



Human Resources Competencies in the Marine and Fisheries Sector: An Review

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ABSTRACT

Increasing human resource competency is one of the keys to advancing the maritime and fisheries sector in Indonesia. Increasing human resource competency must be balanced with standardization, competency of teaching staff and good infrastructure. This research aims to determine the importance of competency-based learning to improve the quality of competent human resources to advance the marine and fisheries sector. The method used in this research is the literature review method. The results of this research are that there are several important factors in improving the competency of marine and fisheries human resources, namely: standardization, curriculum, teaching staff and good infrastructure. If these four factors are met then it can improve the knowledge, skills and attitudes of marine and fisheries human resources

INTRODUCTION

Indonesia is a maritime nation situated between two continents and two oceans, boasting the biggest archipelago in the world. The archipelago's area is equivalent to the distances between Germany and Algeria (North-South) or Iraq and England (East-West) on maps of other hemispheres. Given this potential, the Mc Kinsey Global Institute states in "The Archipelago Economy: Unleashing Indonesia's Potential" that the maritime and fisheries sector is one of the primary drivers of Indonesia's economic advancement by 2030, alongside the services, agriculture, and natural resources sectors. That year, Indonesia's GDP would surpass both Germany and England to take seventh place in the global economy. [<http://www.bpsdmkp.kkp.go.id>] is the source. (<http://kkp.go.id/bpsdmkp>.) There are four. Future maritime affairs must take into account a number of factors, including the sustainability of marine natural resources, dependable support for human resources (HR), infrastructure, and institutional frameworks.

With the strong cross-sectoral connections within the maritime industry and the presumption that the job market will only grow, it is anticipated that the sector's human resource development potential will be realized more fully. The policy structure that has been put in place thus far has had a mistaken direction in development, which is more focused towards land based socioeconomic development than maritime socioeconomic growth. Nevertheless, the current reality demonstrates that the competency of maritime human resources is still inadequate. The marine industry, which is divided into seven areas, actually offers a lot of financial possibilities. These include: (1) working as a sailor on local or international commercial vessels; (2) working as a fish catcher. aboard foreign or domestic ships; (3) as a sailor on a people's voyage; (4) as fisherman; (5) as a workforce member in offshore marine exploration; (6) as ecotourism workers; and (7) as port sector workers.

Planning, execution, and evaluation factors all play a significant role in the competence-based training (CBT) and competency-based knowledge (PBK) that is implemented, according to Kepdirjen (2020). Planning must take into account a number of factors, including the training curriculum and resources. Training materials and programs are educational resources that can be used to change participants' attitudes toward their jobs and their knowledge in order to help them develop the competencies they need. Training needs are identified and the results are used to build training programs. The requirements of users or industry needs must be taken into consideration while identifying training needs. If competency standards, such as the Indonesian National Work Competency Standards (SKKNI), the International Work Competency Standards (SKKI), or the Special Work Competency Standards, are available, they should be used to determine the training needs. (SKKK), after which the training curriculum is created using these competency requirements. In the interim, training materials that pertain to the program's content or substance are being created. A more thorough explanation or information about a skill (unit) in the work competency standard presented in a descriptive narrative is what training material as a learning resource is all about. Thus, work competency requirements serve as a link between the training program and the training materials.

Competency-based education and training, or CBT, is a human resource development strategy that prioritizes the end product (outcome), according to Hidayad & Sa'ud (2015). Competency-based education and training refers to a kind of instruction and training that is intended to help individuals acquire particular skills and abilities in order to meet pre-established performance goals. The ability to gain competences in a variety of ways is therefore highly flexible in competency-based education and training.

The main objectives of competency-based education and training are:

1. Produce competence in using specified skills to achieve standards in predetermined conditions in various jobs and positions.
2. Tracking (assessment) of competencies that have been achieved and certification. The results of Competency Based Education and Training should be linked to needs including:
 - a. Competency standards to be provided,
 - b. Education and training programs are based on job descriptions,
 - c. Multi-skilling needs,
 - d. Career path

Factors that can affect the end results of education and training should be considered in order to get the best outcomes possible with competency-based education and training. These factors include, but are not limited to, curriculum, students and trainers, instructors, delivery methods and techniques, facilities and infrastructure, management and administration, R&D, program outreach, program evaluation, and alignment of program objectives with organizational needs and policies.

