

Strategy development concept for achievement excellent human resources toward an advanced Indonesia in the marine field

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Abstract

To realize the success of Indonesia's achievement of becoming a World Maritime Axis country, a reliable, strong, and respected Navy is needed, for that it is necessary to improve the quality of Human Resources (HR) in a programmed, gradual and sustainable manner. Quality human resources can only be realized through education and training efforts carried out by educational institutions. One of the educational institutions in the Navy that has a significant role is the Indonesia Naval Technology College (STTAL). This study aims to formulate a strategic concept of STTAL Development for Achieving Superior Human Resources Towards Advanced Indonesia in the Maritime Sector. The research method used is a systematic literature review method. STTAL must be able to contribute a large enough role to the realization of the main tasks, visions, and missions of the Indonesian Navy. STTAL as a Navy educational institution must be able to carry out its function as a center for developing maritime culture, fostering leadership character, and reliable defense science and technology innovation in the maritime field both at the national and international levels. In realizing the achievement of the superiority of the vision and mission, this study aims to develop a STTAL Development Strategy Concept through improving the quality of Navy educational institutions which is carried out in a programmed, systematic, gradual, and sustainable manner. The method used is descriptive analysis and significant literature study. The results obtained are the formulation of the concept of a development strategy which includes, among others:

- Improving the quality of intake of STTAL students through improving systems and mechanisms for the selection and recruitment of prospective soldiers or permanent soldiers who will attend education at various levels of education,
- Quality improvement educators and education personnel through compliance with established national standards, (3) Utilization of information technology in the form of "Smart Campus" which is integrated into the management system and learning process.
- Increasing excellence in operational capabilities in managing academic activities, which includes education, research, and community service.

Keywords: Development Strategy; Excellent Human Resources; Maritime; STTAL

1. Introduction

Global geoeconomics influences the shift of the center of the world economy from the America-Europe axis to the Asia Pacific in the 21st century. This makes the waters of the Asia Pacific region, especially Southeast Asia increasingly strategic in the eyes of the world and encourages Indonesia to carry out free and active foreign policy commitments for

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the national interest. This shift positions the maritime sector as the main force for Indonesia to become a large, advanced, and respected maritime country by the nations of the world (Bandono, 2021).

It would not be an exaggeration if the 7th President of the Republic of Indonesia, Ir. Joko Widodo, echoed his great aspiration to make Indonesia a world maritime axis capable of appearing as a winning nation in the global competition in the 21st century. The 7th President of the Republic of Indonesia, Ir. Joko Widodo, at the time of his inauguration as president of the Republic of Indonesia, on October 20, 2014, stated: "...We must work as hard as we can to restore Indonesia as a maritime country. Oceans, seas, straits, and bays are the future of our civilization. We have turned our backs on the seas, our backs on the oceans, our backs on the straits and bays. Now is the time for us to return everything so that Jalesveva Jayamahe, in the sea we are victorious, as the motto of our ancestors in the past, can resonate again".

During his second reign, in commemoration of the 74th Independence Day of the Republic of Indonesia in 2019, President Jokowi again rolled out the slogan, "Excellent HR, Advanced Indonesia". This theme implies that the development of superior human resources greatly supports the progress of Indonesia. Human resource development is the key to the success and success of the Indonesian nation in the future. Indonesian human resources must excel in all fields so that they can compete globally (Nugroho et al, 2020).

These statements and slogans turned out to be able to inspire the spirit of the entire Indonesian nation to work with their utmost efforts for the realization of a maritime country that is respected as the world's maritime axis. In the concept of the world maritime axis, Indonesia, which is now the center of regional and global economic activity, must be supported by five pillars of the maritime axis, including:

- Development of maritime culture;
- Optimal protection and management of marine resources for the benefit of the people;
- Development of maritime infrastructure and connectivity (building sea highways, deep seaports, logistics, shipping industry, and maritime tourism);
- Maritime cooperation through diplomacy; and
- Development of maritime defense forces.

The five pillars of the world's maritime axis are mutually integrated and strengthen the development of maritime defense forces (Bastari, 2021).

To realize the achievement of the World Maritime Axis, a reliable, strong, and respected Navy is needed, that improving the quality of Human Resources (HR needs to be carried out in a programmed, gradual and sustainable manner. Quality human resources can only be realized through educational efforts carried out Educational institutions in the Navy, in this case, consist of the Indonesia Naval Academy (AAL), Indonesia Naval Education and Training Command (Kodiklatal), Indonesia Naval Staff and Command School (Seskoal) and Indonesia Naval Technology College (STTAL). STTAL as part of the Navy Education Institute must be able to contribute a large enough role to the realization of the main tasks and vision of the Navy (Bandono, 2020).

