

Benchmarking Users' Satisfaction with Public Transport Services in Nigeria

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Abstract

Public transport refers to the means by which larger proportions of urban dwellers gain physical access to the goods, services, and activities they need for their livelihoods and well-being. Public transportation therefore plays a very important role in both the developed and developing world cities. Therefore, it is important to understand the needs/perceptions of the transport users in order for policy makers to make better decisions and provide better transport services. A users' perception survey was carried in order to find out how satisfied public transport users are with the public transport services provided in Nigeria. The survey was carried in Warri, Lagos, Ughelli and Benin. Relative Importance Index (RII) was applied in the analysis to evaluate the performance of the public transport system and benchmarked between the four cities. It was found out that Lagos has the lowest level of RII values when compared to the others; the values fell below the 0.60 cut off which indicates low performance.

Keywords: Public transport Performance, Benchmarking, Nigeria.

1. Introduction

Transportation can be defined as the movement of people, animals and goods from one location to another. It is the main mover and a non-separable part of any society. Transportation plays an important/key role in the political, economic and social development of any society with respect to rural and urban societies (Aderamo, 2012d; FGN, 2010). It also constitutes the main avenue through which different parts of the society are linked together, thereby facilitating access to jobs, education, markets, leisure and other services (Aderamo and Magaji, 2010; Damian and Tony, 2009). Public transportation plays a very important role in both the developed and developing countries, it is the means by which larger proportions of urban dwellers gain physical access to the goods, services and activities they need for their livelihood and wellbeing, thereby reducing reliance on private car-ownership by providing an affordable alternative for urban commuters. For these reasons, most countries have evolved an enduring inter-modal transport system; a system that seamlessly integrates all modes of transport be it Land, (Rail and Road) Air and Water in a perfect and effective manner, which has brought about major improvements in the economy of these countries.

However, the reverse seems to be the case for low and medium income countries such as Nigeria. Nigeria's economic performance has been hurt by the absence of a well-developed transport sector. One of the major challenges faced by Nigeria is the overall improvement of its transport sector. The analysis of the Nigerian's transport system so far, indicates a warped modal development tilted in favour of the road. The road is responsible for about ninety per cent (90%) of both freight and passenger transport, which has led to an unprecedented level of congestion on the roads, traffic crashes, armed robbery attacks (Stephen *et al*, 2012). While other public transport modes such as water and rail are under-utilized, restricting the development of an integrated transport system (Okanlawon, 2007). Experience has also shown that the performance of urban transport service delivery in Nigeria is low; policymakers have incomplete information to make decisions; managers and professionals rarely have a clear picture of their operational performance or the desired performance level of their service provision. The poor performance of urban transport can become a major impediment to achieving access, mobility objectives and economic growth (Obot *et al*, 2009; Innocent, 2011; Sumaila, 2012).

Therefore, it is important to understand the needs/perceptions of the transport users. Without an understanding of users' needs/perceptions, it might be difficult for policy makers to make decisions and also managers and

professionals might rarely have a clear picture of their operational performance or the desired performance level of their service provision. In other words understanding or having knowledge of the users' needs/perception might make things easier for them, in the sense that it might be much easier for policy makers to make decisions and also managers and professionals might have a clear picture of their operational performance or the desired performance level of their service provision because they got an idea of what the users need and want. Hence this paper has been focused on benchmarking public transport users' satisfaction in Nigeria using the cities: Warri, Lagos, Ughelli and Benin as case studies.

2. Methods

Transport users' perception survey was carried out in the Warri, Lagos, Ughelli and Benin. The study sample included 474 respondents comprising both male and female between the age ranges of 20-70. Warri = 201; Lagos = 128; Ughelli = 92; Benin = 52. Relative Importance Index (RII) has been applied in the analysis to evaluate the performance of the public transport services.

