



RESEARCH ARTICLE

EFFECTS OF AIRLINE SERVICE QUALITY ON AIRLINE IMAGE AND PASSENGERS' LOYALTY:  
FINDINGS FROM AIR NIGERIA PASSENGERS

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ABSTRACT

This paper investigates how individual dimensions of Arik airline service quality determines airline image and passengers' loyalty to the airline. To investigate the effects of individual dimensions of airline service quality, data was collected from a total of 600 respondents by the administration of a well structured questionnaire based on the SERVQUAL scale to determine their level of satisfaction on the attributes of airline service quality. Factor analysis was carried out on the data collect and three major service quality dimensions were factored out as variables to be used. Pearson correlation coefficient was determine to ascertain the significant relationship between the service quality dimensions and the airline image. Also a relationship was further determined between the airline image and the passengers loyalty to the airline. Result from the analysis proved that there existed a strong statistically significant relationship between the service quality variables and the airline image, indicating that the quality the airline offers has a positive relationship with the airline image and the airline image also has a positive relationship with the passengers repeat patronage. Airline managers were thus advised to improve on the quality of service rendered to passengers since the study showed that one of the determinants of the airline image and the airline image also determines the passengers choice of repeat patronage.

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INTRODUCTION

The study on service quality and customer satisfaction has attracted keen attention over time especially in the airline industry. This interest has developed because the delivery of high service quality is essential for airlines' survival and competitiveness in the dynamic Air transport industry where there exist so many key players in the Air Transport business and any form of laxity on the part of any airline will give its competitor an edge. Several researchers have worked so much on the issue of service quality especially because of the necessity for an organization to provide quality services to its clients in order for the firm to gain competitive advantage over its rivals in their respective industry. Service quality related theories have also been used particularly in the airline industry but most of them have rather relied mainly on customer satisfaction and the service quality level to describe customer evaluations of service and have focused on the effect at an aggregate construct level. Although, there is much need for one to focus on the effect of the individual attribute because it is of very much importance to the airline managers especially in the area of planning ways to improving the value of the services rendered to the passengers/ customers. In recent years, research related to corporate image and consumer behavior in the field of service marketing has progressed. There is some evidence that corporate image is an important factor in the overall evaluation of the service of a company (Gronroos, 1984). Corporate image can influence customers' perception of services offered and customers choice of company (Andreassen and Lindestad, 1998). Therefore it is very important to understand the role of corporate image in the customer retention decision. This is a key issue that has received little attention in the service marketing area (Nguyen and LeBlanc, 1998). It is worthy of note that the role and the effect of corporate image in airline service setting in Nigeria has often been ignored in

previous airline service studies. This paper tries to show how airline passengers customer loyalty can be achieved as a result of the corporate image the airline has posed to its customers with a special attention to Arik air in Nigeria. This is done by deriving airline service dimensions and determining the effects of individual dimensions of airline service quality on airline corporate image and passengers' loyalty by developing a structural equation model to study related effects simultaneously. The study further hypothesizes that there exist a significant positive relationship between the airline service quality attributes and the airline corporate image and a corresponding positive relationship between the airline image and the passengers of Arik air Nigeria future patronage/intention.

Literature review

A conceptual framework was proposed that investigates the effects of individual attributes of airline service quality and the corresponding effect of airline image on passengers' behavioral intentions. Hence, the review thus presents an overview of relevant literature leading to the establishment of the proposed conceptual framework. The Components of the proposed conceptual framework including. Service Quality Service quality is a concept that has aroused considerable interest and debate in the research literature because of the difficulties in both defining it and measuring it with no overall consensus emerging on either (Wisniewski, 2001). There are a number of different "definitions" as to what is meant by service quality. One that is commonly used defines service quality as the extent to which a service meets customers' needs or expectations (Lewis and Mitchell, 1990; Dotchin and Oakland, 1994a; Asubonteng, Wisniewski and Donnelly, 1996). Service quality can thus be defined as the difference between customer expectations of service and perceived service. If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Parasuraman *et al.*, 1985; Lewis and Mitchell, 1990). Always there exists an important question: why should service quality be measured? Measurement allows for comparison before and after changes, for the location of quality related problems and for the establishment of clear