This study aims to formulate a strategic concept of STTAL Development for Achieving Superior Human Resources Towards Advanced Indonesia in the Maritime Sector. The research method used is a systematic literature review method, which is taken from various valid and relevant sources according to the topic of this research.

STTAL as a Navy educational institution in this case must be able to carry out its functions as a center for developing maritime culture, fostering leadership character, and reliable innovation in defense science and technology in the maritime and maritime fields both at the national and international levels. Can STTAL be able to emerge as a center for developing maritime culture, fostering leadership character, and reliable marine and maritime defense science and technology innovation at the national and international level to support the realization of the main tasks and vision of the Navy. In realizing the achievement of the superiority of the vision, a development strategy is needed through improving the quality of Naval educational institutions which is carried out in a programmed, systematic, gradual, and sustainable manner.

2. Material and methods

2.1. Constitutional Foundation.

2.1.1. Law Number 20 of 2003 concerning the National Education System.

The juridical basis used in conducting higher education in addition to referring to the provisions that apply in the Navy, also refers to the provisions that apply nationally, namely based on Law Number 20 of 2003 concerning the National Education System. In the provisions of Law Number 20 of 2003 concerning the National Education System, chapter II article 3 it is stated that national education functions to develop capabilities and shape the character and civilization of a dignified nation in the context of educating the nation's life, aiming at developing the potential of students to become human beings who believe and are pious. to God Almighty, noble, healthy, knowledgeable, capable, creative, independent, and become a democratic and responsible citizen (Nugroho, 2020). Navy soldiers as part of the citizens of the Indonesian state and nation are also entitled to higher education together with other components of the nation. STTAL as part of a university providing education in the military, maritime and naval science and technology needs to be developed so that it can become the main support for the Navy organization in improving the quality of its personnel.

2.1.2. Law Number 12 of 2012 concerning Higher Education.

The Higher Education Law Number 12 of 2012 states that Higher Education is held based on Pancasila, the 1945 Constitution of the Republic of Indonesia, the Unitary State of the Republic of Indonesia, and Bhineka Tunggal Ika (Article 2). Article 5 of the Law states that the objectives of higher education are:

- The development of the potential of students to become human beings who believe and fear God Almighty and have a noble character, is healthy, knowledgeable, capable, creative, independent, skilled, competent, and cultured for the benefit of the nation.
- The production of graduates who master the branches of science and/or technology to fulfill the national interest and increase the competitiveness of the nation.
- The production of science and technology through research is useful for the independence and progress of the nation, as well as the progress of civilization and the welfare of mankind.
- The realization of community service based on reasoning and research work that is useful in advancing the general welfare and educating the nation's life.

2.2. Maritime Sovereign Theory.

2.2.1. The theory of Themistocles (525-462 BC).

Themistocles was a Greek philosopher who said: "Who commands the sea has command of everything", which means whoever controls the ocean will rule over everything. The dictum reinforces the paradigm of the importance of controlling the sea with all its aspects which are sourced from the earth's natural wealth, which mostly consists of a very wide ocean. This reflects that the ocean is the most dominant medium of transportation in human life. As important as the control of the oceans is for the national interest of a country, now the aspect of the sea as a source of natural wealth for a country is getting serious attention, especially at a time when the natural resources on land are getting depleted. To be able to control the ocean, including managing the natural resources in it, quality and educated human resources are needed (Bates, 2005).

2.2.2. The theory of Sir Walter Raleigh (1554-1618 AD).

Sir Walter Raleigh in his famous dictum said that whoever controls the seas will be able to control the trade. Whoever controls the trade will control the wealth of the world so that in turn can control the world. For the Indonesian people who naturally have a strategic geographical location, because they are at the crossroads of world trade traffic, flanked by two continents (Asia and Australia) and two oceans (Pacific and Indian), the Indonesian people are required to be able to utilize resources (natural, The human resources, infrastructure, capital, and information) it has are to promote trade by sea effectively and efficiently, to ensure prosperity and security for all the people and the nation of Indonesia. An understanding of the importance of empowering resources can only be achieved through education which is carried out in a programmed, systematic, gradual, and sustainable manner (Wilkinson, 2019).

