

A Comparative Study on the Passenger Service Quality before and after the Corporate Restructuring in Indian Airlines

Abstract

This study aims to identify the major problem areas related to the passenger service quality in Indian Airlines before and after the corporate restructuring. For this purpose a descriptive research has been conducted with the help of personal interview and close ended questionnaire on the basis of 11 parameters of passenger service quality. Data has been collected from 106 passengers. Factor analysis and Chi- Square Test have been used with the help of SPSS software to analyze the data and to identify the most fragile areas related to passenger service quality in pre and post restructuring and compare it with the significant areas of private airlines operating in India. This study identifies several technical problems along with human factors because of which IA has not yet achieved the desired state of performance to retain their existing position or to regain their previous status.

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Introduction

Economic reality is reshaping India's airline industry. Just a few years into a third wave of private operators, the high cost of fuel has led to a number of mergers, including a high-profile agreement to combine Indian Airlines with Air India. Other issues, including infrastructure constraints, increased competition, and wage inflation, have left low-cost carriers, such as Sahara and Air Deccan, with no alternative but to merge with larger airlines.

But the turbulence is likely to continue, as new carriers enter the fray to fill the gaps left by consolidation. And for the newly merged entities, the struggle has only begun, as the usual issues that accompany post-merger integration — along with some that are particular to the airline industry — come into play.

The industry has had a storied past in India, beginning in the early 20th century when a host of private airlines tried their luck. Chaos reigned in the absence of workable regulations, and in 1953, a few years after independence; the airlines were nationalized and merged to set up two flag carriers — Air India for international operations, and Indian Airlines for the domestic sector. It was one of the two flag carriers of India, the other being Air India. The airline officially merged into Air India on 27 February 2011 operating with a fleet of over 130 aircraft.



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The present study aims to identify the major problem areas related to the passenger service quality in Indian Airlines before and after the corporate restructuring and compare it with private airlines operating in India. To cross check the impact of the merger on those particular areas, second round interview from different customer segments has been conducted.

Literature Review

According to the existing research studies, restructuring is defined as any major reconfiguration of internal administrative structure that is associated with an intentional management change program (e.g. McKinley and Scherer 2000).

Restructuring is also referred to as downsizing, which may boost organizational efficiency and effectiveness (e.g. Smallwood and Jackson, 1987; Bailey and Szerdy, 1988; Freeman and Cameron, 1993; Bartol, Martin, Tein, and Matthews, 2001). It is suggested that the environment shift, technology changes, organizations grow and leadership changes are the reasons that lead to restructuring (e.g. Miller and Friesen 1984, cited in Bolman and Deal, 1997, p.73). There is a deemed that the adoption of advanced manufacturing technology and new human-resource management practices favors organizational change (e.g. Massimo and Delmastro 2002).

According to previous research studies, 70 - 80% of acquisitions fail, meaning that they create no wealth for the share owners of the acquiring company (e.g. Selden and Colvin 2003).

Now, since 21st century is considered as the service industry century and Service industry is growing at a rapid pace across developed and developing countries, present research is based on the service quality of Indian airline. The objective of this study is to find out whether the corporate restructuring of Indian airlines has brought any improvement in their passenger service and on this purpose to have an overview of their current position amongst other airlines operating in India. (Figure-1, annexure).

Methodology

A descriptive research has been conducted with the help of personal interview and close ended questionnaire (for the passengers) on the basis of 11 passenger service quality parameters ease of ticketing, punctuality, arrival and departure assistance, handling delays/ cancellations, luggage handling, seat comfort, cleanliness, catering service, overall safety, customer complaint handling and attitude and behaviour of the staff.

For this study data has been collected from the passengers travelling to and from Kolkata, Delhi and Bangalore airport. After collecting data from 106 respondents through questionnaire survey, Factor analysis has been used with the help of SPSS software to analyze the data and to identify the most fragile areas related to passengers service quality in pre and post restructuring and compare it with the significant areas of private airlines operating in India.

Then to cross check the impact of the merger second round interview from different customer segments has taken place to analyse their views regarding passenger service quality in Indian airlines after its corporate restructuring as compared to private airlines operating in India. For this purpose Chi- Square Test have been used with the help of Statistics Calculator.

