



## TRANSPORT-SATISFACTION OF DIFFERENT LEVELS OF PASSENGER'S WITH REFERENCE TO GUNTUR APSRTC REGION – A CASE STUDY

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### Abstract

The problem of Transport-satisfaction has become a point of serious debate in all countries of the world. Even within a nation there may be wide regional variations in the level of working class consciousness, conditions, etc. Therefore, in order to understand the dynamics of Transport-satisfaction in India a regional study on them of Transport-satisfaction is required to be undertaken. The present study of Andhra Pradesh State Road Transport Corporation (APSRTC) is a step forward in this direction. A little disruption in the work of the Corporation may lead to enormous losses. This necessitates understanding as to what factors are responsible for maintaining industrial harmony in the corporation. It is in this backdrop that the present study is of immense relevance and makes a humble contribution to the understanding on improving passenger's attitude through Transport-satisfaction in this Corporation.

**Key words:** Transport Satisfaction, Elements, Levels of Passengers.

### Introduction

Transport carries men and materials from one place to the other and thereby creates place and time utilities. It influenced the productive and services sector of the economy and have ultimate effects upon the social organization, habits etc. The demand for transport is said to be a case of derived demand, since it arises from the demand of other commodities. The volume of production in different sectors of the economy, therefore, decides the extent of transport industry in a particular country. Large increases in the industrial production like iron, steel, cement, jute, fertilizers, engineering etc boost up the demand for transport. Either pleasure trips for sight seeing, or for pilgrimage, etc also increases with the increase in per capita income and standard of living in a country. The economic policy of a state may accelerate or decelerate the demand for transport, for example we in India are trying to boost production in all spheres under the five-year plans.

Simultaneously, the economics and growth of transport is dependent on factors such as technological development, availability of fuel and motive power and also speed, safety arrangements, machinery, road improvements etc. Changes in technology have their influence on modes of transport. Every discovery, device or inventions to be fit for use by the society have to pass the test of the cost and people's ability to pay for it. Speed is another factor that affects both cost and time – the two very important elements of transport. The ever – increasing speeds of trains, motor vehicles and airplanes are the modern craze, limited only by the element of safety factor.

There are in general three transport systems – land, water and air transport. Land transport is the study of railways and road transport. In water transport the study includes of inland water transport on rivers and canals, coastal shipping and overseas shipping. The civil air transport comprises of two wings, the domestic air services and foreign air services. Rivers and seas are natural gifts, and they are called natural means of transport. On the other hand, roads, rail tracks, canals etc are man-made and therefore they are called artificial means of transport.

The economic significance of transport is considerable. Though it undertakes nothing more than the mere movement of persons and things from one place to another, it constitutes one of the most import activities of men in every stage of advanced civilization.

### Nationalisation of Road Transport

State governments, private operators and Co-operative agencies now undertake Road Transportation. Since independence, most state governments have nationalized the bus transport system either completely or partially. Now taking all states together, the nationalized bus services account for about 40%. Co-ordination between railways and road transport is considered possible only when both are in State's hands. Large scale economies in road transport are possible only under the state control. When expansions in the service can be attempted, better facilities, travel amenities and good working conditions are possible only under the state control.

### National Permits:

To encourage the inter-state movement of goods & services, the government announced in 1957 National Permit Scheme. Under this scheme, the Central government authorized the states to issue a fixed number of National Permits.

The maximum number of permits to be issued was 8,300. They have now been revised to 16,600. Nearly 12,000 permits have already been issued as per reports available.

### Genesis of APSRTC:

Andhra Pradesh Road Transport Corporation was started as a unit of Nizam State Railways in 1932 with 27 buses (19 seats) and 166 passengers. After the formation of Andhra Pradesh, it has been reconstructed under Road Transport corporations Act 1950, on 11-01-1958. As of now, 95% of the bus routes have been nationalized. APSRTC is running city services in Hyderabad, Vijayawada, Visakhapatnam, Warangal and Kottagudem.

