Academic Perspective for Digital Transformation of Higher Education in Postgraduate School of Universitas Negeri Medan

Bornok Sinaga[1], Sahyar[2], Darwin[3], Juniastel Rajagukguk[4]

{astelrajagukguk@gmail.com}

Postgraduate School of Universitas Negeri Medan[1], Physics Education Study Program, Faculty of Mathematics and Natural Sciences of Universitas Negeri Medan[2], Building Engineering Education Study Program of Universitas Negeri Medan[3], Physics Study Program, Faculty of Mathematics and Natural Sciences of Universitas Negeri Medan[4]

Abstract. One of the most basic requirements for a higher education institution to obtain international standards is the existence of a digital-based academic and administrative service system, systemized through one website page and using an international language. Several assessment indicators from several international accreditation and standardization institutions that are used to measure services at an institution are (1) the expected learning impact; (2) Program content and structure; (3) Learning and Teaching Approach; (4) Assessment; (5) Quality of Academic Staff; (6) Student Support Services; (7) Infrastructure and Facilities and (8) Outputs and Impacts. This paper describes the design of a digital-based and integrated system in the academic field and student services through the website so that it can be easily accessed by users around the world. With this integrated service system, it is easier for any individual or group who wants to interact and have an interest in the Graduate School of the State University of Medan.

Keywords: Digital Transformation; Postgraduate; Academic

1 Introduction

In the Industrial Revolution (RI 4.0) era, a university that will go to a world class university or at least will have an international standard will be able to be seen and known easily from the information system and academic administration services displayed on the website of the institution. Reflecting on universities that are ranked 100 in the world (QS-100), in addition to the quality of human resources (lecturers and academic staff), the administrative and academic service system is an equally important part and determines the success of the lecture programs conducted at the university. the. This can be seen easily when a student or stakeholder of the institution visits the official website of the university. Before meeting face-to-face with stakeholders at the university, someone has obtained a lot of information and services through the website provided. As shown by the website of the University of Melbourne, Australia through the https://www.unimelb.edu.au page, it can be seen that almost all information is

related to academics, staff, teaching staff (lecturers), research, facilities, collaborations, lectures, routine activities, how to register, to the latest things currently related to the development of Covid-19 are displayed on the website page.
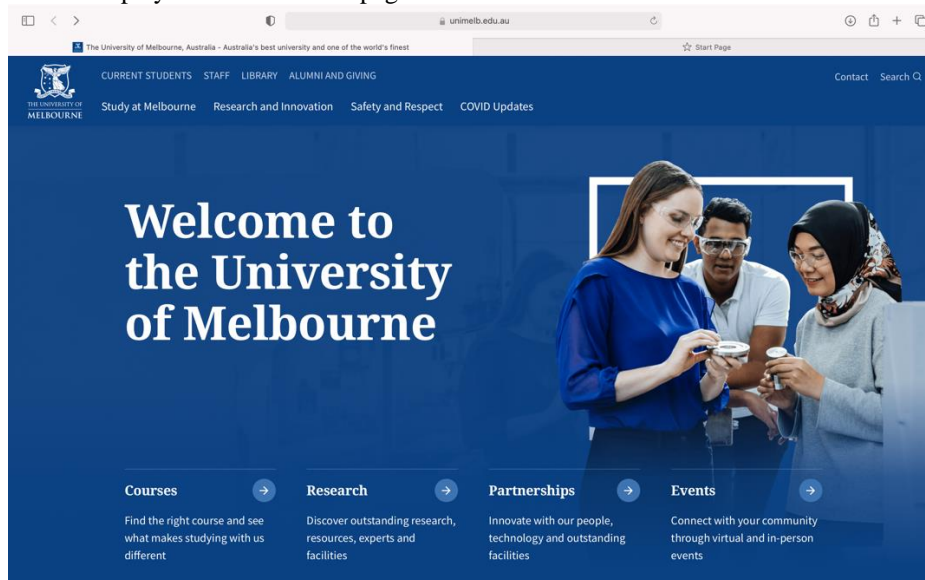

Fig. 1. Information system view and academic administration service of the Melborne University [1]

If further searches are made on the website, either by scrolling down or clicking on one of the information displayed on the home page, the user will get a lot of information. Meanwhile, more detailed information relating to program updating and cooperation can be forwarded by contacting the address or contact person for each field.

The goal of the Postgraduate Program of Universitas Negeri Medan (PPs Unimed) is to become a node for the quality of research-based education at the national and regional levels and to pioneer Unimed as one of the World Class Universities. Postgraduate of Unimed are the locomotive for driving innovation in education, research, and community service carried out by Unimed. The future portrait of the Postgraduate of Universitas Negeri Medan (Unimed) can be seen from the relevance, sustainability, and targets for the realization of the vision, the implementation of the mission, the achievement of the goals set for the short, medium and long term development of PPs Unimed.

