



Kerala Urban Road Transport Corporation (KURTC): A Vantage Point in Urban Mobility Experience?

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ABSTRACT

This paper examines the beneficial influence of KURTC on the urban mobility experience in terms of commuters' perception and satisfaction and also the extent to which KURTC has done justice to its inception mission 'Upliftment of urban Transportation'. An attempt to identify the service attributes which affects the urban commuters experience was made in tune with a new model, 'Commuters Experience (CE)' Model. The quantitative and qualitative analysis through Ranking, ANOVA, Chi-Square tests reveals 'safety', 'Cleanliness' and 'comfort' are the highly ranked service attributes in perception and satisfaction score, 'timeliness' and 'bus fare' are the least. The study also tried to relate the service attributes and demographic-socio-economic features of the commuters. This paper finds the strong evidence of positive association between commuters' perception and satisfaction. The rate of commuters' perception and satisfaction score implies that KURTC is in its way to mission. The paper observes a considerable attraction of undeserved urban commuters towards KURTC services even it charges more and at the same time main obstacle is the huge difference in intra-service switching cost. The findings may provide transport service operators valuable premises for designing adequate service policies attracting new and retaining the current commuters.

KEY WORDS: Urban Mobility Experience, Commuters' Perception, Commuters Satisfaction. KURTC, Service attributes, Intra-service switching cost.

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I. INTRODUCTION

Bus Transport play a dominant role in the urban mobility and felt as a most suitable mode of public transport as its benefits touch all the stake holders of society. The Bus transportation are the most popular and convenient mode of transportation in urban sectors. (Singh, J, 2016). In Kerala, bus transport got wide acceptance owing to the geographic features of the state and its scattered habitation with a relatively lower rural urban divide. Kerala has a total fleet of 25,449 buses; of which 19,496 are private buses (77 per cent) and 5,953 are KSRTC buses. (Economic Review, 2017). The public passenger bus transport service that is well organized and predominant in the Kerala state, with the largest network is that of KSRTC, a public sector enterprise and being a statutory corporation, directly under the control of state government. (Navya, A, H, 2020). Kerala Urban Road Transport Corporation (KURTC) was set up in 2014 with prime intension of uplifting the urban public bus transport of Kerala. KURTC Buses were funded from the Central government scheme, "Jawaharlal Nehru National Urban Renewal Mission (JnNURM)" with a key recognition that Urban Transport is the basic factor of the social and economic progress. KURTC is operating as a subsidiary of state-owned public corporation, Kerala State Road Transport Corporation (KSRTC) with a mission "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". (Joseph, J. M, 2019). The present study attempts to examine how the urban commuters perceives and at what extent they are satisfied with the KURTC bus service, which has actually brought for upliftment of urban transportation quality and facilities in order to

attract the urban mobility to the public transport system so as to reduce road congestion and pollution. The study also intends to analyse how the demographical characteristics of the commuters impacts their experience on KURTC services.

II. RELEVANCE AND RESEARCH PROBLEM

The role of public bus transport is very important in reducing the usage of personalized transport means like private cars and bikes especially in a state like Kerala where the roads are not only narrow but very congested also. Moreover, usage of public transport means minimises the GHG emission and pollution. KURTC brought into wheels for the purpose of enhancing the urban bus transport service quality and commuters' satisfaction so as to attract the commuters who commuting by personal means and have somewhere lost their trust in the public transportation. So, it is essential to know whether the KURTC has achieved its intended objectives and how the commuters really perceive its present service and their satisfaction level. The commuters' perception and satisfaction towards public transportation may differ from one another. By knowing the important factors influencing commuters' satisfaction the transport authority and policy makers are able to frame and implement a better transport policy for the development of public transportation system. Thus, understanding the commuter's perception, preferences, satisfaction and the influencing factors of commuting etc. deemed to be vital concern.

