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Maritime instructors' competence, retention, and attrition: Basis for strategic human resource development plan

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Abstract

The study examined the relationship between the level of competence, employee retention, and attrition among 124 maritime instructors who have taught at selected maritime higher education institutions in Region IV-A with accredited maritime programs by the Philippine Association of Colleges and Universities Commission on Accreditation in the last five years. The adapted questionnaire underwent a reliability test to establish its usefulness. Data were collected through purposive sampling and analyzed using SPSS software with a descriptive research design and correlation analysis as part of a quantitative research method. The research confirmed that the level of competency of maritime instructors was very good in terms of subject knowledge/technical skills, communication skills, pedagogical skills, and soft skills. Most of maritime instructors had very good soft skills. Respondents agreed that work environment, work motivation, and training and development were factors that kept them from leaving, with training and development being the most important factors leading to retention. They disagreed on the factors leading to attrition, such as salary, organizational climate, growth, and responsibilities, and thought that organizational climate was the least important factor for them to leave. There was a significant relationship between competency level and employee retention between subject knowledge/technical skills and the work environment, as well as between communication skills and the work environment. In terms of the correlation between competency level and employee attrition, it was found that there was a statistically significant relationship between subject knowledge/technical skills and salary, as well as between pedagogical skills and growth and responsibilities. Finally, a strategic human resource development plan was developed to further enhance the human resource process of maritime higher education institutions.

Keywords: maritime instructors, level of competence, employee retention, employee attrition

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1. Introduction

Seafaring has proven to be one of the most worthwhile jobs that offer a lot of opportunities. It is obvious in this industry that after having a long time at sea, maritime officers are having a career transition from being full-time instructors in different maritime higher education institutions. Commonly, this kind of transition creates a substantial impact on the management of maritime higher education institutions, since managing a ship's crew of the maritime officer is very different from moving into a flexible classroom setting. This is why the different maritime higher education institutions in the country are struggling to find ways to keep competent instructors and keep them from leaving, so they can keep a steady supply of highly competent maritime instructors.

In the maritime industry, competence is set by the amendments of International Convention on Standards of Training, Certification, and Watch-keeping for Seafarers (STCW), which requires maritime teachers to have qualified for their particular types and levels of training and assessment to be said competent (Vujičić et al., 2020). A competent instructor in maritime education and training must know instructional methodologies, training, and assessment methods in addition to maritime education, knowledge, abilities, and qualities (Sharabidze & Dolidze, 2021). Generally, competence is the basic traits of a person that affect how well they do their job (Soelton & Ahdiansyah, 2018). It is the person's ability to do something important about things that could affect their lives. As such, if an organization is blessed with a competent employee, they need to know what retention factors are in order to keep them in the company (Zhumash et al., 2021).

The study of Hanai (2020) defines that employee retention refers to the practice of motivating workers to remain with the company for an extended period, ideally until their tasks are completed. This is why Singh (2019), acknowledged that the main reason of employees' retention is really to keep competent workers. In a similar view, aside from employee retention, the factor of employee attrition was also needed to look upon while having competent worker. According to Yedida et al. (2018), employee attrition is an employee loss that may be voluntary or involuntary. Involuntary attrition is when a company fires an employee for no fault of their own, while voluntary attrition is when employees leave voluntarily. Given this point, Pandita and Ray (2018) affirmed that having competent employees in the company while paying attention to their retention and attrition factors has a significant impact on an organization.

Globally, there is an urge for educational institutions to find and keep teachers who are competent at the same time. In the study by Harris et al. (2019), they say that it is costly to replace a single teacher in the United States, which is over a billion each year. Even China's educational institutions have trouble retaining competent instructors, as teaching is becoming a "move-in, move-out" profession in their country (Kelchtermans, 2017). Even in the maritime sector, the study of Dyers (2022) confirms there is also a high staff turnover in different Maritime Education and Training (MET) institutions around the world. his concern was also observed in different maritime higher education institutions in the Philippines where competent maritime instructors come and go. Most of them teach for a semester or two before being required to return again to work at sea. But some of them also find a home in teaching, where they can mold the minds of future mariners (Aguado et al., 2015).

