

AN EMPIRICAL STUDY ON SERVICE QUALITY PERCEPTIONS OF DOMESTIC AIRLINE CONSUMERS IN INDIA

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Abstract

Pricing and service quality are the key variables that decide the brand equity of each player in the airline industry. Existing literature suggests that measurement and management of service quality is the key for survival of airline companies. This research paper examines the service quality delivered by four major airlines in India on the backdrop of stiff competition in the airline service sector. The process of traveling on a domestic airline was divided into pre-flight, in-flight and post-flight experiences. A survey was conducted to find out the perceived service quality of frequent fliers on each of the four airlines across a series of service performance variables. The airline brands were positioned in a perceptual space, where the perceived service attributes were also mapped. Clear differences emerged among the airlines, with two of them perceived as being similar to each other, and the other two differing in many respects.

I. INTRODUCTION

India at present has twelve competing over the next five years. airlines in the domestic market as against Only a small percentage of India's a single government owned airline in population travels by air partly due to 1991. According to McKinsey Quarterly the high costs of domestic flying. (2005), the Indian aircraft market is the According to the Center for Asia Pacific world's second largest commercial Aviation (CAPA) consultancy, new aircraft market. On-time performance and players will help domestic passenger service levels have risen dramatically and numbers. The players in the current fares have dropped. Passenger traffic is airline market includes airlines like Air Deccan with low-cost, low-fare and no frills along with airlines like Kingfisher, which offers some frills, and premium airline like Jet Airways. Competition has brought in some price advantages to travelers and has converted many railway passengers to airline travelers. This article examines customer satisfaction among travelers of four major domestic airlines in India. Because of proliferated number of players in the airline industry, airlines may enjoy new business opportunities along with high competitive threats. The objective of this study is to understand the customer satisfaction levels of the four major airlines viz. Jet Airways, Indian Airlines, Air Deccan and Kingfisher. A comparison of customer satisfaction based on service quality was done among the four major airlines based on responses from frequent fliers across fourteen variables on a five point Likert scale. A flying experience was divided into three stages- namely, pre-flight, in-flight and post-flight experience. A questionnaire was designed in such a way that the same sets of variables were measured among the customers of the four airlines under study.

Fliers who had flown any of the four airlines could answer the questions pertaining to those airlines. The objective of this study was to understand the satisfaction levels of the airline customers. The study measured the expected level of service quality using a Likert type scale.

II. RESEARCH OBJECTIVES

1. To study the customer perceptions of service quality of each of the four airlines under study
2. To compare the service quality of the airlines under study

III. RESEARCH METHODOLOGY

Questionnaire Design

The respondents were asked to evaluate the service quality of the service provided by the airline, which they have traveled. Perceived service quality of each variable was measured through questions designed on a 5-point Likert-type scale ranging from always to never. For example, the on-time services of the airline was measured through the question, "The flights are on time" with always as a the best positive response and never as the worst negative response, any other response can be recorded between "always" and "never" on the scale. Similarly, other good ground service – in-flight service and post-flight service were measured through the same scale. The questionnaire also had a question to check the response to the loyalty programs provided by the airlines to frequent fliers which was measured through, " the airline offers real benefits to frequent fliers" on the five point Likert – type scale. The authors discussed the air travel process with

Some of the SERVPERF variables developed by Cronin and Taylor (1992) were adapted along with the process variables (Wen Li and Chen 1998) to the Indian market conditions based on the fact that air traffic in India has gone up only in the last three years and still a very small percentage of the population travel by air. "Population" consisted of the customers of four domestic airline companies in India viz. Jet Airways, Indian Airlines, Air Deccan and Kingfisher. These airlines were selected, as they are representative of the major segments in the airline industry from full fare to low priced airlines. Convenience sampling was done. Targeted sample size was 30 per airline, and achieved sizes were as follows.

