, and the system to help ensure the trust is referred to as accreditation (Alstete, 2007). Accreditation is a mechanism by which an external panel assesses the educational program of an institution or educational institution against the criteria that have been set, whether it meets the standards or not (Altschuld & Engle, 2015).

Accreditation Evaluation

One of the accreditation bodies in Indonesia is the National Accreditation Board for Higher Education (called BAN-PT). The report from the accreditation evaluation team is used by the accreditation body to decide on whether, to what extent and for how long the institution or program will be accredited and ends with submitting its report to the institution or program. Usually, accreditation is given for a limited period, for example, five years.

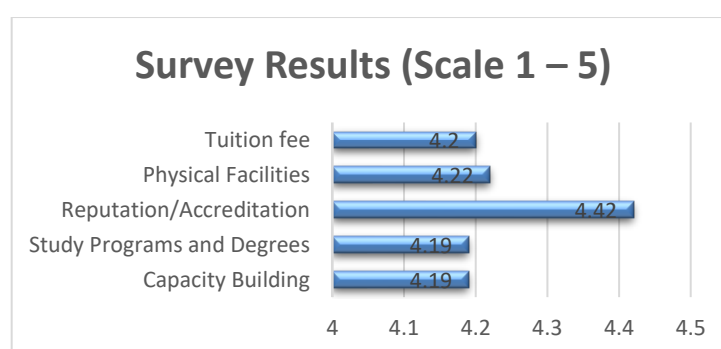
BAN-PT publishes the accreditation results of colleges and study programs through the Higher Education Database (HED) *website*, which can be widely accessed by the public (KEMDIKBUD, 2022). According to Stufflebeam and Coryn (2014), many educational institutions, hospitals, and other service organizations have been the subject of accreditation studies, and many professionals, at one time, had to meet certification requirements for a particular position. Therefore, the study of institutions and personnel is in the realm of accountability-oriented evaluation and has an improvement element. Usually, the feedback report identifies areas for improvement. The standards of BAN-PT consist of nine criteria including (1) Vision, Mission, Objectives, and Strategies; (2) Civil Service, Governance, and Cooperation; (3) Students; (4) Human Resources; (5) Finance, Facilities, and Infrastructure; (6) Education; (7) Research; (8) Community Service; and (9) Outcomes and Achievements. Accreditation data for 151 Christian colleges in Indonesia are according to BAN-PT data, namely:

Diagram 1. Christian Higher Education Accreditation Ranking Data in Indonesia

Source: BAN-PT Search Results (Tuesday, April 19, 2022: at 10.49 WIB)

There are three colleges that have been accredited with Excellent rank (1.99%), Very Good rankings are 16 colleges (10.6%), Good rankings are 112 colleges (74.17%), and 20 colleges are not accredited (13.25%). Thus, there are still very few Christian colleges in Indonesia with Very Good ratings, most of which have Good accreditation. The findings reveal that accreditation contributes to the improvement of processes and practices in higher education institutions (Ulker & Bakioglu, 2018).

One of the State Christian Colleges (SCC) in Indonesia, established in 1999 (23 years), obtains at least a minimum of Very Good ranks and even Excellent scores. Moreover, the data of enthusiasts (prospective students) entering SCC continue to increase yearly. The results of the survey of high school/ vocational students as equals or prospective students in North Sumatra, which were distributed through Google Form, obtained the following data:

Diagram 2. Survey Results of High School / Vocational School Students in North Sumatra

Source: Google Form Analysis Results

Based on these data, it is found that the reputation aspect was the factor that most influenced students when choosing a college. These aspects include colleges that have been accredited, have internationally recognized rankings, cooperate with foreign colleges, and have internationally experienced teaching

staff. The data align with Ma's (2021) research that reputation is a significant factor in considering colleges.

Context, Input, Process and Product (CIPP) Model

According to Zhang et al. (2011), at least 26 approaches are often used to evaluate projects grouped into five categories: pseudo-evaluation, pseudo-evaluation studies, improvement-oriented and accountability-oriented evaluations, social agendas and advocacy and eclectic evaluations. However, the CIPP evaluation model that belongs to the category of improvement and accountability oriented is the most comprehensive and widely applied framework for conducting evaluations (Zhang et al., 2011). The CIPP model was created in the 1970s by Daniel Stufflebeam to help improve and achieve accountability for public school projects in the United States funded by the government, whose goal is to improve teaching and learning in U.S. inner-city districts. The CIPP model is based on learning by doing, where continuous efforts are made to identify and correct errors in evaluation practices to find and test necessary new procedures and maintain and combine highly effective practices (Stufflebeam & Coryn, 2014).