This study was conducted to fully understand how to improve the skills and knowledge of competent maritime instructors and to prevent them from leaving and encourage them to stay at the maritime higher education institutions, as this has an effect on achieving their university's mission and vision. The researcher was inspired to do this study because, as one of the faculty members of a maritime higher education institution, researcher had observed firsthand how services to stakeholders were inconsistent when competent maritime instructors just came and went from the university. The researcher saw the gap in achieving the academic school

year department's goals and innovation, attaining customer satisfaction, and company branding, when competent instructors stay and leave which resonated with the overall educational institution's performance.

This study may serve as the basis for the Philippines' Maritime Education and Training (METs), Commission on Higher Education (CHED), and Maritime Industry Authority (MARINA) to give attention to the need for competent maritime educators, as they are the frontline in improving the quality of higher education institutions and play an essential role in ensuring that the sector is continuously supplied with skilled workers. Furthermore, the study's utility value helps different organizations in the maritime industry to run their businesses in a high-quality and efficient manner, which helps them to stay on track in the long run as they value human capital.

Objectives of the study - The study intended to determine the relationship between level of competence, employee retention, and employee attrition among maritime instructors who have taught in the last five years at selected maritime higher education institutions whose maritime programs are accredited by the Philippine Association of Colleges and Universities Commission on Accreditation in Region IV-A. Specifically, the study determined the level of competence of maritime instructors in terms of subject knowledge and technical skills, communication skills, pedagogical skills, and soft skills; investigated the factors leading to employee retention in terms of work environment, work motivation and training and development; investigated the factors leading to employee attrition in terms of salary, organizational climate, and growth and responsibilities; test significant relationship of the level of competency, employee retention and employee attrition.

2. Methods

Research Design - The outcomes of the study were determined via quantitative methodology and a descriptive method. The researcher gathered information from the respondents through providing survey questionnaires and distributing them. Rantung et al. (2020) say that quantitative research methods focus on objective measurements and statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, as well as using computer tools to change statistical data that already exist. According to Loeb et al. (2017), descriptive methods identify patterns in data to answer who, what, where, when, and to what extent questions. This descriptive kind of research will be helpful in collecting the respondents' data efficiently.

Data Gathering Instrument - The data for this study were collected using an adapted questionnaire. In assessing the level of competency, the questionnaire from Estimo's (2020) study, "Ship to Academe, Seafaring to Teaching: Seafarer Teachers in Maritime Higher Education Institutions in the Philippines," was used. While assessing employee retention, the study of Wachira's (2018) Factors Influencing Employee Retention at International Research Institutes: A Case of the International Livestock Research Institute was modified to suit the needs of the study. And lastly, for the purposes of assessing the factor of employee attrition, the questionnaire was adapted from Arsua's (2017) Turnover Factors in a Private Development Bank in CALABARZON: Basis of Human Resource Retention Program.

The questionnaire has four parts. Part 1 describes the demographic profile of the respondents, the demographic profile of the maritime instructor in terms of sex, age, length of teaching experience, departments, and officer ranks. Part 2 intends to determine the level of competence of a maritime instructor in terms of subject knowledge and technical skills, communication skills, pedagogical skills, and soft skills. Part 3 consists of determining the factors of retention in terms of work environment, work motivation, and training and development. Part 4 consists of three indicators of attrition; these are salary, organizational climate, and growth and responsibilities. Each indicator has five questions and must rate the maritime higher education institutions to which it belongs based on the following indicators. The first part, which assessed the competence of maritime instructors, was quantitively measured using a four-point scale. Employee retention and employee attrition were both quantitatively measured. The researchers gathered data using a Google Form and hard copy of

questionnaires, assuring respondents that all the information provided was used only for research purposes.

