

IMPACT OF EMPLOYEE MOTIVATION ON PASSENGER SATISFACTION LEVELS – A CASE STUDY IN THE STATE OF KARNATAKA (INDIA)

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INTRODUCTION

Passenger Road Transportation plays a pivotal role in India in bringing about greater mobility both within and between rural and urban areas. Through increased mobility it also contributes immensely to social and economic development of different regions of the country. In India, as in many other parts of the world, investment in road transport is treated as a part of public provision of services whereby one of the key objectives of this provision has been to meet the social obligations of an affordable, safe and reliable bus service to the people (Transport Research Wing, 2002). Accordingly, the Road Transport Act 1950 enabled States and Central Governments to take initiative to form the Road Transport Corporations. Similarly, the Motor Vehicles Act 1950 was subsequently amended to make special provision for State Transport Undertakings (STUs). This Act was further amended in 1969 for promoting State monopoly in passenger road transport services. Despite its (public bus operations) prime position in the movement of people especially in remote rural areas, these public undertakings are subjected to criticism due to heavy losses incurred by them every year (Sofres Mode 2002, Thomas 2000). In countries like India, the Transport Undertakings owned by both the government and private operators provide services side by side in various regions of the country. Similarly, in the state of Karnataka, road transport services are provided by both public sector (operating through Karnataka State Road Transport Corporation, KSRTC) and the private sector. The competition between the private and nationalized services is expected to improve the efficiency and generally work in favor of the passengers. It is expected that the passengers get better service, lower fares and higher reliability because of the competition.

In any transport organization, the employees operating the buses are the frontline staff who comes in regular contact with the passengers. The quality of service as well as the customer satisfaction depends, to a large extent, on the interaction of these staff with the passengers. In other words, it is very important for a transport organization to have a highly motivated frontline staff who are dedicated to providing better quality of service. The working environment, compensation package and future prospects offered by the organization to the frontline staff would make a significant difference in their motivation levels and consequently the quality of service rendered to the passengers. This research study has collected data on various aspects of the working environment and the compensation along with other service conditions from the frontline employees of both private operators as well as the state-run corporation.

Karnataka is one of the major states in India and situated on the western edge of the Deccan plateau. It has for its neighbors Maharashtra and Goa on the north, Andhra Pradesh on the east, Tamil Nadu and Kerala on the south, and on the west it opens out to the Arabian Sea. It has an area of 191,791 sq km. Bangalore, nicknamed as the Silicon Valley of India, is the

Capital of this southern state. Figure 1 provides the location of the state of Karnataka in India. The map of Karnataka with the administrative details is shown in Figure 2. The state is divided into 27 districts and is well connected by Roads, Railways, Airways and Waterways. Motorable roads are 150,000 km in length while rail network is about.



Figure 1: Map of India showing the state of Karnataka



Figure 2: Map of the state of Karnataka

Research focus of the study of the study

Against the above background, the objectives of this study are as follows:

- To understand the functioning of transport services in the state of Karnataka by private operators and the public sector operator, KSRTC
- To measure, based on certain parameters, service conditions of the frontline staff and relate it to the level of customer satisfaction, with the transport services provided.
- To compare the levels of service conditions, compensation, working conditions and future prospects of the employees of state owned corporation and the private owned transport organizations and the impact on customer satisfaction levels.

METHODOLOGY

As mentioned earlier, road transport services are provided by both public sector (operating through Karnataka State Road Transport Corporation, KSRTC) and the private sector in the state of Karnataka. The jurisdiction of KSRTC spreads over 14 districts of Karnataka. In some districts, both KSRTC and private operators have a presence. In some other districts, only KSRTC operates the bus services. Only private operators are allowed to function in the remaining districts. Thus, the area of operations can be broadly categorized into 3 categories.

Category I:

These are the districts where only KSRTC (public) services are available. KSRTC enjoys monopoly status in these districts.

Category II

These are the districts where only non-nationalized (private) services are available. Only the private bus operators are allowed to provide service in these districts. They do face competition among themselves in these districts.

Category III

These are the districts where both KSRTC as well as private services are available. There is intense competition between the private operators as well as KSRTC in these districts.