Component 2 has high coefficient .833 for variable *Arrival & Departure Assistance*

Component 3 has high coefficients .673 and .840 for variables *Customer Complaint Handling and Attitude and Behaviour of the Staff*

Component 4 has high coefficient .773 for variable *Punctuality*
Component 5 has high coefficient .914 for variable *Luggage Handling*
Component 1 is labeled as *Reliability*
Component 2 is labeled as *Staff Assistance*
Component 3 is labeled as *Responsiveness*
Component 4 is labeled as *Punctuality*
Component 5 is labeled as *Luggage Handling*

As Component 1 is treated as principal component, so, in this case, *Reliability* should be the most important factor or it can be termed as the major problem areas of Indian Railways at present followed by the *Staff Assistance*, *Responsiveness*, *Punctuality* and *Luggage Handling* according to the passengers.

Factor Analysis- After Merger

Factor Identification:

Determination based on Eigenvalues

In this approach, only those factors with eigenvalues greater than 1 are considered. Other factors are not included in this model.

Here, from the SCREE PLOT and the table TOTAL VARIANCE EXPLAINED, 6 factors can be identified whose eigenvalues are more than 1.

Determination based on Percentage of Variance

The number of factors extracted can also be determined in a way so that the cumulative percentage of variance extracted by the factors reaches a satisfactory level.

Here according to the analysis, the cumulative percentage of variance extracted by the 6 factors is 69.101 % (from the table TOTAL VARIANCE EXPLAINED), which is quite satisfactory.

Factor Interpretation

Factor interpretation is facilitated by identifying the variables that have large loading on the same factor. That factor can be interpreted in terms of variables that load high on it.

In the COMPONENT MATRIX,

Factor 1 has high coefficients for variables **Ease of Ticketing and Punctuality**

Factor 2 has high coefficients for variables **Luggage Handling**

Factor 3 has high coefficients for variables **Arrival & Departure Assistance & Attitude and Behaviour of the Staff**

Factor 4 has high coefficients for variables **Handling Delays and Cancellation & Customer Complaint Handling**

Factor 5 has high coefficients for variables **Seat Comfort & Safety**

Factor 6 has high coefficients for variables **Cleanliness**

Factor 1 can be labeled as **Availability**

Factor 2 can be labeled as **Luggage Handling**

Factor 3 can be labeled as **Staff Assistance**

Factor 4 can be labeled as **Responsiveness**

Factor 5 can be labeled as **Assurance**

Factor 6 can be labeled as **Cleanliness**

As factor 1 is treated as principal component, so, in this case, **Availability** should be the most important factor or it can be termed as the major problem areas of public airlines at present followed by the **Luggage Handling, Staff Assistance, Responsiveness, Assurance** and **Cleanliness** according to the passengers.

Factor Analysis - Private Airlines

Factor Identification

Determination based on eigenvalues:

In this approach, only those factors with eigenvalues greater than 1 are considered. Other factors are not included in this model.

Here, from the SCREE PLOT and the table TOTAL VARIANCE EXPLAINED, 5 factors can be identified whose eigenvalues are more than 1.

Determination based on percentage of variance:

The number of factors extracted can also be determined in a way so that the cumulative percentage of variance extracted by the factors reaches a satisfactory level.

Here according to the analysis, the cumulative percentage of variance extracted by the 5 factors is 63.493 % (from the table TOTAL VARIANCE EXPLAINED), which is quite satisfactory.

FACTOR INTERPRETATION

Factor interpretation is facilitated by identifying the variables that have large loading on the same factor. That factor can be interpreted in terms of variables that load high on it.

In the ROTATED COMPONENT MATRIX,

Factor 1 has high coefficients for variables *Customer Complaint Handling & Attitude and Behaviour*

Factor 2 has high coefficients for variables *Luggage Handling & Cleanliness*

Factor 3 has high coefficients for variables *Handling Delays and Cancellation & Safety*

Factor 4 has high coefficients for variables *Ease of Ticketing*

Factor 5 has high coefficients for variables *Catering Service*

Factor 1 can be labeled as *Sensitivity*

Factor 2 can be labeled as *Reliability*

Factor 3 can be labeled as *Responsiveness*

Factor 4 can be labeled as *Easy Ticketing*

Factor 5 can be labeled as *Catering Service*

As factor 1 is treated as principal component, or the most determining factor, in this case, Sensitivity is the most important factor related to private low cost airlines followed by Reliability, Responsiveness, Responsiveness, Easy Ticketing and Catering Service according to the passengers of low cost private airlines.