To further establish the validity and reliability of the questionnaire, the researcher conducted a pilot test. The testing was conducted in one Maritime Higher Education Institution on its fifteen maritime instructors. The pilot testing yielded a Cronbach Alpha of 0.911, which was interpreted as excellent and indicated that all items were acceptable for data gathering.

Participants of the Study **-** The respondents of the study were maritime officer instructors who have taught for the last five academic school years, starting from the academic year 2017–2018 up to present, at the two maritime higher education institutions in Region IV-A, with maritime programs accredited by the Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA). The total population of respondents in this study was 154 maritime instructors, but because of the nature of the work of the respondents, who were commonly onboard and unavailable to answer the survey because of poor signal during the data gathering procedure, the researcher used Raosoft to find a 95% level of confidence. The total turnout of respondents was 124 maritime instructors. Purposive sampling was used to select a sample that was most useful for the purposes of the research.

Table 1
Distribution of Respondents' Demographic Profile

Profile Variables	Frequency	Percentage
Sex		
Male	117	94.4
Female	7	5.6
Age		
20 - 30 years old	44	35.5
31 - 40 years old	23	18.5
41 - 50 years old	28	22.6
51 - 60 years old	17	13.7
61 years old and above	12	9.7
Length of Teaching Experience		
Less than 1 year	31	25.0
1 - 3 years	47	37.9
4 - 6 years	21	16.9
7 - 9 years	11	8.9
More than 10 years	14	11.3
Department Program		
BS Marine Transportation	90	72.6
BS Marine Engineering	34	27.4
Officer Ranks		
Management Level	69	55.6
Operational Level	55	44.4
Maritime Higher Education Institutions		
Lyceum of the Philippines University-Batangas	104	83.9
Manuel S. Enverga University-Quezon	20	16.1

Data Gathering Procedures **-** The researcher presented the proposal for comments, and upon final approval of the thesis committee, the researcher started to adapt the questionnaire. A validation process was conducted with the assistance of the research adviser and a statistician. The questionnaire was validated by the dean, the department chairman, and selected maritime instructors. Furthermore, to establish the validity and reliability of the questionnaire, the researcher conducted a pilot test and the data for reliability test were statistically treated by the assigned statistician, with the result “excellent" and accepted for data gathering. After that, the researcher had permission to conduct a study. From the first of the chosen maritime higher education institutions, the researcher asked for the approval of the dean of the college of maritime education, the human resource management and development office, the vice president for academic and research, the university research evaluation committee, and especially the university president, to distribute a questionnaire to the maritime instructors who are still

working at the university. While at the other maritime higher education institution, the researcher had permission from the office that manages the approval process and also from the maritime academy. After the approval of both universities, the researcher started collecting and distributing questionnaires via Google Forms and hard copy, informing them of the purpose of the questionnaires. While the other respondents who were not affiliated with the university answered the questionnaire by sending a direct message of the Google forms through their social media accounts. The responses to the survey items were tallied and sent to the university statistician for statistical analysis.

Data Analysis **-** To describe the demographic profile, the frequency and percentage were used to describe the respondents in terms of their sex, age, length of teaching experience, department, officer ranks and maritime higher education institutions they belong. Weighted mean and rank were used to determine the level of competence of maritime instructor in terms of subject knowledge and technical skills, communication skills, pedagogical skills, and soft skills; investigate the factors leadings to employee retention in terms of work environment, work motivation and training and development; investigate the factors leading to employee attrition in terms of salary, organizational climate, and growth and responsibilities. In determining the relationship of level of competence to employee attrition and retention, the study used the Shapiro-Wilk Test which showed that p-values of all variables were less than 0.05, which means that the data set was not normally distributed. Therefore, Spearman rho was used as part of the non-parametric tests to determine the significant relationship. All analysis was performed using SPSS version 26.

