Training and Work Motivation: Relevance of Technical Training and Evolving Environmental Changes Outside the Organization

Prasad S N

Introduction

Indian public transport system which comprises of the railway and the public transport buses. This case study pertains to the Karnataka State Road Transport Corporation (KSRTC) which runs more than 14000 buses every day across Karnataka and neighbouring states.

Driver training is an important aspect of human capital development in an organization which provides primary public transport as part of the government machinery. A study was conducted by the author at the Mysore Depots of the KSRTC as part of his doctoral research work to assess the impact of training on the behavioural and motivational aspects on the bus drivers. This case study paper has been written based on the primary data collected and analysed.

While the management of the public transport organization spends enormous amounts of money in training of its personnel as an ongoing process, the density of vehicles on the road, number of people using the road as pedestrians, vehicle passengers, drivers, operators have been steadily increasing along with increase in incomes and population. It is pertinent to highlight the necessity of maintaining growth in the training quality and scales such that the transfer of knowledge and skills in training matches the changes in the



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The case writer(s) Prasad S. N. Assistant Professor - OB &HRM, may be reached at snprasad@sdmimd.ac.in Author(s) have prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of the situation. This case is fictionalized and any resemblance to actual person or entities is coincidental. This publication may not be digitized, photocopied, or otherwise reproduced, posted, or transmitted, without the permission of SDMRCMS, SDMIMD, Mysore. For Teaching Notes please contact sdmrcms@sdmimd.ac.in.

environment. The changes in the environment include deteriorating road conditions, increase in the number of vehicles on the road while the width and lengths of the roads remain the same.

Further, changes in the education system in India which have taken place in the last two decades affect the technical workers' profession in several ways. Today, a 9-10 standard student is provided training in operating a computer as part of his normal schooling. This was not the case in the 1990s. The same child, if he becomes a bus driver, he is capable of learning and handling equipment of a technically higher order needing better understanding of the structure, operation and design.

An Individual Case in Point

Mr Ramesh is a 35 year old driver at the KSRTC for the last 11 years. He is a 10^{th} class pass who joined the organization as an apprentice driver and was later absorbed as a bus driver at the age of 24. He has been driving buses all through his service.

He received his initial training as a bus driver through practical driving lessons and class room lectures in a ratio of 90% -10%. The training was given by experienced drivers who were nominated as instructors. His understanding of the bus as an equipment is basic, the buses he drove were not equipped with computerised diesel engine or electrical steering system or self closing doors or fuel kilometerage calculation system or the air conditioning system. Thus, the organization, found him unfit for nomination as driver to Volvo buses which possess all these systems. His rejection was based on his inability to understand these systems which was evaluated through a written test. He remembered that while his education is of high school level, the present high school student has seen and used the above system as part of the changing social environment.

Whereas, drivers who are 8 years junior to him with the same 10th standard could pass the test easily and were selected to undergo training to drive Volvo buses. These drivers now earn a

higher pay than Mr Ramesh and he has remained outside this race because the social, educational environment has seen a change and the technological advances have overtaken his professional development as a driver. The reasons for rejection of Mr Ramesh to operate a higher technical equipment have several dimensions, that:

- Mr Ramesh may not have kept himself updated regarding the technological developments in his professional area
- The KSRTC has failed in conducting frequent refresher trainings such that whenever a new vehicle or equipment is introduced into the system, the people learn its operation by default.
- The positive changes in the education curriculum in general till
 the high school level have made those who passed through the
 high school education earlier obsolete such that they are unable
 to understand the technological advances in the environment.

Road Conditions, Road Accidents and Work Motivation

Mr Ramesh *, till date in his 11 years of service has been involved in 2 cases of road accidents. Both were related to his bus colliding or brushing with 2 wheelers. In both cases, he was blamed for 'human error' in failing to judge the available space between his vehicle and the 2 wheeler.

In his service he has seen a steadily increasing number of 2 wheelers on the road whereas the size of the road and the space available on the same road has remained the same. When he was asked the question as to what was the reason for the 'human error', his answer pointed at the following:-

- When he started driving 11 years ago, the number of vehicles including 2 wheelers were
 - (* Name changed to protect identity of the person interviewed)
- about a tenth of the numbers plying on the roads now.

- He was trained by experienced drivers in following the traffic regulations on relatively empty roads and getting used to increasing density of vehicles on the roads is becoming difficult every day.
- Presently, all vehicle drivers using the roads do not have alignment in their respective driver training. Some follow road regulations and some don't, before the law takes its course, the loss or damage would have happened.
- In addition to the increased number of vehicles on the road, the condition of the road after a monsoon season will be in a deteriorated state. Every driver will be balancing his attention towards the other vehicle movement and in avoiding the pot holes or other obstructions or pedestrians.
- Foot path width has reduced progressively with widening of the roads by the authorities, if what is left of the foot path is blocked, the pedestrians start walking on the roads making it difficult for all vehicle users.

