

## Occupational Stress and Work Motivation Among Railway Loco Pilots with Special Reference to Age and Experience

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### ABSTRACT

The current study was designed to examine the correlation between Work Motivation and Occupational Stress among Railway Loco Pilots with particular reference to Age and Experience. To assess work motivation, the WMQ (Work Motivation Questionnaire) by K. G. Agarwal was used while Occupational Stress was assessed through the OSI (Occupational Stress Index) questionnaire created by Dr. A. K. Srivastava and Dr. A. P Singh. The study's sample was collected by the Random Sampling method. A sample of 500 Loco Pilots was selected from the Northeast Frontier Railway (NFR). The gathered data were statistically examined using mean, S.D, and correlation techniques. The results of this analysis show that Occupational Stress and Work Motivation are significantly correlated. Regarding variable, age and experience it is established by the study that while age levels is not a determining factor of work motivation of the Loco Pilots, experience levels play a significant role in the determination of their work motivation.

**Keywords:** *Occupational Stress, Work Motivation, and Loco Pilots*

Work stress is considered to be one of the biggest risks in the workplace. The term "work stress" describes the ongoing or increasing psychological stress associated with one's work. It is often the result of stress at work due to obligations, circumstances, and environments. Work is generally seen as a crucial aspect of one's life because it allows us to derive meaning and satisfaction from all the results achieved. However, there are times when a heavy workload causes stress and the stress eventually results in job dissatisfaction. This can impact both the employer and the employee, as stress at work can adversely affect a person's physical, and mental health, and ability to do their job.

The definition of work motivation is "A set of factors that arise both inside and outside a human being, to initiate work-related behavior and to determine its form, direction, intensity and duration" (Pinder, 2008). Motivation is an innate tendency to take an interest in and approach positive stimuli and avoid negative stimuli. The level of a person's desire to

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exercise and persevere to achieve organizational goals can be described as the level of motivation to work. It often reflects how employees interact with their workplace.

Railway workers and train drivers were the subjects of a 1994 study of job stress by **Shah Alam and Ansari**. According to the results of the study, there were differences between guards and drivers with respect to some of the stressors and overall job stress. Study of Occupational Stress among Railway Engine Pilots, a 2011 paper, has been published. **Ayub (2011)** performed a study to examine the connection between bank managers' job satisfaction and work motivation in Pakistan. Accordingly, data from eighty middle managers in Karachi were collected using questionnaires. The data are evaluated using correlation and the t-test. The research shows that there is a positive relationship between work motivation & satisfaction

### ***Significance of the study***

The main purpose of the current study is to identify the different levels of Occupational Stress and Work Motivation in relation to Age and Work Experience. The influence of some moderating variables such as age and work experience are also studied in relation to the selected variables. Apart from this, the connection between Occupational Stress and Work Motivation was also further studied in this present study.

## **MATERIALS AND METHODS**

### ***Statement of the Problem***

The present disquisition seeks to explore "Occupational Stress and Work Motivation among Railway Loco Pilots with special reference to Age and Work Experience".

### ***Objectives***

The objectives of the study are -

1. To assess the Loco Pilot's Occupational Stress levels in relation to their Age and Work Experience.
2. To assess the Loco Pilot's Work Motivation levels in relation to Age and Work Experience
3. To study the relationship between Occupational Stress and Work Motivation of the Loco Pilots

### ***Hypothesis***

1. There exists no significant difference in Occupational Stress of the Railway Loco Pilots in relation to their age and work experience
2. There exists no significant difference in the Work Motivation of the Railway Loco Pilot in relation to their age and work experience
3. There exists no significant relationship between Occupational Stress and the Work Motivation of Railway Loco Pilots.

### ***Variables***

1. Dependent Variables- Occupational Stress
2. Independent Variables- Work Motivation
3. Moderating Variables-Age and Work Experience

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### *Population and sample*

The population of the present study comprised a total of 1460 Loco Pilots working in the Indian Railways in Northeast Frontier Railway (NFR). From 1460 Loco Pilots only 500 Pilots were selected using a systematic random sampling technique.

