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Impact of No-frill Airlines on Tourism Development in Eastern India: An Empirical Study using Correlation Analysis

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Abstract:
Air transport is part of a broader travel and tourism sector, which is widely recognized as the world's largest industry. The price of air transport has a direct influence on the cost of tourism products and indeed on the consumer's choice of destination. The purpose of the article is to present and analyze the impact of no-frills airlines sector on the tourist market and especially its contribution to increase the tourists, impact on hotel rooms and tourism organizations in eastern India. To investigate the impact of no-frill airlines on tourism development, correlation analysis is carried out with uses of SPSS version 16.0. The correlation analysis is done on the basis of secondary data sources. Data inputs have been collected for the four financial years (2008 to 2011) from the Ministry of Tourism and Airport Authority of India.
From the result shows that, the no-frill airlines (LCCs) having great influence on tourism development in eastern India as the tourists, hotel rooms and tourism organizations are the key elements of tourism industry as well as tourism development and no-frill airlines (LCCs) have positive impacts on them.

Keywords: *No-frill Airlines, Tourism development, Tourists, Correlation Analysis, Eastern India*

1. Introduction

The air transport sector is a key part of the tourism industry as well as of the world economy. The cost of air transport has a direct influence on the cost of tourism products and indeed on the consumer's choice of destination. The steady reduction in the price of air travel is making this a more competitive form of transport for tourists. This reduction of prices and hereby air fares is partly derived from improved technology (aircraft have become larger, faster and are able to carry more passengers) and partly linked to the fact that airlines upgraded their fleets and made second-hand aircraft available (at low cost and in good condition) to other airlines (*Pender, 2001*).

Air transport has played an important role in tourism development, and this topic has received broad support in the literature. In the previous years, the air transport has experienced a rapid growth in the number of operating companies, and particularly in no-frill airlines (LCCs). The fast development of LCCs has been related to three factors, as signaled by *Dobruszkes (2006).* First, the demand for air transport is connected with economic cycles and significant fixed costs linked to aero planes ownership; second, the price of air transport as a limiting factor for a large portion of the population; and third, airline liberalizations allow free creation of new services and encourage the establishment of new airlines. The combination of low-cost airlines and low-cost airports has been significant in terms of increasing gains to the passengers that can be summarized as facing lower air fares, using smaller airports with shorter waiting times for baggage, shorter walking times at airports etc. (*Barrett, 2006).*

LCCs initially emerged as one of the consequences of the liberalization process in air transportation that began in the U.S.A. during the 1970s. The emergence of the first major low-cost airline, Southwest Airline strongly affected the U.S.A. market, where LCCs now account for roughly 25% of U.S.A. domestic flights. The low-cost model has spread to Europe with a rapid growth in LCCs since 1995 with Ryanair, EasyJet and Air Berlin now having significant market shares of European traffic. In Asia, AirAsia was initially launched in 1996 as a full-service regional airline offering slightly cheaper fares than its main competitor Malaysia Airlines. Before 2001, AirAsia fail to either sufficiently stimulate the market or attract enough passengers from Malaysia Airlines to establish its own niche market. In 2001, Asia's most popular no-frill airlines AirAsia was re-launched in Malaysia as a trendy, no-frills operation with three B737 aircraft as a low-fare, low-cost domestic airline. Presently, AirAsia is operating in international routes and also well connected with India. In India, Air Deccan began services in August, 2003. The entry of Air Deccan changed the entire canvas on which the aviation sector was defined. Air Deccan gave India its first Low Cost Carrier (LCC) or no frill airline. In aviation industry of India, no-frill airlines (LCCs) market share is increasing and full service carriers (FSCs) market share is decreasing.

