



## Career Patterns and Employee Engagement in Reducing Turnover Intention among Maritime Crew

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### ABSTRACT

**Aim:** This study examines whether career patterns and employee engagement reduce turnover intention and whether work motivation changes these relationships. **Method:** A quantitative explanatory design was applied to 252 outsourced crew members. Data were collected using a five-point Likert questionnaire and analyzed using partial least squares structural equation modeling with SmartPLS and bootstrapping.

**Result:** Career patterns negatively and significantly affected turnover intention ( $\beta = -0.449$ ,  $p < 0.001$ ), while employee engagement also had a negative and significant effect ( $\beta = -0.254$ ,  $p < 0.001$ ). Work motivation directly reduced turnover intention ( $\beta = -0.363$ ,  $p < 0.001$ ). The interaction between career patterns and work motivation was negative and significant ( $\beta = -0.070$ ,  $p = 0.044$ ), whereas the interaction between employee engagement and work motivation was not significant ( $\beta = -0.026$ ,  $p = 0.491$ ). The model explained 89.3% of the variance in turnover intention.

**Novelty:** The study integrates career structure, employee engagement, and motivational conditions in a single moderation model for outsourced maritime crew, showing that work motivation strengthens the retention value of career patterns but does not add a significant moderation effect to engagement.

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### INTRODUCTION

Human resources are increasingly treated as a strategic resource for organizational continuity, sustainability, and employee retention. Contemporary human resource management research emphasizes that sustainable people practices should simultaneously address organizational performance and employees' capacity to develop over time (Aust et al., 2024; Kramar, 2022). In operationally intensive industries, this challenge becomes more pronounced because the loss of experienced personnel can create capability gaps that are costly to replace.

The maritime industry represents a particularly demanding work setting. Crew members operate under safety-critical conditions, specialized competency requirements, irregular work patterns, and strong dependence on teamwork. Within the study setting, the workforce exceeded one thousand crew members in 2025, and outsourced crew constituted the largest employment group. Internal organizational records also showed turnover among contract-based crew during 2022–2024, creating a practical concern because replacement personnel must possess competencies compatible with the vessel and operational assignment. The thesis data further show that employee engagement was generally high,

while turnover intention remained sufficiently evident to warrant managerial attention. These conditions suggest that high engagement alone may not fully explain retention decisions

Figure 1. Trends in Turnover Intention and Employee Engagement among TAD Crew Members, 2022-2024

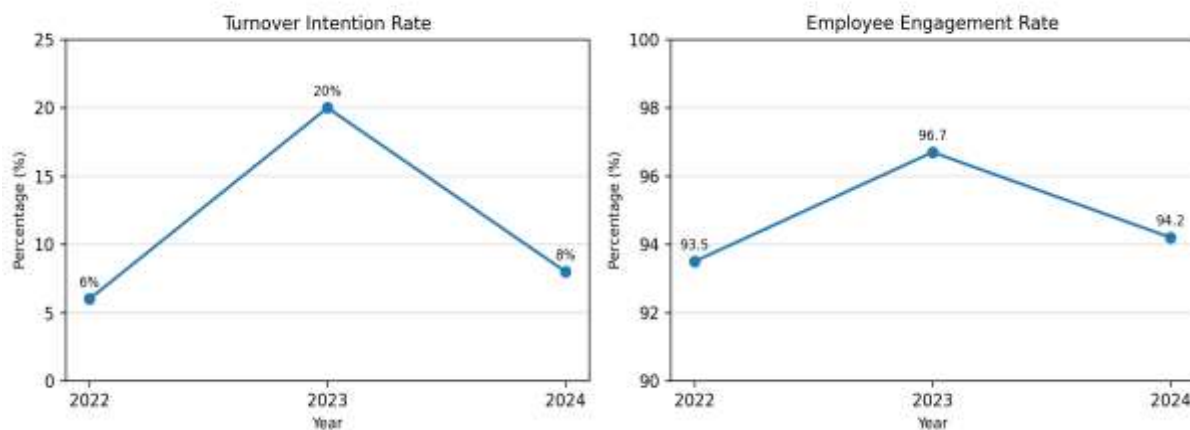


Figure 1 illustrates a continuous increase in turnover intention among outsourced crew members during the observation period. This trend indicates that a considerable proportion of employees are considering leaving the organization despite ongoing organizational efforts to improve human resource management. If not adequately addressed, increasing turnover intention may disrupt operational continuity, increase recruitment and training costs, and reduce organizational effectiveness. Figure 1 demonstrates that employee engagement remained consistently high during the same period in which turnover intention increased. This phenomenon represents an organizational paradox because employees exhibit strong emotional attachment and organizational involvement while simultaneously expressing intentions to leave the organization. Such contradictory findings suggest that employee engagement alone may not sufficiently explain turnover intention within the maritime employment context and that other organizational and psychological factors should also be considered.