Ethical Considerations **-** Ethical considerations were taken during the course of the study to guarantee that any information gathered is used strictly for research purposes, hence protecting the research's quality and integrity. Additionally, the researcher sought consent via letter and personal contact to confirm that the intended respondents were prepared to answer the essential research questions. It also preserved the respondents' privacy and identities by not requesting their names while they were filling out the questionnaires. In addition, the researcher ensured that respondents complete the questionnaires voluntarily and in accordance with their preferences. Last but not least, it ensured that none of the respondents who took part in the research was hurt, and that their safety and security were the most important things.

3. Results and Discussion

Table 3
Summary Table on Level of Competence of Maritime Instructors

Key Result Area	Composite Mean	VI	Rank
Subject Knowledge/Technical Skills	3.61	Very Good	2
Communication Skills	3.48	Good	4
Pedagogical Skills	3.53	Very Good	3
Soft Skills	3.62	Very Good	1
Grand Composite Mean	3.56	Very Good	

Legend: 3.50-4.00=Very Good;2.50-3.49=Good;1.50-2.49=Poor;1.00-1.49=Very Poor

Table 3 presents the summary of the level of competence of maritime instructor. It shows that all factors in assessing the level of competence of maritime instructor are very good with the composite mean of 3.56. All items were assessed by the respondents and among the indicators soft skills got the highest weighted of 3.62. Maritime officers who have become teachers usually have more soft skills due to their experience working with people in the maritime industry. They have developed effective social skills throughout their career and are able to effectively use it when interacting with students and colleagues in the university. Additionally, their experience in the maritime industry has given them the ability to manage teams, delegate tasks, and lead in difficult situations, all of which are important in the classroom. They also have a deep understanding of discipline, safety, and risk management, which are all key components of being a successful teacher.

In the maritime industry, people need to be able to lead and work as a team, which are both examples of soft skills. Throughout their sea experience, and while seriously increasing their level of situational and industry

awareness, developing better soft skills, and so on, upgrade the competencies that they used when they were teaching (Šekularac-Ivošević, 2016). Bosker (2021), stated that because our society and technology change so quickly, the maritime industry places a lot of importance on soft skills. In the maritime industry, this area is made bigger by the need for soft skills like communication, situational awareness, cultural awareness, leadership, and behavior with coworkers on board and in port. Soft skills are seen as strategic and should be given a lot of attention during the hiring process for a maritime officer.

Among the competency communication skills turned the last with weighted mean of 3.48. Maritime officers may have less in communication skills compared to other competencies such as technical skills, soft skills, and pedagogical skills due to the fact that the maritime industry is highly technical and involves a lot of problem solving and critical reasoning. Maritime officers tend to focus more on the technical aspects of their job and may not have as much experience in terms of communicating with others in a professional and educational setting.

Technical competencies are frequently required for maritime officers because they are strictly regulated in STCW and continue to play an important role in the maritime industry. That's why, communication skills are less observe in maritime instructors as they have acquired technological awareness, computing, environmental sustainability awareness and concern, and information skills are also more important (Cicek et al. 2019). According to Haryani et al. (2022), communication skills are compulsory for all seafarers in the world in order to ease comprehension of the various languages derived from different crew nationalities. This was also affirmed by Orence and Laguador (2013) who confirmed that effective communication skills are crucial among maritime professionals for safe and efficient operations onboard. As a watchkeeper, you must communicate clearly with your seniors and crew members about relevant operations, issues, and concerns to aid decision-making.

Table 4
Summary Table on Factors Leading to Employee Retention

Key Result Area	Composite Mean	VI	Rank
Work Environment	3.20	Agree	3
Work Motivation	3.34	Agree	2
Training and Development	3.40	Agree	1
Composite Mean	3.31	Agree	

Legend: 3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49=Strongly Disagree

Table 4 shows a summary of the factors leading to employee retention with a composite mean of 3.31. Among the factors leading to employee retention, the training and development got the highest weighted of 3.40 followed by the work motivation earning 3.34, and last is work environment with a weighted mean of 3.20.