### Some important details of APSRTC:

1. Number of passengers : 52,494.3 Lakhs
2. Number of Depots : 234
3. Number of Computerized Depots : 234
4. Number of bus stations : 764
5. Number of bus shelters : 1,975
6. Average number of daily passengers : 143.82 Lakhs
7. Distance covered by the total bus : 70.30 Lakhs Km., (average)
8. Total number of buses : 25,296
9. Number of inter-state buses : 1,929
10. APSRTC has established 61 automatic washing machines for cleaning buses in different bus stations.
11. Compared to the other state road transport corporations, the rate of accidents is less in APSRTC.
12. The Corporation has received many awards for its fuel efficiency, productivity and road safety etc.
13. In all city buses, ordinary and express services, the corporation has reserved 40% seats to ladies, one seat to handicap and two seats to senior citizens.

### A Profile of APSRTC, Guntur Region:

Under Nationalization of Transport Services, the activity of APSRTC has been started in Guntur District during September 1961 and it is said that about 250 buses were introduced then and 7 depots were there to house them in Guntur district, having the Divisional Head Quarters at Guntur. Later, some depots have been allocated to Prakasam District after its formation.

During the year 1984, Guntur Division has been bifurcated into Guntur and Narasaraopet Divisions. With the expansion of transport need, the number of buses gradually increased to the present figure of 1,091 and the number of depots increased to 13 in both the divisions to cater the needs of the traveling public adequately in the district.

Under re-organizational set up Guntur Region came into being w.e.f.15/05/1994 with the Regional Manager as Head of the Region for District, stationed at Guntur. Again on 16.04.2001, Guntur and Narasaraopet divisions have been formed for administrative convenience in the Region.

As on 31/03/2013 Guntur Region consists of the following 12 depots with a total Fleet of 1,600 Buses, employing 8,131, with average revenue of Rs.57.60 lakhs per day covering of 4.01 lakhs Km., per day.

### Objectives

The specific objectives of the study are crystallized as follows:

1. To study the nature and functioning of APSRTC;
2. To see the differences, if any, between the relationships of the two or more variables at the different levels of passengers;
3. To identify the factors those affect the Transport satisfaction of the passengers;
4. To find out the elements responsible for Transport satisfaction in APSRTC; and
5. To suggest some remedial measures of increasing the Transport satisfaction among the passengers of APSRTC.

### Hypothesis

The study is proposed to test the following hypotheses.

1. We hypothesized that there would be significant difference in Transport satisfaction at different levels of passengers.
2. Also, we hypothesized that as we move from lower level to a higher level of passengers, the variability in the satisfaction decreases.

### Methodology

The methodology adopted in the present study is under three heads namely, sample design, database and analytical tools.

#### a) Sample Design

The passengers were divided in three groups as the top, middle and lower level based on their income groups. This was done on the basis of a preliminary opinion survey of the top executives in APSRTC. They were asked to group the passengers of APSRTC as belonging to the top, middle and lower levels. It was a convenient sampling scheme. We covered as many people as were willing to co-operate.

We covered group of 68 (top), 151 (middle) and 69 (lower) in Guntur. They represented about 24%, 52% and 24% (top, middle and lower levels) of passengers.

#### b) Database

The database covers the sources and collection. Though the major requirements of data are met through field study, both primary and secondary sources form database.

(1) *Primary data*: Data for the present study were collected from the sample on a person-to-person interview basis and with a structured questionnaire. The questionnaire had three features.

- i. Open-ended questions – to gather attitude of the respondents toward the elements of satisfaction.
- ii. Close-ended questions – to gather information regarding causes of Transport satisfaction.
- iii. The opinions of the respondents regarding the elements of Transport satisfaction were taken on “Likert five point scale” ranging from 1 to 5; depending on the importance attached to each element. For example, “Extremely dissatisfied was given with value 1 followed by “Dissatisfied” with value 2, “Neutral” with 3, “satisfied” with 4 and extremely satisfied with 5.

(2) *Secondary Data*: Secondary data were collected from various documents such as Annual reports, Audit reports, statement of Accounts, Booklets, Registers of passengers, Souvenirs etc.,

#### c) Analysis

The data so collected was subjected to both conventional and functional analysis. The conventional approach includes average and percentage methods. The functional analysis includes Chi-Square test and Co-efficient of variance.

#### Period of the Study

The study covers a period of one year 2012-13, which has been considered sufficient for a study of its kind which, seeks to evaluate the passengers Transport satisfaction.

#### Scope of the Study

The study has been undertaken with a selected sample of 288 respondents of APSRTC, Guntur in 2013. The study is intended to cover 12 depots under APSRTC, Guntur.

