

Study on Passenger Preference to KURTC

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ABSTRACT

In a state like Kerala, transportation system support the diversified activities bind together towards growth and prosperity. The study tries to find out the preference of passengers towards KURTC buses. The study focus on the factors that are mostly preferred by the passengers and the overall satisfaction. Primary data using structured questionnaire was used for the above purpose. It was concluded that the use of KURTC buses, alone as a mode of transport was limited. Comfort level, availability of the services, speed of the bus and passengers convenience are the major factors that drives people towards the use of KURTC buses.

1. Introduction

Transportation has been an important part of the nation's economy. In a developing country like India, wherein the momentum of all human activities are increasing transportation plays a vital role. The different modes of transportation through air, water, and land have been accelerating the development process leading to the overall growth of the economy. India's transport sector is large and diverse. The transportation system had a new phase with the emergence of the National Highway Authority. In India, public transport becomes the primary mode of transport. This resulted in the emergence of State owned transport corporations. Buses takes up majority of the public transport in Indian cities and is the most convenient mode of transport for all classes of people.

In Kerala there is a large fleet of buses belonging to the Kerala Road Transport Corporation (KSRTC) as well as private operators. Buses procured with the financial assistance from the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) and operated by the Kerala State Road Transport Corporation (KSRTC) were brought under the newly formed Kerala Urban Road Transport Corporation (KURTC).

Hence KURTC is formed as a subsidiary of KURTC vide GO (MS) No.50/2014/Trans Dated. 05/07/2014 as per the provision laid under RTC Act 1950, Rule 17(A). The operation and maintenance of the buses under the scheme are also managed by KURTC through the administrative setup of KSRTC. The mission of KURTC is to provide quality transport service to the urban mass and also to link the tourist destinations of Kerala so as to avoid congestion in cities by avoiding use of own vehicles and prompting them to make use of public transport system. (<http://kurtc.in/aboutus.html>)

2. Significance of the study

Public transport is imperative, for a city, especially like Ernakulam- which is the commercial capital of Kerala. Ernakulam is the third most populous district in Kerala and is home to over 12% of Kerala's population. Thus the role of public transport is important so as to reduce the use personalized transport. KURTC, subsidiary of KSRTC, is a major inter and intra city service provider in Ernakulam district. Passenger's perception towards public transport differ from one another. By

knowing the factors preferred by them will succor in the development of the transportation system. Thus understanding the preferences and factors that influence the decision of a customer is deemed to be vital.

3. Scope of the study

The study covers samples drawn from the population of Ernakulam district, who travel by public transport buses. The areas covered are Kolenchery, Thiruvankulam, Tripunithura and Vytilla routes. The study attempts to find out the different attributes that a passenger prefer while using KURTC buses. Different categories of passengers are included in this study. An effort is made to find out the most important attribute, which influence the passenger while travelling

4. Objectives of the study

The study is undertaken with the following objectives;

- To compare the preference level of passengers towards KURTC buses.
- To find out various attributes that the passenger prefer while using a public transport.
- To understand the level of satisfaction of the passengers towards the efficiency of KURTC

5. Hypotheses of the Study

H₀₁: There is no significant difference between the male and female passengers in their preference towards KURTC.

H₀₂: There is no significant difference between age groups and their preference towards KURTC.

6. Research Methodology

- Selection of sample- For the purpose of the study a sample of 50 passengers using KSRTC and KURTC were selected using convenience sampling.
- Collection of data-Data were collected using primary and secondary sources. Primary data were collected using interview schedule. Secondary sources include published journals, magazines, books and from various websites.
- Tools of analysis- The data collected were suitably classified and analysed keeping in view the objectives of the study. For the purpose of analysis, statistical

tools like percentages and average were used. T test, Anova was applied to test the hypothesis.

7. Limitations of the study

The study is completed in the midst of certain limitations and constraints. The following are some of the limitations:

- Availability of time and resources are important limiting factor for the study.
- Inherent limitation of sampling technique have affected the study to a certain extent.