Until now, the Postgraduate Program of Unimed manages 25 study programs including 19 (nineteen) Masters's Programs and 6 (Six) Doctoral Programs. The eligibility and credibility of the Unimed Postgraduate Program can be seen from the recognition of external parties for their performance and achievements, including: (1) of the 25 study programs organized by the Postgraduate Program of Unimed, there are 8 (eight) accredited study programs in category A, 2 (two) accredited Superior, 1 (one)) accredited Very Good, 10 (ten) study programs accredited B, 1 (one) study program accredited Good, and 4 (four) new study programs; (2) the number of study programs increased by almost 100%, from 13 study programs until 2015 to 25 study programs in 2021, (3) the number of sinta accredited national journals increased by 100%, from 0 in 2015 to 13 journals in 2021, (4) the number of indexed procedures with scopus reputation

and web of science (WoS) increased by 100%, from 0 to 2 in 2020 (AISTEEL International Monday Proceding and ICOSTA International Proceding Conference, (5) research and publications for students and lecturers published in accredited national journals, reputable international journals, reputable international journals increased by 100%, from 0 manuscripts in 2015, to 1212 manuscripts in 2021, (6) the number of joint research lecturers of PPs Unimed with foreign educational institutions increased by 100%, from 0 in 2015 to 4 joint research in 2020. The Postgraduate Program also takes part in supporting Unimed's achievements in obtaining external recognition, such as (1) A accreditation rating for Digital Library Management from the Head of the National Library of Indonesia; (2) Ranking in the top 10 at the national level of financial management in Satker status; (3) The best rank 1 financial management at the level of North Sumatra Province; (4) Unimed LAKIP assessment in category B; (5) Rank 19 Green Matric in campus environmental management; (6) Third place at the national level in the field of PPID Management and LAPOR from the Ministry of Research, Technology and Higher Education; (7) Award as a PT at the level of "Informative Enough" in the PPID competition from the Indonesian Central Information Commission.

The eligibility and credibility of PPs Unimed which excels in the education and learning process can be interpreted that PPs Unimed is able to produce graduates who are skilled and competent in ways of thinking (creativity and innovation, critical thinking, decision making, learning to learn, and metacognition), ways of working (communication and collaboration), living in the world (life and carrier, personal and social, responsibility). Excellence in realizing quality learning through the implementation of the KKNI-based curriculum which is fulfilled with Independent Learning and Independent Campus, implementation of Problem-Based Learning and Project Based Learning with Blended/Hybryd Learning supported by 6 (six) types of tasks (TR, CBR, CJR, RI, MR, and TP), laboratory, field, and seminar learning practices with the application of various innovative learning models and IT/ICT-based learning technology. Postgraduate Unimed has the responsibility to produce educators and education staff, academics, researchers, counselors, prospective leaders of educational institutions with character with academic qualifications of masters (S2) and doctorates (S3) who have broad insights about the world of work, business and industry, and the demands of the needs of society 5.0 in the era of the industrial revolution 4.0 through the implementation of the Independent Learning and Independent Campus (MBKM) curriculum. Excellence in education and learning is realized through the availability of 63 (six three) professors and 324 doctorates according to study program expertise as educational staff, the availability of learning facilities such as the Digital Library as a facility to access various learning resources, online learning system (SIPDA), various types of laboratories, implementation of 6 (six) types of tasks (TR, CBR, CJR, Idea engineering, Mini Research, and TP) and an authentic assessment system. In the implementation of Merdeka Learning and Merdeka Campus, collaboration with various educational institutions at home and abroad has been carried out in carrying out the learning process, general stadiums, national and international scientific seminars, book reviews, joint research, joint publications, and field practice in non-PT institutions and DUDI.

2 Discussion

2.1 Digital Literacy

"The term digital literacy is not new in the world of education, the term digital literacy was first proposed by Paul Gilster (1997:432) as the ability to understand and use information from various everyday sources (Kemendikbud, 2017:7)."

Restianty cites the definition of inquiry "digital literacy according to UNESCO is the ability to use information and communication technology (ICT) to find, evaluate, utilize, create and communicate content or information with cognitive, ethical, socio-emotional skills and technical or technological aspects" (Restianty, 2018: 78)".

