

# Appraisal of Passenger Satisfaction with Air Transportation Services at the Domestic Terminals of Murtala Muhammed Airport, Lagos

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## Abstract

Service expectation is widely recognized as a key influencer of customer/passenger satisfaction and the formation of customers' future purchase intentions which have implications for the firm's bottom lines. Despite this fact, previous studies have largely focused on funding and its utilization in the air transportation sub-sector, coupled with recent and past operational challenges faced by airline operators, and the fear of air transportation by many Nigerians due to previous air crashes, there is the need to gauge the current level of passenger satisfaction vis-à-vis their service expectations as a means towards better performance. This study therefore investigated the current level of passenger satisfaction and the impact of expectation on satisfaction. Primary data were used for the study. These were collected through the adaptation of the SERVQUAL instrument. From the targeted population of 302,869 passengers, multi-stage sampling technique was used to select 268 passengers of airlines operating at domestic terminals of the Murtala Mohammed Airport, Lagos. Of the 268 copies of the questionnaire distributed, 232 (86.6%) were retrieved. Data collected were analyzed using tables, frequencies, percentages, and multiple regression. The study found that the industry as a whole has 82.61% satisfied passengers, though with varying degrees of satisfaction, while individual airlines ranked as follows: Medview airline, Aero Contractor, Dana Air, Azman Air, Arik Air, Air Peace, First Nation, and Overland. There is also a narrow gap between customers' expectation of service and their level of satisfaction. It also found that expectation has low (about 12%) but significant impact on passenger satisfaction ( $R^2=0.115$ ,  $p < 0.05$ ). However, not all the dimensions of expectation have significant effect on passenger satisfaction. While Tangible, Reliability, Empathy, and Assurance have significant effect on passenger satisfaction and ranged from Tangible ( $\beta = 0.163$ ;  $P < 0.05$ ) to Assurance ( $\beta = 0.204$ ;  $P < 0.05$ ), Responsiveness has no significant effect on passenger satisfaction ( $\beta = 0.092$ ;  $t = 0.763$ ;  $P > 0.05$ ). The study concluded that passengers are satisfied with the level of services they currently receive from the airline operators and the level of passenger satisfaction is above average. The study recommends that airline managers/operators should pay greatest attention to Assurance because it has the highest contribution to passenger satisfaction. They should also endeavour to inspire trust and confidence in their passengers through the knowledge and courtesy displayed by their employees, which are the key ingredients of the Assurance dimension.

## Keywords

Passenger Satisfaction, Aviation Industry, Air Transportation, Domestic Airlines, Service Quality

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## 1. Introduction

As a service industry, air transportation contributes

significantly to the Nigerian economy, and to her economic activities and growth, by boosting trade, connecting cities and regions of the country, and providing jobs directly and

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indirectly. These submissions are exemplified by the report that in 2010, the aviation industry contributed over N119 billion (0.4%) directly to the Nigerian Gross Domestic Product (GDP) and additional N78 billion in 'catalytic' benefits through tourism, and also created about 160,000 jobs directly, and an additional 130,000 jobs through tourism (Oxford Economics, 2012).

The industry has witnessed diverse changes in recent times which have made customer satisfaction a major concern for airlines and their passengers (Ostrowski, O'Brien, & Gordon, 2013). For instance, in the last decade, additional airports have been built or re-modeled, tickets are now accessible online, and airline traffic continues to fluctuate, primarily as a result of the current economic situation of the country. The situation has brought with it a high prospect for business losses, and has engendered fierce competition for the customer's meager disposable income. The current dire economic situations in Nigeria have further exacerbated the already dim industry circumstances. This is evidenced by the fact that many domestic airlines have closed shop and several are struggling to survive. Even recently, Arik Air, arguably the industry leader, was taken over by the Asset Management Company of Nigeria (AMCON) largely due to poor operational statistics and debt overhang (Ibah, 2017). As a result, today, "airline business is intensely, vigorously, bitterly, savagely competitive" (Zellner, 2013), and one major element for fighting this competitive battle is passenger (customer) satisfaction, which directly or indirectly determines passengers' patronage, retention, and repeat patronage, and which in turn determine profitability, growth, and survival.