### *Tools*

In the study, OSI by Dr. A.K. Srivastava & Dr. A.P. Singh and Work Motivation Questionnaire (WMQ) by K. G. Agarwal (2012) was used to assess the Occupational Stress and Work Motivation of the Loco Pilots.

### *Procedure*

Before collecting data from the Loco Pilots, working in the Indian Railways, the researcher took permission from the General Managers and Divisional Senior Managers of the Northeast Frontier Railway (NFR) to contact the Loco Pilots included in the sample of the study. Then the researcher approached each member of the sample personally and gave the questionnaire to them. They were provided with proper instructions to complete it. They were given one month to complete the questionnaires and after one month the questionnaires were collected from them.

### *Statistical Techniques*

The data collected with the help of the questionnaire from the sample are subjected to relevant statistical analysis, such as Descriptive Statistics (Mean, S.D), t-test (Inferential Statistics), and Correlation.

## TABLES AND GRAPH

**Table No 1: Age and Work Experience Level of Loco Pilots in Relation to Occupational Stress**

Levels of Occupational Stress	No and % of Loco Pilots in Age Levels			Total	No. and % of Loco Pilots in Experience Levels		Total
	Average	High	Low		High	Low	
<b>High</b>	14 (10.22%)	4 (1.58%)	4 (3.64%)	22 (4.4%)	18 (4.23%)	4 (5.40%)	22 (4.4%)
<b>Low</b>	66 (48.1%)	119 (47.04%)	63 (57.27%)	248 (49.6%)	202 (47.42%)	46 (62.16%)	248 (49.6%)
<b>Moderate</b>	57 (41.61%)	130 (51.38%)	43 (39.09%)	230 (46%)	206 (48.36%)	24 (32.43%)	230 (46%)
<b>Total</b>	137	253	110	500	426	74	500

**Table No. 2: Chi-Square Test of Significance**

Variables	Pearson Chi-Square	N	df	Significance	Remark
<b>Age</b>	2.891 <sup>a</sup>	500	4	.576	N.S
<b>Experience</b>	8.933 <sup>a</sup>	500	2	.011	Sig. at .01

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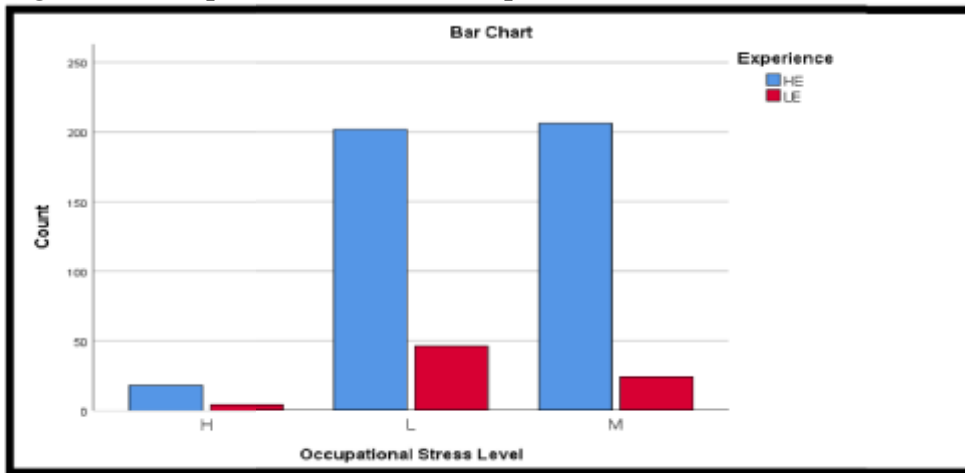
**Table No.3: Work Motivation in relation to Age and Work Experience**