Thus, referring to Restianty's opinion, digital literacy questions are more related to technical skills in accessing, compiling, understanding, and disseminating information (Kemendikbud, 2017: 7). "According to Douglas A.J. Belshaw (1997:2) in his thesis What is Digital Literacy? said that there are eight essential elements for developing digital literacy, which is as follows: 1). Cultural, namely understanding the various contexts of users of the digital world; 2). Cognitive, namely the power of thinking in assessing content; 3). Constructive, namely the creation of something expert and actual; 4). Communicative, namely understanding the performance of networks and communications in the digital world; 5). Responsible self-confidence; 6). Creative, doing new things in new ways; 7). Critical in addressing content; and 8). Socially responsible.

The cultural aspect, according to Özden (2018:26), is the most important element because understanding the user context will help the cognitive aspect in assessing content. From some of the opinions above, it can be concluded that digital literacy is knowledge and skills to use digital media, communication tools, or networks in finding, evaluating, using, creating information, and utilizing it in a healthy, wise, intelligent, careful, precise, and effective manner. obey the law to foster communication and interaction in everyday life.

Digital literacy is a set of basic technical skills for using computers and the Internet. In addition, understanding and being able to think critically and evaluate digital media and be able to design multimedia content (Rizvi, Nabi, 2021:7) According to Manderino "digital literacy is the ability to use technology and information from digital devices effectively and efficiently in various contexts such as academic, career, and daily life (Manderino, 2020:7).

According to Mitchell and Turner (2018:43-45), digital literacy is a combination of several forms of literacy, namely: computers, information, technology, visuals, media, and communication. "With these six basic literacy skills, Martin formulated several dimensions. the following digital literacy:"

  a) Digital literacy involves digital action skills that are tied to work, learning, fun and other aspects of everyday life.
  b) Individual digital literacy varies depending on the daily situations he experiences and also a lifelong process as well as the individual's life situation.
  c) Digital literacy involves the ability to collect and use knowledge, techniques, attitudes and personal qualities as well as the ability to plan, execute and evaluate digital actions as part of solving problems/tasks in life.
  d) Digital literacy also involves a person's awareness of his level of digital literacy and the development of digital literacy. Based on computer and information literacy."

"Cetindamar and Abedin (2020:1) developed a more comprehensive concept of digital literacy. Cetindamar and Abedin stated that digital literacy involves the following aspects:

1) Knowledge assembly, namely the ability to build information from various trusted sources.
2) The ability to present information including critical thinking in understanding information with awareness of the validity and completeness of sources from the internet.
3) The ability to read and understand non-sequential and dynamic information material.
4) Awareness of the importance of conventional media and connecting it to networked media (internet).
5) Awareness of people's network access that can be used as a source of referrals and help.
6) Use of filters on incoming information.
7) Feel comfortable and have access to communicate and publish information."

Based on the various definitions above, digital literacy is an individual's preferences, attitudes, and abilities to use digital technology and communication tools such as smartphones, computers, and tablets. tablet, laptop and desktop computers to access, manage, integrate, analyze and evaluate information, build new knowledge, create, and communicate with others to participate effectively in society. This definition is in accordance with the Ministry of National Education's explanation that information and communication education capacity (Information and Media Literacy Skills) is the willingness and ability to understand and use various media to communicate various ideas and carry out collaborative and interactive activities with various parties. (BSNP, 2010: 44-45). So that digital literacy is specifically skills related to the mastery of digital resources and devices. The effect of digital applications that the author wants to discuss is that the application of digital literacy is a practice of teaching numeracy in schools (Siti, 2014:117).
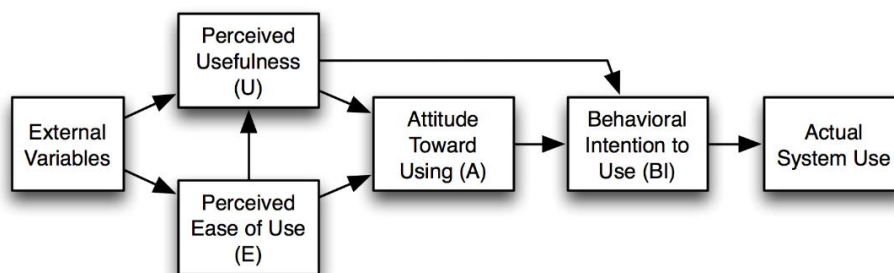

Fig. 1. Simple Concept of Technology Acceptance Model

Source: Modified from Davis' theory (1989); Sayekti and Pulasna (2016) TAM Model (Technology Acceptance Model)

From Figure 1 it can be seen that the use of technology or information systems informs the ability and decisions of individuals to use or not to use technology to complete various tasks. In using information systems, users consider the advantages and uses of the system. The TAM model is based on Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975; Jogiyanto, 2007:331; Soda et al, 2021:1116). TRA is a well-researched intention as a specific model that

has been proven effective in predicting and explaining a person's behavior in the use of different domains.

