A Study on Employee Performance in Indian Railways with Special Reference to EMU Workshop at Chennai (Tambaram).

Sai Priya. K¹ & Dr. G. Padmavathy²
¹, ²Department of Management and Commerce, Sri Sathya Sai Institute of Higher Learning, Anantapur campus, Anantapur-515001, Andhra Pradesh, India

Abstract: The main aim of the project is to analyze the impact of the factors that affect the performance of the employees in respect to their work culture, absenteeism and latest technology. This study also aims at providing suggestions to the management on various aspects like attendance system & working hours to overcome absenteeism, work culture & job allocation, and training in latest technology. A standardized questionnaire was administered to 40 supervisors at the EMU workshop who act as a liaison between the employees and the managers. The supervisors selected for the study varied in terms of their experience. The researcher had adopted convenient sampling technique for collecting data. It was found that the employee performance was low, and effective administration of the human resources is essential for the existence and success of the organization. It implies that in order to raise the performance of employees, administrators should be more involved in the managerial judgments at all levels. This as well means that the administrators must capitalize on a continued basis in training, acquiring information of the best human resources procedures and practices in the industry knowing the modern trends, technologies beside the requirements of various departments and constantly updating themselves on state-of-the art rules, guidelines and regulations. With the cohesive efforts of its efficient and committed employees, southern railways would surge ahead in the path of progress.

Keywords: Employee Performance, Absenteeism, Work-Culture, Technology

1. Introduction
Service sector has become the lifeline for the profitability and growth of the economy. The labor productivity or growth in this sector is not as fast when compared to other sectors because the jobs in this sector cannot be replaced by machines. Service sector produces intangible goods which require less of natural capital and more of human capital. As a result this sector demands for more educated workers or otherwise called as the knowledge workers. Indian railway is one such sector which navigates the distance of the country by connecting every one across, from one corner to the other. It has been divided into 6 main zonal systems wherein the main task of Indian railways is to integrate all the 6 divisions and to get them under one management. Indian railways play a lead role in carrying commuters and freight across the huge territory of the country. Even today after 162 years of the first train that landed on the Indian soil, it continues to be the best mode of transport, carrying 8.2 billion passengers and also 1050.8 million tons of goods over 65436 route kilometers and 7172 stations per annum. It has employee strength of 13.4 lakhs, generating annual revenue to the tune of INR 375 billion in passenger earnings. An Indian railway is being postulated as the key automobile for the profitable growth and development plan of the novel governmental dispensation. Naturally then, we are at intersections of modification and restructuring. Implementation of any policy stresses provision of resources, the most appreciated of which are the “human resources”. Effective administration of the human resources is essential for the existence and success of the organization. Any organization should grasp the organization's external opportunities and threats as well as internal strengths and weaknesses. Therefore, without a clear understanding of the specific nature of the organization's intention and its challenges, it is difficult for a manager to efficiently lead the task of delivering the right human resources and its solutions to enable the organization to succeed. This means in order to raise the Performance of employees, administrators should be more involved in the managerial judgments at all levels. This as well means that the administrators must capitalize on a continued basis in training, acquiring information of the best human resources procedures and practices in the industry knowing the modern trends, technologies beside the requirements of various departments and constantly updating themselves on state-of-the art rules, guidelines and regulations. This study is undertaken in the EMU workshop of southern Indian railways which aims at understanding the organization and its administration from the supervisors’ point of view in order to
increase the performance of the employees thereby increasing the productivity of the Indian railways.

Indian railways are the biggest nationalized undertaking and the employees are affiliated to various unions with the political back up, even though they are reasonably well paid for their services, it is an open secret that the performance among the government employees is not up to the mark when compared to the private sector. Therefore an effort was made to explore the possibility of improving the Performance among the employees of the EMU workshop at Tambaram in Chennai division of southern railways. As the supervisors are the right people, working in between the administration and the staff who can furnish the correct feedback about the performance of the employees working under their control, they have been taken as respondents for the questionnaire. A questionnaire was prepared to get the feedback from the supervisors, so that certain improvements suggested if implemented can be adopted at various other EMU workshops throughout India which would ultimately benefit Indian railways as a whole.

2. LITERATURE REVIEW

Indian Railways is being postulated as the key automobile for the profitable growth and development plan of the novel governmental dispensation. There are many studies conducted in Indian railways but a very few in the EMU workshops. The following studies are related to the main aspects that are proposed to be covered under this study in Indian railways and these studies give a broad idea on how these factors affect or influence the performance of employees in Indian railways in general. These studies are done in order to identify the gaps in the study and incorporate it in the present study. The factors that have been mentioned below are the factors that affect the performance of employees in the EMU workshop of Indian railways in Chennai at Tambaram.