According to Hidayad & Sa'ud (2015), competency-based HR development is necessary for the shift in HR's role from professional to strategic in order to make the contribution of HR performance to the business evident and quantifiable. Given that the HR development program is an ongoing initiative, ensuring the success of its execution in enhancing organizational performance necessitates a continual learning process.

LITERATURE REVIEW

In 2020, Setiawan Out of these four factors, the most important one for boosting national competitiveness is superior maritime human resource competency. Development policies, programs, and activities in different sectors are also expected to contribute to four key elements of national development goals: growth economy (pro growth), employment opportunities (pro job), poverty reduction (pro poor), and environmental protection (pro environment). Out of 10 countries that supply seafarers worldwide, Indonesia ranks third according to statistics from International Seafarers Suppliers for 2011.

METHODOLOGY

This paper was written using a literature review methodology. A literature review is a national or worldwide literature search that is conducted with multiple sources of information to bolster the writing that is being done. The process involves reading through, summarizing, and considering the author's perspective on a number of library resources (books, articles, the internet, and other sources). During the last ten years, from 2022 to 2012, searches for publications or journals were conducted using the keywords exploitation of marine and fisheries human resource competences.

This study employs a descriptive qualitative research design, using secondary data gathered through literature reviews. After that, the data are analyzed. The aim of this research is to enhance Indonesia's national competitiveness by improving the competency of its maritime human resources. A formula was created using the data collected to explain the theme that this study is focused on.

The first and most crucial stage in creating a research plan is writing a literature review. In order to generate an article about a specific topic or issue, literature study refers to the search and research of the literature through reading numerous books, journals, and other publications relating to the research topic (Marzali, 2016).

The literature review aims to accomplish two primary goals. In order to write a paper introducing fresh findings on a particular issue that others involved in that scientific field need to know about, a literature review is first conducted. The public interest may require this study to be published at any moment. Such studies are published, for instance, in the Annual Review of Sociology, the Annual Review of Anthropology, and so forth. This annual review publication might serve as a starting point for individuals who are just starting out as researchers on a particular issue (Marzali, 2016).

The advantage of the research project itself is the second goal of the literature review. In this instance, conducting a literature review will deepen our understanding of the subject of our study, assist in the formulation of research questions, and guide our selection of the relevant theories and methodologies. We can decide whether to copy, duplicate, or critique a certain study by looking at the research that other people have done. We base our own research on the comparisons of other people's investigations. We then produce new work by critiquing the writing of others. This article will fresh. This article will notably for students who will write their final scientific work, such as a thesis, dissertation, or thesis, primarily analyze literature studies for their own research reasons (Marzali, 2016).

When we write a literature review, we are demonstrating to the reader: First, that we are aware of other studies that have been done on the subject of our research. We comprehend and are conversant with a corpus of knowledge pertaining to our research subject. As our study focuses on this body of knowledge, we are establishing our credibility in it. A literature review demonstrates to readers our command of the subject matter. People will respect

us as research writers more if the literature review is written well and comprehensively (Marzali, 2016).

Secondly, the literature evaluation will provide a link between the research we plan to do and the extensive discussion of the subject in the literature. We fill in the gaps between the literature in general and the study subject we are working on, and we even extend previous studies. We are aware of the direction that earlier studies on this subject took. Using this information, we next plan how the new study that we will conduct can link to the direction of previous studies on the subject.

The research project being created can be placed in the context of a field of study related to general treasures, research themes, and research areas or communities with the use of an effective literature review (Marzali, 2016). Thirdly, demonstrate our capacity to synthesize and integrate existing knowledge in our field of study. A review compiles and synthesizes all study findings, identifies issues that have been settled upon, issues that are still being discussed, issues that are being looked into, and projects the future course of our research topic. Fourth, we can generate new ideas by absorbing knowledge from others. A good literature review should identify areas of unanswered questions and offer fresh perspectives and ideas for additional study (Marzali, 2016).

A variety of sources, including books, dissertations, undergraduate theses, government reports, policy reports, and papers given at seminars, contain reports or information that will be consulted during literature reviews. A number of resources for writing literary evaluations are listed below (Marzali, 2016).

Although they are typically incomplete, periodicals can be found in newspapers, popular magazines, radio, television, and the internet. Journalists have written all of this with readers' best interests in mind. There is little information in the description. Many inexperienced students, when given the task of writing a "Literature Review," may either look up the subject online or consult non-scholarly publications, newspapers, or non-professional sources.