Chi-Square Test

H1: There is no difference of opinion between the category of respondents (male or female passengers) regarding the statement that even after its corporate restructuring the passenger service quality in ia is still not satisfactory as compared to private airlines operating in india

Type Of Respondent	Total Number	Yes	No
Male Passengers	52	40	12
Female Passengers	54	47	7

Using STASTICAL CALCULATOR, it is found that
Chi-square statistic =1.842
Degree of freedom =1
Probability of chance (p-value) =0.1747
Here p-value > α ($\alpha = 0.05$)

Therefore we accept the hypothesis

There is no difference of opinion between the categories of respondents (both male or female passengers agreed) regarding the statement that even after its corporate restructuring the passenger service quality in ia is still not satisfactory as compared to private airlines operating in India (Table 1 in annexure)

H2: There is no association between the perception of the young, middle aged and aged passengers regarding the statement that even after its corporate restructuring the passenger service quality in ia is still not satisfactory as compared to private airlines operating in india

Type Of Respondent	Total Number	Yes	No
Young Customers(<25)	46	41	5
Age Group 25-40	44	35	9
Age Group 40-60	36	16	20

Using STASTICAL CALCULATOR, it is found that
Chi-square statistic =21.930
Degree of freedom =1
Probability of chance (p-value) =0.0000
Here p-value < α ($\alpha = 0.05$)

Therefore we reject the hypothesis

The perception differs from the young and aged passengers regarding the statement that even after its corporate restructuring the passenger service quality in ia is still not satisfactory as compared to private airlines operating in India (shown in table 2 in annexure)

H3: There is no difference of opinion between the category of respondents (postgraduate, graduate or undergraduate passengers) regarding the statement that the passenger service quality in indian airlines has been improved after its merger

Using STASTICAL CALCULATOR, it is found that

Chi-square statistic	=4.141
Degree of freedom	=2
Probability of chance (p-value)	=0.1261
Here p-value > á	(á = 0.05)

Therefore we accept the hypothesis

There is no difference of opinion between the categories of respondents (Postgraduate, Graduate or Undergraduate Passengers, all disagreed) regarding the statement that even after its corporate restructuring the passenger service quality in ia is still not satisfactory as compared to private airlines operating in India (Table 3 in annexure)

H4: There is no difference of opinion among the economy and business class passengers regarding the statement that even after its corporate restructuring the passenger service quality in ia is still not satisfactory as compared to private airlines operating in india

Using STASTICAL CALCULATOR, it is found that

Chi-square statistic	=4.894
Degree of freedom	=1
Probability of chance (p-value)	=0.0270
Here p-value < á	(á = 0.05)

Therefore we reject the hypothesis

Type
Econom Postgra
Busines Graduat
Undergr Passeng

There is difference of opinion between the Economy class and Business class passengers regarding the statement that even after its corporate restructuring the passenger service quality in ia is still not satisfactory as compared to private airlines operating in India (Table 4 in annexure)

Findings and Conclusions

After analysing the pre-merger data on the basis of among the eleven problem areas, five major areas have been identified. As per *factor analysis*, Reliability of service in terms of safe and secure journey and in terms of providing healthy and hygienic food to their passengers is rated as the most fragile area in Indian Airlines before merger. In that very list the next feeble area is Staff Assistance at the airport before or after the arrival or the departure of the flight towards their passengers. Third and one of the major problems is the Responsiveness of the IA staff in general and specially in complaint handling. The next problem is the regularity and availability of the flight which needs to be taken care of by the management to improve the image of this age-old organisation. The least rated problem area is Luggage Handling, a small percentage of the passengers have rated this as a major problem.

