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Factors of Crew Turnover Intention Influence on the Performance of Shipping Industry: An Empirical Study

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ABSTRACT

The purpose of this paper is to determine the factors that influence crew's turnover intention in the shipping industry. This research used 222 respondents who worked in the shipping industry as a sample. Data was collected using a questionnaire instrument, and the data was processed using the SEM-PLS technique. Companies can use practical implications-Finding from this research to develop strategies and policies related to employee turnover, more specific to ship crew's turnover. The analysis's results show that turnover Intention in the shipping industry is influenced by two factors: job satisfaction and organizational commitment. Research on turnover intention in the shipping industry is still very limited, especially with shipping industry objects in Indonesia. It highlights the significant impact of turnover intention on organizational performance, particularly in shipping companies, where high turnover leads to financial losses and operational disruptions. The study contributes to the limited existing literature on turnover intention in the Indonesian shipping sector.

Keywords: Indonesia, Shipping Industry, Turnover Intention, Partial Least Square
JEL Classifications: J63, J26.

1. INTRODUCTION

Human resource development, especially employees, is an important step that can be taken. Every company usually tries to gain a competitive advantage (Rawashdeh and Tamimi, 2020). This step can be achieved through various types of training tailored to each person's potential and character. However, there is a risk that this investment will be wasted if the employee leaves the company. According to Rawashdeh and Tamimi (2020), this will lead to additional costs, such as costs for retraining and recruiting people to fill vacant positions (Al-Suraihi et al., 2021).

Employee resignation can cause both material (recruitment costs) and non-material losses (interference with the smooth running of work). Organizations' ability to detect the emergence of employee turnover intention has increased in recent years to prevent this from happening (Xu et al., 2022). Several previous studies have examined factors that influence workers' turnover intentions, such as (Azmy et al., 2023; Donkor et al., 2022; Gom et al., 2021; Park and Johnson, 2019). (Donkor et al., 2022; Gom et al., 2021; Shareef and Atan, 2019) reveal that transformational leadership and organizational commitment in providing various facilities (Azmy et al., 2023), reduce turnover intentions. Another thing that influences a decrease in employee turnover intentions is employee involvement in work (Park and Johnson, 2019).

Indonesia, as a maritime country, has a shipping industry that plays an important role in Indonesia's economic growth. The shipping industry has a role in expediting the supply chain of various industries in Indonesia. According to BPS data, the value of Indonesian exports in December 2023 reached US$22.41 billion, while the total import transactions in December 2023 amounted to US$19.11 billion. The shipping industry also plays a role in the smooth logistics of archipelagic countries, especially Indonesia;

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this can be seen from the volume of goods shipped by sea of 31.1 million tons (Hadi et al., 2024); this value shows an increase in volume of 4 million tons when compared to the previous period. The increase in the volume of cargo shipping also represents an increase in the need for labor (shipping crew). The impact of the increase in the need for shipping crew is that companies must try to reduce turnover intention from shipping crew.

The issue of employee turnover will affect the company's operational performance but also cause significant financial losses, as can be seen in data from shipping companies, which shows that the average crew resigns after three months of work. This duration does not meet the company's target of expecting workers not to move for at least one year. Based on company data, it shows that the position of the Able-Bodied Seaman (AB) is the position with the highest turnover in the period November 2022 to October 2023. This figure increases the company's financial losses. Another impact of this increase in turnover is the occurrence of crew accidents, thereby increasing the claims that the company must pay. Company data shows that in the last five years, the company has experienced 45 claims covering various insurance categories related to damage or loss of ships. High crew turnover also results in significant financial losses, with turnover costs reaching IDR 3,506,500,000 a year, as well as other negative impacts such as unsustainable ship maintenance, unsupervised inventory of goods, and increased accidents due to lack of skills and experience of new crew. Overcoming the problem of turnover intention in companies is crucial to maintaining the performance and sustainability of the shipping industry, which plays a vital role in the logistics chain and the Indonesian economy. Based on the background above, companies need to analyse the factors that influence shipping crew turnover intentions, so that companies can consider these factors in formulating company policies.

2. LITERATURE REVIEW

The literature review process using Google Scholar uses the keyword turnover intention on organizational performance. Search results obtained 32 articles (Afzal et al., 2019; Ahmad and Kaleem, 2020; Akosile and Ekemen, 2022; Arokiasamy et al., 2022; Azmy et al., 2023; Bai et al., 2023; Baş, 2022; Chen et al., 2016; Donkor et al., 2022; Gara Bach Ouerdian et al., 2021; Gessesse and Premanandam, 2023; Gom et al., 2021; Haque, 2020; Jia and Li, 2024; Ko and Campbell, 2020; Ladelsky and Lee, 2023; Manoppo, 2020; Martins et al., 2023; Matande et al., 2022; Memon et al., 2020; Ntseke et al., 2022; Paredes-Aguirre et al., 2022; Park and Johnson, 2019; Rani et al., 2023; Rawashdeh and Tamimi, 2020; Renn et al., 2019; Shareef and Atan, 2019; Sobaih et al., 2022; Srivastava and Agrawal, 2020; Xu et al., 2022; Yücel, 2021). Based on the year of publication, there are four articles taken from 2019, 7 articles from 2020, 5 articles from 2021, 10 articles taken from 2022, 6 articles taken from 2023, and 1 article from 2024. In general, it was found that the majority of research on turnover intention on organizational performance takes Asian countries as the research object.