CIPP is evaluating the context of entities, inputs, processes and products. The main uses of CIPP model evaluation are to guide and strengthen companies, publish accountability reports, help disseminate effective practices, improve understanding of the phenomena involved, and, where appropriate, make decision-makers, stakeholders and the public aware of evaluations that prove unfit for further use.

Based on data in Diagram 1, in Christian colleges in Indonesia, only three got Excellent scores, and 16 got Very Good scores. Meanwhile, the demands of job acceptance for college graduates have at least Very Good ranks. In addition, government demands also need to be considered regarding the closing of State Colleges (SC), which can occur if the SC is declared not accredited by BAN-PT. Therefore, researchers tried to evaluate using the CIPP model to find problems from all nine criteria and identify recommendations that can be given to policymakers on the accreditation process.

Accreditation research that has been carried out by several previous researchers uses literature review research methods and mixed methods with research results that emphasize accreditation procedures/principles (Amirtharaj et al., 2021), accreditation characteristics (Sorrentino, 2019), and evaluate quality maturity and accreditation readiness (Chen et al., 2018). Thus, the purpose of this study is to identify the suitability of the targets of Religious Higher Education with the results of the accreditation assessment, analyze the recommendations given by the evaluators in the results of the accreditation assessment, and produce strategies for the Religious Higher Education in improving the quality of education to have competitiveness.

2. Method

Mixed-method with qualitative and quantitative approaches was used in this study. This study uses an evaluation research design (Johnson, 2021). The

evaluation research design used is the CIPP evaluation model (Stufflebeam & Coryn, 2014). Data collection was carried out by conducting interviews, observations, document studies of the results of the BAN-PT accreditation assessment, and questionnaires. The following are the data collection instruments using the CIPP model, namely:

Table 1. Data Collection Instruments Based on CIPP Evaluation Model

No.	Components	Indicators
1.	<i>Context</i>	Criterion 1 Criterion 2
2.	<i>Input</i>	Criterion 3 Criterion 4 Criterion 5
3.	<i>Process</i>	Criterion 6 Criterion 7 Criterion 8
4.	<i>Product</i>	Criterion 9

Qualitative data were obtained from observations and interviews with Religious Colleges with a Very Good ranking in Indonesia. Ten employees at the Quality Assurance Agency (QAA) were interviewed for questioning about strategies for enhancing accreditation. Meanwhile, quantitative data were obtained from the Good Accredited Christian Colleges (GACC) field assessment results in Indonesia.

Qualitative analysis techniques are carried out by organizing data, describing them into units, performing synthesis, compiling them into patterns, choosing which ones are important and which ones will be studied, and making conclusions that can be conveyed to others. Meanwhile, quantitative data analysis is carried out by calculating the score formula on each criterion by the Higher Education Accreditation Assessment (HEAA) matrix set by BAN-PT (Badan Akreditasi Nasional Perguruan Tinggi, 2019). In addition, this study also analyzed the Field Assessment Report of GACC document.

3. Results

The results of the analysis of documents and interview transcripts are arranged as follows: 1) context evaluation in accreditation; 2) evaluation of input in accreditation; 3) process evaluation in accreditation; and 4) product evaluation in accreditation; 5) eligibility needs to rank very good or excellent; 6) and increased low score at high weight.

3.1. Context Evaluation in Accreditation

3.1.1. Vision, Mission, Goals and Strategies (VMGS)

In criterion 1, the needs and conditions of GACC in Indonesia currently refer to

- a) targets that are oriented toward international competitiveness and have been implemented consistently;
- b) the goal of providing skilled human resources to anticipate present and future needs; and

c) goals that lead to national economic development.

The problems faced today are competitiveness which is still at a national level and in its implementation is still inconsistent, and the quality of human resources has not been fulfilled, even though in quantity it has been fulfilled. In addition, the 2020–2024 Strategic Plan has not been compiled, which leads to the nation's economic development.

In the 2020 – 2024 Strategic Plan document, VMGS in GACC in Indonesia include the “the three pillars of higher education” as stated in the main performance indicators, namely

1. organizing educational programs that emphasize commitment to service education;
2. carrying out educational and theological research on Christianity by the needs of service in the community;
3. carrying out community service with partners, including colleges, churches and ministry-based governments.

The field assessment results on February 18 to 19, 2022, show that education at GACC in Indonesia has been carried out according to VMGS, which is globally oriented, actual, and futuristic service-oriented.