Relative Importance Index formula

$$RII = \frac{\sum w}{AN}$$

Where:

w = weighting given to each Performance Measure by the respondents

A = highest weight (five in this case)

N = total number of sample

The RII ranges from zero to one.

RII < 0.60 indicates low Performance

RII ≥ 0.60 < 0.80 indicates high Performance

RII ≥ 0.80 indicates very high Performance

2.1. Results and Discussion

The results gotten from the analysis and the benchmarking are presented in the following tables and figures. Lagos RII values were the lowest falling below 0.60, which indicates low performance. This simply means Lagos has the lowest satisfaction ratings; the public transport users in Lagos are not satisfied with the public transport services provided in the city of Lagos, this simply means that improvements have to be made as regards the public transport services provided in Lagos. Lagos is one of the fastest growing cities in the world, the largest and most populous city in Nigeria and as such should have a properly organised transport system.

WARRI PUBLIC TRANSPORT USERS' RATINGS										
NO.	PERFORMANCE MEASURES	Very Good 5	Good 4	Neutral 3	Poor 2	Very Poor 1	Σf	Σfx	Mean	RII Values
TICKET RATINGS										
1	Ticket office	6	40	23	4	0	73	267	3.66	0.73
2	Number of ticket booths	6	39	64	2	0	111	379	3.41	0.68
3	Efficiency of ticketing staffs	9	34	63	2	3	111	377	3.40	0.68
4	Attitude of ticketing staffs	8	33	61	5	5	112	370	3.30	0.66
5	Information provided by ticketing staffs	6	41	22	4	2	75	270	3.6	0.72
MOTOR PARK/BUS STATIONS/STOPS RATINGS										
6	Cleanliness/Maintenance of Motor Parks	10	47	38	15	5	115	387	3.37	0.67
7	Signage (easy to understand/clear and helpful)	5	44	35	4	1	89	315	3.54	0.71
8	Information about Service changes	6	36	34	12	4	92	304	3.30	0.66
9	Assistance/Customer service	2	36	34	12	3	87	283	3.25	0.65
10	Toilet Facilities	8	32	27	7	9	83	272	3.28	0.66
11	Refreshment Facilities	6	33	33	8	8	88	285	3.24	0.65
12	Waiting Rooms	7	38	28	9	5	87	294	3.38	0.68
13	Personal Security in Motor Parks	2	38	60	10	5	115	367	3.19	0.64
14	Easy and Accessible complaint handling mechanism put in place	2	38	35	9	2	86	287	3.34	0.67
15	Facilities for Car parking	9	40	37	5	2	93	328	3.53	0.71
16	Responses to Emergency	3	34	58	12	6	113	355	3.14	0.63
17	Ease of connection with other modes of public transport	2	40	54	8	5	109	353	3.24	0.65
18	Assistance and information for disabled/elderly people in Motor Parks	10	42	30	6	4	92	324	3.52	0.70
19	Accessibility of Motor Parks	13	59	39	2	2	115	424	3.69	0.74
20	Personal Safety in Motor Parks	5	38	57	9	6	115	372	3.23	0.65
VEHICLE RATINGS										
21	Cleanliness/Maintenance of Vehicles	6	49	37	16	7	115	376	3.27	0.65
22	Comfort of Seating space	9	50	31	15	10	115	378	3.29	0.66
23	Punctuality of Vehicles	8	40	56	8	1	113	385	3.41	0.68
24	Temperature On-board	3	37	55	12	4	111	356	3.21	0.64
25	On-board Facilities	5	39	37	11	6	98	320	3.27	0.65
26	Reliability of Vehicles	4	39	46	17	5	111	353	3.18	0.64
27	Frequency of Vehicles	2	48	46	14	2	112	370	3.30	0.66
28	Travel time	7	37	53	11	1	109	365	3.35	0.67
29	Assistance and information for disabled/elderly people On-board	10	46	31	8	2	97	345	3.56	0.71
30	Accessibility of Vehicles	11	61	32	9	0	113	413	3.65	0.73
31	Personal Safety On-board	3	39	56	12	4	114	367	3.22	0.64
32	Personal Security On-board	2	39	47	20	4	112	351	3.13	0.63
33	Journey Comfort	8	50	34	14	5	111	375	3.38	0.64
34	Security during evening/night	3	18	39	21	11	92	257	2.79	0.56
35	Accessibility during evening/night	1	30	34	19	8	92	273	2.97	0.59
36	Overall Satisfaction	8	48	54	5	0	115	404	3.51	0.70