Previous research on turnover intention by (Afzal et al., 2019; Akosile and Ekemen, 2022; Arokiasamy et al., 2022; Azmy et al., 2023; Bai et al., 2023; Baş, 2022; Gara Bach Ouerdian et al., 2021; Haque, 2020; Jia and Li, 2024; Ko and Campbell, 2020; Ladelsky and Lee, 2023; Manoppo, 2020; Martins et al., 2023; Matande et al., 2022; Memon et al., 2020; Naveed et al., 2022; Ntseke et al., 2022; Paredes-Aguirre et al., 2022; Park and Johnson, 2019; Rawashdeh and Tamimi, 2020; Renn et al., 2019; Sobaih et al., 2022; Srivastava and Agrawal, 2020; Xu et al., 2022; Yücel, 2021) show that there are four factors that are widely used in previous research, these four factors include transformational leadership (Transformational leadership) 13 studies, organizational commitment (Organizational commitment) 9 studies, work engagement (work engagement) 9 studies, and job satisfaction (job satisfaction) 7 studies. Recent studies in 2023 highlight the importance of transformational leadership in facing rapid change and uncertainty to reduce employee turnover intention, increase customer (Donkor et al., 2022; Shareef and Atan, 2019) and increase organizational effectiveness (Martins et al., 2023). This finding is supported by previous research. In addition, Rawashdeh and Tamimi (2020) confirmed a strong inverse relationship between organizational commitment and turnover intention, indicating that the higher an employee's commitment to the organization, the lower the likelihood that they intend to change jobs.

3. MATERIALS AND METHODS

This research focuses on a shipping company chosen because of its relevance to the research topic of the influence of turnover intention on organizational performance and strategies for reducing turnover in ship crews. The selection of shipping companies was based on their characteristics in accordance with the research objectives as well as collaboration that allowed better access to ship crew and information related to turnover reduction strategies. The flow of this research includes problem formulation, literature study, data collection, data processing, and closing (analysis and conclusions). The flow of this research is as in Figure 1.

The literature study in previous research became a reference for developing the model in this research. Figure 2 is a model of this research.

Figure 2 shows the model in this research. Items used for measure each variable as in Table 1. Based on Figure 2, the hypothesis in this research are:

H_1: Transformational Leadership has a negative effect on the level of Turnover Intention.

Previous research shows that effective transformational leadership can create a work environment that motivates and inspires employees, increases their loyalty to the company, and ultimately reduces the level of turnover intention. Transformational leadership strengthens relationships between superiors and subordinates, creates strong emotional bonds, and generates trust and a sense of responsibility, all of which can reduce employees' intentions to leave the company (Fantahun et al., 2023; Ntseke et al., 2022). This reason is the reason for preparing the hypothesis H_1.

H_2: Organizational Commitment has a negative effect on the level of Turnover Intention.

Figure 1: Research flow

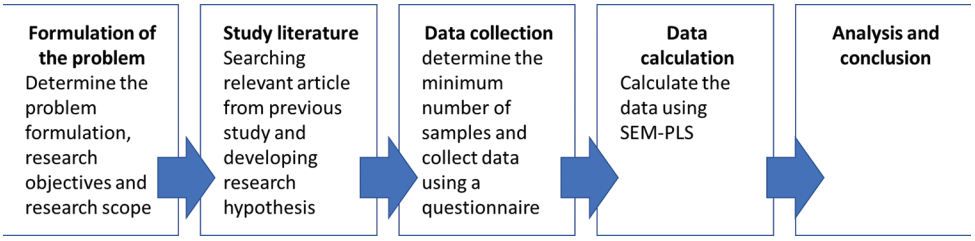
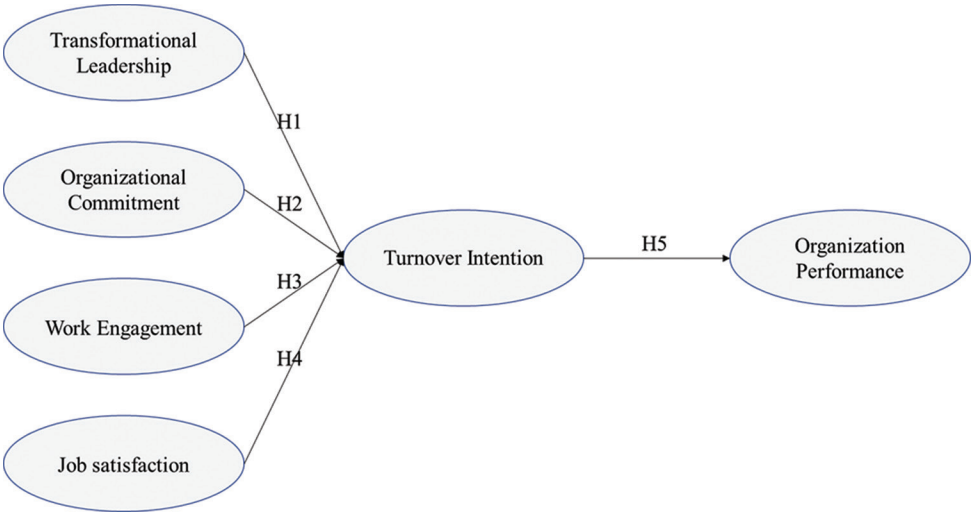


Figure 2: Research model



Studies Matande et al. (2022), Rahman (2020) show that a high level of commitment to the organization can cause lower turnover intention. Employees who feel emotionally and cognitively connected to the company tend to be more motivated to continue working and contribute to the company's success. High organizational commitment also makes employees feel more responsible and closer to their company, which means they are less likely to leave the company. This reason is the reason for preparing the hypothesis H_2.

H_3: Work Engagement has a negative effect on the level of Turnover Intention.

Research Aydin (2022), Kodwani (2017) has shown that high levels of Work Engagement are positively related to job satisfaction and commitment to the organization but negatively related to levels of desire to leave the job. If employees feel actively engaged in their work, they are more likely to be satisfied and remain loyal to their company. Workers are also less likely to look for another job. This is what underlies the formulation of hypothesis H_3.

H_4: Job satisfaction has a negative effect on the level of Turnover Intention.

A high level of job satisfaction is negatively correlated with the level of desire to leave work (Massami and Manyasi, 2021; Sorn et al., 2023). Job satisfaction can be seen as an indicator of employees' global satisfaction with their jobs and the employee's work environment, which directly influences employees' desire to stay with the company. This reason is the reason for preparing the hypothesis H_4.

H_5: Turnover Intention has a negative effect on successful organizational performance.

Research shows that high levels of turnover intention can harm organizational performance in various ways, such as increasing recruitment and training costs, reducing productivity, and disrupting operational continuity (Al-Suraihi et al., 2021; Haque, 2020). Thus, a low level of turnover intention leads to an increase in overall organizational performance. This is what underlies the preparation of hypothesis H_5.