Competition is expected to be especially harsh within the Nigerian aviation sector because of the lean purchasing power of the average Nigerian traveler. Airlines that intend to survive and grow must therefore be able to deliver quality service through a commitment to excellent service delivery to enhance customer satisfaction. According to Aksoy, Atilgan, and Akinci (2003), customer satisfaction is one of the most important factors in the airline industry and is considered the heart of business success in today's competitive world.

Today there are over 13 million passengers traveling through Nigerian airports annually (National Bureau of Statistics (NBS), 2016), and of this figure, about a quarter patronize domestic airlines. For instance, there were 2,475,448 domestic passenger traffic in the first quarter of 2016, and 2,411,251 in the second (NBS, 2016), and Murtala Muhammad Airport (MMA) Domestic Terminals I & II, Ikeja, Lagos (one of the oldest, recently re-modeled by the federal government) accounts for the largest chunk. The airport is also the aviation hub of majority of the domestic airlines operating in Nigeria.

There have been many air crashes in Nigeria in the last twenty years such that the fear of air travel appears to have engulfed the aviation industry and continues to scare customers from air transportation. Besides, owing to a combination of several factors, including paucity of investment, aviation policy inconsistency, low patronage and, low margin and profitability, most Nigerian airlines may not have been able to satisfy local consumers let alone break into global markets, with the exception of Arik air which currently operates international routes but currently experiencing operational difficulties due to debt overhang (Ibah, 2017). Only recently, some airlines, such as Aero Contractors, Overland, and Arik have had to halt their operations, while others such as Bellview, Sosoliso, etc, have simply closed shop. Today there are only 8 domestic airlines still plying the Nigerian air space namely; Arik, Medview, Air peace, Azman, First Nation, Dana, Overland, and Aero Contractors.

In a bid to improve the industry, between 2013 and 2014, under the leadership of the former Aviation Minister (Princess Stella Oduah), the Aviation industry spent billions of dollars (trillions of Naira) on revamping the infrastructural decay in the Nigerian airports (FAAN, 2015). Several airports were re-modeled and upgraded. These were geared towards maintaining and possibly improving on the *growth* in the industry. These may however not yield maximum benefits to the final consumers unless a proper investigation/diagnosis, based on the customers' expectation and perception, is first carried out. The reason is that if gap in quality exists (as it often does), it may actually not be related to infrastructures, and even if it is, it may not constitute the 'dimension' with the widest gap requiring the most and immediate attention, and may not have the desired/anticipated impact on customer satisfaction.

Also, in solving the challenges of the industry, great emphasis appears to be placed on availability of funds (especially for the purchase of new air buses) (Corporate Guides Int. Ltd, 2011) without a similar focus on the utilization of available funds in terms of directing such funds to area(s) of operations where they are mostly needed. The judicious and appropriate application of this scarce resource is a paramount and sensitive decision area, and a prior knowledge of customer level of satisfaction and quality gap(s) derived from a diagnosis of each operator's service offering would yield a more judicious use of the funds. This evaluative knowledge may be lacking presently.

Aside these, between 2011 and 2012, there was a 4.9% increase in passenger traffic globally (ICAO, 2016) and the number of passengers travelling through the air for both business and leisure purposes rose to almost three billion but the African region, where Nigeria belongs and dominates,

continues to lag behind other regions in terms of overall performance and market share; controlling a paltry 2% of global aviation traffic, growing at 4.2% in 2012 (ICAO, 2016). Global market share is ridiculously low because Nigerian travelers appear to dread air transportation for sundry reasons. If this development would be reversed and improved upon, then there is indeed a serious need for airlines to be customer-driven in their service delivery. A customer-driven service is one that puts the customer at the centre of the service offering with a view to mitigating service quality gaps that may exist, thereby improving customer satisfaction and retention (Eleboda, 2014). These seem presently lacking in the Nigerian aviation industry, hence this study.

## 2. Literature Review

### 2.1. Concept of Customer (Passenger) Satisfaction

As a concept, customer satisfaction/dissatisfaction (CS/D) contains both cognitive and affective elements, which have to do with reasoning and emotion (liking) respectively. In the words of Rust and Oliver (1994), "customer satisfaction is a summary cognitive and affective reaction to a service incident (or sometimes to a long-term service relationship)". Swan (2003) also holds a similar view as he asserts that: "satisfaction is a...specific affective/cognitive post-purchase orientation that has as its focus the evaluation of the product in terms of its performance in use". The evaluative aspect of CS/D judgment is typically assumed to vary along a hedonic continuum (i. e., from unfavourable (dissatisfied) to favourable (satisfied)).

