

# Evaluation of the Satisfaction of the Platform and Train Facilities Provision at a Typical Nigerian Rain Station

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## ABSTRACT

This paper presents the passenger's satisfaction with the facilities provided on the station platform and on the train with a view to making suggestions that can help improve the services of the railway cooperation. The Kano railway station was taken as a case study and the research was pursued using a structured questionnaire. The questionnaire was distributed to a hundred fifty passengers and/or staff of the rail station with hundred and thirty-four returned adequately filled giving a percentage response of 89.3% and the data gotten were analyzed using the SPSS version.19.0. the result reveals among others that the most common challenge experienced in the ticketing section of the station is insufficient ticketing counter. Also, the passengers were most satisfied with the out-station facilities among all the other facilities at the platform. Other facilities arranged in the passengers' satisfaction level from highest are the Availability of Auto/Taxi/buses; cleanliness near waiting rooms, the parking facilities, refreshment/food plaza and the hygiene level of and around the refreshment stalls. However, ATM facilities ranked the least satisfactory in the station platforms, which was followed closely by inadequate drinking water arrangements. Consequently, it is recommended that the increase ATM points within the platform to avoid crowding at those points and also increase the ticketing point at the counter.

**Keywords:** Platform and counter facilities, Customer Satisfaction, Railway Station

## I. INTRODUCTION

The railway transport system in Nigeria was initiated by the British Colonial with the primary purpose of gaining access into the hinterland and easy movement of goods for seafaring export to feed its industries (Mayowa, Famurewa, and Uday, 2009). However, over time, the management of railway transportation took a downturn due to poor management, maintenance and gross customer dissatisfaction (Odeleye, 2000). It is important to mention that in the last 20 years the Nigerian government are making efforts to revive its railway transportation system, with giant strides like enacting contractual agreement between the Nigerian and Rail India Technical Services (RITES) to improve the track, reopen routes that were hitherto closed (Oni & Okanlawon, 2011)

A railway station, train station, railroad station or depot is a railway facility area where trains regularly stop to load and unload passengers or freight. Also, a railway station is a place where trains stop. Here people, who have to alight, get off the train and those who have to go, get into the train. Some stations are small and some are big. The railway facilities are not an exception to the business system which lies within an environment whereby enhancing Facilities management services is considered necessary at all costs. (Dinesh Sharif 2013).

One peculiarity of most big railway stations is that they occupy large areas with several platforms along the rail lines. The main platform is usually attached to the station building which contains the booking offices where tickets of

different classes and routes are purchased or issue. The station building also has in it offices where parcels are received or booked, refreshment and retiring rooms, waiting rooms for the passengers of each class and office rooms for different officials of the railway department. There is also a telegraph office (Dinesh Sharif 2013).

However, a virile railway system plays a significant role in the sectorial development and overall growth of any economy (Nwaze 2002). It opens up regions, hinterlands and rural areas by facilitating agricultural development as well as facilitating the growth of cottage large-scale industries. It also attracts residential, commercial, educational and recreational settlements and developments around its axis (Nwaze 2002). It is in this context that rail transport mode is seen as the mainframe or pivots around which an integrated national transport system should be built with other modes complementing.

The increasing acceptance of passengers to using trains has equally increased the challenges to operators, regulators and facilities managers to provide a better, safer and satisfactory rail transportation experience for the passengers (Pamungkas, 2015)

Facilities Management (FM) in Nigeria has a long history beginning from the period where the public works department (pwd) was in charge of both development and management of public affairs (Janssen, Samson, &Verhaar, 2010). At the corporate level, it contributes to the delivery of strategic and operational objectives (Janssen, Samson, &Verhaar, 2010).On a day-to-day level, effective facilities management provides a safe and efficient working environment, which is essential to the performance of any business whatever its size and shape.

FM management services in Nigerian Railway Corporation (NRC) is now fast-growing evidence has shown in NRC tenders advertisement list as the corporation is requesting for a reputable FM service provider to hire and manage some of its train station facilities (daily trust 2018). However, this paper sought to evaluate the passengers' satisfaction level with the facilities provided at the counter and platforms of a typical train station using the Kano train station as a case study.

