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Four Factors Influencing the Implementation of the 2010 Manila Amendment Standards of Training Certification and Watchkeeping (STCW) Policy



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ABSTRACT: Seafarers are required to have good skills for safety in sailing. The 2010 Manila Amendment STCW implementation policy on seafarer training provides this capability. Several factors influence the success or failure of policy implementation. This research uses a quantitative approach to know the influence of communication factors, resources, dispositions, and organizational structure simultaneously on the performance of STCW policies. The research sample was conducted on 18 people including management and staffing parties. The data collection technique used a questionnaire with F-test data analysis. Based on the results of the study, communication, resources, dispositions, and bureaucratic structures had a positive contribution to the implementation of the 2010 STCW Manila Amendments. All of these factors together had a significant effect on the performance of the 2010 STCW Manila Amendments. In another place Surabaya Shipping Polytechnic

KEYWORDS: Amandement standards of training certification and watchkeeping, vocational education, shipping

I. INTRODUCTION

The number of ship accidents that this century began in 1914 resulted in various rules and requirements for ship navigation with the aim of safety. Various organizations were established to organize training to improve seafarers' abilities according to established standards. The International Maritime Organization (IMO) is an organization established with the subject of standards for seafarers' capabilities. IMO organized an international convention to produce training, certification, and care for seafarers or the Standards of Training Certification and Watchkeeping for Seafarers (STCW) in 1978 and came into effect on April 28, 1984. These efforts were to provide humans with good supplies in avoiding accidents that occur while sailing.

Humans as a resource and the main key in shipping. Sailing safety is not only determined by the equipment and equipment required but also the human ability to manage and control the ship (Chae, 2011). This designation is the first step to begin establishing global minimum seafarer training standards. However, STCW 78 does not have specific standards and control mechanisms and this has led to different interpretations of the standards. Many maritime authorities in each fail to manage and enforce convention requirements resulting in certificates of competence being indistinguishable from genuine or counterfeit, thus rendering genuine certificates worthless. With the incident above, STCW 78 lost its credibility and consequently did not fully materialize (Chae, 2011).

On June 21, 2010, after more than four years of intensive discussion and debate in conferences and workshops. So IMO through the Manila Diplomatic Conference discussed changes to the STCW and approved a number of amendments to the 1978 STCW Convention (previously revised in 1995). This amendment has undergone the specified IMO ratification procedure and ended on 01 July 2011. The results of this amendment entered into force on 01 January 2012 and obliges all countries that are members of IMO to ratify by that deadline no later than 1 January 2017. This amendment document is more known as the 2010 Manila Amendment STCW which is a reference in shipping science education and training and is applied to all countries so that seafarers have standardized competencies and skills and can be accepted to work internationally (Trekner & Clive, 2010)

STCW is a training and certification standard at the international level that provides minimum educational standards that must be taken by seafarers so that seafarers can meet the required professional and competency standards (Evans et al., 2017). This standard applies to officers at all levels working on merchant ships. Each country listed in this convention is required to publish all laws, decrees, and regulations that have been stipulated in the STCW. This STCW was adopted by the IMO (International Maritime Organization) which ensures the safety of the world of shipping, especially commercial ships so that the safety of life and assets can be guaranteed.

Based on initial observations and interviews regarding the implementation of the 2010 Manila Amendment STCW at the Surabaya Shipping Polytechnic, it was found that there were several things that were suspected to be not optimal, such as the readiness of human resources, namely the limited number of lecturers who had seafaring backgrounds and had certificates that had

been updated so that they met qualifications as a lecturer at the Surabaya Shipping Polytechnic and in accordance with the provisions stipulated in the 2010 Manila Amendment STCW, of course, this can be an obstacle in implementing the 2010 Manila Amendment STCW. The role of lecturers has a very important position because the 2010 Manila Amendment STCW regulates the activities of educational institutions that produce seafarers meeting the qualifications as stipulated in the 2010 Manila Amendment STCW.

