

"MANPOWER PLANNING OPTIMIZATION: A STUDY ON HARYANA ROADWAYS"

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Manpower planning is the process by which an organization ensures getting the right number and right kind of people, at right place, at right time, capable of effectively and efficiently completing those tasks, that will help the organization to achieve its overall objectives. Manpower planning has always been the crucial part of all the industries as it helps in performing the managerial functions in the organization. It also helps in effective utilization of manpower, motivates the employees to perform their jobs well and stabilizes human relations in an organization. This research deals with certain factors or variables like periodic and realistic manpower needs, staff costs, optimum productivity and overall growth for the optimization of the manpower in the organization. In the present study, manpower planning optimization in the Haryana Roadways, has been analysed. The focus of this study has been on the lower level of management of this transportation industry, i.e., the level below the general managers. It includes: works manager, traffic manager, store purchase officer, accounts officer, superintendent and assistant district attorney. The periodic and realistic manpower needs have been determined, measures have been taken to regulate the staff cost to ensure optimum productivity and overall growth of the organization. And finally a model has been developed for the optimum utilization of the manpower recruited.

INTRODUCTION:

Manpower planning aims at ascertaining the manpower needs of the organization and also aims at continuous supply of right kind of personnel to fill various positions in the organizations. Manpower planning is a two phased process by which management can project the future manpower requirements and develop suitable action plans to accommodate the implications of projections.

IMPORTANCE OF MANPOWER PLANNING

Key to managerial functions- The four managerial functions, i.e., planning, organizing, directing and controlling are based upon the manpower. Human resources help in the implementation of all these managerial activities. Therefore, staffing becomes a key to all managerial functions.

Efficient utilization- Efficient management of personnel becomes an important function in the industrialized world of today. Setting of large scale enterprises requires management of large scale manpower. It can be effectively done through staffing function.

Motivation- Staffing function not only includes putting right men on right job, but it also comprises of motivational programmes, i.e., incentive plans to be framed for further participation and employment of employees in a concern. Therefore, all types of incentive plans become an integral part of staffing function.

Better human relations- A concern can stabilize itself if human relations develop and are strong. Human relations become strong through effective control, clear

communication, effective supervision and leadership in a concern. Staffing function also looks after training and development of the work force which leads to co-operation and better human relations.

Higher productivity- Productivity level increases when resources are utilized in best possible manner. Higher productivity is a result of minimum wastage of time, money, efforts and energies. This is possible through the staffing and its related activities (Performance appraisal, training and development, remuneration).

TRANSPORTATION INDUSTRY IN INDIA

The transport sector of India is very large and diverse which caters to the needs of around 1.1 billion people. In 2007, this sector contributed to about 5.5 percent to the nation's GDP, road transportation contributing the maximum share. For economic growth of the country good physical connectivity in the urban and rural areas is essential. Since 1990s, a rise in demand for the transport infrastructure and services has been witnessed with India's growing economy but the transportation sector has not been able to cope with the rising demand and prove to be a drag on the economy. Hence, major improvements are required for supporting the country's continued economic growth and for reducing poverty.

Railways: Indian Railways is one of the largest railways and operates under single management. It is one of the world's largest employers and carries around 17 million passengers and 2 million tons of freight a day. Indian railways play a vital role in carrying passengers and cargo across India. However, most of its major corridors have capacity constraint requiring capacity enhancement plans.

Roads: Now day's roads are the dominant mode of transportation in India. These carry almost 90 percent of the country's passenger traffic and 65 percent of its freight. The density of India's highway network is 0.66 km of highway per square kilometer of land which is similar to that of the United States (0.65) and much greater than that of China (0.16) or Brazil (0.20). Most of the highways in India are narrow and congested with poor surface quality. 40 percent of India's villages do not have access to all-weather roads.

Ports: India has 12 major and 187 minor and intermediate ports along its more than 7500 km long coastline. These ports serve the country's growing foreign trade in petroleum products, iron ore, and coal, as well as the increasing movement of containers.

Aviation: India has 125 airports, including 11 international airports. The dramatic increase in air traffic for both passengers and cargo in recent years has placed a heavy strain on the country's major airports. Passenger traffic is projected to cross 100 million and cargo to cross 3.3 million tons by year 2010.

Transport infrastructure in India is better developed in the southern and southwestern parts of the country.

