



**SEAMANSHIP HUMAN RESOURCE
DEVELOPMENT MANAGEMENT STRATEGY BASED ON GLOBAL
COMPETITIVENESS AT MARITIME SECONDARY SCHOOL -
A CASE STUDY IN NATIONAL MARITIME SECONDARY SCHOOL
PURWOKERTO, INDONESIA**

Sitti Hartinah D. S.¹ⁱ,

Rahmad Agung Nugraha²,

Asseline Wahyu Tri Ardyanti³

^{1,2}Universitas Pancasakti Tegal, Indonesia

³Universitas Kristen Cipta Wacana Malang, Indonesia

Abstract:

The purpose of this study is to obtain the strategic model of seafarer human resource development which is able to be competitive (A case study in National Maritime Secondary School Purwokerto). This study employed qualitative naturalistic design and phenomenology method or impressionistic method and ethnography method. This study confirms that strategic management of human resources promotes a motivation in accordance with the planning. Meanwhile, education quality can be improved by encouraging instructor integrity, school readiness in providing laboratory, instructors training and education to foster better performance and professionalism. Within the component of human resource development, it calls for demonstrating various skills such as operating computer, sewing, accounting, etc. The implementation of strategic management of human resources is rather costly and it can be a burden of the students as a simulator of private maritime education institution. The elements which are essential in improving the quality of education are qualified instructors, the availability of facilities and media, and financial support. Quality improvement is performed to accomplish integrated quality management using top management comprehensively based on collectivism values, responsibility, awareness, willingness, affection, truth, and transparency.

Keywords: strategic management of human resources, global competitiveness, integrated quality management, Maritime Secondary School

1. Introduction

Indonesia, geographically, has ocean territory 2/3 from the land. It makes Indonesia commonly known as the biggest archipelago country. However, several aspects regarding the maritime have not been developed such as biodiversity of ocean, ship industry development, and the human resources of seafarer. According to the survey results of Coordination Agency of Ocean Clustering Survey (Bakosurtanal, 2003), the number of islands in Indonesia reaches 18.108, and the government intends to build 24 harbour around Indonesia. Currently, the government makes a new innovation in the maritime sector in terms of exploration and exploitation of natural resources which includes ocean biodiversity, shipbuilding industry, and education and training to develop maritime science in order to improve national welfare. Indonesian Maritime Council states that Indonesia has a potential prospect in maritime field. Indonesia is one of the biggest fisheries industry in Asia and as one of the most popular maritime tourist destination in South East ASEAN. In addition, Indonesia is one of the biggest maritime country which is based on both modern technology or conventional technology (Marina, 2002).

The function of maritime essentially is to unite the nation in terms of business by preserving the communication and transportation, independent economic development based on businessman in distributing commodity materials or as a connection between regions or islands to increase the income of country in providing a job opportunity. In addition, it is expected to have an education which is able to generate a qualified and proficient output of seafarer in terms of maritime capacity international such as defence force or naval and sea power to prevent any internal conflict and keep national stability. According to the Indonesian Maritime Council, the development of seafaring in Indonesia still does not meet the desired standard. The data from Indonesian Maritime Council (2000) exposes that the export and import activity was amounted to 95.38% and the domestic sailing (interinsuler), based on the foreign flag sailing, was amounted to 46.99%.

As the biggest maritime country, Indonesia should have a domestic sailing with cabotage method and in addition, it is expected to have firm and strong legal body to conduct a maritime affair to ensure the improvement of national sailing activity as well as export-import sector in implementing fair share policy to provide independent human resource for international seafaring (Marina, 2003).

To improve the development of maritime sector, particularly in terms of seafaring, one element that needs to be taken into account is the human resources capable of mastering seafaring science and knowledge in accordance with the National Education Policy and based on ethnology factor (anthropology) (Wahab, 2002, Marina, 2003). Sumaatmadja in Marina (2003) further explains that the current condition of Indonesia requires development educational strategy in generating qualified human resources who are able to compete in International level with a diverse situation of countries in terms of religion, economics, social and culture, or administrative region. It

requires an educational strategy of fisheries such as fisheries technology, fleet technology, strategy in utilizing fishing and fish processing technology, and energy potency from ocean wave and wind.