In additional performance indicators in the form of service-oriented academic skills are namely; a) Producing graduates who can work in partner institutions; b) Establishing cooperation with various social service institutions amid church and community life, for example, orphanages, hospitals, both at home and abroad; c) Developing a study program curriculum that is tailored to the demands of science and technology and the needs of partners; d) targets oriented toward national competitiveness, by providing skilled human resources in the field of education. VMGS also focus on industrial management that wants to achieve or produce national/international standard products, especially for artworks and the acquisition of copyrights and patents for innovative works produced by GACC lecturers in Indonesia.

3.1.2. *Civil Service, Governance and Cooperation (CSGC)*

Based on the field assessment results, data were obtained that GACC in Indonesia has available formal documents on the organizational structure and work procedures of institutions equipped with duties and functions contained in the Statute, Organization and Work Procedure of College from the Ministry of Religious Affairs. The realization of Good University Governance (GUG) includes aspects of credibility by adhering to the principle of trust, involvement of the rectorate, faculty, study program and all work units in work meetings every semester and yearly to ensure transparency; leaders who are responsible to the Rector, lecturers and education staff are responsible as to their Excellent status; fairness through rewarding lecturers and education personnel who have proven excellent achievements and performance and providing punishment by the regulations in force in the institution.

Planning preparation is described in several work programs: education, academic atmosphere, student affairs, research, service, human resources,

finance, infrastructure, quality assurance systems and cooperation. The Rector of GACC in Indonesia organizes each element with the vice-rector, bureau head, Quality Assurance Agency (QAA), Research Institutions and Community Service (RICS) head and his staff. In addition, the Rector of GACC in Indonesia assigns lecturers and education staff to participate in workshops, training, and national/international seminars to develop self-quality, academic quality and personality competence and assigns all elements to participate in meetings held every semester.

GACC in Indonesia has implemented the Internal Quality Assurance Unit (IQAU) by providing documents in the form of quality policies, quality manuals, quality standards, quality forms, and higher education standards. The QAA carries out an evaluation of the implementation of standards through Internal Quality Audit (IQA) activities, which are held annually.

3.2. Evaluation of Input in Accreditation

3.2.1. Student

The findings of the GACC field assessment in Indonesia confirm that 100% of the students who passed the selection re-apply, and no international students have been accepted. The student services provided are coaching and developing interests and talents. Soft skills development is through various student activities (e.g., Student Choir, English Club/TOEFL Preparation), guidance and counselling for students through Academic Supervisors (AS). For example, *the Bidikmisi* scholarships and AAE (Academic Achievement Enhancement) scholarships are available. Fostering entrepreneurship is through courses and extracurricular activities, one of which is in collaboration with the *Kasih Untuk Bangsa* Foundation. However, in the aspect of student service quality, it has not been implemented consistently by the faculty quality assurance group.

3.2.2. Human Resources

The field assessment results at the GACC in Indonesia found that there are 13 study programs as described in the Table 2. GACC education staff in Indonesia are dominated by honorary staff and are still not by their educational background. However, education staff have worked with information technology support, including SIAKAD for education, SIMPUS for libraries and SIMPEG for staffing.

Table 2. The Human Resources Data

	Total	Explanation
Permanent Lecturer	110	65 lecturers have certified educator
Honorary Lecturer	11	
Student	1739	The ratio of the number of permanent lecturers to the number of students is 15.81
Research	196	With costs from college or independent
Community Service (CS)	164	
Recognition	15	As visiting lecturers or editors of accredited national journals

3.2.3. Finance and Infrastructure

Education financing at GACC in Indonesia has a source of funds from student admissions in the last three years, from the total university funds (5.7% obtained from students and other by 94.3%). In addition, funds for processes of the learning, research and Community Service (CS) are obtained based on the number of students and the number of permanent lecturers from the total funds obtained by GACC in Indonesia.

Colleges have relevant facilities and infrastructure to support learning, research, CS, and facilitate those with special needs according to SN-DIKTI in two different campus locations, including a rectorate building, faculty building, postgraduate building, dormitory room, clinic, mini hall building, auditorium, language laboratory, computer laboratory, counselling laboratory, library and sports field. The facilities and infrastructure at GACC in Indonesia are easily accessible to the entire academic community, for example, the strength of the internet and Wi-Fi networks provided for every office and student. All facilities and infrastructure are monitored and guaranteed security to not harm every user. GACC in Indonesia has a particular unit, namely the Database Information Technology Unit (DITU), to collect and input data of lecturers, employees and students into HED. Applications that exist and are managed by GACC in Indonesia are the GACC website in Indonesia, E-Learning, SIMBKD, online presence, new student admission website, alumni information system, ejournal, repository, library slims and e-book application.