2.2.3. The theory of Alfred Thayer Mahan (1840-1914 AD).

Alfred Thayer Mahan stated in his book "*The Influence of Sea Power Upon History*" that sea control is necessary for a country that wants to be strong and big. For all countries that have sea areas, it is necessary to realize that their

territorial sovereignty is very dependent on the ability to physically supervise the controlled sea areas. This means that the larger the sea area controlled by a country, the greater its responsibility in carrying out supervision. So if the sea is not safe then the sovereignty of the State is threatened. The sovereignty of a country's maritime territory can be well maintained if it is supported by a strong navy. A strong navy must be supported by professional and educated human resources by a quality educational institution (Berk & Arslan, 2009).

2.2.4. Criteria for Excellence in World Class Educational Institutions.

- Altbach (2004) argues that world-class educational institutions must have excellence in the field of research, can provide adequate facilities for academic work, an atmosphere of intellectual excitement, and also have academic freedom and independence in governance. Funding should also be available to support research and teaching and other functions. Excellence in the field of research must be at the heart of a world-class concept. Excellent research is research that is recognized by fellow scientists and that enriches the development of science (Earley et al, 1989). Academic freedom and an intellectual atmosphere are also very important in world-class educational institutions. This means that lecturers and students must be free to seek knowledge at any level and they are free to publish their work without fear of sanctions, either from academic authorities or authorities outside the university (Hermawan & Husni, 2021). Management of educational institutions is also very important, especially independence in managing their affairs, has an ingrained tradition that can ensure that the academic community (lecturers, students, and staff) influences the main elements of academic life. All academic activities must be supported by adequate facilities and funds (Feurer & Chaharbaghi, 1997).
- Fauzi (2021) stated that the criteria for world-class educational institutions must meet the following requirements:
 - Excellent in the field of research.
 - Academic freedom and an atmosphere of intellectual excitement
 - Self-managing
 - Have adequate facilities and funding
 - Has a diversity of resources
 - Has a high degree of internationalization: students, scientists, and lecturers from all over the world
 - Democratic leadership
 - Talented undergraduate students
 - Use of information communication technology (ICT), efficient management, and libraries
 - Quality teaching
 - There is a relationship with the needs of the community
 - Good intra-institutional collaboration.

The criteria for excellence of world-class educational institutions have been conveyed by many experts. The Navy itself in setting the criteria for excellence refers to the opinion of Navy experts, who say that superior character must be shown in four characters, including:

- Superior human resources (excellent human resources). High-quality human resources are personnel who have high capacity and capability to contribute to realizing the organization's vision. Responsive human resources, Tanggon, and Trengginas can move the organization optimally (Moore & Manring, 2009).
- Superior technology (excellent technology). The very rapid development of science and technology affects the education and training system, giving birth to new innovative methods that affect effectiveness, efficiency, and attractiveness (Parker & Veldsman, 2010).
- Excellent organization (excellent organization). An organization is a basis or foundation that can flexibly adapt to internal conditions and the development of a dynamic strategic environment (Shahmandi et al, 2011).
- Excellent operational capability (excellent operational capability). Operations are the outputs of naval performance carried out by operational units and bases to support sustainability. In the context of education, the operational ability is related to the operational activities of academic and non-academic activities in higher education (Anggraini et al (2018).

2.2.5. Research Methods

The method used in this study is the Literature Review method. The Literature Review method is used to identify, review, evaluate, and interpret all available research with a topic area of interest to the phenomenon, with certain relevant research questions (Susilo et al, 2019). With the use of the Literature Review method, a systematic review and identification of journals can be carried out, which in each process follows the steps or protocols that have been set. The results show that the dominant platform used in the development of information systems is website-based, while the dominant method used in completing the development of information systems is a structured method, especially in the

preparation of Strategy Development Concepts for Achievement Excellent Human Resources towards an Advanced Indonesia in The Marine Field.

3. Results and discussion

3.1. Strategy Concept for World Class Educational Institutions.

According to most dictionaries, world-class is defined as "ranking among the foremost in the world (ranking among the foremost in the world), of an international standard of excellence (having international standards of excellence)". In the discussion of world-class university rankings, being ranked can be interpreted as being listed as being ranked the umpteenth among universities in the world. In Indonesia, some universities feel they have entered the ranks of world-class universities if they are already perched among 1000 universities. Some feel that they have not entered world-class before breaking into the range of 500 or 100 of the greatest universities in the world. Almost all world-class universities have advantages in their research fields (Yang & Welch, 2012).

