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# Impact of Personal Factors on Turnover Among Seafarers

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## Abstract.

Working on ships isn't an easy task. It is common for seafarers aboard ships to have little social life, monotonous routines, and to suffer from harsh working conditions. This stress results in both physical and psychological problems. An important factor that causes stress to a seafarer is the personal stress that may influence their desire to leave the marine industry. Using this study, we sought to determine the factors that affect seafarers and lead to Turnover. Seafarers are affected by several personal factors that lead them to leave the ocean industry, including sleep, food, changing work timing, climate, parting with family members and loved ones, and temperature changes. Our study looked at 200 seafarers with factors affecting their work and affecting retention. The data were then analyzed quantitatively. We hope identifying these data will allow us to develop special programs and orientations to ease the stress of seafarers and maintain their careers in the maritime industry.

**Keywords.** Seafarer, Personal factor, Stress factor, Turnover, Multiple Regression, Working conditions.

## 1. INTRODUCTION

In the world of the seafarer industry thousands of fresh sailors, cadet crew members, and marine engineers are recruited around the world. Every young graduate has high expectations of making big in the marine industry field by becoming a top-grade seafarer. With their knowledge and training, these officers venture into reputed shipping companies attempting to mark their footprints to upgrade their ranks. No matter how highly bankable industry, venturesome working environs, or “Hodophile” lifestyle, most seafarers decide to quit the ship jobs by accepting land side jobs. Seafarers need to sign a long-term contract with shipping companies and set how far they are going to stay on the ship which means abiding absence from home, family, friends, and their loved ones. This day by day creates stress among the seafarer which affects their psychological moods and resolute their minds to leave the marine industry. Separation from own circle of relatives is the most outstanding stressor for seafarers, and loneliness within the vessel becomes related to separation from own circle of relatives (Ana Slišković and Zvezdan Penezić 2016). Seafarers are subjected to different stressors, including sleep deprivation, disconnection from the family, anxiety, monotony, lack of quality rest, physical changes (climatic differences, seasickness), and the lives of the seafarers. Certain studies have identified the level of stress among seafarers and factors connected with their stress level. Mental fitness is an important part of bodily well-being at sea[2]. Depression or extreme temper imbalance can endanger the secure operation of the vessel, and the well-being of seafarers and the maximum extreme instances can cause suicide. While personal stress is a normal part of life, over an elongated period it can lead to serious anxiety illnesses, if left unchecked it can open to full-blown depression. This study particularly aims to provide suggestions to lower the stress among the seafarers and make them retain in the sea.

### *Aim of the Study*

1. To determine which factors, cause the seafarers to leave the industry.
2. To reduce the turnover intention among seafarers.

## 2. RELATED STUDY

According to Yi-Shih Chung (2017), Seafarer fitness and wellness has long been a difficulty inside the delivery enterprise due to the specific traits of operating at sea. The function of burnout in seafarer fitness and health and its impact on protection have been identified. The differentiation of seafarer burnout into private and paintings-associated burnout displays the ambiguous difference between relaxation and paintings in seafarers' activity environment. The effectiveness of emotion law for seafarers to lessen burnout. A framework changed proposed to become aware of the causal dating among occupational pressure, sleepiness, emotional law, burnout, and incidents at sea. To confirm the proposed framework, scales have been tailored from hooked up scales inside the literature; a cross-sectional survey was changed into additionally carried out to gather empirical records for evaluation with direction and simultaneous equation models. The evaluation outcomes found that private and paintings-associated burnout in seafarers is jointly affected; however, most effective paintings-associated burnout exerts a right away impact on incidents. Reappraisal is a powerful emotion law method in seafarers to lessen private burnout, however now no longer paintings-associated burnout. Occupational pressure and sleepiness exert fine results on each private and paintings-associated burnout; yet, their impact on incidents is mediated via way of means of paintings-associated burnout.