Based on these conditions, it is necessary to know more deeply how the implementation of the 2010 Manila Amendment STCW at the Surabaya Shipping Polytechnic. This study aims to examine the implementation of the 2010 Manila STCW amendments with the Surabaya Shipping Polytechnic research object. Surabaya Shipping Polytechnic has service quality standards to support the implementation of the 2010 STCW Manila Amendments. Service quality standards are benchmarks used as guidelines for service providers and references for assessing service quality as obligations and promise to the community in the context of quality, fast, easy, affordable services, and measurable.

II. METHODS

This study uses a quantitative approach using statistical calculations to obtain the relationship between influencing factors, namely employee communication, dispositions, organizational structure, and resources on the implementation of the 2010 Manila Amendment STCW. The research subjects are policymakers, namely the Head of the Transportation Human Resources Development Agency Center, management, and employees of the Surabaya Shipping Polytechnic. Meanwhile, for the Surabaya Shipping Polytechnic, the research samples were the leadership, namely the Director of the Surabaya Shipping Polytechnic, Deputy Director II, Deputy Director III, Head of Academic and Education and Youth Training, Head of Academic Administration, Head of Youth Affairs. alumni. While the employees who were sampled were the Head of Support Unit and Staff, Head of Department and Staff, Head of Business Development Division and Staff, Head of PPM and Staff, and Head of Character and Staff Development.

The communication factor consists of twelve indicators including (1) communicative; (2) information clarity; (3) task clarity; (4) coherent; (5) communication style; (6) communication media; (7) socialization; (8) continuity; (9) accommodation; (10) optimization; (11) feedback; (12) adaptive (Hogan, 2012; Supriadi, 2011; Syarief, 2011; Pranoto, 2011). The resource factor consists of nine indicators including (1) personal quality; (2) facilities; (3) number of human resources; (4) utilities; (5) budget; (6) pioneer; (7) laws; (8) planning; and (9) upgrading (Supardi, 2011; Syarief, 2011; Pranoto, 2011). Disposition has eleven indicators including (1) motivation; (2) character; (3) anti-complaint; (4) problem-solving; (5) responsibility; (6) effectiveness; (7) path; (8) symbiosis; (9) commitment; (10) discipline; and (11) lodging (Supriadi, 2011; Syarief, 2011; Pranoto, 2011). Organizational structure indicators consist of five covering (1) coordination; (2) authority; (3) cooperation; (4) job description; and (5) standard operating procedure (Supriadi, 2011; Syarief, 2011). Its implementation consists of five indicators covering (1) certification; (2) quality standards; (3) work standards; (4) seamanship-exam; (5) simulators; and (6) British Maritime (Mazmanian & Sabatier, 1983).

The data collection technique used was a questionnaire addressed to the management and employees of the Surabaya Shipping Polytechnic regarding the implementation of the 2010 Manila Amendment STCW within the Surabaya Shipping Polytechnic. This questionnaire contains questions about the implementation of the 2010 Manila Amendment STCW which is implemented from programs related to demands from the 2010 Manila Amendment STCW along with adjustments that must be made by the Surabaya Shipping Polytechnic. The data analysis technique in this study used the F test.

III. RESULT AND DISCUSSION

The results of the research were carried out by analyzing the influence of all factors including communication, resources, dispositions, and organizational structure in the simultaneous implementation of the implementation of STCW Manila 2010. The normality test (table 1) was carried out to find out that the data was normally distributed.

One-Sample Kolmogorov-Smirnov Test					
		Unstandardized Residual			
Ν		33			
Normal Parameters ^{a,b}	Mean	,0000000			
	Std. Deviation	,04352137			
Most Extreme Differences	Absolute	,090			
	Positive	,078			
	Negative	-,090			

Table 1. Hasil Uji Normalitas

Test Statistic	,090
Asymp. Sig. (2-tailed)	,200 ^{c,d}

Based on the results of the normality test using the Kolmogorov-Smirnov test in (table 1) it can be seen that the data is normally distributed and the Asymp.Sig (2-tailed) value is 0.2 which is greater than 0.05.