Levels of Work Motivation	No and % of Loco Pilots in Age Levels			No. and % of Loco Pilots in Experience Levels		
	High	Low	Total	High	Low	Total
High	168 (65.88 %)	154 (62.86 %)	322 (64.4 %)	81 (19.01 %)	13 (17.57%)	94 (18.8 %)
Low	50 (19.61%)	44 (17.96 %)	94 (18.8 %)	80 (18.78 %)	4 (5.41 %)	84 (16.8 %)
Moderate	37 (14.51%)	47 (19.18 %)	84 (16.8 %)	265 (62.21 %)	57 (77.02 %)	322 (64.4 %)
Total	255	245	500	426	74	500

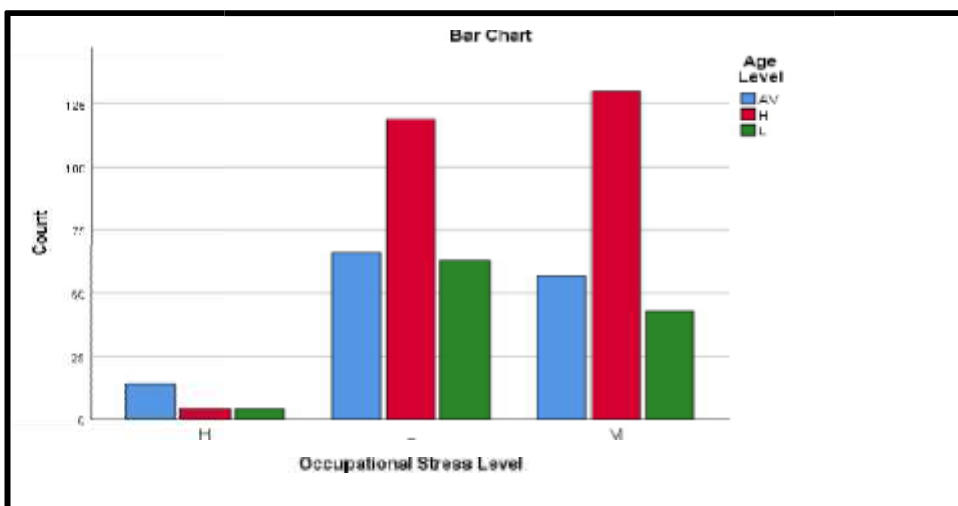
**Table No 4: Chi-Square Test of Significance**

Variables	Pearson Chi-Square	N	Df.	Significance	Remark
Age	2.891 <sup>a</sup>	500	4	.576	N. S
Experience	8.933 <sup>a</sup>	500	2	.011	Sig. at .01