Commuters' satisfaction is very important in the field of transport service sector. Commuters are facing a lot of problems while travelling in public as well as private buses. The matter of urban commuters is more complicated due to road congestion, traffic block and air and noise pollutions. As a solution for the urban mobility problems, the Kerala Govt. has introduced KURTC with the funding support of JnNURM. KURTC offers more quality services and facilities urban commuters by its AC-Volvo, Non-AC low floor bus services. KURTC Bus fare seems to be little bit more as compared to traditional KSRTC buses and private bus services. Lot of studies have been found relating to KSRTC and Private buses passenger satisfaction but no serious studies have been observed on commuters' experience on KURTC. In this backdrop it is essential to study the urban commuters experience towards KURTC since it has social, environmental and economic impact.

- i. *Social perspective:* Quality services of public bus transport attracts the commuters who have been using private transport means and so that it minimises driving stress and tension and maximise social cohesion and utility of leisure time during the transit.
- ii. *Environmental perspective:* Use of public transport reduces number of private vehicles on road, traffic congestion and vehicular emission of GHGs.
- iii. *Economic Perspective:* Increased commuters base will be great financial relief for KURTC and KSRTC which is currently a loss-making public-sector undertaking. Moreover, it reduces commuters' cost of transit to a great extent.

The main objective of the study is to examine the overall experience of urban commuters after the emanation of KURTC. The supportive objectives are:

- i. ***To identify, analyse and interpret the socio-economic-demographic attributes of urban mobility experience.***
- ii. ***To examine the urban commuters' perception and level of satisfaction on KURTC services.***

III. LITERATURE REVIEW

The transportation with improved reliability, security and quality with the insurance of eco-friendly operation is utmost relevant issues in current scenario. (Yedilbayev, B, et al, 2021) Cities play a crucial role in economic growth prosperity and the sustainable growth and development of the urban cities massively depends on their infrastructural support and at this juncture the role of urban transport infrastructure is paramount. (Padam, M, & Sing, S, K, 2004). The economic growth momentum can be attained only if cities and urban areas function smoothly and efficiently and which in turn heavily depends on effectiveness of city/urban transport system and in order to ensure this there requires a proper urban transport policy. (Sing, S, K, 2012). Bus transport are the most common public transit mode and they operate on urban areas and streets and have an extensive road network. (Vuchic, V, R, 2002). Public transportation is shared passenger transit services available for the usage of general public for travelling from an origin point to a destination point. (Wijerathna.I.D.C,2016). Public transport modes mean and include bus, train, rapid transit, trams, ferries and air carriers, based on user country's requirements (Ranawana & Hewage, 2015). Since the service delivery environment differs between developed and developing nations, the user perception of service quality varies between these economic regions. (Das, S., & Pandit, D, 2013). The main challenge in the urban transport sector is to attract more commuters towards the public bus services. (Shaaban, K. & Khalil, R. F, 2013).

Improved understanding of the main factors of commuter satisfaction with the public transportation is a vital concern to enhance the public transport attractiveness. (Zefreh, M, M, et al, 2020). Commuters' satisfaction is considered to be an important factor to attract the commuters from the private and personalised

transport to public transport. (Saif, M.A. et al, 2019). Commuters. satisfaction and retention are the key elements to measure the quality of transport services. (Irfan, S, M.et al, 2012). Passenger satisfaction was considered as one of the most significant and primary factors in any service and industry field because of the direct relationship with passenger's retention. (Nguyen, X, P, 2019). The shortage of motorized vehicles and the excessive number of nonmotorized vehicles on the city's streets have been the cause of unbearable traffic congestion, leading to negative externalities such as productivity loss, increase in stress levels, and adverse health effects from pollution. (Andaleeb, S, S. et al, 2007).

