

A Study to compare Two Groups of Railway Employees across Psychological Variables, namely, Locus of Control and Work Motivation

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ABSTRACT

The present study was aimed at comparing two groups of Railway employees involved in hazardous and non hazardous jobs respectively in terms of overall locus of control and work motivation. The sample was selected from various divisions of Railway in West Bengal. Each group consisted of 50 male individuals, the total sample size being 100. For the said purpose, Levenson's Locus of Control Scale and Agarwal's Work Motivation Questionnaire were used along with the General Information Schedule. The findings indicated that the two groups of respondents differed significantly in terms of all the areas of Locus of Control, namely, External (others), External (chance) and Internal Locus of Control. Significant differences were also noted along the different factors of Work Motivation, namely, Dependence, Organizational Orientation, Work Group Relations, Psychological Work Incentives and Job Situation.

Key Words : Railway Employees; Psychological Variables; Locus of Control and Work Motivation

Indian Railway is an Indian state owned enterprise, owned and operated by Government of India through the Ministry of Railways. It is the world's seventh largest commercial organization with over 1.307 million employees.

Most of the researches concerning the Railway industry have been conducted in the area of technical details such as track and gauge. However, the literature review reveals that there has been very little research work conducted till date for assessing the overall psychological health of the Railway employees. Moreover, such studies have considered the Railway employees in general. The present study is a specific attempt to examine the Railway employees particularly in terms of locus of control and work motivation taking into account the hazards involved in their jobs.

Objectives of the study:

- 1) The present study aims at comparing the two groups of male Railway employees involved in hazardous and non hazardous jobs respectively in terms of their overall locus of control.
- 2) The present study attempts to compare the two groups of male Railway employees involved in hazardous and non hazardous jobs respectively in terms of different dimensions of work motivation, namely, dependence, organizational orientation, work group relations, psychological work incentives and job situation.

Key concepts used in the study:

- **Locus of Control** – Locus of control can be defined as the power to determine outcomes by directly influencing actions, people and events. Internals are more satisfied with their jobs, earn more money, and achieve higher organizational positions. In addition, they seem to perceive less stress, cope with stress better, and engage in more careful career planning. In contrast, people who attribute their success or failure to outside influences have an external locus of control.
- **Intrinsic and extrinsic motivations** - According to Herzberg, intrinsic motivation is related to the content (eg., task significance, autonomy, responsibility, recognition etc.) whereas extrinsic motivation is associated with the job context (e.g., pay, promotion opportunities, working condition, supervision etc.)

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General hypotheses:

Considering the objectives of the present study, the following null hypotheses have been formulated.

- Ho1- There is no significant mean difference between the two groups of male Railway employees-one involved in hazardous jobs and the other involved in non hazardous jobs with respect to internality dimension of locus of control.
- Ho2- There is no significant mean difference between the two groups of male Railway employees-one involved in hazardous jobs and the other involved in non hazardous jobs with respect to externality (Powerful Others) dimension of locus of control.
- Ho3-There is no significant mean difference between the two groups of male Railway employees-one involved in hazardous jobs and the other involved in non hazardous jobs with respect to externality or chance dimension of locus of control.
- Ho4- There is no significant mean difference between the two groups of male Railway employees-one involved in hazardous jobs and the other involved in non hazardous jobs with respect to dependence factor of work motivation.
- Ho5-There is no significant mean difference between the two groups of male Railway employees-one involved in hazardous jobs and the other involved in non hazardous jobs with respect to organizational orientation factor of work motivation.
- Ho6- There is no significant mean difference between the two groups of male Railway employees-one involved in hazardous jobs and the other involved in non hazardous jobs with respect to work group relations factor of work motivation.
- Ho7- There is no significant mean difference between the two groups of male Railway employees-one involved in hazardous jobs and the other involved in non hazardous jobs with respect to psychological work incentives factor of work motivation.
- Ho8-There is no significant mean difference between the two groups of male Railway employees-one involved in hazardous jobs and the other involved in non hazardous jobs with respect to material incentives factor of work motivation.
- Ho9-There is no significant mean difference between the two groups of male Railway employees-one involved in hazardous jobs and the other involved in non hazardous jobs with respect to job situation factor of work motivation.

METHOD

Sample:

The method of sampling used for the present research was purposive. The sample consisted of two groups of individuals. Group 1 included the respondents who were involved in hazardous jobs in Indian Railways and group 2 consisted of Railway employees not involved into any kind of hazardous jobs. The sample was selected from various divisions of Railway in West Bengal, i.e., Eastern Railway (Adra Railway Division,) Purulia District, (Garden reach) South 24 Pgs., South Eastern Railway (Howrah DRM Office, Farlie Place) etc.

Sample size:-

Each group consisted of 50 individuals, the total sample size being 100.