The sampling procedure adopted for this study is “Convenient stratified random sampling”.

#### General Findings

1. The average size of the passenger’s family is about 4 numbers (3.98).
2. The average number of passengers per family is 2 numbers (1.51).
3. The percentage of passengers to the family size is on an average 63.
4. On an average the technically qualified passenger’s contribution to 85%.
5. On an average number of traveling hours per passenger per day is 2 hours.
6. The percentage of passenger’s at top level is 24%, Middle level is 52% and lower level is 24% for this study.
7. On an average 37% of the passenger spouse is working.
8. 80% of the passengers who travel regularly utilizing bus passes issued by APSRTC.
9. The primary source of transport in Guntur district is APSRTC, buses, Private buses, Auto-Rickshaws & cars etc.
10. Normally the buses are run within the district (Guntur), within the state (Andhra Pradesh) and out of states (Karnataka, China etc.).
11. Educational qualification at various levels of passenger’s: Top –100%, Middle –100%, Lower – 60%.

#### Analysis of Findings

The findings of the present study have been analyzed under the following heads:

##### A) Level of Transport Satisfaction of the Passengers:

By using Likert scale, the respondents asked to give tick mark along the five scale continuum regarding some Transport related factors (such as Extreme Dissatisfied, Dissatisfied, Neutral, Satisfied and Extremely Satisfied).

To find out the satisfaction level of their Transport, Transport elements were identified and these Transport elements were studied with respect to different levels of passengers and the satisfaction categories using Chi-Square test is indicated in Table - 1.

**TABLE -1: CHI-SQUARE RESULTS**

Elements of the Transport	Chi-Square	
	Calculated Value	Table Value
1. First aid facilities in the bus	13.85	15.5
2. Degree of fare charged to services provided by the APSRTC.	43.11	15.5
3. The degree of fair treatment & respect received from conductor and driver	51.10	15.5
4. The amount of support & guidance received from the conductor and driver	59.20	15.5
5. Satisfaction regarding usage of private buses in APSRTC	26.98	15.5
6. Satisfaction in the context of in time reaching the destiny	11.14	15.5
7. Satisfaction in the context of recreation facilities in Bus station	15.74	15.5
8. Satisfaction in the context of clock room facilities in Bus station	35.16	15.5

Elements of the Transport	Chi-Square	
	Calculated Value	Table Value
9. Satisfaction in the context of reservation tickets	26.90	15.5
10. Satisfaction in the context of Transport Security	14.50	15.5
11. Satisfaction in the context of Ladies reserved seats	17.64	15.5
12. Satisfaction in the context of toilets facilities in Bus station	20.69	15.5
13. Satisfaction regarding sufficient buses running from your station	40.91	15.5
14. Satisfaction in the context of Bus station environment	19.86	15.5
15. Level of Transport safety in transit	13.80	15.5
16. Level of Transport strain	10.88	15.5
17. In Comparison of APSRTC to other Private Transport	13.85	15.5
18. Openion in respect of special Schemes like wedding bus, Tourist bus, student excursion bus facilities etc.,	12.82	15.5
19. Services regarding Cat cards, Vanitha cards, Silever Jubli cards etc., facilities	24.14	15.5
20. Recreation Facilities in the buses	11.14	15.5
21. Drinking water facilities in the bus station	14.78	15.5
22. Satisfaction in the context of Road accident coverage	30.91	15.5
23. Satisfaction in the context of lodging facilities in Bus station	32.67	15.5
24. Satisfaction in the context of canteen facilities in Bus station	18.60	15.5
25. Satisfaction in the context of following the scheduled stops	64.56	15.5
26. Satisfaction in the context of Bus Cleanliness	59.22	15.5
27. Satisfaction in respect of e-booking facilities	25.56	15.5

\*Significant at 5% level.

Source: Data have been compiled by the researcher through field survey, 2012-13.

The survey result has shown that the calculated value of Chi-Square is less than the table value in Transport elements of 6, 10, 15, 16, 17, 18, 20 and 21. Hence, that there is no significant difference in Transport satisfaction among the Top, Middle and lower levels of passengers for these elements. In the remaining situations the calculated value of Chi-Square is more than the table value. Hence, that there is a significant difference in Transport satisfaction among the top, middle and lower level of passengers for the rest of the elements.