Now the question comes to researchers mind whether there is any improvement after the merger, and whether it is at par with its private counter parts with respect to passenger service quality. As per factor analysis result, *Availability* is found as the most problematic area in public Airlines followed by *Luggage Handling, Staff Assistance, Responsiveness, Assurance and Cleanliness*. Again, while data collected from the passengers of private airlines to determine the most significant factors in private airlines, factor analysis is presenting Sensitivity as the most important factor to be considered followed by Reliability, Responsiveness, Responsiveness, Easy Ticketing and Catering Service.

The chi-square test shows that, irrespective of gender, age group, educational background and class there is no difference of opinion among the passengers regarding the statement that even after its corporate restructuring the passenger service quality in ia is still not satisfactory as compared to private airlines operating in India

Hence, this study reveals that this state owned public organisation is still suffering from the technical problem like *Availability* of flight i.e. punctuality of the flights and easy availability of tickets followed by some human factors such as *Luggage Handling, Staff Assistance, Responsiveness and Assurance*. It also needs to focus on the tangible aspects like *cleanliness* of the aircrafts. It has not yet achieved the desired state of performance to retain their existing position or to regain their previous status. So in such competitive market when all other players are trying to attract the passengers with lucrative offerings this age old airlines is still struggling mostly with some Behavioural and attitudinal problems and if it continues in near future their existence will be in stake. So it's the high time to make their people aware and make their service more passenger-oriented.

As per the observation of the researcher and some informal discussion with the IA staff in Kolkata, Delhi and Bangalore airport, its evident that after the merger most of the ground staff are not very happy with their employment related issues comparing to Airindia staff. These job dissatisfaction may lead to passenger dissatisfaction. For time constraint the researcher couldn't cover the employee satisfaction survey for the airlines staff. So in future, this study will be extended by building an empirical framework on the relationship between employee job satisfaction and passenger satisfaction

