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AIRLINES PRICING STRATEGIES: WHICH FACTORS REALLY MATTER? AN EMPIRICAL APPLICATION TO THE SOUTH OF ITALY.

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SOMMARIO

Il presente lavoro si propone verificare quali fattori determinano le strategie di prezzo delle compagnie aeree, focalizzandosi sui comportamenti discriminatori e, in particolare, sulle strategie di discriminazione intertemporale di prezzo, mettendo in luce se tali strategie sono di tipo monopolistico o di tipo competitivo. Il mercato analizzato concerne le regioni del Sud Italia, considera *city-pair* domestiche e internazionali relativamente ai voli che hanno avuto luogo dal 2007 al 2001. Il mercato di riferimento è geograficamente ridotto, ma viene esplorato considerando gli aspetti specifici del territorio. Difatti vengono trattati diversi aspetti tra cui l'effetto della presenza di concorrenti *low cost* e della fusione fra compagnie aeree.

I principali risultati evidenziano che le strategie di discriminazione intertemporale di prezzo fanno sì che i consumatori che acquistano con anticipo il biglietto pagani dei più bassi. Inoltre la discriminazione di prezzo è di tipo competitivo: le compagnie aeree intraprendono tali strategie quando il mercato è più competitivo, sfruttando l'eterogeneità dei consumatori, ossia la diversa sensibilità rispetto al prezzo. Inoltre la presenza di concorrenti *low cost* riduce i prezzi, mentre la fusione fra compagnie aeree li incrementa.

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1 Introduzione

Airline companies apply different fares to different travellers for various reasons: different costs, peak load pricing and price discrimination strategies. They often undertake price discrimination strategies, sorting out travellers with a relative inelastic demand from travellers with a more elastic one in order to extract the whole consumers surplus.

Price discrimination can be realized offering different combinations of fares and restrictions. Generally business travellers prefer a flexible ticket with less restrictions even if its price is higher, instead leisure travellers wish to spend less even if the ticket bought contains some restrictions. Hence, attaching restrictions to tickets is one of the ways to discern travellers according to their willingness to pay. A particular discrimination practice, said intertemporal, consists in pricing according to the days before the departure a traveller buys the ticket. Usually business travellers book their tickets few days before the departure, further dates and destination are fixed, thus they exhibit an inelastic demand. Early bookers are typically leisure travellers that search for different combinations of dates and destinations to find a good price. On this point Bachis and Piga (2006a), exploring carriers pricing behaviour in the European market, highlight that fares remain stable when departure is further away whereas volatility increases as departure comes nearer. Therefore the heterogeneity of consumers appears to be a required condition to successfully implement price discrimination. A theoretical contribution of Alves and Barbot (2009) focusing on low cost carriers shows that the low-high pricing strategies is a dominant strategy only for routes where there are travellers with different willingness to pay.

In the last decades the research on pricing strategies of airline companies has flourished. A strand of literature explores the implementation of price discrimination strategies showing if these strategies are of monopolistic type or competitive type. Traditionally market power increases the ability of firms to price discriminate: a monopolist sets and maintains high mark-ups. In the airline industry when competition increases carriers lose this ability: mark-ups associated to the fares paid by business travellers lower and align with the leisure travellers. In this case price discrimination is said to be of monopolistic type. However markets could be characterized by travellers with different degree of brand loyalty: business travellers are more brand loyal while leisure travellers are less brand loyal. When competition increases, the mark-ups applied to leisure travellers decrease, remaining almost unchanged for

business travellers. Therefore price discrimination increases when competition increases, price discrimination is said to be of competitive type[3].

The purpose of this paper is to understand which factors really determine the pricing strategies realized by airline companies, giving importance to the discriminatory behaviours. We mainly focus on intertemporal price discrimination strategies trying to discover if discrimination is of monopolistic type or competitive type. The market we explore is very original. Past studies, due to the huge amount of data available, investigate the U.S. airline industry; just in the last years, thanks to the advent of online tickets sale, some papers analyse the European market. In this paper we treat a case study analysing the pricing strategies and especially the price discrimination strategies, taken on by airlines operating in a peripherical area: the Southern Italian regions. We explore a narrower geographic market accounting for regional peculiarities, testing also if other circumstances such as the presence of low cost competitors and the merger between airlines has had a significant impact on fares.

In the following section we survey the relevant literature, while in the third section we present the sample employed and how variables are defined. In the fourth section we describe the empirical specification. Finally in the fifth section we illustrate and discuss the results obtained, then in the last section we draw the conclusions.