In arriving at satisfaction judgments, Swan and Mercer (1982) use the social equity theory to explain customer satisfaction/dissatisfaction paradigm. In their view, a consumer evaluates the benefit received from a product in relation to its cost (price and effort) and then compares this ratio with the corresponding cost/benefit ratio realized by some other relevant person, such as a friend, family member or a close colleague. The basis for comparison becomes the degree of equity which consumers perceive between what they achieved and what the other person had achieved.

Johnston and Lyth (1991) however, conceptualized consumer satisfaction (CS) in an equation form. They believe that CS will not be based on a single factor, but rather will be the result of a combination of several factors that consumers regard as appropriate in the creation of satisfaction. They represent consumer satisfaction as follows:

$$CS = W_x * \sum_{x=1}^n SF_x$$

Where;

CS = customer satisfaction with a service

SF = satisfactions of various factors (e. g. safety, mechanical difficulties, connecting flights, cleanliness of the plane, speed, etc)

w= weighted in accordance with customers' feelings

x= each factor

n= number of factors

The authors thus suggest that some factors may be more important than others and that weights and factors vary during the service. For instance, "air passengers may not place much weight (w) on the safety of the airline service, but may be more interested in making a connecting flight; however, if the plane develops a mechanical difficulty during the flight and their lives are in danger, safety becomes important in the service evaluation, therefore a safe landing becomes more important than the missed connection." (Fahed, 1998). Also, the authors indicate that consumer satisfaction with the factors (sf) is a weighted average of the perception of those factors throughout the service. For example, the cleanliness of a plane is a function of the cleanliness of the seats, internal cabin walls, aisles and rest-room facilities. The weights assigned by each passenger will differ, resulting in different satisfaction for each passenger.

Customer satisfaction can also be conceptualized as either transaction-specific satisfaction or cumulative satisfaction. Transaction-specific satisfaction is a customer's evaluation of his/her experience and reactions to a specific company encounter, while Cumulative satisfaction refers to customers overall evaluation of patronage experience from inception to date.

### 2.2. Theoretical Framework

#### 2.2.1. Theories of Customer Satisfaction

Many theories have been put forward towards understanding the process through which customers' satisfaction judgments are formed. Among these theories, the disconfirmation theory and its several variants remain the most widely discussed and most widely adopted for customer satisfaction studies. The majority of these models are based on a comparison between perceived performance and a pre-consumption experience standard; sometimes in the form of expectation, needs, optimal possible performance, experience, etc.

There are four common theories that have been developed towards an understanding of the disconfirmation process, each suggesting the nature of the pre-consumption standard. These theories are: the expectation disconfirmation (or contrast) theory; the consistency theory; the assimilation-

contrast theory; and the negativity theory. As a result of the similarities among these theories, only two of them are reviewed in this study, namely: Expectation Disconfirmation Theory, and Assimilation-Contrast Theory.

### 2.2.2. Expectation Disconfirmation Theory

Basically, satisfaction is the result of direct experiences with products or services, and it occurs by comparing perceptions against a standard; for instance, expectations. Satisfaction/dissatisfaction towards the service often simply occurs when customer's perceptions do not meet their expectations.

Expectancy Disconfirmation theory argues that satisfaction is related to the size and direction of the disconfirmation experience that occurs as a result of comparing service performance against expectations. Ekinci and Sirakaya, (2004) state that "satisfaction is the [consumer's] fulfillment response. It is a judgment that a product or service feature, or the product or service itself, provided (or is providing) a pleasurable level of consumption-related fulfillment, including levels of under- or over-fulfillment". In similar vein, Mattila and O'Neill (2013) observed that "Amongst the most popular satisfaction theories is the expectation disconfirmation theory". The theory suggests that the heart of the satisfaction process may be regarded as the comparison of what was expected prior to product consumption with the product or service's performance after consumption. This process has been described as the 'confirmation / disconfirmation' process. The theory further suggests that when the expectations and the actual product performance do not match, the consumer will feel some degree of tension. In order to relieve this tension, the consumer makes adjustments either in expectations or in the perceptions of the product's actual performance. To this end, Anderson (2003) posits that consumers raise satisfaction level by reducing the relative significance of the disconfirmation they experienced. Whether this truly mirrors real life consumer experiences is a subject of ongoing debate.