"TRA has been used to predict behavior in many ways, to react to something, and then become a habit because of the values people believe in. Therefore, behavioral preference is a measure of a person's goal to perform a certain action. Attitude is a person's positive feelings about setting goals and behavioral goals. Based on TRA, users of a system are determined by individual perceptions and attitudes which will ultimately shape a person's behavior in the use of information technology. The use of multiple information systems shows the usefulness and ease of use of information systems. Someone will benefit from an information system on the grounds that it will benefit him (Soda, 2021:1117)."

Sayekti and Pulasna (2016) say that the success of an information technology system is not only determined by how the system can process input and produce information properly but is also determined by its suitability to the work environment because the information technology system uses advanced technology, the system cannot be said to be successful. when users of information systems can not accept it or are even reluctant to use it. The purpose of information technology is to assist humans in solving problems at work and in other activities, this is very helpful for human activities in performance so that they can get maximum results and facilitate human activities. Information technology also supports and opens creativity for someone to do a job in this modern era, to be creative in information technology, someone also increases effectiveness and efficiency in completing work.

Based on the explanation above, it can be concluded that, either directly or indirectly, information technology plays a very important role in the continuity of the organization, especially in helping users to do their work more efficiently and effectively.

"Along with technological advances, learning with technology must be carried out by teachers. Teachers must be smart in choosing which technology and how to use it in learning. Academic success with technology cannot be achieved without teachers. Teachers play an important role as agents and targets of change, facilitators, and technology integrators in the classroom (Hsu, 2015:3). Several research results show a relationship between the use of technology in learning and beliefs about technology. Teachers who apply technology in learning have confidence in the technology. Teachers' knowledge and beliefs about learning with technology determine the extent to which technology will be used in learning (Herring, Koehler, & Mishra, 2016: 38-43). Therefore, teachers need to master technology knowledge."

Good teaching with technology requires at least three components, namely Pedagogical Knowledge (PK), Content Knowledge (CK), and Technological Knowledge (TK) and the relationship between these components is not an independent part. The three are interconnected to form Pedagogical Content Knowledge (PCK), Technological Pedagogical Knowledge (TPK), Technological Content Knowledge (TCK), and Technological Pedagogical and Content Knowledge (TPACK). Koehler further explained that TPACK represents a collection of knowledge needed by teachers to teach effectively with technology. The technology referred to in TPACK is the use of information technology as proposed by the Committee of Information Technology Literacy of the National Research Council (NRC)". The following is an image of the TPACK framework:
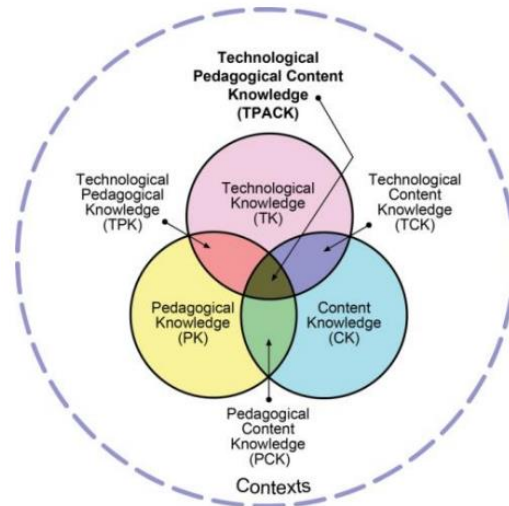
Fig. 2. TPACK Framework (Koehler & Mishra, 2009)

TPACK has elements that are an integral and inseparable part of its implementation. The basic TPACK framework can be expressed as having the following elements:

a. Pedagogical Knowledge (PK) is knowledge about processes, practicum and learning methods.
b. Content Knowledge (CK) is knowledge about subject matter in the form of knowledge, facts, concepts, theories, and procedures in certain fields of science.
c. Technological Knowledge (TK) is knowledge about standard technologies such as books, chalk, and whiteboards and modern technologies such as the internet and digital video.
d. Pedagogical Content Knowledge (PCK) initiated by Shulman. This knowledge relates to the representation and formulation of concepts, pedagogic techniques, and knowledge of easy and difficult concepts in learning.
e. Technological Pedagogical Knowledge (TPK) is knowledge about technology used in teaching and learning activities.
f. Technological Content Knowledge (TCK) is knowledge in using technology to present certain biological materials.
g. Technological Pedagogical and Content Knowledge (TPACK) is knowledge about the integration of the three components (pedagogy, content, and technology) in learning. (Koehler & Mishra, 2006:1026-1028).