This research uses an online survey strategy to collect data that describes the behavior, trends, and opinions of the selected population. The questionnaire consists of an informed consent section, control data, which includes participants' personal information, and variable measurement using a Likert scale from 1 (very inappropriate) to 5 (very suitable). The sampling technique used was purposive sampling with a total of 222 shipping industry employees who met the criteria, using the Solvin formula to determine the sample size.

3.1. Data Processing

3.1.1. Outer model testing

Outer model testing in PLS-SEM aims to evaluate the reliability of indicators, including testing reliability, convergent validity, and discriminant validity. Reliability check refers to factor loading values >0.7 and reliability values such as Cronbach's Alpha or Composite Reliability (CR) >0.7. The concurrent validity check can be seen from the Average Variance Extracted (AVE) value >0.5. In contrast, the discriminant validity test results can be seen from the cross loading >0.7 and the Heterotrait-Monotrait Ratio (HTMT) value <0.9.

Table 1: List of research variables

No	Variable	Code	Measurement Items	References
1	Transformational leadership	TL1	Communicates a clear and positives vision of the future	(Carless et al., 2000)
		TL2	Treats staff as individuals, support and encourages their development	
		TL3	Gives encouragement and recognitoon to staff	
		TL4	Fosters trust, involvement and co-peration among team members	
		TL5	Encourages thinking about problems in new ways and questions assumptions	
		TL6	Is clear about his/her values and practises what he/she preaches	
		TL7	Instills pride and respect in others and inpires me by being highly competent	
		Ideal influence		(Manoppo, 2020)
		TL8	Proud of the leader	
		TL9	Respect to the leader	
		TL10	Trust to overcome problem	
		Inspirational Motivation		
		TL11	Able to communicate	
		TL12	Convey the mission	
		TL13	Inspire subordinates	
		Intellectual stimulation		
		TL14		
		TL15		
		TL16		
		Individual considerations		
		TL17	Give attention	
		TL18	Individual treatment	
		TL19	Train and suggest	
		TL20	My leader instills pride in me when associated with others	(Afsar and Umrani, 2020)
		TL21	My leader talks about my most important values and beliefs	
		TL22	My leader specifies the importance of a strong sense of purpose	
		TL23	My leader convinces me to go beyond self-interest for the good of the group	
		TL24	My leader acts in ways that build others' respect for me	
		TL25	My leader considers moral and ethical consequences of decisions	
		TL26	My leader displays a sense of power and confidence	
		TL27	My leader emphasizes the importance of having a collective sense of mission	
		TL28	My leader talks optimistically about future	
		TL29	My leader talks enthusiastically about what needs to be established	
		TL30	My leader articulates a compelling vision of future	
		TL31	My leader expresses confidence through his/her behaviors that goals will be achieved	
		TL32	My leader re-examines the critical assumptions and questions whether they are appropriate	
		TL33	My leader seeks differing perspective when solving problems	
		TL34	My leader gets others to look at problems from many different angles	
		TL35	My leader suggests new ways of looking at how to complete assignments	
		TL36	My leader spends time coaching, teaching and mentoring his/her followers	
		TL37	My leader treats others as individuals rather than just as a member of a group	
		TL38	My leader considers an individual as having different needs, abilities and aspirations from others	
		TL39	My leader helps others to develop their strengths	
2	Organizational commitment	OC1	I would be very happy to spend the rest of my career in this company	(Rani et al., 2023)
		OC2	This company gives me homely feeling	
		OC3	This company has a great deal of personal meaning for me	
		OC4	Too much of my life would be disrupted if I leave my company	
		OC5	Right now, for me staying at this company is both necessity and desire	
		OC6	I feel that there are less opportunities available in other company	
		OC7	I would like to continue to work in this company	
		OC8	I do not feel any obligation to remain with my company	
		OC9	I would feel guilty if I leave this company now	
		OC10	This company deserves my loyalty	
		OC11	I would not leave this company right now because of my sense of obligation towards it	
		OC12	Emotional attachment	(Sawitri et al., 2016)
		OK13	Sense of belonging	
		OK14	Based on losses	
		OK15	Sacrificial consideration	
		OK16	Staying in an organization	
		OK17	Responsible to the organization	

(Contd...)

Table 1: ***(Continued)***

No	Variable	Code	Measurement Items	References
3	Work Engagement	WE1	Physically Engaged	(Rizky et al., 2021)
		WE2	Intellectually Engaged	
		WE3	Emotionally Engaged	
		WE4	Spiritually Engaged	
		WE5	I am enthusiastic about my job	(Aydin, 2022)
		WE6	When I get up in the morning, I feel like going to work	
		WE7	At my work, I feel bursting with energy	
		WE8	I feel happy when I am working intensely	
		WE9	My job inspires me	
		WE10	At my job, I feel strong and vigorous	
		WE11	I am proud of the work that I do	
		WE12	I get carried away when I am working	
		WE13	I focus on my work	
		WE14	I do best what delegates to me	
4	Job satisfaction		Job satisfaction felt by employees toward their job	
		JS1	Chance to be their selves	
		JS2	Work environment	
		JS3	Reward	
		JS4	Teamwork between leader and coworker	
			Work itself	(Pratama and Setiadi, 2021)
		JS5	Satisfied with job role	
		JS6	Supporting facilities are available	
		JS7	Sense of responsibility	
			Supervisor	
		JS8	Helpful superior	
		JS9	An appreciative superior	
		JS10	Fairness treatment from superior	
		Worker		
		JS11	Good relations with Work colleague	
		JS12	Work colleague have good team work	
		JS13	Healthy competition	
		Promotion		
		JS14	Clear promotions path	
		JS15	Chance to get promoted	
		JS16	Improvement Skills with promotion	
		Income		
		JS17	Sufficient salary	
		JS18	Incentives and bonus	
		JS19	Annual salary increasement	
5	Organizational performance	OP1	Turnover Fluctuation affecting quality of Work Environment	(Pinho et al., 2014)
		OP2	Turnover Fluctuation affecting company Image	
		OP3	Crew Turnover Fluctuation affecting customer satisfaction	
		OP4	Turnover Fluctuation affecting delivery performance	
		OP5	Turnover Fluctuation affecting the ship's idle time	
		OP6	Turnover Fluctuation affecting delivery delays	
		OP7	Turnover Fluctuation affecting number of work accident or incident during sailing	

3.1.2. Inner model testing

Inner model testing intends to evaluate the relationship between latent variables in the structural model using several evaluation criteria:

- The R-squared indicates how much of the construct's variance can be explained by the model, with values of 0.75, 0.50, and 0.25 indicating a strong, moderate, and weak model, respectively.
- Effect size (f2) measures the magnitude of the influence of the predictor variable, where values of 0.02, 0.15, and 0.35 indicate a small, medium, and large influence.
- Q2 predictive relevance describes how well the model can predict observed values, with a Q2 value >0 indicating a model that has good predictive relevance.

