



Representation of The RAON Management Crewing System in the Management of Seafarers' Documents at PT Inkor Dunia Samudra

M Fasya Aulia Sabrina¹, Agus Leonard Togatorop¹, Fitri Zuhriyah¹, Edy Kurniawan¹

¹Politeknik Ilmu Pelayaran Semarang, Indonesia

 agus_leonard@pip-semarang.ac.id*

Abstract

This research is motivated by issues in the management of seafarers' documents at PT Inkor Dunia Samudra, which continues to face challenges such as the lack of a centralized archiving system, the high complexity of documents requiring regular validation, and limited staff capacity to monitor document completeness. The purpose of this study is to determine the extent of the influence of the Management Crewing System (RAON System) on the management of seafarers' documents and how the system serves as a solution to administrative challenges within the company. This research employs a quantitative approach using simple linear regression analysis. Data were collected through a likert-scale-based questionnaire distributed to 48 respondents, consisting of internal staff from PT Inkor Dunia Samudra and representatives of the ship owner. Data analysis was conducted using SPSS 30, with the application of simple regression analysis and t-test. The results show that the Management Crewing System (RAON System) has a significant influence on the management of seafarers' documents, as evidenced by the t-test result where $t\text{-value} > t\text{-table}$ ($5.981 > 1.679$). This is further supported by the coefficient of determination (R Square) from the regression equation $Y = 8.444 + 0.417X$, which yields a value of 0.438 or 43.8%. The system has proven effective in increasing efficiency, reducing administrative errors, and accelerating document validation processes. Therefore, it is recommended that the company continue to improve the RAON System by expanding its features and providing regular training to ensure optimal use by all staff.

Keywords: RAON System, Management Crewing System, Management of Seafarers' Documents, Digital System

ARTICLE INFO

Article history:

Received

March 19, 2025

Revised

May 23, 2025

Accepted

June 30, 2025

Published by

ISSN

Website

This is an open access article under the CC BY SA license



CV. Creative Tugu Pena

2963-6752

<https://attractivejournal.com/index.php/ajse>

<https://creativecommons.org/licenses/by-sa/4.0/>

@ 2025 by Authors

INTRODUCTION

Sh PT Inkor Dunia Samudra is a crew manning agency or a company that focuses on handling ship manning, which includes the process of recruiting, managing, and filing seafarer documents, as well as placing crew members according to their competencies or abilities. Seafarer document management is the most important part of this company in ensuring the smooth operation of a ship. The company PT Inkor Dunia Samudra is responsible for ensuring that the crew has fulfilled all the necessary document requirements as a condition of working on board. These documents must be ensured to be valid, original, not fake, still valid, and relevant in accordance with the provisions of the applicable

regulations. Based on Government Regulation of the Republic of Indonesia No. 7 of 2000 concerning Maritime Affairs, ship manning documents are in the form of seafarers' books, competency certificates, certificates of expertise, crew certificates, and Seafarer Employment Agreement. The document is mandatory to be owned and carried by the crew and is a mandatory requirement that must be met by seafarers before they can work on the ship.

There are four types of seafarer certificates, namely Certificate of Competency (CoC), Certificate of Proficiency (CoP), Certificate of Endorsement (CoE), and Certificate of Recognition (CoR). Of the four types of certificates, there are several seafarer certificates that need to be revalidated within a certain period of time. The revalidation aims to ensure that seafarers' skills and knowledge remain in accordance with applicable standards, namely the STCW Convention (Suganjar et al., 2023) Standards of Training, Certification and Watchkeeping for Seafarers). The following are some seafarer documents that need to be revalidated, namely, as follows:

Table 1. Documents That Need to Be Revalidated

No	Document Name	Validity Period
1	Passport	5 Years and 10 Years
2	COE (Certificate of Endorsement)	5 Years
3	BST (Basic Safety Training)	5 Years
4	AFF (Advanced Fire Fighting)	5 Years
5	SCRB (Survival Craft, Rescue Boat)	5 Years
6	ACT (Advanced Chemical Tanker)	5 Years
7	AOT (Advanced Oil Tanker)	5 Years
8	ALGT (Advanced Training for Liquefied Gas Tanker)	5 Years
9	GOC (General Operator Certificate)	5 Years
10	Panama Certificate	5 Years
11	Korea Certificate	5 Years
12	MCU (Medical Check Up)	2 Years
13	Drugs and Alcohol Certificate	1 Years