3.3. Process Evaluation in Accreditation

3.3.1. Education

Based on the results of the field assessment, it is explained that GACC in Indonesia has established policies related to curriculum development that consider the relationship with the vision and mission (mandate) of higher education, the development of science and the *comprehensive stakeholders needs* based on the Rector's decree. Curriculum development policies refer to several regulations, including the Indonesian National Qualification Framework (INQF) 2012 book and the Rector's decree regarding Guidelines for the Preparation of Syllabi and Semester Lesson Plan (SLP). Furthermore, GACC in Indonesia has curriculum implementation guidelines that include curriculum planning, implementation, monitoring, and review that consider stakeholders' feedback and the achievement of strategic issues to ensure their suitability. In addition, GACC in Indonesia has guidelines on implementing a lecturer assignment system based on needs, qualifications, expertise and experience in the learning process based on standard operating procedures (SOPs) for the division of courses.

Guidelines for determining strategies, methods and learning media as well as learning assessments are based on the Rector's decree regarding guidelines for the preparation of syllabi and SLP, and also the Rector's decree on Strategies, Methods, Learning Media and Learning Assessment at GACC in Indonesia. The system of monitoring and evaluating the implementation and quality of the learning process can be seen in the teaching of lecturers who are supervised by monitoring lectures, control sheets by students, daily performance reports of

lecturers and reports on lecturer performance loads and employee performance targets. This evaluation procedure applies in the teaching and learning process, including the evaluation of lecturers and lectures each semester, starting from the preparation of evaluation materials, socialization with students and recapitulation of evaluation data.

By using the GACC research and service roadmap in Indonesia, the integration of research activities and CS into learning is carried out. The academic atmosphere in the field of education is improved through various activities that increase interaction between students, the interaction between lecturers and students as well as interaction with educational staff; for example, the interaction between lecturers and students can occur through learning activities in the classroom, interaction outside the classroom in the form of seminars and public lectures, regular worship in each class, academic guidance activities, undergraduate thesis/dissertation guidance, Field Experience Practice (FEP) and Community Service Program (CSP) activities. Strategic steps to improve the academic atmosphere are by holding PEKERTI (*Pelatihan Teknik Instruksional*) and applied approach training, workshops on increasing lecturer competence, socializing policies to the entire academic civility, involving educational personnel in educational and training activities, providing further study scholarships for lecturers, being involved in professional associations and study programs, holding final semester meetings and learning evaluations and follow-up.

3.2.2. Research

GACC in Indonesia has a formal strategic plan document containing the development foundation, research roadmap, resources, strategic program objectives and performance indicators, with research focusing on theology, Christian education and Christian humanities. Research guidelines include research direction and focus, a track record of excellent research, cooperation with outside researchers, funding and a competition system. Socialization was carried out from the Research Institution and Community Service (RICS) to the faculty through banners and meetings of GACC lecturers. The implementation of the research begins with the lecturer or research team submitting a research proposal to RICS. Furthermore, RICS and the Rector holds a meeting to review the research proposals that have been submitted (also involving reviewers from outside GACC in Indonesia). The Rector issues a decree for research that has been approved and submitted directly to lecturers or research teams regarding the determination of the title and name of the recipients of research assistance for GACC lecturers and students in Indonesia. After that, the researcher carries out the research for a maximum period of one school year and then is required to report the research by the predetermined period. The manual and SOP for research books guide the research procedure. Research reports include results, minutes, financial reports and research monitoring and evaluation (M&E) results. Research reports are available and confirmed. QAA has conducted M&E's research, but the results are being compiled. However, the results of research products produced by the research group have not seen their competitiveness and have not been disseminated in the field of education.

3.3.3. Community Service (CS)

The findings of the GACC field assessment in Indonesia already have a strategic plan, CS roadmap, resources, strategic program targets, and performance indicators available, where the implementation of CS is adjusted to the vision and mission of GACC in Indonesia. CS guidelines are also available and socialized through faculties and lecturer meetings, but their implementation has not gone through a review process (only carried out directly by RICS through proposal submission and approval). CS reports are available on RICS.

3.4. Product Evaluation in Accreditation

Outcomes and Achievements of the "the three pillars of higher education"

In the doctoral program, there are no graduates. The tracer study data have not been recorded correctly. Students' academic and nonacademic achievements are still dominated at the national and local levels. The output of journal publications, intellectual property, CS, and products (ISBN books and chapter books) needs to be improved at the local, national, and international levels.