Table 1. Airline wise Composition of Sample

No	Company	Obtained number Of samples
1	Jet Airways	39
2	Indian Airlines	40
3	Air Deccan	29
4	Kingfisher	26

IV. DATA ANALYSIS & RESULTS

The statistical analyses used were one way ANOVA, Discriminant Analysis, Cluster analysis and Cross Tabulation. Analysis of research data used the level of significance, $\alpha=0.05$

Mean Difference Results

Table 2 provides a summary of the mean scores for the variables in the study. The objective of this study was to examine customer perception of service quality. One way-ANOVA was performed and the result showed a significant difference among the four airlines, except in two variables viz. baggage loss and online booking. Travelers agreed that all the airlines manage baggage well and all of them provided online booking.

Pre-Flight Service Quality

Pre-flight service was examined by rating the variables listed below.

1. Flights are on time
2. Good ground service,
3. The airline keeps its travelers informed in the case of a delay through SMS or a call
4. The airlines makes regular announcement in case of a delay to keep the travelers informed of the status quo
5. The airline provides refreshments whenever there is a delay,
6. Provide accommodation if there is a long delay.

All the six pre-flight SERVPERF variables were found to be significant as shown by the one way ANOVA that is displayed as Table 2.

Table 2 – Service Quality Scores for Various Airlines

Variables	Jet Air Mean	Indian Airlines Mean	Air Deccan Mean	Kingfisher		One-Way ANOV	
				Mean	df	F Value	Significance
On-time	1.9231	3.0750	3.96	2.4583	3	21.941	.000
Delay information	1.7895	3.1282	2.8929	2.3158	3	7.372	.000
Announce delay	1.4595	2.0278	2.9231	1.8571	3	9.593	.000
Good in-flight service	1.5641	2.8158	3.7692	1.5833	3	37.506	.000
Good in flight food	1.7632	2.7895	3.8261	2.0435	3	20.961	.000
Waiting time for baggage	2.2895	2.6053	3.2800	2.4167	3	4.760	.004
Baggage loss	4.1212	3.6857	3.8696	4.4000	3	1.37	.263
Compensate Baggage loss	2.6957	3.2083	3.8667	2.5000	3	3.028	.035
Good ground service	1.7059	2.6000	3.0833	1.5417	3	12.147	.000
Refreshments on delay	1.9189	3.0000	4.1818	1.8095	3	19.609	.000
Accommodation	2.2258	2.7931	4.1053	2.7647	3	7.231	.000
On-delay	1.2571	1.7241	1.3333	1.2381	3	1.805	.151
Discounted fare	1.4000	2.0294	1.3462	1.5000	3	3.184	.023
Real benefits for Frequent fliers	1.4211	2.5455	2.5455	2.1111	3	5.489	.002

The four airlines provided significantly different service quality in the pre flight service.

Jet Airways travelers found its flights to be on time usually against Air Deccan travelers who rated its flights to be almost never on time. Jet Airways, Kingfisher, and Air Deccan usually informed the customers about delay in advance through SMS or telephone call. Indian Airlines was rated average on this service quality variable. All the four airlines were found to be above average in announcing delay. Except for Air Deccan, the other three airlines were rated as providing good ground service. In the case of a delay Jet Airways and Kingfisher usually provided the travelers with refreshments whereas Air Deccan never provided such services. Except Air Deccan, all the other airlines usually provided accommodation in case of delay. The study conducted by Gourdin and Kloppenborg (1991) identified on-board comfort, being kept informed regarding delays and being cared for when travel was disrupted as being important to passengers.

In-flight Services

Jet Airways, Indian Airlines and Kingfisher were rated as providing very good in-flight service whereas Air Deccan was rated to be providing almost no service quality on in-flight services. Jet Airways was found to be providing good in-flight food along with Kingfisher. Indian airlines was rated as average in providing good in-flight food. Air Deccan did not offer in-flight food at all. The study conducted by Gourdin and Kloppenborg (1991) did not find courteous cabin attendants and beverage service on short flights as important to passengers.