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Annexure

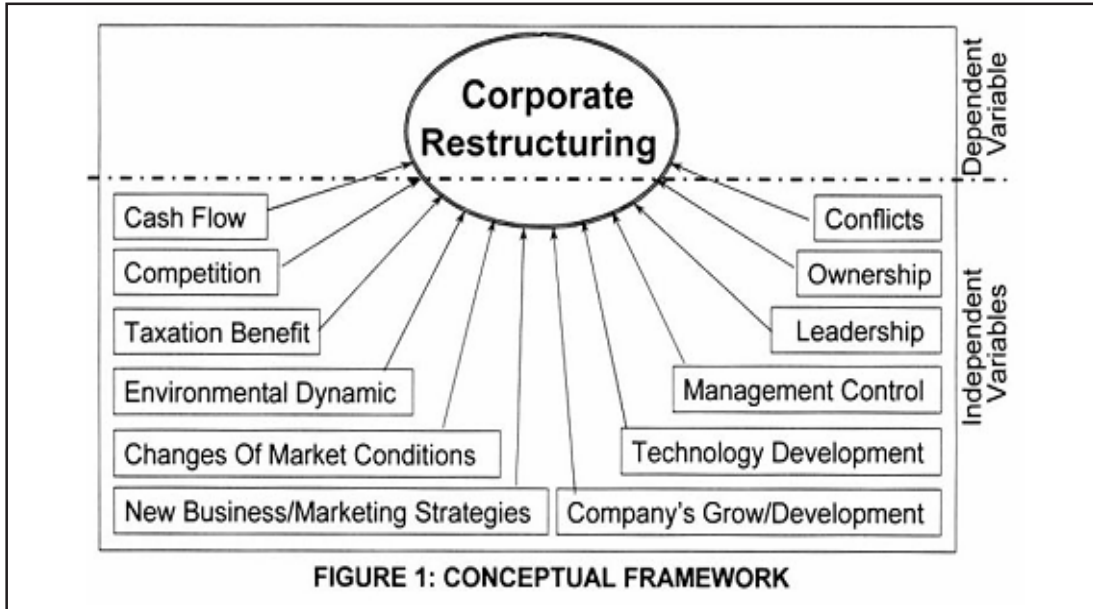


FIGURE 1: CONCEPTUAL FRAMEWORK

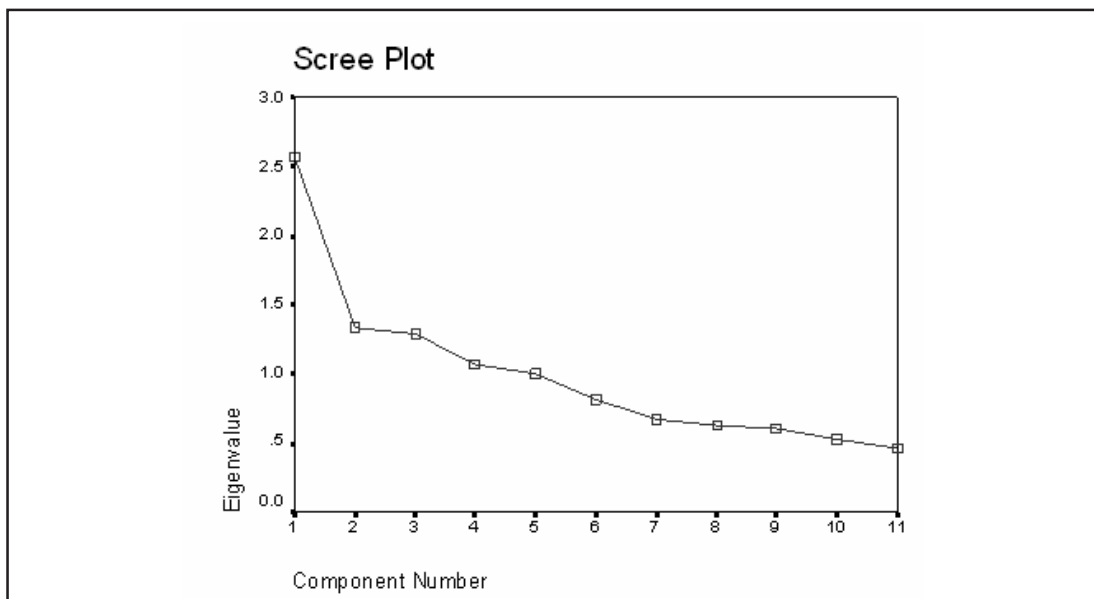
**FACTOR ANALYSIS OUTPUT:
(SERVICE QUALITY OF INDIAN AIRLINES-BEFORE MERGER)**

FACTOR ANALYSIS OUTPUT

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.571	23.375	23.375	2.571	23.375	23.375	1.858	16.893	16.893
2	1.337	12.150	35.526	1.337	12.150	35.526	1.598	14.531	31.424
3	1.292	11.750	47.275	1.292	11.750	47.275	1.439	13.083	44.507
4	1.066	9.693	56.968	1.066	9.693	56.968	1.222	11.108	55.615
5	1.008	9.159	66.127	1.008	9.159	66.127	1.156	10.513	66.127
6	.817	7.427	73.554						
7	.673	6.117	79.671						
8	.632	5.744	85.415						
9	.609	5.540	90.955						
10	.530	4.816	95.772						
11	.465	4.228	100.000						

Extraction Method: Principal Component Analysis.