Thus, the NRC train stations domiciled along the narrow-gauge line have experienced neglect in terms of FM services one can see vividly when he/she visits the facility. The station building and other facilities are not looking pleasing to the eye and some are looking obsolete due to a lack of maintenance and upgrading to match the modern

requirement of an effective and functional train station.

If one observes Kano train station which is still functional along the corridors of the narrow-gauge line with other train stations on the new standard gauge (Abuja-Kaduna line) such as Idu train station in FCT. The former and the latter are not comparable in terms of the delivery an effective FM services. Also, a recent visit to the station revealed how crowded and filled the station is with passengers as well as hawkers from the locals and host communities making the place so filled that some passengers are forced to sit outside with their luggage while awaiting to board on the train for their next journey. This might be a result of the waiting not being enough to accommodate the number of passengers visiting the station. Therefore, the facilities to be provided in NRC train stations should have to be safe, convenient, and economical and increase passenger satisfaction. One focus here will be onestablishing passengers' opinions on their satisfaction with the facilities provision at the counter and the platforms of the train station as this is a major passenger-station interface in any station.

## II. LITERATURE REVIEW

### Kano Railway Station

the Kano railway station is located at the heart of Kano city. The station was opened for passenger and freight services in 1914 (NRC). The station serves as a depot station manning seven other stations within its jurisdiction (NRC).

Osuji (ibid) narrates how the Baro-Kano rail route was developed. The Baro-Kano line was predicated on developing the trade routes along River Niger. The initial intention was to develop a rail line along the Niger River and Port of Forcados in Southern Nigeria, and importantly both routes leading to Kano. In September 1907 the British government approved a credit of £2million for a railroad from Baro to Kano. Reason for this, was the cutting of expenses and enhancing communication between areas of interest, which in time would cut the time and cost of transporting troops from one garrison to another and ease associated with transporting goods across the North.

## III. METHODOLOGY

The study adopted the use of a qualitative and quantitative research approach involving the use of the questionnaire, and interview. For this study, the questionnaire was distributed to users and workers within the Kano train facilities. The Kano

train facility is an inter-state train station, and the respondents were drawn from both the passengers and staff of the corporation to get a generalized opinion of the rail station.

With regards to the sampling size in the distribution of the questionnaire, the sampling size will be determined based on the formula below because the targeted population is unknown (because the passenger influx is fluctuating though the number of staff is identified as forty (40). (IWSD, 2003 in Macdonald, 2006)

$$n = (z^2 pq) / d^2$$

Where;

n = the desired sample size

z = the ordinate on the Normal curve corresponding to  $\alpha$  or the standard normal deviate, usually any of the following determined based on the 'margin error formula'

A 95% level of confidence has  $\alpha = 0.05$  and a critical value of  $z_{\alpha/2} = 1.96$ .

P = the proportion in the target population estimated to have a particular characteristic (normal between the range of 0.1 - 0.5)

$$q = 1.0 - p$$

d = degree of accuracy corresponding to the confidence level and Z selected.

Consequently, the sample size is determined as thus,

$$z = 1.96, d = 0.05 \text{ where } p = 0.1, q = 0.9$$

Hence,

$$\text{Sample size } n = [(1.96)^2 \times 0.9 \times 0.1] / (0.05)^2 = 138.2$$

Thus the study will administer 150 questionnaires.

#### Data Analysis

The data collected for this study will be subjected to various statistical analyses using the computer-based software "Statistical Package of Social Sciences" (SPSS). The results of the analysis are presented in the form of a table for easy comparison and clear expression of the findings. Relative importance indices (RII) were also used to rank Areas of Emphasis during Project

Monitoring. The Relative Importance Index (RII) was calculated for each document according to their frequency of use as suggested for use by Memon et al, (2006) and Othman et al, (2005)

RII ranges between zeros to one. The five-point Likert scale ranking was transformed to relative Importance Indices (RII) for each of the construction contract documents. The weighted average for each item was determined and ranks were assigned to each item, representing the perception of the respondents

$$\text{Relative Importance Index (RII)} = \frac{\sum fx}{\sum f} \times \frac{1}{k} \dots \dots \dots (3.1)$$

Where,

$\sum fx$  = is the total weight given to each attribute by the respondents.

$\sum f$  = is the total number of respondents in the sample.