2 Literature review

The traditional theory of Industrial Organization tell us that a necessary condition to fruitfully implement price discrimination is that firms have market power[4]. However Borenstein (1985) and Holmes (1989), developing models incorporating heterogeneity of brand preferences among consumers, demonstrate that price discrimination strategies can be implemented even in competitive markets. Further Gale (1993) and Dana (1998) in models with heterogeneous demand travellers underline that price discrimination in the form of advance purchase requirement does not require market power to be implemented. These theoretical results have stimulated the empirical research on this topic: a part of the literature adopt the methodology

[3] Borenstein (1989) analyses the effect of market structure on fares emphasizing the role of loyalty programs. Considering some percentiles of the fares distribution, the author finds that concentration on a give route increases the fares, such effect is specially greater on the 80th percentile. This is due to the Frequent Flyer Programs (FFPs), generally joined by business travellers: when market power increases, airlines increase fares and, relying on the loyalty of business travellers created by FFPs, they practice higher fares for business travellers, thus the effect is stronger on the 80th percentile.

[4] See for example Tirole (1988) chapter 3.

developed by Stavins (2001), the other part employ the methodology proposed by Boreinstain and Rose (1994).

Stavins (2001) investigates the U.S. airline industry finding that ticket restrictions[5] reduce fares; however this effect is poorer in more concentrated market, providing evidence that price discrimination increases as markets are more competitive. Basing on Stavins (2001), Giaume and Guillou (2004) explore an intra-European market considering flights from Nice (France) to European destinations. Their results are the same as Stavins (2001)[6], furthermore they find that the presence of Low Cost Carriers (LCCs) on a route reduces the prices level.

Bachis and Piga (2006b) study the European market concerning UK flights to and from Europe, focusing on the role of intertemporal pricing strategies, accounting for the advance purchase discounts, in determining fares. Fares are founded to increase as the market power increases, moreover they increments monotonically over times and reduce when there is competition from LCCs, however this competition does not prevent Full Service Carriers (FSCs) from pursuing intertemporal price discrimination practices[7]. Finally Gaggero and Piga (2010) analysing the UK-Irish market corroborate Bachis and Piga's (2006b) results: market concentration is associated with higher fares and early bookers obtain on average lower fares[8].

Borenstein and Rose (1994) suppose that price dispersion arises because of airlines price discriminatory behaviours, therefore the authors analyse the empirical relation between market structure and price dispersion in airline in order to understand which type of price discrimination takes place. Exploring the U.S. airline industry, they observe that the more concentrated the market, the lower the price dispersion: price discrimination practices are generally undertaken in more competitive market. Borenstein and Rose (1994) has been revisited by Gerardi and Shapiro (2009). Performing a cross-section analysis as Borenstein and Rose (1994) they reach the same results, however performing a panel analysis the results achieved are opposite: airline companies are more incline to engage in price discrimination

[5] Stavins employs the Saturday-night stayover requirement and the advance-purchase requirement.

[6] The authors besides the ticket restrictions used by Stavins take into account some exogenous segmentations like family, age, student, events.

[7] Alderighi et al (2004) empirically find that when a LCCs enter a given route, the FSC incumbent reacts lowering both leisure and business fares.

[8] The analysis on intertemporal pricing strategies has been realized by Abrate et al (2010) focusing on European hotels. Even in this industrial sector, hoteliers adopt this pricing behaviors, indeed the authors show that there are two opposite trends. If a room is booked for the working days last minute prices are lower, oppositely if a room is reserved for the weekend, then booking in advance is better for consumer since last minute prices are higher.

strategies in more concentrated market[9]. Splitting the sample in two, the effect becomes stronger for the big city routes subsample and insignificant for the leisure routes subsample[10]. Finally the presence of LCCs or regional carriers fosters price discrimination. Consistently with Gerardi and Shapiro (2009), Gaggero and Piga (2011) find that in the U.K.-Irish market airlines engage in intertemporal price discrimination strategies in more concentrated market, supporting the view that few companies with a larger market share can easily price discriminate. Furthermore Christmas and Easter periods are associated with less price discrimination since travellers are more homogenous.