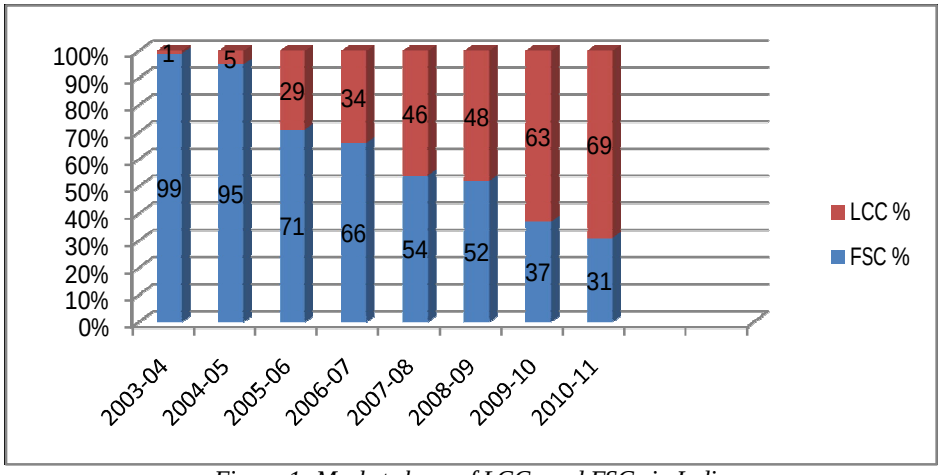

Figure 1: Market share of LCCs and FSCs in India
Source: Directorate General of Civil Aviation

In eastern India growth of domestic air travel over the period of 2008 to 2011 (54,45,690 numbers of passengers movements to 100,73,216 number of passengers movements) is a result of the increasing of popularity LCCs services and parallel decline in full service airlines. Economical air fares encouraged passengers to switch to LCCs and every year number is increasing. As air transportation has played an important role in tourism development and here in eastern India, number of passengers of LCCs is increasing rapidly, then there is high prospect of develop tourism through operating no-frill airlines (LCCs).

2. Objectives of the Research

Of late, a lot of literature can be found about no-frills airlines (LCCs) and their strategies to survive in the long run, but very few are available about their impact on tourism development. This study aims to combine the three fields, impact of no-frill airlines (LCCs) to increase the tourists, impacts of LCCs on tourism organizations and the impact of LCCs on hotel rooms. Therefore, the overall research objectives can be formulated as follows:

- The impact of no-frill airlines (LCCs) in increases the tourists in eastern India.
- The impact of no-frill airlines (LCCs) in hotel rooms in eastern India.
- The impact of no-frill airlines (LCCs) in tourism organizations in eastern India.

3. Literature Review

There has to be a good mix and balance between the basic 5 A's (accessibility, accommodation, activity, amenities and attraction) that are essential to a successful destination. That means; a destination has to cater in some shape or form to all these needs (*IATA* 5.10 edition). *Page (1999)* opined that, transport is an integral part of tourism. It facilitates the movement of holidaymakers, business travelers, the people visiting friends and relatives or undertaking educational and health tourism. Through transportation the essential link between tourism generating and tourism destination areas is provided. *Cooper et al. (2000),* debate on the impact of tourism on the regional development. Tourists spend their money on a wide variety of goods and services, such as accommodation, food and beverages, transport, communications, entertainment services, goods from retail outlets and travel services etc.

Hanlon (1999) examines the factors affecting passenger demand. The three fundamental factors are: income which is indicates economic growth, fares of the airlines tickets and frequency of services which is denotes number of flights and connectivity with this destination. Broad estimates of aggregate elasticity imply that demand is highly elastic with respects to income, rather less elastic with respect to fares and relatively inelastic with respect to service levels. According to the *IATA (2003a, p. 2)* aviation fosters economic development by providing and enhancing access to regional and global markets. It is a key driver of business, travel and tourism exports and it creates employment around the globe raises living standards and alleviates poverty.