**Fig.No.1: Occupational Stress and Experience**

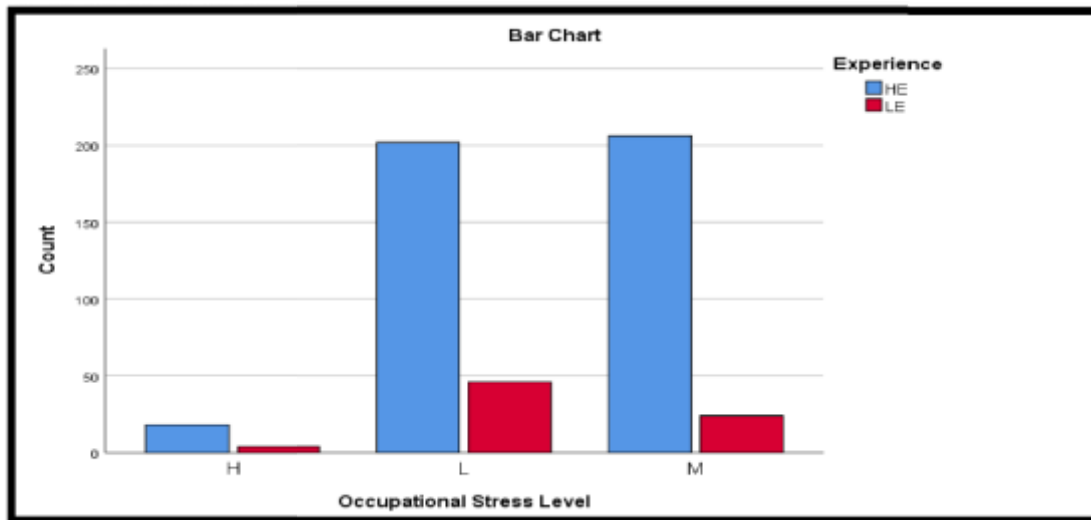


**Fig.No.2: Occupational Stress and Age**

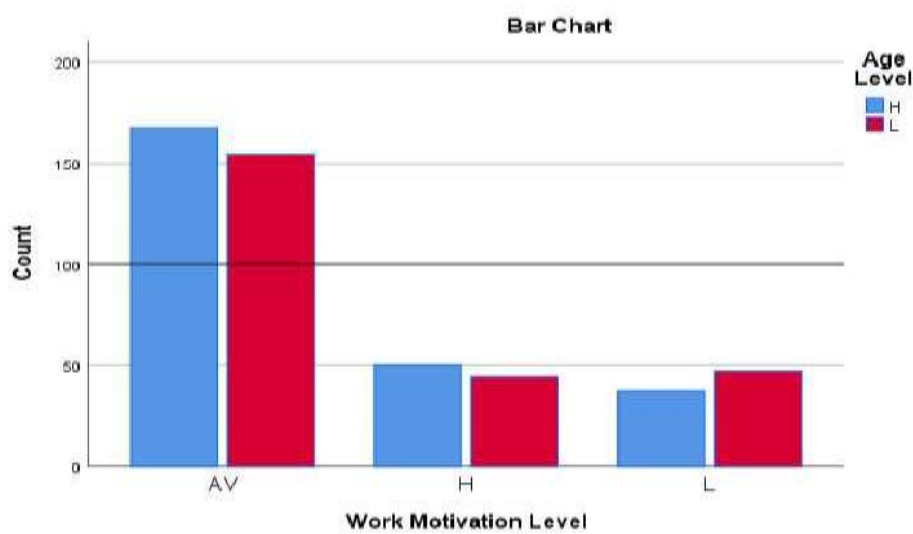


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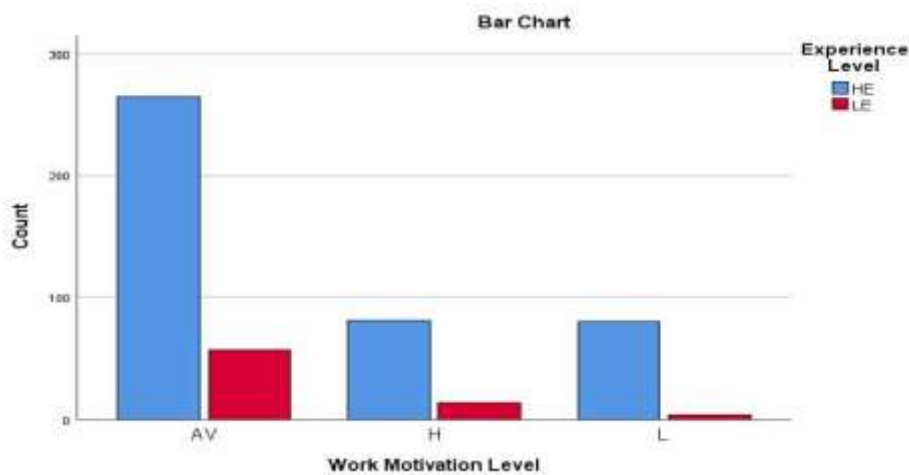
**Fig.No.3: Occupational Stress and Work Experience**