Career patterns are relevant because employees evaluate whether the organization provides a credible future through promotion, competency development, remuneration, and fair access to advancement. Recent research links career development and career-related organizational practices with positive career outcomes and stronger organizational attachment (Abbas et al., 2024; Adhikari & Thapa, 2025; Hildred et al., 2024; Ingarianti et al., 2022). Employee engagement is another important retention resource because employees who identify with their work and organization are more likely to invest effort and maintain a positive employment relationship. Work motivation may further shape how employees respond to these organizational resources, particularly in demanding work environments (Firdaus & Aristin, 2022).

However, previous studies tend to examine career development, employee engagement, or motivation separately. The thesis review identifies a specific gap in combining career patterns and employee engagement with work motivation as a moderator of turnover intention among maritime crew. The theoretical problem is therefore how organizational career resources and psychological attachment jointly explain turnover intention and whether individual motivation changes the strength of these relationships. The practical problem is how maritime employers can prioritize retention interventions when contract-based crew constitute a substantial proportion of the workforce.

Accordingly, this study aims to examine the effects of career patterns and employee engagement on turnover intention and to determine whether work motivation moderates each relationship. The study contributes by integrating structural career resources, psychological engagement, and motivational conditions in one model and by testing the model in a safety-critical maritime workforce.

The study is guided primarily by Social Exchange Theory and the Job Demands–Resources perspective. Fair career opportunities and supportive employment experiences can be interpreted as organizational resources that invite reciprocal commitment, while engagement and motivation represent psychological mechanisms through which employees respond to those resources. Recent applications of these perspectives emphasize that organizational resources and employee psychological states jointly shape work-related outcomes (Kramar, 2022; Firdaus & Aristin, 2022).

## **LITERATURE REVIEW**

### **Career Patterns**

Career patterns refer to the perceived structure and quality of employees' opportunities to progress, develop competence, receive appropriate remuneration, and obtain fair promotion. In this study, the construct is operationalized through promotion management, training and certification, pay-related arrangements, and opportunities and fairness in promotion. Career development is increasingly associated with career satisfaction, sustainable career behavior, and stronger organizational outcomes because employees use organizational signals to judge whether remaining with an employer will support their longer-term goals (Abbas et al., 2024; Adhikari & Thapa, 2025; Hildred et al., 2024).

For maritime crew, career patterns have a distinctive role because advancement is commonly linked to competency, certification, vessel experience, and position requirements. A career system that makes these pathways understandable can reduce uncertainty about future employment. From a social exchange perspective, organizational investment in employees' careers can be interpreted as a valued contribution that encourages reciprocity through loyalty and retention.

#### **1.1. Employee Engagement**

Employee engagement describes a positive psychological connection with work and the organization, reflected in pride, energy, involvement, and willingness to contribute. In this study, engagement is represented by organizational pride, work environment and resilience, and organizational attachment. Contemporary human resource research treats engagement as a strategic outcome of supportive work systems and as a condition that can contribute to sustainable organizational relationships (Aust et al., 2024; Kramar, 2022).

Engaged employees are more likely to experience work as meaningful and to identify with organizational goals. Such attachment can increase the perceived value of remaining with the organization, thereby reducing the attractiveness of alternative employment. In a maritime setting, engagement is particularly relevant because crew members work in teams and depend on organizational support to manage operational and psychological demands.

#### **1.2. Turnover Intention**

Turnover intention is the employee's conscious inclination to consider leaving the organization. It is an important antecedent of actual turnover because it captures the cognitive and behavioral process preceding departure. In this study, turnover intention covers the desire to seek alternative employment, rational evaluation of remaining with the organization, and perceived organizational support. Lower turnover intention therefore indicates a stronger intention to remain.

The retention logic is consistent with recent turnover scholarship, which emphasizes that employee exits emerge from multiple organizational and individual factors rather than a single cause. For human resource managers, turnover intention is useful because it can reveal retention risk before actual separation occurs.