8. Analysis

I. Demographic profile of the respondents

Table 1.7 (1) Gender of the respondents

Gender	Frequency	Percent
Male	25	50.0
Female	25	50.0
Total	50	100.0

Source: Primary data

Table 1.7(1) shows that the male and female respondents were equal in proportion.

Table 1.7(2) Age of the respondents

Age	Frequency	Percent
Below 20	7	14.0
20-40	16	32.0
40-60	19	38.0
Above 60	8	16.0
Total	50	100.0

Source: Primary data

The above table shows that majority of the respondents fall between the age group of 20-60 years and 14% of the respondents fall below the age group of 20 years and the rest fall under above 60 years categories.

Table 1.7(3) Occupation of the respondents

Occupation	Frequency	Percent
Employed	16	32.0
Unemployed	13	26.0
Business	10	20.0
Student	11	22.0
Total	50	100.0

Source: Primary data

Table 1.7(3) reveals that, majority of the respondents (32%) belong to the employed category. 26% of the respondents travelling are unemployed. Business class travelling in public transport is 22%, while the rest of them (20%) are students.

II. Details of respondents regarding travel pattern behavior

Table 1.7(4) Frequency of services availed

Particulars	Frequency	Percent
Daily	28	56.0
Weekly	5	10.0
Occasionally	6	12.0
Rarely	11	22.0
Total	50	100.0

Source: Primary data

Table 1.7(4) indicates that most of the respondents avail a public transport daily (56%) to commute. 22% use public transport rarely. 12% of the respondents use a public transport occasionally. Whereas 10% of the respondents avail public transport weekly.

Table 1.7(5) Route distance covered

Distance	Frequency	Percent
Below 10km	6	12.0
10 Km -40 Km	31	62.0
40 Km-80 Km	5	10.0
Above 80 Km	8	16.0
Total	50	100.0

Source: Primary data

The above table 1.7(5) shows that about 62% of the respondents travel 10-40 km on an average using a public transport system. Public transport system is used by 12% of the respondents for travelling a short distance (below 10 km). Only 16% of the respondents use public transport for long distance travel while 10 % of the respondents avail the service to travel a distance around 40-80 km

Table 1.7(6) Purpose of journey

Purpose	Frequency	Percent
Work Place	18	36.0
Study	10	20.0
Household Matter	11	22.0
Visit Special Places /Trip	5	10.0
Others	6	12.0
Total	50	100.0

Source: Primary data

Table 1.7(6) depicts that most of the respondents avail the services of a public transport to commute to their work place. Services are used for household matters such as for shopping by 22% of the respondents. Study and trip related percentage come across 20 and 10 % respectively while the rest of the respondents avail the services for other purposes.

Table 1.7(7) Type of bus used

Bus Type	Frequency	Percent
KSRTC	8	16.0
KURTC	7	14.0
Private Bus	2	4.0
Both KSRTC and KURTC	20	40.0
Both KURTC and Private bus	6	12.0
Both KSRTC and Private bus	7	14.0
Total	50	100.0

Source: Primary data

From the table it is clear that majority of the respondents use KSRTC and KURTC buses (40%) for travelling. 16% of the respondents use only KSRTC buses while 14 % use KURTC alone for their travel purpose. Only 4% of the respondents use private bus as their transportation mode.

Table 1.7(8) Factors that motivate to choose KURTC as a mode of transport

Factors	Weighted Mean	Rank
Comfort Level	4.95	1
Availability of Services	4.81	2
Route Coverage	4.18	4
Vehicle Physical Condition	3.16	11
Ease of Getting on and off the Bus	3.40	9
Quality of Services	3.43	8
Frequency of Services	3.89	6
Convenience Level	4.6	3
Safety and Security	3.63	7
Crew Attitude	2.85	12
Punctuality	4.03	5
Travel Fare	3.20	10

Source: Primary data

From the above table, it was inferred that while using a public transport the most important factor the passengers prefer is the comfort level. The availability of services, convenience level and the route covered by the bus are factors that come after comfort. In the next sequence comes punctuality,

frequency of services, safety and security of the bus. It also shows that the respondents are not concerned about the travel cost, the physical condition of the bus, and the behavior and attitude of the crew.