### 2.2.3. Assimilation-Contrast Theory

Assimilation-contrast theory was proposed by Anderson (1973) which suggests yet another way to explain the relationships among the variables in the disconfirmation model. The theory is a combination of the assimilation and the contrast theories. It posits that "satisfaction is a function of the magnitude of the discrepancy between expected and perceived performance" (Payton et al., 2013). As with assimilation theory, the consumers will tend to assimilate or adjust differences in perceptions about product performance to bring it in line with prior expectations but that is only if the discrepancy is relatively small.

Teery (1997) observed that Assimilation-Contrast theory suggests that if performance is within a customer's range of acceptance, even though it may fall short of expectation, the discrepancy will be disregarded; assimilation will operate and the performance will be deemed as acceptable. But if performance falls within the range of rejection (no matter how close to expectation), contrast will prevail and the difference will be exaggerated, and the product will be deemed unacceptable.

Expectedly, this theory has also been criticized. For instance, Payton et al. (2013) opined that the approach assumes that there is a relationship between expectation and satisfaction but does not specify how disconfirmation of an expectation leads to either satisfaction or dissatisfaction. They also doubted the theory's suggestion that consumers would willingly adjust either expectations or perceptions of product performance. Despite the criticisms against the theory, its plausibility and wide applicability underpin its wide acceptability, and is the theory of choice for this study.

## 3. Methodology

### 3.1. Data Source, Sample Size and Sampling Procedure

The data used for this study were sourced through the use of questionnaire. The target population consists of the passengers flying any of the 8 airlines namely: 1. Aero Contractor, 2. Air Peace, 3. Arik Air, 4. Azman Air, 5. Dana Air, 6. First Nation, 7. Medview Airline, and 8. Overland, currently operating locally in Nigeria by departing from or landing at the domestic terminals I and II of the Murtala Mohammed Airport, Ikeja, Lagos operated by the Federal Aviation Authority of Nigeria (FAAN), and Bi' Courtney Plc. respectively. This population is estimated to be 908,605 passengers (see appendix) for the second quarter of 2016 (National Bureau of Statistics (NBS), 2016). When disaggregated on monthly basis (since data collection spanned roughly one month), the targeted population becomes approximately 302,869 passengers on average.

The sample size was determined based on the formula suggested by Yamane (1967, cited in Israel, 1992; Daniel & Terrel, 2006) for obtaining sample sizes for known finite populations whether small or large, thus:

$$n = \frac{N^*}{1 + N(e)^2} \quad (1)$$

Where:

n = sample size

N = population of the study

e = desired level of precision (the sampling error to be

tolerated between the true value and the estimated value)

In addition, the formula assumes a confidence level of 95% (i.e.  $p=0.05$ ), which is also adopted in this study.

For this study, (e) (expressed as a percentage) is set at  $\pm 6\%$  (i.e. 0.06) based on the desire to minimize sampling error combined with the belief that the study population is relatively homogenous with regard to the attributes of interest (i.e. expectation and satisfaction).

Substituting this in equation (1) above therefore,

$$n = \frac{302.869}{1+302.869(0.06)^2} = \frac{302.869}{1+302.869(0.0036)} = \frac{302.869}{1091.328} = 267.52 \quad (2)$$

Approximately = 268 passengers

The 268 passengers were sampled among the existing 8 airlines using random sampling procedure. Random sampling was employed to pick the individual passengers of the airlines, which gave each passenger equal chance of being selected.

### 3.2. Methods of Analysis

a). Passenger satisfaction was determined by relying on Johnston and Lyth (1991) definition of consumer satisfaction (CS) in an equation form, customer satisfaction may be conceptualized as follows:

$$CS = W_X * \sum_{X=1}^n SF_X$$

Where;

CS = customer satisfaction with a service

SF = satisfactions of various factors (e. g. safety, mechanical difficulties, connecting flights, cleanliness of the plane, speed, etc)

w= weighted in accordance with customers' feelings

### 4.1. Descriptive

Table 1. Descriptive Statistics.