The bus fare, punctuality, outside state service, comfort of travel, concession, crew behaviour towards commuters, add-on services during special occasions and seasons are the factors which adversely affecting commuter satisfaction in public bus transportation in Kerala. (Sravana, K, 2016). The three core dimensions of public bus transport service attributes of passenger satisfaction are the travel comfort, accessibility of service and the safety in travel. (Noor, H. M., & Foo, J, 2014). The reliability of service, travel time and comfort are to be considered as great impacting factors on commuters' satisfaction in relation to the type of bus trip. (Beira, G. and Cabral, J. A. S, 2007). The important factors affecting the public transport satisfaction includes revamping public transport to the requirements of physically disabled and the public transport attributes like ticket fare, shuttling frequency, timeliness of the arrivals, accessibility of the bus stations and stops, duration of travel as well as the course of the bus commutation line and the attitudes on the public transport varies across various passenger groups. (Roman, K., & Czapski, G, 2020). There exists a difference in the travel pattern and behaviour between men and women because of their varying transit purpose and their accessibility to transport facilities. (Rouf, K. B. A.et al, 2019).

Research Gap:As the KURTC came into seen of urban mobility of Kerala, no serious studies have been observed in connection with its commuters' perception, satisfaction, loyalty etc.

IV. METHODOLOGY AND CONCEPTUAL FRAMEWORK

IV.1. Sample: Sample size is limited to 80 commuters using KURTC services. Sample frame consists of regular commuting population of KURTC in Kozhikode district in Kerala. Sampling techniques make use of the study is purposive sampling.

IV.2. Data collection: the relevant data for this study collected from both primary and secondary sources. Primary data were collected from the regular commuters by serving a structured questionnaire and secondary data were obtained from the journal articles, KURTC, KSRTC State Planning Board websites.

IV.3. Data analysis: Commuter's data were analysed and interpreted with the help of Ranking analysis, One-Way ANOVA, Chi-Square tests along with the supporting tables and figures.

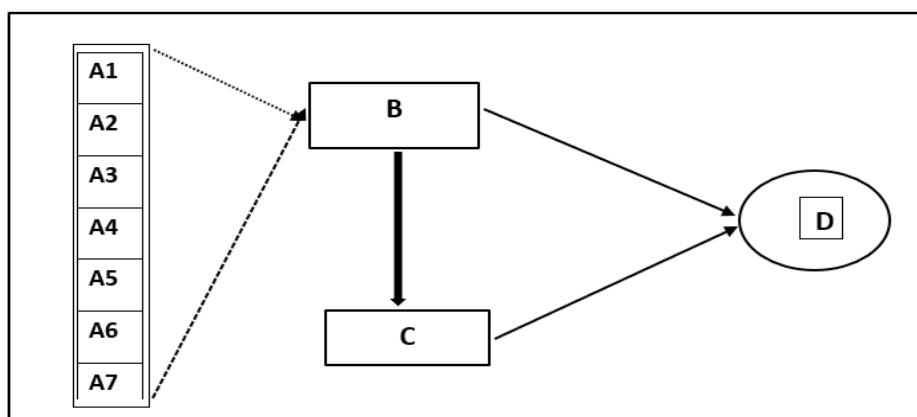
IV.4. CONCEPTS & MODEL

A. Service attributes are the specific features attached to the service which affects perception and satisfaction of the commuters such as timeliness of service, security and safety, convenience and comfort, staff behaviour and attitude, bus physical features and cleanliness, bus fare, speed and stoppages etc

BandC. Commuters' perception and Satisfaction: commuters' perception can be defined as the way that commuters generally view and feels about the transport services availed. It is related to commuters' satisfaction which is the actual expectation of commuters towards the transport services. Commuters' satisfaction may be defined as the state of fulfilment of commuters' expectation of transport services.

D. Urban Mobility experience: In this study 'Urban Mobility Experience' means and include urban commuters' (passengers') perception and satisfaction on the services of KURTC which has been launched for improving the quality of bus transport services specially in urban segment. Lot of previous studies in these areas revealed that level of perception and satisfaction on transport services will varies according to the demographical, social and economic features of the commuters. Hence this section deals with demographic/Economic/educational features of respondents and their influence on perception and satisfaction.