III. Overall satisfaction on the efficiency of services provided by KURTC buses

Table 1.7(9) Overall Satisfaction

Satisfaction level	Frequency	Percent
Highly Satisfied	16	32.0
Satisfied	18	36.0
Neutral	10	20.0
Dissatisfied	5	10.0
Highly Dissatisfied	1	2.0
Total	50	100.0

Source: Primary data

From the above table it is clear that 36% of the respondents are satisfied with the services of the bus. 32% are highly satisfied with the services. 20% have neutral opinion, 10% are dissatisfied and 2% are highly dissatisfied.

Hypothesis Testing H₀₁: H₀: There is no significant difference between the male and female preferences towards KURTC

Table 1.7(10) Testing of hypothesis

Factors Preferred		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Comfort Level	Equal variances assumed	6.440	.014	-2.501	48	.016
	Equal variances not assumed			-2.539	44.226	.015
Availability of Services	Equal variances assumed	.527	.472	1.113	48	.271
	Equal variances not assumed			1.111	47.372	.272
Route Coverage	Equal variances assumed	.001	.976	.233	48	.816
	Equal variances not assumed			.234	47.805	.816
Vehicle Physical Condition	Equal variances assumed	.016	.899	-.891	48	.377
	Equal variances not assumed			-.890	47.377	.378
Ease of getting on and off the bus	Equal variances assumed	1.082	.304	-.219	48	.828
	Equal variances not assumed			-.220	47.950	.827
Quality of Service	Equal variances assumed	5.791	.020	-1.142	48	.259
	Equal variances not assumed			-1.124	39.873	.268
Frequency of the Service	Equal variances assumed	.030	.862	2.925	48	.005
	Equal variances not assumed			2.921	47.353	.005
Convenience Level	Equal variances assumed	1.889	.176	.829	48	.411
	Equal variances not assumed			.824	45.613	.414
Safety And Security	Equal variances assumed	.480	.492	-1.082	48	.285
	Equal variances not assumed			-1.077	46.373	.287
Crew Attitude	Equal variances assumed	.585	.448	.270	48	.788
	Equal variances not assumed			.269	45.880	.789
Punctuality	Equal variances assumed	.483	.490	-.953	48	.346
	Equal variances not assumed			-.955	47.981	.344
Travel Fare	Equal variances assumed	1.493	.228	.274	48	.785
	Equal variances not assumed			.276	47.704	.784

The results of the Levene's test shows variances across means of the factors preferred by male and female. Most of the factors among male and female are same. Mean is significantly similar among the group for availability of service ($p=0.217$), route coverage ($p=0.816$), physical condition of the bus ($p=0.377$), ease of getting on and off the bus ($p=0.828$), quality of services ($p=0.268$), convenience level ($p=0.411$), safety and security ($p=0.285$), crew attitude ($p=0.788$), punctuality ($p=0.346$), travel fare ($p=0.785$). Mean is significantly

different among the two of the factors i.e. comfort level ($p = 0.015$) and frequency of service ($p = 0.005$). Therefore the hypothesis is accepted that there is no significant difference between male and female passengers in their preference, except for the comfort and frequency of services, towards KURTC.

Hypothesis Testing-H₀₂: There is no significant difference between age groups and their preference towards KURTC.