According to Ibrahim (2020), The motive has a look at turned into to show and examine the effect of the painting's environment, organizational citizenship conduct, organizational dedication to environmental activity delight, and overall performance. How does the connection between delight and overall performance with the technological elements affect the aim to forestall? The facts or facts received turned into processed via way of means of statistical strategies the use of the Warp PLS software. Methods of facts evaluation of the use of PLS. The facts series method used a Quizinoer with a Likert scale. The effects confirmed that each relationship had a wonderful impact on delight and overall performance. Satisfied personnel deliver proper overall performance and decrease the aim to quit. However, organizational citizenship conduct has a poor and insignificant impact on

overall performance. The study affords to enter to the seafarers' enterprise scope in Balikpapan, East Kalimantan, that many elements need to be taken into consideration to boom delight and overall performance, to lessen the aim to forestall running adoption of technology[3].

According to Joanne McVeigh (2021), The number one intention of the look turned into evaluating the results of a psychosocial application on the perceived strain, resilience, and activity pleasure amongst a pattern of service provider seafarers. Secondary information evaluation turned into carried out with the use of a running questionnaire administered with the aid of using a big delivery company. The matched topics method and multivariate evaluation of covariance had been carried out by the use of a theoretical version of this system's results on activity pleasure, resilience, and perceived strain. A giant interplay among application participation and weeks on board indicated that the results of weeks on board on perceived strain differed notably for the intervention organization and paired manage the organization. The findings suggest that participation inside the application moderated the results of weeks on board on the perceived strain, suggesting that this system might also additionally have safeguarded individuals towards the results of weeks on board on the perceived strain. Importantly, however, a piece surroundings this is skilled as supportive, inclusive, and simply essential as a cornerstone for individually-centered psychosocial interventions turned into optimally applied.

According to Fiona Kerkamm (2022), Seafarers are exposed to several job-associated strain elements which could purpose fatigue, sleepiness, and disturbed sleep conduct. This assessment aimed to offer an outline of the subjective and goal size strategies of those strains. Using a scientific assessment, 166 research had been diagnosed from January 2010 to December 2020 with the usage of the PubMed database. Six research used the simplest subjective and research simplest goal strategies had been used. Actigraphy and response time tests (RTT) had been the maximum not unusual place goal strategies. Measurement-associated boundaries because of vessel-associated effects had been much less regularly said than expected. The literature assessment exhibits that there are numerous exercises to degree fatigue, sleepiness, and sleep conduct onboard. An aggregate of subjective and goal strategies regularly seems to be beneficial. The common use of actigraphy and RTT onboard counseled appropriate feasibility and dependable measurements with the strategies. The use of ambulatory PSG in maritime-like contexts indicates that the approach could additionally be viable on board.

According to F. Turker (2007), The significance of turnover from the factor of view of mana is that an excessive price of turnover now no longer best necessitates an expensive employee's replacement, recruitment, selection, and schooling of recent employees however additionally disrupts ordinary operations ensuing in a lack of productiveness and protection. Besides a lack of crucial employees who are wearing out middle activities, like a master, lead engineer, or leader officer that cannot be compensated without difficulty with some other ready alternative, it can bring about a lack of manufacturing and lack of a professional employee who's ready and dependable with protection precautions and enterprise politics this means that lack of heaps of bucks in maritime transportation. The take a look concentrates on making research on the "goal to quit" and its antecedents. Consequently, the results of turnover on each organizational and protective factor and their countermeasures are mentioned in advance.

According to Anna Carotenuto (2012), Seafaring is a specific profession, wherein people are commonly uncovered to numerous stressors which might be associated with the special responsibility onboard ships. The paper has reviewed the principle courses on various factors affecting seafarers to perceive particular pressure elements associated with specific responsibility on board. The result evaluation showed that seafaring is related to intellectual, psychosocial, and bodily stressors. The maximum critical elements had been separated from Family, loneliness on board, fatigue, multi-nationality, limited hobby activity, and sleep deprivation. The AMSA document gave an extra special evaluation of the way of life and applicable elements inducing mental distress[4]. Seafaring remains related to applicable intellectual fitness risks. Information on regarded pressure elements on board ought to be furnished to seafarers to assist them in reducing pressure perception.

### 3. METHODOLOGY

A wide variety of data collection analyses and processing methods have been used to explore the significant factors driving seafarers' exodus, including semi-structural interviews, frequency, and multiple regression. Table 1 shows the steps taken in this study. This section provides a detailed explanation of the creation, distribution, and recycling of questionnaires since they are the primary measure of this study.