	N	Minimum	Maximum	Mean	Std. Deviation
SATISFACTION	230	1.43	7.00	5.4789	1.03441
EXPECTATION	232	2.71	7.00	5.9552	.79076
Valid N (listwise)	230				

Source: Author's computation, 2017

Table 1 presents the descriptive statistics for the two variables of the study which shows the average ratings for both expectation and satisfaction. The table shows that average customer expectation of service was positive (5.96) and average level of customer satisfaction was also positive (5.48). This indicates that there is a narrow gap (0.48) between customers' expectation of service and the level of

x= each factor

n= number of factors.

b). Model Specification

Regression equation was derived to determine the contribution of each dimension of service quality to a change in customer satisfaction thus:

$$Y=f(X)$$

Where:

Y= Customer Satisfaction (CS)

X= Customer Expectation (CE),

But:  $X= x_1, x_2, x_3, x_4, \dots, x_n$

Where;

$x_1$  = Assurance (ASS)

$x_2$  = Empathy (EMP)

$x_3$  = Reliability (REL)

$x_4$  = Responsiveness (RES)

$x_5$  = Tangibles (TAN)

Therefore;

$$CS = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + e$$

Therefore:

$$CS = \beta_0 + \beta_1 (ASS) + \beta_2 (EMP) + \beta_3 (REL) + \beta_4 (RES) + \beta_5 (TAN) + e$$

## 4. Results and Discussion of Findings

From the 268 copies of the questionnaire distributed, 232 (86.6%) were retrieved.

satisfaction with services offered by the airlines. Also, although there are large margins between the minimum and maximum values (1.43 and 7 for satisfaction, and 2.71 and 7 for expectation), the values of the two standard deviations are small (1.03 and 0.79 respectively), indicating that other values largely revolve around the two means.

**Table 2.** Overall Levels of Satisfaction with Air Services by Airlines.

			Airlines			
			Arik Air	Air Peace	Aero Contractor	Dana Air
Based on all your experiences with the airline, you can be described as?	Very dissatisfied	Freq.	2	0	0	0
		% within Airline	3.2%	0.0%	0.0%	0.0%
		% of Total	0.9%	0.0%	0.0%	0.0%
	Dissatisfied	Freq.	0	3	0	0
		% within Airline	0.0%	6.0%	0.0%	0.0%
		% of Total	0.0%	1.3%	0.0%	0.0%
	Somewhat dissatisfied	Freq.	3	3	0	0
		% within Airline	4.8%	6.0%	0.0%	0.0%
		% of Total	1.3%	1.3%	0.0%	0.0%
	Undecided	Freq.	6	6	1	2
		% within Airline	9.7%	12.0%	2.7%	9.1%
		% of Total	2.6%	2.6%	0.4%	0.9%
	Somewhat satisfied	Freq.	16	18	12	2
		% within Airline	25.8%	36.0%	32.4%	9.1%
		% of Total	7.0%	7.8%	5.2%	0.9%
	Satisfied	Freq.	23	17	11	7
		% within Airline	37.1%	34.0%	29.7%	31.8%
		% of Total	10.0%	7.4%	4.8%	3.0%
Very satisfied	Freq.	12	3	13	11	
	% within Airline	19.4%	6.0%	35.1%	50.0%	
	% of Total	5.2%	1.3%	5.7%	4.8%	
Total	Freq.	62	50	37	22	
	% of Total	27.0%	21.7%	16.1%	9.6%	