Sample characteristics:-

- The sample was selected on the basis of the classification of hazardous jobs and non hazardous jobs as identified by Indian Railways. Moreover, the supervisors and different levels of employees across different hierarchies of the respondents also marked their jobs to be either hazardous or non hazardous. The respondents were also asked to perceive their jobs with respect to the hazards involved in performing them.
- The employees performing hazardous jobs consisted of guard, driver and security staff etc. Their work involved frequent exposure to moderate risk of accidents and required following basic safety precautions. The employees involved in non hazardous jobs were group C staff performing interior desk job requiring light physical activity.
- Both groups were matched with respect to their age. They ranged from 40 to 55 years. Their minimum educational qualifications were from Higher Secondary to Post Graduation.

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Tools used:

The following tools were used in the present research.

- **General Information Schedule** – Developed by the present group of researchers the General Information Schedule involved the items concerning the demographic information about the sample, namely, age, designation, nature of job, educational qualification etc.
- **Levenson's Locus of Control Scale** (1974) - The concept of internality-externality was first proposed by Rotter in 1966 to indicate a characteristic attitude toward the world, referred to as a generalized expectancy. The Scale consists of 24 statements (responses toward which being presented in a five point continuum ranging from strongly agree to strongly disagree), 8 each for P, i.e., the belief about control by powerful others, C, i.e., belief about chance control and I, i.e., belief about individual control.
- **Work Motivation Questionnaire** developed by K.G. Agarwal (2012) - The Scale consists of 26 items and encompasses six factors of work motivation, namely, Dependence, Organizational Orientation, Work Group Relations, Psychological Work Incentives, Material Incentives and Job Situation respectively.

Test administration and Collection of data:

Following a prearranged programme schedule developed in consultation with concerned respondents, the tests were administered individually to all the subjects by the present investigators.

Scoring and Tabulation:

After collecting data, the responses were scored with help of the standard scoring keys and the scores were then tabulated and treated statistically.

Statistics used:

Means and standard deviations for the different groups with respect to each of the variables were calculated. Then, t statistic for independent samples of equal size was used to test the significance of the difference between the means.

RESULTS AND DISCUSSION

Table – 1 to be inserted here

Table – 1 depicts that there exist significant differences between the two groups of Railway male employees, one involved in hazardous jobs and the other involved in non hazardous jobs with respect to external and internal dimensions of locus of control. Therefore, the findings speak in contrary to Ho1, Ho2 and Ho3.

The present study has attempted to evaluate and compare the overall locus of control of individuals involved in hazardous and non hazardous jobs in Indian Railways. The findings reveal that the employees involved in hazardous jobs have a relatively higher mean score in internality as compared to those involved in non hazardous jobs. The employees performing hazardous jobs are found to attribute their success less to external factors or chance factors.

Internality is related to effectiveness and adjustment. Compared to the externals, the internals have been reported to be more sensitive to new information, more observant, more likely to attend to cues that help resolve uncertainties (Lefcourt and Wine, 1969), and more prone to both intentional and incidental learning (Wolk and Ducette, 1974). It seems logical to associate internality with various aspects of learning such as curiosity, eagerness to obtain information, awareness of and desire to understand situations and their context, and ability to process the available information. It is evident that employees with an internal locus of control involved in hazardous jobs, in order to fulfill minimum safety, require additional awareness and much more information as compared to their counterparts with an external locus of control. In order to influence or control outcomes, an employee involved in hazardous job, being an internal, must acquire as much information, awareness of, and desire to understand situations and their contexts and the ability to process the available information.

Moreover, the employees performing hazardous jobs in Railways are high in their levels of perseverance which has been found to be an essential attribute of the internals. This was the finding of the committee set up by Franklin D. Roosevelt in 1933. It is further reported that internal locus of control generates moderate or calculated risk taking – an essential requirement of people involved in hazardous jobs. Wolk and Ducette (1974) indicated that the

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correlation between achievement motivation and preference for moderate risk was significant in case of the internals but almost zero among the externals.

Table – 2 to be inserted here

Table - 2 shows that the two groups of Railway employees differ significantly in terms of all the five factors of work motivation, namely, dependence, organizational orientation, work group relations, psychological work incentives and job situation. An insignificant difference has been noted between the two groups of respondents with respect to the material incentive factor of work motivation. The findings, therefore, contradict Ho4, Ho5, Ho6, Ho7 and Ho9 and support Ho8. In other words, Ho8 stating that there is no significant mean difference between two groups of male Railway employees – one involved in hazardous jobs and the other involved in non hazardous jobs with respect to material incentives factor of work motivation is accepted whereas the other five null hypotheses, i.e., Ho4, Ho5, Ho6, Ho7 and Ho9 postulating that there are no significant mean differences between the said two groups of male Railway employees with respect to dependence, organizational orientation, work group relations, psychological work incentives and job situation factors of work motivation are rejected.

A person's behaviour is the result of several factors or motives. Knowledge of the typical, primary motivators of behaviour in a work setting can help managers and consultants to deal more effectively with people.