Table 2. Hasil Uji	Heterskedastisitas
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Coef	ficients ^a					
		Unstanda	ardized	Standardized		
		Coefficients		Coefficients		
Mode	Model		Std. Error	Beta	t	Sig.
1	(Constant)	-,120	,058		-2,053	,050
	Communication	,002	,020	,027	,097	,923
	Resource	,030	,028	,396	1,086	,287
	Disposition	-,009	,025	-,136	-,357	,724
	Organizational	,013	,019	,196	,694	,493
	structure					
a. De	pendent Variable: Ab	s_RES	·			

Based on the results of the heteroscedasticity test in (table 2), the coefficient obtained by the glejser method for the sig. Communication is 0.923, resources are 0.287, disposition is 0.724, and organizational structure is 0.493, where the overall value is more than 0.05, which means that there is no heteroscedasticity in the linear regression model.

Table 3. Hasil Uji Autokorelasi

Model Su	Model Summary ^b								
Model	R	R Square	Adjusted R Square	Estimate	Durbin-Watson				
1	,992ª	,984	,981	,04653	1,737				

Based on the results of the autocorrelation test (table 3), a Durbin-Watson value of 1.737 was obtained. When compared with the Durbin – Watson table with a significance level of 0.05 and N = 33, it is obtained that the lower limit dL = 1.258 and the upper limit dU = 1.651, then these values are above dU and can be written according to Durbin-Watson calculations that no positive or negative autocorrelation in multiple linear regression and can be continued for the next process.

Table 4. Hasil Uji Multikolinieritas

		Unstan	dardized	Standardized				
		Coefficients		Coefficients		Sig.	Collinearity Statistics	
Model		В	Std. Error	Beta	t		Tolerance	VIF
1	(Constant)	,547	,099		5,536	,000		
	Communication	,214	,033	,261	6,453	,000	,356	2,809
	Resource	,250	,047	,276	5,301	,000	,214	4,663
	Disposition	,237	,042	,305	5,631	,000	,198	5,057
	Organizational structure	,222	,031	,284	7,059	,000	,359	2,789

Based on the results of the multicollinearity test (table 4), the tolerance results for the communication variable were 0.356, the resource variable was 0.214, the disposition variable was 0.198 and the organizational structure variable was 0.359. All tolerance values for each variable are more than 0.1 so it can be concluded that there is no multicollinearity in the linear regression model.

			Standardized		
	Unstanda	rdized Coefficients	Coefficients		
Iodel	В	Std. Error	Beta	t	Sig.
(Constant)	,547	,099		5,536	,000
Communication	,214	,033	,261	6,453	,000
Resource	,250	,047	,276	5,301	,000
Disposition	,237	,042	,305	5,631	,000
Organizational structure	,222	,031	,284	7,059	,000

Table 5. Hasil Uji Koefisien Regresi

Based on the calculations (table 5), the results of the independent communication variable coefficient are 0.214, the resource variable is 0.25, the disposition variable is 0.237, and the organizational structure variable is 0.222. With a significance value of each variable of 0.000 which is smaller than 0.05. Based on the calculation results above, an equation model is obtained regarding the implementation of the 2010 Manila Amendment STCW policy with each independent variable (communication, resources, disposition, and rift structure which have contributed to the 2010 Manila implementation). STCW policy changes at the Surabaya Shipping Polytechnic of Communication contributed 0.214 to policy implementation, resources contributed 0.25, disposition contributed 0.237, and bureaucratic structure contributed 0.222.

Table 6. Hasil Uji F

ANOVA ^a							
Mode	el	Sum of Squares	df	Mean Square	F	Sig.	
1	Regression	4,180	4	1,045	114783,286	,000 ^b	
	Residual	,000	28	,000			
	Total	4,180	32				

Based on the results of the F test (table 6), the calculated F value is 114783.286. When compared with Table F, df for the numerator is the number of independent variables, namely 4, and df for the denominator is 33-4-1 = 28. When compared with the table values and a significance of 5%, the obtained F table value is 2.71 or in words else Fcount >Ftable. so that H0 is rejected and H1 is accepted, namely communication, resources, disposition, and bureaucratic structure together have a significant effect on the implementation of the 2010 Manila Amendment STCW within the Surabaya Shipping Polytechnic. This conclusion is drawn to answer the 5th research problem and is strengthened by a Sig value at the calculation result of 0.000.