Juan Muro et.al explain their paper about the impact of low-cost airlines and low-cost airports on fares and passenger numbers in air transport in Europe has been a significant growth in the last years. Given that the LCC has important repercussions for tourist trip decisions. Also their results show the importance of the LCC for tourist decisions. *Pender & Baum* (2000) agree that low cost airlines stimulate demand and create a new market. They concede though that the increase cannot be attributed entirely too low cost airlines. It is more likely that the airline acted as a trigger which coincided with the government's tourism policy push. *Sergio Gonçalves (2009)* enlightens his research on the impact of low-cost airlines on Madeira Islands, LCCs does in fact generate significant airport passenger growth, therefore increasing the number of tourists visiting the islands and spending nights at the hotels. *Graham and Dennis (2010)* also found that LCCs increased air traffic to Malta from a number of European origination points. The Maltese government encouraged new LCCs to provide services from major European cities to Malta by offering price incentives for LCCs. The reason for this initiative was that the government of Malta wanted to boost inbound tourists, particularly during the off-season and shoulder-seasons because tourism to the island had remained static for a number of years. The government, therefore, decided to stimulate new demand for the island's cultural and natural attractions and offered LCCs a 50% discount on passenger and landing charges during the winter schedule and a 30% discount during the summer schedule.

No-frill airlines generally operate short haul flights between one and two hours in length although in India there are some connection between city to city within a same state and also direct flight services between city to city in separate states. This enables LCCs to gain more operating cycles and achieve a higher number of flying hours per day than most full service airlines. Therefore, it enables no-frill airlines to carry more number of passengers every day.

4. Research Methodology

The purpose of the research is to investigate the impact of low cost airlines in tourists' enhancement and to analyze the impact on hotel rooms and also to tourism organizations in eastern India. The research is carried out on the use of correlation analysis with uses of SPSS version 16.0. The correlation analysis is done on the basis of secondary data sources. According to *Jennings (2001)* secondary data sources, especially those produced by governments and commercial research institutions, meet usually high research standards and therefore of a high quality.

The correlation r can be defined simply in terms of Zx and Zy, $r = \Sigma ZxZy / n$. This definition also has the advantage of being described in words as the average product of the standardized variables. No mention of variance or covariance is necessary for this.

Correlation is related to the perpendicular distance from the standardized points to the line of slope +1 or -1, depending on the sign of the correlation. In fact the root mean square of these perpendicular distances is $(1-|r|)^{1/2}$.

4.1. Variable Selections

The research is carried out on the basis of secondary data. Data inputs have been collected for the four financial years (2008 to 2011) from the Ministry of Tourism (annexure A), and Airport Authority of India (annexure 6.B). The selected variables for this study are: Number of passengers carried by no-frill airlines (LCCs), Number of tourists visited in eastern India, Hotel rooms, Travel agency & Tour operators (tourism organizations) in eastern India. As transport is an integral part of tourism and it facilitates the movement of tourists. So, these four variables will facilitate to examine the impact of no-frill airlines (LCCs) on tourism development in eastern India.

4.2. Hypothesis Formulation

Hypotheses are utilized to fulfill the objectives of the study. These hypotheses are expressed as follows:

- H_0: There is no impact of operating no-frill airlines on tourism development in eastern India.
- H_1: There is positive impact of operating no-frill airlines on tourism development in eastern India.

4.3. Standardization and the Correlation Coefficient

To overcome the problem of dependence on the measurement scale, we need to convert the covariance into a standard set of units. This process is known as **standardization**. A very basic form of standardization would be to insist that all experiments use the same units of measurement, say meters – that way; all results could be easily compared. Therefore, need a unit of measurement into which any scale of measurement can be converted. The unit of measurement use is the standard deviation. This measure is like the variance, it is a measure of the average deviation from the mean. The division of any distance from the mean by the standard deviation, it gives that distance in standard deviation units. So, it can be expressed the deviation from the mean for a participant in standard units by dividing the observed deviation by the standard deviation.