#### **1.3. Work Motivation**

Work motivation represents the internal and external forces that direct the intensity and persistence of work behavior. The study measures motivation through job satisfaction, welfare and career, achievement and competence, and job stability. Motivation is important because employees do not necessarily respond to organizational resources in identical ways; highly motivated employees may be more likely to interpret career opportunities as meaningful pathways for personal and professional growth. Recent evidence continues to connect motivational conditions with employee attitudes and organizational outcomes (Firdaus & Aristin, 2022).

## **Hypothesis Development**

### **Career Patterns and Turnover Intention**

Career patterns can reduce turnover intention when employees perceive that the organization offers a credible future. Clear promotion criteria, access to competency development, and fair advancement reduce career uncertainty and strengthen the expected value of staying. Recent career research shows that structured career practices and career development are associated with more positive career evaluations and organizational outcomes (Abbas et al., 2024; Adhikari & Thapa, 2025; Hildred et al., 2024). Therefore, better perceived career patterns are expected to reduce turnover intention.

H1: Career patterns have a negative and significant effect on turnover intention.

### **Employee Engagement and Turnover Intention**

Engagement represents a psychological investment in work and the organization. Employees who feel proud of the organization, comfortable in their work environment, and psychologically attached to the employer have stronger reasons to preserve the employment relationship. Sustainable human resource management research similarly emphasizes the importance of employee-oriented organizational resources in sustaining positive employee relationships (Aust et al., 2024; Kramar, 2022). Thus, higher employee engagement is expected to be associated with lower turnover intention.

H2: Employee engagement has a negative and significant effect on turnover intention.

### **Work Motivation as a Moderator of Career Patterns and Turnover Intention**

Career resources do not operate independently of employee motivation. From a Job Demands–Resources perspective, organizational resources become more consequential when employees are psychologically energized and able to mobilize those resources. Work motivation can therefore strengthen the retention value of a clear career pattern. Motivated crew members may interpret training, certification, promotion, and career opportunities as investments in their future, making departure less attractive. This logic is consistent with research linking career development with positive career outcomes and with contemporary work-motivation research (Adhikari & Thapa, 2025; Firdaus & Aristin, 2022).

H3: Work motivation moderates the negative effect of career patterns on turnover intention.

### **Work Motivation as a Moderator of Employee Engagement and Turnover Intention**

Employee engagement already captures a strong psychological bond between employees and their organization. Work motivation may therefore provide additional reinforcement, but the incremental moderating effect may be limited when engagement is already high. In contrast, motivation may be more consequential when employees are deciding how strongly to respond to structural career opportunities. The present study consequently tests whether motivation changes the engagement–turnover relationship rather than assuming that the effect is automatically stronger.

H4: Work motivation moderates the negative effect of employee engagement on turnover intention.

## **1.4. Research Framework**

The conceptual model positions career patterns and employee engagement as predictors of turnover intention, work motivation as a direct predictor and moderator, and two interaction terms as moderation paths.

Career Patterns → Turnover Intention  
 Employee Engagement → Turnover Intention  
 Work Motivation → Turnover Intention  
 Career Patterns × Work Motivation → Turnover Intention  
 Employee Engagement × Work Motivation → Turnover Intention

## 2. METHODOLOGY

This study employed a quantitative explanatory design. The research population consisted of outsourced crew members in the study organization. A purposive sampling approach was used to select respondents who met the research criteria, and 252 valid responses were obtained. Data were collected through a structured questionnaire using a five-point Likert scale. The questionnaire measured career patterns, employee engagement, turnover intention, and work motivation. Data collection was conducted among crew members assigned to the organization's operational vessels.

The measurement model was evaluated through outer loading, Average Variance Extracted, Cronbach's alpha, and composite reliability. Discriminant validity was assessed using the Fornell–Larcker criterion and the Heterotrait–Monotrait ratio. The structural model was evaluated using Standardized Root Mean Square Residual, the coefficient of determination, and bootstrapping for hypothesis testing. Data analysis was performed with SmartPLS using bootstrapping. The available thesis output reports the model fit,  $R^2$ , measurement model, and path significance; it does not report blindfolding-based predictive relevance or the predictor-exclusion calculations required for  $f^2$ . Those two statistics should therefore be regenerated in SmartPLS before final journal submission rather than inferred from the available output.