Data was collected from a sample of commuters, employees and opinion makers through a structured questionnaire. A two-stage sample design was adopted for selecting the sample of commuters, employees and the opinion makers. First, the sample of districts was selected in each category of operations. These districts are Hassan, Dharwad and Gulbarga under Category I; Mangalore and Davanagere under Category II; and Mandya and Kolar in category III. The second stage included the selection of routes in each sample district. The routes that were in operation within the district only were considered for the study. In other words, long distance inter-district routes were kept outside the purview of the current study. A random sample of 10% of the total schedules operated was selected. In Category II and Category III districts, routes where there are at least five operators were selected to ensure competition. The sample was selected in such a way that both rural and city services were included. For this purpose, certain amount of stratification was done in the sampling procedure. The sample includes a minimum of ten commuters on each schedule and two opinion makers from the villages visited.

Data with respect to the extent of services provided by the operators as well as various quality indicators were collected through a structured questionnaire. Data from the employees of the operators including, the drivers and conductors were collected through a structured questionnaire. In addition, focus group discussions were carried out. A suitable sample of the employees was selected for this purpose. The information thus, collected included career progression, remuneration, and incentive schemes, if any, and processes for maintaining code of conduct, training provided, if any, etc.

Selected persons who are opinion makers in the villages, as well as elected representatives were interviewed to elicit their opinion on various aspects of the services provided. Information, both with respect to actual and desired level of services was obtained. Focus group discussions as well as individual interviews were carried out with this group of stakeholders. In addition, members of intelligentsia were also interviewed for their opinion on societal benefit vis-à-vis commercial benefit.

Different questionnaires were developed to separately obtain information from commuters, employees and opinion makers and intelligentsia.

SAMPLE PROFILE

In order obtain the perceptions as well as the working conditions of the employees of both KSRTC and the private operators, a sample of their employees was selected. These employees were selected from the same routes as the commuters. This section presents a brief description of the sample profile.

A total of 467 employees were selected from the 7 sample districts. Of these, 223 were from KSRTC and the remaining were from private operators. The district wise distribution of these 467 employees is presented in Table 1.

Table 1: District-wise Distribution of the Sample Employees

District	KSRTC	Private	Total
Mandya	24	45	69
Kolar	52	43	95
Hassan	56		56
Gulbagra	48		48
Davangere		78	78
Dharwad	43		43
Mangalore		78	78
Total	223	244	467

The employees in the sample were primarily the drivers, conductors and cleaners. In addition to these categories of employees, the sample included 9 others, consisting of clerks and agents. The distribution of these employees is presented in Table 2.

Table 2: Distribution of Sample Employees by Designation

Designation	KSRTC	Private
Driver	112	88
Conductor	110	78
Cleaner		70
Others	1	8
Total	223	244

The employees in the sample consisted of almost equal number of drivers and conductors. The cleaners in the sample are exclusively from the private operators. The sample employees from the private operators were more or less evenly divided between the three groups namely, drivers, conductors and cleaners.

There was a marked difference between the employees of KSRTC and private operators in terms of the age group. The predominant age group was 35 to 50 years among KSRTC employees sampled, while among private operators majority of the employees belonged to the age group of 20 to 35 years. In general, the sample employees of private operators were younger as compared to KSRTC. The distribution of the sample employees based on various characteristics is presented in Table 3

Table 3: Distribution of Sample Employees Based on Various Characteristics

Characteristic	Operator	
	KSRTC	PRIVATE
Age Group		
Less than 20 Yrs		9
20-35 Yrs	73	171
35-50 Yrs	122	55
50-65 Yrs	28	7
No Response		2
Educational level		
Literate	9	28
Below High school	126	161
Pre University	66	46
Graduate & Above	22	9
Experience (Years)		
Less than 2	20	43
2 to 5	21	49
5 to 10	42	83
10 to 20	85	52
More than 20	55	13
No response		4

The sample employees of KSRTC have relatively higher educational levels as compared to those of private operators. Out of all the employees with education level below High School, only 44 percent were working in KSRTC while the remaining 56 percent were working with the private operators. Similarly, out of the 143 employees who are PUC or above, more than 60 percent were working in KSRTC. Among the KSRTC employees in the sample, 63 percent had more than 10 years of total experience and about 50 percent had more than 10

years with KSRTC. The comparative percentages with the private operators were 27 percent and 10 percent, respectively.