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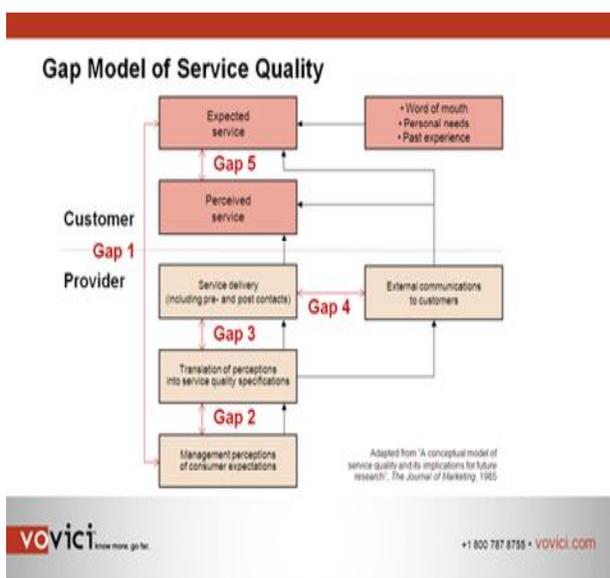
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standards for service delivery. Edvardsen *et al.* (1994) state that, in their experience, the starting point in developing quality in services is analysis and measurement. The SERVQUAL approach, which is used in this paper is the most common method for measuring service quality.

### Model of Service Quality Gaps

There are seven major gaps in the service quality concept, which are shown in Figure 1. The model is an extension of Parasuramanal. (1985). According to the following explanation (ASI Quality Systems, 1992; Curry, 1999; Luk and Layton, 2002), the three important gaps, which are more associated with the external customers are Gap1, Gap5 and Gap6; since they have a direct relationship with customers.

- Gap1:** Customers' expectations versus management perceptions: as a result of the lack of a marketing research orientation, inadequate upward communication and too many layers of management.
- Gap2:** Management perceptions versus service specifications: as a result of inadequate commitment to service quality, a perception of unfeasibility, inadequate task standardisation and an absence of goal setting.
- Gap3:** Service specifications versus service delivery: as a result of role ambiguity and conflict, poor employee-job fit and poor technology-job fit, inappropriate supervisory control systems, lack of perceived control and lack of teamwork.
- Gap4:** Service delivery versus external communication: as a result of inadequate horizontal communications and propensity to over-promise.
- Gap5:** The discrepancy between customer expectations and their perceptions of the service delivered: as a result of the influences exerted from the customer side and the shortfalls (gaps) on the part of the service provider. In this case, customer expectations are influenced by the extent of personal needs, word of mouth recommendation and past service experiences.
- Gap6:** The discrepancy between customer expectations and employees' perceptions: as a result of the differences in the understanding of customer expectations by front-line service providers.
- Gap7:** The discrepancy between employee's perceptions and management perceptions: as a result of the differences in the understanding of customer expectations between managers and service providers.



Source: servqual study.