**Table 2.** Continued.

			Airlines				Total
			Medview	First Nation Air	Azman Air	Overland	
Based on all your experiences with the airline, you can be described as?	Very dissatisfied	Freq.	0	0	0	0	2
		% within Airline	0.0%	0.0%	0.0%	0.0%	0.9%
		% of Total	0.0%	0.0%	0.0%	0.0%	0.9%
	Dissatisfied	Freq.	0	1	0	1	5
		% within Airline	0.0%	10.0%	0.0%	3.6%	2.2%
		% of Total	0.0%	0.4%	0.0%	0.4%	2.2%
	Somewhat dissatisfied	Freq.	0	1	0	2	9
		% within Airline	0.0%	10.0%	0.0%	7.1%	3.9%
		% of Total	0.0%	0.4%	0.0%	0.9%	3.9%
	Undecided	Freq.	0	1	2	6	24
		% within Airline	0.0%	10.0%	15.4%	21.4%	10.4%
		% of Total	0.0%	0.4%	0.9%	2.6%	10.4%
	Somewhat satisfied	Freq.	2	3	4	6	63
		% within Airline	25.0%	30.0%	30.8%	21.4%	27.4%
		% of Total	0.9%	1.3%	1.7%	2.6%	27.4%
	Satisfied	Freq.	5	1	6	4	74
		% within Airline	62.5%	10.0%	46.2%	14.3%	32.2%
		% of Total	2.2%	0.4%	2.6%	1.7%	32.2%
Very satisfied	Freq.	1	3	1	9	53	
	% within Airline	12.5%	30.0%	7.7%	32.1%	23.0%	
	% of Total	0.4%	1.3%	0.4%	3.9%	23.0%	
Total	Freq.	8	10	13	28	230	
	% of Total	3.5%	4.3%	5.7%	12.2%	100%	

Source: Author's computation, 2017

Table 2 above presents the descriptive statistics for passengers' overall satisfaction with each airline's services (e.g. ticketing,

flight schedules, waiting time, meals, entertainment, seat arrangement, etc). The table shows that out of the 232

questionnaire copies returned, 230 were valid for this item. Of the 230 passengers, 62(27%) fly Arik Air, 50(21.7%) fly Air Peace, 37(16.1%) fly Aero Contractor, 22(9.6%) fly Dana Air, 8(3.5%) fly Medview, 10(4.3) fly First Nation Air, 13(5.7%) fly Azman Air, while 28(12.2%) fly Overland.

Table 2 also shows that majority of the individual airlines' passengers were on the 'satisfied' side of the satisfaction/dissatisfaction dichotomy: 51 (82.2%) of Arik Air's 62 passengers were satisfied, same for 38 (76%) of Air Peace's 50 passengers, 36 (97.3%) of Aero Contractor's 37 passengers, 20(90.9%) of Dana Air's 22 passengers, 8 (100%) of Medview's 8 passengers, 7(70%) of First Nation's

10 passengers, 11(84.6%) of Azman Air's 13 passengers, and 19(67.9%) of Overland's 28 passengers. This shows that based on the percentage of satisfied passengers, the airlines rank as follow: Medview airline, Aero Contractor, Dana Air, Azman Air, Arik Air, Air Peace, First Nation, and Overland.

Analysis of the data presented in table 2 also shows that for the industry as a whole, 190 passengers; representing 82.61% of the 230 passengers were satisfied with the services offered by the airlines combined, though with varying degrees of satisfaction. This means that the industry may have fared better than anticipated based on reports in the literature.

**4.2. Test of Overall Customer Satisfaction with Domestic Air Transportation Services.**

**Table 3.** One-Sample Test.

	Test Value = 4			Mean Difference	95% Confidence Interval of the Difference	
	T	Df	Sig. (2-tailed)		Lower	Upper
SATISFACTION	29.013	229	.000	1.97888	1.8445	2.1133

Source: Author's computation, 2017

Table 3 above presents the outcome of the test to determine whether the level of customer satisfaction with air services was not average. The table shows that the level of customer satisfaction is significantly different from the hypothesized test value of 4, being the midpoint on a 7 point Likert scale. It further indicates that the t value and the mean difference are significant at the 99% confidence interval (t=29.01, MD=1.978, p<0.01). This therefore provides the basis conclusion that the level of customersatisfaction with domestic air transportation services is significantly different from average.