Source: As Amended STCW, Company data of PT Inkor Dunia Samudra (2023)

Expired seafarer certificates must be renewed with a certificate revalidation process that typically involves retraining or competency exams to ensure that seafarers' skills remain up-to-date with the latest technological developments and safety procedures. This revalidation is carried out within a certain period of time according to the type of certificate owned. If the certificate owned by the seafarer has expired, the certificate is declared invalid and does not meet the qualifications as a supporting document to work on the ship. If there is a crew who sails with a valid or expired certificate, then it can interfere with the ship's operations and even the crew can be removed from the ship. For this reason, monitoring the validity of certificates and other documents is important and requires precision to avoid incidents that harm various parties. So there is a need for a system to help supervise certificates that have a validity period.

PT Inkor Dunia Samudra collaborates with 14 ship owners with 111 ships. The

ship owners include KSS Line LTD., Hana Marine Co.Ltd., Saehan Marine, Jeil International, Daeho Shipping Co.Ltd., Seong Ho, Fine Ocean, Eastern Tanker, KTM, Welder Operation, Khana Marine, NJSM, and TJSM. Based on company data in July 2023, PT Inkor Dunia Samudra has a total crew of 462 with the following details:

Table 2 Quantity Comparison Number of Crew Members with the Number of Crewing Staff at PT Inkor Dunia Samudra as of July 2023

No.	Items	Quantity
1	Crew Members	462 crews
2	Crewing Staff	15 Staff
3	Ships	14 Ship Owners
4	Ships Owners	111 Ships

Source: Researcher data (2023)

Based on Table 2, it can be seen that there is a significant disparity between the number of crew members managed and the number of staff who handle administration and operations at PT Inkor Dunia Samudra. This imbalance is a serious challenge in the process of managing seafarers' documents, considering that every crew member is required to have official documents that must be verified, updated, and monitored for their validity period. With limited human resources, manual processes in document collection, examination, and filing are highly susceptible to delays, administrative omissions, and data input errors. Therefore, a digital system is needed that is capable of automating most documentation workflows.

RAON System is a management crewing system application designed to provide convenience and optimize crew or seafarer data management. In the company PT Inkor Dunia Samudra, RAON System is a form of development of the crew data processing process that was previously carried out manually in filing, monitoring, and document preparation, now it has become more structured with an application system. This system assists staff in storing and archiving ship crew documents flexibly and efficiently. RAON System also allows companies and ship owners who are agents of PT Inkor Dunia Samudera to regulate, monitor, and manage all activities related to ship crews in an integrated and effective way. Access to this system is done by filling in the username and password by each staff member, so that this system is closed and guaranteed security by the company.

The RAON System has several main components that function as the main data of the crewing company and ship owner. Each crew member will be asked to submit their identity data, which is then input into the RAON System. The data entered into the system includes the number and validity period of the certificate owned by the crew, the results of the Medical Check Up (MCU), and other seafarer documents. With this system, documents that are still valid and that have expired and require revalidation can be monitored easily and accurately.

The RAON System is directly connected to overseas ship owners, namely South Korea, who can monitor the management of seafarers' documents in real-

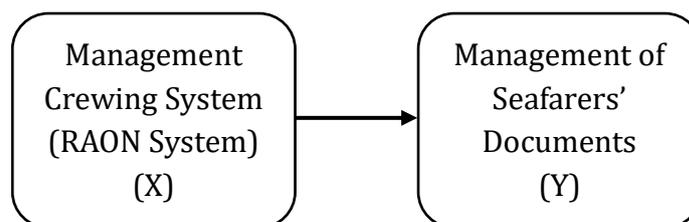
time. The ship owners who are represented by PT Inkor Dunia Samudra, including KSS Line LTD., Hana Marine Co. Ltd., Saehan Marine, Jeil International, Daeho Shipping Co. Ltd., Seong Ho, Fine Ocean, Eastern Tanker, KTM, Welder Operation, Khana Marine, NJSM, and TJSM use this system as a guideline in the management and monitoring of crews working on ships. RAON System helps companies centralize information about the crew who will work on the ship owners' ships. Activities that are centralized through this system also support the staff of PT Inkor Dunia Samudra in optimizing the management of seafarers' documents in a more efficient and organized manner.