It follows from this logic that wants to express the covariance in a standard unit of measurement and can simply divide by the standard deviation. For example, there are two variables and, hence, two standard deviations. During the calculation of the covariance, actually calculate two deviations (one for each variable) and then multiply them. Therefore, do the same for the standard deviations: multiply them and divide by the product of this multiplication. The standardized covariance is known as a *correlation coefficient* and is defined by below equation in which *sx* is the standard deviation of the first variable and *sy* is the standard deviation of the second variable (all other letters are the same as in the equation defining covariance):

$$r = \frac{\text{covxy}}{\text{sxsy}} = \frac{\sum(\text{xi} - \text{x})(\text{yi} - \text{y})}{(N-1)\text{sxsy}}$$

The coefficient in equation is known as the Pearson product-moment correlation coefficient or Pearson correlation coefficient and was invented by Karl Pearson.

By standardizing the covariance ends up with a value that has to lie between −1 and +1 (if find a correlation coefficient less than −1 or more than +1, can be sure that something has gone hideously wrong). A coefficient of +1 indicates that the two variables are perfectly positively correlated, so as one variable increases, the other increases by a proportionate amount. Conversely, a coefficient of −1 indicates a perfect negative relationship: if one variable increases, the other decreases by a proportionate amount. A coefficient of zero indicates no linear relationship at all and so if one variable changes, the other stays the same.

4.4. The Significance of the Correlation Coefficient

Although it can directly interpret the size of a correlation coefficient, that scientists like to test hypotheses using probabilities. In the case of a correlation coefficient it can test the hypothesis that the correlation is different from zero (i.e. different from no relationship). If find the observed coefficient was very unlikely to happen if there was no effect in the population then it can gain confidence that the relationship that have observed is statistically meaningful.

There are two ways that can go about testing this hypothesis. The first is to use trusty *z*-scores and *z*-scores are useful because it knows the probability of a given value of *z* occurring, if the distribution from which it comes is normal. There is one problem with Pearson's *r*, which is that it is known to have a sampling distribution that is not normally distributed. It can adjust *r* so that its sampling distribution is normal as follows (*Fisher*, 1921):

$$zr = \frac{1}{2}\log_e\left(\frac{1+r}{1-r}\right)$$

The resulting *zr* has a standard error of:

$$SEzr = \frac{1}{\sqrt{N-3}}$$

To want a *z*-score that represents the size of the correlation relative to a particular value, then it simply compute a *z*-score using the value that want to test against and the standard error. Normally researchers want to see whether the correlation is different from 0, in which case it can subtract 0 from the observed value of *r* and divide by the standard error (in other words, just divide *zr* by its standard error):

$$z = \frac{Zr}{SEzr}$$

In fact, the hypothesis that the correlation coefficient is different from 0 is usually (SPSS, for example, does this) tested not using a *z*-score, but using a *t*-statistic with $n - 2$ degrees of freedom, which can be directly obtained from *r*:

$$t = \frac{r.\sqrt{n-2}}{\sqrt{1-r^2}}$$

It might wonder the explanation about *z*-scores. Partly it was to keep the discussion framed in concepts with which are already familiar but also it is useful background information.

4.5. Assumption of Pearson's R

Pearson's correlation requires only that data are interval for it to be an accurate measure of the linear relationship between two variables. However, if researchers want to establish whether the correlation coefficient is significant, then more assumptions are required: for the test statistic to be valid the sampling distribution has to be normally distributed. Although typically, to assume that the sampling distribution is normal, it would want both variables to be normally distributed, there is one exception to this rule: one of the variables can be a categorical variable provided there are only two categories. In any case, if your data are non-normal or are not measured at the interval level then you should deselect the Pearson tick-box.

5. Empirical Results & Analysis

The result of Pearson's Correlation Analysis is given below. Here considered four variables like Number of passengers carried by LCCs (no-frill airlines), Number of tourists visited in eastern India, Hotel rooms, Travel agency & Tour operators (Tourism organizations).