Another problem within maritime human resource development issue is the cost of certification required for applying a job in International seafaring. Averagely, Indonesian cadets are required to possess at least 15 certificates which approximately spend twenty million rupiah compare to the countries which generate maritime job vacancy. The certification cost is more expensive than the cost of education in Maritime Educational Institution AMC which approximately cost ten million rupiah in six semesters. In addition, Indonesian maritime human resources lack of nation pride feeling which discourage the work performance.

Currently, the demand of seafarer according to the data from Ministry of Transportation approximately reaches 15000 to 20000 each year for domestic seafaring and 89000 for international seafaring. The attempt of Central Government of Indonesia or Local Government to accomplish the demand has not accommodated yet the actualization of various policies within Indonesian geographical potency as the biggest archipelago. In addition to the low number of human resources in terms of qualified and proficient instructor, particularly in private maritime educational institution, the simulator equipment and devices based on the standard of International Maritime Organization are also lack and expensive to be purchased. As a result, it discourages the passion of the young generation to pursue his or her career to become seafarer. Supplementary, the costly certification that is needed to be taken also contributes to the discouragement of young generation.

The aforementioned issues attract the authors to discover the solution within the education of maritime aspect by establishing the conceptual model which is generated to improve the development and empowerment the maritime education to create qualified and proficient human resources which are able to compete internationally.

Some relevant previous studies which were "Human Reseources Development Through Education and Training" which could be Promovendus (Cut Zahri Harun, 2000) entitled "Education and Training as Human Resource Development at PT. Pos Indonesia (Persero) (Analysis of System Implementation of education and Training at Pusditlat PT.Pos Indonesia in Bandung explains that "*Training is an appropriate tool to get expertise who are reliable and professional. Training, hence, is necessary to build up the comprehensiveness and competitiveness qualities of the human resources.*" According to Supriadi (1997): "*To make education play a role in regard with the demands of the work field, education can contribute to the economy*". With regard to this, Sarah Tang in Supriadi (1997) affirms: "*rapid economic growth in Asian countries and a prolonged shift in production to high-tech industries and services resulted in an increasing need for business to skilled and well-educated labor.*"

Supriadi (1997) explains that there is a disparity between the skills provided by conventional education and what the business world calls for. For that, companies are now forced to train their own employees through pre-service education before they are

placed in a position. The continuous improvement of quality contents, Undap (1989) in his dissertation with the title of "Pattern of Leadership and Professionalization of Teaching Personnel: A Case Study at LPTK IKIP Manado", found that there is a relationship between the behavior of structural officials in dealing with academic management and the professional behavior of teachers carrying out PBM. Structural officials who set a leadership behavior pattern that tends to be uniformed (political-bureaucratic-paternalistic).

Whereas, in the perspective of teacher shows that it needs to be improved and enhanced professional ability in guiding, managing learning resources in means of achieving study goals. However, researches on the Learning Development Strategy of Seamanship Human Resource Management which is finely-carried out and highly competitive (Case Study in the Purwokerto National Secondary School) is still rarely carried out.

2. Research Methods

The objective of this research is to discover the model of strategic step on the development of competitive seamanship human resource management (Case Study in National Maritime Secondary School in Purwokerto). In addition, the problem solving efforts in the managing competitive seamanship human resources management. The used research method used naturalistic qualitative and phenomenological methods, or impressionistic method and ethnographic method.