To collect data for the questionnaire, 21 young seafarers aged between 18 and 64 with turnover intention were conducted through semi-structured interviews from which ground analysis was conducted to extract keywords. Second, a pilot questionnaire with 33 questions covering four aspects was designed based on the literature review and keywords extracted. Twenty questions were included in the formal questionnaire. Total, 220 questionnaires were answered by electronic means, 20 of which were disregarded due to extreme viewpoints, and 200 were reserved.91.1% of the tests were valid.

TABLE-1 DEMOGRAPHIC PROFILE OF THE RESPONDENTS

| DEMOGRAPHIC FACTORS | ITEMS          | PERCENTAGE |
|---------------------|----------------|------------|
| AGE                 | 18-29          | 21         |
|                     | 30-39          | 45         |
|                     | 40-64          | 31         |
|                     | ABOVE 65 YEARS | 3          |

|                       |                |      |
|-----------------------|----------------|------|
| <b>GENDER</b>         | MALE           | 56.5 |
|                       | FEMALE         | 43.5 |
| <b>MARITAL STATUS</b> | MARRIED        | 56.5 |
|                       | NOT MARRIED    | 43.5 |
| <b>DESIGNATION</b>    | CREW STAFF     | 23   |
|                       | OFFICER        | 31   |
|                       | ENGINEER       | 46   |
| <b>TYPE OF SHIP</b>   | CARGO          | 44.5 |
|                       | PASSENGER LINE | 50   |
|                       | CONTAINER      | 5.5  |
| <b>ACADEMIC</b>       | DIPLOMA        | 56.5 |
|                       | DEGREE         | 43.5 |

Source: Author's own data.

#### 4. MULTIPLE REGRESSION

**TABLE-2 MULTIPLE REGRESSION**  
MODEL SUMMARY

| MODEL | R      | R SQUARE | ADJUSTED R SQUARE | STD. THE ERROR OF THE ESTIMATE |
|-------|--------|----------|-------------------|--------------------------------|
| 1     | .386 A | 0.149    | 0.14              | 1.73                           |

##### A.PREDICTORS:(CONSTANT), GENDER, PERSONAL FACTORS

By measuring the variance of the dependent variable, we can find out how much the variable varies. Considering both gender and personal factors, the model's multiple correlation coefficient (R) is 0.386. There is a coefficient of determination (R<sup>2</sup>) of 0.149. As a result of this, 15 percent of the dependent variable's change is the result of the independent variable, while 85 percent of the dependent variable's change is unaccounted for. The adjusted R<sup>2</sup> of the model was 0.140, which showed that personal factors and gender variables could be used to forecast 14 percent of Turnover changes.

TABLE-3-ANOVA

| MODEL      | SUM OF SQUARES | DF  | MEAN SQUARE | F      | SIG.  |
|------------|----------------|-----|-------------|--------|-------|
| REGRESSION | 103.097        | 2   | 51.549      | 17.227 | .000B |
| RESIDUAL   | 589.498        | 197 | 2.992       |        |       |
| TOTAL      | 692.595        | 199 |             |        |       |

- a. DEPENDENT VARIABLE: TURNOVER RETENTION
- b. PREDICTORS: (CONSTANT), GENDER, PERSONAL FACTORS

Table 3 shows how the regression equation explains the response variable variability based on variance analysis (ANOVA). The results indicate a highly significant relationship between the independent and dependent variables. In this way, the regression model predicts outcomes statistically. Table -4 Displays the regression coefficients of the model and its collinearity statistics.

As shown in Table There is a p-value (Sig.) of 0.000 in this model, which is less than the alpha value of 0.05, and therefore it is significant. Hence, the independent variables DV of Turnover and DV of personal factors can significantly explain the variance of Turnover.