Post Flight Services

Air Deccan travelers rated longest waiting time for baggage arrival against other airlines. Baggage loss was found to be almost never a problem with Jet Airways and Kingfisher where as Indian Airlines and Air Deccan travelers had to face baggage loss, sometimes. On the occurrence of baggage loss Air Deccan sometimes never compensated for the baggage loss.

There was no significant difference among the airlines on services such as online booking which just meant such a service was provided by all the airlines. All the airlines were found to be providing discounted fares and real benefits for frequent fliers.

Discriminant Analysis

Discriminant analysis revealed significant differences among the airlines. Three functions were produced, of which the first was statistically significant. (Refer Table 3). The second and third functions were not significant. From the standardized discriminant function coefficients (Table 4) , it appears that function 1 consists of good in-flight service, waiting time for baggage, compensation

Table 3: Wilks' Lambda

Test of Functions(s)	Wilks's Lambda	Chi-square	df	Sig.
1 through 3	.238	60.340	42	.033
2 through 3	.625	19.774	26	.802
3	.933	2.897	12	.996

Table 4: Standardized Canonical Discriminant Function Coefficients

	Function		
	1	2	3
on time	.354	.242	.733
delay information	-.283	.979	-.150
good inflight service	.742	.211	-.407
good inflight food	-.326	.072	-.086
waiting time for baggage	.582	-.199	-.253
baggage loss	.073	-.091	.416
compensate baggage loss	-.617	.233	-.535
good ground service	.024	-.135	-.643
refreshments on delay	.521	-.273	.072
acomodation on delay	.529	-.466	.304
online booking	-.118	-.069	-.352
discounted fare	-.526	.130	.502
real benefits for frequent fliers	-.060	.440	.102

for baggage loss, refreshments on delay, accommodation on delay and discounted fare. Hence, we could conclude that the difference between airlines is a multi-dimensional construct consisting of in-flight service, delay handling, baggage handling and pricing. Together, these may be named as basic service elements, on which airlines seem to differ significantly. The only exception seems to be delay information, loading highly on function two, and delay announcement and good ground service, which are loading highly on function three. But these are not significant statistically and therefore should be treated with caution.

Unstandardized canonical discriminant functions evaluated at group means perceptual map is drawn using functions 1 and 2, the relative positions of the four brands of airlines which is derived from Table 5.

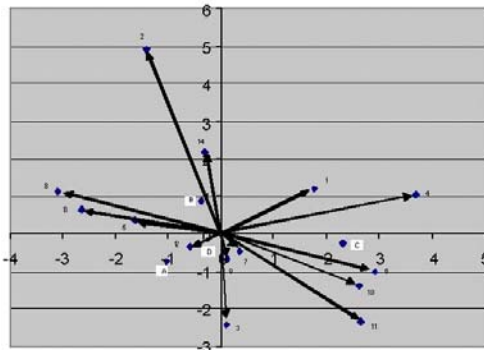
Table 5: Functions at Group Centroids

Airline name	Function		
	1	2	3
Jet Airways	-1.022	-.733	-.158
Indian Airlines	-.361	.886	-.074
Air Deccan	2.300	-.264	-.059
Kingfisher	-.350	-.189	.643

The perceptual map shows that Jet Airways and Kingfisher are positioned together. Air Deccan and Indian Airlines are positioned far away from each other. A, B, C and D in the perceptual map represents the airlines as per Table 6 given below.

Table 6: Brands of Airlines from the Group Centroids

SI No	Airline Name
A	Jet airways
B	Indian airlines
C	Air Deccan
D	Kingfisher



Graph 1 : Perceptual Map of four domestic airlines in India based on Perceived Service

The horizontal axis represents Function 1 and the vertical axis, Function 2. The fourteen attribute vectors are mapped across the perceptual space. Vectors 1 to 14 can be identified from Table 7 given below.

Cluster Analysis

Cluster analysis was performed to find out the similarity between brands and to reiterate the positioning exercise done by Discriminant analysis. An ANOVA conducted for cluster analysis showed that all the service attributes to be significantly different across the different clusters (Refer Table 8).