Contrasting with previous results, Hayes and Ross (1998) find no evidence about price discrimination and market structure in the U.S. airline industry: price dispersion does not arises as a consequence of price discrimination strategies, instead it is due primarily to peak load pricing schemes and it is influenced by the characteristics of the carriers operating on a given route. Even Mantin and Koo (2009) highlight that price dispersion is not affected by the market structure. Instead the presence of low cost competitors enhances dispersion, underlying that traditional carriers adopt a more aggressive pricing behaviour when competiting with LCCs[11]. Moreover differently from Gerardi and Shapiro (2009), business segments exhibit lower fares variation, suggesting that the market power created by Frequently Flyer Programs (FFPs) allows airlines to maintain constantly higher prices.

3 Data collection

In our analysis we include both Full Service Carriers (FSCs) and Low Cost Carriers (LCCs). Usually FSCs practice fares for round trips lower than two one way tickets, therefore travellers prefer to buy a round trip ticket rather than two separate tickets; differently LCCs do not adopt this technique. Generally papers take up the method proposed by Borenstein

[9] To capture the market structure all the papers discussed employed the HHI based on the number of flights or the number of passengers enplaned. Gerardi and Shapiro (2009) test the robustness of their results employing the number of competitors, reaching the same conclusions.

[10] Employing 10^{th} and the 90^{th} percentiles of the price distribution as a dependent variable, the impact of concentration on the 90^{th} percentiles price of the big city routes is twice the impact on the 10^{th} meaning that when on a route there is a significant number of business travellers, the increase of concentration has a big impact on the top of the price distribution. Instead for the leisure route the impact on the 90^{th} and 10^{th} percentiles is almost the same.

[11] Bachis and Piga (2006b) explore the intertemporal pricing strategies of European carriers when both traditional and low cost carriers compete. They find that LCCs do not always offer cheaper fares: FSCs set cheaper fares compared to LCCs as the departure date approaches. Furthermore Fageda et al. (2011) observe that traditional carriers are progressively adopting the management practices of LCCs. In particular FSCs throughout low-cost subsidiaries are able to price more aggressively and hence successfully compete with LCCs.

(1989) and Borenstein and Rose (1994) to halve FSCs' fares. Instead we avoid this problem including in our analysis for both typologies of carriers only round trip tickets, fixing the same departure and return dates. Data on posted fares are collected simulating reservations directly on each airline company's website. In this way we avoid any potential distortion on pricing strategies caused by online travel agencies that could propose discounted fares. Fares are observed every day starting, generally, sixty booking days before the departure; however for some trips less than sixty posted fares are available. We end up with a dataset composed by 10050 observations on 22 city-pairs (see Table I) and 13 airline companies (see Table II). We have monitored fares of 220 round trips flights from 2007 to 2011. Daily data on the number of flights of each company operating on a give route are provided by the Airports. Finally data on the distance between two endpoints are taken from the World Airport Codes' web site, http://www.world-airport-codes.com.

We try to really reproduce the offer of carriers identifying the round trip tickets among which a consumer planning to travel in that specific dates can effectively buy. Therefore, fixed the departure and return dates, we identify the offer of each carrier that dates on a given city-pairs (i.e. if a carrier does not offer a round trip flight for a certain destination for the fixed departure and return dates, then it is not considered as a competitors for that specific trip; nonetheless if for other departure and return dates it offers a round-trip flights, then it considered as a competitors).

4 Econometric specification

We extend the analysis of Stavins (2001) that employ a cross-section model, adding the temporal dimensions; thus we employ a panel random effects estimation of the following models. The first one account only for the effect of intertemporal price discrimination on fares; the second one consider the interaction between market structure the intertemporal price discrimination in order to understand if this discrimination strategies are more likely taken on by airlines in more or less competitive market.

$$Ln\,(P_{ijt}) = \beta_0 + \beta_1 Ln(Market\ structure_{ij}) + \beta_2 Ln(Booking\ Day_t) + \theta_3 Flight\ Characteristics_{ijt} + \delta_t + \varepsilon_{ijt} \quad [1]$$

$$Ln\,(P_{ijt}) = \beta_0 + \beta_1 Ln(Market\ structure_{ij}) + \beta_2 Ln(Booking\ Day_t) + \beta_3\big(Ln(Market\ structure_{ij}) * Ln(Booking\ Day_t)\big) + \theta_4 Flight\ Characteristics_{ijt} + \delta_t + \varepsilon_{ijt} \quad [2]$$

where *i* indexes the carrier, *j* the route and *t* the time. Time refers to the number of times we observe the fares, thus it goes from 1 to 60. However as we have clarified in the previous section for some trips we have less than sixty observations, therefore we end up with an unbalanced panel.