A. Communication Contribution

The results of the study show that communication has a positive contribution. The policy does not only formulate something, but more than that, it must be programmed, communicated, monitored, and evaluated (Hoy & Miskel, 1978). Prior to the implementation of the 2010 Manila Amendment STCW policy in Indonesia, communication was carried out from the government as a regulator to interested parties through socialization. A policy contains a whole set of guidelines that provide boundaries and directions for each place where the policy is implemented and ensures that each agency's activities conform to agreed-upon underlying principles (Terry, 1977). In line with research conducted by Dąbrowski et al. (2021) that improvement through communication can influence the impact of policies.

Without relevant communication, certain policies will not emerge (Klimovský & Radzik-maruszak, 2012). Communications are given and received in a clear and unambiguous and effective manner (International Maritime Organization, 2010). Actualization of a good climate, namely the creation of active and effective communication between management and subordinates, between subordinates and colleagues, subordinates, and leaders among the public in an organization (Nawi, 2015). The implementation of the 2010 Manila Amendment STCW policy is inseparable from the potential conflicts that can arise because there are several training programs organized by each UPT that have not been adjusted to the 2010 Manila Amendment STCW.

Policy implementation has experienced many obstacles due to the government's unpreparedness to provide sufficient resources, and commitment problems in the bureaucratic mechanism. The simple thing that becomes the main obstacle in the

policy-making process on communication is that each individual has different goals and visions of interests (Klimovský & Radzik-maruszak, 2012). Another potential conflict exists in the unpreparedness of seafarers in carrying out updating as an obligation to work on board (Grindle, 1980). The policy is not rigid and is a gradual process and in each activity, it tends to lead to the desired goal, it can also change according to existing conditions (Lindblom, 1959).

Prior to the implementation of the 2010 Manila Amendment STCW policy in Indonesia, communication was carried out from the government as a regulator to interested parties through socialization. Communication has been carried out by Poltekpel Surabaya to employees through the implementation of the 2010 Manila Amendment STCW policy. Communication within the organization has an important role in organizational performance because communication determines common goals within the organization (Marta & Wijayati, 2016). Communication contributes positively to organizational performance (Fisla & Azra, 2007).

B. Resource Contribution

The contribution of resources to the implementation of the 2010 Manila Amendment STCW policy, especially human resources, in this case, the Surabaya Shipping Polytechnic employees who must understand the concept and intent of implementing the 2010 Manila Amendment STCW, because there have been many changes from the 1978 STCW. Resources make a positive contribution to the implementation of the 2010 Manila Amendment STCW. This is in line with research conducted by Satrio & Kusmiyanti (2020) which states that resources have a positive effect on employee performance. The delivery of policy implementation messages is influenced by a good relationship between the chairman/leader and the teacher/lecturer and staff, the message stimulus style, the message content, and the way the message is delivered encouraging the message in a warm and open manner, the message delivered is accurate and does not conflict with facts. exists, and there is no difference in perception of the message conveyed (Supriadi, 2011).

Human resources besides lecturers also include administrators, regulators, all Technical Management Units that carry out seafarer training, and also seafarers as parties who have to adapt to changes in the 2010 Manila Amendment STCW regulations. Resources in policy implementation are influenced by the number of human resources owned, the quality of teachers/lecturers owned, and employees (Supriadi, 2011). The preparation of human resources for each educational institution that is deliberately prepared as a pioneer and a source of information related to the new policies being implemented, with these pioneers will facilitate socialization. Policy implementation depends on the competence of management resources and teaching staff who understand their functions and roles (Pranoto, 2011).

Policy implementation requires the physical quality of facilities and infrastructure owned by each educational institution that meets minimum standards, the level of utility or use of facilities and infrastructure required for policy implementation, and the availability of facilities and infrastructure that are directly used to support the educational process in accordance with the intent of implementing the policy (Syarief, 2011). In the internal environment, evaluation is carried out through an internal quality audit by identifying findings and discrepancies between the implementation of the 2010 Manila Amendment STCW at the Surabaya Shipping Polytechnic with established standards. The purpose of quality monitoring and evaluation is not to find out which policies are the most dominant, but to provide an assessment based on predetermined criteria, and to what extent the dominant ones produce results (Murafa, 2014).