There are three ranking institutions worldwide, namely Shanghai Jiao Tong University in China, Times Higher Education Supplement Quacquarelli Symonds (THES-QS) in the UK, and the Cybermetrics Lab at the Centro Superior de Investigaciones Científicas (CSIC) in Spain. The first institution, Shanghai Jiao Tong University, has been conducting world-class university rankings since 2003, and its work is called the Academic Ranking of World Universities commonly known as ARWU (Hodgkinson et al, 2006). This institution focuses on the achievements of universities in the field of research. The second institution is THES-QS in the UK, which has been ranking since 2004. This institution in addition to assessing university research achievements also focuses on evaluating higher education achievements in the academic field, with data obtained from alumni, lecturers, students, users, and related stakeholders (Johnson et al, 1997). In 2005, this institution surprised Indonesia by listing Gajah Mada University (56th UGM) as one of the 100 best universities in the world. The third institution is CSIC in Spain, which assigns a ranking based on the scientific activity of universities on the web (web performance). The result of his work is the Webometric Ranking of World Universities which is usually abbreviated as Webometrics. Based on the January 2009 edition, UGM still maintains its position as the best in Indonesia (ranked 623), followed by ITB, and the University of Indonesia (906). All three are campuses that are included in the world's top ranks.

3.2. Building the Future of the Navy through Improving the Quality of Marine STTAL Education

Building the future of the Navy can be achieved through improving the quality of Navy education which must be carried out in an integrated manner between relevant stakeholders, to produce quality HR outcomes as expected. The relevant stakeholders referred to in this case are the Indonesian Navy Education Service as education supervisors and STTAL as educational institutions that carry out the educational process, as well as users in the Main Command of the work unit. Education coaches, and education implementers, as well as users of human resources education results, must synergize with each other in formulating policies, planning educational programs, implementing, and evaluating the education process that is carried out.

4. Conclusion

On a macro level, there are several policies related to the STTAL development strategy to be able to produce superior human resources to create a reliable, strong, and respected Navy towards an advanced Indonesia, including:

- Improving the quality of student intake through improving systems and mechanisms for the selection and recruitment of prospective soldiers or soldiers who will take part in education at various levels of education. Strict, honest, responsible, and transparent selection will produce the expected prospective soldiers.
- Improving the quality of educators and education personnel through compliance with national standards that have been set based on normative rules in the Republic of Indonesia Law Number 14 of 2005 concerning Teachers and Lecturers, Government Regulation Number 32 of 2013 concerning Amendments to Government Regulation Number 19 of 2005 concerning National Education Standards and Regulations Minister of Education and Culture of the Republic of Indonesia Number 49 of 2014 concerning National Standards for Higher Education.
- Utilization of information technology in the form of "Smart Campus" which is integrated into the management system and learning process implemented in educational institutions. Technology integration is characterized by the application of the latest information and communication technology (ICT). The application of ICT is reflected in the utilization of higher education management information systems, while the integration of ICT

in the learning process is reflected in the extent to which planning, implementation, and evaluation of learning have been based on ICT.

- Improve operational capability excellence in managing academic activities, which include education, research, and community service.

So a few thoughts or ideas in the field of education want to build a reliable, respected, and world-class future Navy. May be useful.

Future work

The further work that must be done is to implement changes in organizational behavior through "change management" which leads to transformation or changes in the academic atmosphere towards independence and internationalization. Therefore, the fulfillment of organizational software (software) and the culture of behavior in running the organization need to be realized so that organizational crews can respond to all the needs of the Navy organization and meet the demands of existing provisions to create a system of governance that is credible, transparent, accountable, responsible, independent, and fair in STTAL.

Compliance with ethical standards

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Disclosure of conflict of interest