Figure 1: Model of the study (CE Model)



The Kerala Urban Road Transport Corporation is a state-owned bus corporation which operates 600 plus low-floor A/C and NON-A/C buses in Kerala. It commenced operation in 2015 with the buses procured with the financial aid under the scheme ‘Jawaharlal Nehru National Urban Renewal Mission (JNNURM)’. It runs complete and individual services in Trivandrum districts and Ernakulam districts and the remaining districts operates under cluster basis. Present study considers Cluster 1: Kozhikode -Wayanad-Malappuram service. It operates mainly three types of fleets: Low-Floor Non-AC buses mainly operate on short routes and having stoppages at all passenger stops. These consists of Ashok Leyland RESLF BS III and 225 hp 12M FESLF, Star bus series of TATA, Marco polo and ACGL buses. Air-conditioned Low Floor Buses the (Volvo B7R LE and 8400 BS IV) in the city and intercity routes with picking and dropping at fast passenger stops. Apart from these two there are running low floor AC buses also.

Table 1: Fare Table of KURTC buses with effect from April 2018

Bus Types	Minimum fare(Rs)	Intra-service switching cost
1 JNNURM Low Floor Non-AC	10	Minimum Charge
2 JNNURM Low Floor AC	21	60%
3 JNNURM Volvo AC	80	281%

(Source: KSRTC Control Room)

It reveals the high fare gaps in KURTC services. Switching cost for base services to AC Volvo services is Rs.70 i.e., 700 per cent more on the minimum fare of base services.

V. EMPIRICAL ANALYSIS AND DISCUSSION

V.1. Demographic Profile of Commuters

Table 2: Demographic profile of Commuters (Descriptive Statistics)

Gender	Male		Female		Other
%	38.8		60		1.2
Age	< 20 years	20-30	30-40	40-50	>50 years
%	13.8	77.5	5	2.5	1.2
Occupation	Students	Business	Govt.Job	Pvt.Job	others
%	57.5	3.8	3.8	20	15
Education	SSLC and lower	Plus Two	Graduates	PG	Others
%	2.6	20	50	22.4	5
MonthlyIncome (Rs)	< 20000	20000-30000	30000-40000	40000-50000	>50000
%	46.3	16.2	16.2	6.3	15

(Source: Primary Data)

Table No.2 shows most of the respondents (60 per cent) are female and this implies that the KURTC has a female friendly travel atmosphere and is used by women. In the case of the age of respondents it is showing that majority (77.5 per cent) belongs to the age group 20-30 and this hints at a youth preference of using KURTC.

services. Occupational data shows that most of the commuter respondents belongs to students' group (57.5 per cent), followed by the private employees (20 per cent). It shows that even though there is no travel concession for students are available KURTC buses (Volvo and AC and Non-AC low floor buses), students are likes to travel by such buses and thus KURTC attracts the attention of young generation commuters. In relation to education status, it is identified that majority of respondents (75 per cent) having higher qualification ranging from graduation to PG and other professional degrees which reflects the average education/literacy rate of customers/commuters in Kerala. In the above table the researcher found that 46.3 % respondents are having monthly income of less than 20000 and only 6.3 per cent belongs to monthly income more than Rs.50,000 and this confirms that low-income earners also used to travel in KURTC buses where bus fare are relatively more.

V.2 Age and Commuters Perception

H0₁: There is no significant difference between satisfaction level of customer on the basis of age.

Here One Way ANOVA is applied to test the hypothesis by taking the commuters perception rating of KURTC services on five-point scale: 'Excellent', 'Very Good', 'Good', Average and 'Below average' as dependant variables and the five age groups of commuters as independent variable.

Table 3: Influence of age on commuters' perception (ANOVA)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	275.519	4	68.880	8.347	.001
Within Groups	618.869	75	8.252		
Total	894.387	79			

Inference: The value of F is 8.347, which reaches significance with a p – value of .000 (which is less than the .05 alpha values). So, we reject the null hypothesis by accepting alternative hypothesis. This means that there is a statistically significant difference in commuters' perception on KURTC services according to their age.