- Training and development:
  Chidambaram, Ramachandran, & Thevar (2013) says that any organization needs to have training program before any employee officially steps into his job. The warm feeling that the organization belongs to him is induced into him only during his induction and training process. Training becomes very important as an employee’s skills and knowledge is enhanced to the latest techniques used in the organization which helps the employee in working efficiently.

- Attendance system and working hours:
  Nystrom (2008) says that the subject of the promptness of trains, or the punctuality, becomes an important topic of public awareness as commuters suffer due to lengthy delays. In order to diminish delays, railways must have a thorough understanding of their own system as they cannot just copy others, as it differs from nation to nation and state to state depending on the circumstances. He concludes by saying that uncertain fundamental delays are inevitable; and the final root cause is not always found. Hence what is to be done is to make possible integration and simplicity of exploiting of data sources which will help in daily maintenance work.

- Latest Technology
  Meier, Ruiz Ben, & Schupp (2013) this study further explains the criticality of employees using technology apart from common software problems which they face. This research has found multiple reasons for employees hesitating to use technology, first being the apprehension of losing their jobs. Thus they must be convinced by the senior management that technology does not deprive them of their jobs but instead enrich and make their jobs easier.

- Work culture and work atmosphere:
  Bhaduiy (1991) says that there needs to be a positive and conducive work culture for any organization to match today’s competing world of innovativeness .There also needs to be coordinated efforts from all members of the organization in order to achieve their goals. Therefore he feels that the most important of all in an organization is to have good work culture that motivates their employees to increase their productivity

Bhatti & Qureshi, (2007) this research was done to find out the impact of employees participation on job satisfaction, employee commitment and productivity.it is found that there is a large impact on the employee productivity and performance with the participation of employees in an organization. The study has also found that with the increasing satisfaction of the employees even the performance increases and that satisfaction is directly proportional to performance and productivity.

3. RESEARCH METHODOLOGY

Objectives of the study:

- To examine the extent to which work culture, absenteeism and latest technology affects the employee performance in the EMU workshop of Southern Indian Railways.
- To provide suggestions to overcome these factors thereby improving the performance of the employees.

Research design and implementation:

This study is a descriptive study. The nature of this study highly depends on observation and measurement. The descriptive study suits best for researches that answers questions of what are the challenges faced by people, how are the programs implemented in a particular organization, what are the significant factors that affect or cause a
significant change in the organization. This particular study aims at developing statistical information as results which will help the organization in increasing the performance of employees and thereby further enhancing performance of Indian Railway etc.

A questionnaire method was adopted for collecting the data for all the supervisors who act as a liaison between the employees and the administrators. Primary data was collected by distributing it to the supervisors and this data was analyzed. These variables try to measure the employee’s performance in terms of their experience, age and also they also tries to identify if performance differs in terms of gender. The age of the supervisors were divided into 4 categories ranging from 21-30, 31-40, 41-50 and 51-60. Based on the age technology readiness, absenteeism was measured and this gave a clear understanding of how people differ on the basis of age.

With the help of descriptive statistics and also chi square test using SPSS. The questionnaire was distributed to the supervisors with a disclaimer that it would be used only for academic and research purpose with a brief purpose for the study. The total number of respondents was 41 out of 60 participants which show a response rate of 68.3%.

The test used to check the reliability of this questionnaire is split half test in excel. The split half test is done by dividing the questionnaire into two sections of odd and even sum and the questionnaires reliability is analyzed thereby calculating correlation, spearman correlation and also spearman brown correlation. The acceptable range for reliability is .50-.90. The obtained value for correlation is .60, that of spearman correlation is .91 and spearman brown correlation is.75 which is within the acceptable range which means that it has established a reasonable consistency of variables used in the questionnaire.

4. FINDINGS AND DISCUSSION

Indian railway is at cross roads. Forces of change in the way we conduct business are gaining strength and eminence with every passing day. In such a scenario, personal managers have the crucial task of helping the organization reach its goal and helping the employees reach their potential. They must be a part of the solution and not the problem.

Previous studies have shown that the working atmosphere in an organization is very important and this study has proved that among several factors that affect the employee performance it is rated the highest. Figure 1 represents the factors affecting employee performance.