Fig.1. service quality gap model

### Corporate image

A corporate image refers to how a business is perceived. It is a generally accepted image of what a company stands for. In creating corporate image, marketing, experts use public relations and other forms of promotion to suggest a mental picture to the public. Typically, a corporate image is designed to be appealing to the public, so that the company can spark an interest among consumers, create share of mind, generate brand equity, and thus facilitate product sales. A corporation's image is not solely created by the company. Other contributors to a company's image could include news media, journalists, labor unions, environmental organizations, and other NGOs. Corporations are not the only form of organization that create these types of images. Governments, charitable organizations, criminal organizations, religious organizations, political organizations, and educational organizations all tend to have a unique image, an image that is partially deliberate and partially accidental, partially self-created and partially exogenous. (Wikipedia, 2005) According to the Business Dictionary, it is the mental picture that springs up at the mention of a firm's name. It is a composite psychological impression that continually changes with the firm's circumstances, media coverage, performance, pronouncements, etc. Similar to a firm's reputation or goodwill, it is the public perception of the firm rather than a reflection of its actual state or position. Unlike corporate identity, it is fluid and can change overnight from positive to negative to neutral. Large firms use various corporate advertising techniques to enhance their image in order to improve their desirability as a supplier, employer, customer, borrower, etc. The image of Apple computer, for example, as a successful business has dimmed and brightened several times in the last 30 years. But its identity (conveyed by its name and multicolored bitten-off-apple logo) as an innovative and path breaking firm has survived almost intact during the same period. According to Fombrun and Shanley, a planned and well - managed corporate image is the most promising marketing strategy for attracting current consumers (Fombrun and Shanley, 1996). A company with a good image is more likely to stand out in the market place because it draws both repeat customers and trial users (Connor and Avidson, 1997). The more favorable a company's image, the more likely consumers will assume that the services tendered by that company are better, of higher quality and worth more in actual price (Dowling, 1994). Similarly in the airline industry, the more favorable image passengers have, the more likely negative elements about the airline will be filtered out of passengers consciousness. Passengers who have a favorable image of the airline consider a particularly bad flight to be an exception to their impression of the airline (Ostrowski *et al.*, 1993). Thus, a favorable image separates and distinguishes the company from its competitors.

Previous research has identified corporate image as an important factor in the overall evaluation of the service and the company (Gronroos, 1984). The relationship between corporate image, service quality and loyalty has been investigated in previous studies. Andreessen and Lindestad (1998) noted that corporate image has an impact on customer's choice of company when service attributes are difficult to evaluate. Zeithaml and Bitner (1996) also asserted that image can influence customers' perceptions of the goods and services offered. Even though previous studies have presented the role and the effect of corporate image, it is still unclear whether there is a direct relationship between image and consumer behaviour (Bloemer, Ruyter and Pascal, 1998). Understanding the role and the effect of corporate image in the customer retention decision is a key issue that has received little attention in the service marketing area. Neither the role nor the effect of corporate image in the airline industry have been fully investigated yet (Nguyen and LeBlanc, 1998). Hence, airline image is considered as a significant variable that influences passenger's choice of airline in this paper.

### METHODOLOGY

This study adopted the SERVQUAL scale in the specific context of aviation by generating additional quality related items other than

the ones already included in the original SERVQUAL model instrument. This study adjusted the measurement items and their corresponding dimension to develop a more appropriate scale for measuring airline service quality. To develop Airline service quality measures, in-depth interviews and focus groups were held with airline staff and passengers. The interview session was focused on the airline services with special attention to the nature of the services provided by airlines to passengers. Respondents were also asked to suggest service quality items that were not included in the SERVQUAL instrument to further make the instrument valid and reliable. Furthermore, a pilot study was conducted in order to see if any of the statements are difficult for subject to understand and to assess face validity. A number of samples of Nigerian Air Travel passengers who have recent experience of international travel were used in the pilot survey. Passengers were asked to complete the questionnaire and give their overall comments about the questionnaire. Based on the passengers comments made, Several passengers mentioned that the 'variety of their routes' and 'understanding the specific needs of passengers', were difficult to evaluate with their experience and knowledge. Therefore, these aforementioned attribute were deleted from the final survey questionnaire, so the final questionnaire contained 22 measurement items. The airline service quality items drawn from these interviews and pilot study were examined by academics familiar with the airline industry and questionnaire design. These led to the development of service quality measurement items suitable for the airline industry. Service quality was measured by 22 measurement items and airline image was measured by asking passengers three measurement items as shown in Table 1. Behavioral intentions were measured using passengers' intention to repurchase and willingness to recommend the airline to other people. All the items were measured using a 7- point Likert-type scale.