WHY TRANSPORTATION INDUSTRY

The transportation industry faces some common manpower planning problems and challenges:

- Image of the transportation industry is so much deteriorated that it does not attract the skilled labour in the industry.
- Training is an important issue. There is a need to train the attracted people to allow them to reach the productivity level.
- Need to develop the human strategies to satisfy the people in the industry.
- Need for fund innovation capacity allowing workforce to contribute to the production of new and improved goods and services or processes.
- Need to have more central forums where workforce can act collectively for handling the problems they are facing instead of facing the problems alone.



RELEVANCE OF THE STUDY:

Manpower planning is the first step in the process of procurement of human resources of an organization. It covers more than simply planning for the future manpower needs of an organization. Manpower Planning is a two-phased process because manpower planning not only analyses the current human resources but also makes manpower forecasts and thereby draw employment programmes. Manpower Planning is needed in the organizations because:

- Shortages and surpluses can be identified so that quick action can be taken wherever required.
- All the recruitment and selection programmes are based on manpower planning.
- It also helps to reduce the labour cost as excess staff can be identified and thereby overstaffing can be avoided.
- It also helps to identify the available talents in a concern and accordingly training programmes can be chalked out to develop those talents.
- It helps in growth and diversification of business. Through manpower planning, human resources can be readily available and they can be utilized in best manner.
- It helps the organization to realize the importance of manpower management which ultimately helps in the stability of a concern.

This study will help to determine the level of job satisfaction among the employees working in the Haryana Roadways and the level of satisfaction of the customers of the Haryana Roadways. This satisfaction level will help to establish a relationship between the customer satisfaction and job satisfaction of the employees and also between the job

satisfaction of the employees and their performances. This in turn will help to determine the performance through which the optimum utilization of the recruited personnel can be done so as to abolish the surplus and redundant posts as this directly affects the cost and the overall objectives of the organization.

OBJECTIVES OF THE STUDY:

- To determine the impact of job satisfaction on performance of the employees.
 - a.) To determine the level of job satisfaction of the Haryana Roadways employees on their extrinsic rewards and intrinsic rewards.
 - b.) To assess the level of relationship between performance of the employees and job satisfaction.
- To study the relationship between employee satisfaction and customer satisfaction in Haryana Roadways.
- To determine the relationship between job satisfaction and employees productivity.
 - a) To determine the relationship between physical components at work and performance.
 - b) To determine the relationship between behavioural components at work and performance.
 - c) To analyse which of the two components: physical or behavioural, have greater effect on performance.
- To determine the efficiency, effectiveness, performance and productivity of the various depots of Haryana State Transport Undertaking.



RESEARCH METHODOLOGY:

The type of study adopted in this research is descriptive research design. This design was appropriate for the study as it did not allow for the manipulation of the variables.

A research design entailed the arrangement of conditions for collection and analysis of data in a manner that aimed to combine relevance to the research purpose with economy in procedure. Through this research, we analysed the various factors which motivated people to behave in a manner or which made people like or dislike a particular thing and thus leading to the satisfaction of employees and satisfaction of the customers and hence the impact of job satisfaction on job performance of employees working in Haryana Roadways.

The data collected justified the use of this research design. The design was based on the assumption that population surveyed was a representative of the whole population. Questionnaires were issued on the sampled population.

SAMPLE DESIGN

Multistage stratified random sampling was done except for managers. Though there were six managers in each district

thus all were included as the sample for the research. Stratified random sampling is a type of Probability sampling technique where the samples are gathered in a process that gives all the individuals in the population equal chances of being selected. In this sampling technique the entire target population is divided into different subgroups, or strata, and then the sample is selected randomly from the different strata. For the purpose of analyzing the research problem, the respondents were selected from the five districts of Haryana, namely, Ambala, Hisar, Rewari, Panipat and Rohtak to carry out the research. These districts were selected on the basis of their efficiencies. The districts with maximum efficiency in the region were selected. Three employee categories were considered: Managers, Non Managers and Drivers. The employees were included in the sample to analyze the relationship between job satisfaction and performance and hence determine the productivity of the employees of Haryana Roadways. And the customers of Haryana Roadways were also included in the sample to analyze the impact of employee satisfaction on customer satisfaction.