In summary, the employees of KSRTC were relatively older, with higher education levels and longer work experience. This coupled with the more organized pay structure resulted in higher remuneration for the employees. The average salaries of the sample employees are presented in Table 4. The average salary was higher in each category of employees of KSRTC as compared to the private operators.

Table 4: Average Salary of the Sample Employees by Category
(Rs. per month)

Category	KSRTC	PRIVATE	ALL
Driver	5591.22	4438.07	5081.28
Cleaner		2108.36	2108.36
Other	4520.00	2787.50	3134.00
Conductor	4810.37	3112.34	4111.18
All	5196.44	3292.53	4203.63

Similarly, the average bonus received by the employees was higher for KRTC at Rs. 2387, compared to Rs. 1354 for private operators. Thus, the employees of KSRTC appear to be better compensated.

ANALYSIS OF COMMUTER DATA

In order to assess the relative functioning of public and private operators the perceptions of commuters and opinion makers are collected under four dimensions, namely comfort and convenience, operations and schedule aspects, crew behavior and cost and other factors. Data was collected from the commuters while they were actually traveling. As such most of the commuters could have been influenced by the travel they are involved at the time of answering the questions. Table 5 presents different attributes included under each dimension.

Table 5: Dimensions and Attributes Considered for Service Quality

	Dimension			
	Comfort and Convenience	Schedule and Operations	Crew Behavior	Cost & Others Aspects
Attributes of the Dimension	Overloading	Notification of schedules	Courteousness with passengers	Notification of fares
	Boarding and alighting	Following the schedule	Helping children and old age people	Returning small change
	Seating arrangement	Prompt service during break down	Appearance of the crew	Adequacy of fares
	Movement within the bus	Maintenance of vehicles	Neatness and professionalism	Reasons for break down
	Driving comfort	Cancellation of schedules	Attitude of the crew in general	Charges for luggage
	Travel time	Arrival / Departure timings		Luggage allowance
	First-aid service			Stopping at the bus stops

The data with respect to each of the above four characteristics is analyzed in order to quantify the quality of service. For example, Comfort and convenience is one of the important aspects of travel. Various attributes by which it can be measured and their scores as perceived by commuters and opinion makers are presented in Table 6. The numbers in Table 6 indicate the proportion of commuters' responses with respect to KSRTC and private operators. It can be seen from Table 6 that 68 percent of the commuters felt that KSRTC buses had less overloading as compared to the buses of private operators. Similarly, 87 percent of the commuters felt that luggage in rural areas is allowed in KSRTC buses and 94 percent felt that luggage is allowed in buses of private operators. The combined total score is calculated by simple addition of the scores for each of the major items. This assumes that equal weightages for each of the four major heads under which the quality is assessed. The overall score of combined quality of service provided with respect to comfort and convenience as per the perception of commuters traveling both in KSRTC and private buses, is in favor of KSRTC. The overall score of the opinion makers is also similar indicating that KSRTC bus operations are better as compared to that of the private operators. The data with respect to the remaining three dimensions is analyzed in similar fashion. More details are available in an earlier article of the authors (Ramanayya, Nagadevara and Shyamal Roy, 2005 a).

Table 6: Perceptions With Respect to Comfort and Convenience

Item	KSRTC (public)	Private	Public/ Private
Perceptions of commuters			
Less Overloading	0.68	0.32	
Ease of boarding and lighting	0.78	0.22	
Seating arrangements	0.69	0.31	
Movement within the bus	0.77	0.23	
Less Rash and negligent driving	0.9	0.1	
Travel time is less	0.63	0.37	
First aid service are provided better	0.88	0.12	
<i>Overall Score by commuters</i>	5.33	1.67	3.19

Table 7 presents the combined picture, with respect to each of the four dimensions discussed above. In addition, both commuters and opinion makers were asked to rate the overall quality levels. The summary of their responses is also given in Table 7. The data indicates that there is unanimity that KSRTC bus operations are much better compared to private bus operations. The conclusions drawn on the basis of various attributes earlier are supported by this overall response.