Based on the formulation of the problem above, the following are the objectives of this study, to find out if there is a relationship between the Management Crewing System (RAON System) and the management of seafarers' documents. Knowing how much influence the Management Crewing System (RAON System) has in the management of seafarers' documents at PT Inkor Dunia Samudra.

METHOD

This research employed a quantitative research design with a simple linear regression model. The focus was to examine the influence of the RAON System (independent variable, X) on the quality and effectiveness of the Management of Seafarers' Documents (dependent variable, Y).

A frame of mind is a conceptual foundation that influences a person's perspective in interpreting a topic. This framework serves as a foothold in compiling a line of thought, which is then developed into scientific or research works. With a frame of mind, it will be easier for readers to understand the direction and focus of the study being conducted. The framework of thinking in the research entitled "Representation of Management Crewing System (RAON System) in Management of Seafarers' Document at PT Inkor Dunia Samudra" is arranged as follows:



Description:

X: Management Crewing System (RAON System)

Y: Management of Seafarers' Documents

A hypothesis is an initial assumption that is proposed for a research problem that needs to be proven to be true through the process of data collection and analysis. Generally, hypotheses are prepared in the form of a statement of relationships between the variables to be tested. To guarantee its validity, hypothesis testing must be based on strong theories and supported by expert opinions. In statistics, the process of testing a hypothesis involves a comparison between two statements: a null hypothesis (H_0), which is assumed to be false and will be tested for its possible rejection, as well as an alternative hypothesis (H_1)

(Scott, 2020), which is considered true if H_0 proves to be inconsistent with the data. In other words, H_0 acts as a basis for comparison, while H_1 is a hypothesis that wants to be proven true through statistical analysis. The researcher can propose a hypothesis or preliminary answer to the problem to be studied, namely a significant relationship or influence between (Basuki & Prawoto, 2022) Management Crewing System (RAON System) with document management. The following problems can be the basis for the formation of hypotheses or solution-oriented thinking:

H_0 = Management Crewing System (RAON System) has no effect/correlation with the management of seafarers' documents at PT Inkor Dunia Samudra.

H_1 = Management Crewing System (RAON System) influences/correlates with the management of seafarers' documents at PT Inkor Dunia Samudra.

In this study, the researcher used a quantitative research method to explore the population and sample more specifically regarding the representation of the Management Crewing System (RAON System) in the management of seafarers' documents in the crew agency company PT Inkor Dunia Samudra. In this study, the independent variable was determined, namely the Management Crewing System (RAON System) as X and the bound variable, namely the management of seafarers' documents as Y. Data were collected using a questionnaire that was distributed to the respondents, namely staff working at PT Inkor Dunia Samudra and several ship owners who are agents of the company.

The population in this study is all staff who work at PT Inkor Dunia Samudra and the ship owners represented by the company are KSS Line LTD., Hana Marine Co.Ltd., Saehan Marine, Jeil International, Daeho Shipping Co.Ltd., Seong Ho, Fine Ocean, Eastern Tanker, KTM, Welder Operation, Khana Marine, NJSM, and TJSM with representatives as representatives of respondents from each ship owner, namely two respondents. In this study, the population that the researcher determined was 48 staff who used the RAON System. To determine the size of the sample, researchers used saturated sampling. Saturated sampling is a sample that, if added to the number, does not affect the value of the information obtained. The reason the researcher used saturated sampling was because the number of the population was below or less than 100. In the context of this study, the number of samples was 48 people with a representative sample as respondents, namely the staff of the company PT Inkor Dunia Samudra and ship owners who are agents of the company who directly use the system as a medium to monitor all forms of company activities (Scott, 2020). The researcher used the survey method as a data collection technique, by distributing questionnaires online through google forms that have been systematically designed to obtain relevant data and represent the respondent population.