Table 7: Attribute Vectors based on Standardized Canonical Discriminant Function Coefficients

1	On time
2	Delay information
3	Announce delay
4	Good in-flight service
5	Good in-flight food
6	Waiting time for baggage
7	Baggage loss
8	Compensate baggage loss
9	Good ground service
10	Refreshments on delay
11	Accommodation on delay
12	Online booking
13	Discounted fare
14	Real benefits for frequent fliers

Four major clusters were identified. Cross tabulation was conducted to find the relationship between the brands and the four different clusters. Table 9 shows that most of the Jet Airways and Kingfisher customers belong to cluster 2. Indian Airlines and Air Deccan customers dominate cluster 3. Cluster 4 has a large representation of customers of Indian Airlines where as cluster 1 does not seem to be very significant.

Table.8: ANOVA I

	Cluster		Error		F	signi
	Mean Squar e	df	Mean Squar e	df		
on time	30.783	3	.940	126	32.745	.000
delay information	35.893	3	1.209	120	29.680	.000
announce delay	29.422	3	.687	116	42.822	.000
good inflight service	39.452	3	.715	123	55.167	.000
good inflight food	38.787	3	.695	118	55.770	.000
waiting time for baggage	16.200	3	.853	121	18.995	.000
baggage loss	37.954	3	.861	107	44.093	.000
compensate baggage loss	18.986	3	1.214	68	15.641	.000
good ground service	26.857	3	.846	113	31.728	.000
refreshments on delay	39.417	3	1.278	109	30.845	.000
accommodation on delay	34.155	3	1.291	92	26.456	.000
online booking	6.105	3	.677	102	9.020	.000
discounted fare	5.528	3	.900	113	6.140	.001
real benefits for frequent fliers	20.021	3	1.430	107	13.999	.000

Table 9: Airline Name and Cluster Number of Case Cross tabulation

Airline Name	Cluster Number of Case				Total
	1	2	3	4	
Jet Airways	0	27	5	7	39
Indian Airlines	1	7	17	15	40
Air Deccan	6	0	18	5	29
Kingfisher	2	15	4	5	26
Total	9	49	44	32	134

Based on the above findings, Jet Airways and Kingfisher can be considered as brands which have similar attributes, as most of their customers are found to be members of cluster two.

V. CONCLUSION

This study has several managerial implications, as it demonstrates that the adapted version of SERVPERF scale is applicable in the Indian conditions. When considered in totality the results of this study suggest that implementation of basic service quality is essential to combat the growing competition. Differentiation can occur only by adding new service elements along with providing better quality in delivering the current service. Safety has been considered as a major element in choosing an airline brand in the west, post 9/11. Crisis management has also taken different dimensions in the U.S in the airline industry post 9/11. This trend suggests that many different social events and variables also have an impact on how customers look at each brand. This study shows that customers of Jet Airways rate it as an airline that provides very good service quality across the fourteen service variables. Kingfisher ranks second and its customers have reported that usually the airline provides good service quality. Indian Airlines was rated as providing good in-flight food, waiting time for baggage, good ground service, accommodation on delay and a few other elements such as price, online booking and benefits for frequent fliers. Indian Airlines was rated as average or below average on the rest of the service variables. Baggage loss has been reported as a problem faced by some of the Indian Airlines customers. Air Deccan has been rated by its customers as providing good service quality in informing customer about delay. Air Deccan customers are happy with its provision for online booking, discounted fare and real benefits for frequent fliers.

The study revealed that customers were not happy with all the other service variables which suggest that the

overall service quality of Air Deccan is not considered good. Some of the Air Deccan customers report baggage loss as a problem. Air Deccan calls itself a no-frill service provider as it is a low cost airline. The travelers of Air Deccan seem to rate it to be a bad service provider even though they were flying on low fares. When Air Deccan has large volume loads and generates revenue, it should rethink its value proposition in terms of providing basic service quality to stay in the market.

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