Table 1.7(11) Testing of hypothesis

Factors Preferred		Sum Of Squares	Df	Mean Square	F	Sig.
Comfort Level	Between Groups	8.600	3	2.867	.227	.877
	Within Groups	580.680	46	12.623		
	Total	589.280	49			
Availability of Services	Between Groups	19.262	3	6.421	.607	.614
	Within Groups	486.738	46	10.581		
	Total	506.000	49			
Route Coverage	Between Groups	18.323	3	6.108	.293	.831
	Within Groups	960.257	46	20.875		
	Total	978.580	49			
Vehicle Physical Condition	Between Groups	31.965	3	10.655	.933	.433
	Within Groups	525.555	46	11.425		
	Total	557.520	49			
Ease of Getting on and off the Bus	Between Groups	119.933	3	39.978	2.693	.057
	Within Groups	682.787	46	14.843		
	Total	802.720	49			
Quality of Service	Between Groups	11.010	3	3.670	.302	.824
	Within Groups	559.570	46	12.165		
	Total	570.580	49			
Frequency of the Service	Between Groups	50.778	3	16.926	1.549	.215
	Within Groups	502.602	46	10.926		
	Total	553.380	49			
Convenience Level	Between Groups	21.536	3	7.179	.701	.557
	Within Groups	471.344	46	10.247		
	Total	492.880	49			
Safety and Security	Between Groups	31.479	3	10.493	.954	.423
	Within Groups	506.041	46	11.001		
	Total	537.520	49			
Crew Attitude	Between Groups	31.261	3	10.420	1.083	.366
	Within Groups	442.739	46	9.625		
	Total	474.000	49			
Punctuality	Between Groups	62.652	3	20.884	1.575	.208
	Within Groups	609.828	46	13.257		
	Total	672.480	49			
Travel Fare	Between Groups	25.292	3	8.431	.554	.648
	Within Groups	700.328	46	15.225		
	Total	725.620	49			

Source: Primary Data

From the above table, all the factors have significant value greater than .05. Thus, the hypothesis stands accepted, at 5% significant level, that there is no significant difference between age groups and their preference towards KURTC.

9. Major Findings

- Out of the 50 respondents 50 percent were female and 50 percent male. Majority of the respondents (38%) belong to the age group of 40-60 years, followed by 20-40 years with 32%. The age groups below 20 years and above 60 years are of 14% and 16% respectively. Majority of the respondents (32%) were employed, percentage of unemployed respondents are 26%, and business class 22%, and 20% were students.
- 56% of the respondents avail public transport daily.
- The route covered by the respondent's on an average basis is 10 – 40 km.
- The purpose of the journey for most of the respondents is to commute to the work place.
- Out of 50 respondents KURTC alone preferred is only 14% whereas KSRTC and KURTC buses used for the above purpose comes to 40%.
- The most important factor the passengers prefer is the comfort level. The availability of services, convenience level and the route covered by the bus are factors that come after comfort.
- 36% of the respondents are satisfied with the services of the bus. 32% are highly satisfied with the services. 20% have neutral opinion, 10% are dissatisfied and 2% are highly dissatisfied.

- The hypothesis that there is no significant difference between male and female passengers in their preference, was accepted except for the comfort and frequency of services factors as the value was less than .05 level of significance.
- The hypothesis that there is no significant difference between age groups and their preference towards KURTC was accepted at 5% significant level.

10. Conclusion

The Kerala State Transport Corporation (KSRTC) was formed with the objective of providing adequate, efficient, economic and properly coordinated passenger service as well as to provide effective and safe commuter friendly solutions to the travelling public who use the services of KSRTC. Kerala Urban Road Transport Corporation (KURTC) was formed to uplift the city public transport system in the state of Kerala. The study was carried out with an objective to understand what drives passenger satisfaction and dissatisfaction towards KURTC as a good public transport. The study reveals the number of passengers that use KURTC alone as a mode of transport is limited. Most of them use KSRTC and KURTC buses as their travel mode. The factors that they look about in selecting KURTC as a transportation mode are comfort level, availability of the services, speed of the bus and also their convenience. It also reflects that the passengers are satisfied with the service efficiency of KURTC buses. Most of the respondents suggested that the buses should be kept clean, bus schedule should not be cancelled in a short notice, increase the number of buses and proper maintenance of bus in order to avoid breakdowns. Incorporating these suggestions would make KURTC, a sustainable transport in the future.

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