The ability to distinguish between popular works and scholarly publications is a prerequisite for students. Academic and professional sources ought to be cited. When writing a research paper, a serious student should consult academic literature, specifically original works published in books and academic journals. These are difficult to locate and read, particularly when they are written in other languages. But this is a right provision that needs to be put into action (Marzali, 2016).

Professional researchers typically contribute to a variety of publications, including academic books or monographs, scientific journal articles, book chapters, and presentations of their work at conferences for science. (seminars etc.). To see what the authors of data-based writings have to say, we need to search for actual academic works (Marzali,2016).

RESULT AND DISCUSSION

a) Improving Hr Competency

Development in all industries, but particularly in the maritime and fishing sectors, depends heavily on human resources (HR). To achieve optimal and professional usage of marine and fisheries resources, it is imperative that human resources related to these fields be developed. Due to low quality and quantity of marine and fisheries human resources as well as inadequately regarded marine and fisheries educational institutions in Indonesia, the utilization of marine and fisheries resources is not yet at its best.

(Ellitan, 2002), human resources (HR) are all parties involved in an organization/activity/program to achieve the initial goals that have been set (Hasibuan 2001). Human resources are needed so that other resources can be utilized for organizational goals. The competencies possessed by human resources will determine the performance of the organization. For example, in the field of fishing, where the quality of the fish caught is largely determined by the knowledge, expertise and skills of the captain (Nurani et al, 2012), competency is very important for Indonesia because it is part of society. ASEAN economy (AEC), where goods, services, investment and labor will flow between participating countries with fewer or more free obstacles (Fadli 2014). Improving HR competency can be done through several things, starting from formal education to informal education such as training followed by certification as formal recognition of competency improvement.

Hidayat and Sa'ud (2015), the capacity and competence of human resource personnel must continue to be improved and utilized in order to carry out government tasks in accordance with the spirit of bureaucratic reform in order to realize good governance. To achieve this, it can be done in various ways, one of which is through education and training (training) for the apparatus. Therefore, apparatus training needs to continue to be improved, perfected, renewed and adapted to environmental developments at local, national and global levels, which is carried out comprehensively regarding institutions, systems, human resources and the substance of training.

Wildani, et. al., (2007), The success of developing fishermen's competence is not only determined by extension, but also determined by various environmental factors. Likewise with efforts to increase: the ability of fishermen to meet consumer needs, income, and the ability of fishermen to meet their living needs. For this reason, an external strategy needs to be presented, in the form of environmental support. The result of various environmental supports leads to an increase in fishermen's ability to meet their living needs. To present an external strategy, a Cause and Effect Relationship Analysis is carried out. The results of the analysis contribute to solutions. The strategies implemented to increase fishermen's competence include: (1) an internal strategy: the concrete form of which is increasing, adjusting and developing competence carried out within fishermen; and (2) four external environmental support strategies, namely: (a) implementing local service education content in areas where the majority of the population work as fishermen, and opening vocational high schools for fishermen; (b) implementation of non-formal education through counseling; (c)

determining the orientation of maritime and fisheries development to improve fishermen's human resources, business security and welfare.

b) Standardization dan Competence

It is both necessary and responsible to raise the competency levels of Indonesia's marine and fisheries human resources, which are now lacking in both quality and quantity. To this end, a strategy for growing these resources is currently implemented through:

1. Standardization
2. Competence through educational institutions, training and maritime and fisheries extension, as well as making development efforts through improving
3. Facilities and infrastructure for developing KP human resources

Hidayat and Sa'ud (2015), Competency Based Education and Training (CBT) is an approach to human resource development that focuses on the final result (outcome). Competency Based Education and Training is an education and training process designed to develop specific abilities and skills, to achieve work results based on predetermined performance targets. Therefore, Competency Based Education and training is very flexible in the process of opportunities to acquire competencies in various ways.

Hidayat and Sa'ud (2015), the main objectives of Competency Based Education and Training are:

1. Produce competence in using specified skills to achieve standards in predetermined conditions in various jobs and positions.
2. Tracking (assessment) of competencies that have been achieved and certification. The results of Competency Based Education and Training should be linked to needs including:
 - a. Competency standards that will be provided,
 - b. Education and training programs are based on job descriptions,
 - c. Multi-skilling needs,
 - d. Career flow (career path).