A teacher can gradually master digital literacy because one level is more complex than the previous one. Digital competence requires knowledge of computers and technology. However, to qualify as a digital culture, a solid understanding of information, images, media and communication is required. Gilster (1997) and Spires (2017:2235) group them into four core competencies that a person needs to possess, so that it can be said that digital literacy includes:

a. Searching the Internet (Internet Searching)

Competence is a person's ability to use the internet and carry out various activities in it. This competency includes several components, namely the ability to search for information on the internet using search engines, as well as perform various activities in it.

b. Hypertext Directions (Hypertextual Navigation)

This competency is a skill for dynamic reading and understanding of the hypertext environment. So someone is required to understand the navigation (guidance) of a hypertext in a web browser which is certainly very different from the text found in textbooks. This competency includes several components including: knowledge of hypertext and hyperlinks and how they work, knowledge of the difference between reading a text book and browsing via the internet, knowledge of how the web works including knowledge of bandwidth, http, html, and url, as well as the ability to understand web page characteristics.

c. Information Content Evaluation

This competency is a person's ability to think critically and provide an assessment of what is found online accompanied by the ability to identify the validity and completeness of information referenced by hypertext links. This competency includes several components, including: the ability to distinguish between display and information content, namely the user's perception of understanding the appearance of a visited web page, the ability to analyze background information on the internet, namely the awareness to explore further about sources and creators of information, the ability to evaluate a web address by understanding the various domains for each particular institution or country, the ability to analyze a web page, and knowledge of FAQs in a newsgroup/discussion group.

d. Knowledge Assembly

This competency is an ability to organize knowledge, build a collection of information obtained from various sources with the ability to collect and evaluate facts and opinions properly and without prejudice. This is done for certain purposes, both education and work. This competency includes several components, namely: the ability to search for information via the internet, the ability to create a personal newsfeed or notification of the latest news that will be obtained by joining and subscribing to news in a newsgroup, mailing list or other discussion group that discusses or discusses a topic. certain needs or specific problem topics, the ability to cross-check or double-check the information obtained, the ability to use all types of media to prove the truth of the information, as well as the ability to compile the sources of information obtained on the internet with real life that are not connected to the network.

"Based on the theory above, an index can be built to evaluate the ability to enrich digital skills as a research tool (Internal Validity Construct) as follows: a) internet searching, b) information content evaluation (content evaluation), c) knowledge compilation (knowledge assembly)."

2.2. International Standardization of Study Programs

International Accreditation. Based on the Regulation of the Minister of Education and Culture Number 5 of 2020 concerning Accreditation of Study Programs and Universities and the Decree of the Minister of Education and Culture No. 83/P/2020 concerning International Accreditation Institutions it is stated that study programs that have obtained international accreditation can be directly equalized by BAN-PT with superior predicate. In other words, study programs that have obtained international accreditation no longer need to compile documents (forms) as in general, which consist of Self Evaluation Reports (LED) and Study Program Performance Reports (LKPS). This policy turned out to have a major impact on the study program management system in universities. Study programs that have been accredited with rank A by BAN-PT are widely encouraged by universities to take part in international accreditation. Apart from the reason for getting international recognition, the proposal for

international accreditation is considered a study program to avoid the long process of the BAN-PT accreditation system. It is known that every study program and university must be visited by BAN-PT as part of a series of higher education national accreditation processes. With this policy from the Ministry of Education and Culture, several international accreditation institutions such as EQAR (European Quality Assurance Register for Higher Education); CHEA (Council for Higher Education Accreditation); USDE (United States Department of Education); Accreditation Board for Engineering and Technology (ABET); APQR (Asia Pacific Quality Register); The Accreditation, Certification and Quality Assurance Institute (ACQUIN) and several other international accrediting institutions are gaining a huge market for accrediting study programs in Indonesia. The trend to get international accreditation is getting higher in Indonesia in line with the Postgraduate Director's Key Performance Indicators (IKU) related to the number of study programs in PPs Unimed that are internationally accredited in 2021.

International Certification. The international certification body that is very trending in Indonesia today is the ASEAN University Network-Quality Assurance or AUN-QA. ASEAN University Network (AUN) is a network organization between universities in ASEAN. This institution has the main goal of strengthening and expanding cooperation in the field of higher education among countries in Southeast Asia. AUN has several focuses, to facilitate regional cooperation in the development of education in Southeast Asia [8]. These focuses are (1) strengthening the existing cooperation network between universities in ASEAN and its surroundings; (2) promote collaborative study, research and education programs in priority areas identified by ASEAN; (3) promote cooperation and solidarity between scientists, academics and researchers in ASEAN Member States; and (4) serving as a policy-oriented body in higher education in the ASEAN region.