In this study, the questionnaire used by the researcher was a closed questionnaire. A closed questionnaire is a type of question whose answer has been determined in advance, making it easier for respondents to respond quickly and making it easier for researchers to analyze the collected data. Questionnaires that require answers in the form of nominal, interval, or ratio data are suitable for using closed questionnaires (Scott, 2022). The following is a description of the value of the range of answers that the researcher presented to the respondents:

Table 3 Likert Scale Weights

Alternative Answers	Sign	Weight Value
Strongly Agree	SA	5
Agree	S	4
Netral	N	3
Disagree	D	2
Strongly Disagree	SD	1

Source: Sugiyono (2021)

Data were processed using SPSS v30, involving Reliability and validity testing, Assumption tests (normality, heteroscedasticity, autocorrelation), Simple linear regression and t-test, Coefficient of determination (R^2) to assess explanatory power. This methodology ensures the robustness of findings and the generalizability of results to similar contexts in maritime human resource management.

RESULT AND DISCUSSION

Statistical Findings

By the validity testing is conducted by comparing r-value with r-table at a significance level of 0.05 (Basuki & Prawoto, 2022). With a sample size of 48, the critical r-table is found to be 0.2403 ($df = n - 2$). A statement is considered valid if the obtained r-value $>$ r-table or if the significance value is $<$ 0.05. The results of the validity test show that each variable in this study has a calculated r value greater than the r table, namely 0.2403.

Table 4 Validity Test Results

No	Variable	Item	Loading Factor (r-table)	Keterangan
1.	<i>Management Crewing System (RAON System) (X)</i>	X1.1	0,662	Valid
		X1.2	0,589	Valid
		X2.1	0,593	Valid
		X2.2	0,658	Valid
		X3.1	0,651	Valid
		X3.2	0,504	Valid
		X4.1	0,631	Valid
		X4.2	0,565	Valid
		X5.1	0,550	Valid
		X5.2	0,565	Valid
		X6.1	0,624	Valid
		X6.2	0,670	Valid
		X7.1	0,647	Valid
		X7.2	0,615	Valid
2.	Management of Seafarers' Documents	Y1.1	0,597	Valid
		Y1.2	0,429	Valid

	(Y)	Y2.1	0,559	Valid
		Y2.2	0,665	Valid
		Y3.1	0,596	Valid
		Y3.2	0,501	Valid
		Y4.1	0,607	Valid
		Y4.2	0,690	Valid

Source: SPSS processed data, 2025

The results of the study demonstrate a strong and positive correlation between the use of the RAON System and the improvements observed in the management of seafarer documents. This indicates that as the implementation and utilization of the RAON System increase, there is a corresponding enhancement in the efficiency, accuracy, and organization of document handling processes. The system appears to play a significant role in streamlining administrative tasks, reducing errors, and ensuring better compliance with regulatory requirements. This correlation suggests that the RAON System is not only a technological advancement but also a strategic tool in supporting effective crewing operations. A detailed summary of the findings from the correlation analysis, which highlights the strength and direction of the relationship between the variables, is presented in the following Table 5.

Table 5 Correlation Test Results
Correlations

		Management Crewing System (RAON System)	Management of Seafarers' Documents
Management Crewing System (RAON System)	Pearson Correlation	1	.661**
	Sig. (2-tailed)		<,001
	N	48	48
Management of Seafarers' Documents	Pearson Correlation	.661	1
	Sig. (2-tailed)	<,001	
	N	48	48

** . Correlation is significant at the 0.01 level (2-tailed).

Source: SPSS processed data, 2025

The results of the correlation test show that the value of the coefficient between the Management Crewing System (RAON System) and the Management of Seafarers' Documents is 0.661. Based on the correlation weight, this number shows that there is a strong and positive relationship between the two variables. In other words, the more optimal the implementation of the RAON System, the more effective the management of seafarers' documents at PT Inkor Dunia Samudra. This relationship was also statistically significant, which reinforces the conclusion that crewing management systems play an important role in supporting the effectiveness of seafarers' document administration.

The determination coefficient test is used to assess the extent to which an independent variable (X) is able to explain the variation in the dependent variable (Y). The closer the R² value is to 1, the greater the model's ability to explain the Y variable.

Table 6 Determination Coefficient Test Results
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.661 ^a	.438	.425	3.08436

a. Predictors: (Constant), Management Crewing System (RAON System)

Source: SPSS processed data, 2025

Table 6 shows that the value of the determination coefficient (R Square) is 0.438 or 43.8%. This means that the independent variable, namely the Management Crewing System (RAON System), was able to explain the variation in the dependent variable of Management of Seafarers' Documents by 43.8%. Meanwhile, the remaining 56.2% was influenced by other factors outside the model studied in this study, such as staff competence, staff performance, other supporting technology (computers and scanning tools), or work conditions and culture that can be studied in future research.