Table 1. Warri analysis

LAGOS PUBLIC TRANSPORT USERS' RATINGS										
NO.	PERFORMANCE MEASURES	Very Good 5	Good 4	Neutral 3	Poor 2	Very Poor 1	Σf	Σfx	Mean	RII Values
TICKET RATINGS										
1	Ticket office	3	21	13	9	7	53	163	3.08	0.62
2	Number of ticket booths	2	14	15	31	4	66	177	2.68	0.54
3	Efficiency of ticketing staffs	3	20	16	27	6	72	203	2.82	0.56
4	Attitude of ticketing staffs	0	15	19	29	8	71	183	2.58	0.52
5	Information provided by ticketing staffs	3	17	18	12	7	57	168	2.95	0.59
MOTOR PARK/BUS STATIONS/STOPS RATINGS										
6	Cleanliness/Maintenance of Motor Parks	5	12	12	32	15	76	188	2.47	0.49
7	Signage (easy to understand/clear and helpful)	2	23	19	19	6	69	203	2.94	0.59
8	Information about Service changes	1	14	17	31	7	70	181	2.59	0.52
9	Assistance/Customer service	0	15	17	28	6	66	173	2.62	0.52
10	Toilet Facilities	2	9	9	24	18	62	139	2.24	0.45
11	Refreshment Facilities	1	15	15	18	12	61	158	2.59	0.52
12	Waiting Rooms	2	8	16	25	6	57	146	2.56	0.51
13	Personal Security in Motor Parks	4	8	11	38	15	76	176	2.32	0.46
14	Easy and Accessible complaint handling mechanism put in place	2	8	23	20	10	63	161	2.56	0.51
15	Facilities for Car parking	3	15	15	23	11	67	117	2.64	0.35
16	Responses to Emergency	3	6	20	31	15	75	176	2.35	0.47
17	Ease of connection with other modes of public transport	1	14	25	20	10	70	186	2.66	0.53
18	Assistance and information for disabled/elderly people in Motor Parks	2	6	19	17	13	57	138	2.42	0.48
19	Accessibility of Motor Parks	2	23	24	14	10	73	212	2.90	0.58
20	Personal Safety in Motor Parks	2	12	24	30	6	74	196	2.65	0.53
VEHICLE RATINGS										
21	Cleanliness/Maintenance of Vehicles	4	14	18	26	14	76	196	2.58	0.52
22	Comfort of Seating space	2	16	21	25	12	76	199	2.62	0.52
23	Punctuality of Vehicles	2	20	28	17	7	74	215	2.91	0.58
24	Temperature On-board	0	10	22	27	15	74	175	2.36	0.47
25	On-board Facilities	0	8	19	27	10	64	153	2.39	0.48
26	Reliability of Vehicles	0	18	29	18	11	76	206	2.71	0.52
27	Frequency of Vehicles	2	29	33	8	4	76	245	3.22	0.64
28	Travel time	5	22	22	17	5	71	218	3.07	0.61
29	Assistance and information for disabled/elderly people On-board	0	12	18	20	12	62	154	2.48	0.50
30	Accessibility of Vehicles	3	18	29	18	6	74	216	2.92	0.58
31	Personal Safety On-board	2	14	29	27	5	77	212	2.75	0.55
32	Personal Security On-board	3	16	22	29	6	76	209	2.75	0.55
33	Journey Comfort	2	16	28	21	9	76	209	2.75	0.55
34	Security during evening/night	0	9	25	25	16	75	177	2.36	0.47
35	Accessibility during evening/night	1	16	24	24	9	74	198	2.68	0.54
36	Overall Satisfaction	1	12	35	26	3	77	213	2.77	0.55