The dependent variable is the log of the fares that varies according to carriers, routes, a set of flight characteristics and time.

We employ three different proxies of market structure that we compute at city-pairs level. We do not refer to the route level since, working on a perpherical area, we will end up the almost all the carries are monopolist on a given route.

The first proxy is the *Market Share* of each carrier, calculated as the share of the daily flights operated by an airline on a city-pair. The second one is the *Herfindahl-Hirschman Index* (*HHI*) based on the market share just described. Both the variables are supposed to have positive sign, since the higher the market power, the higher the prices a firm can set. The last one is the *Number of Competitors* that it is thought to have negative sign, since it is negatively correlated with the other two indexes.

The variable *Booking days* is our measure of intertemporal price discrimination. It ranges from 1 to 60 and captures the so called Advance Purchase Discount, a type of second-degree price discrimination that consists in reducing the fares according to how many days before the departure a ticket is bought: the more these days, the lower the fares. As a consequence, this variable is expected to affect negatively the fares.

Among the *Flight Characteristics*, the variable *Distance* stands for the costs sustained by carriers that are increasing in distance between two endpoints. Therefore its sign is supposed to be positive.

HUB is a dummy variable that takes value 1 if the origin or destination airport is a hubs, 0 otherwise. It captures the hub dominance effect and at the same times the higher in costs sustained by carriers that operate at hubs. Therefore we expect it to have a positive sign.
Peak is a dummy variable that account for the peak periods such us summer holidays, bank holidays and public holidays. It takes value 1 in case of holidays, 0 otherwise. This variable is supposed to have a positive sign.
LCCP is a dummy variable that takes value 1 if on a city-pair for a given departure and return dates there is competition from a low cost carriers, 0 otherwise. It should have a negative sign since competitors use to price more aggressively when a LCC compete.
LCC is a dummy variable that takes value 1 if an airlines is a low cost carriers, 0 otherwise. It should have a negative sign since low cost in generally practise lower fares use to price more aggressively when a LCC compete.
Merger is a dummy variable that account for the merger between Alitalia and Airone. It takes value 1 for fares posted by the merged airlines companies, 0 otherwise. It is expected to have a positive since mergers reduce competition.
For what concerns the potential endogeneity of the market structure variable we follow the assumption of Stavins (2001). Indeed she argues that market structure is thought to be exogenous in airfare estimations, since elements such as "entry barriers prevent new carriers from entering city-pair routes (e.g., limited gate access, incumbent airlines' hub-and-spoke systems, and scale economies in network size). Computerized reservation systems, frequent flier programs, and travel agents' promotion systems raise switching costs and create further scale economies. All of these factors create high costs of entry into the airline industry. In the short run, then, concentration in any given city-pair market can be assumed to be fixed".

5 Results

In Table III-V we report the results of the basic regressions we estimates. Firstly we can observe that coefficients are very stable across estimations, underlying their robustness; further the results as we expected.
Market structure variables indicates that the more the competition on a given city-pair, the lower the fares. Indeed *Market Share* and *HHI* have a positive and significant impact on fares: market power increases prices. The variable *Number of Competitors* is consistent with the other two proxies of market structure since it has a negative and significant impact on fares, that is the greater the number of carriers competiting on a given city-pair, the lower the fares.

The variable *Booking Days* has a negative and significant impact on fares, suggesting that early bookers pay less.

For what concern the other control variables, we find that fares increase with distance; the presence of LCCs on a city pair reduces fare since the other carriers are induced to price lower in order to compete with the more aggressive pricing strategies that LCCs realize. Further the positive and significant impact of the variable *Hub* on fares point out that when round trip flights involve an Hub airport at the origin or at the destination, then fares are higher. *Peaks* is positive although not always significant across specification, pointing out that airlines use to apply higher fares during peak periods, however this is not the main strategy that they follows. The dummy *LCC* is negative ad significant underlying the LCCs generally apply lower fares compared to FSCs. Moreover the variable *LCC presence* is negative and significant, that is FSCs when on a given city-pair LCCs operate, they use to reduce fares in order to be competitive. Finally *Merger*, that takes into account the merger between Alitalia and Airone, is positive and significant: these companies after the merger have increased fares.