Some aspects that will be studied in this research are: (1) qualified teaching personnel; (2) tech-facilities in Purwokerto National Secondary School; (3) Supporting tech-laboratories in Purwokerto National Maritime Secondary School; (4) The cost of certification of shipping is relatively expensive; (5) Various types of seafaring certification. On the other hand, the data collection techniques on this study are interview, observation, documentation, and theoretical review. Meanwhile, the data analysis techniques that can be used are data reduction, data display, as well as verification and conclusion making. To verify data validity from qualitative research (Lincoln & Guba, 1985) employed truth value, applicability, consistency, and neutrality criterions which prevalently are known with the terms like credibility, transferability, independence, and confirmation.

3. Results

In this study, a few of findings are discovered in the matter of the strategic management development model used as a framework to review and carefully describe the design by the strategic planners in integrating intercomponents in maritime education institutions. The strategy that schools need to develop in order to produce qualified and competitive international seafarers is to implement synergistically the carrying capacity among the factors of improving the quality of maritime education, through efforts to

improve the quality of teaching staff (especially teachers / instructors), institutional management, and institutional and funding infrastructure. To implement this quality improvement strategy, the administration is required to implement a strategic policy that encourages the formation of cooperation between the government and the existing strategic SOEs to produce the necessary equipment in order to improve the quality of cadet (learners) learning in maritime education institutions, in particular organized by private agencies. The school needs to work on conducive business climate in the domestic shipping sector for the development of an optimal domestic shipping company, so that it can significantly enhance the program of cadets of lemdikmar. While maritime education is expected to expand the network of cooperation with various ocean shipping companies and inter-insular that provides wider opportunities to accommodate the cadets in prola program.

Strict compliance with the requirements of the Standards of Training, Certification and Watchkeeping for Seafarers established by the International Maritime Organization and the national curriculum set by the Directorate General of MONE and DG Needs MOH, and the provision of professional instructors / instructors is essential to improve the quality of learning organized by the institutions - maritime education institutions in order to produce quality outputs, namely qualified and competitive international seafarers, for example with the policy of the administration that is able to stimulate the ANT III and II and the ATT A / B follow the higher education level

Based on the data / information obtained from the field and the results of the analysis of the research results as presented in the previous chapter, can be formulated to imply that to produce the output of maritime education as a qualified and competitive international human resources, Lemdikmar is required to consequently and consistently implement the national curriculum, curriculum and syllabus of the Sea Transportation Training Center for the marine profession program; implement the provisions of the Directorate General of Legal Affairs of the Republic of Indonesia for the state examinations of the profession program of the sea; and (4) implementing a quality management system in the management of institutions consistently and consistently through the accreditation of the National Standardization Agency (BSN).

The next implications relevant to the findings of this research are those related to efforts to achieve the expected graduate quality improvement as mentioned in the mission of the institution and in the context of global competition in the maritime field, it is necessary to apply ISO standard quality management system. ISO 9002 certification has been achieved by some maritime education through the audit of the International Quality Assurance Service (QAS) Australia for the Department of Nautics, Tehnika and Management of Commerce Shipping. This achievement is a testament to this, Lemdikmar has achieved the ISO 9002 Certificate of maritime education for the Department of Nautics, Tehnika and Management of Commerce Shipping from the QAS Australia International Certification Agency. As already known that the implementation of "quality management system ISO 9002" is one of the institute's strategy to achieve the vision and mission of every Lemdikmar, including private

maritime education. Therefore, by applying the standard is expected to make maritime education graduates as quality assurance in the field of kepelautan, able to compete in National and International level. Seventeen elements of ISO 9002 ideally realized by the institution are as follows; Management responsibilities, including: quality policy, responsibility and authority, resources, Management Review; Quality System, consisting of Quality Manual, Procedures, Supporting Document, Quality Plan; Contract Review, including Review of administrative requirements of customer / agency and agency capability, Amendment of contract, if there is any discrepancy to the existing of cadets; Design Control (not applied); Control of documents and data; Purchase; Control of customer's supply items; Identification and ability to browse the product; Process control; Control of the learning process undertaken by administration department, Head of Department, Laboratory and Institution; Examination and Testing of the Taruna; Control of examination tools, Measurement & Testing; Status of Examination and Testing; Control of nonconforming products; Corrective and preventive action; Handling, delivery, supervision and quality control; and internal quality audit.