3.1.3. Hypothesis testing

Hypothesis testing in PLS analysis is the final step to evaluate the relationship between indicators and decide whether the research hypothesis can be accepted or rejected. Parameters in hypothesis testing include Path Coefficient, which indicates the direction of the relationship between variables (positive or negative in the range −1 to 1), as well as Significance (T-statistic), which determines the significance of the influence between variables using jackknifing or bootstrapping procedures. The relationship between variables is considered significant if the t-value is >1.65 (10% significance level), >1.96 (5% significance level), or >2.58 (1% significance level).

4. RESULTS

The number of samples in PLS data processing was 228 respondents; this number meets the minimum sample calculation rules (222 people). The majority of respondents who participated

in this research worked as Able-Bodied Seaman (AB) (33%), Master (14%), Chief Officer (13%), 2nd Officer (10%), Chief Engineer (8%), 2nd Engineer (9%), 3rd Engineer (7%), and Oiler (6%). Based on the duration of work, 33% of workers have worked for <1 year, 22% of workers have worked for 1-3 years, and only 2% have worked for more than 5 years. The initial model in this research is shown in Figure 3.

4.1. Outer Model Test Results

The results of the loading factor evaluation show how well the indicators describe the latent factors, with high and significant loading factor values indicating a good contribution in measuring the relevant latent factors. Evaluation of loading factors is the first step in model validation testing. In this research, there were three iterations. The first iteration shows that the JS17 indicator (0.696), the TL26 indicator (0.680), and the WE12 indicator (0.696) have a loading factor value of <0.7, so these three indicators must be removed from the model. Next, the new model will be run as a second iteration. The results of the second iteration show that two indicators have a loading factor value of <0.7, namely the JS12 and WE5 indicators. Next, the new model is run as the third iteration. The factor loading results in the third iteration are as in Table 2.

The next stage is to test the reliability of the construct. In this test, an indicator has good reliability if the Cronbach's alpha value exceeds 0.6. Table 3 is the result of construct reliability testing in this research. The classification of the level of reliability of a construct, according to (Ghozali and Latan, 2015) is that a Cronbach's alpha value >0.7 indicates high reliability, while a value between 0.6 and <0.7 is still categorized as fairly good reliability. Another indicator for determining reliability is a composite reliability value that is >0.7 (Hair et al., 2019). Based on the test results in Table 3, Cronbatch's alpha and composite reliability values for all indicators have been met. Apart from reliability testing, the next stage is convergent validity testing. The criteria for convergent validity testing are the rho A value and the average variance extracted (AVE) value. An AVE value that is more than 0.5 and a rho A value that exceeds 0.7 indicates that the discriminant validity test has been fulfilled. Table 3 shows that all criteria in reliability and concurrent validity testing have been met.

The stage after testing reliability and convergent validity is checking discriminant validity. Discriminant validity aims to assess whether each indicator is a good measure of each variable. The principle of discriminant validity is that each indicator must be highly correlated with its variable; different variables should not have a high correlation. In Smart PLS 4, the discriminant validity test uses cross-loadings, Fornell-Larcker Criteria, and