Table 7: Combined Total Quality and Overall Perception

Item	KSRTC (public)	Private	Public / Private
Perception of commuters			
Comfort and convenience	5.33	1.67	
Scheduling and operation	5.30	1.69	
Crew behavior aspects	2.61	0.39	
Fares and other issues	1.52	1.48	
Total score	14.76	5.23	2.82
Perception of opinion makers			
Comfort and convenience	3.33	1.67	
Schedules and operation	5.06	1.94	
Crew behavior aspects	1.58	0.42	
Fares and other issues	0.75	1.25	
Total score	10.72	5.28	2.03
<i>Overall satisfaction of service</i>			
Commuters' perception	0.68	0.32	2.13
Opinion makers' perception	0.62	0.38	1.63

Overall, in the sample districts of Karnataka, both the commuters and opinion makers consider that the services of the public bus operations (KSRTC) are superior to private bus operations.

ANALYSIS OF EMPLOYEE DATA

It is the employees operating the buses who come in regular contact with the passengers. The quality of service as well as the customer satisfaction depends, to a large extent, on the interaction of these employees with the passengers. Thus, it is very important for a transport organization to have highly motivated frontline employees who are dedicated to providing better quality of service. The working environment, compensation package and future prospects offered by the organization to the frontline staff would make a significant difference in their motivation levels and consequently the quality of service rendered to the passengers.

In order to understand the perceptions of the employees of both KSRTC and private operators, data on various aspects of working was collected. This section discusses the working conditions, remuneration, compensation and other facilities, organizational culture and the perceptions of the employees working with KSRTC and private operators.

Working conditions of employees

The average number of working hours per day was found to be more or less same for both the categories of employees. However, the employees of private operators were made to work longer hours at a stretch. They were made to work almost 60 percent more than their counter parts in KSRTC as shown in Table 8. While this was true, the average number of trips made per day as well as the average distances covered per day was higher in the case of KSRTC employees compared to the private operators. This indicates that the employees' time was better utilized without over-stretching them by KSRTC. The private operators' policy of long hours for their employees may not be very conducive for safe driving conditions.

Table 8: Average working hours, Number of Trips and Distance Covered

Item	KSRTC	PRIVATE
	Average	
Working hours/day	10.30	11.32
Maximum number of hours of work at a stretch	3.74	5.84
Number of trips per day	7.21	6.33
Number of KMS covered per day	306.62	269.96

Remuneration and other privileges

The total remuneration to the employees consists of the basic pay and other allowances. While almost all the employees of KSRTC reported having a scale of pay, only about 25 percent of the employees of the private operators reported having a scale of pay. The average pay scales for the KSRTC employees were 40 percent higher than that the employees of the private operators. In addition to better pay scales, the employees of KSRTC enjoyed other benefits such as Dearness Allowance (DA), House Rent Allowance (HRA), and other allowances. The details of these are given in Table 9. It can be seen from Table 9 that out of the 223 employees of KSRTC, 128 had mentioned that they received HRA while 69 reported that they did not receive HRA. In general, the employees of KSRTC had the advantage of

benefits such as HRA, DA, duty allowance while traveling, night halt allowance, uniform allowance etc. where as very few private operators provided such incentives or allowances. Similarly, the employees of KSRTC had other benefits such as leave travel concession, bonus, pension, allowance for children’s education, while such benefits are almost non-existent in the case of private operators.

Table 9: Remuneration and other benefits

	KSRTC		PRIVATE	
	Yes	No	Yes	No
Do you have a regular pay scale	201	22	67	177
If yes, Give the pay scale (Rupees) (average)	4071.74		2888.37	
OTHER ALLOWANCES - HRA	128	69	2	89
OTHER ALLOWANCES - DA	204	11	121	27
OTHER ALLOWANCES - Duty allowance while traveling	143	54	48	60
OTHER ALLOWANCES - Night halt allowance/free boarding & Lodging	134	64	71	56
OTHER ALLOWANCES - Incentive	155	44	3	135
Benefits Provided - LTC	104	60	2	11
Benefits Provided - Bonus	124	49	39	8
Benefits Provided - Pension	81	69	2	12
Benefits Provided - Children's education	97	69	1	12
Benefits Provided - Gratuity	183	24	8	12
Benefits Provided - PF, etc	210	8	3	12
Benefits Provided - Uniform allowance	204	15	49	7
Benefits Provided - Lump sum amount at the time of retirement	148	33	0	15

Facilities and promotional opportunities

The other facilities and privileges enjoyed by the employees of KSRTC and private operators are presented in Table 10. There did not appear to be any significant difference with respect to employees’ leave entitlement, except in the case of “other” leave. But, the retirement age of KSRTC employees, at 58, was considerably lower than their private counterparts’.