K = is the highest weight on the Likert scale.

Results are classified into three categories as follows (Othman et al, 2005) when;

RII < 0.60 -it indicates low frequency in use

0.60 ≤ RII < 0.80 -it indicates high frequency in use.

RII ≥ 0.80 -it indicates very high frequency in use

#### IV. DATA PRESENTATION, ANALYSIS AND DISCUSSION

This section encompasses the presentation of the data, analysis of the data and discussion of the data gotten from the questionnaire survey.

#### Questionnaire Response Rate And Respondent Profile

A total of one hundred and fifty questionnaires were administered to respondents within the area of study. The percentages of responses are presented in Table 4.1. From the table it can be gathered that a total of one hundred and thirty-four questionnaires were received adequately filled giving a percentage response of 89.3%.

**Table1 Questionnaire administered**

Questionnaires	Frequency	Percentage of (%)
Number returned	134	89.3
Numbers not returned	16	10.7
Total	150	100

Source: Field Survey, (2019)

#### TICKETING AND COUNTER FACILITIES IN THE STATION

The respondents' assessment of the facilities and their efficiency at the counter of the railway station is presented in Table 2 and Table 3.

From Table 2, it can be deduced that traffics are commonly experienced in the ticketing section as opined by 77.6% of the respondent. The result also revealed that the major method of getting ticked in the railway station is by purchasing it at the counter

as attested by 66.4%. Owing to the traffic experienced at the ticketing counter 88.8% of the respondents were of the view that there is need to introduce more ticketing sections/points in the railway station.

**Table 2 facilities at the ticketing and Counter**

S/N	Variable	Option	Frequency (No)	Percentage (%)
1	Experience of traffic at the ticketing section :	a) Yes	104	77.6
		b) No	30	22.4
		<b>Total</b>	<b>134</b>	<b>100</b>
2	Method of getting Ticket	a) Ticket Counter	89	66.4
		b) E-Ticket	45	33.6
		c) Post office	-	-
		d) Vending Machine	-	-
		<b>Total</b>	<b>134</b>	<b>100</b>
3	Need for introduction of more ticketing section	a) Yes	119	88.8
		b) No	15	11.2
		<b>Total</b>	<b>134</b>	<b>100</b>

Source: Field Survey, (2019)

The respondents also ranked the challenges experienced at the ticketing section of the station. From the result, insufficient ticketing counter was ranked first (RII=0.83) as the most pressing challenge encountered in the facilities provision at the counter of the station. This was

closely followed by “Poor crowd management in the ticketing session” (RII= 0.81); “Method of getting tickets” (RII=0.80) and “Difficulty in e-ticketing” (RII=0.77) ranked second, third and fourth respectively. Details of the ranking of the other factors are presented in Table 3

**Table 3: Ranking of the Challenges in the ticketing facilities**

S/N	Challenges in the ticketing facilities	WEIGHING/RESPONSE FREQUENCY							MEAN	RII	RANK
		1	2	3	4	5	( $\sum f$ )	WEIGH TING $\sum f x$			
1	Insufficient Ticket counters	-	4	19	62	49	134	558	4.16	0.83	1 <sup>st</sup>
2	Method of getting tickets	-	32	07	38	57	134	536	4.00	0.80	3 <sup>rd</sup>
3	Difficulty in e-ticketing	-	12	19	80	23	134	516	3.85	0.77	4 <sup>th</sup>
4	Automatic cancellation of waitlisted tickets	-	15	32	48	39	134	513	3.83	0.76	5 <sup>th</sup>
5	Poor crowd management	-	-	07	113	14	134	543	4.05	0.81	2 <sup>nd</sup>

in the  
 ticketing  
 session

**Source: Field Survey, (2019)**

Where: 1-Very Unlikely 2- Unlikely 3- Not sure 4- Likely 5- Very Likely

**Facilities At the Stations Platforms**

Table 4 presents the respondent’s ranking of their satisfaction level with the facilities provided at the platform and station. From the Table, it can be seen that the most satisfactory facility at the platform of the station is the Out-Station or transportation facilities (RII= 0.83). This was closely followed by ‘Availability of Auto/Taxi/Buses’ (RII= 0.82); Cleanliness near waiting room (RII= 0.81) and Parking facility (RII=0.80) ranked second, third and fourth respectively.