![Figure 1 Factors affecting employee performance](source)

Findings based on percentage analysis:

1. Work culture:

   Figure 2 shows the work culture and its impact on EMU workshop. The job allocation done is not appropriate because of which there is a need for overtime allowance which can be avoided. The main motive of proper job allocation is to reduce the overtime allowance for the work which can be finished in the normal working hours. It is also found that the women are given equal importance as the need for them is felt and the work gets affected when they go on maternity leaves. The management feels that the women employees are competent enough when compared to that of male employees. Though the productivity is quite low, it was observed that the output produced is of good standards.

2. Absenteeism

   Figure 3 clearly shows that the present system followed for attendance system in the organization is not at all effective. 80% of respondents agree to the fact that the system is ineffective and they also recommend that the productivity or the performance of the employees can be increased or improved if the employees work for full 8 hours. The management
agrees to take an initiative of introducing electronic gate attendance which will help the management in reducing the problem of absenteeism to a certain extent. This can help the top management in knowing what is happening at each of the workshops and they can easily link the employee’s wages based on their individual contribution. Further they are anticipating a great hindrance in introducing this new system of maintaining attendance.

Figure 3
Impact of Absenteeism

Source: Field Survey- Primary data

3. Training in latest technology

Figure 4 represents the latest technology that is being used in the workshop. This shows that the latest tools and technologies are being provided to the employees and there is readiness among the employees to adopt the latest technology which shows that the staff is conversant with the technology. The supervisors agree to the reality that certain employees require training which improves their skill and performance as well as the quality. More emphasis is placed in latest technology because the management feels they can improve the performance and also the output of the organization. Technology plays a very important role because it can bridge the gap that exists between the developed countries and the developing countries.

Figure 4 : Impact of Technology

Source: Field Survey- Primary data

Key findings based on Chi-square and Phi Cramér’s V

Chi square test helps in understanding the relation between the different independent variables whereas Phi and Cramér’s V tells the strength of a relationship.

TEST OF HYPOTHESIS

- Relationship between age and attendance system and working hours:

Ho: There is no relationship between age and absenteeism.
H1: There is relationship between age and absenteeism.

Chi square test was used to analyze whether there exists a relationship between the age of the respondent and the Attendance system in EMU workshop. The result of this analysis showed that there is no relationship between these variables since p value = .344, and chi square value = 19.798. For a significance level of 5%, p value of .344 which is greater than 0.05, we accept the null hypothesis. From the above analysis it can be inferred that, the respondents in the organization have no perceivable pattern of opinion regarding the attendance system in the EMU workshop.

- Relationship between age and training in latest technology:

Ho: There is no relationship between age and training in latest technology.
H1: There is a relationship between age and training in latest technology.

Chi square test was used to analyze whether there exists a relationship between the age of the respondent and the use of latest training to see if the employees are conversant with the latest technology. The result of this analysis showed that there is a relationship between these variables as inferred by the supervisors since p value =.008, and chi square value =35.738. For a significance level of 5 %, p value is .008 which is less than 0.05; hence we reject the null hypothesis. Hence the analysis of this study shows that there is a strong relationship between the age of the respondent and the latest technology that the employees use. Hence there is a pattern of relationship between the different age group of respondents regarding the usage of latest technology. Phi and Cramér’s V test was used to analyze the association between the attendance system and the age of the supervisors/respondents. It was found that there is a weak positive relationship between the two variables as the phi value = .623 which falls within the range of 0.3 to 0.7.
the two variables as the phi value = .945 which lies within .7 and 1

- **Relationship between age and work culture & job allocation**

  Ho: There is no relationship between age and work culture & job allocation
  H1: There is relationship between age and work culture & job allocation
  Chi square test was used to analyze whether there exists a relationship between the age of the respondent and the work culture in the organization. For a significance level of 5 %, p value is .413 which is greater than 0.05, we accept the null hypothesis. Hence it can be concluded that there is no perceivable pattern exists among the different age groups on the work culture of the organization.
  
  Phi and Crammer’s V test was used to analyze the association between the work culture and the age of the respondent and if their age has any impact on acceptance towards the culture of the organization. It was found that there is a weak positive relationship between the two variables as the phi value = .623 which lies between 0.3 and 0.7.

- **Relationship between gender and attendance system & working hours**

  Ho: There is no relationship between gender and absenteeism.
  H1: There is relationship between gender and absenteeism.
  Chi square test was used to analyze whether there exists a relationship between the gender and the absenteeism rate. It was found that there is no significant relationship between the absenteeism and gender since p value = .980, and chi square value = 1.134. For a significance level of 5 %, p value is .980 which is greater than 0.05, therefore we accept the null hypothesis.
  