Figure 3: Initial model on SmartPLS4

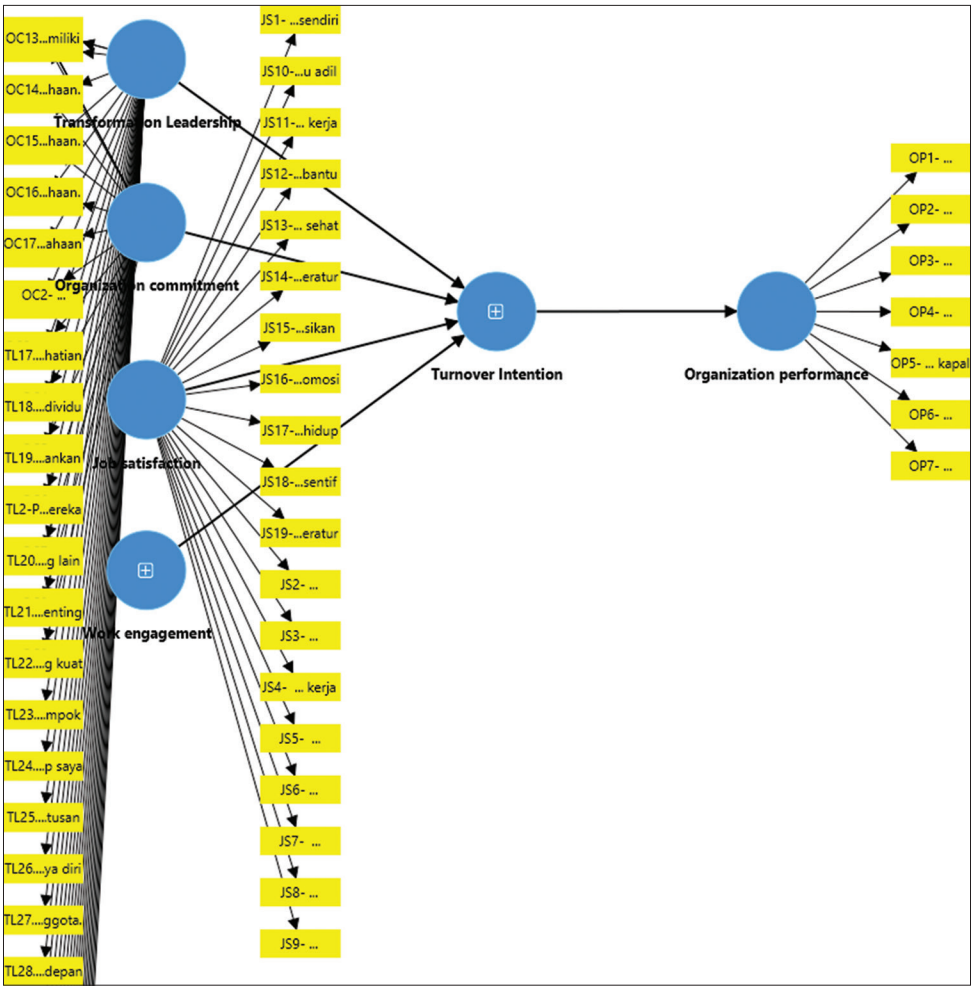


Table 2: Iteration 3 loading factor values

Indicators	Loading factors iteration 3	Indicators	Loading factors iteration 3	Indicators	Loading factors iteration 3
JS 1-	0.743	OC7-	0.843	TL29	0.908
JS 10	0.882	OC8-	0.866	TL3-	0.809
JS 11	0.853	OC9-	0.863	TL30	0.905
JS 13	0.841	OP1-	0.858	TL31	
JS 14	0.857	OP2-	0.903	TL32	0.889
JS 15	0.87	OP3-	0.881	TL33	0.882
JS 16	0.888	OP4-	0.896	TL34	0.859
JS 18	0.766	OP5-	0.915	TL35	0.785
JS 19	0.725	OP6-	0.859	TL36	0.884
JS 2-	0.801	OP7-	0.821	TL37	0.902
JS 3-	0.756	TI1-	1	TL38	0.797
JS 4-	0.868	TL1-	0.763	TL39	0.852
JS 5-	0.876	TL10	0.874	TL4-	0.833
JS 6-	0.839	TL11	0.869	TL5-	0.841
JS 7-	0.892	TL12	0.886	TL6-	0.84
JS 8-	0.885	TL13	0.872	TL7-	0.853
JS 9-	0.905	TL14	0.883	TL8-	0.863
OC1-	0.837	TL15	0.904	TL9-	0.801
OC10	0.876	TL16	0.9	WE1-	0.774
OC11	0.836	TL17	0.857	WE10	0.778
OC12	0.815	TL18	0.844	WE11	0.894
OC13	0.748	TL19	0.9	WE13	0.872
OC14	0.884	TL2-	0.806	WE14	0.852
OC15	0.861	TL20	0.831	WE2-	0.782
OC16	0.885	TL21	0.833	WE3-	0.815
OC17	0.816	TL22	0.9	WE4-	0.781
OC2-	0.806	TL23	0.843	WE6-	00.735
OC3-	0.838	TL24	0.816	WE7-	0.892
OC4-	0.828	TL25	0.879	WE8-	0.914
OC5-	0.826	TL27	0.824	WE9-	0.923
OC6-	0.785	TL28	0v886		

Table 3: Results of reliability and concurrent validity testing

Variable	Standard value	Job satisfaction	Organization commitment	Organization performance	Transformation leadership	Work engagement
Cronbach's alpha	>0.7	0.974	0.973	0.950	0.990	0.963
Composite reliability (rho_a)	>0.7	0.976	0.975	0.952	0.990	0.965
Composite reliability (rho_c)	>0.7	0.976	0.975	0.959	0.990	0.968
Average variance extracted (AVE)	>0.5	0.706	0.700	0.769	0.731	0.715

Heterotrait-Monotrait Ratio (HTMT) (Dirgiatmo, 2023), but the discriminant validity testing criterion used in this research is the HTMT value. Table 4 shows the results of the HTMT test, whose value is smaller than 0.9, so the model is said to have met the discriminant validity testing criteria.

4.2. Inner Model Test Results

Suryani et al. (2024) study shows that the Q-square and R-squared values are criteria for testing the inner model. Another criterion in testing the inner model is f square. The test results show that the Q-square value is 0.407-40.7%. This value is obtained using the Stone-Geisser formula (Q2 = 1 – (1 – R12)). Interpretation of a Q-square value that exceeds 0.5 indicates the model has high accuracy (Hair et al., 2014); however, If the Q-square value is <0.5, the model is said to have good (moderate) predictive ability still. Table 5 shows the results of testing the Qsquare and R square values.

Table 4: HTMT test result

Construct	Iteration 3 HTMT
Standard	<0.9
Organization commitment<-> Job satisfaction	0.769
Organization performance <-> Job satisfaction	0.715
Organization performance <-> Organization commitment	0.575
Transformation leadership <-> Job satisfaction	0.819
Transformation leadership <-> Organization commitment	0.786
Transformation leadership <-> Organization performance	0.644
Turnover intention <-> Job Satisfaction	0.874
Turnover intention <-> Organization commitment	0.626
Turnover intention <-> Organization performance	0.653
Turnover intetion <-> Transformation leadership	0.735
Work engagement <-> Job satisfaction	0.898
Work engagement <-> Organization commitment	0.749
Work engagement <-> Organization performance	0.783
Work engagement <-> Transformation leadership	0.818
Work engagement <-> Turnover intention	0.771

The F square value has three classifications: Small (0.02), medium (0.15), and large (0.35) (Suryani et al., 2024). Table 6 shows the F square value for the variables Job satisfaction-intention to move and intention to move-organizational performance. Both have values of more than 0.35, indicating a strong influence.

4.3. Hypothesis Testing Results

Based on the results of testing the outer model and inner model, the next step is to carry out the booth strapping process. The bootstrapping results show that three hypotheses have a $P < 0.05$ and a T-value >1.96. These three hypotheses are accepted hypotheses. Complete test results are as in Table 7.

5. DISCUSSION

The results of data processing using PLS show that three hypotheses are not rejected. The three hypotheses are H_2. Organizational commitment has a significant influence on turnover intention, H_4. Job satisfaction has a significant influence on turnover intention, and H_5. Turnover intention has a significant influence on organizational performance. H_1. Transformational leadership influences turnover intention and H_3. Work engagement influences turnover intention are two hypotheses that are rejected.