Table 2. Lagos analysis

UGHELLI PUBLIC TRANSPORT USERS' RATINGS										
NO.	PERFORMANCE MEASURES	Very Good 5	Good 4	Neutral 3	Poor 2	Very Poor 1	Σf	Σfx	Mean	RII Values
TICKET RATINGS										
1	Ticket office	9	35	10	6	1	61	246	4.03	0.81
2	Number of ticket booths	6	31	10	11	4	62	210	3.39	0.68
3	Efficiency of ticketing staffs	10	29	13	9	2	63	225	3.57	0.71
4	Attitude of ticketing staffs	4	28	15	8	8	63	201	3.20	0.64
5	Information provided by ticketing staffs	7	29	12	11	1	60	210	3.5	0.7
MOTOR PARK/BUS STATION/STOPS RATINGS										
6	Cleanliness/Maintenance of Motor Parks	11	38	8	7	1	65	246	3.78	0.77
7	Signage (easy to understand/clear and helpful)	5	28	15	9	2	59	202	3.42	0.68
8	Information about Service changes	6	29	12	11	2	60	206	3.43	0.69
9	Assistance/Customer service	9	20	20	9	2	60	205	3.42	0.68
10	Toilet Facilities	6	20	14	11	5	56	179	3.20	0.64
11	Refreshment Facilities	5	19	21	9	4	58	186	3.21	0.64
12	Waiting Rooms	8	33	10	9	1	61	221	3.62	0.72
13	Personal Security in Parks	8	29	6	12	8	63	206	3.27	0.65
14	Easy and Accessible complaint handling mechanism put in place	2	23	19	10	4	58	183	3.16	0.63
15	Facilities for Car parking	5	29	14	8	6	62	205	3.31	0.66
16	Responses to Emergency	4	17	16	17	6	60	176	2.93	0.59
17	Ease of connection with other modes of public transport	2	11	17	16	8	54	145	2.69	0.54
18	Assistance and information for disabled/elderly people in Motor Parks	5	22	8	14	10	59	175	2.97	0.59
19	Accessibility of Motor Parks	5	34	14	9	3	65	224	3.45	0.69
20	Personal Safety in Motor Parks	9	25	15	8	7	64	213	3.33	0.67
VEHICLE RATINGS										
21	Cleanliness/Maintenance of Vehicles	4	31	15	11	4	65	215	3.31	0.66
22	Comfort of Seating space	8	30	11	11	4	64	219	3.42	0.68
23	Punctuality of Vehicles	3	26	19	13	3	64	205	3.20	0.64
24	Temperature On-board	2	13	22	18	6	61	170	2.79	0.56
25	On-board Facilities	4	7	17	15	4	47	133	2.82	0.57
26	Reliability of Vehicles	2	32	20	6	3	63	213	3.38	0.68
27	Frequency of Vehicles	2	29	23	10	1	65	216	3.32	0.66
28	Travel time	4	26	24	8	1	63	213	3.38	0.68
29	Assistance and information for disabled/elderly people On-board	3	23	14	10	7	57	176	3.09	0.62
30	Accessibility of Vehicles	3	34	15	9	2	63	216	3.43	0.69
31	Personal Safety On-board	4	27	20	10	3	64	211	3.30	0.66
32	Personal Security On-board	5	20	23	13	3	64	203	3.17	0.63
33	Journey Comfort	5	29	17	7	6	64	212	3.31	0.66
34	Security during evening/night	2	5	21	26	7	61	152	2.49	0.50
35	Accessibility during evening/night	2	5	22	25	7	61	153	2.51	0.50
36	Overall Satisfaction	0	25	28	11	0	64	206	3.21	0.64