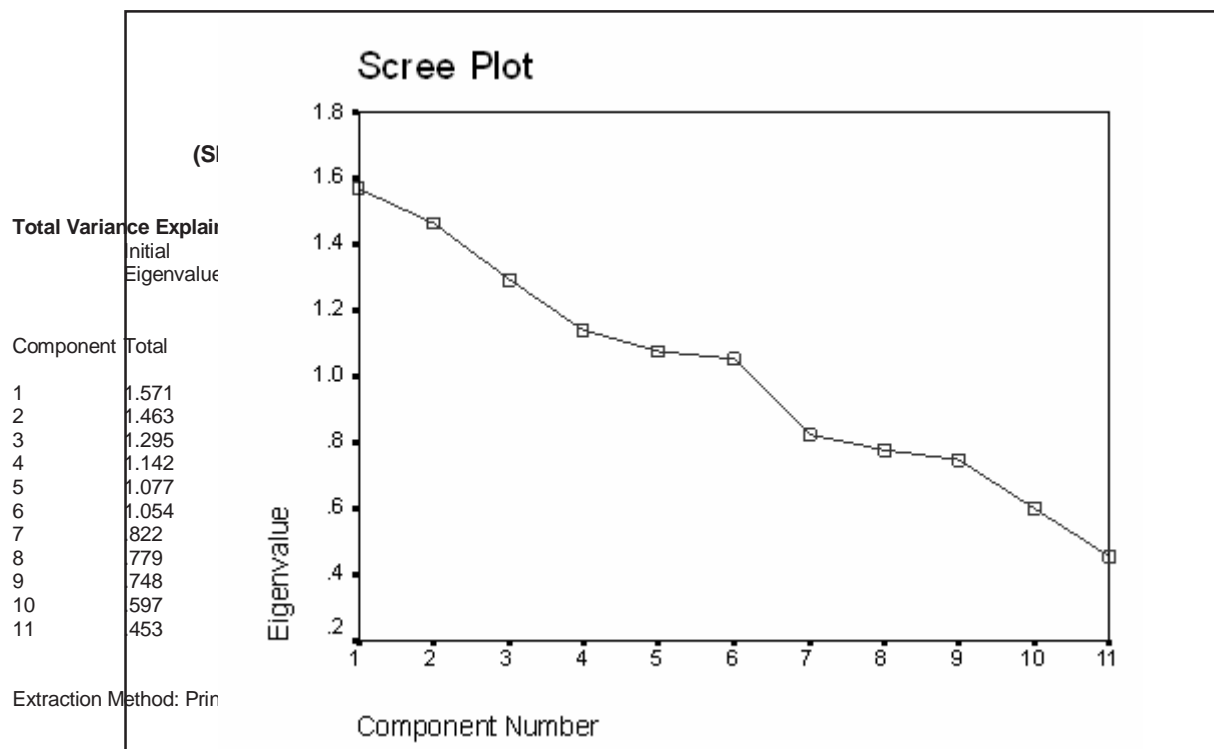


Rotated Component Matrix

	Component				
	1	2	3	4	5
EASE OF TICKETING	.386	-8.163E-02	-1.438E-02	.750	-1.490E-02
PUNCTUALITY	-.307	.155	.109	.773	.106
ARRIVAL AND DEPARTURE ASSISTANCE	-1.910E-02	.833	-4.234E-02	-4.409E-02	2.055E-02
HANDLING DELAYS/ CANCELLATIONS	.174	.767	8.791E-02	.108	-5.915E-02
LUGGAGE HANDLING	1.621E-02	-3.982E-02	-9.431E-04	6.423E-02	.914
SEAT COMFORT	.594	-5.930E-02	.102	.131	.207
CLEANLINESS	.383	.361	.419	3.360E-02	.295
CATERING SERVICE	.770	8.852E-02	-6.677E-03	-5.847E-02	-.197
OVERALL SAFETY	.669	.278	.272	-6.045E-02	6.941E-02
CUSTOMER COMPLAINT HANDLING	.208	.194	.673	-3.758E-02	.263
ATTITUDE AND BEHAVIOUR OF THE STAFF	2.011E-02	-.163	.840	.131	-.251

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

a Rotation converged in 7 iterations.



Rotated Component Matrix

	Component					
	1	2	3	4	5	6
EASE OF TICKETING	.468	.316	-.241	4.736E-02	-8.796E-02	-.499
PUNCTUALITY	.837	4.528E-03	9.382E-02	9.267E-02	.209	1.447E-02
ARV & DEP ASST	.276	.385	.498	.327	-.301	3.408E-02
HANDLING DELAYS AND CANCELLATION	4.823E-02	.194	-.112	.715	-7.574E-02	.179
LUGGAGE HANDLING	4.515E-02	.816	-5.949E-03	-4.246E-02	-6.737E-02	8.327E-03
SEAT COMFORT	-.438	.479	-2.151E-02	.312	.512	-.193
CLEANLINESS	6.095E-02	6.670E-02	-.142	5.754E-02	2.516E-02	.852
CATERING SERVICE	.311	.113	-.719	2.649E-02	-7.927E-02	.139
SAFETY	.241	-.125	.107	-9.989E-02	.832	9.636E-02
CUSTOMER COMPLAINTS AND HANDLING	3.484E-02	-.404	1.067E-02	.682	3.659E-02	-.179
ATTITUDE AND BEHAVIOUR OF THE STAFF	AND.250	3.198E-02	.694	-.133	8.058E-02	8.622E-03