Afterward in Tables VI-VII we provide the results of the extended estimations, focusing on the relationship between intertemporal price discrimination strategies and market structure. The variable *Booking Day* is still negative and significant while the interaction between *Market Share* or *HHI* is positive. This results show that airlines engage in intertemporal price discrimination strategies when market are more competitive. Therefore our analysis provide arguments in favour of the competitive-type discrimination as Borestein and Rose (1994), Stavins (2001) and Giaume and Guillou (2004), although contrasting with Gerardi and Shapiro (2007) and Gaggero and Piga (2011). The interaction with the variable *Number of Competitors* is negative coherently with the Market Share and HHI's sign, however non always significant. This maybe suggests that it is not the number of competitors that can influence the pricing strategies but rather the market share that each carriers have plays the relevant role. Finally the control variables have the same impact as before and they are still significant.

6 Conclusions

We have found evidence of competitive discrimination, in other words, tariffs tend to be more linear when the market is more concentrated while competition tends to stimulate more sophisticated pricing strategies. The result, present in a part of the literature, is further corroborated by the sign and significance of the interaction term.

Furthermore LCCs generate positive effects which should be evaluated in terms of welfare gains by exerting particularly significant pressure on fares.

The evidence supports the considerations on the question of accessibility. Accessibility is paid for by travellers (sign and significance of accessing an hub, for instance), but also, limitation of competition, such as mergers among the major players of the national market, do have a strong negative (and significant) impact on the fares, and, thus, on the accessibility ("isocost" structure) of a territory.

Development for future research could be the enlargement of the territorial coverage of the paper in order to compare different exogenously determined accessibility conditions. Furthermore

Analyse in greater details the interactions among market concentration and other variables influencing pricing strategies;

References

Abrate, G., Fraquelli, G., Viglia, G. 2010. "Dynamic pricing strategies and customer heterogeneity: the case of European hotels". HERMES WP 2010 – 7.

Alderighi, M., Cento, A., Nijkamp, P., Rietveld, P. 2004. "The Entry of Low-Cost Airlines: Price Competition in the European Airline Market". Tinbergen Institute Discussion Paper 2004-074/3.

Alves, C.F., Barbot, C. 2009. "Price Discrimination Strategies of Low-Cost Carriers". Journal of Transport Economics and Policy 43 (3), 345-363.

Bachis, E., Piga, C.A. (2006a). "Pricing strategies by European traditional and low cost airlines. Or, when is it the best time to book on line?". Discussion Paper Series WP 2006 – 14, Department of Economics, Loughborough University.

Bachis, E., Piga, C.A. (2006b). "Hub Premium, Airport Dominance and Market Power in the European Airline Industry". *Rivista di Politica Economica*, 96 (5), 11-54.

Borenstein, S. (1985). "Price Discrimination in Free-Entry Markets". *The RAND Journal of Economics* 16 (3), 380-397

Borenstein, S. (1989). "Hubs and High Fares: Dominance and Market Power in the U.S. Airline Industry". *The RAND Journal of Economics* 20(3), 344–365.

Borenstein, S., Rose, N.L. (1994). "Competition and price dispersion in the US airline industry". *The Journal of Political Economy* 102 (4), 653–683.

Dana, J.D. (1998). "Advance-Purchase Discounts and Price Discrimination in Competitive Markets". *The Journal of Political Economy* 106 (2), 395-422.

Fageda, X., Jiménez, J.L., Perdiguero, J. (2011). "Price rivalry in airline markets: a study of a successful strategy of a network carrier against a low-cost carrier". *Journal of Transport Geography* 19 (4), 658-669.

Gaggero, A.A., Piga, C.A. (2011). “Airline Market Power and Intertemporal Price Dispersion”. *Journal of Industrial Economics*, forthcoming.

Gaggero, A.A., Piga, C.A. (2010). “Airline competition in the British Isles”. *Transportation Research Part E* 46 (2), 270-279.

Gale, I. (1993). “Price Dispersion in a Market with Advance-Purchases”. *Review of Industrial Organization* 8 (4), 451-464.

Gerardi, K., Shapiro A. (2009). “Does Competition Reduce Price Dispersion? New Evidence From the Airline Industry”. *Journal of Political Economy* 117(1), 1–37.

Giaume, S., Guillou, S. (2004). “Price discrimination and concentration in European airline markets”. *Journal of Air Transport Management* 10 (5), 305–310.

Hayes, K., Ross, L. (1998). “Is Airline Price Dispersion the Result of Careful Planning or Competitive Forces?” *Review of Industrial Organization* 13(5), 523–542.

Holmes, T. (1989). “The Effects of Third-Degree Price Discrimination in Oligopoly,” *American Economic Review* 79 (1), 244–250.