  Phi and Crammer’s V test was used to analyze the association between the gender and the absenteeism rate. It was found that there is no relationship or association between the two variables as the phi value = .168 which lies between -0.3 and +0.3. Hence it can be proved that there exists no relationship between the gender and the attendance system and working hours.

- **Relationship between gender and work culture & job allocation**

  Ho: There is no relationship between gender and work culture
  H1: There is relationship between gender and work culture
  Chi square test was used to analyze whether there exists no relationship between the gender and the work culture in the organization. Hence there is no difference in opinion regarding the work culture between both the genders. And the result of this analysis showed that there is no relationship between these variables since p value = .277, and chi square value = 6.316. For a significance level of 5 %, p value is .277 which is greater than 0.05, we accept the null hypothesis. Hence the findings of the study show that there is no significant relationship between the gender and the work culture of the organization.

  Phi and Crammer’s V test was used to analyze the association between the work culture and the gender of the employees and if their gender has any impact on acceptance the work culture of the organization. It was found that there is positive relationship between the two variables as the phi value = .397 which lies between 0.3 and 0.7. Hence it can be proved that there exits some relationship between the gender and the work culture.

- **Relationship between gender and training in latest technology**

  Ho: There is no relationship between gender and training in latest technology.
  H1: There is a relationship between gender and training in latest technology.
  Chi square test was used to analyze whether there exists a relationship between the gender and the use of latest technology to see if there is any difference in the attitude of gender with the use of latest technology. And the result of this analysis showed that there is no relationship between these variables since p value = .209, and Chi-Square value=8.421. For a significance level of 5 %, p value is .209 which is greater than 0.05, we accept the null hypothesis.
  
  The findings of the study show that there is no significant relationship between the gender of the employees and the latest technology that the employees use. At α = 0.05 level of significance, there is enough evidence to conclude that, an employee’s gender does not determines his readiness towards using the latest technology.
  
  Phi and Crammer’s V test was used to analyze the association between the latest technology and the gender of supervisors to find if their gender has any impact on acceptance towards the latest technology. It was found that there is no relationship between the two variables as the phi value = .459 which lies within the range of .3 to .7. Hence it can be proved that there exists no relationship between the gender and adoption of technology as the supervisors of both the gender have a similar opinion.

**Other Findings:**

Percentage analysis was done separately based on all the variables:

1. **Attendance system and working hours:**
   - The attendance system is ineffective.
   - The supervisors felt that the performance can be increased if the employees work for full 8 hours.
   - The electronic gate attendance leads to effective monitoring of the employees.
   - The respondents also felt that there would be a hindrance to introduce the new system of attendance.
2. **Work allocation and culture:**
- The job allocation done by the supervisors was justified.
- The overtime allowance cannot be reduced.
- The output turned out is of good standards
- The women employees are competent and the work does get affected when they go on a maternity leave.

3. **Training in latest technology:**
- The latest tools are provided to the employees and they are ready to adopt the tools.
- The employees are conversant with the technology.
- The training improves performance and quality and that training is necessary for the employees.

Following are the findings that the researcher has found using chi-square analysis.

1. **Attendance system and working hours:**
   - Irrespective of the different categories of age group that the supervisors belong to, all of them have a similar opinion toward the attendance system that is followed in the organization.
   - All the supervisors felt that the work culture in the organization is not responsible for the ineffective attendance system.
   - Irrespective of the gender all the supervisors have a common opinion on the attendance system which proves the fact that the attendance system followed is not effective.

2. **Training in latest technology:**
   - Irrespective of the gender, all the supervisors believe that the use of latest technology is necessary for improving the performance of the employees.
   - There needs to be training provided to all the employees once in 6 months as the opinion of supervisors is similar and does not differ in terms of gender.

The results of the analysis show the most important factors that affect the performance of the employees in respect to this particular workshop. The results of this study can be generalized only in the other EMU workshops of Indian railways which have similar problems and not any other organization.

5. **SUGGESTIONS**

**Attendance system and working hours:**
One of the important problems that need immediate attention in the EMU workshop is the punctuality of the employees.