Road conditions are one of the major reasons for unsafe driving and the resultant accidents. Analysis of reasons for bad road conditions are beyond the purview of this case study and hence not dealt with in detail.

From the above, it is evident that Ramesh is not completely ready currently to efficiently carry out his duties as a driver without apprehension. Part of the reason is the lack of concurrent training regime which addresses the changing road conditions.

However, his juniors have been trained on driving simulators which depict the current road conditions and it is found that they are confident in handling their vehicles in a better manner.

Organisational Training and Work Motivation

As explained above, Ramesh is at a crossroads as regards to professional competency as well as his career prospects partly due to the shortcomings in his professional training. The net outcome is,

that the developments in the last 11 years have affected Mr Ramesh's motivation levels negatively. The reasons are not hard to see. Here is an employee who has worked for 11 years in the same organisation and someone junior to him with the same qualifications has been upgraded in a different cadre framework whose resultant output is the same as his work profile. This could happen because the education system evolved over a period of time and the junior employee is a beneficiary of that evolved education system.

The system or the organization has faltered in continuously upgrading their training programs and encouraging the employees to be sensitive to changes in technology, usage and innovations with respect to the vehicles and equipment which are primary to their profession.

The effect on motivation and morale of Ramesh and his colleagues who are in the similar state of affairs needs to addressed by the organisation by giving them multiple chances to develop and reskill themselves.

Literature Survey Relevant to this Case Study

Papers published at the Central Institute of Road Transport (CIRT), Pune and the training manuals of the KSRTC, Ashok Leyland Driver Training Institute, Namakkal and publications from the Ministry of Road Transport provided the researcher with the past data regarding studies made on driver behaviours, training perspectives, road accident data, city wise assessment of effectiveness of transport safety have been studied. In addition, perspectives on heavy vehicle driver training at the European Union and use of technology in driver training have been studied from the available research papers and publications.

Excerpts from this literature survey which are significant in triggering writing this case study paper are as under:-

"Improving Traffic Behaviour: Exploring a Self Guided Learning Approach" by DP Dash, Published on Indian Journal of Transport Management (IJTM) ISSN0972-5695 Vol 29, No 3, Jul-Sep 2005.

The paper departs from conventional wisdom in traffic engineering to address the issu of traffic safety from behavioural and social science perspective. It demonstrates how traffic users can learn to improve their own understanding and behavior, through a wwell designed small group intervention process. The approach relies on the capacity of traffic users to support each other in improving their appreciation of traffic acomplexities and cope with it bettr through a process of self-guided learning. The process involved exposing five different groups of traffic users to different versions of a multi-stage group exercise and assessing the effects over a period of time. The main findings were,

- Group exercises seem to produce self reported goal fulfilment and behavioural changes.
- Group processes promote appreciation of traffic complexity and goal setting triggers self guided learning.
- The process gives clear indication that well designed training of drivers brings about positive change in road safety.

"Simulator based training for bus drivers —Current Developments in Europe" — a Report by Ulrich Gruneberg, Gerd Helmchen, Britta Lang and Antonius Schroder of Leonardo Da Vinci Partnership, Dortmund, European Union (EU), Oct 2011. It is pertinent to mention here that perhaps the EU boasts of one of the best traffic management systems for heavy vehicle transit in urban, rural and international roads in the World. Thus, it is evident that the very high standards of traffic management and road safety have been achieved in the EU with timely interventions in terms of technology, training, public feedback and enthusiastic response from the transport employees. This valuable report discusses the several aspects in introducing simulator based training for bus drivers.

- Openness towards technological and social innovation
- Particular engagement for the introduction of simulator based training by individuals or small organizational groups that embraces technological innovation.

- Public sector subsidies for the purchase of the simulator
- Promulgation of EU directives for increased use of technology in training of bus and heavy vehicle drivers.
- Refresher training for in-service drivers to update their skills such that they continue to maintain quality in their work.
- An overview of the simulator training technology available presently.
- Training the trainer and periodic performance feedback
- Assessing training effectiveness

"21st Century Driver Training" by Wendy Leavitt, Director of Editorial Development, Fleet Owner.Com, Jan 2006. This pioneering paper talks about computer based training of drivers and in that, following aspects have been discussed.

- Technology assisted driver monitoring
- Technology tools for trainers

"Quick Job Entry or Long —Term Human Capital Development? The Dynamic Effects of Alternative Training Schemes" by Aderonke Osikominu, University of Zurich, Albert —Ludwigs University Freiburg, March 2012. Published by Oxford University Press in Review of Economic Studies, May 2012. This paper discusses the following aspects of job-oriented training programs.

- Comparing short term job-oriented operator training programs and long term human development programs.
- Timing of training during employment
- Cost effectiveness of long term training programs.