Table 10: Facilities, Privileges and Promotional opportunities of Employees

Item	KSRTC		Private	
	Yes	No	Yes	No
Benefits Provided - Retirement Age (In Years) (average)	58		70	
No. of days of leave entitled - Casual leave (average)	14.98		15.53	
No. of days of leave entitled - Earned leave (average)	15.96		11.17	
No. of days of leave entitled - Medical leave (average)	15.38		13.88	
No. of days of leave entitled - Any other leave (average)	14.72		28.46	
Are you allowed to encash the leave	144	75	19	179
Do you have insurance coverage against accidents	164	59	53	183
Do you have resting places at the duty place	143	78	27	209
Is there a promotional opportunity in your entire service/career	107	115	3	231
How many years does it take for your promotion (average)	17.92		29.25	
Criteria adopted for promotion- Length of service	147	65	123	57
Criteria adopted for promotion- Sincere/Efficient service	72	139	57	124
What should be criteria for promotion- Seniority	128	86	95	93
What should be criteria for promotion- Efficiency	76	138	121	67
What should be criteria for promotion- Merit based	73	141	28	161

In addition to the leave facilities, the employees of KSRTC were provided with insurance coverage and resting places at the workplace. Very few of the employees of the private operators enjoyed such facilities.

About half of the employees of KSRTC felt that they had promotional opportunities where as only 3 of the private operators saw any scope for promotions. The KSRTC employees felt that the average time for promotion was about 18 years where as those with the private operators were of the view that, if at all, it could take as long as 30 years get promoted. Most of the employees, both from KSRTC and private operators felt that the criteria for promotion should be seniority and the length of the service. Very few felt that merit or efficiency of service should be the criterion. Considering that the employees selected in the sample were mainly drivers and conductors, it is understandable that these people gave preference to only seniority and the length of service.

In addition, KSRTC offers specially designed training programmes to its employees. It is mandatory for these employees to go through at least one training programme every year. These employees feel that the training provided helps them not only in professional development but also in personal development. They also feel that their motivation levels actually improved because of the training.

Culture of the Organization

As expected, there was significant difference in the organizational culture between KSRTC and the private operators. This was expected because of the size of the organization, the type of ownership and the major motive that drives the organization. Table 11 presents the perception of the employees in terms of the cooperation received from the superiors. Table 12 presents various aspects of the culture of the organization.

Table 11: Extent of cooperation from the Superiors

Do you get cooperation from your superiors while discharging your duties	Frequency	KSRTC	PRIVATE
	Never	26	44
	Occasionally	54	83
	Sometime	70	76
	Always	70	38
	No Response	3	3

More than 60 percent of the sample employees of KSRTC mentioned that they received cooperation from the superiors either always or some time. On the other hand, only about 40 percent of the sample employees of the private operators felt this way. Only 26 out of the 223 employees from KSRTC felt that they did not receive the cooperation from the superiors, where as the number of such employees of the private operators was 44 out of 244.

Table 12: Various Aspects of the Culture of the Organization

Item	KSRTC		PRIVATE	
	Yes	No	Yes	No
Have you been honored any time	45	177	3	238
Punishment for mistakes - Removal from service	91	132	200	41
Punishment for mistakes - Stoppage of salary/increment	111	112	47	194
Punishment for mistakes - Fine	152	71	67	174
Punishment for mistakes - Any other	4	219	17	223
Do you bring the notice of your officer/head/owner of bus about the grievances of the passengers and public	199	23	167	75

When it comes to honoring the employees, KSRTC appears to be way ahead of the private operators. About 20 percent of the sample employees have reported that they had been honored while only 3 out of the 244 employees of private operators had been honored. Also, more number of KSRTC employees appeared to have taken the grievances of the commuters to the higher officers as compared to the private operators. This could probably because the employees of private operators felt that very little could be done by taking the grievances to the higher officers.