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References

- [1] Altbach, P. G. Globalization and the university: Myths and realities in an unequal world. *Tertiary Education & Management*, 2004, 10(1), 3-25.
- [2] Anggraini, D. C., Bandonu, A., Putra, I. N., & Susanto, A. D. (2018). Implementation of SWOT-AHP Method to Determine the Best Strategy on Development Women Navy Resources in Indonesian War Ship. *International Journal of Academic Multidisciplinary Research (IJAMR)*, 2(9).
- [3] Bastari, A., Bandonu, A., & Suharyo, O. S. The development strategy of smart campus for improving excellent navy human resources. *Global Journal of Engineering and Technology Advances*, 2021, 6(2), 033-043.
- [4] Bandonu, A., Bastari, A., & Suharyo, O. S. Effectiveness Naval Collaboration Flexible Learning (NCFL) Model in Increasing Learning Outcomes. *The Indonesian Naval Technology College. International Journal of Progressive Sciences and Technologies*, 2020, 23(2), 434-442.
- [5] Bandonu, A., Bastari, A., & Suharyo, O. S. The Education Perspective of Indonesia Maritime Geopolitics In the Indian Ocean. *International Journal of Progressive Sciences and Technologies*, 2021, 27(1), 167-179.
- [6] Bandonu, A., Bastari, A., & Suharyo, O. S. The optimizing strategy of the library as a learning source center using AHP and Delphi methods. *Global Journal of Engineering and Technology Advances*, 2021, 7(3), 062-070.
- [7] Bandonu, A., Bastari, A., & Suharyo, O. S. The Education Perspective of Indonesia Maritime Geopolitics in the Indian Ocean. *International Journal of Progressive Sciences and Technologies*, 2021, 27(1), 167-179.
- [8] Bates, C. Figures of Speech as Persuasive Strategies in Early Commercial Communication: The Use of Dominant Figures in the Raleigh Reports About Virginia in the 1580s. *Technical Communication*, 2005, 52(4), 495.
- [9] Berk, F. M., & Arslan, M. (2009). ALFRED T. MAHAN ve DENİZ EGEMENLİĞİ TEORİSİ. *Pursuit of History*, 2009, 1(2).
- [10] Earley, P. C., Connolly, T., & Ekegren, G. Goals, strategy development, and task performance: Some limits on the efficacy of goal setting. *Journal of applied psychology*, 1989, 74(1), 24.

- [11] Fauzi, I. Analysis of PTKIN Opportunities: Quality Measurement Through The Malcolm Baldrige Criteria for Using The World-Class University. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam*, 2021, 5(1), 1-13.
- [12] Feurer, R., & Chaharbaghi, K. Strategy development: past, present, and future. *Training for quality*, 1997, 5(2), 58-70.
- [13] Hermawan, A., & Husni, I. (2021). Readiness of Private Higher Educational Institution Towards Asean Economics Community.
- [14] Hodgkinson, G. P., Whittington, R., Johnson, G., & Schwarz, M. The role of strategy workshops in strategy development processes: Formality, communication, coordination, and inclusion. *Long-range planning*, 2006, 39(5), 479-496.
- [15] Johnson, L., Graham, S., & Harris, K. R. The effects of goal setting and self-instruction on learning a reading comprehension strategy: A study of students with learning disabilities. *Journal of learning disabilities*, 1997, 30(1), 80-91.
- [16] Kukuluh, S. A., Ciptomulyono, U., Putra, N. I., & Suharyo, O. S. Navy ability development strategy using SWOT analysis-interpretative structural modeling (ISM). *Strategic Management*, 2019, 24(1), 30-40.
- [17] Moore, S. B., & Manring, S. L. Strategy development in small and medium-sized enterprises for sustainability and increased value creation. *Journal of cleaner production*, 2009, 17(2), 276-282.
- [18] Nugroho, S. H., Suharyo, O. S., & Bandonno, A. The Assessment of Management Effectiveness Program on Organizational Performance Satisfaction. *Assessment*, 2020, 29(4), 4730-4741.
- [19] Parker, A. J., & Veldsman, T. H. The validity of world-class business criteria across developed and developing countries. *SA Journal of Human Resource Management*, 2010, 8(1), 1-17.
- [20] Shahmandi, E., Silong, A. D., Ismail, I. A., Samah, B. B. A., & Othman, J. Competencies, roles, and effective academic leadership in world-class university. *International Journal of Business Administration*, 2011, 2(1), 44-53.
- [21] Susilo, A. K., Ciptomulyono, U., Putra, I. N., Ahmadi, A., & Suharyo, O. S. Navy Ability Development Strategy using SWOT Analysis-Interpretative Structural Modeling (ISM). *Strategic Management-International Journal of Strategic Management and Decision Support Systems in Strategic Management*, 2019, 24(1).
- [22] Wilkinson, G. Sir Walter Raleigh: deliberate self-harm in the Tower of London, 1603–Extra. *The British Journal of Psychiatry*, 2018, 213(5), 653-653.
- [23] Yang, R., & Welch, A. A world-class university in China? The case of Tsinghua. *Higher education*, 2012, 63(5), 645-666.