One form of this collaboration is the quality assurance of the implementation of education in study programs at ASEAN universities, known as AUN-QA. AUN Quality Assurance (AUN-QA) is one of the activities carried out by AUN which aims to guarantee the quality of study programs that are members of AUN, which is a form of quality monitoring from AUN. This activity is carried out through a systematic, structured, and continuous measurement process for its member universities. AUN QA is an assessment, and not an accreditation. The assessment is carried out independently (self-assessment) by writing a SAR (Self-Assessment Report). This process is followed by confirming the completeness of the documents and determining the Action for Improvement of the SAR results. After compiling the SAR, then a visitation process was carried out by a team of reviewers from AUN members from other ASEAN countries to provide input on the self-assessment that had been carried out by study programs at various universities.

Based on the search results of the AUN-QA assessment guide version 4.0 issued by the ASEAN University Network (ASEAN University Network), it is known that the assessment component consists of 8 criteria, namely:

1. Expected Learning Impact

2. Program content and structure

3. Learning and Teaching Approach

4. Rating

5. Quality of Academic Staff

6. Student Support Services

7. Infrastructure and Facilities

8. Outcomes and Impacts

In more detail, the eight assessment criteria above can be shown in the form of an AUN-QA program-level assessment model as shown in Figure 3 below:
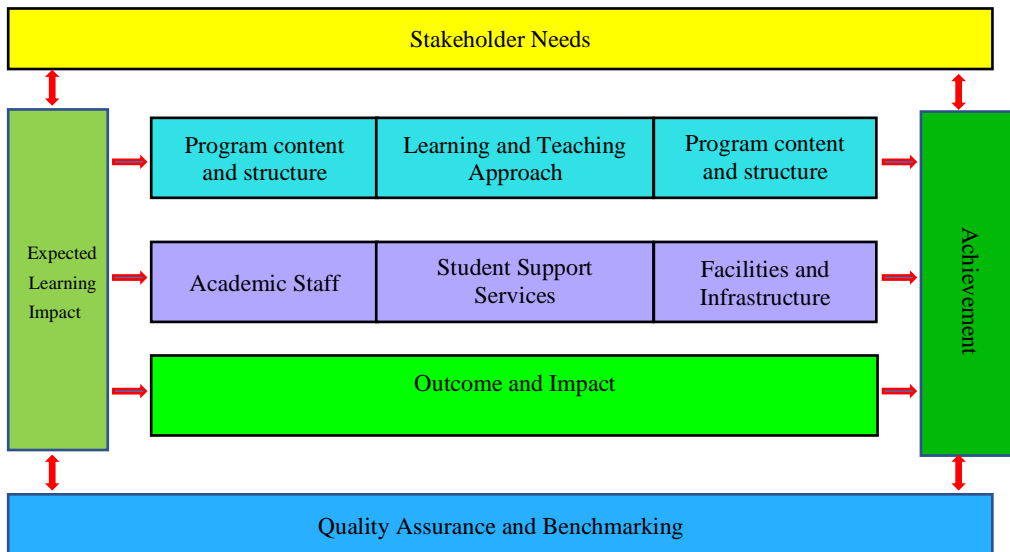

Fig. 3. AUN-QA assessment model at program level version 4.0

Based on Figure 3, it can be explained that the implementation of activities in the study program begins with an understanding of the needs of internal and external stakeholders for the academic program in the study program. This need is formulated into the expected learning impact that will drive all components. There are three rows in the middle of the model. The first line describes issues on program content and structure, teaching and learning approaches used and how students will be assessed. The second line describes related to the resource requirements to run the program. Some of them are academic staff (promotion, management performance, research management, etc.), student support services (support staff, library, clinic, social environment, etc.) and infrastructure (classrooms, IT facilities, recreational facilities, etc.).

The third line focuses on explanations related to program outputs. This explains about the quality of graduates, job vacancies information, research outcomes, stakeholder satisfaction, etc. The rightmost column directs how to meet the needs of stakeholders.

Of the eight AUN-QA assessment criteria, the elaboration and development of observation instruments is carried out to determine the real state of the study program to be certified.

ISO 9001:2008 Quality Management System. The International Standards Organization (ISO) is a body that regulates the certification or ratification of a standard [3]. Meanwhile, ISO 9001:2008[3] is an international standard for quality management systems (quality). ISO 9001:2008 establishes the requirements and recommendations for the design and assessment of a quality management system, which aims to ensure that the organization will provide products

(goods or services) that meet the specified requirements. the main thought of PDCA (Plan-Do-Check-Action), which can be explained as in Figure 1. Quality management system requirements for ISO 9001:2008, based on SNI-ISO 9001:2008 issued by the Indonesian National Standards Agency, the ISO quality management system has a content section and the explanation can be seen in Table 1.