V.3 Educational status and Commuters' perception

H0₂: there is no significant difference in commuters' perception of KURTC services on the basis of their educational status.

Here also, One Way ANOVA is applied to test the hypothesis by taking the commuters perception rating of KURTC services on five-point scale: 'Excellent', 'Very Good', 'Good', Average and 'Below average' as dependant variables and the Five group of commuters based on their education level as independent variable.

Table 4: Influence of educational status on commuters' perception (ANOVA)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	205.210	5	41.042	4.407	.001
Within Groups	689.178	74	9.313		
Total	894.388	79			

Inference: The value of F is 4.407, which reaches significance with a p – value of .001 (which is less than the .05 alpha value). This means there is a statistically significant difference between commuters' perception on KURTC services on the basis of education qualification. Hence the null hypothesis is rejected and alternate hypothesis accepted.

V.4 Commuters' Perception on Various Service Attributes

H0₃: there is no significant variation in commuters' perception among various service attributes of KURTC.

In order to test the above again One-way ANOVA is used by taking the commuters perception rating of KURTC services on five-point scale: 'Excellent', 'Very Good', 'Good', Average and 'Below average' as dependant variables and the six important service attributes such as 'time schedule' of bus service, 'Seating comfort', 'Cleanliness' of buses, 'crews' attitude and behaviour, 'Speed' and 'picking and dropping' accuracy were as independent variable.

Table 5: Commuters Perception on Service Attributes

Source	DF	Sum of Squares	Mean Square	F Statistic	P-value
Between groups	5	0.00		0.00	1.00
Within groups	24	8019.999		334.16	

Total	29	8019.999	276.55
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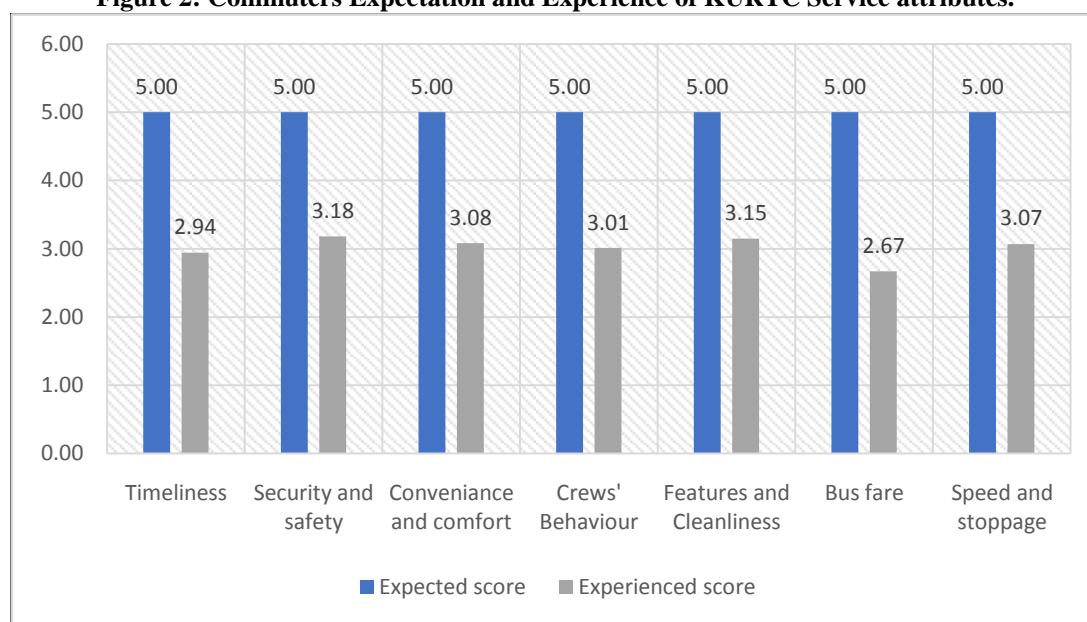
Inference: Since p-value more than α , H_0 is accepted. The averages of all groups considered to be equal. In other words, the difference between the averages of all groups is not big enough to be statistically significant. So, there is no significant variation in commuters' perception among various service attributes of KURTC.