3.5. Eligibility Needs to Rank Very Good or Excellent

In Appendix of the Regulation of the National Accreditation Board for Higher Education (RNABHE) Number 3 of 2019 concerning Higher Education Accreditation Instruments (HEAI), there are Guidelines for Higher Education Accreditation Assessment (GHEAA) version 3.0, which is a reference for assessors to assess higher education accreditation. The results of higher education accreditation are declared with accredited and non-accredited status. Accredited status has three ranks: 1) Excellent; 2) Very Good; 3) Good. Accredited status is determined based on the accreditation value, eligibility needs to be accredited, and conditions need to be ranked. Status and ranking determinations can be seen in Table 3.

Table 3. Accreditation Score, Accreditation Status, and Accredited Rank

No.	Accreditation Score	Requirements Need to be Accredited	Requirements Need to Rank		Status	Rank
		*)	Excellent **)	Very Good ***)		
1	$NA \geq 361$	V	V	-	Accredited	Excellent
2	$NA \geq 361$	V	X	-		Very Good
3	$301 \leq NA < 361$	V	-	V		Very Good
4	$301 \leq NA < 361$	V	-	X		Good
5	$200 \leq NA < 301$	V	-	-		Good
6	$NA \geq 200$	X	V/X	V/X	Unaccredited	-
7	$NA < 200$	V/X	-	-		-

(Source: Appendix of RNABHE Number 3 of 2019 of HEAI on page 12)

Description :*) V = Eligible Needs to Be Accredited, X = Ineligible Needs to Be Accredited.

**) V = Qualified Need Excellent Rank, X = Ineligible Need Excellent Rank.

***) V = qualified Needs to Very Good Rank, X = Ineligible Needs Very Good Rank.

BAN-PT set the accreditation rating of GACC in Indonesia with a score of 242. As a result of interviews with the accreditation improvement team at GACC, the assessor never provided details of this score. However, each university can predict the accreditation value based on the assessment matrix of self-evaluation reports and performance reports of vocational colleges, state colleges, and work units in the Appendix of RNABHE Number 3 of 2019 of HEAI; there are GHEAA version 3.0. There are 64 indicator items that can be given; the highest score is four, and the lowest score is 0. The determination of the score can be predicted based on qualitative and quantitative explanations. Researchers tried to predict based on the minutes of the field assessment signed by BAN-PT assessors and GACC leaders in Indonesia.

Table 4. Item Numbers, Criteria/Indicators, Necessary Requirement Scores and Accredited Ratings

No.	Criteria/Indicators	Score Requirements Need	
		Very Good	Excellent
Item 7	C.2.4.d) Quality Assurance System	≥2.5	≥3
Item 10	Acquisition of accredited status of study program by BAN-PT or The Independent Accreditation Institute (IAI). Table 1.b LKPT Accreditation of Study Programs	≥2.5	≥3
Item 15	C.2.7 Quality Assurance	≥2.5	≥3
Item 57	C.9.4.b) Research	≥2.5	≥3

In item 7, the score obtained can be calculated using the formula:

$$Score = \frac{A+(2 \times B)}{3}, \text{ with}$$

A = Availability of formal IQAU documents as evidenced by the existence of five aspects as follows: 1) IQAU organs/functions, 2) IQAU documents, 3) internal auditors, 4) audit results, and 5) follow-up evidence.

B = Availability of valid evidence related to good practices for the development of quality culture in colleges through management review meetings, which require discussion of elements, which include: 1) internal audit results, 2) feedback, 3) process performance and product suitability, 4) the status of preventive and remedial measures, 5) follow-up of previous management review meetings, 6) changes that may affect the quality assurance system, and 7) recommendations for improvement.

A score of ≥2.5 can be obtained by paying attention to indicators A and B; at least the minimum score obtained by indicator A is 2, and the minimum score obtained by indicator B is 3. A score of 2 on indicator A can be achieved if the university has run IQAU, as evidenced by five aspects. A score of 3 on indicator B can be achieved if the university has valid evidence of the excellent practice of developing a quality culture in higher education through a management review meeting that requires discussion of some of the seven elements.