The highest among the composite mean is training and development which got 3.40. It is clear that maritime instructors want training and development in order to stay. The results showed that training given to them is really necessary for every maritime instructor. Maritime schools consider professional training important because it leads to motivation. Support plays a critical role in increasing employee enthusiasm, which encourages them to stay. This shows that when maritime schools develop and identify career development strategies and train their instructors, it would increase the commitment of the maritime instructors. They would feel that they were given importance, which will help the organization achieve its goals effectively and efficiently.

According to Hazzan (2013), employee retention is closely linked to training, as it shows that the organization values and supports its staff. However, training alone is not enough, and coaching or managerial assistance is also necessary for employees to apply their newly acquired knowledge on the job. Without this support, employees may become discouraged and unhappy, leading to a higher turnover rate. The training received by teachers has an important role in increasing motivation at work and motivating teachers to improve their competence and their retention (Abadi & Hanafi, 2021).

The lowest among the composite mean is working environment, which got 3.40. It is clear that maritime instructors the working environment they have when they teach in their respective maritime schools made them

stay. Despite the working environment being the lowest, they will still stay at the university because during the time they taught at the maritime schools, there were good facilities and classrooms accredited by different governing bodies which provides them to fully worked as academicians.

In support, Vujii et al. (2020) cited that maritime education and training institutions must be accredited by a national or international professional or government authority, in order to ascertain that a continued high standard of quality is assured. In the study by Okojie et al. (2015), maritime higher education must be compliant with the Standard of Training and Certification for Watchkeeping (STCW '95) for their faculties. This is why academicians care deeply about their working conditions, as do their pupils. Instructors who study in a pleasant environment are happier and more likely to stay longer. In addition, they value a variety of working conditions, including but not limited to clean, well-maintained premises and access to modern teaching equipment. Instead, social factors like as culture, leadership, and peer interactions largely determine academician work satisfaction and career objectives (Hee et al., 2019).

Table 5

Summary Table on Factors Leading to Employee Attrition

Key Result Area	Composite Mean	VI	Rank
Salary	2.17	Disagree	1
Organizational Climate	1.78	Disagree	3
Growth and Responsibilities	1.93	Disagree	2
Composite Mean	1.96	Disagree	

Legend: 3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49=Strongly Disagree

Table 5 reveals that salary is the primary factor leading to employee attrition with a composite mean of 2.17, followed by growth and responsibilities with a composite mean of 1.93 and organizational climate with a composite mean of 1.78. However, these factors have been disagreed with by maritime instructors, claiming that they will not lead to attrition.

The highest among the composite mean is salary which got 2.17 which they disagree that may lead them to attrition. The primary reason why maritime officers turned to maritime instructors disagree that salary as a teacher in the university is because of the sense of job security and stability that comes with teaching. Unlike the maritime industry, teaching in the university offers a consistent salary, benefits, and work schedule. Furthermore, teaching in the university provides the opportunity to impart knowledge and experience to the next generation of maritime professionals, which is a rewarding experience.

The reality is that seafarers receive salaries higher than the national average wages of other occupations like teachers (Song et al., 2021). It has been confirmed to cause employees who are dissatisfied with their salaries to compare them to their previous job and display negative organizational behavior, such as turnover (Hung et al., 2018). This indicates that pay is a major factor influencing employees and is thus essential to the company (Nagaraju and Pooja, 2017). But in the study by Beaugez (2012), teachers were asked to consider their reasons for remaining on the job. The responses revealed that salary and benefits, as well as other incentives, were the primary reasons given by teachers who were still employed but felt that they were not being adequately compensated, but more than that, the passion of sharing knowledge is what makes them fulfilled.

On the other hand, the lowest among the composite mean is organizational climate, which got 2.78 which they disagree that may lead them to attrition. This means that every organization, such as a maritime school, has a specific organizational climate due to the employees' work behaviors within the organization. Even though they have different culture, both of the maritime schools provided a good organizational climate that encouraged certain types of emotional experiences or expressions through the company's practices, its leaders, and its daily routines.