The employees have to report to their duty on time and are also expected to remain till the completion of their working hours which doesn’t happen in the organization most of the time. The work or the job can be allocated only if the employees are available for full working hours. The problem of absenteeism can be reduced to a certain extent only if proper attendance system is maintained in the organization. Hence the following steps can be taken in order to maintain an effective attendance system in the organization:

- **Attendance in the morning, while leaving for lunch, after lunch and while leaving in the evening should be made compulsory as the supervisor can link the employee’s wages or payment to his attendance so that wages are paid only for the job done.**
- **Bio metric or electronic gate attendance system can be introduced, so that the supervisors or even the top management can have a proof of presence of every employee in the organization during working hours. The biometric attendance should be signed 6 times a day as per the railway establishment board.**
- **Attendance system maintained should be in such a way that man interference should be eliminated and technology is introduced in its place as it can reduce the problems caused due to unions to a greater extent.**
- **Politics from employee’s side in the name of union should not be encouraged during the working hours and this can be done only if the concerned officer is daring and fearless.**

**Work culture and work atmosphere:**
The work culture of Indian railways is very relaxed. The culture of the organization demands 8 hrs. of standard working time but the productive work that is turned out by the employees is only for 3-4 hrs. It is observed during the study that employees complete the allocated job leisurely in 4-5 hours’ time which actually could have been finished in 2-3 hours and the remaining time is turned out to be unproductive. This is mainly due to lack of proper discipline maintained by the administration and union problems. Hence the job allocation should be appropriate. It should be based on the benchmarking standards of Indian railways.

Some of the suggestions to improve the culture of the organization are

- **If the employees or staff remain in the workshop by compulsion of attendance the job allocation can also be increased gradually to each employee and ultimately the excess man power can be surrendered gradually which will fetch revenue to the railways by the way of saving salaries & perks to the employees.**
- **The unnecessary expense of paying the employees on an overtime basis can be completely stopped thereby saving the costs for Indian railways by the way of extracting**
work from the employees during the normal working hours for which proper job allocation is done by the supervisors.

- The organization culture should be flexible but at the same time there should be strict discipline maintained during the working hours so that the employees don’t use their union powers in the work place.

- Women employees who go for a maternity leave should be replaced by a temporary employee as the 1 year period might be too long for the organization to manage her job without a substitute.

- Special felicitation programs should be organized so that the employees are encouraged and motivated to give their unique contribution.

- The clean India campaign (i.e. the Swachh Bharat Abhiyan) made all the employees pledge to commit themselves to ensuring cleanliness in the work place, the employees voluntarily and enthusiastically participated in the cleanliness drive.

### Training in latest technology:

Technology is very important for all organizations in order to increase their productivity and performance. Employees in workshops must be trained to use the technology as there is no use if employees do not know how to use them. It is also difficult for employees of older generation to use the latest technology and they should be adaptive to the changing environment. Some of the suggestions to improve performance using latest technology are:

- Employees should be given training for every 6 months as technology keeps changing very quickly.

- Training that is provided to staff and supervisors should be more interesting and interactive.

- Special training methods can be adopted like on the job training, simulator training, and computer based tutorials and also on the PC.

- Multi skill training should be provided for employees and there needs to be additional pay for acquiring any additional skills so that the employees also get eager to be trained.

- Latest technology equipment’s like spray guns for painting the coaches should be used so that the burden of the employees is also reduced and the quality of work is improved.

- The usage of more mechanized and technologically advanced gadgets and better types of cleaning agents may be proliferated to achieve improved standard of performance.

- Leveraging the technology railways needs to explore all modern means to reach its customers and change the way railways have been doing its business.

- User friendly web based data logger MIS analysis system can be developed and implemented which enables all the departments to get exception report online for higher management analysis and to take corrective action.

- Coming to the futuristic vision of southern Indian railways, it is already in the path of modernization and expansion. New innovations and initiatives in key areas like the infrastructure and freight operations will help to ensure esteemed customers safe, efficient and reliable journey. With the cohesive efforts of its efficient and committed employees, southern railway is surging ahead on the path of the progress

- Last but not the least , optimistic and determined approach towards following up the measures discussed above will set the degree of compliance for improvement in the performance of employees being a track to the future with incredible benefits to the common man.

### 6.5 Scope for future research

The researcher has taken a very few variables which are used to identify the Factors affecting employee performance. So the study can be extended to other variables. This study is confined only to the supervisors’ of EMU workshop. The study can also be extended to employees’ view wherein there can be a comparison between the two. This study is done only in the EMU workshop of Chennai (Tambaram) and the study can be extended to all the other EMU workshops of Indian railways.

### REFERENCES:


