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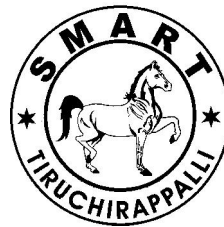
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PROMINENT FACTORS OF CUSTOMER SATISFACTION ON DOMESTIC AIRLINE CARRIERS IN INDIA

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Abstract

Aviation Sector in India is one of the fast growing Sectors in the world but studies towards customer satisfaction in airlines industry are rare. At this juncture, this paper has made an attempt to find out the factors behind the customer satisfaction in this industry, with special reference to domestic airlines in India. For this purpose, the Researcher framed twenty factors which could influence their satisfaction and attempted to find out most influencing factors for customer satisfaction. 500 respondents were selected to give their satisfaction level on the services provided by the domestic airline carriers in India. After the study, it was found that six factors were most influencing towards customer satisfaction towards the services of domestic airlines in India.

Key Words: *Customer Satisfaction, Domestic Airline Carriers, Factor Analysis.*

1. INTRODUCTION

In today's competitive market scenario, organizations increasingly understand the importance of building and effectively managing the relationship with its passengers. In the present customer-driven economy, all firms are engaged in a rat race to attract customers and build a long term relationship with their loyal customers. The key to customer loyalty is customer satisfaction. Customer expectations and services still maintain a long gap between them. Customer expectations are very high in airlines industry. They expect low ticket fare, airline service quality, punctual departure, good baggage handling, customer relationship and many more.

For building and maintaining a healthy relationship with the passengers, an organization needs to understand and meet the expectations of its passengers. Hence the present study was undertaken to find the passengers' perception

towards various airlines in India, for which 500 passengers were taken as respondents. Both private and public airlines were taken into consideration from which the Researcher made an attempt to measure overall satisfaction level of passengers and to suggest some adequate measures to improve passenger services. This study may help airlines to retain their existing clients as well as attract new passengers.

From the study it was found that six important factors decided their satisfaction and relevant information was provided by call centre, cabin crew appearance and attentiveness, in-flight services given by airlines, lounge facilities, variety of beverages served in the flight and their booking experience.

2. REVIEW OF LITERATURE

The Researcher collected some literature related to Customer Satisfaction on airlines services.

Gour C.Saha and Theingi in their article, **“A Study of Low-Cost Airline Carriers in Thailand”** (2009), examined the relationship among the constructs of service quality, satisfaction and behavioural intentions in passengers of three low-cost carriers in Thailand. Large samples of 1,212 passengers, who were travelling in LCCs in Thailand in 12 months, were surveyed. The study finds that the order of importance of the dimensions of service quality tested were flight schedule, flight attendants, tangibles, and ground staff. Passengers’ satisfaction with these above service quality dimensions was found to be very important in behavioural intentions of passengers.

Neeraj Kausik, V K Kausik and Girish Taneja have published an article, **“An Analytical Study of Customers’ Preference and Satisfaction in Indian Domestic Aviation Sector”** (2008), which investigated air passengers’ satisfaction in Indian domestic aviation sector. This study was an attempt to ponder over customers’ preference and satisfaction regarding various issues. Chi-square analysis revealed that customers differed significantly on the basis of factors they considered for choosing airlines as well as the choices for purchasing the ticket. Multidimensional scaling was used for perceptual mapping of various components of marketing mix.

John F. O’Connell and George Williams, in their article entitled, **“Transformation of India’s Domestic Airlines: A case study of Indian Airlines, Jet Airways, Air Sahara and Air Deccan”** (2006), reviewed how the new regulatory roadmap had transformed the supply of domestic air services. A large passenger survey, conducted in Mumbai, investigated the sensitivity of passengers to a change in fare and which flight products would encourage them to select either a full service airline or a low cost carrier. The study found that there was a

homogeneous set of flight products required by leisure passengers, travelling on both full service and low cost airlines. However, there was a considerable dissimilarity overall between the requirements of passengers using a full service airline and a low cost carrier.

R.Sarkar and Rajat K.Baisya, Department of Management Studies, IIT, Delhi, made a study on, **“Some Aspects of Market Dynamics and Customer Satisfaction in the Indian Domestic Airlines Sector”** (2005), in which they found the domestic airlines industry going through an interesting phase and the article examined two main areas that was changing market dynamics over the last few years and various causal factors involved in the industry.

Objectives of the Study: This research study was undertaken with the aim of identifying prominent factors which influenced the customer satisfaction among the various services provided by domestic airlines in India.

3. RESEARCH DESIGN AND METHODS

a. Study Area

The sample of the study comprised of passengers who fly from Coimbatore airport to other parts of the country.

b. Sampling Procedure and Size

Data were collected from 500 passengers inside the airport using a questionnaire. Judgemental Sampling was used to select the sample.

c. Period of the study

The total period of the study covered four years from 2008 to 2012.

d. Data Collection Tools

A questionnaire was constructed for the purpose of collecting data. Based on the outcome of the pilot study, suitable modifications were made in the questionnaire. The Researcher obtained special permission from the Airport Director (Coimbatore) to collect responses from passengers inside the airport.

e. Tools used

Raw data were collected and tabulated. Factor Analysis was used to arrive at the results.

4. PROFILE OF RESPONDENTS

Age: 46.8% belonged to the age group of 26-35 years, 20.6% belonged to the age group of 36-45 years, 16.8% belonged to the age group of 45 and above years and 15.8% belonged to the age group of 25 years and below. **Gender:** 79.2% were Males and 20.8% were Females. **Education:** 38.4% were Post Graduates, 30.6% were Graduates, 24% were Professionals, and 7% had attained school level education. **Occupation:** 51.8% were private employees, 22.2% were businessmen, 12.8% were professionals and 6.6% were government employees and others. **Family Size:** 45.6% belonged to a family size of 1-3, 42.8% to a family size of 4-6, 9.6% respondents belonged to a family size of 7-9 and 2% respondents belonged to a family size of more than 9. **Annual Income:** 34.4% were in the income group of Rs. 4-6 lakhs, 19.6% in the income group of Rs.6-8 lakhs, 18.2% in the income group of > Rs.10 lakhs, 17.4% respondents in the income group of Rs.2-4 lakhs, 7.6% respondents in the income group of Rs. 8-10 lakhs and 2.8% respondents were placed in the income group of <Rs.2 lakhs. **Family Type:** 68.4% were in nuclear Family and 31.6% were in joint family.

5. ANALYSIS AND INTERPRETATION

To get an idea of prominent factors for customer satisfaction against domestic airlines, 20 pre-decided statements, as shown in **Table-1**, were subjected to factor analysis.

The following techniques were also used for data analysis, as displayed in **Table-2**.

- 1) Kaiser-Meyer-Olvin Measure of Sampling Adequacy: Kaiser-Meyer-Olvin measure of sampling adequacy focuses on the diagonal elements of partial correlation matrix. The KMO value was found to be .689 which is sufficiently high for factor analysis.

- 2) Bartlett's Test of Sphericity: Bartlett's Test of Sphericity was used to test whether the data were statistically significant or not. With the value of test statistic and the associated significance level, high relationship among variables was established.

A Scree Plot (**Figure-1**) is a plot of the eigen values against a number of factors in order of extraction. Six factors came out from the 20 variables of scree plot, whose eigen value was greater than 1.

a) Principal Component Analysis: Unrotated Factor Matrix

Principal Component Analysis was performed to extract the factors with unrotated factor matrix, as explained in **Table-3**. It is understood from the Table that .671 was the factor loading and it indicated correlation between statement no.1 and factor no.6. Similarly .408, .236, -.205, .25 and .182 were the values of correlation between statement no.1 and other remaining factors i.e., factor 1 to factor 5. Commonalities were also determined using sum of square of factor loading of the statement no.1 i.e., $(.408 \times .408) + (.236 \times .236) + (-.205 \times -.205) + (.025 \times .025) + (.182 \times .182) + (.671 \times .671) = .748$. Same procedure was applied to get the commonalities for statement 2 to 20. From Table no.3, statement no.4,5 and 9 were found to be highly correlated for factor 1. Similarly, statement 2 and 3 were highly correlated for factor 2 and statement 16 and 18 were highly correlated for factor 3 and statement 7 and 8 highly correlated for factor 4, and statement 19 and 20 highly correlated for factor 5.

b) Principal Component Analysis : Varimax Rotation Matrix

Principal Component Analysis with Varimax was applied. It is clear from **Table-4**. Matrix that the factor loading was different from unrotated matrix but the commonalities were the same. In this case, statements 2, 3, 4 and 5 recorded high positive correlations for factor 1.

It means that statements 2, 3, 4 and 5 can be clubbed into a new factor. Similarly, statement 10,11 and 12 were highly correlated for factor 2, statement 15,16 and 17 highly correlated for factor 3, statement 7 and 8 highly correlated for factor 4, statement 18,19 and 20 highly correlated for factor 5 and statement? was highly correlated for factor 6, which can be clubbed into new factors.

c) Explanation of Variance

Table-5 shows that the selected six factors were extracted from twenty statements, with cumulative percentages up to 70.306 % of the total variance.

d) Rotated Component Matrix

From the rotated component matrix, six factors were extracted as shown in **Table-6**.

e) Naming of Factors

After finding factors, in which all variables recorded a significant loading on a factor, the Researcher in **Table-7** attempted to assign some meaning to the pattern of factor loadings. Variables with higher loadings were considered more important and enjoyed greater influence on the name or label selected to represent the new factor. The names were not derived from factor analysis computer program. Rather it was developed by the analyst himself, based on its appropriateness for representing the dimension of particular factor. All six factors were appropriate names on the basis of the variables represented in each case.

i) Factor-1; Call Centre Consciousness: This factor was the most important factor which explained 23.866% of the variation. Statements like “Level of Information Provided” (.852), “Ease of Booking Online” (.813) “Knowledge level of Call Centre Staff” (.834) “Service Attitude, Friendliness, on the call centre staff” (.853), reflected satisfaction level of customers using call centre and hence the Researcher

named this segmentation as *Call Centre Consciousness of Customers*.

ii) Factor -2: Cabin Crew Consciousness: The second kind of factor explained 13.382% of the variance. In this segment, the Researcher took the three important variables such as “Appearance and Grooming of Cabin Crew” (.777), “Level of Crew Attentiveness & Responsiveness” (.904), “Warmth and Friendliness of the Crew” (.835), which reflected customers interest towards crew. Hence the Researcher named these variables as *Cabin Crew Consciousness*.

iii) Factor-3: In-flight Services Consciousness: This factor explained 10.983% of the variation. “Selection of newspapers & Magazines” (.858), “Selection of Inflight Music & Movies” (.840), “Selection of Duty Free Products” (.787) reflected in-flight consciousness on the part of customers. Hence the Researcher named this segment as *In-flight Services Consciousness of Customers*.

iv) Factor-4: Lounge Consciousness: “Quality and ambience of lounge” (.862) and “Quality and variety of the food in lounge” (.854) explained 9.482% of the variations. These statements reflected Lounge Consciousness on the part of customers. Hence the Researcher named this segment as *Lounge Consciousness of Customers*.

v) Factor -5: Beverages Consciousness: Variety of chocolates offered (.653) and Wines and spirits (.787), explained 7.194% of the variations. These statements reflected Beverages consciousness on the part of customers. Hence the Researcher named this segment as *Beverages Consciousness of Customers*.

vi) Factor -6: Booking Consciousness: “Over all booking experience” (.831) explained 7.194% of the variations. As this statement reflected Booking Consciousness of customers,

the Researcher names this as *Booking Consciousness*.

6. FINDINGS

The present study divided customers in domestic airlines into six categories. The respondents observed that information provided by call centre was the most important factor for customer satisfaction and the second highest factor was cabin crew. These customers recorded that the appearance and attentiveness of crew members were important for them. The third category of customers named in-flight services and observed that the products displayed inside the flight were important for them. The fourth category of customers recorded that the services in the airport lounge were important for them. The fifth category of respondents felt that the deciding factor for their satisfaction was the variety of beverages provided in the flight. The sixth category of customers named booking as the deciding criteria for their satisfaction.

7. SUGGESTIONS

The airlines companies should concentrate more on the six factors of Call Centre Facilities, Cabin Crew, In-flight Services, Lounge Facilities, Beverages Served in Flight, Booking Experience and try to give their best service in these areas so that customers are satisfied.

8. CONCLUSION

Studies on Customer Satisfaction in Airline Sector are rare. In this study, the Researcher tried to find out the prominent factors which influenced their satisfaction on the services provided by domestic airlines carriers in India. Out of twenty factors, six factors were found to be influencing factors. In service industry, the capacity for providing quality services is very important. Only if they provide the services where the customers' needs are satisfied, they can survive in the face of growing competition.

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Table-1
Statements on Domestic Airlines Services

Code	Statements
1	Manual booking experience
2	Level of information provided in call centre
3	Ease of booking online
4	Knowledge level of call centre staff
5	Service attitude, friendliness, on the call centre staff
6	Staff helpfulness at baggage screening
7	Quality and ambience of lounge
8	Quality and variety of the food in lounge
9	Ability of the staff to answer in case of delay
10	appearance and grooming of cabin crew
11	Level of crew attentiveness & responsiveness
12	Warmth and friendliness of the crew
13	Cleanliness of the interior of aircraft
14	Cleanliness of washrooms
15	Selection newspapers & magazines
16	Selection of in-flight music & movies
17	Selection of duty free products
18	Variety of chocolates offered
19	Wines and spirits
20	Non-alcoholic beverages

Source: Primary data

Table-2
KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.689
Bartlett's Test of Sphericity	5.379E3
Approx. Chi-Square	190
Degree of freedom	.000
Sig	

Source: Primary data.

Table-3 : Principal Component Analysis / Unrotated Factor Matrix

Statements	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Communalities
1	.408	.236	-.205	.025	.182	.671	.748
2	.399	.777	-.086	.097	-.116	-.006	.793
3	.352	.818	-.116	.069	-.048	.117	.828
4	.671	.464	.091	.177	-.181	-.315	.837
5	.643	.503	.112	.186	-.169	-.322	.846
6	.460	-.205	-.356	.357	.070	.159	.537
7	.372	-.348	.004	.672	.125	-.159	.753
8	.358	-.314	.178	.654	.275	-.073	.767
9	.627	-.197	-.056	.250	.070	.181	.535
10	.537	-.054	-.332	-.440	.220	-.121	.658
11	.491	-.195	-.515	-.390	.230	-.272	.823
12	.597	-.227	-.314	-.399	.103	-.271	.750
13	.576	-.137	-.344	-.047	-.054	.184	.508
14	.616	-.321	-.090	-.016	.005	.178	.523
15	.574	-.229	.399	-.127	-.457	.089	.774
16	.531	-.292	.424	-.217	-.360	.108	.735
17	.452	-.263	.431	-.261	-.327	.101	.645
18	.261	-.162	.593	-.021	.368	-.188	.618
19	.220	.304	.485	-.287	.466	.175	.706
20	.243	.197	.488	-.157	.561	.024	.676