Hypothesis H_2 shows that organizational commitment has a significant influence on job turnover intention. Not rejecting this hypothesis is in line with the research results of Chinyer (2023) several forms of organizational commitment include providing competitive salaries and bonuses, providing a safe and comfortable workplace, and providing opportunities for skills development for workers (Gessesse and Premanandam, 2023; Matande et al., 2022). Organizations that are committed to maintaining employee satisfaction will carry out various efforts such as (1) regular surveys regarding employee needs regarding compensation, work environment and career development opportunities, (2) creating a collaborative work environment, (3) holding regular training to develop employee competency, (4) providing competitive compensation and benefits, (5) providing communication facilities to convey inspiration to top management, (6) implementing a performance bonus policy based on work duration and (7) providing training regarding managing stress and boredom at work.

Another reason that supports not rejecting this hypothesis is that organizational commitment reflects the level of employee attachment and loyalty to the organization where they work. Employees who have high levels of commitment tend to feel more committed to remaining in the organization because they view the organization as an important part of their professional identity and feel emotionally connected to the organization's goals and values. Conversely, higher levels of commitment can lead to stronger perceptions of the organization and increase the desire to seek new job opportunities that may be more satisfying. Thus, the existence of a strong relationship between the level of organizational commitment and intention to move indicates that organizational commitment is an important factor in understanding employee behavior related to retention in an organization.

H_4 shows that job satisfaction is a critical factor that influences workers' intentions to leave their jobs. The results of this research are in line with research by (Turan et al., 2022; Yuen et al., 2018) which revealed that for seafarers, job satisfaction is an important aspect that is greatly influenced by (1) the amount of salary and bonuses received (2) related work conditions. With work facilities and comfort, (3) interpersonal relationships between colleagues, (4) career development opportunities and the opportunity to develop new skills. Another thing that is characteristic of workers in the sea shipping service industry is the balance between work and personal life. This aspect is important because workers are in the middle of the ocean for quite a long time.

Based on the results of data collection, it can be seen that workers feel less satisfied with their work because the bonuses given by the company have yet to be able to meet the needs of the shipping crew. Several shipping crews revealed that for crew members who are no longer single, the salaries and bonuses given are only enough to meet the family's basic needs. This reason is related

Table 5: Results of Q square and R square calculations

Test criteria	Iteration 3	
	Organization performance	Turnover intention
R square	0.407	0.765
Q square	0.407	0.765
Interpretation	Moderate effect	Strong effect

Table 6: Results of f square calculations

F square	Iteration 3	
	Value	Interpretation
Transformation leadership -> Turnover intention	0.030	Weak effect
Organization commitment -> Turnover intention	0.026	Weak effect
Work engagement -> Turnover intention	0.000	Weak effect
Job satisfaction -> Turnover intention	0.620	Strong effect
Turnover intention -> Organization performance	0.686	Strong effect

Table 7: Hypothesis test results

Hypothesis	T statistics (|O/STDEV|)	P-values	Result
Standard	Accepted if t value >1.96	Accepted if P<0.05	
Transformation leadership -> turnover intention	1.652	0.099	Rejected
Organization commitment -> turnover intention	2.299	0.022	Not rejected
Work engagement -> turnover intention	0.137	0.891	Rejected
Job satisfaction -> turnover intention	6.476	0.000	Not rejected
Turnover intention -> organization performance	9.303	0.000	Not rejected

to the characteristics of the work, which requires the crew to work in the middle of the sea and far from their families, so the majority of the crew need cigarettes as entertainment to ward off boredom and the stress of being away from their families (Selim et al., 2022; Troena et al., 2022). This need for cigarettes triggers dissatisfaction, so workers want to look for other jobs. The reasons obtained during data collection are also in line with several previous studies, such as research by (Selim et al., 2022; Troena et al., 2022). Another reason that supports H_4 not being rejected is that workers who feel satisfied with the company where they work will increase the commitment of the workers (Selim et al., 2022); apart from that, satisfied workers will create an emotional bond and a sense of ownership towards the company so that have a lower opportunity to change work locations, on the other hand, dissatisfied workers are very vulnerable to stressful conditions, thereby spurring employees' intention to move. Based on the results of data processing and studies in previous research, it can be concluded that job satisfaction increases loyalty and professional commitment to the organization, which leads to productivity (Rahman, 2020). Therefore, companies must maintain job satisfaction so that turnover intention does not interfere with company operational activities.

Hypothesis H5 shows that turnover intention has a significant influence on organizational performance. High turnover intention causes fluctuations in the replacement of people; this affects organizational stability. This can cause operational disruptions, such as service errors due to frequent crew changes (Sedlár, 2022). Another disruption that arises from employee turnover is a decrease in service quality. This is because new crew may need time to adapt and reach the same level of productivity as experienced crew. Crew replacement requires significant costs, both in terms of recruitment, training, and integration of new crew. Organizations must allocate resources to ensure that such changes do not negatively impact operational and financial sustainability.

6. CONCLUSION

Based on the results of the PLS analysis, two factors influence turnover intention among ship crew. These two factors are organizational commitment, and Job Satisfaction. Turnover intention affects organizational performance, which is related to the emergence of organizational operational disruption if there is no ship crew working. The limitation of this research is that the research object only uses 6 shipping companies so that future research can test the research framework on other sea shipping service providers. Apart from that, this research can also be developed into predictive research regarding the tendency of workers to move by utilizing artificial intelligence.

The study concludes that job satisfaction and organizational commitment are significant factors influencing turnover intention among ship crew in the Indonesian shipping industry. High turnover intention negatively impacts organizational performance, leading to operational disruptions and increased costs. The research emphasizes the importance of addressing job satisfaction and enhancing organizational commitment to reduce turnover intention and improve overall company performance. The findings contribute to the limited literature on turnover intention in the Indonesian shipping sector.

REFERENCES

Afsar, B., Umrani, W.A. (2020), Transformational leadership and innovative work behavior: The role of motivation to learn, task complexity and innovation climate. European Journal of Innovation Management, 23(3), 402-428.