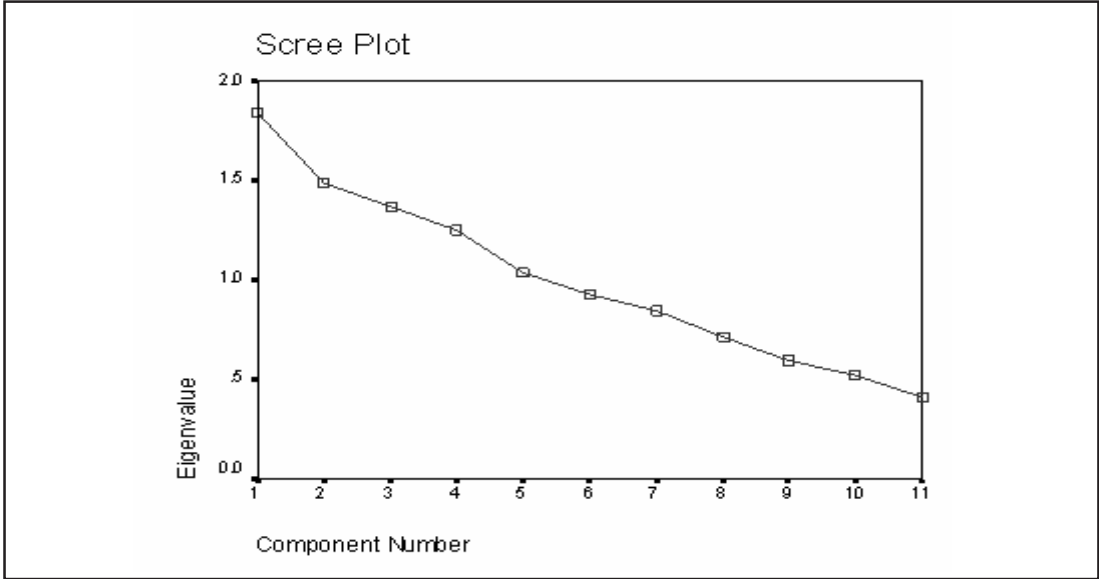
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. A Rotation converged in 12 iterations.

Factor Analysis Output – Service Quality of Private Airlines

Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.841	16.736	16.736	1.841	16.736	16.736	1.652	15.021	15.021
2	1.489	13.534	30.270	1.489	13.534	30.270	1.458	13.255	28.276
3	1.367	12.432	42.702	1.367	12.432	42.702	1.355	12.319	40.595
4	1.249	11.355	54.057	1.249	11.355	54.057	1.316	11.961	52.556
5	1.038	9.436	63.493	1.038	9.436	63.493	1.203	10.937	63.493
6	.926	8.415	71.908						
7	.843	7.661	79.569						
8	.714	6.495	86.064						
9	.593	5.393	91.457						
10	.525	4.771	96.228						
11	.415	3.772	100.000						

Extraction Method: Principal Component Analysis.



Rotated Component Matrix

	Component				
	1	2	3	4	5
Ease of ticketing	9.713E-02	2.534E-02	3.409E-02	.764	-2.868E-02
Punctuality	.549	-1.780E-02	8.195E-02	-.606	6.927E-02
Arv & dep asst	.171	.171	.311	.325	-.599
Handling delays and cancellation	-.151	8.810E-02	.829	-5.746E-02	-1.550E-02
Luggage handling	.109	.681	5.545E-02	.335	.160
Seat comfort	1.579E-02	-.723	.262	8.504E-02	.163
Cleanliness	1.151E-02	.538	.345	-7.637E-02	-1.108E-03
Catering service	5.769E-03	6.651E-02	.123	7.444E-02	.880
Safety	.440	-.233	.593	.181	2.406E-02
Customer complaint handling	.765	-.102	-7.492E-02	.248	-.103
Attitude and behaviour of the staff	.706	.275	1.544E-02	-.176	-2.906E-02

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. A Rotation converged in 6 iterations.