In Item 10, the score can be calculated using the following formula:

$$N_{SA} = \frac{(4 \times N_{Excellent} + 3,5 \times N_A + 3 \times N_{Very\ Good} + 2,5 \times N_B + 2 \times N_{Good} + 1,5 \times N_C)}{(N_{Excellent} + N_A + N_{Very\ Good} + N_B + N_{Good} + N_C + N_K)}, \text{ with}$$

N_{SA} = Score item 10

$N_{Excellent}$ = Number of Excellent accredited study programs; $N_{Very\ Good}$ = Number of accredited study programs is Very Good; N_{Good} = Number of Good accredited study programs; N_A = Number of A accredited study programs; N_B = Number of B accredited study programs; N_C = Number of C accredited study programs; N_K = Number of unaccredited/expired study programs. With a note, the accreditation of new study programs with minimum accredited status is not included in the calculation of N_{SA} . If $N_{SA} \geq 3,50$, then the score is 4 and if $N_{SA} < 3,50$, then the score is $N_{SA} + 0,5$. So, to obtain the necessary requirements with a score of ≥ 2.5 a score $N_{SA} = 2$ is required, to obtain this minimum score, at least all study programs have been accredited with a standard of 9 with a minimum of one accredited study program with Very Good rank.

In item 15, to obtain a score of ≥ 2.5 , colleges have implemented a quality assurance system that has proven to be effective in fulfilling four aspects and a review of the quality assurance cycle is carried out. In Item 57, a score of ≥ 2.5 can be obtained using the following formula.

$$R_L = \frac{N_{A1}}{N_{DT}}; R_N = \frac{(N_{A2} + N_{A3})}{N_{DT}}; R_I = \frac{N_{A4}}{N_{DT}} \text{ where } a = 0,05; b = 0,5; c = 1$$

If $R_I \geq a$, then Score is 4; If $R_I < a$ and $R_N \geq b$, then Score is $3 + (R_I/a)$; then $R_I = 0$ and $R_N = 0$ and if $R_L \geq c$, then Score is 2; if $0 < R_I < a$ and $0 < R_N < b$, then Score is $2 + \left(2 \times \left(\frac{R_I}{a}\right)\right) + \left(\frac{R_N}{b}\right) - ((R_I \times R_N)/(a \times b))$; if $R_I = 0$ and $R_N = 0$ and $R_L < c$, then Score is $(2 \times R_L)/c$. N_{A1} = Number of publications in non-accredited journals; N_{A2} = Number of publications in accredited national journals; N_{A3} = Number of publications in international journals; N_{A4} = Number of publications in reputable international journals; N_{DT} = Number of permanent lecturers. Thus, to obtain a score of ≥ 2.5 using the formula $Score = 2 + \left(2 \times \left(\frac{R_I}{a}\right)\right) + \left(\frac{R_N}{b}\right) - ((R_I \times R_N)/(a \times b))$, colleges at least (minimal) have one publication in reputable international journals, two publications in international journals, 15 publications in accredited national journals, and four publications in non-accredited journals.

3.6. Increased Low Score at High Weight

The results of the field assessment conducted by the assessor at GACC in Indonesia showed that there were seven additional criteria/indicators that were predicted to have low scores at high weights other than point 15 and point 57, namely item 3, point 16, point 38, item 40, item 44, item 59 and point 60. This prediction is also calculated using qualitative explanations and formulas in the Matrix in the Appendix of RNABHE Number 3 of 2019.

Table 5. Item Number, Criteria/Indicators, Prediction Score, Weights and Score x Weights

No.	Criteria/Indicators	Score Prediction	Weight	Score* Weight
Item 3	C.1 Vision, Mission, Goals and Strategies C.1.4 Main Performance Indicators	2.00	4.00	8.00
Item 15	C.2.7 Quality Assurance	2.00	2.78	5.56
Item 16	C.2.8 Stakeholder satisfaction.	2.00	2.78	5.56
Item 38	C.6 Education C.6.4 Main Performance Indicators C.6.4.a) Curriculum	1.67	2.50	4.17
Item 40	C.6.4.c) Integration of Research and CS in Learning	0.86	3.13	2.68
Item 44	C.8 Community service C.8.4 Main Performance Indicators C.8.4.a) Implementation of CS	2.00	4.00	8.00
Item 57	C.9.4.b) Research	2.12	3.53	7.47
Item 59	The ratio of the number of products/services adopted by industry/society to the number of permanent lecturers in the last three years. Table 5.g LKPT Products/services Adopted by Industry/Society.	2.17	4.41	9.55
Item 60	The number of research outputs and CS permanent lecturers in the last three years. Table 5.h LKPT Other Outputs	2.17	3.53	7.64

The following strategy is that if points 7 and point 10 have been increased to a score of at least 2.5, the score on the nine items that are low in Table 5 should be increased. If the rating GACC wants to achieve is Very Good, then the Accreditation Value (NA) achieved must be in the range $301 \leq NA \leq 361$ (see Table 3). The score can be achieved by reducing the low score in point 3, point 15, point 16 and point 59 to 3.5; and item 38, item 40, item 44, item 57 and item 60 to 4 (see Table 6). Scores of 3.5 and 4 can be achieved by meeting the achievement targets in the matrix in Appendix of RNABHE Number 3 of 2019.