Source: Primary Data

Table-4 : Principal Component Analysis/ Varimax Rotation Matrix

Statements	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Communalities
1	.180	.096	.010	.058	.116	.831	.748
2	.852	.008	-.068	-.096	.036	.228	.793
3	.813	-.017	-.132	-.152	.073	.348	.828
4	.834	.167	.228	.222	.074	-.079	.837
5	.853	.134	.202	.206	.095	-.091	.846
6	.068	.264	.013	.544	-.203	.355	.537
7	.036	.016	.044	.862	-.051	-.062	.753
8	-.003	-.070	.046	.854	.174	-.012	.767
9	.124	.240	.271	.524	.039	.335	.535
10	.107	.777	.074	-.043	.122	.140	.658
11	.019	.904	-.034	.052	-.030	.025	.823
12	.068	.835	.204	.072	.021	-.023	.750
13	.120	.466	.223	.217	-.165	.389	.508
14	-.015	.397	.390	.346	.007	.305	.523
15	.140	.068	.858	.113	.019	.027	.774
16	.026	.109	.840	.070	.105	.026	.735
17	-.002	.090	.787	-8.993E-5	.134	.005	.645
18	-.051	.022	.247	.263	.653	-.240	.618
19	.140	-.001	.081	-.165	.787	.181	.706
20	.107	.038	.021	.028	.812	.050	.676

Source: Primary data

Table-5 : Total variance Explained (Rotation)

Factors	Extraction sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	%of Variance	Cumulative %
1	4.773	23.866	23.866	2.949	14.747	14.747
2	2.676	13.382	37.248	2.709	13.547	28.294
3	2.197	10.983	48.231	2.572	12.860	41.154
4	1.896	9.482	57.713	2.461	12.305	53.459
5	1.439	7.194	64.907	1.890	9.450	62.909
6	1.080	5.399	70.306	1.479	7.397	70.306

Source: Primary data

Table - 6 : Rotated Component Matrix^a

	Components					
	1	2	3	4	5	6
Manual booking experience	.180	.096	.010	.058	.116	.831
Level of information provided	.852	.008	-.068	-.096	.036	.228
Ease of booking on-line	.813	-.017	-.132	-.152	.073	.348
Knowledge level of call centre staff	.834	.167	.228	.222	.074	-.079
Service attitude, friendliness, on the call centre staff	.853	.134	.202	.206	.095	-.091
Staff helpfulness at baggage screening	.068	.264	.013	.544	-.203	.355
Quality and ambience of lounge	.036	.016	.044	.862	-.051	-.062
Quality and variety of the food in lounge	-.003	-.070	.046	.854	.174	-.012
Ability of the staff to answer in case of delay	.124	.240	.271	.524	.039	.335
Appearance and grooming of cabin crew	.107	.777	.074	-.043	.122	.140
Level of crew attentiveness & responsiveness	.019	.904	-.034	.052	-.030	.025
Warmth and friendliness of the crew	.068	.835	.204	.072	.021	-.023
Cleanliness of the interior of aircraft	.120	.466	.223	.217	-.165	.389
Cleanliness of washrooms	-.015	.397	.390	.346	.007	.305
Selection of newspapers & magazines	.140	.068	.858	.113	.019	.027
Selection of in-flight music & movies	.026	.109	.840	.070	.105	.026
Selection of duty free products	-.002	.090	.787	-8.993E-5	.134	.005
Satisfied with variety of chocolates offered	-.051	.022	.247	.263	.653	-.240
Wines and spirits	.140	-.001	.081	-.165	.787	.181
Non-alcoholic beverages	.107	.038	.021	.028	.812	.050

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Table-7: Naming of the Factors

Factor Number	Name of factor	Label	Statement	Factor loading
Factor -1	Call centre consciousness	2	Level of information provided	.852
		3	Ease of booking online	.813
		4	Knowledge level of call centre staff	.834
		5	Service attitude, friendliness, on the call centre staff	.853
Factor -2	Cabin crew consciousness	10	Appearance and grooming of cabin crew	.777
		11	Level of crew attentiveness & responsiveness	.904
		12	Warmth and friendliness of the crew	.835
Factor -3	Services provided in-flight consciousness	15	Selection of newspapers & magazines	.858
		16	Selection of in-flight music & movies	.840
		17	Selection of duty free products	.787
Factor -4	Lounge consciousness	7	Quality and ambience of lounge	.862
		8	Quality and variety of the food in lounge	.854
Factor -5	Beverages consciousness	18	Variety of chocolates offered	.653
		19	Wines and spirits	.787
		20	Non-alcoholic beverages	.812
Factor -6	Booking consciousness	1	Over all booking experience	.831

Source: Primary data

Figure- 1: Scree Plot