In addition, the last implication is related to the demand that Lemdikmar also cooperate with private institutions / companies in to improve the quality of the lecture and the graduates. The maritime education establishes some cooperation with private agencies / companies as follows: (1) For simulator laboratory training; (2) For training of physics laboratory; and (3) to have on deck sailing practice on a ship during one year (on board training) in collaboration with shipping companies. For Land Practices (Proda), for instance, the Department of Commerce Shipping in cooperation with shipping companies, International Freight Forwarders, and stevedoring companies.

In views of the conclusions and implications of the research, this can be a recommended strategy in developing international maritime human resources which are qualified and competitive as follows: Three prominent factors' synergical implementation on the improvement education quality set up by Lemdikmar / Akmar, are: improving the quality of human resources (especially lecturers / instructor), improving the quality of institutional management, and increasing the number and quality of learning facilities and infrastructure especially for maritime practices; and Continuous and integrated implementation in concert with the improvement of six predominant factors that influence education quality improvement, namely: (1) human resources quality improvement (especially lecturer / instructor), (2) the improvement of institutional management quality, (3) the improvement of the number and the quality of the institution' infrastructures, (4) the increase on the financing, (5) the improvement of curriculum implementation quality, and (6) bureaucracy policy from the administration and the cost of certification.

References

1. Anderson, L. dan Windham, L. (Eds.) (1982). *Education and Development: Issues in the Analysis and Planning of Postcolonial Societies*. Toronto: LexingtonBooks.
2. Australian Maritime College (2003): *Undergraduate Student Handbook 2004*. Australia: AMC.
3. Azanza, Patrick A. (2004). *The State of Maritime Education in the Philippines: A Critique*. Manila: AMA Computer University.
4. Baker, R. L. dan Schutz, R. E. (1972). *Instructional Product Research*. New York: D. van Nostrand Company
5. Bogdan, R. C. dan Biklen S. K. (1990). *Riset Kualitatif untuk Pendidikan: Pengantar ke Teori dan Metode*. Alih Bahasa oleh Munandir. Jakarta: Pusat Antar Universitas Untuk Peningkatan dan Pengembangan Aktivitas Instruksional, Depdikbud.
6. Brannen, J. (1992). *Mixing Methods: Qualitative and Quantitative Research*. Adeshot, England: Avebury
7. Burhan, N. (1994). *Perencanaan Strategik*. Jakarta: LPPM dan Pustaka Binaman.
8. Cartin, T. J. (1999). *Principles and Practices of Organizational Performance Excellence*. Milwaukee, Wisconsin: ASQ Quality Press
9. Castetter, W.B. (1996) *The Human Resource Function in Educational Administration*. Englewood Cliffs, New Jersey: Merrill, an imprint of Prentice-Hall.
10. Cwilewicz, Romuald (2004). *The Center for Maritime Engineering Education (CMEE)*. Australia: Global J. Of Engng. Educ., Vol. 8, No. 2, 2004.
11. Cwilewicz, R., Tomczak, L. dan Pudlowiski, Z. (2004). *New Stimulation Techniques Developed for Maritime Engineering Education*. Australia: Global J. of Engng. Educ. Vol. 8, No. 2, 2004.
12. _____(2004). *The Application of Interactive Computer-Based Training (CBT) Programs in Engineering Education*. Goteborg, Sweden.
13. Depdikbud (1993). *Empat Strategi Dasar Kebijakan Pendidikan Nasional*. Jakarta: Depdikbud.
14. _____ (2003). *UU RI No. 20 Tahun 2003 tentang Sistem Pendidikan Nasional*. Jakarta: Restindo Mediatama.
15. Dess, G.G. dan Alex Miller. (1993). *Strategic Management*. New York: McGraw-Hill, Inc.
16. Fattah, N. (2000). *Landasan Manajemen Pendidikan*. Bandung: Remaja Rosdakarya.
17. _____. (2000). *Ekonomi dan Pembiayaan Pendidikan*. Bandung: Remaja Rosdakarya.
18. Faulkner, D. dan Bowman, C. (1997). *The Essence of Competitive Strategy (Strategi Kompetitif)*. Terjemahan oleh Endang Sih Prapti, M.A. Yogyakarta: Andi.
19. Flippo, B. E. (1984). *Personnel Management (Sixth Edition)*. New York: McGraw-Hill Book Company
20. Fullan, M. G. & Stiegelbauer, S. (1991). *The New Meaning of Educational Change*. New York: Teacher College Columbia University.