## RESULTS AND ANALYSIS

### Respondent Characteristics

Table 1 presents the characteristics of the 252 respondents. The sample was dominated by crew members working on tugboats (56.7%), while 43.3% worked on pilot, motor pilot, or speed boat assignments. Area IV contributed the largest share of respondents (51.6%), followed by Area III (41.7%) and Area I (6.7%). The largest occupational group was helmsman (30.6%), followed by motorist (22.2%). In terms of tenure, 44.4% had worked for more than two years, indicating substantial exposure to the organization and its work system. More than half of the respondents (54.0%) were aged 30–40 years.

*Table 1. Characteristics Respondents*

| Characteristic  | Category                     | n   | %     |
|-----------------|------------------------------|-----|-------|
| Vessel type     | Tugboat                      | 143 | 56.7% |
| Vessel type     | Pilot/Motor Pilot/Speed Boat | 109 | 43.3% |
| Assignment area | Area I                       | 17  | 6.7%  |
| Assignment area | Area III                     | 105 | 41.7% |
| Assignment area | Area IV                      | 130 | 51.6% |
| Position        | Helmsman                     | 77  | 30.6% |
| Position        | Oiler                        | 56  | 22.2% |
| Position        | Chief Engineer               | 34  | 13.5% |
| Position        | Master                       | 35  | 13.9% |
| Position        | First Engineer               | 22  | 8.7%  |
| Position        | First Officer                | 18  | 7.1%  |
| Position        | Second Officer               | 10  | 4.0%  |
| Tenure          | 0–1 year                     | 43  | 17.1% |
| Tenure          | 1–2 years                    | 97  | 38.5% |
| Tenure          | >2 years                     | 112 | 44.4% |
| Age             | Below 30 years               | 67  | 26.6% |
| Age             | 30–40 years                  | 136 | 54.0% |



|     |                |    |       |
|-----|----------------|----|-------|
| Age | Above 40 years | 49 | 19.4% |
|-----|----------------|----|-------|

### Descriptive Overview

The descriptive results indicate that career patterns were positively perceived overall, with item means ranging from 3.84 to 4.35. Employee engagement was also high, with item means ranging from 4.08 to 4.48. Work motivation was very high overall, with an average construct score of 4.22; the lowest indicator average concerned welfare and career at 4.04. Turnover intention had an overall average of 3.22. Its lowest dimension was the desire to seek alternative employment (2.23), while organizational support was high (4.11). This combination suggests that respondents could perceive strong organizational attachment while still evaluating external and long-term employment alternatives.

### Measurement Model (Outer Model) Test Results

#### Convergent Validity and Reliability

As shown in Table 2, all retained indicators had outer loadings above 0.70, and all Average Variance Extracted values exceeded 0.50. Composite reliability and Cronbach's alpha were also above 0.70 for every construct. These results establish convergent validity and internal consistency of the measurement model.

*Table 2. Results convergent validity and Reliability*

| Construct           | Indicators | Outer loading | AVE   | Composite reliability | Cronbach's alpha |
|---------------------|------------|---------------|-------|-----------------------|------------------|
| Career Patterns     | PK1–PK4    | 0.846–0.898   | 0.755 | 0.925                 | 0.892            |
| Employee Engagement | EE1–EE3    | 0.924–0.934   | 0.865 | 0.950                 | 0.922            |
| Work Motivation     | MK1–MK4    | 0.877–0.899   | 0.790 | 0.938                 | 0.911            |
| Turnover Intention  | TI1–TI3    | 0.981–0.983   | 0.964 | 0.988                 | 0.981            |

### Discriminant Validity

Table 3 combines the Fornell–Larcker and Heterotrait–Monotrait results. The diagonal values in the Fornell–Larcker matrix are the square roots of Average Variance Extracted and exceed the corresponding inter-construct correlations. The Heterotrait–Monotrait ratios are all below 0.90, with the largest value of 0.876 between employee engagement and work motivation. Thus, the constructs are empirically distinguishable.