Also, from the Table, it can be established that the facilities that the respondents had the least satisfaction were “ATM facility (RII= 0.61) which was ranked the last. Other facilities that were also ranked with very low satisfaction in the station were: “Drinking Water arrangement (RII= 0.63), “Waiting Rooms” (RII= 0.64) and “Pay and use toilet facilities” (RII= 0.67). the ranking of the other facilities commonly used in the station platform are as presented in Table 4.5

**Table 4: Ranking of facilities services at the Station Platform**

S/N	FACILITIES AT PLATFORMS AND STATIONS	WEIGHTING/RESPONSE FREQUENCY					MEAN	RII	RANK		
		1	2	3	4	5					
1	General cleanliness on platforms	-	26	22	41	45	134	507	3.78	0.76	8 <sup>th</sup>
2	Security at stations and platforms	6	19	22	41	46	134	504	3.76	0.75	10 <sup>th</sup>
3	Drinking water arrangements	31	11	27	40	25	134	419	3.13	0.63	20 <sup>th</sup>
4	Waiting rooms	24	30	14	28	38	134	428	3.19	0.64	19 <sup>th</sup>
5	Retiring rooms & Cloak room	6	26	20	28	54	134	500	3.73	0.74	12 <sup>th</sup>
6	Seating, fans and lighting facility	-	43	14	32	45	134	481	3.60	0.72	15 <sup>th</sup>
7	Pay and use toilets	22	21	13	44	34	134	449	3.35	0.67	18 <sup>th</sup>
8	Refreshment/food plaza	-	24	17	29	64	134	535	3.99	0.80	4 <sup>th</sup>
9	ATM facility	22	43	11	31	27	134	400	2.99	0.60	21 <sup>st</sup>
10	Television and Audio systems for announcements	14	7	19	44	50	134	511	3.81	0.76	8 <sup>th</sup>
11	Out-station or transportation facilities	3	10	13	46	62	134	556	4.15	0.83	1 <sup>st</sup>
12	Availability of porters and trolleys	17	9	10	53	45	134	502	3.75	0.75	10 <sup>th</sup>
13	Parking facility	7	13	13	44	57	134	533	3.98	0.80	4 <sup>th</sup>
14	Availability of Auto/Taxi/Buses	5	11	9	49	60	134	550	4.10	0.82	2 <sup>nd</sup>
15	Washroom facility	13	11	12	45	53	134	516	3.85	0.77	7 <sup>th</sup>
16	Cleanliness near refreshment stalls	7	12	23	35	57	134	525	3.92	0.78	6 <sup>th</sup>
17	Police assistance booths	10	19	22	37	46	134	492	3.67	0.73	14 <sup>th</sup>
18	Cleanliness near	7	14	14	31	68	134	541	4.04	0.81	3 <sup>rd</sup>

19	waiting room Cleanliness near water points	20	18	14	49	33	134	459	3.43	0.69	17 <sup>th</sup>
20	Refreshment affordability	14	15	11	49	45	134	498	3.72	0.74	12 <sup>th</sup>
21	Cleanliness near seating chairs	14	11	20	53	36	134	488	3.64	0.72	15 <sup>th</sup>

Source: Field Survey, (2019)

Where: 1- Very Poor, 2-Poor, 3-Satisfactory, 4- Good, 5- Excellent

### Facilities In Trains

Table 5 presents the respondent ranking of their level of satisfaction with the status of the facilities on the train. From the Table, it can be seen that “Proper maintenance of coaches” (RII= 0.83) was ranked first as the respondents were satisfied with its status. Other highly ranked

facilities based on the respondents’ satisfaction are: “Catering services” (RII=0.82), “Watering arrangement” (RII= 0.80) and “Medical assistance during emergencies” (RII=0.78) ranked second, third and fourth respectively. Details of the ranking of other facilities and services are presented in the Table.