**Table 1. Airline Service Attributes**

	<ul style="list-style-type: none"> <li>· Up-to-date aircraft and in-flight facility.</li> <li>· Meal service (items, tastes, freshness, quantity, appearance, etc)</li> <li>· Seating comfort (Seat space and Legroom)</li> <li>· In-flight entertainment services (books, newspapers, movies, magazines, etc.)</li> <li>· Convenience of reservation and ticketing</li> <li>· Promptness and accuracy of reservation and ticketing</li> <li>· Frequent flyer program</li> <li>· On-time performance</li> <li>· Sincere interest in solving problems (flight cancellation, baggage loss, etc.).</li> </ul>	7-point Likert Scale	22 items
Service Quality	<ul style="list-style-type: none"> <li>· Safety record</li> <li>· Check-in service (waiting time, efficiency, etc)</li> <li>· Promptness and accuracy of baggage delivery</li> <li>· The amount imposed for overweight baggage</li> <li>· Providing seat that passengers prefer</li> <li>· Neat appearance of employee</li> <li>· Employees who are willing to help passengers</li> <li>· Courtesy of employees</li> <li>· Employees who have the knowledge to answer passengers' questions</li> <li>· Give passengers personal attention</li> <li>· Convenient flight schedule</li> <li>· Non-stop flight</li> </ul>		
Airline Image	<ul style="list-style-type: none"> <li>Ø I have always had a good impression of this airline(I1)</li> <li>Ø I believe that this airline has a better image than its competitors/(I2)</li> <li>Ø In my opinion, this airline has a good image in the minds of passengers(I3)</li> </ul>	7-point Likert Scale	3 items
Behavioural Intentions	<ul style="list-style-type: none"> <li>Ø Would you consider flying on this airline again in the future?(F1)</li> <li>Ø Would you recommend this airline to other people?(F2)</li> </ul>	7-point Likert Scale	2 items

Source: Amended SERVQUAL Instrument

## Sample

The survey was conducted at the Murtala Mohammed International Airport Lagos departure wing in October 2012. Sampling was done by randomly selecting the passengers about to embark on a journey within the country at the Arik Air point considering the fact that Arik Air is one of the Major operator in Nigeria and could be considered the major carrier in Nigeria. The survey was done for a period of two weeks. To promote a successful research and reduce the problem associated with cooperation on the part of the passengers. The research assistants had to administer the questionnaire politely and explain the significance of the research to the respondents/passengers as they arrived and departed to and from their destination and origin respectively. Data was gathered from passengers who had admitted to having been on at least on flight in the past twelve months. A total of 600 questionnaires were distributed to passengers out of which 554 completed questionnaires were returned and 53 questionnaires were incomplete. Hence, 501 questionnaires were used for data analysis. The passenger demographic characteristics is represented in table 2.0 below and the distribution with respect to age occupation, and income factors seem reasonable.

**Table 2. Demographic characteristics of the Respondents**

male respondents	275
Female respondents	224
Missing respondents	2
Total respondents	501

## Data Analysis

Exploratory factor analysis was used for the analysis of the Airline Service Quality attributes to determine the factored Dimensions

understanding that Factor analysis is a generalized name that denote a class of certain procedures primarily used for data reduction and summarization ( Malhotra, Hall, Sha and Crisp, 1996)