Table 6. Item Number, Criteria/Indicators, Prediction Score, Weights and Strategy Score

No.	Criteria/Indicators	Score Prediction	Weight	Strategy Score
Item 3	C.1 Vision, Mission, Goals and Strategies C.1.4 Main Performance Indicators	2.00	4.00	3.50
Item 15	C.2.7 Quality Assurance	2.00	2.78	3.50
Item 16	C.2.8 Stakeholder satisfaction.	2.00	2.78	3.50
Item 38	C.6 Education C.6.4 Main Performance Indicators C.6.4.a) Curriculum	1.67	2.50	4.00
Item 40	C.6.4.c) Integration of Research and CS in Learning	0.86	3.13	4.00

Item 44	C.8 Community service C.8.4 Main Performance Indicators C.8.4.a) Implementation of CS	2.00	4.00	4.00
Item 57	C.9.4.b) Research	2.12	3.53	4.00
Item 59	The ratio of the number of products/services adopted by industry/society to the number of permanent lecturers in the last three years. Table 5.g LKPT Products/services Adopted by Industry/Society.	2.17	4.41	3.50
Item 60	The number of research outputs and CS permanent lecturers in the last three years. Table 5.h LKPT Other Outputs	2.17	3.53	4.00

4. Discussion

Improvement strategies in Criterion 1 include: 1) Socializing the VMGS to external and internal parties through various print and digital media; 2) Monitoring and evaluating the achievement of the VMGS; 3) Integrating the VMGS in the fields of education, research, and community service; 4) Conducting a ranking system for faculties that is optimal in the implementation of the VMGS; 5) Exercising/Training on the preparation of higher education identity; 6) Carrying out quality assurance through five main steps, namely Determination, Implementation, Evaluation, Control, and Improvement. The research findings reveal that colleges' vision and mission statements must be in line with the policies of their respective countries and lead to national and international competitiveness (Dumanig & Symaco, 2020).

The second improvement strategy is on Criterion 2, namely: 1) Conducting a continuum leadership model; 2) Capturing cooperation to the international realm in the field of the "the three pillars of higher education;" and 3) Monitoring and evaluating the field of civil service and governance. In line with previous research, the governance structure in colleges has an important role and is even mandatory to have as a quality improvement (Sulaiman & Ghadas, 2021). Moreover, in order to be able to be competitive, governance is needed to expand to the international arena.

Furthermore, the third improvement strategy in Criterion 3 consists of 1) Providing a grade/GPA to students > 3.00; 2) Conducting student exchanges at least with institutions that have established cooperation; 3) Developing students' interests and talents with extracurricular activities through student association activities; 4) Involving students in the field of the "the three pillars of higher education;" 5) Establishing a career centre for alumnus; 6) Improving the quality of student services; 7) Socializing-new student admissions in various media; and 8) Providing scholarships. If this strategy is implemented correctly, students will feel satisfied with the services provided by GACC. Student satisfaction is essential in determining the quality of service in higher education. In line with research conducted by Twum and Peprah (2020) that to achieve

Excellent predicates, colleges must build stronger bonds with students by providing value to the services provided .

Criterion 4 needs to be improved, among others: 1) Recruiting lecturers and academic staff according to the established procedures; 2) Creating a roadmap for human resource development efforts; 3) Providing opportunities for lecturers using main process planning programs to improve careers by providing further study scholarships; 4) Facilitating lecturers to compile functional positions; 5) Conducting job rotations for education staff; 6) Monitoring and evaluating the performance of human resources. The study's results revealed that the trend of higher education reform must be intensified by maintaining the quality and quantity of skilled human resources and clear competencies per the basics of Human Resources (Nallbani, 2013). In addition, one of the determinants of quality education in higher education is quality human resources (Owusu, 2022). GACC's improvement strategy on Criterion 5 focuses on two things, namely; 1) Allocating targeted college funds based on needs and monitoring student service satisfaction; 2) Improving the quality of ICT system availability. This strategy is related to the improvement strategy in Criterion 3, namely service to students. The monitoring results show that students have high expectations for the college's services (Twum & Pephrah, 2020). The use of technology is also needed as an alternative to online and offline teaching and learning processes to improve the quality of learning methods and answer challenges to be competitive (Omodan & Ige, 2021). Colleges need to understand student needs by paying attention to the services needed for students with disabilities (Zilvinskis, 2021).