Table 5: Ranking of respondents’ satisfaction with the train facilities

S/N	Facilities in Train	WEIGHTING/RESPONSE FREQUENCY									
		1	2	3	4	5	( $\Sigma f$ )	$\Sigma fx$	MEAN	RII	RANK
1	Cleanliness in trains.	14	7	19	44	50	134	511	3.81	0.76	6 <sup>th</sup>
2	Proper maintenance of coaches	3	10	13	46	62	134	556	4.15	0.83	1 <sup>st</sup>
3	Security in trains.	17	9	10	53	45	134	502	3.75	0.75	7 <sup>th</sup>
4	Watering arrangements.	7	13	13	44	57	134	533	3.98	0.80	3 <sup>rd</sup>
5	Catering services.	5	11	9	49	60	134	550	4.10	0.82	2 <sup>nd</sup>
6	Availability of ladies coaches	13	11	12	45	53	134	516	3.85	0.77	5 <sup>th</sup>
7	Medical assistance during emergencies	7	12	23	35	57	134	525	3.92	0.78	4 <sup>th</sup>
8	Facilities for physically challenged people	10	19	22	37	46	134	492	3.67	0.73	8 <sup>th</sup>

Source: Field Survey, (2019)

Where: 1- Very Poor, 2-Poor, 3-Satisfactory, 4- Good, 5- Excellent

## V. SUMMARY, CONCLUSION AND RECOMMENDATION

The following are the summary of the findings:

- As a major component of any station, challenges experienced at the ticketing section of the station. From the result, was ranked first (RII=0.83) as the most pressing challenge encountered in the facilities provision at the counter of the station. This was closely followed by “Poor crowd management in the ticketing session” (RII= 0.81); “Method of getting tickets” (RII=0.80) and “Difficulty in e-ticketing” (RII=0.77) ranked second, third and fourth respectively
- The result revealed that respondents ranked their satisfaction level with the facilities provided at the platform and station. From the

Table, it can be seen that the most satisfactory facility at the platform of the station is the Out-Station or transportation facilities (RII= 0.83). This was closely followed by ‘Availability of Auto/Taxi/Buses’ (RII= 0.82); Cleanliness near waiting room (RII= 0.81) and Parking facility (RII=0.80) ranked second, third and fourth respectively.

- Finally, the most satisfactory facility at the platform of the station is the Out-Station or transportation facilities (RII= 0.83). This was closely followed by ‘Availability of Auto/Taxi/Buses’ (RII= 0.82); Cleanliness near waiting room (RII= 0.81) and Parking facility (RII=0.80) ranked second, third and fourth respectively.

## 5.2 CONCLUSION

The following conclusions can be drawn

The most common challenge experienced in the ticketing section of the station is insufficient ticketing counter, other major challenges are Poor crowd management in the ticketing session”; “Method of getting tickets” (and “Difficulty in e-ticketing”).

Also, the evaluation of the passenger’s satisfaction with the facilities provided at the station platform revealed that the passengers were most satisfied with the out-station facilities among all other facilities at the platform. Other facilities arrange in the passengers’ satisfaction level from highest are the Availability of Auto/Taxi/buses; cleanliness near waiting rooms, the parking facilities, refreshment/food plaza and the hygiene level of and around the refreshment stalls.

However, the respondents identified deficiencies in the following facilities provided in the platform and they are: ATM facilities ranked the least satisfactory in the station platforms. Similarly, poor or inadequate drinking water arrangement at the platforms was also identified. Other facilities that the passengers consider dissatisfactory were the position and number of Waiting rooms, and the ‘pay and use toilet facilities. “Catering services”, “Watering arrangement” and “Medical assistance during emergencies”.

Finally, with reference to the facilities in the train, the passenger identified ‘Proper maintenance of coaches’ as the most satisfactory facility within the train. Similarly, the respondents admitted to being satisfied with the following factors in the train in the order of satisfaction:

## 5.3 RECOMMENDATION

The following are recommended:

- i. Introduction of additional counter centres in the station and an improvement of the ticketing process as it will help in ensuring adequate facilities management, and reduction of congestion/ clusters at the ticketing centres.
- ii. Increase the ATM points within the Platform to avoid crowding at that point. Also, adequate drinking water arrangements should be provided on the platforms as this will provide a more conducive environment for passengers. Adequate ventilation of the Station to facilitate an adequate and conducive indoor environment in the station.
- iii. Adequate record tacking and acknowledgement of the complains on any

facilities so as the facilitate and improve the response interval for any complain within the station

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