#### B) Factors Affecting the Transport Satisfaction – A Comparative Analysis:

All the Transport contents are not equally important to the passengers for their Transport satisfaction. This survey revealed the relative importance of Transport element to the Transport satisfaction by the passengers, which is given, in the following table - 2.

**TABLE – 2: RELATIVE ATTITUDE TO TRANSPORT ELEMENTS**

Elements of the Transport	Co-efficient of variation percentage(C.V.)		
	Top level	Middle Level	Lower Level
1. First aid facilities in the bus	363.92	444.46	316.23
2. Degree of fare charged to services provided by the APSRTC.	374.63	400.48	315.31
3. The degree of fair treatment & respect received from conductor and driver	390.65	509.60	351.07
4. The amount of support & guidance received from the conductor and driver	278.95	405.66	284.34
5. Satisfaction regarding usage of private buses in APSRTC	300.85	522.82	365.29
6. Satisfaction in the context of in time reaching the destiny	246.79	624.86	378.59
7. Satisfaction in the context of recreation facilities in Bus station	389.40	656.29	381.22
8. Satisfaction in the context of clock room facilities in Bus station	465.57	489.67	390.14
9. Satisfaction in the context of reservation tickets	295.76	596.40	347.49
10. Satisfaction in the context of Transport Security	278.26	390.33	377.33
11. Satisfaction in the context of Ladies reserved seats	304.58	382.34	223.06
12. Satisfaction in the context of toilets facilities in Bus station	295.38	472.58	263.51
13. Satisfaction regarding sufficient buses running from your station	224.77	563.74	267.92
14. Satisfaction in the context of Bus station environment	206.68	436.23	284.58
15. Level of Transport safety in transit	27.76	645.01	113.99
16. Level of Transport strain	214.32	485.78	201.43
17. In Comparison of APSRTC to other Private Transport	247.9	407.82	238.80
18. Openion in respect of special Schemes like wedding bus, Tourist bus, student excursion bus facilities etc.,	318.85	525.82	325.66
19. Services regarding Cat cards, Vanitha cards, Silever Jubli cards etc., facilities	165.11	399.08	245.58
20. Recreation Facilities in the buses	274.2	442.29	230.29
21. Drinking water facilities in the bus station	299.93	536.12	320.61

Elements of the Transport	Co-efficient of variation percentage(C.V.)		
	Top level	Middle Level	Lower Level
22. Satisfaction in the context of Road accident coverage	256.56	472.69	297.02
23. Satisfaction in the context of lodging facilities in Bus station	250.04	530.07	255.23
24. Satisfaction in the context of canteen facilities in Bus station	270.71	525.95	330.15
25. Satisfaction in the context of following the scheduled stops	327.98	470.83	370.66
26. Satisfaction in the context of Bus Cleanliness	365.54	629.87	404.57
27. Satisfaction in respect of e-booking facilities	269.71	452.75	224.74

Source: Data have been compiled by the researcher through field survey, 2012-13.

We have hypothesized that as we move from lower to top level, the variability in the Transport satisfaction decreases. From the table calculated for APSRTC, Guntur region, it is interesting to find that there is more variability in the Transport satisfaction of middle level passengers considered at different Transport elements. For the major Transport elements like 1,2,3,4,7,8,11,12,16,17,18,20,23 and 27, the Top level passengers showed the consisted variation in their Transport satisfaction, while for the other elements 5,6,9,10,13,14,15,19,21,22,24, 25, and 26 lower level passengers showed consistency in their Transport satisfaction.

### C) Attitudes of the Passengers towards Elements of Transport Satisfaction:

Now we try to find out the level of satisfaction in passengers considering their attitude in identified Transport elements. Appendix - I gives attitude wise satisfaction figures for each Transport element to study passengers satisfaction. Summarizing them we can find the most important factors causing dissatisfaction in a chronological order for different levels which is given, in the following table - 3.