Hidayat and Sa'ud (2015), to achieve optimal results in Competency-Based Education and Training, factors should be considered that can influence the final results of education and training. These factors include, among others, alignment of program objectives with organizational needs and policies, support and budget from management; curriculum; students and trainers; instructors, delivery methods and techniques, facilities and infrastructure, management and administration, R&D, program outreach and program evaluation.

Hidayat and Sa'ud (2015), the transformation of the role of HR from professional to strategic requires competency-based HR development so that the contribution of HR performance to the organization becomes clear and measurable. Considering that the HR development program is a continuous program, its implementation requires a continuous learning process in order to support the success of improving organizational performance.

c) Curriculum and Teaching Staf

Curriculum and teaching staff with competency and certification are the key to transferring knowledge, skills and attitudes, with competent and certified workforce, the development of the marine and fisheries sector will run optimally. Apart from teaching staff, the availability of a teaching curriculum is also very helpful in the process of transferring knowledge in the maritime and fisheries sector, especially with collaboration with companies, academics and stakeholders related to maritime and fisheries.

- a) Hidayat and Sa'ud (2015), the competency-based education and training model that has been implemented shows that it is effective in increasing the competence of students, in the implementation of this education and training model which has components, namely:
 - b) Analysis of Widyaiswara Competency Development Needs / Training Needs Analysis.
 - c) Program Development Design
 - d) Hidayat and Sa'ud (2015), the results of training needs analysis activities were followed up by designing training program development by carrying out:
 - e) a) Preparation of the training curriculum structure
 - f) b) Planning education and training implementation activities, including preparation of training administration, academic administration and necessary training facilities.
 - g) 3. Expert Judgment Activities This expert judgment activity is a process for validation and validity by receiving input or suggestions from experts and practitioners regarding matters relating to the implementation of education and training activities.
 - h) 4. Implementation of the Competency-Based Training Model, consisting of input, process, output and outcome.
 - i) 5. Monitoring and evaluation Monitoring and evaluation are often perceived as the same thing even though their meaning and focus are different. Indeed, these two concepts (monitoring and evaluation) are closely related. Monitoring is carried out when activities or programs are being implemented, while evaluation is carried out at the end of a program stage. Monitoring is the activity of monitoring program implementation to ensure that program implementation is in accordance with the plan (time, targets, budget and other program aspects). The focus of monitoring is:
 - j) I. Plan or program; and
 - k) II. Implementation of the plan or program. Through monitoring, information is obtained regarding whether or not the implementation of activities is in accordance with the plan. Conformity in question is not only related to the components of the plan, but also that its implementation has been carried out correctly.

- l) Quality Assurance is a component to guarantee the quality of all education and training implementation activities. With this, it is hoped that the implementation of education and training will become more effective and efficient. The competency-based education and training model applied to improve the competence of young Widyaaiswara within the Ministry of Home Affairs is as a concept offer for training institutions and related agencies, as an alternative in developing the competence of Widyaaiswara as one of the important components in education and training specifically in higher quality learning, as well as supporting the success of various education and training programs.
- m) The education and training model developed has provided direction for solving the problem of weaknesses in mastery of widyaaiswara competencies. The training model developed has competency-based characteristics which emphasize reflection on learning outcomes which are implemented directly in the implementation of main tasks and functions as well as actual learning practices and are observed collaboratively by the facilitator.

CONCLUSION AND RECOMMENDATION

Conclusion

- a) In the marine and fisheries industry, growing knowledge, skills, and attitudes must be balanced with declining human resource competency.
- b) The availability of sufficient facilities and infrastructure must be matched with the standardization of the curriculum and teaching personnel.

Recommendation

- a) To improve human resources, cooperation from all stakeholders is required, including those in the marine and fisheries industry.
- b) More thorough research, particularly to enhance the competency and standards of human resources in the marine and fisheries sectors.

FURTHER STUDY

Because it relates to the advancement of human resources in the maritime and fisheries industries, this research serves as a foundation for further studies. The following study examines the BST F2 basic safety training provided to fishing vessel crews in Bali's Benoa Harbor. The crews of fishing vessels that will go out to sea to collect fish in the EEZ area need to receive training, as Benoa Port is one of the biggest tuna landing ports in Indonesia.

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