2.3. Unimed Graduate Program Profile

The beginning of the formation of the Unimed Postgraduate Program has been stated in the 2017 Unimed Postgraduate profile book. The Medan State University Postgraduate Program (PPs Unimed) was established in 2000 through the issuance of the Unimed Rector Decree (SK) No.011/K10.KEP/KP. 02.18/2000 dated 21 December 2000. Subsequently, the UNIMED Graduate Program Management Structure was formed through the issuance of UNIMED Chancellor's Decree No. 012/K10/KEP/PP/2001 dated 03 January 2001, where Prof. Dr. Usman Pelly, MA was appointed as the Coordinator. The Master Program in Applied English Linguistics (LTBI) is the first Study Program (Prodi) organized by PPs UNIMED through the issuance of SK Dikti No. 313/DIKTI/KEP/2000 on September 1, 2000. The following year, PPs Unimed again opened two study programs, namely the Master of Education Administration Study Program and Master of Educational Technology through the issuance of an operating permit from DIKTI through Decree No. 97/DIKTI/Kep/2001 and No. 02/DIKTI Kep/2001. In 2004, PPs Unimed was trusted to open a new study program, namely Chemistry Education Master's Degree Study Program in accordance with SK Dikti No. 686/D/T/2004 dated February 18, 2004. From 2006 to 2007 the number of study programs increased with the issuance of permits to administer the Social Anthropology Master's Degree Study Program through Decree No. 1183/D/T/2006, Master's Degree Study Program in Economics through Decree No. 1923/D/T/2006, Master of Mathematics Education Study Program with Decree No. 1509/D/T/2007 and Basic Education Master's Degree Study Program with Decree No. 2460/D/T/2007. Subsequently, in 2008 the Doctoral Program in Education Management and the Masters Program in Biology Education were opened according to Decree No. 546/D/T/2008. In 2009 the Doctoral Program in Educational Technology was opened in collaboration with the Universitas Negeri Jakarta.

In the period from 2010 to 2017, the Postgraduate Program again opened a new study program, namely the Master's Program in Physics Education which was stipulated in Decree No. 139/D/O/2010, Masters Program in Indonesian Language and Literature Education (Dikbin) according to Decree No. 158/E/O/2014, Masters Program in Sports Education (Dikkor) according to Decree No. 385/E/O/2014, Masters Program in Sports Science according to the Decree of the Minister of Research, Technology and Higher Education No. 50/KPT/I/2016, Masters Degree in Accounting according to the Decree of the Minister of Research, Technology and Higher Education No. 249/KPT/I/2016, Economic Education Master's Degree Study Program according to the Decree of the Minister of Research, Technology and Higher Education No. 128/KPT/I/2017, and French Language Education Master's Degree Study Program according to the Decree of the Minister of Research, Technology and Higher Education No. 357/KPT/I/2017. With the increase in the number of master study programs, in October 2016 PPs Unimed was mandated to hold four doctoral programs, namely Educational Technology, English Applied Linguistics, Chemistry Education, Basic Education study programs through the issuance of Minister of Research, Technology and Higher Education Decree No. 414/KPT/I/2016 dated October 13, 2016. Following scientific developments and public interest in pursuing further education at a higher level, in 2020 PPs Unimed proposes the opening of

new study programs, namely a Masters's Degree in Physics, a Masters's Degree in Chemistry, and a Masters Program in Chemistry S3 Mathematics Education.

Until now, the Unimed Postgraduate Program has developed 24 study programs for masters and doctors. Of the 24 study programs held by the Unimed Postgraduate Program, there were 8 (eight) study programs with A accreditation and 12 (twelve) study programs with B accreditation, and 4 (one) new study programs.

1. Vision, Mission, Goals, Strategy, and Values

Unimed's vision, mission, goals, strategic goals, and values are stated in the 2016-2020 Strategic Plan book. The book contains hopes with the academic community individually, and in groups, overshadowing the vision of the study program and science, the results of the PPs Unimed self-evaluation study, depending on the VMTS Unimed, analysis to internal and external needs of stakeholders and paying attention to the RPJM and Strategic Plan of Kemristekdikti 20162020. Designing Vision, Mission, and Objectives , based on the Decree of the Unimed PPs Director Number 0079A/UN33.27/KEP/AK/2016, the Strategic Targets and Values of the Unimed Graduate Program are:

Vision

Graduate Program that excels in learning and research in education, humanities, science, and technology recognized at national, regional, and international levels.