C. Disposition Contribution

The contribution of disposition to the implementation of the 2010 Manila Amendment STCW policy can be seen from the disposition, which is the tendency of every Surabaya Shipping Polytechnic employee to care about the 2010 STCW Manila Amendment policy. This disposition can take the form of a positive attitude or a negative attitude towards a policy taken. The positive attitude that emerges is in the form of self-development of Surabaya Poltekpel employees through training which can be held by the Surabaya Poltekpel or by the Sea Transportation Human Resources Development Center. The implementation of the 2010 Manila Amendment STCW policy at the Surabaya Poltekpel received support from both policymakers and policy implementers. A non-discriminatory managerial attitude by making it easy to refer to applicable procedures, an attitude of understanding how to solve problems in different cases, and having good motivation in implementing policies can strengthen positive results in policy implementation of the 2010 Manila Amendment STCW at Poltekpel Surabaya. In line with the research of Elqadri et al. (2015) who argued that the character of discipline has an impact on employee productivity.

D. Bureaucratic Structure Contribution

The contribution of the bureaucratic structure to the implementation of the 2010 Manila Amendment STCW policy can be seen from the bureaucratic structure characterized by clear SOPs that allow it to be implemented without significant obstacles. SOP is used as a guide in acting and completing tasks for every employee of the Surabaya Shipping Polytechnic. The organizational structure makes a positive contribution to the implementation of the 2010 Manila Amendment STCW at the Surabaya Poltekpel. In line with the research of Heriyanto, Lubis, and Siallagan who argued that the influence of organizational structure on

performance is determined by work specialization, and departmentalization, showing a linear relationship that implies that the application of organizational structure has implications for improving employee performance.

The success standards of each institution that are specifically applied in carrying out policy implementation, quality, or results after implementing the resulting policies affect the work motivation of each person to carry out tasks (Syarief, 2011). It is necessary to improve the organizational structure at the Surabaya Shipping Polytechnic in order to realize the successful implementation of the 2010 Manila Amendment STCW with more detailed and detailed job descriptions so that employees in these positions can work in accordance with the existing Standard Operating Procedures. In addition, it is necessary to make a job map that contains the duties and responsibilities of each position so that it is easy to see its implementation in the field. Structures that have written rules so that they have clarity in completing tasks are systems that have task completion in a structured and hierarchical manner with clear written rules in it (Rourke et al., 2001).

A structure that has written rules so that it has clarity in completing tasks is a system that has task completion in a structured and hierarchical manner with clear written rules in it (Rourke et al., 2001). Education and training for improvement and training for skills need a review, this is due to the COVID 2019 pandemic which has had an impact on learning that was originally classical turned online (online), in subsequent developments education and training for upgrading and skills training have used a combination of the two (hybrid). As a way or method that has a context that is bound by space and time, institutions can innovate within the bureaucracy so that institutions or organizations do not run slowly and hinder the goals of the organization itself (Said, 2012). In line with research conducted by Andhika (2018) that innovation is an objective answer to reduce resistance to bureaucratic failures in carrying out their duties.

IV. CONCLUSIONS

The communication contribution to the implementation of the 2010 Manila Amendment STCW policy that the 2010 Manila Amendment STCW socialization has been carried out by the management of the Surabaya Shipping Polytechnic to employees. Based on the results of the study, communication, resources, disposition, and bureaucratic structure have a positive contribution to the implementation of the 2010 Manila Amendment STCW. All of these factors together significantly affect the performance of the 2010 Manila Amendment STCW in other places at the Surabaya Shipping Polytechnic. Management at the Surabaya Shipping Polytechnic needs to realize external communication with collaboration involving shipping stakeholders. These namely shipping companies can quickly obtain information regarding the obligations of ship crew in this policy. It is necessary to create a system for recruiting seafaring lecturers who have experience in domestic and foreign shipping to assist in policy implementation. It is necessary to hold a seminar on the performance of the 2010 STCW Manila policy for employees of the Surabaya Shipping Polytechnic as a refresher step regarding understanding the 2010 STCW Manila. The organizational structure needs to be improved with more detailed work and detailed information. So that employees can work in accordance with the existing Standard Operating Procedures. It is necessary to make a job map that contains the duties and responsibilities of each position so that it is easy to see its implementation in the field.

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