Based on the results of data analysis processed using SPSS software version 30, it can be concluded that the relationship between independent variables, namely Management Crewing System (RAON System), and dependent variables for seafarers' document management is analyzed through regression tests. This test is carried out to identify the direction of the relationship and how strong the relationship between the variables is. A summary of the results of the regression analysis is presented in the following table 6.

Table 7 Results of Simple Linear Regression Analysis
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.444	4.216		2.003	.051
	Management Crewing System (RAON System)	.417	.070	.661	5.981	<.001

a. Dependent Variable: Management of Seafarers' Documents

Source: SPSS processed data, 2025

The regression model produced the following results t-value = 5.981 > t-table = 1.679, indicating statistical significance at the 95% confidence level. $R^2 = 0.438$, showing that 43.8% of the variance in document management performance is explained by RAON System utilization. Regression equation: $Y = 8.444 + 0.417X$.

These findings suggest that the system has a meaningful impact on administrative processes, despite other unexplained variances possibly related to human factors, infrastructure, or external regulations.

Hypothetical statistical tests, specifically t-tests, are used to measure how much an individual independent variable affects dependent variables. This test helps assess whether the relationship is statistically significant or just a

coincidence. In this study, the t-test was carried out with a significance level of 5% ($\alpha = 0.05$), in accordance with the guidelines set forth by Sugiyono (2019). The results of the t-statistical test can be seen in the following table as the basis for decision-making on the research hypothesis.

Table 8 Hypothesis Significance Test (t)

		Coefficients ^a				
Model		Unstandardized	Coefficients	Standardized	t	Sig.
		B	Std. Error	Coefficients		
1	(Constant)	8.444	4.216		2.003	.051
	Management Crewing System (RAON System)	.417	.070	.661	5.981	<.001

a. Dependent Variable: Management of Seafarers' Documents

Source: SPSS processed data, 2025

Based on Table 8, it was obtained that the Management Crewing System (RAON System) variable had a t-value > a t-table value ($5.981 > 1.679$), a coefficient of $\beta = 0.417$, and a significance value of $0.001 < 0.05$. This shows that the Management Crewing System (RAON System) has a significant influence on the management of seafarers' documents. Thus, Hypothesis 1 was accepted, while Hypothesis 0 was rejected, which means that the system has been proven to make a significant contribution to improving the effectiveness of seafarers' document management.

Practical Impacts of the RAON System

The RAON System provides a range of tangible benefits that significantly enhance the operational efficiency of PT Inkor Dunia Samudra. One of the most impactful features is the automation of certificate expiry monitoring. Through an integrated alert mechanism, the system notifies users when a seafarer's certification is nearing its expiration date. This early warning system allows for timely renewals and minimizes the risk of regulatory non-compliance, which is crucial in an industry governed by strict international standards.

In addition, the system facilitates digital archiving by allowing important crew documents—such as passports, certificates, and medical records—to be scanned, tagged, and stored securely in digital repositories. These repositories are protected and accessible only by authorized personnel, thus enhancing data confidentiality and reducing the risk of document loss or mismanagement.

Another advantage of the RAON System is the centralization of data. All information related to crew members is maintained in a unified digital platform, eliminating redundancies and inconsistencies that often occur when data is managed across multiple departments. This centralization supports a more coherent and streamlined document management process.

Furthermore, the RAON System provides real-time access to crew documentation for shipowners, particularly those based in South Korea. By granting them the ability to view document statuses and crew readiness at any time, the system strengthens transparency and fosters trust between the agency and its international partners.

Lastly, the system helps reduce human error by incorporating automated validation routines that check for missing or incorrect information. This function reduces administrative mistakes that could otherwise lead to delays in crew deployment or violations of maritime regulations.

Collectively, these features position the RAON System as an exemplary model of maritime digital transformation, aligning with best practices in compliance assurance and operational excellence in the crewing industry.

The implementation of the RAON System can be interpreted through the lens of classical management theory, which emphasizes the importance of integrating planning, organizing, executing, and controlling as core functions of effective administration (Gesi et al., 2019). In this context, the RAON System embodies these principles by providing structured digital workflows that guide each stage of document processing. From the initial input of crew data to the issuance of expiration reminders and the generation of performance dashboards, the system ensures that administrative tasks are carried out systematically and efficiently.