**TABLE - 3: LIST OF ELEMENTS ACCORDING TO EXTENT OF TRANSPORT SATISFACTION LEVEL**

LEAST	Top level	Middle level	Lower Level
↑ ↓	Safety in travel	Safety in travel	Drinking water facilities
	First aid facilities in the bus	Transport security satisfaction	Safety in travel
	Drinking water facilities	Cat cards, Vanitha cards etc., facilities	Cat cards, Vanitha cards etc., facilities
	Recreation facilities	Fare Satisfaction	Recreation facilities
	Reservation tickets with city bus fare free facility	Bus Clean environment	Bus Clean environment
	Transport Security satisfaction	First aid facilities in the bus	First aid facilities in the bus
	Cat cards, Vanitha cards etc., facilities	Drinking water facilities	Transport security satisfaction
	e-booking facilities	Recreation facilities	Fare satisfaction
	Recreation facilities	Recreation Satisfaction	Reservation tickets have city bus fare free facility
	Bus Clean Environment	Reservation tickets have city bus fare free facility	Recreation satisfaction
MOST	Fare Satisfaction	e-booking facilities	e-booking facilities

Source: Data have been compiled by the researcher through field survey, 2012-13.

Transport strain is another important factor that affects the efficiency in the Transport. More Transport strain causes dissatisfaction in the passenger that affects the quality attitude. The top & middle level passengers in the APSRTC, Guntur region feel more Transport strain than the lower level passengers in the APSRTC, Guntur region do. In the top level respondents 44% in middle level passengers 42% respondents felt heavy strain, where as in the lower level passengers 45% of respondents felt heavy strain (See Appendix - II).

Generally it is observed that in APSRTC, Guntur region the top level passengers & middle level passengers perceive more Transport strain than lower level passengers.

### D) Causes of Dissatisfaction Among the Three Levels of the Passengers in APSRTC, Guntur Region:

Passengers of three levels were requested to mention some reasons for which they may feel dissatisfied towards their Transport. Passengers mentioned different factors that affect their Transport satisfaction.

Some factors are common and other factors are different. The causes of dissatisfactions are given, in the following table - 4.

**TABLE - 4: CAUSES OF TRANSPORT DISSATISFACTION AMONG THE PASSENGERS**

Reasons	Levels					
	Top	%	Middle	%	Lower	%
(i) Safety in travel	45	66	108	72	52	75
(ii) First aid facilities in the bus	35	52	72	48	23	33
(iii) Recreation facilities	30	44	43	28	8	12

(iv) Transport security	20	29	99	65	24	35
(v) Canteen facilities in the bus station	18	26	36	24	14	20

Source: *Data have been compiled by the researcher through field survey, 2007.*

About 66% of top-level passengers mentioned that they were highly dissatisfied regarding the element safety in travel. The other elements that cause dissatisfaction are first-aid facilities in the bus with 52%, recreational facilities with 44%, transport security with 29% and canteen facilities with 26% .

This makes us understand that top level passengers are more concerned with safety in travel, first-aid facilities, transport security and recreation facilities, for which there is a possibility to switch over to private bus facilities which are trying to serve better in this fierce competition. To serve better and satisfy to top level passengers APSRTC should frame some specific transport rules and transport policies to make passengers more anxious about their transport always. Primarily, APSRTC must win the hearts of the customers in turns of safety in travel and transport security.

About 72% of the middle-level passengers claim that they are highly dissatisfied regarding the safety in travel and transport security with 65%. Middle-level passengers are also dissatisfied regarding the first-aid facilities in the bus with 48% and 46% dissatisfaction to words Cat Cards, Vanitha Cards etc., facilities, e-booking facilities also show 38% of dissatisfaction.

By this we can early understand the pulse of the middle-level passengers which indicates that they were very conscious regarding the safety and the security at the first and then think of the economic benefits like the Cat Cards, Vanitha Cards etc., So, APSRTC should understand the pulse of the each level of the passenger, their priorities and then take steps to serve better to sustain in this competition. This reflects the policy matters of APSRTC which needs to be amended. Even the modern facilities like the updated technology and opening of several service/booking counters are to be properly taken care to serve and satisfy the passengers community.

From the category of low-level passengers, it is evident that 75% of these passengers are highly dissatisfied regarding the safety in travel, 35% of passengers expressed dissatisfaction towards transport security and 33% of these passengers expressed their dissatisfaction towards first-aid facilities in the bus.

This category of passengers also stresses their importance towards transport safety and security. They are more concerned towards the first-aid facilities provided in the bus. All the other elements are put aside by this level of passengers.

Comparing all the three levels of passengers it is clear its understand that transport safety and security is the prime concern of all the three levels of passengers and this is the element where all the three levels of passengers are dissatisfied.