Afzal, S., Arshad, M., Saleem, S., Farooq, O. (2019), The impact of perceived supervisor support on employees' turnover intention and task performance: Mediation of self-efficacy. Journal of Management Development, 38(5), 369-382.

Ahmad, S., Kaleem, A. (2020), Zooming in on the workplace bullying and turnover intentions pathway: The role of well-being and a cultural boundary condition. Personnel Review, 49(2), 425-444.

Akosile, A.L., Ekemen, M.A. (2022), The impact of core self-evaluations on job satisfaction and turnover intention among higher education academic staff: Mediating roles of intrinsic and extrinsic motivation. Behavioral Sciences, 12(7), 236.

Al-Suraihi, W.A., Samikon, S.A., Al-Suraihi, A.H.A., Ibrahim, I. (2021), Employee Turnover: Causes, Importance and Retention Strategies. European Journal of Business and Management Research, 6(3), 1-10.

Arokiasamy, A.R.A., Rizaldy, H., Qiu, R. (2022), Exploring the impact of authentic leadership and work engagement on turnover intention: The moderating role of job satisfaction and organizational size. Advances in Decision Sciences, 26(2), 26-47.

Aydin, I. (2022), Effects of work-related stressors and work engagement on work stress: Healthcare managers' perspective. Central European Business Review, 11(4), 47-62.

Azmy, A., Wiadi, I., Risza, H. (2023), The effect of psychological contract, employer branding and job satisfaction on turnover intention: Organizational commitment as moderating variable at start-up IT company. E&M Economics and Management, 26, 87-104.

Bai, Y., Zhou, J., He, W. (2023), How employee job burnout, work engagement, and turnover intention relate to career plateau during the epidemic. Social Sciences, 12(7), 394.

Baş, M. (2022), The mediating role of work stress in the relationship between work engagement and turnover intention. Business & Management Studies: An International Journal, 10(3), 1161-1171.

Carless, S.A., Wearing, A.J., Mann, L. (2000), A short measure of transformational leadership. Journal of Business and Psychology, 130(2), 389-405.

Chen, J., Pickett, T., Langell, A., Trane, A., Charlesworth, B., Loken, K., Lombardo, S., Langell, J.T. (2016), Industry-academic partnerships: An approach to accelerate innovation. Journal of Surgical Research, 205(1), 228-233.

Chinyer, D. (2023), Human resources management functions: The role of reward system on employees. International Journal of Institutional Leadership, Policy and Management, 5(2), 158-172.

Dirgiatmo, Y. (2023), Testing the discriminant validity and heterotrait-monotrait ratio of correlation (HTMT): A case in Indonesian SMEs. In: Macroeconomic Risk and Growth in the Southeast Asian Countries: Insight from Indonesia. Leeds: Emerald Publishing Limited. p157-170.

Donkor, F., Appienti, W.A., Achiaah, E. (2022), The impact of transformational leadership style on employee turnover intention in state-owned enterprises in Ghana. The mediating role of organisational commitment. Public Organization Review, 22(1), 1-17.

Fantahun, B., Dellie, E., Worku, N., Debie, A. (2023), Organizational commitment and associated factors among health professionals working in public hospitals of southwestern Oromia, Ethiopia. BMC

Health Services Research, 23(1), 180.

Gara Bach Ouerdian, E., Mansour, N., Gaha, K., Gattoussi, M. (2021), Linking emotional intelligence to turnover intention: LMX and affective organizational commitment as serial mediators. Leadership and Organization Development Journal, 42(8), 1206-1221.

Gessesse, K.T., Premanandam, P. (2023), The mediating role of affective commitment on the relationship between job satisfaction and turnover intention using structural equation modeling: Empirical evidence from higher education institutions in Addis Ababa, Ethiopia. Cogent Social Sciences, 9(1), 1-17.

Ghozali, I., Latan, H. (2015), Partial Least Squares: Konsep, Teknik dan Aplikasi Menggunakan Program SmartPLS 3.0,-2/E. 4th ed. Semarang: Badan Penerbit Undip.

Gom, D., Lew, T.Y., Jiony, M.M., Tanakinjal, G.H., Sondoh, S. (2021), The role of transformational leadership and psychological capital in the hotel industry: A sustainable approach to reducing turnover intention. Sustainability, 13(19), 10799.

Hadi, S., Taufiki, A., Ahmad, M.Z., Siswanto, A. (2024), Analisis tingkat kemiskinan tahun 2023 di Badan Pusat Statistik (BPS) Kabupaten Jember. Journal of Indonesian Social Society, 2(1), 32-39.

Hair, J.F., Risher, J.J., Sarstedt, M., Ringle, C.M. (2019), When to use and how to report the results of PLS-SEM. European Business Review, 31(1), 2-24.

Haque, A. (2020), Strategic HRM and organisational performance: Does turnover intention matter? International Journal of Organizational Analysis, 29(3), 656-681.

Jia, Z., Li, Z. (2024), Business and society review exploring the mediating role of innovative work behavior on the relationship between transformational leadership and turnover intention in the software engineering industry in China. https://doi.org/10.3232/UBR.2024.V21.N1.12

Ko, M.C., Campbell, J.W. (2020), Social capital, person-organization fit and cynicism: A multi-stage mediation model of turnover intention in public organizations. Employee Relations, 43(4), 936-954.

Kodwani, A.D. (2017), Decoding training effectiveness: The role of organisational factors. Journal of Workplace Learning, 29(3), 200-216.

Ladelsky, L.K., Lee, T.W. (2023), Effect of risky decision-making and job satisfaction on turnover intention and turnover behavior among information technology employees. International Journal of Organizational Analysis, 31(7), 3553-3581.

Manoppo, V.P. (2020), Transformational leadership as a factor that decreases turnover intention: A mediation of work stress and organizational citizenship behavior. TQM Journal, 32(6), 1395-1412.

Martins, P., Nascimento, G., Moreira, A. (2023), Leadership and turnover intentions in a public hospital: The mediating effect of organisational commitment and moderating effect by activity department. Administrative Sciences, 13(1), 18.

Massami, E.P., Manyasi, M.M. (2021), Analysis of determinants of work performance for seafarers based on fuzzy Electre model. Journal of Shipping and Trade, 6(1), 7.