Beyond the operational level, the RAON System aligns with broader frameworks of maritime governance, particularly in ensuring transparency, accountability, and regulatory compliance. By digitizing and centralizing critical information such as crew certifications, health examination results, and contractual documents, the system enhances traceability and data integrity. This digital traceability is essential not only for internal audits but also for meeting the stringent documentation standards imposed by international maritime authorities and shipowners. Thus, the RAON System not only fulfills a functional role in crew management but also contributes strategically to the company's compliance infrastructure and reputation in the global maritime industry.

CONCLUSIONS

Based on the analysis and processing of the data that has been carried out, the following conclusions can be obtained: The results of the correlation test showed a strong and significant relationship between the Management Crewing System (RAON System) and the management of seafarers' documents, with a correlation coefficient value of 0.661 and a significance of 0.001 (< 0.05). This proves that the more optimal the use of the RAON System, the more effective the document management process will be. This system not only serves as an administrative tool but also plays a strategic role in speeding up filing, maintaining data accuracy, and improving the orderliness of document management. For PT Inkor Dunia Samudra, these results confirm that the implementation of digital systems such as the RAON System makes a real contribution to the work efficiency and quality of seafarers' documentation services; The results showed that the Management Crewing System (RAON System) had a significant effect on the management of seafarers' documents, with a value of 5.981, $\beta = 0.417$, and a significance of 0.001 (< 0.05), which means that it had a significant effect on the management of seafarers' documents. With these results, H1 is accepted and H0 is rejected, so the system is proven to contribute to improving the effectiveness of document management. A determination coefficient of 0.438 indicates that 43.8% of the effectiveness of document

management can be explained by this system, while the rest is influenced by other factors outside the study. The most dominant indicator was X12 (ease of access), with the highest correlation value of 0.670, which shows that ease of access to the system is a key factor in supporting the smooth administration of seafarers' documents. These findings confirm that the RAON System plays an important role in improving operational efficiency and the quality of documentation services in the company.

REFERENCES

- Abdullah, K., Jannah, M., Aiman, U., Hasda, S., Fadilla, Z., Taqwin, Masita, Ardiawan, K. N., & Sari, M. E. (2021). *Metodologi Penelitian Kuantitatif*. Pidie: Yayasan Penerbit Muhammad Zaini.
- Basuki, A. T., & Prawoto, N. (2022). *Analisis Regresi dalam Penelitian Ekonomi & Bisnis: Dilengkapi Aplikasi SPSS & Eviews*. Depok: PT RajaGrafindo Persada.
- Efendi, E., Asro, R. B., & Salman, M. (2023). Konsep Sistem, Jenis-Jenis Sistem Dan Model Sistem. *Jurnal Pendidikan Dan Konseling*, 5(2), 3816–3820.
- Fatika, A., Nugraha, B., Ratnaningsih, D., & Sianturi, I. (2025). Analysis of the Effectiveness of the Implementation of Crew Management System (CMS) on Monitoring of LNG Ship Crew Documents at PT. X. *Indonesian Journal of Marine Engineering*, 2(1), 1–10.
- Fotinopoulou, O. B. (2017). *The Role of Manning Agencies or The Seafarer's Recruitment in The Maritime Employment Market*. Basque: Euskal Herriko Unibertsitatea. <https://hal.science/hal-01470405>
- Gesi, B., Laan, R., & Lamaya, F. (2019). Manajemen dan Eksekutif. *Jurnal Manajemen*, 3, 51–66.
- Ghozali, I. (2018). *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 25 Edisi 9*. Semarang: Badan Penerbit Universitas Diponegoro.
- Ginting, D., Amroh, A., & Taruna. (2024). Cara Human Resource Development (HRD) Melakukan Perekrutan dan Seleksi Crew Kapal Offshore pada PT. Alfa Arafah Crewing Jakarta. *Journal on Education*, 06(03), 17993–18001.
- Hardani, Auliya, N. H., Andriani, H., Fardani, R. A., Ustiawaty, J., Utami, E. F., Sukmana, D. J., & Istiqomah, R. R. (2020). *Metode Penelitian Kualitatif & Kuantitatif*. Yogyakarta: CV. Pustaka Ilmu Group.
- Kadir, A. (2014). *Pengenalan Sistem Informasi*. Yogyakarta: Penerbit CV. Andi Offset.
- Mahendra, R., Apriani, F., & Zulfiani, D. (2023). Pengelolaan Pasar Oleh Badan Usaha Milik Desa Kelinjau Ulu Kecamatan Muara Ancalong. *EJournal Administrasi Publik*, 11(1), 113–125.
- Nasution, U. H., & Junaidi, L. D. (2024). *Metode Penelitian*. Payakumbuh: Serasi Media Teknologi.
- Peraturan Menteri Perhubungan Republik Indonesia Nomor PM 58 Tahun 2021 tentang Sertifikasi Maritime Labour Convention.
- Potto, I., Tjipto, S. S., Handayani, S., Tatiana, Y., & Ricardianto, P. (2022). Analisis Sertifikasi Pelaut, Keterampilan, dan Kesejahteraan Awak Kapal Sebagai Variabel Mediasi Terhadap Kinerja Operasional Kapal. *Jurnal Penelitian*