The present study reveals that the employees who are involved in hazardous jobs have high mean scores as compared to the employees involved in non hazardous jobs in the Indian Railways in case of their organizational orientation and psychological work incentives. Regarding the other four factors of work motivation, namely, dependence, work group relations, material incentives and job situation, the employees involved in non hazardous jobs are on the higher side as compared to their counterparts in so far as the mean values are concerned. It is evident from the result that employees involved in hazardous jobs derive motivation from performing difficult and challenging tasks by which they can utilize their capabilities to the fullest extent. Extrinsic motivation relies on factors like dependence, work group relations, material incentives and job situation which are outside of an individual's personal motives. Attributes of extrinsic motivation include recognition awards, performance goals, compensation increases, or bonuses. Extrinsic motivation may also be driven by the fear of failure or punishment. Therefore it is seen that employees engaged in non hazardous jobs are motivated to work for external rewards and incentives.

Organizations may use extrinsic motivation and a performance-reward system for energizing employees. Pay raises, bonuses, additional time off, or other benefits are common forms of extrinsic motivation, a performance management system to achieve maximum efficiency from employees when offering these benefits. Organizations may also be able to reduce employee workplace accidents by offering extrinsic safety rewards. Lawler and Porter (Roy and raja 1974) found that higher level of management assigned greater importance to intrinsic incentives like interesting work and self expression as determinants of job satisfaction. The lower level groups preferred pay, security and co worker.

However, the present findings seem to contradict the findings of Lawler and Porter (Roy and Raja, 1974) as the respondents of the present study are found to emphasize on the intrinsic factors of work motivation in spite of belonging to a relatively lower organizational hierarchy. They have been observed to be relatively less motivated by the factors like dependence, work group relations and job situations whereas intrinsic factors of motivation like organizational orientation and psychological work incentives appear to evoke a drive within the employees performing hazardous jobs. In spite of the job being difficult and involving life risk, the employees seem to be stirred up by the opportunities for participation in organizational decision making and planning. Similarly, responsibility, task significance, autonomy and task identity appear to be more meaningful to them and contribute to higher job satisfaction (Oldham and Hackman, 1975). The respondents seem to disregard rather challenge the hazards involved in their work roles as they are fully gratified with their intrinsic needs or motivators. Moreover, internality in their perceptions have made them more self-reliant, self-confident and self-fulfilled in their approaches to their jobs. The sense of responsibility both at the individual level and from the organizational perspective have perhaps made them so self-contained that they hardly attribute any value to the external organizational factors like dependence, work group relations and organizational environment.

The two groups of respondents have not differed significantly with respect to the material incentives. This insignificant difference may be attributed to the similarities in their pay structures, duration of rest pauses they enjoy and promotion opportunities they get.

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Limitations of the study:

Before coming to ascertain any generalization, the following limitations of the present study should be taken into account.

1. Data were collected from South- Eastern Railway and Eastern Railway around West Bengal but it would have been better if data could be collected from major areas of the Eastern Railway comprising more districts and thereby representing a varied nature of the sample.
2. Considering the educational background and qualifications of the respondents, it would have been ideal if the questionnaires suited to their particular needs could have been administered or at least adaptations of the existing questionnaires could be made in simple language.

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Tables to be inserted

Table – 1: Means, standard deviations and t values of two groups of Railway employees performing Hazardous and Non hazardous jobs with respect to Locus of Control.

Variable	Nature of Job	Mean	S.D.	t value
Locus of Control				
External (Others) Locus of Control	Hazardous Job	34.76	7.99	4.05 **
	Non Hazardous job	41.58	8.73	
Internal Locus of Control	Hazardous Job	32.92	5.58	3.23 **
	Non Hazardous job	29.52	4.91	
External (Chance) Locus of Control	Hazardous Job	20.7	3.4	2.048 *
	Non Hazardous job	22.4	2.9	

** P < 0.01, * P < 0.05

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Table – 2: Means, standard deviations and t values of two groups of Railway employees performing Hazardous and Non hazardous jobs with respect to Extrinsic and Intrinsic Motivations.

Variable	Nature of Job	Mean	S.D.	t value
Extrinsic and Intrinsic Motivation	Hazardous Job	19.02	5.2	2.66 **
	Non Hazardous job	22.16	6.52	
Organizational Orientation	Hazardous Job	25.28	4.69	2.57 *
	Non Hazardous job	23.04	3.93	
Work Group Relations	Hazardous Job	13.19	2.4	4.38 *
	Non Hazardous job	19.03	3.4	
Psychological work Incentives	Hazardous Job	14.97	4.32	2.29 **
	Non Hazardous job	12.8	2.37	
Material Incentives	Hazardous Job	11.42	4.84	0.16
	Non Hazardous job	11.29	5.20	
Job Situation	Hazardous Job	10.67	2.88	2.40 **
	Non Hazardous job	11.17	2.21	

** P < 0.01, * P < 0.05