[&]quot;Designing Training Interventions: Human or Technical Skills Training?" by Eugenia N Petridou and Charalambos T Spathis, published in

International Journal of Training and Development 5:3, ISSN 1360-3736, 2001. This research paper discusses the following relevant aspects,

- Training as a key instrument in the implementation of HRM policies
- Identifying type of training based on needs from feedback and field studies
- Design of technical training based on trainees' occupational and personal differences

"The Relationship Between Perceived Training Opportunities, Work Motivation and Employee Outcomes" by Anders Dysvik and Bard Kuvaas, International Journal of Training and Development (IJTD)12:3, ISSN 1360-3736, 2008. This research paper explores the alternative relationships between training opportunities and employee outcomes. The paper also focuses on the effect of intrinsic motivation among employees and their perception of training opportunities and implementations.

"Computer Based Training: Capitalizing on Lessons Learned" by Wendy L Bedwell and Eduardo Salas, IJTD, 14:3, ISSN 1360-3736, 2010. This research paper discusses the multidisciplinary integration of computer based training and the games movement. Simulator based training modules are actually gaming modules and the training episodes aim to focus on capturing and keeping alive the attention of the trainee with as near to real experience as possible. The paper also discusses the factors to be considered while designing a computer based training program technical training.

Employee Training and Workplace Behaviour

Evaluating the effects of training interventions is one of the most critical issue for a HR professional (Holton, 1996). Kirkpatrick's (1975) treatise on training dimensions distinguishes between reaction to training, learning as a result of training, changed work behaviour as a result of training along with the monetary benefits to the organization as a result of the training.

Evaluating the results of a drivers' training program is a good case for study because, in the scenario of a public transport service, behaviour of the driver who has undergone training is extremely important in ensuring road safety and a conducive passenger atmosphere. In India, public transport buses being less vis a vis the user population, a large percentage of the buses in urban and rural areas run overloaded with passengers. At the peak hours of morning and evening, it is normal to see harassed bus staff, the driver and the conductor, coping with the crowd of standing passengers.

In view of the above, it is evident that the driver training program must address the issue of desired behaviours as a result of the training program.

Training and Technology

Drivers' training has been going on for over a hundred years across the world. The most popular methods of training of drivers are On The Job, by experienced drivers and a limited amount of theory and practicals in class rooms (Training Manuals, KSRTC). Training with simulators started with the training of pilots in the civil and military aviation, mainly to reduce the costs of training and also save on avoidable accidents during training. Europe and the UK introduced driving simulators for the bus drivers several years ago. It is found that the openness to embrace simulator training created a safer and accident free environment especially in the public transport sector (Gruneberg, Helmchen, Lang and Schroder, 2011).

In addition to the use of driving simulators, as on today, use of Global Positioning System (GPS) locators for each vehicle or each driver and problem identification devices in the vehicles have become popular. In India, it is common to see speed limitor fitted vehicles both in the public and private sectors. Erstwhile training programs involved class room explanations on static charts, pictures and photographs. Now, all activities of the driver while on work and the results of those activities as regards to the performance of the

vehicle can be shown graphically on a computer screen. It is an important aspect in this study of driver training to explore utilisation of the available and futuristic technology to maximum extent, within the constraints of the resource crunch faced by public transport companies.

Training as a Primary Work Motivation Activity and Being Sensitive to Environmental Changes

In the corporate sector, among first victims of cost cutting exercise normally are the training programs which come right after stoppage of further recruitments. Whereas in a changing environment in the transport domain, if the operator or the driver does not undergo refresher training programs, it may lead to loss of life or injuries to people on the roads, damage to property and cumbersome legal process which waste considerable man hours. One of the recognised impacts of any training program is enhanced levels of confidence (Kirkpatrick,1975)

Enhanced confidence levels among the employees directly enhance the organisational brand image, employee work motivation and reduction in human errors. It is pertinent to mention here that the timing of organising training programs and the degree of intensity of such training program and the follow up activities to measure the effectiveness of the training programs matter in achieving the desired results (Anders Dysvik and Bard Kuvaas, 2008)

Continuous and comprehensive training needs analysis and execution of training as per long term plans with in built flexibility thus directly affect the morale of the employees. Training designers may argue that the training needs identified are based on the current developments in the field and those within the organisation. However, disruptive changes have taken place in most known areas of profession. Thus, developing a temperament to adapt to revolutionary changes in technology and making the employees ready

to successfully pass through those changes by providing timely training programs may increase the opportunities for the organization to adapt and excel.

Conclusion

This case study endeavours to direct the attention of the reader towards the anomaly of the lag in identifying training needs vis a vis the changing environment outside the organisation on a larger scale, in the long term as in a developing nation in terms of technology, socio economic changes and learning perspectives. The individual case cited above as an example is one of many in known fields of employment.

Changes which have taken place in primary, secondary education in the Indian scenario draw our attention to look at the state of employees went through these phases more than 20 years earlier. It is time that organisations wake up to the fact that training designers must also consider possible future changes in the environment while starting the training design exercise.

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