Strategies in Criterion 6 include: 1) Evaluating and updating the curriculum periodically; 2) Following-up and improving the teaching field; 3) Having curriculum benchmarks, graduate profiles, and semester learning plans; 4) Having learning guidelines and lecturer assignment systems according to needs, qualifications, expertise, and experience in the learning process; 5) Monitoring and evaluating the quality of the learning process in order to follow up; 6) Disseminating research and community service in learning as seen in the Semester Learning Plan; 7) Each study program makes a policy of academic atmosphere, for example with book surgery activities. Thus, a curriculum redesign is necessary to meet the needs of GACC. This finding is in line with Andrade (2018) thinking about the extent of the changes needed in higher education to compete with the ever-evolving global environment. Learning evaluation activities must also be in line with the curriculum, starting from the content, and the method of assessment, to the assessment procedure (Du Plessis, 2021).

In Criterion 7, improvement strategies that need to be considered include: 1) Having a research roadmap; 2) Monitoring and evaluating research activities; 3) Having research guidelines that are socialized to lecturers, education staff, and students; 4) Reporting community service activities by RICS to university leaders; 5) Collaborating on the research of lecturers with students, internal lecturers with external lecturers of colleges, internal students with students outside the college; 6) Providing rewards for lecturers and students

who excel in the field of research; 7) Registering research products in the form of patent certificates. The findings of this study suggest several policy implications for higher education institutions, including the need to have strong faculty development programs, increased research collaboration, increased research productivity, and a sound incentive system to promote and improve the culture of research in higher education (Quimbo & Sulabo, 2014). This approach not only solves the unbalanced burden of teaching and research but also enables junior lecturers to strengthen individual and institutional research capacities (Zhou et al., 2019). In addition to research dissemination issues, it is argued that campuses should further strengthen the use of research in more complex educational decision-making (Farley-Ripple et al., 2018). Previous research offers research-practice partnerships as a strategy to promote evidence-based decision-making in education (Welsh, 2021).

The improvement strategy in Criterion 8 consists of 1) Having a roadmap for community service; 2) Monitoring and evaluating community service activities; 3) Having community service guidelines that are socialized to lecturers, education staff, and students; 4) Reporting community service activities by RICS to university leaders; 5) Collaborating on community service of lecturers with students, internal lecturers with external lecturers of colleges, internal students with students external to colleges; 6) Allocating community service funds by producing products that are useful in the community; 7) Conducting community service publications. These strategies are supported by research on the importance of community service programs carried out by colleges that can improve the personal, social, ethical, and academic domains of students (Meyer et al., 2019).

Finally, improvement strategies in Criterion 9, namely: 1) Facilitating students for development in academic and non-academic fields at the local to international levels; 2) Documenting the number of graduate students and graduate users; 3) Analyzing the study tracer for evaluation materials and increase the profile of graduates; 4) Creating a job info website for alumnus; 5) Conducting Internal Quality Audits; 6) Providing alumnus service surveys for graduate users; 7) Providing workshops for alumnus to be competitive internationally. The results of Dumanig and Symaco's (2020) research suggest that colleges must emphasize the importance of producing global and competent graduates and obtaining international recognition and world-class education. The implication of this research is that GACC can apply strategies per criteria to achieve Excellent accreditation. Thus, GACC is able to compete both on a national and international scale. The potential development of middle-level leaders (faculty level) is needed to be able to manage committees in higher education (Ito, 2021).

The limitation of this study is the difficulty of researchers in collecting data on the accreditation of Christian colleges in Indonesia using nine criteria. In addition, there is limited literature that examines the accreditation of Christian colleges.

5. Conclusion

Based on the results of the research analysis, the following conclusions can be drawn: in the context component, organizational strengths and weaknesses, goals and objectives are identified that answer the needs of GACC. In the input component, human resources such as educators, education staff, students, finance, and the facilities and infrastructure needed to achieve the GACC targets have been fulfilled. In the process component, the program's implementation specifically for the “the three pillars of higher education” has been carried out according to existing guidelines. However, it is necessary to follow up on each evaluation result to improve the quality of higher education through better accreditation rankings. Finally, in the output component, it can be concluded that the expected results of the entire GACC program have been achieved. However, it needs to be improved in order to be able to compete nationally and internationally and even improve the quality of higher education to achieve an accreditation rating of *Very Good* or *Excellent*. Christian colleges must strive to improve the quality of their education, which can be seen from the increasing value of accreditation to obtain very good and excellent accreditation values. The accreditation assessment guidelines are a reference for Christian colleges to be able to prepare for future accreditation improvements. That way Christian colleges can compete nationally and internationally.

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