Table 3. Ughelli analysis

BENIN PUBLIC TRANSPORT USERS' RATINGS										
NO.	PERFORMANCE MEASURES	Very Good 5	Good 4	Neutral 3	Poor 2	Very Poor 1	Σf	Σfx	Mean	RII Values
TICKET RATINGS										
1	Ticket office	9	24	7	3	2	45	170	3.78	0.76
2	Number of ticket booths	6	19	12	7	2	46	158	3.43	0.69
3	Efficiency of ticketing staffs	7	22	7	6	6	48	162	3.38	0.68
4	Attitude of ticketing staffs	4	25	7	6	6	48	159	3.31	0.65
5	Information provided by ticketing staffs	8	20	7	8	2	45	159	3.53	0.71
MOTOR PARK/BUS STATION/STOPS RATINGS										
6	Cleanliness/Maintenance of Motor Parks	8	18	10	5	8	49	160	3.27	0.65
7	Signage (easy to understand/clear and helpful)	4	19	16	3	5	47	155	3.30	0.66
8	Information about Service changes	4	22	7	10	5	48	154	3.21	0.64
9	Assistance/Customer service	11	23	3	6	5	48	173	3.60	0.72
10	Toilet Facilities	3	13	10	9	10	45	125	2.78	0.56
11	Refreshment Facilities	6	14	10	10	4	44	140	3.18	0.64
12	Waiting Rooms	6	13	14	6	4	43	140	3.26	0.65
13	Personal Security in Parks	6	16	11	11	3	47	152	3.23	0.65
14	Easy and Accessible complaint handling mechanism put in place	7	13	11	7	5	43	139	3.23	0.65
15	Facilities for Car parking	6	21	7	7	4	45	153	3.4	0.68
16	Responses to Emergency	8	11	12	8	9	48	145	3.02	0.60
17	Ease of connection with other modes of public transport	5	19	12	9	3	48	158	3.29	0.66
18	Assistance and information for disabled/elderly people in Motor Parks	6	12	11	8	5	42	132	3.14	0.63
19	Accessibility of Motor Parks	6	18	15	4	4	47	159	3.38	0.68
20	Personal Safety in Motor Parks	6	15	9	17	2	49	153	3.12	0.62
VEHICLE RATINGS										
21	Cleanliness/Maintenance of Vehicles	8	21	9	4	7	49	166	3.39	0.68
22	Comfort of Seating space	5	19	9	9	7	49	153	3.12	0.62
23	Punctuality of Vehicles	6	19	12	7	3	47	159	3.38	0.68
24	Temperature On-board	1	19	14	11	4	49	149	3.04	0.61
25	On-board Facilities	2	16	13	11	3	45	138	3.07	0.61
26	Reliability of Vehicles	4	24	12	5	2	47	164	3.49	0.70
27	Frequency of Vehicles	5	26	10	7	1	49	174	3.55	0.71
28	Travel time	4	26	9	7	2	48	167	3.48	0.70
29	Assistance and information for disabled/elderly people On-board	5	12	14	10	1	42	136	3.24	0.65
30	Accessibility of Vehicles	5	18	15	9	1	48	161	3.35	0.67
31	Personal Safety On-board	8	14	14	11	2	49	162	3.31	0.66
32	Personal Security On-board	3	18	13	13	2	49	154	3.14	0.63
33	Journey Comfort	8	19	11	5	5	48	164	3.42	0.68
34	Security during evening/night	2	15	12	11	9	49	137	2.80	0.56
35	Accessibility during evening/night	5	13	13	10	8	49	144	2.94	0.59
36	Overall Satisfaction	2	23	15	9	0	49	165	3.37	0.67