APSRTC should move in this direction to improve their services by providing: 1) most trained drivers, relaxing the driver at their scheduled brakes, maintaining the reserve staff. 2) By properly maintaining the bus with regular maintenance management. 3) Security guard is to be maintained for the services of long distances, night travels etc., to gain the attention and satisfaction towards safety and security during travel.

The other common interesting element on which all the three levels of passengers showed dissatisfaction is first-aid facilities in the bus. Not every movement is in the hands of human beings. When something unforeseen or unavoidable danger occurs it is the responsibility of APSRTC to respond to its passengers with first-aid facilities in the bus. APSRTC should keep a strong attention on this element and maintain it properly.

Top-level passengers expressed their dissatisfaction towards the canteen-facilities and the recreational facilities offered by APSRTC at bus-stations. Naturally, this group is being high-income group who demands for sophistication in facilities. APSRTC should also move this direction to scatter their expectations.

It is open fact that the middle-income group is more conscious in economic savings and the study also revealed that this group of passengers showed dissatisfaction towards the cards the Cat Cards, Vanitha Cards etc., followed by APSRTC. New and innovative Schemes for daily passengers should be introduced to make them anxious in the selecting APSRTC as their made of transport. When compared to other two levels of passengers this level of passengers show more preference and liking to travel with APSRTC. Hence, APSRTC must be innovative to encourage this group.

Low-level passengers stress only on security and safety in travel also and the first-aid facilities they are least bothered with other elements.

## Conclusion & Suggestions

The study reveals that there is a significant difference in the transport satisfaction of three-levels of passengers studied under different identified elements.

It is interesting to note that the elements – transport safety, transport security and first-aid facilities in the bus showed that there is no significant difference in the satisfaction level of three levels of passengers.

This signals to APSRTC Guntur region that irrespective of the level of passenger, APSRTC have to move in the direction of satisfying all the passengers in regard to travel safety, travel security and first-aid facilities in the bus.

The primary motto of APSRTC is to make passengers “Reach their destiny in time with safety”. Contradicting, the study showed that all the three levels of passengers were dissatisfied on safety & security of travel.

We have also hypothesized that as we move from lower level to higher level, the variability in satisfaction decreases. But the study reveals that the variability in satisfaction is more or less same for the top level and lower level passengers. But for the middle level passengers the variation is considerably high. This may be because of the reason that this is the medium level income group who aspires high satisfaction with high economic saving. This is the group which travels regularly selecting APSRTC as this mode of transport. APSRTC has to focus on this group with innovative and attractive schemes to reach the aspiration of this level to reduce the variability in satisfaction.

Keeping in view the three levels of passengers APSRTC is suggested on the following aspects.

- APSRTC being one of the largest entities in transport should ensure safety in travel to passengers by adopting highly skilled staff with advanced technology.
- APSRTC should include security CCTV's in all the buses for security.
- First aid facilities in the bus and basic first-aid treatment training to staff should be provided.
- APSRTC should provide automatic digital tracking of buses, its timings and its notification to public at all the bus stops, so as to make passengers plan comfortably.
- APSRTC bus stops should be sophisticated with advanced technology which provides pure drinking water, digital and e-booking counters, and proper announcements at bus-stops to make the passenger energetic to travel.
- APSRTC should think innovatively to bring out attractive tariff saving schemes to regular passengers.
- Overall APSRTC should improve its predictability to plan for offering the service to the passengers at smart level.