Correlations

		Number of Passengers carried by LCC	No of tourist visited in Eastern India	Hotel Rooms	Travel Agency & Tour Operators
Number of Passengers carried by LCC	Pearson Correlation	1	.959*	1.000**	.968*
	Sig. (2-tailed)		.041	.000	.032
	N	4	4	4	4
No of tourist visited in Eastern India	Pearson Correlation	.959*	1	.962*	.998**
	Sig. (2-tailed)	.041		.038	.002
	N	4	4	4	4
Hotel Rooms	Pearson Correlation	1.000**	.962*	1	.972*
	Sig. (2-tailed)	.000	.038		.028
	N	4	4	4	4
Travel Agency & Tour Operators	Pearson Correlation	.968*	.998**	.972*	1
	Sig. (2-tailed)	.032	.002	.028	
	N	4	4	4	4

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 1: Output for a Pearson's Correlation

SPSS Output provides a matrix of the correlation coefficients for the four variables. Each correlation coefficient together the significance value of the correlation and the sample size (*N*) on which it is based are displayed. Each variable is perfectly

correlated with itself (obviously) and so $r = 1$ along the diagonal of the table. Number of passengers carried by LCCs is positively related to number of tourists visited in eastern India with a Pearson correlation coefficient of $r = 0.959$ and the significance value is less than .05 (as indicated by the single asterisk after the coefficient). Hence from the significance value, gives confidence that there is a genuine relationship between Number of passengers carried by LCCs and number of tourists visited in eastern India. Similarly, Number of passengers carried by LCCs is positively related to hotel rooms with a Pearson correlation coefficient of $r = 1.000$ and the significance value is less than .01 (as indicated by the double asterisk after the coefficient). Output also shows number of passengers carried by LCCs is positively related to travel agency & tour operators with a Pearson correlation coefficient of $r = 0.968$ and the significance value (p-value) is less than 0.05 (as indicated by the single asterisk after the coefficient).

The r-value indicates strength and direction (±) of the correlation. Bigger r-value is better and here Pearson Correlation test statistics (r-values) are 0.959, 1.000 & 0.968. Null hypothesis (Ho) would be rejected as $p < 0.05$. Output for Pearson's correlation (table 6.1) shows, p values are 0.041, 0.032, and 0.000 which are all < 0.05, so Ho is rejected. Numbers of pairs in sample are 4 and Degrees of freedom (df) equals n - 2. As r values reported are approaching 1 and $p < 0.05$, may state that, there is positive correlation between the variables and impact of no-frill airlines is excellent on growth of tourists, hotel rooms and tourism organizations. In psychological terms, this all means number of LCCs passengers increases; the number tourists increases. On the other hand, number of LCCs passengers' increases, hotel rooms and tourism organizations also increases. So there is a high correlation between the four variables.

5.1. Using R^2 for Interpretation the Results

Although we cannot make direct conclusions about causality from a correlation, we can take the correlation coefficient a step further by squaring it. The correlation coefficient squared (known as the coefficient of determination, R^2) is a measure of the amount of variability in one variable that is shared by the other. For example, we may look at the relationship between Number of tourists visited in eastern India and Number of passengers carried by LCCs, Numbers of tourist visit vary from other reasons also because of any number of factors (infrastructure facilities, hotel rooms, availability of trained service providers in many areas and so on). If we add up all of this variability (rather like calculation the sum of squares) then would have an estimate of how much variability exists in tourists visit. Then use R^2 to tell how much of this variability is shared by LCCs. These two variables have a correlation of 0.959 and so the value of R^2 will be $(0.959)^2 = 0.919$. This value tells how much of the variability in tourists visit is shared by operating no-frill airlines (LCCs).

It may convert this value into a percentage (multiply by 100) and can say that no-frill airlines (LCCs) shares 91.9% of the variability in tourists visit in eastern India. So, although LCCs is highly correlated with numbers of tourist visit, it can account for 91.9% of variation in tourists visit. To put this value into perspective, this leaves 8.1% of the variability still to be accounted for by other variables. Similarly, another two variables (LCCs and hotel rooms) have very high positive correlation with r value 1.000 and correlation is significant ($p < 0.01$). Last two variables (LCCs and travel agency & tour operators which is call tourism organization) have also high positive correlation with r value 0.968 and correlation is significant ($p < 0.05$).

Here should note at this point that although R^2 is an extremely useful measure of the substantive importance of an effect, it cannot be used to infer causal relationships. Although usually talk in terms of 'the variance in y accounted for by x', or even the variation in one variable explained by the other, this still says nothing about which way causality runs. So, passengers carried by LCCs can account for 91.9% of the variation in total tourists visit in eastern India, 100% in hotel rooms and also 93.7% on tourism organization.

6. Conclusion

Although many researchers have acknowledged the need for efficient transport in a successful tourism destination, very limited empirical research exists to shed light on this. The emergence of no-frill airlines (LCCs) is one of the key market developments heralding a new age in air transport. The growth rate of low cost carrier traffic has reformed the competitive dynamics within the air transport industry, primarily because passengers have been induced by lower fares. The purpose of this study is to examine the impact of no-frill airlines (LCCs) in increases the tourists in Eastern India, impact in hotel rooms and also the impact on tourism organizations in Eastern India using correlation analysis. A strong relationship was constructed with four variables and result shows positive high correlation.

From the result of the correlation analysis on the basis of four variables, here r values which are statistically good and are approaching 1 (one r value is 1.00), it means the no-frill airlines (LCCs) having great influence on tourism development in eastern India as the tourists, hotel rooms and tourism organizations are the key elements of tourism industry as well as tourism development and no-frill airlines have positive impacts on them.

7. Annexure

7.1. Tourists visited Eastern India during 2008 – 2011

State	2008			2009			2010			2011		
	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total
W B	19314440	1133671	20448111	20528534	1180418	21708952	21072324	1192187	22264511	22257000	1213300	23470300
Bihar	11889611	345572	12235183	15685581	423042	16108623	18491804	635722	19127526	18397500	972500	19370000
Jharkhand	6030028	5803	6035831	7610160	8303	7618463	6885273	15695	6900968	10796300	72500	10868800
Orissa	6358445	43966	6402411	6891510	45684	6937194	7591615	50432	7642047	8271300	60700	8332000
Assam	3617306	14426	3631732	3850521	14942	3865463	4050924	15157	4066081	4339500	16400	4355900
Sikkim	460564	19154	479718	547810	17730	565540	700011	20757	720768	552500	23600	576100
Meghalaya	549936	4919	554855	591398	4522	595920	652756	4177	656933	667500	4800	672300
Arunachal	149292	3020	152312	195147	3945	199092	227857	3395	231252	233200	4800	238000
Nagaland	21129	1209	22338	20953	1423	22376	21094	1132	22226	25400	2100	27500
Tripura	245438	3577	249015	317541	4246	321787	342273	5212	347485	359500	6000	365500
Mizoram	55924	902	56826	56651	513	57164	57292	731	58023	62200	700	62900
Monipur	112151	354	112505	124229	337	124566	114062	389	114451	134500	600	135100
Total	**48804264**	**1576573**	**50380837**	**56420035**	**1705105**	**58125140**	**60207285**	**1944986**	**62152271**	**66096400**	**2378000**	**68474400**

Table 2

Source: Ministry of Tourism, Govt. of India

7.2. Number of Passengers carried LCCs in Eastern India during 2008 – 2011

Airline-wise passengers Statistics for Eastern India (including North-Eastern region) during 2008 - 2011					
S.No.	Airline	2008	2009	2010	2011
1	Air Deccan	1341476	0	0	0
2	Indigo Airlines	1876333	2738072	3869756	4893592
3	Jet Lite	1270737	1627803	1485733	1765583
4	Kingfisher Red	140097	555779	665698	628208
5	MDLR Airlines	63182	38725	0	0
6	Spicejet	753865	1046317	1789923	2410078
7	Go Air	0	71275	185220	375755
8	Paramount Airways		94782	24433	0
Total		**5445690**	**6172753**	**8020763**	**10073216**

Table 3

Source: Dept. of Corporate Planning & Management Services, Airport Authority of India, Govt. of India

8. References

1. Ap, John and Crompton, John L. (1998), ―Developing and Testing a Tourism Impact Scale, Journal of Travel Research, Vol. 37, No.2, pp 120-130.
2. Argyrous, G. (2012), ―Statistics for Research- with a Guide to SPSS, 3rd edition, SAGE Publications India Pvt. Ltd., New Delhi.
3. Burkart, A. J. and Medlic, S. (1981), ―Tourism-Past, Present and Future, Heinemann Professional Publishing, London.
4. Beri, G. C., (2010), ―Marketing Research, Tata McGraw Hill Education Private Limited, New Delhi.
5. Bieger, T. and Wittmer, A. (2006), ―Air Transport and Tourism – Perspectives and Challenges for Destinations, Airlines and Governments, Journal of Air Transport Management, Vol.12, No.1, pp 40-46.
6. Barrett, S. (2004), ―How Do the Demands for Airport Services Differ between Full-Service Carriers and Low Cost Carriers? Journal of Air Transport Management, Vol. 10, No.1, p 33-39.
7. Cento, A. (2010), ―The Airline Industry: Challenges in the 21st Century, Springer, London.
8. Chung, J.Y. and Whang, T. (2011), ―The Impact of Low Cost Carriers on Korean Island Tourism, Journal of Transport Geography, Vol.19, pp 1335–1340.
9. Chatterjee, S. and Hadi, A.S. (2006), ―Regression Analysis by Example, 4th edition, John Wiley & Sons, Inc., Hoboken, New Jersey.
10. Davison, L. and Ryley, T. (2010), ―Tourism Destination Preferences of Low-Cost Airline Users in the East Midlands, Journal of Transport Geography, Vol.18, pp 458–465.
11. DGCA (2007-08), ―India Air Transport Statistics, Directorate General of Civil Aviation, retrieved from http://dgca.nic.in on 23/11/2012.
12. DGCA (2008-09), ―India Air Transport Statistics, Directorate General of Civil Aviation, retrieved from http://dgca.nic.in on 23/11/2012.
13. DGCA (2009-10), ―India Air Transport Statistics, Directorate General of Civil Aviation, retrieved from http://dgca.nic.in on 23/12/2012.
14. Forsyth, P. (2003), ―Low-Cost Carriers in Australia: Experiences and Impacts, Journal of Air Transport Management, Vol. 9, No.5, pp 277-284.

15. Graham, A. and Dennis, N. (2010), ―The Impact of Low Cost Airline Operations to Malta, Journal of Air Transport Management, Vol.16, pp 127–136.
16. Page, Stephen (2005), ―Transport and Tourism: Global Perspectives, 2nd Edition, Pearson Education, Canada.
17. Prideaux, B. (2000), ―The Role of Transport in Destination Development, Tourism Management, Vol. 21, pp 53-63.
18. Senguttuvan, P.S. (2006), ―Fundamentals of air transport management, Excel Books, New Delhi.
19. Rey, B., Myro, R. L. and Galera, A. (2011), ―Effect of Low-cost Airlines on Tourism in Spain-A Dynamic Panel Data Model, Journal of Air Transport Management, Vol.17, pp163-167.
20. Whyte, R. and Prideaux, B. (2007), ―Impact of Low Cost Carriers on Regional Tourism, refereed paper in CAUTHE, Proceedings of the 17th Annual Conference, McDonnell, I., Grabowski, S., March, R., (eds), University of Technology, Sydney