Table 4. Benin analysis

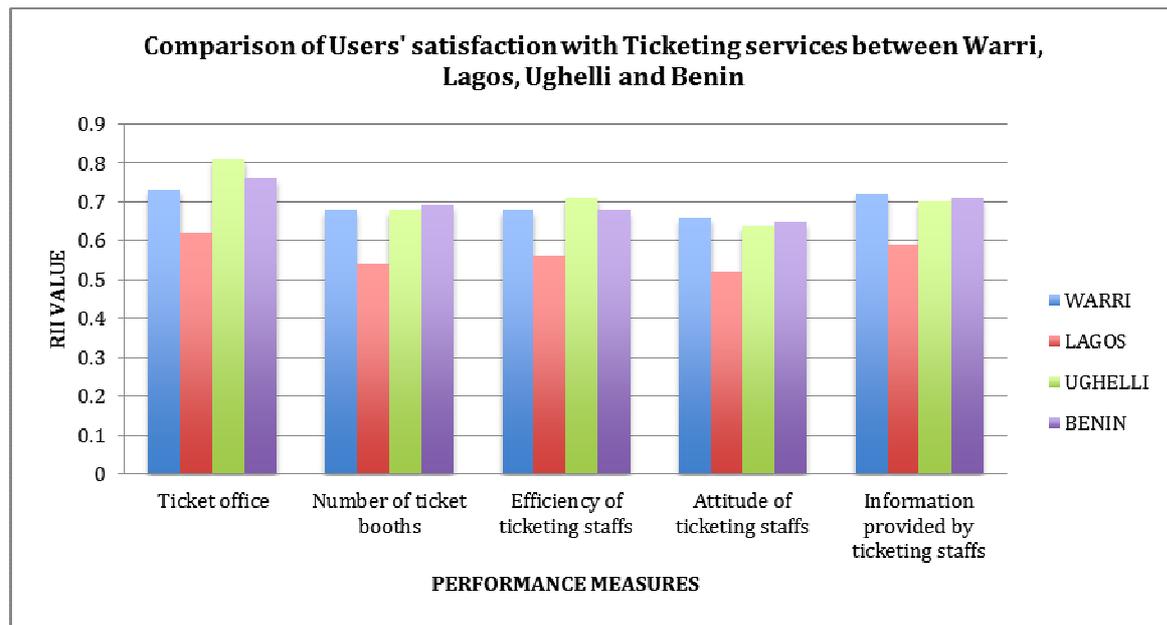


Figure 1. Benchmarking of ticketing services

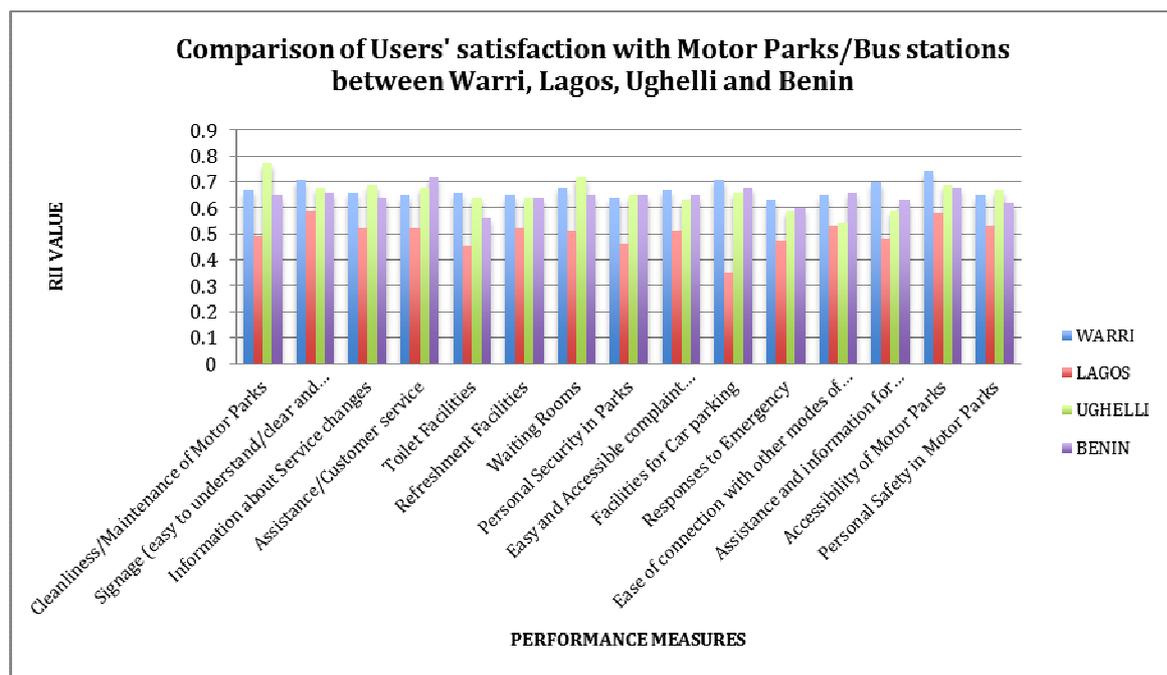


Figure 2. Benchmarking of Motor Parks/Bus stations

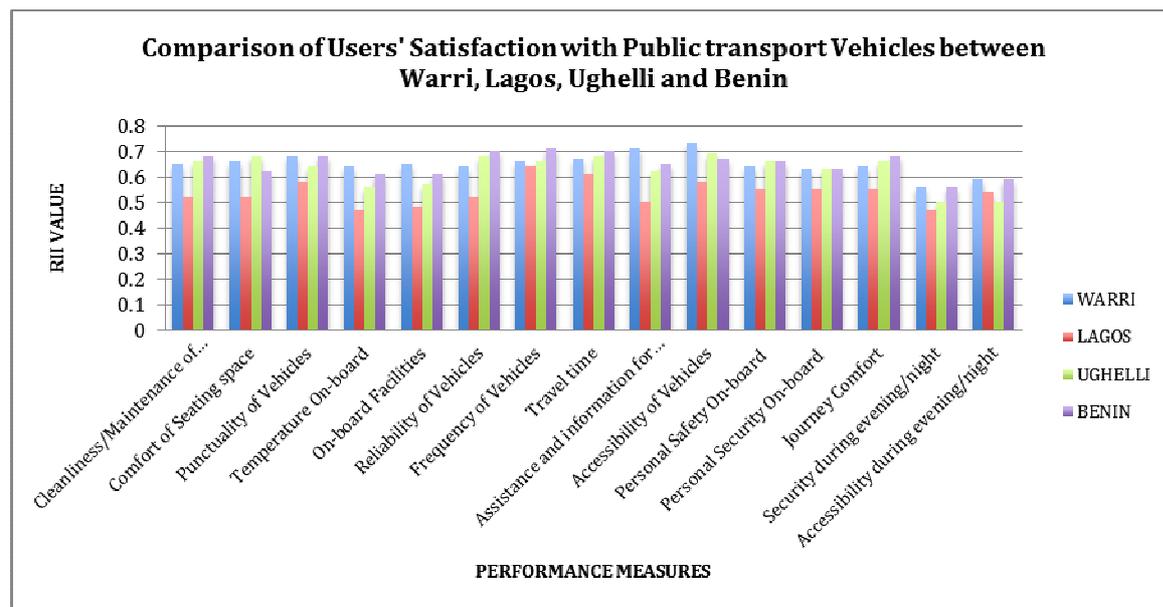


Figure 3. Benchmarking of Public transport Vehicles

3. Conclusion

From the benchmarking process carried out, it can clearly be seen that Lagos public transport services needs improvement more than the other cities. Benchmarking has given a better insight and will assist policy makers in making decisions, which might generate better transport services. Benchmarking is a long-term process. Continuous development in performance measurement is necessary, both to ensure Key performance Indicators/Measures are relevant and to continuously improve data definition, collection, and comparability.

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