Table 6: Service Gap Experience of Commuters

Service attributes	A: Expected score (maximum score)	B: Experienced service (mean score)	A-B: Perceived Gap	Ranking
Timeliness (A1)	5.00	2.94	2.06	VI
Security and safety(A2)	5.00	3.18	1.82	I
Convenience and comfort(A3)	5.00	3.08	1.92	III
Crews' Behaviour (A4)	5.00	3.01	1.99	V
Features and Cleanliness(A5)	5.00	3.15	1.85	II
Bus fare (A6)	5.00	2.67	2.33	VII
Speed and stoppage(A7)	5.00	3.07	1.93	IV
<i>Mean</i>		3.02	1.98	
<i>Standard Deviation</i>		0.172		

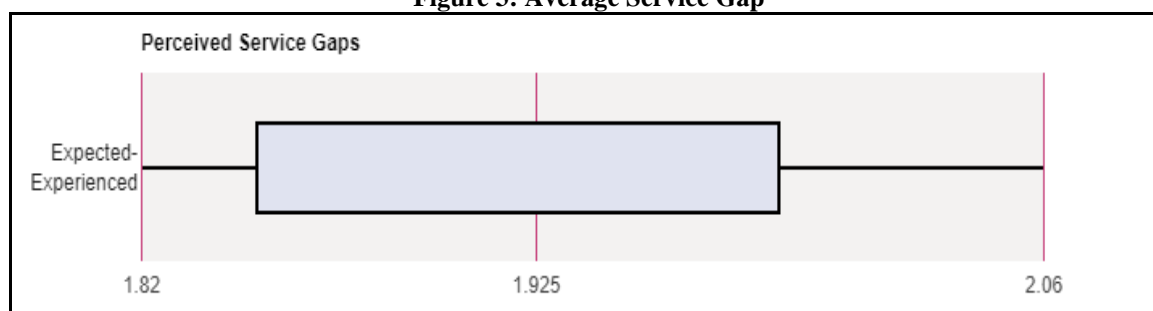
(Source: primary Data)

Figure 2: Commuters Expectation and Experience of KURTC Service attributes.



Inference from the table 6 and figure 2 is that though there is no significant variation in commuters' perception on the various service attributes of the KURTC, there found a mediocre variation in perceived mean score ranging from 2.67 to 3.18. The attribute-wise analysis reveals the commuters' perception on the attributes, 'safety' in transit and 'cleanliness and bus features' are relatively more and 'timeliness' and 'bus fare'.

Figure 3: Average Service Gap



The maximum service satisfaction gap is observed in ‘bus fare’ and minimum service satisfaction gap in commuters’ ‘Safety’ attribute. Average rate of satisfaction of commuters on bus services is found to be above 60 per cent (3.02/5x100) which indicates the enough space for service improvements. More attention has to pay on ‘time schedule adherence’ and ‘fair bus fare’.

V.5 Commuters Segments and Satisfaction

H0₄: there is no significant difference in level of commuters’ satisfaction in KURTC services on the basis their segment.

To test the hypothesis ‘analysis of variances’ used by taking the five-point satisfaction level of commuters such as ‘Highly satisfied’, ‘Satisfied’, ‘Neutral’, ‘Dissatisfied’ and ‘Highly dissatisfied’ as dependent variable and occupation wise passenger group as independent variable.

Table 7: Commuters Segment and Satisfaction Level (ANOVA)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	34.399	4	8.600	.750	.561
Within Groups	859.988	75	11.467		
Total	894.388	79			

Inference: The value of F is .750, which reaches significance with a p – value of .561 (which is greater than the .05 alpha value). This means there is no statistically significant difference between satisfaction level of customers on the basis of passenger group. So, the null hypothesis is accepted here. There is no significant difference in satisfaction felt to various commuters’ according to their occupational status.

V.6 Fleet Type and commuter satisfaction

H0₅: there is no significant association between commuters’ satisfaction level and KURTC bus class’s features.