SAMPLE SIZE

Sample size of 780 was drawn for the purpose of carrying out this research; out of which 530 were the employees of Haryana Roadways and 250 were the customers who travel in Haryana Roadways more than once in a month (refer Table3.1).

Table 3.1 - Composition of Sample

Respondents	Number
Managers	30
Non-Managers	250
Drivers	250
Customers	250
Total	780

METHOD OF DATA COLLECTION

The method of data collection used in this research was mainly the questionnaire method. This method was used to collect the primary data for this research and then the analysis was carried out on the basis of the data collected. This method enabled one to collect the different views and opinions as well as quantitative data.

The primary data was collected using the questionnaire method; it affords the advantages of speed, cost and versatility. The questionnaire was developed using the review of literature. To avoid any subjectivity bias, questionnaire included the questions and the information based on the various levels of the data measurement. The respondents are instructed to tick an appropriate box for each question. Some close – ended questions were also included. Three separate questionnaires were developed to carry out the research and to determine the results for the objectives. Personal interviews and discussions were also conducted to support the data set. The SPSS software version 16.0 was used as a tool to analyse the data collected through the means of questionnaire and to determine the output.

The questionnaire contained questions related to productivity, competence and performance. The job facets were based on Herzberg’s theory to measure the employee productivity. These job facets were company policies, technical supervision, interpersonal relations, salary and employee benefit package, working conditions, achievement, recognition, advancement and opportunity for growth, working hours, nature of work, workload, physical factors at workplace, behavioural factors at workplace and responsibility. The employee performance was measured in terms of effort extended to the job. The respondents were required to indicate their level of productivity by using scales ranging from very low to very high and some close ended questions were also included in the questionnaire.

Further in order to determine which rewards (motivational and hygiene) make high level productivity, the above identified job facets were divided into extrinsic and intrinsic rewards. Extrinsic rewards will be determined through status, security, pay, promotion, interpersonal relations and intrinsic rewards will be determined through recognition, growth, accomplishment, challenge, autonomy, completion, feedback, and variety of job. The employee performance was measured in terms of effort extended to the job.

The factor analysis and discriminant analysis were done on the factors for the non-managers and drivers. No factor analysis and discriminant analysis was conducted on the factors for managers because the sample size for managers was very less. The coefficient of correlation was also applied to identify the impact of job satisfaction on the performance of employees and it was calculated by using level of job satisfaction as the independent variable and level of performance as the dependent variable for the employee categories.

The separate questionnaire was used to collect the data pertaining to the attitudes related to customer satisfaction with service quality, employee coordination, and customer loyalty and employee behaviour with customer and employee satisfaction with perception of work resources, perception of relationship value and reward system. The questionnaire was divided into two sections: Section one consisted questions related to customer satisfaction and Section two contained questions related to employee satisfaction. The respondents were required to indicate their level of satisfaction rating by using a five-point scale ranging from very low to very high and some close ended questions were also included in the questionnaire.

The coefficient of correlation was applied to identify the impact of employee satisfaction on customer satisfaction and it was calculated by using level of employee satisfaction as the independent variable and level of customer satisfaction as the dependent variable.

The IFAS and EFAS were also conducted on the different variables to determine the impact of the internal factors and external factors on the satisfaction of the employees and hence their performance.