Matande, M., Thoyib, A., Kurniawati, D.T. (2022), The effect of perceived organizational support and transformational leadership on turnover intention of health workers at Hospital X Mimika Regency Papua. International Journal of Research in Business and Social Science (2147-4478), 11(6), 218-228.

Memon, M.A., Salleh, R., Mirza, M.Z., Cheah, J.H., Ting, H., Ahmad, M.S. (2020), Performance appraisal satisfaction and turnover intention: The mediating role of work engagement. Management Decision, 58(6), 1053-1066.

Naveed, M., Zia, M.Q., Cangialosi, N. (2022), The nexus of job resources and turnover intentions with the mediating role of employees' work engagement in the hospitality industry. Consumer Behavior in Tourism and Hospitality, 17(3), 282-296.

Ntseke, T., Mitonga-Monga, J., Hoole, C. (2022), Transformational leadership influences on work engagement and turnover intention in an engineering organisation. SA Journal of Human Resource Management, 20, a2013.

Paredes-Aguirre, M.I., Barriga Medina, H.R., Campoverde Aguirre, R.E., Melo Vargas, E.R., Armijos Yambay, M.B. (2022), Job motivation, burnout and turnover intention during the COVID-19 pandemic: Are there differences between female and male workers? Healthcare, 10(9), 1662.

Park, K.A., Johnson, K.R. (2019), Job satisfaction, work engagement, and turnover intention of CTE health science teachers. International Journal for Research in Vocational Education and Training, 6(3), 224-242.

Pinho, J.C., Rodrigues, A.P., Dibb, S. (2014), The role of corporate culture, market orientation and organisational commitment in organisational performance: The case of non-profit organisations. Journal of Management Development, 33(4), 374-398.

Pratama, H.P., Setiadi, I.K. (2021), pengaruh work life balance terhadap kepuasan kerja karyawan milenial perusahaan startup di Jakarta. Business Management Analysis Journal, 4(2), 25-39.

Rahman, S.M. (2020), Relationship between job satisfaction and turnover intention: Evidence from Bangladesh. Asian Business Review, 10(2), 99-108.

Rani, C., Kaur, R., Goel, P., Gupta, S. (2023), Work life balance and turnover intentions of nurses in private healthcare sector: The mediating role of organizational commitment. 30(3), 26.

Rawashdeh, A.M., Tamimi, S.A. (2020), The impact of employee perceptions of training on organizational commitment and turnover intention: An empirical study of nurses in Jordanian hospitals. European Journal of Training and Development, 44(2-3), 191-207.

Renn, R.W., Steinbauer, R., Huning, T.M. (2019), External career mentoring and mentor turnover intentions: Role of mentor work engagement, satisfaction with protégé, and meeting frequency. Evidence-Based HRM A Global Forum for Empirical Scholarship, 7(3), 342-356.

Rizky, K., Ramadhani, P., Husnia, R., Saputra, N. (2021), Work engagement pada Karyawan di DKI Jakarta: Pengaruh collaboration skills, digital leadership, dan perceived organizational support. Studi Ilmu Manajemen Dan Organisasi, 2(1), 61-75.

Sawitri, D., Suswati, E., Huda, K. (2016), The impact of job satisfaction, organization commitment, organization citizenship behavior (Ocb) on employees' performance. International Journal of Organizational Innovation, 9, 7823-7830.

Sedlár, M. (2022), Work-related factors, cognitive skills, unsafe behavior and safety incident involvement among emergency medical services crew members: Relationships and indirect effects. International Journal of Occupational Safety and Ergonomics, 28(2), 1281-1290.

Selim, N.I.I.B., Zailani, S., Aziz, A.A., Rahman, M.K. (2022), Halal logistic services, trust and satisfaction amongst Malaysian 3PL service providers. Journal of Islamic Marketing, 13(1), 81-99.

Shareef, R.A., Atan, T. (2019), The influence of ethical leadership on academic employees' organizational citizenship behavior and turnover intention: Mediating role of intrinsic motivation. Management Decision, 57(3), 583-605.

Sobaih, A.E.E., Gharbi, H., Abu Elnasr, A.E. (2022), Do you feel safe here? The role of psychological safety in the relationship between transformational leadership and turnover intention amid COVID-19 pandemic. Journal of Risk and Financial Management, 15(8), 340.

Sorn, M.K., Fienena, A.R.L., Ali, Y., Rafay, M., Fu, G. (2023), The effectiveness of compensation in maintaining employee retention. Open Access Library Journal, 10(7), 1-14.

Srivastava, S., Agrawal, S. (2020), Resistance to change and turnover intention: A moderated mediation model of burnout and perceived

organizational support. Journal of Organizational Change Management, 33(7), 1431-1447.

Suryani, E., Saufi, A., Roro Dhiya AulianaSoesetio, R. (2024), Implementation of SEM partial least square in analyzing the UTAUT model. American Journal of Humanities and Social Sciences Research, 8(2), 215-224.

Troena, E.A., Syauta, J.H., Setiawan, M., Solimun, S. (2022), The influence of organizational culture, organizational commitment to job satisfaction and employee performance (Study at municipal waterworks of Jayapura, Papua Indonesia). International Journal of Business and Management Invention, 1(1), 69-76.

Turan, E., Bozkurt, S., Çelebi, U.B., Ekinci, S. (2022), The role of burnout in the effect of work-family conflicts on job satisfaction: A research for key players in the maritime industry. Maritime Policy and Management, 49(8), 1155-1168.

Xu, Y., Jie, D., Wu, H., Shi, X., Badulescu, D., Akbar, S., Badulescu, A. (2022), Reducing employee turnover intentions in tourism and hospitality sector: The mediating effect of quality of work life and intrinsic motivation. International Journal of Environmental Research and Public Health, 19(18), 11222.

Yücel, İ. (2021), Transformational leadership and turnover intentions: The mediating role of employee performance during the COVID-19 pandemic. Administrative Sciences, 11(3), 81.

Yuen, K.F., Loh, H.S., Zhou, Q., Wong, Y.D. (2018), Determinants of job satisfaction and performance of seafarers. Transportation Research Part A: Policy and Practice, 110, 81.