To test the association between bus types and satisfaction level of commuters, chi-square test is applied here by taking five-point satisfaction level i.e., HS, S, N, D, HD as one variable and the bus types, AC and Non-AC buses as other variable. However, no significant association of bus types to the satisfaction level of commuters was found in statistical test.

Table 8: Association between features of busclasses and Commuters’ level of satisfaction

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	35.654 ^a	26	.098
Likelihood Ratio	41.093	26	.030
Linear-by-Linear Association	2.629	1	.105
N of Valid Cases	80		

Inference: Karl Pearson chi-square came out to be 35.954 and the significant value as .098. This value being higher than .05 (level of significance). Clearly indicate that there is no significant relationship between passenger satisfaction in respect of KURTC bus type. In other words, commuters having same level of satisfaction irrespective of bus/fleet types. Hence the null hypothesis is accepted.

V.7. Gender and Commuters' satisfaction

H0₆: There is no significant relationship between gender and commuters' satisfaction level.

Here Karl Pearson Chi-Square test was used to test the hypothesis by taking satisfaction level of commuters as dependant variable and gender as independent variables.

Table 9: Gender and Commuter Satisfaction (Chi-Square Test)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	89.238	26	.000
Likelihood Ratio	21.037	26	.740
Linear-by-Linear Association	1.598	1	.206
<hr/>			
N of Valid Cases	80		

Inference: Karl Pearson chi-square came out to be 89.238 and the significant value as .000. This value being less than .05 (level of significance). Clearly indicate that there is a significant relationship between gender and satisfaction level. Hence rejecting null hypothesis implies that satisfaction level of commuters varies according to their gender.

V.8. Journey types and commuter satisfaction

H0₇: There is no significant relationship between passenger satisfaction in respect of type journey.

The Karl Pearson Chi-Square test was used to test the hypothesis by taking satisfaction level of commuters as dependant variable and journey types such as long distance, medium distance and short distance journey as independent variables.

Table 10: Association between journey types and commuters Satisfaction (Chi-Square)

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	46.091 ^a	39	.202
Likelihood Ratio	36.884	39	.567
Linear-by-Linear Association	.753	1	.385
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N of Valid Cases	80		

Inference: Karl Pearson chi-square came out to be 46.091 and the significant value as .202. This value being greater than .05 (level of significant). Clearly indicate that there is no significant relationship between commuters' satisfaction in respect of type of journey they prefer.

V.9 Bus wise fare and Commuter satisfaction

H0₈: Bus class wise fare and commuter satisfaction are independent

Chi-square test is applied for testing the dependency between commuters' satisfaction and bus fare variation among three classes of bus services: Low floor non-AC bus service, Low floor AC bus services and Low floor AC-Volvo bus services. Bus fare of the said three classes are taken as independent variables and satisfaction of commuters as dependant variable.

Table 11: Association between bus fare and commuters' satisfaction

	Non-AC LF	AC LF	AC LF Volvo	<i>Row Totals</i>
Satisfied	29 (22.75) [1.72]	18 (15.60) [0.37]	5 (13.65) [5.48]	52
Dissatisfied	6 (12.25) [3.19]	6 (8.40) [0.69]	16 (7.35) [10.18]	28
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<i>Column Totals</i>	35	24	21	80 (Grand Total)

Inference: The chi-square statistic is 21.6222. The *p*-value is .00002. The result is significant at *p* < .05. It shows there is significant association between satisfaction and bus service class wise fare. Commuters are much satisfied in the bus fare of low floor Non-AC and AC bus services. More than 75 per cent commuters of Low floor-Volvo AC bus service are found dissatisfied in the bus fare.