21. Hafid (2000). *Pentingnya SDM Berkualitas bagi Peningkatan Produktivitas Perusahaan*. Jakarta: Prositas.
22. Handscombe, R. & Norman, P. (1989). *Strategic Leadership: The Missing Links*. New York: McGraw-Hill Book Company.
23. Harun, Cut Zahri (2000). *Pendidikan dan Pelatihan Sebagai Sarana Pengembangan SDM di PT Pos Indonesia (Persero) (Analisis sistem penyelenggaraan pendidikan dan pelatihan di Pusditlat PT. Pos Indonesia di Bandung*. Disertasi PPs UPI.
24. Harvey, D.F.(1982). *Business Policy Strategic Management*. Columbus,Ohio: Charles E. Merrill Publishing Company.
25. Hesselbein, F., Goldsmith, M. Dan Bechard, R. (Editors) (1996). *The Leader of the Future: New Visions, Strategies, and Practices for the New Era*. Foreword by Peter F. Drucker. San Francisco: Jossey-Bass Publishers.
26. International Maritime Organisation (IMO) (2003) available at: www.imo.org/conventions/contents.asp?doc_id=561&topic_id=257.
27. International Commission on Shipping (2000). *International Commission on Shipping Inquiry into Ship Safety: Ships, Slaves and Competition*. Charlestown, NSW: International Commission on Shipping
28. Kartadinata, S. (1997). *Pendidikan untuk Pengembangan SDM Bermutu Memasuki Abad ke-21*. Makalah Konvensi Pendidikan di Purwokerto tahun 1997.
29. LAN RI (1998). *Administrasi, Manajemen dan Organisasi*. Bahan Diklat Prajabatan. Jakarta: LAN.
30. Lewan, Barrie (2004). *The Potential for the Association of Maritime Education and Training Institutions in Asia Pacific (AMETIAP)*. Australia: Australian Maritime College.
31. _____ (2003). *Flexible Learning Systems and Their Role in Meeting the Changing Needs of Ports*, 17th International Port Training Conference, Hamburg, Germany.
32. Luthans, F. dan Davis, K. (1996). *Human Resources and Personnel Management*. New York: McGraw-Hill Book Company.
33. MARINA (2002). *The Maritime Sector in the Philippines: A Situationer Report*. Available at: www.marina.gov.ph/report/.
34. Miles, M. B. dan Huberman, A. M. (1994). *Qualitative Data Analysis (Second Ed.)*. London: Sage Publication.
35. Moleong, L. J. (1990). *Metodologi Penelitian Kualitatif*. Bandung: Remaja Rosdakarya.
36. Narsoyo, T. (1988). *Hubungan antara Prestasi Kerja dengan Kemampuan Kognitif, Keterampilan Psikomotorik, dan Kepuasan Kerja Karyawan Lulusan STM dan SMA*. Disertasi PPs IKIP Bandung.
37. Nasution, S. (1998). *Metodologi Penelitian Naturalistik-Kualitatif*. Bandung: Tarsito.
38. Official Journal of the European Communities (2001). *Procedures and Criteria for the Recognition of Certificates Issued by Institute and Maritime Education and Training Programmes and Courses to in Article 18(3)(a). Annex II*.