According to Moslehpour et al. (2018), an organizational climate can be specific to each organization. It may make an organization different from other organizations and influence employees' work behaviors in the

organization. The organizational climate can also leave a perception in the employees' minds of the management of their working unit that leads them to not stay. Given this point, Martinez-Arroyo & Valenzo-Jimenez (2020) said that organizational climate is affected by many things, such as the company's practices, its leaders, and its daily routines. This is why if the organizations can set up environments that encourage certain types of emotional experiences or expressions, certain ways to use positive emotions to achieve functional goals, and certain ways to deal with negative emotions and moods that lead sometime in not staying in the organizations that they belong.

Table 6

Relationship between the Level of Competency and Employee Retention

Paired Variables	rho-value	p-value	Interpretation
Subject Knowledge/Technical Skills			
Work Environment	0.237**	0.008	Significant
Work Motivation	0.069	0.447	Not Significant
Training and Development	0.146	0.107	Not Significant
Communication Skills			
Work Environment	0.237**	0.008	Significant
Work Motivation	0.036	0.694	Not Significant
Training and Development	0.063	0.489	Not Significant
Pedagogical Skills			
Work Environment	0.092	0.312	Not Significant
Work Motivation	0.068	0.454	Not Significant
Training and Development	-0.064	0.480	Not Significant
Soft Skills			
Work Environment	0.082	0.364	Not Significant
Work Motivation	0.043	0.636	Not Significant
Training and Development	-0.017	0.851	Not Significant

**. Correlation is significant at the 0.01 level *. Correlation is significant at the 0.05 level

Table 6 illustrates the correlation between competency level and employee retention. It was found that there was a statistically significant relationship between subject knowledge/technical skills and work environment, as well as between communication skills and work environment.

On the contrary, the results of the study demonstrated a strong correlation between subject knowledge/technical skills and workplace environment due to a p-value that was less than 0.01. Maritime officers turn to maritime instructors who have good technical skills and stay in the university because of the work environment because universities provide a supportive, safe, and secure environment with access to the latest technology and resources that have helped them advance and acquire more skills. Furthermore, maritime instructors can benefit from the university's network because they are the leading maritime higher education institution in CALABARZON and has been accredited by the Maritime Industry Authority (MARINA) and the Commission on Higher Education (CHED), providing a great opportunity for professional growth. The work environment and academic community help enhance the maritime instructors' talents and technical skills, as well as give them the opportunity of professional growth and participate in decision-making for the improvement of the workplace and organization (Aguado et al., 2015).

According to Galicia and Samillano (2021), the Philippines, through the Maritime Industry Authority (MARINA) and the Commission on Higher Education (CHED), have created the Joint CHED Memorandum and MARINA Circular to ensure the competitiveness of the country's maritime graduates through qualified instructors and compliance with international standards. It grants CHED the authority to set standards and monitor maritime education programs and higher learning institutions including their facilities according to Section 8 [d] and [e] of the Republic Act (RA) 7722, while MARINA is allowed to monitor maritime education programs under Section 3 and Section 4 [c](4) of RA 10635 (Joint CHED-MARINA Memorandum Circular No. 1, 2018).

Furthermore, the results showed a statistically significant correlation between communication skills and

work environment regarding on their employee retention, as the p-value was less than 0.01. This means that maritime instructors who taught have an excellent communication skill in order to be successful in teaching. This was enhanced as the work environment in the maritime university that they taught was highly conducive to that type of ok skills, as it allows them to interact with students and other staff members in an open and collaborative environment. This also means that maritime schools encourage the development of strong relationships and allow instructors to share their knowledge and expertise with their students that make them think to stay in the university. Yuzliza et al. (2021) demonstrated that a supportive work environment can have a positive impact on faculty retention. Based on Johnson et al. (2012) further highlighted that for teachers to effectively communicate with students, the quality of their working environment is of great importance. They noted that amenities such as clean and well-maintained facilities, as well as access to modern instructional technology, are essential for teachers to be able to collaborate and effectively communicate with their students and their colleagues.