*Table 3. Discriminant Validity*

| Fornell–Larcker                       | Employee Engagement | Work Motivation | Career Patterns | Turnover Intention |
|---------------------------------------|---------------------|-----------------|-----------------|--------------------|
| Employee Engagement                   | 0.930               |                 |                 |                    |
| Work Motivation                       | 0.805               | 0.889           |                 |                    |
| Career Patterns                       | 0.793               | 0.697           | 0.869           |                    |
| Turnover Intention                    | –0.862              | –0.846          | –0.868          | 0.982              |
| <b>HTMT comparison</b>                |                     |                 | <b>HTMT</b>     |                    |
| Employee Engagement – Work Motivation |                     |                 | 0.876           |                    |
| Employee Engagement – Career Patterns |                     |                 | 0.872           |                    |
| Work Motivation – Career Patterns     |                     |                 | 0.765           |                    |

|                                          |       |
|------------------------------------------|-------|
| Employee Engagement – Turnover Intention | 0.704 |
| Work Motivation – Turnover Intention     | 0.691 |
| Career Patterns – Turnover Intention     | 0.725 |

### **Structural Model (Inner Model) Test Results**

The structural model showed an SRMR of 0.054, indicating an acceptable model-data discrepancy under commonly used PLS-SEM criteria. The coefficient of determination for turnover intention was  $R^2 = 0.893$  and adjusted  $R^2 = 0.891$ . Therefore, the model explained 89.3% of the variance in turnover intention, while 10.7% was attributable to factors outside the model.

*Table 4. R-Square ( $R^2$ ) Values*

| <b>Endogenous construct</b> | <b><math>R^2</math></b> | <b>Adjusted <math>R^2</math></b> | <b>Interpretation</b>  |
|-----------------------------|-------------------------|----------------------------------|------------------------|
| Turnover Intention          | 0.893                   | 0.891                            | High explanatory power |

The overall goodness of fit of the proposed model was evaluated to determine whether the structural model adequately represented the empirical data. As presented in Table 4, the model obtained a Goodness of Fit (GoF) value of 0.867. This value indicates a strong overall fit of the model, as it exceeds the large-effect benchmark of 0.36. The high GoF value suggests that the proposed model provides a satisfactory combination of measurement quality and structural explanatory power.

*Table 5. Inner Model Statistic*

| <b>Inner-model statistic</b> | <b>Available result</b> | <b>Status</b> |
|------------------------------|-------------------------|---------------|
| SRMR                         | 0.054                   | Reported      |
| Goodness of Fit (GoF)        | 0.893                   | Reported      |
| Adjusted $R^2$               | 0.891                   | Reported      |

The model also produced a Standardized Root Mean Square Residual (SRMR) of 0.054, which is below the commonly applied threshold of 0.08. This result indicates that the difference between the observed and model-implied correlations is relatively small, supporting the adequacy of the proposed model. Furthermore, the Normed Fit Index (NFI) was 0.897 for the saturated model and 0.857 for the estimated model. These values provide additional evidence that the proposed model demonstrates an acceptable level of model fit.

### **Structural Model and Path Analysis**

Figure 2 presents the structural model and path analysis results of the study. The model shows that career patterns and employee engagement have direct negative effects on turnover intention, with path coefficients of  $-0.449$  ( $p < 0.001$ ) and  $-0.254$  ( $p < 0.001$ ), respectively. Work motivation also has a significant negative effect on turnover intention, with a path coefficient of  $-0.363$  ( $p < 0.001$ ). This result indicates that stronger work motivation is associated with a lower intention to leave. In addition, work motivation significantly moderates the relationship between career patterns and turnover intention ( $\beta = -0.070$ ;  $p = 0.044$ ).