39. Osborne, D. dan Plastrik, P. (2000). *Memangkas Birokrasi: Lima Strategi Menuju Pemerintahan Wirausaha*. Terjemahan dari "Banishing Bureaucracy: The Five Strategies for Reinventing Government" oleh Abdul Rosyid dan Ramelan. Jakarta: PPM.
40. Otway, Neil (2004). *Maritime Education – Beyond STCW95*. Tasmania, Australia: Australian Maritime College.
41. _____ (1999). *Lifelong Learning for Maritime Personnel*. The Shipman: Institute of Shipping Management Annual Journal, 38-41.
42. Paterson, William B. (2001). *Marine Engine Room Bluebook*. Second Edition. Manila: Cornell Maritime Press.
43. Pearce and Robinson (2005). *Strategic Management: Formulation, Implementation, and Control*. London: Irwin, Inc.
44. Pearce II, J. A. dan Robinson, Jr., R. B. (1997). *Manajemen Strategik: Formulasi, Implementasi, dan Pengendalian*. Alih bahasa oleh Agus Maulana, MSM. Jakarta: Binarupa Aksara.
45. Rogers, E. M. (1983). *Diffusion of Innovation* (Third Edition). New York: The Free Press dan London: Collier Macmillan Publishers.
46. Sallis, E. (1993). *Total Quality Management in Education*. Kogan Page Educational Management Series. Philadelphia, London: Koga Page.
47. Sampson, Helen (2004). *Romantic Rhetoric, Revisionist Reality: The Effectiveness of Regulation in Maritime Education and Training*. London: Journal of Vocational Education and Training, Volume 56, No. 2, 2004.
48. Sudjana, D. (2000). *Manajemen Program Pendidikan untuk Pengembangan SDM*. Bandung: Falah Production.
49. Supriadi, D. (1997). *Membangun Bangsa melalui Pendidikan: Beberapa Tantangan dan Agenda Pendidikan Nasional*. Bandung: PPs IKIP Bandung.
50. _____. (1998). *Mengangkat Citra dan Martabat Guru*. Yogyakarta: Adicita Karya Nus
51. Tampubolon, D. P. (2001). *Perguruan Tinggi Bermutu: Paradigma Baru Manajemen Pendidikan Tinggi Menghadapi Tantangan Abad ke21*. Jakarta: Gramedia Pustaka Utama.
52. Thompson, A. A., Jr. Dan Strickland III, A. J. (1995). *Strategic Management: Concept and Cases* (Ninth Edition). Chicago: Irwin.
53. Tilaar, H. A. R. (1991). *Futurisme dan Pengambilan Kebijakan Pendidikan Menyongsong Abad ke-21*. Pidato Pengukuhan Jabatan Guru Besar IKIP Jakarta tahun 1987.
54. Tuckman, B. W. (1978). *Conducting Educational Research*. New York: Harcourt Brace Jovanovich, Inc.
55. Undap, P. P. A. (1996). *Pola Kepemimpinan dan Profesionalisasi Tenaga Kependidikan, Sebuah Studi Kasus di LPTK IKIP Manado*. Disertasi PPs IKIP Bandung.
56. Wahab, A. A. (1992). *Beberapa Hal Pokok tentang Pengelolaan Pendidikan Dasar*. Makalah disajikan pada Konvensi Nasional Pendidikan II di Medan.

57. Walker, J. (1992). *Human Resource Strategy*. New York: McGraw-Hill, Inc.
58. Wilbur, C. T. And S. A. Wright (2003). *Marine Diesel Engines*. Sixth Edition. London: Butterworths.
59. Wright, P., Kroll, M. J., dan Parnell, J. A. (1996). *Strategic Management: ConceLemdikmar and Cases* (Third Edition). Englewood Cliffs, New Jersey: Prentice-Hall International

Creative Commons licensing terms

Author(s) will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Education Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflicts of interest, copyright violations and inappropriate or inaccurate use of any kind content related or integrated into the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).