Table 7
Relationship between the Level of Competency and Employee Attrition

Paired Variables	rho-value	p-value	Interpretation
Subject Knowledge/Technical Skills			
Salary	-.183*	0.042	Significant
Organizational Climate	-0.009	0.918	Not Significant
Growth and Responsibilities	0.093	0.305	Not Significant
Communication Skills			
Salary	0.001	0.991	Not Significant
Organizational Climate	-0.071	0.435	Not Significant
Growth and Responsibilities	0.123	0.173	Not Significant
Pedagogical Skills			
Salary	0.004	0.962	Not Significant
Organizational Climate	0.007	0.941	Not Significant
Growth and Responsibilities	0.195*	0.030	Significant
Soft Skills			
Salary	0.011	0.904	Not Significant
Organizational Climate	0.028	0.760	Not Significant
Growth and Responsibilities	0.056	0.537	Not Significant

**. Correlation is significant at the 0.01 level *. Correlation is significant at the 0.05 level

Table 7 presents the correlation between competency level and employee attrition. It was found that there was a statistically significant relationship between subject knowledge/technical skills and work salary, as well as between pedagogical skills and growth and responsibilities.

Among all indicators, there was statistically significant relationship between subject knowledge/technical skills and salary lead to employee attrition since the obtained p-value was less than 0.05. It is a reality that the higher the license a maritime officer has on a shipping vessel, the higher their technical skills are. This means that when they teach in university, they may leave teaching because university salaries are often lower than the salaries offered by shipping companies for maritime officer positions. It is a reality in this industry that shipping companies offer higher salaries, causing instructors to leave the university and go back to sea in search of better wages and promotions. Based on Aguado et al. (2015), teaching in a maritime university may be seen as less desirable if the compensation does not offset the experience or rank gained from working as a maritime officer. This is why creating a competitive salary structure that supports employees is a distinct challenge for universities (Kaur, 2017). In other words, pay really inspires and motivates people to perform well, which helps them not to leave (Mahadi et al., 2020).

Lastly, there was a statistically significant relationship between pedagogical skills and growth and responsibilities in terms of employee attrition since the obtained p-value was less than 0.05. Since maritime officers that turn to maritime instructors had just less pedagogical skills, these instructors are often given more growth and responsibilities that may hard for them to clarify their goals in staying in university. Maritime instructors have been given fewer challenging tasks, such as leading and managing a team of students or

teaching more advanced courses to improve their pedagogical skills. Additionally, engaging in more roles and responsibility are less provided to maritime officers with lead to feel they don't have a greater sense of accomplishment. The study of Autsadee (2019) stated that common problems faced by faculty members in pedagogical aspects includes not only operating processes, interpersonal differences, quality issues, and behavioral issues, but also difficult-to-define and clarify goals in their organizations. That's why increasing duties and roles and exposing them to different opportunities is another way to empower employees. The inspired and empowered employees understood their roles and responsibilities within organizations because they trusted the critical duties, responsibilities, and functions assigned to them (Akyeampong, 2019).

4. Conclusion and Recommendation

The level of competency of maritime instructors are very good in terms of subject knowledge/technical skills, communication skills, pedagogical skills, and soft skills. In terms of employee retention, all factors such as work environment, work motivation, training, and development are agreed to lead to their retention. In terms of employee attrition, all factors such as salary, organizational climate, growth, and responsibilities have been disagreed that may contribute to their attrition. The study revealed a statistically significant relationship between subject knowledge/technical skills and the work environment, as well as between communication skills and the work environment, in terms of the correlation between competency level and employee retention. Additionally, there was a statistically significant relationship between subject knowledge/technical skills and salary, as well as between pedagogical skills and growth and responsibilities, in terms of the correlation between competency level and employee attrition.

The human resources management department of maritime higher education institutions may review and validate the outlined action plan provided in the study for implementing the strategic human resources development plan. Future researchers may consider assessing technological skills for a level of competency of maritime instructor, while other variables such as work values for retention and work-life balance should be considered when assessing the factors leading to attrition, which are all relevant to determine in the fast-changing world in maritime higher education.

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