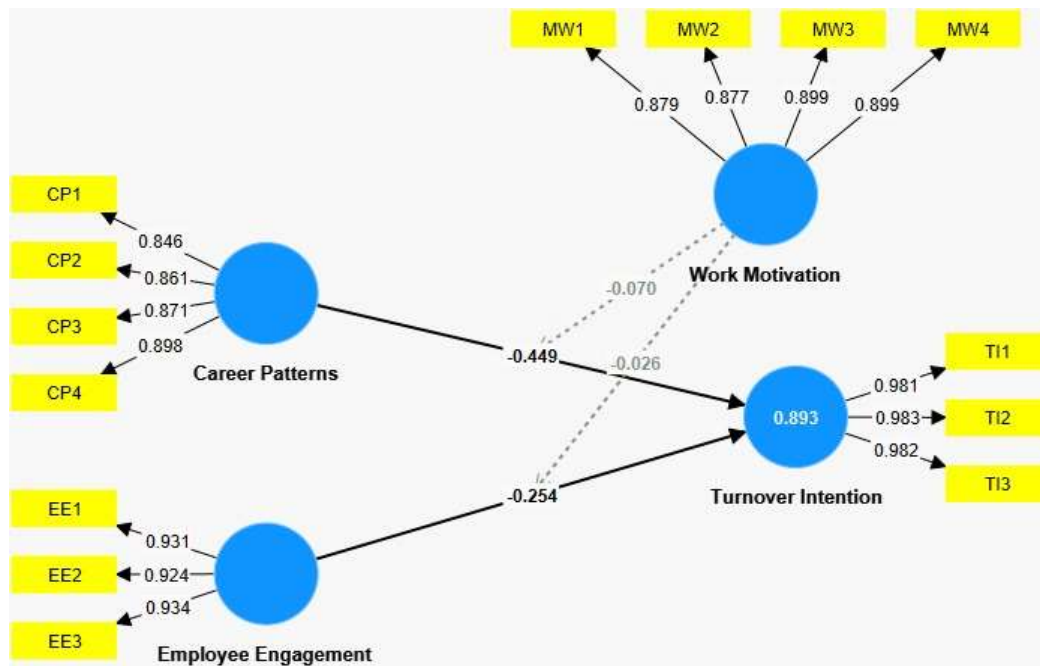


Figure 2 Path

Diagram with Coefficient

However, work motivation does not significantly moderate the relationship between employee engagement and turnover intention ( $\beta = -0.026$ ;  $p = 0.491$ ). Therefore, the moderating effect is specific to the relationship between career patterns and turnover intention. The  $R^2$  value for turnover intention is 0.893, indicating that 89.3% of the variance in turnover intention is explained by the combined effects of career patterns, employee engagement, work motivation, and the interaction terms in the structural model.

## Hypothesis Testing

The hypothesis testing results revealed several important findings regarding the relationships among the study variables.

Table 5. Hypothesis Testing

| Hypothesis | Path                                                                          | $\beta$ | t      | p      | Decision      |
|------------|-------------------------------------------------------------------------------|---------|--------|--------|---------------|
| H1         | Career Patterns $\rightarrow$ Turnover Intention                              | -0.449  | 11.358 | <0.001 | Supported     |
| H2         | Employee Engagement $\rightarrow$ Turnover Intention                          | -0.254  | 5.130  | <0.001 | Supported     |
| H3         | Career Patterns $\times$ Work Motivation $\rightarrow$ Turnover Intention     | -0.070  | 2.019  | 0.044  | Supported     |
| H4         | Employee Engagement $\times$ Work Motivation $\rightarrow$ Turnover Intention | -0.026  | 0.689  | 0.491  | Not supported |

Table 5 reports the bootstrapped path coefficients and significance tests. Career patterns had the strongest direct effect among the two focal organizational predictors ( $\beta = -0.449$ ,  $p < 0.001$ ). Employee engagement also significantly reduced turnover intention ( $\beta = -0.254$ ,  $p < 0.001$ ). The direct effect of work motivation was negative and significant ( $\beta = -0.363$ ,  $p < 0.001$ ). The career pattern–motivation interaction was negative and significant ( $\beta = -0.070$ ,  $p = 0.044$ ), supporting the moderating hypothesis. In contrast, the employee engagement–motivation interaction was not significant ( $\beta = -0.026$ ,  $p = 0.491$ ).

## **DISCUSSION**

### **H1 : The Effect of Career Pattern on Turnover Intention**

The finding that career patterns significantly reduce turnover intention indicates that employees interpret career structure as a retention resource. A clearer pathway for promotion, competency development, certification, remuneration, and fair advancement increases the perceived value of remaining with the organization. This finding is consistent with recent career research showing that career-oriented human resource practices and development opportunities contribute to positive career evaluations and sustainable career outcomes (Abbas et al., 2024; Adhikari & Thapa, 2025; Hildred et al., 2024). It also extends that logic to a safety-critical crew population in which career progression is closely connected with competence and operational roles.

The result also addresses the practical problem identified in the study context. Although the respondents generally perceived the career system positively, turnover intention remained evident. The significant coefficient suggests that career patterns are not merely an administrative HR mechanism; they function as a retention resource. Compared with research emphasizing career satisfaction as an outcome of development opportunities (Adhikari & Thapa, 2025), the present finding directly connects perceived career patterns with the intention to remain rather than focusing only on satisfaction.