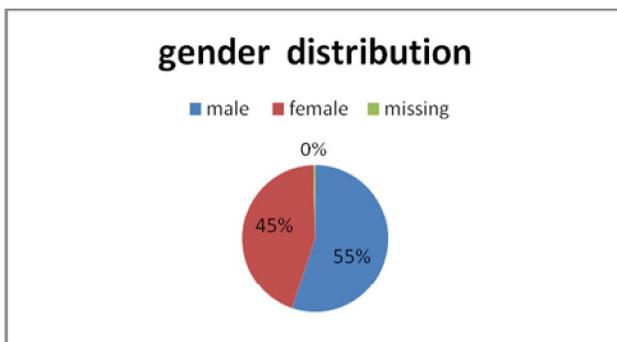


Fig. 2. Gender representation

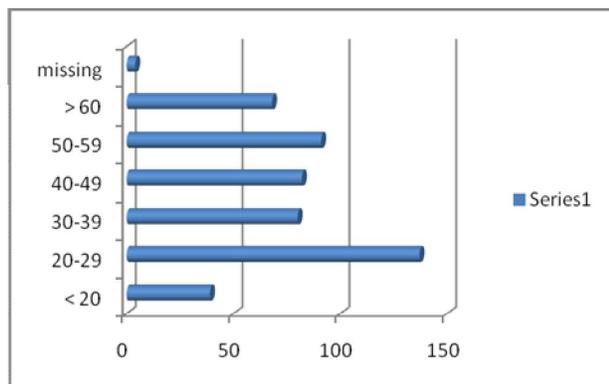


Fig. 3. Age distribution

**Note:** Factor R---reliability and customer service; factor C---convenience and accessibility; factor S---In flight services.

From the result of the analysis only the factors with eigen values that are greater than one (1) will be retained and an overall pattern of rotated factor loadings suggested a three-dimensional solution and factors. The factors that formed the airline service dimensions are labeled thus;

ØDimension 1-“reliability and customer service”(R1-R8)

ØDimension 2-, “convenience and accessibility”(C1-C9)

ØDimension 3- in-flight service” (S1-S5).

These dimensions represent the latent variable\ s that will be utilized in the structural equation model intended to be developed.

**The Structural Equation Model**

Studies carried out by researchers in the business and service related industry have shown that perceived service quality has a direct impact on forming the image of a company(Jin-Woo, Robertson and Cheng-Lung, 2005). Nguyen &Leblanc (1998) asserted that bank customers who receiving higher levels of service quality, form a corresponding favorable image, in the banking services industry. It is generally recognized that many aspects of corporate image are derived from past experience, and word-of-mouth communications. Therefore, a higher service quality on the part of the airline can in turn create a positive corporate image of the organization. On this ground, this paper will ascertain a positive relationship between the individual airline service quality dimension already stated above , its corporate image and finally the passengers future behavior otherwise called “loyalty to the airline”

Fig 4.0 structured Equation Model

R1-R8  
PASSENGERS FUTURE INTENTION.(F1,F2)  
AIRLINE  
IMAGE (I1, I2, I3)  
C1-C9  
S1-S5

Table 3. below shows the results of the factor analysis carried out

factor	variables	Factor loadings	eigen	Cumm % of var
Factor 1(R1-R8)	Courtesy of employees (R1)	.872	10.476	48.082
	Employees who are willing to help passengers (R2)	.856		
	Employee knowledge to answer customers question R3	.814		
	Give passengers undivided attention R4	.722		
	Neat appearance of employees(.R5)	.716		
	Safety of flying(R6)	.636		
	Sincere interest in resolving passenger complaint(R7)	.623		
	On time performance (R8)	.543		
Facto2(C1-C9)	Convenience of reservation & ticketing(C1)	.791	1.584	55.045
	Promptness and accuracy of reservation & ticketing(C2)	.783		
	Check in Services(C3)	.669		
	Frequent flyer programe (C4)	.602		
	Accuracy in baggage delivery(C5)	.586		
	Non stop lights(C6)	.505		
	Convenient flight schedule (C7)	.500		
	Providing seat passengers prefer(C8)	.497		
	Amount mposed for overweight baggage(C9)	.350		
Factor 3(S1-S5)	Seat confort(S1)	.833	1.284	60.944
	Seat space &legroom(S2)	.824		
	Meal service(S3)	.709		
	In flight entertainment(S4)	.556		
	Modern in flight technology facility(S5)	.523		

Source: spss factor analysis Dec 27, 2012, 12.45pm

The model hypothesizes a three way structure among a set of latent variables and observed variables, which are used as indicators of these latent variables. Result of the Factor analysis shows that airline service quality is best described by here dimensions. Namely; “reliability quaility and customer service” (Dimension 1), “convenience and accessibility” (Dimension 2), and “in-flight service” (Dimension3). Each service dimension is modelled as a latent variable , which is further described by a number of observed variables as shown in Figure 4. R1 through R8, C1 through C9 and S1 through S5

Observed variables are based on passengers’ actual responses to corresponding measurement items on the survey form. Airline image and Behavioral intentions are also represented by observed variables, i.e. I1 ~ I3 and B1 ~ B2 calculated from passengers’ survey responses.