**4.3. Determination of the Impact of Customer Expectation on Satisfaction with Domestic Air Transportation Services**

**Table 4.** Descriptive Statistics.

	Mean	Std. Deviation	N
SATISFACTION	5.4789	1.03441	230
TAN	6.1228	.78145	230
REL	5.8963	1.03953	230
RES	5.9652	.92015	230
ASS	5.8505	.97849	230
EMP	5.6748	1.02628	230

Source: Author's computation, 2017

**Table 5.** Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.367 <sup>a</sup>	.135	.115	.97292

a. Predictors: (Constant), EMP, TAN, REL, ASS, RES  
 Source: Author's computation, 2017

**Table 6.** ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.000	5	6.600	6.973	.000 <sup>b</sup>
	Residual	212.030	224	.947		
	Total	245.030	229			

a. Dependent Variable: SATISFACTION  
 b. Predictors: (Constant), EMP, TAN, REL, ASS, RES  
 Source: Author's computation, 2017

Table 7. Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	2.734	.543		5.031	.000		
1 TAN	.215	.098	.163	2.198	.029	.705	1.418
REL	.163	.103	.164	1.582	.015	.360	2.774
RES	.103	.135	.092	.763	.446	.268	3.735
ASS	.215	.120	.204	1.799	.033	.301	3.317
EMP	.196	.096	.194	2.037	.043	.425	2.352

a. Dependent Variable: SATISFACTION  
 Source: Author’s computation, 2017

Tables 4-7 above present the results of the regression equation depicting the impact of expectation on customer satisfaction. While Table 4 shows the descriptive statistics for the study variables, table 5 presents the statistics in respect of the model fit or the coefficient of determination. It shows that  $R^2=0.135$ , and adjusted  $R^2=0.115$ , which implies that the changes in expectation can explain only about 12% of the total change in customer satisfaction. The relationship between the two variables is therefore considered very weak.

The F statistic on table 6 is significant ( $F_{1,230}=6.97$ ,  $p<0.01$ ), and shows that the explanatory variables: Tangibles (TAN), Reliability (REL), Assurance (ASS), Responsiveness (RES), and Empathy (EMP) jointly affected customer satisfaction. The relative contribution of each expectation variable to change in customer satisfaction are presented on table 7 as follow: Tangible ( $\beta = 0.163$ ;  $t = 2.918$ ;  $P < 0.05$ ), Reliability ( $\beta = -0.164$ ;  $t = 1.582$ ;  $P < 0.05$ ), Responsiveness, ( $\beta =0.092$ ;  $t = 0.763$ ;  $P > 0.05$ ), Assurance ( $\beta =0.204$ ;  $t = 1.799$ ;  $P < 0.05$ ), and Empathy ( $\beta =0.194$ ;  $t =2.037$ ;  $P < 0.05$ ), while the intercept (constant) is 2.734 ( $p<0.05$ ).

The statistics above indicate that not all the dimensions of expectation significantly impact customer satisfaction. While Assurance makes the highest impact, followed by Empathy, Reliability, and Tangibles, the contribution of Responsiveness is not supported by this study.

### 5. Summary of Findings

The study’s analyses revealed that on the basis of percentage of satisfied passengers, the airlines rank as follow: Medview airline, Aero Contractor, Dana Air, Azman Air, Arik Air, Air Peace, First Nation, and Overland, and that the industry as a whole has 82.61% satisfied passengers, though with varying degrees of satisfaction.

There is also a narrow gap between customers’ expectation of service and their level of satisfaction which is above average. Contrary to the *a priori* expectation of the researcher, and some of the views previously expressed in the literature, passenger satisfaction is not far removed from the service quality that they expected. The reason for this may not be far

from the fact that passengers already developed low expectation from the airline operators owing to their perception of the industry as a whole. This may also be added to the principle of assimilation as encapsulated in the Assimilation-contrast theory which forms the framework for this study. The study finding in this regard therefore clearly conforms to the theory adopted.

The study revealed that expectation has significant impact on passenger satisfaction. However, not all the dimensions of expectation have significant contribution to a change in passenger satisfaction. The statistics indicate that whereas Assurance makes the highest impact, followed by Empathy, Reliability, and Tangibles, the contribution of Responsiveness is not supported by this study.

### 6. Conclusion

The study concludes that passengers are satisfied with the level of services they currently receive from the airline operators and the level of passenger satisfaction is above the hypothesized average. This outcome, although somewhat puzzling, given the generally assumed poor state of the industry and the challenges facing the operators, the reason for the outcome may not be far from the tendency to equate perception with expectation, being the alternative for measuring satisfaction, coupled with the possibility of lower expectation rating.