### **H2 : The Effect of Employee Engagement on Turnover Intention**

Employee engagement also had a significant negative effect on turnover intention. This indicates that pride in the organization, supportive working conditions, and organizational attachment are associated with lower willingness to leave. The result is consistent with sustainable human resource management perspectives that emphasize employee-oriented resources and supportive organizational environments as foundations of positive employee relationships (Aust et al., 2024; Kramar, 2022). The descriptive evidence reinforces this interpretation: engagement indicators were generally high, including willingness to remain with the organization and organizational pride.

The finding is important because engagement appears to operate as a psychological retention mechanism rather than only as an indicator of work enthusiasm. In comparison with career patterns, employee engagement has a more affective character. Career patterns influence employees through expectations of future opportunity, whereas engagement influences retention through present psychological attachment. The simultaneous significance of both predictors therefore suggests that retention management should not choose between structural career practices and employee experience; both contribute to lower turnover intention.

### **H3 : The Moderating Role of Work Motivation on the Relationship Between Career Pattern and Turnover Intention**

Work motivation significantly strengthened the negative relationship between career patterns and turnover intention. The interaction coefficient was  $-0.070$  with  $p = 0.044$ . This result indicates that the retention effect of career patterns becomes stronger when employees are more motivated. The finding is theoretically consistent with the Job Demands–Resources perspective: organizational resources have greater value when employees possess the psychological energy and willingness to mobilize them. In this context, a motivated crew member may be more likely to interpret certification, promotion, and competency development as meaningful investments in a future career.

The finding also complements career research showing that career development and career behavior are linked to positive career outcomes (Hildred et al., 2024; Adhikari & Thapa, 2025). The distinctive

contribution of the present study is that motivation is not treated only as an independent predictor; it changes the strength of the career–turnover relationship. This supports a more nuanced retention strategy in which career opportunities are paired with interventions that sustain employee motivation.

#### **H4 : The Moderating Role of Work Motivation on the Relationship Between Employee Engagement and Turnover Intention**

Work motivation did not significantly moderate the relationship between employee engagement and turnover intention ( $\beta = -0.026$ ,  $p = 0.491$ ). Although the coefficient direction was negative, the effect was statistically insufficient to support the moderation hypothesis. One plausible interpretation is that engagement already represents a strong psychological attachment to the organization. When employees are already proud of the organization, comfortable in their work environment, and committed to remaining, additional variation in motivation may not materially change the engagement–turnover relationship.

This finding differs from the moderation result for career patterns and demonstrates that motivation does not operate as a universal amplifier of every retention mechanism. The contrast between the two interaction effects is theoretically meaningful: motivation appears to matter more when employees evaluate a structural opportunity such as career progression than when they already possess a strong psychological attachment. This distinction can improve HR intervention design by directing motivational resources toward career development rather than assuming that motivation will automatically strengthen every form of engagement.

#### **CONCLUSION**

This study concludes that career patterns and employee engagement significantly reduce turnover intention, while work motivation also has a significant direct negative relationship with turnover intention. The moderation results provide a more differentiated conclusion: work motivation significantly strengthens the negative effect of career patterns on turnover intention, but it does not significantly moderate the relationship between employee engagement and turnover intention. Thus, all three substantive direct relationships are negative, but the moderating role of work motivation is relationship-specific.

The findings extend previous research by integrating career structure, employee engagement, and motivational conditions in a single retention model for outsourced maritime crew. Consistent with recent international research on career development and sustainable human resource management, the results indicate that organizational investment in employees' development and positive employee experiences can support retention (Abbas et al., 2024; Aust et al., 2024; Adhikari & Thapa, 2025). At the same time, the different moderation results demonstrate that motivation should not be assumed to strengthen all employee-retention mechanisms equally.

Practically, maritime employers should prioritize transparent career pathways, competency and certification development, fair promotion opportunities, and clear communication of advancement criteria. These structural practices should be complemented by programs that maintain employee motivation. Because employee engagement already shows a significant direct retention effect, management should also protect organizational pride, supportive working conditions, and long-term attachment. Future research should test the model across multiple maritime organizations, compare employment statuses, use longitudinal data to distinguish turnover intention from actual turnover, and regenerate predictive relevance and effect-size statistics from complete partial least squares structural equation modeling outputs.

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