There were significant differences between the employees of KSRTC and private operators in respect of punishment for dereliction of duty. One of the interesting aspects was that while the employees of KSRTC were willing to settle for a monetary fine or stoppage of increment as punishment, the employees of the private operators did not feel the need for any punishment at all.

Employee Perceptions

The employees' perceptions about the cause of accidents did not vary between the two categories of employees. Both the categories of employees felt that the major cause for accidents was the poor condition of the roads. Long and strenuous working hours were the

least important factor ascribed to accidents. The employee perceptions regarding the possible causes of accidents were discussed in the previous section. This section discusses their perceptions with respect to other aspects. Table 13 presents the perceptions of the employees of both KSRTC and Private operators. Their perceptions about the reasons for losses of the transport operators did not show much difference between the two categories of employees. The reason cited most by these employees was competition from other operators. Even items like pilferage of revenue mal-administration and clandestine operations were not cited as the causes for losses in both categories of operators. In a sense, the competition appeared to keep both types of operators on their toes.

Table 13: Employee Perceptions

Item	KSRTC		PRIVATE	
	Yes	No	Yes	No
Causes for accidents - Over speeding	104	119	86	158
Causes for accidents - Bad condition of vehicle	98	125	92	152
Causes for accidents - Poor road condition	108	115	109	135
Causes for accidents - Drunken/Night driving	87	136	90	154
Causes for accidents - Long and strenuous hours	68	155	62	182
Reason for losses - Wrong policies	115	108	111	133
Reason for losses - Pilferage of revenue	77	146	100	144
Reason for losses - Poor maintenance of vehicle	88	135	77	167
Reason for losses – Mal-administration	58	165	32	212
Reason for losses - Competition by other operators	149	74	161	82
Reason for losses - Royalty	13	210	35	209
Reason for losses - Clandestine operation by others	50	173	22	222
Is it true that rural operations are not profitable	89	134	116	128
Is it true that city operations are not profitable	71	152	75	169

The common perception that rural and in-city operations were not profitable and, therefore, needed to be cross subsidized by other operations did not find support among the employees. Very few of the employees, both from KSRTC and private operators, felt that the rural operations and city operations were unprofitable.

Finally, the employees were asked if they would prefer nationalized transport service or private operations. The opinion was divided and the division was more or less on the expected lines. The employees of KSRTC preferred nationalized service where as the employees of the private operators preferred private operations. Very few of them preferred competition between the two. The details of the preferences are presented in Table 14.

Table 14: Employees' Preferences with respect to Nationalized or Private Operations

Item	Employees belonging to	
	KSRTC	Private
Nationalization of transport is better	203	20
Privatization is better	2	158
Mixed operation is better	18	66

SUMMARY AND CONCLUSIONS

In summary, the employees of KSRTC appeared to enjoy better remuneration and compensation, better facilities and privileges and better promotional opportunities as compared to the employees of private operators. There is a significant difference in the culture of the organizations. Both the categories of employees felt that the main reason for accidents was the condition of the roads. They also felt that competition was the main reason for the losses. Finally each category of employees felt that their own operational structure (i.e., nationalized vs. private) preferable to the other.

The analysis of the responses of commuters and opinion makers has shown that the services provided by the state-run transport organization, KSRTC, are much superior to those provided by the private operators. This is true with respect to all the four dimensions of quality of service. The only exception was with respect to the perception of the opinion makers regarding the “fares and other issues”. The analysis with respect to the employees of both types of operators shows that employees of KSRTC enjoy better working conditions, facilities and remuneration. They also enjoy better service conditions and promotional opportunities. Their organization culture is more open and conducive to better working relationship between the employees and their superiors. These aspects go a long way in motivating the employees. Thus, the better quality of service provided by KSRTC could be attributed to the organizational culture that enhances employee motivation.

The results reveal that the state-run transport corporation is able to provide better quality of service as compared to the private operators. The service conditions and prospects of the employees of state-run corporation are much superior to those of the employees of private operators. This fact is also acknowledged by the employees of private operators themselves. Thus, the HR policies of the organization have a dominant role in improving the quality of service as well as the satisfaction levels of the passengers.

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