Even After Its Corporate Restructuring The Passenger Service Quality In Ia Is Still Not Satisfactory As Compared To Private Airlines Operating In India (Table 1 to Table4)

Table 1

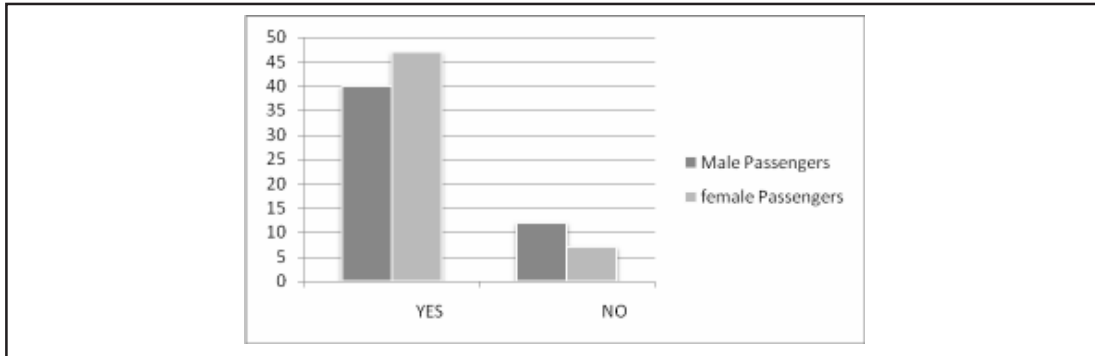


Table 2

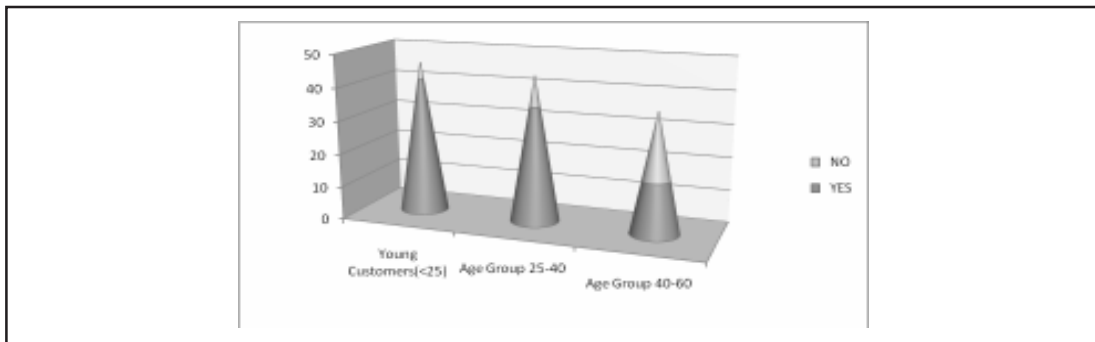


Table 3

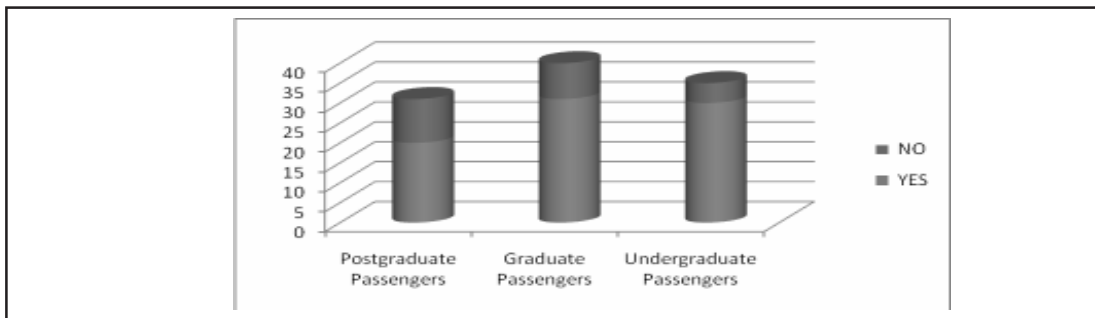


Table 4