Service expectation has significant effect on customer satisfaction. However, not all the dimensions of expectation contribute meaningfully to changes in customer satisfaction. Whereas Assurance makes the highest impact, followed by Empathy, Reliability, and Tangibles, the contribution of Responsiveness is not supported by this study.

### Recommendations

On the basis of the findings of this study, the following recommendations are made:

- 1 Although customer satisfaction is above average, service providers in the aviation industry, including those that

scored high on the satisfaction scale, should endeavour to improve their service offering and measure service quality separate from customer satisfaction since the two are distinct, rather than assume one to be a replica of the other.

- 2 Airline managers/operators should pay greatest attention to Assurance because it has the highest effect on passenger satisfaction. Assurance has to do with the knowledge and courtesy of employees and their ability to inspire trust and confidence.
- 3 Next to 'Assurance,' in terms of effect on passenger satisfaction is 'Empathy,' which relates to the caring,

individualized attention the operators provide their passengers.

- 4 The dimension with the lowest significant contribution to passenger satisfaction is Tangibles. It refers to the physical facilities, equipment, and appearance of personnel, and so on. The implication may be that passengers already take this as normal. However, Managers of airliners should not relent in providing visually appealing equipments in facility locations, offices, and staff appearances.

## Appendix

**Table 1.** Total Number of Domestic Passengers/ Air Traffic Q1, Q2 of 2015 and 2016.

Number of Domestic Passengers	Q on Q growth (%)				Y on Y growth (%)				Share of total (%)	
	2015		2016		2016		2016		2016	
Airports	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2
MMA DOM	896,524	936,029	886,869	903,605	-9.9	1.9	-1.1	-3.5	35.8	37.5
ABV. DOM	764,369	787,067	821,101	857,915	-10.8	4.5	7.4	9.0	33.2	35.6
PHC.DOM	265,093	268,820	252,260	255,398	-12.4	1.2	-4.8	-5.0	10.2	10.6
KANO DOM	57,754	57,629	63,004	64,588	3.5	2.5	9.1	12.1	2.5	2.7
ENUGU	72,404	75,610	89,554	26,322	11.2	-70.6	23.7	-65.2	3.6	1.1
OSUBI	45,402	51,612	41,219	14,382	28.4	-65.1	-9.2	-72.1	1.7	0.6
KAD. DOM	40,162	28,833	20,312	22,792	4.1	12.2	-49.4	-21.0	0.8	0.9
CAL.DOM	45,974	41,866	49,445	57,399	-8.8	16.1	7.5	37.1	2.0	2.4
SOK.DOM	20,263	20,706	20,970	8,378	-0.8	-60.0	3.5	-59.5	0.8	0.3
BENIN	48,371	25,723	38,138	28,690	-13.4	-24.8	-21.2	11.5	1.5	1.2
MAID. DOM	2,186	3,241	23,308	8,418	17.6	-63.9	966.2	159.7	0.9	0.3
JOS	10,909	11,594	11,605	10,696	0.0	-7.8	6.4	-7.7	0.5	0.4
OWERRI	86,660	92,384	101,744	97,634	-5.4	-4.0	17.4	5.7	4.1	4.0
YOLA DOM	33,755	37,381	35,401	34,904	-8.8	-1.4	4.9	-6.6	1.4	1.4
ILORIN DOM	15,490	15,656	18,323	12,079	-1.1	-34.1	18.3	-22.8	0.7	0.5
IBADAN	15,522	14,864	0	5,508	-100.0	NA	-100.0	-62.9	0.0	0.2
MINNA	739	488	1,280	467	-67.2	-63.5	73.2	-4.3	0.1	0.0
AKURE	1,212	607	426	1,560	-34.1	266.2	-64.9	157.0	0.0	0.1
KAT	1,820	877	405	322	39.7	-20.5	-77.7	-63.3	0.0	0.0
MKD	621	110	84	194	-15.2	131.0	-86.5	76.4	0.0	0.0
TOTAL DOM	2,425,230	2,471,097	2,475,448	2,411,251	-9.1	-2.6	2.1	-2.4	100.0	100.0

Source: <http://nigerianstat.gov.ng/pages/NBS%20eLibrary>

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