**Fig.No.4: Work Motivation and Age**



**Fig.No.5: Work Motivation and Work Experience**



## **RESULTS**

**Table 1** shows that the Occupational Stress level of the Loco Pilots belonging to the older group i.e above 46 years (High Age Level) has a score of 253, which can be interpreted as they have a higher level of Occupational Stress in comparison to the Lower Age Level i.e below 46 years (Low Age Level). The collected data shows that the Loco Pilots belonging to the higher age group have high levels of Occupational Stress than those belonging to the younger group. Accordingly, the Loco Pilots who have more work experience have scores like High-18, Low- 202, and Moderate-206 which stands to a complete of 426, and also the Loco Pilots who have less work experience have a score of 4, 46, and 24 which stands to a complete of 74, which may be interpreted because the Loco Pilots who have more work experience have the very best level of Occupational Stress as compared to people who belong to the less experienced group.

From **Table No 2**, it is observed that the Chi-Square value of different levels of Age and different levels of Occupational Stress is 2.891 with a d.f of 4. It shows no significant relationship between age and the levels of Occupational Stress. In the case of the different levels of Work Experience and Occupational Stress, the Chi-Square value is 8.933 with a d.f of 2. Thus, it can be concluded that Age is not a determining factor of the Occupational Stress of the Loco Pilots while Work Experience is a potential factor that determines the Occupational Stress of the Loco Pilots.

**Table 3** shows that the level of Work Motivation of the Loco Pilots belonging to the older group. i.e above 46 years (High Age Level) has a score of 255 which can be interpreted as they have a higher level of Work Motivation in comparison to the Lower Age Level i.e below 46 years (Low Age Level) who have a total score of 245. The collected data shows that the Loco Pilots belonging to the higher age group have high levels of Work Motivation than those belonging to the younger group.

Apart from this, the Loco Pilots who have more work experience have scores such as High-81, Low- 80 and Moderate-265 which stands to a total of 426 and the Loco Pilots who have less work experience have a score of 13, 4, and 57 respectively which again stands to a total of 74 and thus it can be interpreted as the Loco Pilots who have more work experience have the highest level of Occupational Stress as compared to those who belong to the less experienced group.

**Table no 4** reveals that the Chi-Square value of different levels of Age and different levels of Job Motivation is 2.891 with a d.f of 4. It shows no significant correlation between age and the levels of Work Motivation. In the case of the different levels of experience and Work Motivation, the Chi-Square value is 8.933 with a d.f of 2. It shows a very high level of relation (0.01) between Work Motivation and the Experience of the Loco Pilots. Thus, it can be concluded that Age is not a determining factor for Loco Pilots while Work Experience is a potential factor that determines the Work Motivation.

In the present research, to study the connection between Occupational Stress and the Work Motivation of the Loco Pilots Pearson Coefficient of Correlation analysis was applied. Here calculated value of Coefficient of Correlation ( $r$ ) = -117.

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### DISCUSSION

On the basis of the above result of the present study, it can be concluded that-

1. The Occupational Stress level of Loco Pilots belonging to the older group have higher Occupational Stress levels and the Occupational Stress level of Loco Pilots belonging to the younger group have lower Occupational Stress levels than the older ones.
2. The Occupational Stress level of the Loco Pilots who have high work experience have higher Occupational Stress levels and the Occupational Stress level of the Loco Pilots who have less work experience have lower Occupational Stress levels.
3. The level of Work Motivation Loco Pilots belonging to the older group has a higher level of Work Motivation and the level of Work Motivation of the Loco Pilots belonging to the younger group has a lower level of Work Motivation than that of the older ones.
4. The level of Work Motivation of the Loco Pilots who have high work experience have greater levels of Work Motivation and the level of Work Motivation of the Loco Pilots who have less work experience have lower levels of Work Motivation.
5. It is shown in the study that Occupational Stress and Work Motivation of the Loco Pilots have a significant negative correlation. Thus, it indicates that when Work Motivation is high Occupational Stress is less and when Work Motivation is less Occupational Stress is very high. It shows that Work Motivation is a variable that plays an important role in the determination of levels of Occupational Stress of the Loco Pilots.

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### **Conflict of Interest**

The author(s) declared no conflict of interest.

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