V.10: Commuters' Perception and Satisfaction Dependency

H0_g: The commuters' satisfaction and perception are independent

To test the association between commuters' perception and satisfaction chi-square test is applied satisfaction levels are taken as depended variable and perception rating is treated as independent variable

Table 12: Chi-Square Test (Perception and satisfaction Association)

S# P *	HS	S	N	D	HD	Row Totals
Excellent	15 (12.25) [0.62]	80 (87.50) [0.64]	35 (29.75) [0.93]	5 (5.25) [0.01]	5 (5.25) [0.01]	140
Very Good	35 (34.56) [0.01]	260 (246.88) [0.70]	85 (83.94) [0.01]	10 (14.81) [1.56]	5 (14.81) [6.50]	395
Good	10 (9.89) [0.00]	60 (70.62) [1.60]	30 (24.01) [1.49]	5 (4.24) [0.14]	8 (4.24) [3.34]	113
Average	5 (7.88) [1.05]	60 (56.25) [0.25]	15 (19.12) [0.89]	5 (3.38) [0.78]	5 (3.38) [0.78]	90
Below Average	5 (5.42) [0.03]	40 (38.75) [0.04]	5 (13.18) [5.07]	5 (2.33) [3.08]	7 (2.33) [9.40]	62
Column Totals	70	500	170	30	30	800

* Perception # satisfaction level (HS, highly satisfied; S, satisfied; N, Neutral; D, Dissatisfied; HD, highly dissatisfied)

The chi-square statistic is 38.94. The p-value is .00111. The result is significant at $p < .05$. it clearly shows that there is significant association between commuters' perception rates and their satisfaction level in the service experienced. Hence the null hypothesis is rejected hereby stating the dependency between perception and satisfaction level of commuters.

The other relevant findings evolved from the statistical analysis of the study. A notable finding of this study is that the KURTC services are increasingly being used by students and low-income commuters (whose monthly income less than Rs.20000), despite its relatively high fare. No observable difference in commuters' preference towards AC and Non-AC bus services were found in this study. Majority of respondent commuters choose KURTC for their long-distance travel. Only few (around 12 per cent) used to Most of them take their ticket at the time of travelling. Even as an urban commuter, only a small segment (8 per cent) of them reserves a travel pass /ticket in advance for their long journey. Even with higher educational status, the rate of complain about the services (14 per cent) is found to be lower. While 'comfort and convenience' (39 per cent) in transit and 'co-passenger behaviour' (2 per cent) are seems to be the most and least important factor respectively for choosing KURTC services.

VI. CONCLUSION AND IMPLICATION

This paper examined the state of urban commutation perception and satisfaction after the advent of the Kerala Urban Road Transport Corporation. The results reveal that KURTC has attained a considerable popularity among urban commuting population especially in youngsters, women and low-income group of commuters. This study clearly establishes the positive association of perception and level of satisfaction of urban commuters on the bus services. As per the study the urban commuters have relatively more positive perception on the service attributes like 'Safety' in travel and 'Cleanliness' and features of buses. As well as the convenience and comfort in transit, the behaviour of the staff, the comfort of the passengers, the stops and the speed of the vehicles the passengers' feedback seems to be very good. At the same time, the rating from passengers on the timeliness of the buses and bus fare is relatively not so good. However, the study observes that majority of respondents commuters are satisfied with the various services attributes of KURTC. Demographical and cohort effect on the perception and satisfaction of commuters are also proved under this study. It is to be noted that the cost of switching to the higher class of service is exorbitant in KURTC (281 per cent increase in bus fare for switching from Low floor non-AC bus to AC Volvo Bus). It is clear that KURTC still has a lot of potential to improve its services as expected at the time of its float. If the service is improved, it will attract more passengers to public transport and thereby solve the economic, social and environmental problems that we face to some extent.

Implication: A Commuter Centric approach is a must for the present-day public transportation sector where private and public sector service operators competing for maximizing their commuter share. A clear understating in the expectations and requirements of commuters enable the transport operators design the suitable service policies and the government to stipulate the standard of transport services. The study may useful for the stake holders in the bus transport service sector: to understand the service attributes and areas in which

commuters are satisfied and dissatisfied, to identify the exact space for service improvement and to set priorities and standards to appraise how well they met their goals.

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