TABLE-4- CO-EFFICIENT

| MODEL            | UNSTANDARDIZED COEFFICIENTS | STANDARDIZED COEFFICIENTS | STANDARDIZED COEFFICIENTS | T     | SIG   |
|------------------|-----------------------------|---------------------------|---------------------------|-------|-------|
|                  | B                           | ST. ERROR                 | BETA                      |       |       |
| (CONSTANT)       | 2.741                       | 1.644                     |                           | 1.668 | 0.097 |
| PERSONAL FACTORS | 0.376                       | 0.068                     | 0.362                     | 5.491 | 0     |
| GENDER           | -0.624                      | 0.248                     | -0.166                    | -2.52 | 0.013 |

- a. DEPENDENT VARIABLE: TURNOVER

The gradient ( $\beta$ ) is then tested for significance and if there is no correlation it will be zero. With a sig value of less than 0.05, the coefficients of all independent variables are statistically significant. Therefore, there is substantial evidence that the gradient is not zero. Based on the independent variables, unstandardized coefficients (B) are used to predict the dependent variable.

Turnover = 2.74 + 0.375 (Personal Factors) + 0.620 (Gender) is the regression equation for this study.

We can determine based on the regression equation that the Turnover will increase by 0.376 units when the Personal factors increase by 1 unit. By increasing one unit in gender, the turnover intention will increase by 0.624. A standardized coefficient (beta) analysis shows that personal factors ( $b=0.362$ ) are the most important factors associated with turnover intentions. However, gender hurts Turnover ( $b=-0.166$ ).

## 5. SEAMEN LEAVING THEIR JOBS DUE TO PERSONAL REASONS

Seafarers are still adversely affected by some of their factors today, which is a primary problem. Traditionally, seafarers are supposed to work in the area of the sea surrounded by water and sea. There is a feeling of isolation in the sea without being able to communicate with friends, family, and loved ones[5]. Even though they have android phones and WiFi to communicate with them, they feel insecure about their personal information not being shared with them. Besides missing their family and friends, the physical strain on their bodies is also a tremendous hindrance. "National Sleep Foundation guidelines advise that healthy adults need between 7 and 9 hours of sleep per night" Eric Suni(2021). They do not have enough time to rest since they work different hours on different days and this results in poor sleeping disorders and loss of concentration at work, which again causes stress for them. Another fact to note is that some ships have vegetarian foods rarely, however, they have Indians and North Indians among the crew. If the chef is Indian, other crew members wouldn't get the foods they require. Assuming there is a mixed crew and the Chef is Ukrainian, the Indians will normally have diminished chances of eating, and even if they eat, the food they consume won't be digested, which causes a " Poor Diet". Diet scheduling changes greatly impact crew morale, and cause stress. Additionally, there is the major concern of Temperature Differentiation resulting from the skin's difficulty adjusting to constantly changing temperatures, as well as Hairfall resulting from overheating in the engine ship, these negatively affect the seafarers. The seafarer would experience stress if he or she does not have a permanent friend or colleague on the ship, another stress factor is crew changes; for example, if he or she becomes closely attached to a motorman and then the motorman leaves the sea as their six-month agreement terminates and the sea, and if this is a chain process, the seafarer would feel depressed. Moreover, the tightening of sea fastenings and the movement of vessels due to rough weather exacerbate stress. In addition, folks who are confined on a deck may experience adverse health effects due to the ship's pitching, pitching, yawing, swaying, and surging movements[6][7]. These factors are key reasons why sailors quit their jobs in their field.

## 6. CONCLUSION AND RECOMMENDATION

Regarding the study, a negative impact is found on gender and the above table explains that a negative impact is found on personal factors in a seaman's life. To reduce the stress levels of seafarers who must leave their families and friends for continued work on the seas, we should provide "Unlimited" Internet access instead of supplying limited GB per day. This will not prevent them from missing their families but will encourage them to feel relaxed when they can communicate with them at any time. Food changes can help reduce stress by keeping South Indians on the same ship with South Indian chefs so they can enjoy Indian cuisine, however, this might not be practical on all ships so they may consider identifying how many people belong to each nation so they can determine if different chefs are needed accordingly. To make their working hours shorter, seamen should have at least 7 hours of sleep each night to feel relaxed. Incorporate entertainment and fun-based activities such as play station, tennis, and other indoor games into all ships to ensure that this atmosphere is stress-free for seafarers. There should be a mental health program and a campaign geared towards reducing stress in the maritime industry. The workplace should allocate mentors to every worker to help them discuss and solve problems.

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