Mantin, B., Koo, B. (2009). “Dynamic price dispersion in airline market”. *Transportation Research Part E* 45 (6), 1020–1029.

Stavins, J. (2001). “Price Discrimination in the Airline Market: The Effect of Market Concentration”. *The Review of Economics and Statistics* 83 (1), 200–202.

Tirole, J. (1988). *The Theory of Industrial Organization*. Cambridge, MA: The MIT Press.

TABLE I
LIST OF CITY-PAIRS

Origin	Destination
Bari	London
Bari	Milan
Bari	Paris
Bari	Rome
Brindisi	London
Brindisi	Milan
Brindisi	Rome
Catania	London
Catania	Milan
Catania	Paris
Catania	Rome
Naples	London
Naples	Milan
Naples	Paris
Naples	Rome
Palermo	London
Palermo	Milan
Palermo	Paris
Palermo	Rome
Rome	Berlin
Rome	London
Rome	Paris

TABLE II
LIST OF COMPANIES

Alitalia
Airone
Blu Express
MyAir
Alpieagles
EasyJet
Ryan
British Air
Airberlin
Vueling
Lufthansa
Meridiana
Windjet

TABLE III
DEPENDENT VARIABLE: LOG OF FARES MARKET DEFINED BY CITY PAIR

	1	2	3	4	5	6
Distance	0.571***	0.562***	0.559***	0.606***	0.714***	0.683***
Booking Days	-0.229***	-0.229***	-0.229***	-0.229***	-0.229***	-0.229***
Market Share	0.295***			0.144***		
HHI		0.441***			0.397***	
Number of Competitors			-0.312***			-0.235***
Hub	0.302***	0.362***	0.358***	0.234***	0.244***	0.240***
LCC				-0.368***	-0.498***	-0.484***
R^2	0.43	0.33	0.33	0.49	0.51	0.49

TABLE IV
DEPENDENT VARIABLE: LOG OF FARES MARKET DEFINED BY CITY PAIR

	7	8	9	10	11	12
Distance	0.703***	0.660***	0.660***	0.628***	0.694***	0.687***
Booking Days	-0.229***	-0.229***	-0.229***	-0.229***	-0.229***	-0.229***
Market Share	0.251***			0.215***		
HHI		0.183*			0.353***	
Number of Competitors			-0.115			
Hub	0.281***	0.315***	0.310***	0.288***	0.322***	0.318***
LCC						
LCC presence	-0.400***	-0.490***	-0.513***			
Merger				0.271***	0.430***	.0.430***
R^2	0.46	0.37	0.36	0.45	0.42	0.42

TABLE V
DEPENDENT VARIABLE: LOG OF FARES MARKET DEFINED BY CITY PAIR

	13	14	15
Distance	0.535***	0.629***	0.599***
Booking Days	-0.229***	-0.229***	-0.229***
Market Share	0.124***		
HHI		0.352***	
Number of Competitors			-0.202***
Hub			
LCC	-0.439***	-0.552***	-0.540***
Peak	0.120	0.125*	0.126
R^2	0.47	0.48	0.47

TABLE VI

DEPENDENT VARIABLE: LOG OF FARES MARKET DEFINED BY CITY PAIR

	1	2	3	4	5	6
Distance	0.569***	0.560***	0.556***	0.605***	0.711***	0.680***
Booking Day	-0.208***	-0.181***	-0.192***	-0.208**	-0.181***	-0.191***
MS	0.240***			0.088**		
*MS*Booking Day*	0.019*			0.019*		
HHI		0.254**			0.210**	
*HHI*Booking Day*		0.063**			0.063**	
N Competitors			-0.205**			-0.128*
*Comp*Booking Day*			-0.036*			-0.036*
Hub	0.297***	0.360***	0.353***	0.229***	0.242***	0.236***
LCC				-0.370***	-0.498***	-0.485***
R^2	0.43	0.33	0.32	0.49	0.50	0.49

TABLE VII

DEPENDENT VARIABLE: LOG OF FARES MARKET DEFINED BY CITY PAIR

	7	8	9
Distance	0.627***	0.692***	0.685***
Booking Day	-0.208***	-0.181***	-0.191***
Market Share	0.160***		
*Market Share *Booking Day*	0.019*		
HHI		0.165	
*HHI*Booking Day*		0.063**	
Number of Competitors			-0.135*
*Number of Competitors *Booking Day*			-0.036*
Hub	0.284***	0.319***	0.313***
Merger	0.273***	0.431***	0.431***
R^2	0.45	0.42	0.42