The mission, objectives, and strategic objectives of the Unimed Postgraduate are described as follows:

Mission

1. Organizing competency-based quality learning in line with the development of science and technology-OR.
2. Creating an academic atmosphere and culture to foster scientific attitudes, trust, fairness, and creativity in the academic community.
3. Conducting research based on issues of education, business, and industry.
4. Building partnership networks for education, research, and community service at the local, national, regional, and international levels.
5. Building cooperation with educational institutions, businesses, and industry related to the implementation of research and development of Science and Technology-OR.

Goals

1. Produce graduates who are competent, professional, and competitive in the fields of education, humanities, science, and technology.
2. To produce graduates who have a scientific attitude, trust, fairness, creativity, and a national perspective.
3. Produce research-based scientific work as a solution to problems in education, business, and industry.
4. Produce research-based science and technology-OR innovation products that are useful for improving people's welfare.
5. Generate recognition of the quality of graduates and Unimed Postgraduate institutions based on partnerships in education, research, and community service at the national, regional, and international levels

6.   Disseminate and implement IPTEKS-OR products based on partnerships in education, research, and community service at the local, national, regional, and international levels.
7.   Generate cooperation between postgraduate programs and stakeholders.

Strategy

In connection with the Indonesian Development Nawacita, the Ministry of Research, Technology and Higher Education's RPJM, L-RAISE for the development of higher education, the Unimed development program, and the 2016-2020 PPs Unimed Strategic Plan, there are 14 (fourteen) strategies for the development of the Unimed Postgraduate Program, namely:

1.   Innovating to find a New Paradigm of Learning, Research, and Community Service that ensures the involvement of the parties and the empowerment of the potential of PPs Unimed;
2.   Expanding access to education through the opening of new Masters and Doctoral Study Programs.
3.   Increasing the relevance of graduates through strengthening the implementation of the Curriculum Based on the Indonesian National Qualifications Framework and National Higher Education Standards.
4.   Strengthening quality academic services based on student active resources learning in each study program through updating learning resources, the relevance of lecturers' expertise, improving the quality of product-based research, and scientific publications in reputable international journals.
5.   Strengthening academic administration services through the online system.
6.   Improving the quality of the academic atmosphere through the implementation of professorship programs (national/international seminars, book reviews, educational parks and clinics, research, and school conservation) regularly.
7.   Strengthening the acquisition of study program accreditation and piloting the acquisition of international accreditation.
8.   Strengthening accountability and transparency of academic and financial administration of PPs Unimed.
9.   Improve cross-sectoral coordination, both internally and externally to build an understanding of views on the domains of planning, control, quality assurance and quality culture;
10. Mapping the roles of all lines based on internal control to determine the main indicators of program success and their measurement;
11. Develop a new pattern of training for competency-based staff (CBT: Competency Based Training) that ensures staff reliability to accelerate program achievement;
12. Increasing the synergy of work units and the utilization of available resources in optimizing quality academic services oriented towards teaching, research, and institutional entrepreneurship;
13. Cooperating with domestic and foreign stakeholders in an effort to equalize the competence of graduates with regional and international competitiveness.
14. Strengthen the implementation of monitoring and internal control systems to ensure the accuracy of the execution of corrective actions (Continuous Quality Improvement).

Values

Universitas Negeri Medan is referred to as The Character Building University, thanks to its goal to shape the character of the nation's children, accompanied by an excellent Motto, namely working with sincerity and truth. The organizational culture formed and owned by all PPs Unimed academicians is applied in academic services, administration, research, and community service, namely a scientific culture, turning problems into opportunities, working creatively and innovatively and having knowledge of nationalism. This is practiced through the vision, mission, goals of each Study Program.

3 Conclusion

The era of the industrial revolution (RI 4.0) as it is today, a university that will go to a world class university or at least will have an international standard will be seen and known easily from the information system and academic administration services displayed on the website of the institution. Several assessment indicators from several international accreditation and standardization institutions that are used to measure services at an institution are (1) the expected learning impact; (2) Program content and structure; (3) Learning and Teaching Approach; (4) Assessment; (5) Quality of Academic Staff; (6) Student Support Services; (7) Infrastructure and Facilities and (8) Outputs and Impacts. This condition encourages the Postgraduate Program of Universitas Negeri Medan is to become a node for the quality of research-based education at the national and regional levels and to pioneer Unimed as one of the World Class Universities. This is supported by digital literacy which aims to increase effectiveness and efficiency in obtaining information.

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