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### Appendix – I

#### Attitude of the Passengers towards the Transport Elements.

Elements of Transport	Levels	Percentage of Respondents	
		Satisfied	Dissatisfied
1. First aid facilities in the bus	Top	47(92)	4(8)
	Middle	51(42)	71(58)
	Lower	38(67)	19(33)
2. Degree of fare charged to services provided by the APSRTC.	Top	47(92)	4(8)
	Middle	51(43)	68(57)
	Lower	40(76)	13(24)
3. The degree of fair treatment & respect received from conductor and driver	Top	52(88)	7(12)
	Middle	48(38)	77(62)
	Lower	43(71)	18(29)
4. The amount of support & guidance received from the conductor and driver	Top	48(71)	20(29)
	Middle	40(37)	69(63)
	Lower	38(64)	21(36)
5. Satisfaction regarding usage of private buses in APSRTC	Top	45(90)	5(10)
	Middle	79(65)	42(35)
	Lower	45(88)	6(12)
6. Satisfaction in the context of in time reaching the destiny	Top	39(81)	9(19)
	Middle	100(79)	26(21)
	Lower	51(88)	7(12)
7. Satisfaction in the context of recreation facilities in Bus station	Top	53(91)	5(9)
	Middle	87(93)	7(7)
	Lower	47(87)	6(13)
8. Satisfaction in the context of clock room facilities in Bus station	Top	56(90)	6(10)
	Middle	72(59)	50(41)
	Lower	51(88)	7(12)
9. Satisfaction in the context of reservation tickets	Top	45(92)	4(8)
	Middle	78(67)	39(33)
	Lower	49(86)	8(14)
10. Satisfaction in the context of Transport Security	Top	40(89)	5(11)
	Middle	68(54)	58(46)
	Lower	50(88)	7(12)
11. Satisfaction in the context of Ladies reserved seats	Top	39(75)	13(25)
	Middle	54(48)	58(52)
	Lower	33(65)	18(35)
12. Satisfaction in the context of toilets facilities in Bus station	Top	36(78)	10(22)
	Middle	72(58)	53(42)
	Lower	35(70)	15(30)
13. Satisfaction regarding sufficient buses running from your station	Top	36(72)	14(28)
	Middle	40(33)	81(67)
	Lower	36(64)	20(36)
14. Satisfaction in the context of Bus station environment	Top	26(62)	16(38)
	Middle	66(63)	39(37)
	Lower	39(74)	14(26)
15. Level of Transport safety in transit	Top	25(45)	30(55)
	Middle	22(17)	110(83)
	Lower	24(53)	121(47)
16. Level of Transport strain	Top	21(34)	40(66)
	Middle	67(47)	75(53)
	Lower	31(48)	34(52)



Elements of Transport	Levels	Percentage of Respondents	
17. In Comparison of APSRTC to other Private Transport	Top	19(59)	13(41)
	Middle	22(24)	69(76)
	Lower	17(50)	17(50)
18. Openion in respect of special Schemes like wedding bus, Tourist bus, student excursion bus facilities etc.,	Top	45(82)	10(18)
	Middle	74(60)	49(40)
	Lower	42(61)	21(33)
19. Services regarding Cat cards, Vanitha cards, Silever Jubli cards etc., facilities	Top	32(71)	13(29)
	Middle	53(48)	58(52)
	Lower	35(67)	17(33)
20. Recreation Facilities in the buses	Top	36(67)	18(33)
	Middle	67(63)	40(37)
	Lower	37(13)	21(87)
21. Drinking water facilities in the bus station	Top	50(79)	13(21)
	Middle	73(67)	36(33)
	Lower	42(75)	14(25)
22. Satisfaction in the context of Road accident coverage	Top	45(88)	6(12)
	Middle	55(53)	48(47)
	Lower	36(75)	12(25)
23. Satisfaction in the context of lodging facilities in Bus station	Top	42(84)	8(16)
	Middle	43(49)	44(51)
	Lower	32(65)	17(35)
24. Satisfaction in the context of canteen facilities in Bus station	Top	32(76)	10(24)
	Middle	72(58)	53(42)
	Lower	40(66)	21(34)
25. Satisfaction in the context of following the scheduled stops	Top	53(93)	4(17)
	Middle	51(47)	57(53)
	Lower	44(80)	11(20)
26. Satisfaction in the context of Bus Cleanliness	Top	61(95)	3(5)
	Middle	89(69)	40(31)
	Lower	50(89)	6(21)
27. Satisfaction in respect of e-booking facilities	Top	45(14)	7(86)
	Middle	39(33)	79(67)
	Lower	13(26)	27(48)

Source: Data have been compiled by the researcher through field survey, 2012-13.

#### Appendix – II

#### LEVEL OF TRANSPORT STRAIN

Level of Transport strain	Passengers in APSRTC					
	Top	%	Middle	%	Lower	%
No strain at all	8	12	47	31	21	30
Somewhat strain itself	13	19	20	13	10	15
Moderate strain is felt	9	13	11	7	3	4
Enough strain is felt	8	12	10	7	4	6
Heavy strain felt	30	44	63	42	31	45

Source: Data have been compiled by the researcher through field survey, 2012-13.