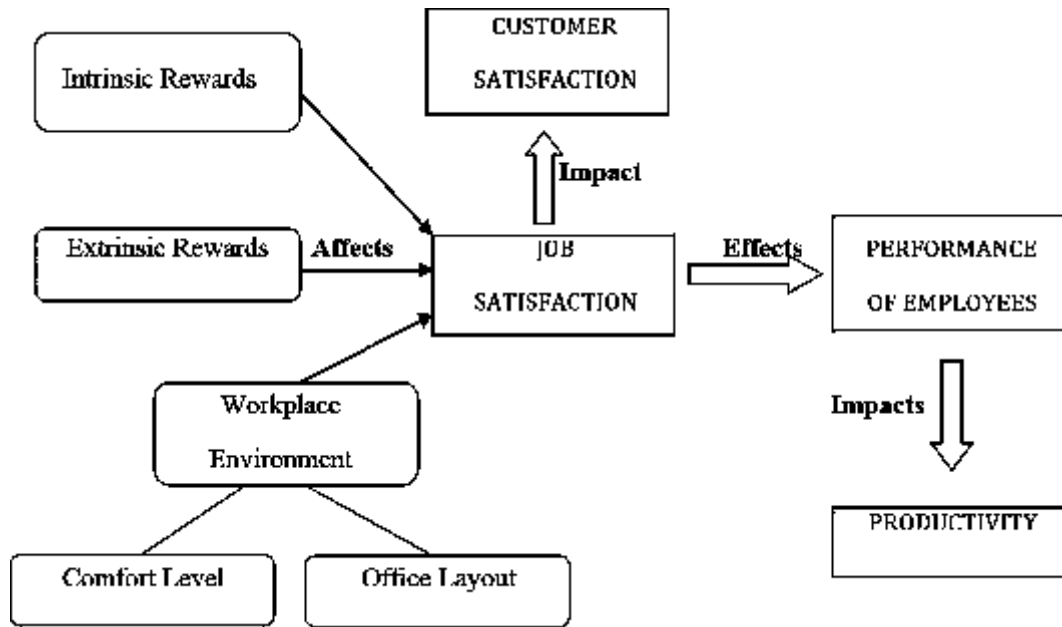


Fig. 3.2: Conceptual Framework

The data for this study also covered 20 depots of Haryana State Transport Corporation. The data had been obtained from the Transport Statistics of Haryana State Transport Department (2011-12). This acquired Total Staff, Fuel Consumption and Fleet Strength as input variables and Passenger kilometres as the output variable.

In this study, we had selected a single output, Passenger kilometres (Pass-kms), produced by the above three inputs. A passenger kilometre is basically revenue passenger kilometres take into account the demand side information. It is obtained by multiplying load factor to effective kilometres and capacity (Pass-kms = Load factor * effective kms * capacity). The output is taken as the outcome of the utilization and combination of three inputs - total staff, fuel consumption and fleet strength. Total staff refers to the total number of employees working in a depot. Total staff is the representative of the labour input. Fuel consumption refers to the fuel consumed (in Lakh Litters), which is measured by dividing total earned kilometres by fuel average. It is the representative of the material cost. Fleet size comprises the average number of buses held in a depot. Efficiency, effectiveness and productivity are calculated for each depot using the desired formulas for their calculation.

In this study, input-oriented model had been employed, i.e. how much resources could be reduced without changing the output produced to make the depot efficient (Charles et. al., 1997).

A model of DEA (Data Envelopment Analysis) was used to evaluate Technical efficiency.

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$$\text{Effectiveness} = \text{Actual output} / \text{Expected output}$$

Using this formula the effectiveness of Haryana State

Transport Corporation depots based on operated kilometers could be calculated.

$$\text{Staff Productivity} = \text{Effective kilometers} / \text{persons} / \text{day}$$

Using this formula the productivity for the staff of the depots of Haryana State Transport Corporation could be calculated.

$$\text{Vehicle Productivity} = \text{Effective kilometers} / \text{Bus} / \text{day}$$

Using this formula the productivity for the buses of the depots of Haryana State Transport Corporation could be calculated.



ONCEPTUAL FRAMEWORK

The conceptual framework was designed to give the clear understanding of the inter-linkages between the different variables used in the study. This also helped to depict the impact of one variable on the other variable used in the study.

The above flowchart shows the study framework of the study in the form of input and output factors.



ONTRIBUTIONS OF THE PRESENT STUDY

1. Research on road transport corporations in India is limited; especially passenger transportation most early studies of the 1970 through 2000 have analyzed financial performance of roadways corporations. The present study focuses on the internal and also external stakeholders. The internal stakeholders are the employees while the external ones are the customers. Therefore, this study fills an important gap in the Indian literature on the interface between the internal and external stakeholders.

2. This study links employee satisfaction to the overall organizational performance. Until, the employees are satisfied and motivated enough they are unlikely to interface with the external stakeholders and contribute towards organizational performance.
3. This study analyses the dimensions of work conditions and behavioral characteristics of the employees as these leave significant impact on the organizational performance and stakeholders interface.
4. The present study highlights performance aspects of non-

- managerial and drivers personnel (a majority group of employees) which enables us to better appreciate the case aspects of optimization of manpower planning.
5. According to our information this is the first ever study on the organizational and HR aspects of a road transport corporation in India and hence is the contribution.
6. The study will help future researches on organizational-stakeholders interface.

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