- Transportasi Laut, 24, 33–40.
<https://doi.org/10.25104/transla.v24i1.2059>
- Pramuditya, A. P., Karsona, A. M., & Singadimedja, H. (2020). Perlindungan Hukum Anak Buah Kapal dalam Aspek Kesejahteraan di Bidang Hukum Ketenagakerjaan. *Jurnal Cakrawala Hukum*, 11(2), 136–146.
<https://doi.org/10.26905/idjch>
- Purwa, D. S. (2021). Penerapan Sistem Manajemen Keselamatan Kapal Sesuai ISM-Code (A. Khanafi, Ed.). Yogyakarta: Penerbit Deepublish.
- Rama, A. N., Sumekar, K., & Sutono. (2024). The Influence of Service Quality and Company Reputation on Service User Satisfaction with Perceived Value as an Intervening Variable in Crew Manning Agency. *KnE Social Sciences*, 49–66. <https://doi.org/10.18502/kss.v9i17.16312>
- Sidjabat, S., & Johannes, R. T. P. (2023). Analisis Rekrutmen dan Seleksi terhadap Kinerja Crew di Kapal Bendera Korea Selatan. *Jurnal Hasil Penelitian Dan Pengembangan*, 1(3), 108–114.
- Sihotang, H. (2023). Metode Penelitian Kuantitatif (E. Murniarti, Ed.). Jakarta: UKI Press.
- Soufitri, F. (2023). Konsep Sistem Informasi. Padang: PT Inovasi Pratama Internasional.
- STCW Amandemen Manila 2010 Konvensi STCW dan Kode STCW Edisi 2017 Versi Terjemahan Bahasa Indonesia.
- Suganjar, Astriawati, N., Khairi, A., Dekanawati, V., & Setiyantara, Y. (2023). Analisis Pengaruh Implementasi Standard of Training Certification and Watchkeeping for Seafarers (STCW) 1978 Amendments 2010 Terhadap Kinerja Operasional. *Jurnal Saintek Maritim*, 24(1), 39–48.
- Sugiyono. (2020). Metode Penelitian Kuantitatif, Kualitatif dan Kombinasi (Mixed Methods). Bandung: Penerbit Alfabeta.
- Sugiyono. (2021). Statistika Untuk Penelitian. Bandung: Penerbit Alfabeta.
- Sugiyono. (2022). Metode Penelitian Kuantitatif. Bandung: Penerbit Alfabeta.
- Sutriana, L. (2022). Sistem Informasi Buku Pelaut Dalam Pelayanan Publik di Bidang Kepelautan. *Asia-Pacific Journal of Public Policy*, 8(2), 96–107.
<https://doi.org/10.52137/apjpp.v8i2.139>
- Terry, G. R., & Rue, L. W. (2019). Dasar-Dasar Manajemen. Jakarta: Bumi Aksara.
- Triyono. (2010). Manajer dan Pengelolaan Pada Era Milenium. *Value Added*, 6, 1–15.
- Undang-undang Republik Indonesia Nomor 17 Tahun 2008 tentang Pelayaran.
- Undang-undang Republik Indonesia Nomor 66 Tahun 2024 tentang Perubahan Ketiga atas Undang-undang Nomor 17 Tahun 2008 tentang Pelayaran.