### Reliability of measures

The reliability of the model and its internal consistency require statistical verification. In order to ascertain the reliability and the internal consistency of the model, Cronbach’s alpha was used to assess internal consistency. Cronbach’s alpha is the average of all possible split-half coefficients resulting from different ways of splitting the scale items and a value of 0.6 or less generally indicates unsatisfactory consistency reliability (Marhotra *et al.*, 1996). The Cronbach’s alpha of each measure is presented in Table 4. Obviously, the internal consistency reliability of each measure was higher than 0.8, which implies the reliability of the measure is very high.

**Table 4. Reliability of Measures**

Measure	Cronbac
Reliability and customer service	.9006
Convenience and accessibility	.8595
In-flight service	.8559
Airline image	.9077
Behavioral intention	.9452

**Table 5. Correlation Analysis Result**

	RC	CA	IS	AI	BI
Reliability and customer service (RC)	.876				
Convenience and accessibility (CA)	.788*	1.000			
In-flight service (IS)	.548*	.660*	1.000		
Airline image (AI)	.477*	.495*	.516*	1.000	
Behavioural intention (BI)	.577*	.498*	.573*	.827*	1.000

**Table 6. Result of hypothesis testing ( $p > \alpha$ : reject); ( $p < \alpha$ : accept)**

relationships	Standard regression weight	P values	results
Reliability and customer service dimension - Airline image	0.0142	0.0112	Accept
Convenience and accessibility dimension - Airline image	0.2175	0.0121	Accept
Inflight service dimension –airline image	0.3531	0.0001	Accept
Airline image- Behavioral Intention	0.7831	0.0001	Accept

### Correlation analysis

In trying to determine the relationship between the variable under consideration, Correlation analysis was therefore conducted between three airline service dimensions, airline image and passengers’ behavioural intentions. The result obtained using Pearson correlation coefficients is shown in Table 5 below. The three dimensions of airline service quality and airline image had positive correlations with behavioral intentions at the 0.01 level of statistical significance.

### Testing hypotheses

As earlier stated that a positive statistical significant relationship was hypothesized between the variables, all the hypothesized relationships proved to be statistically significant ( $p < 0.05$ ). In this model, significant relationships were found between the dimension of Reliability and customer service, convenience and accessibility, in-flight service, airline image, and behavioural intentions. The result of hypotheses testing is presented in Table 6 below.

### Findings

The dimension of Reliability and customer service, convenience and accessibility and in-flight services had a positive effect on the airline image which also shows that the passenger of Arik air were quite satisfied with quality of the service under these dimension was found to have a positive effect on airline image. They are most likely also to form a strong image of that airline. Notably, the airline image formed from the service quality dimensions also had a significant positive influence on behavioral intentions. This implies that passengers who form a positive overall impression of the image of the airline are more likely to fly the airline again and recommend the airline to other passengers.

### Business implications/ conclusion

This paper therefore provides practical insight to airline managers to earnestly try to improve on the quality of the services rendered to the customers/ passengers since the study has proved beyond reasonable doubt there exist a positive significant relation between the quality of the service rendered in all the dimensions and the image of the airline if the quality of the service is good invariable a strong image of the airline is formed and this can further also bring about a positive behavioral of the passenger in terms of repeat patronage and even talking to other passengers of other airlines about the positive image of the airline which we understand constitute what forms the passengers view or perception of the airline. Appropriate allocation of resources must be channeled towards maintaining and sustaining the

service quality level and in turn boasting the airline image for customer loyalty. Finally, this paper has important implications regarding airline image. Analysis showed that airline image has a significant effect on passengers’ behavioral intentions. This indicates that Arik air passengers would respond to strategies that pose a favourable image in their choice of airlines. Therefore, airline marketers are to emphasize on building a favorable image as a means of improving passengers’ repurchase rate and their recommendation to other passengers.

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