Who flies with low cost airlines?

Angela S. Bergantino Claudia Capozza

Università degli Studi di Bari Aldo Moro

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Introduction

- During the last ten years, the activity of low cost carriers (LCCs) has dramatically increased:
  - On domestic routes, LCCs hold 26% of the market share in 2012, starting from 13% in 2005;
  - On European routes, LCCs' market share increasing from 28% in 2005 to 57% in 2012 (EC, 2013).

- This growth has partly occurred at the expenses of traditional carriers but, on the other side, the supply of LCCs has also stimulated new demand for air travel.

Introduction

- LCCs started their activity at secondary (regional) airports:
  - Idle capacity;
  - No congestion;
  - Low aeronautical charges.

- Secondary airports are perfect partner for LCCs:
  - Financial arrangements and co-marketing agreements;
  - Well known Ryanair & Charleroi airport agreement (Barbot, 2006);
  - Attention of the European Commission on aid to LCCs granted through State resources.

Introduction

- In view of the growing LCCs' market share, and of the role of secondary airports in that, we are interested in understanding factors influence passengers' choice of airline types.

- We explore whether *socio-economic characteristics* of passengers and *travel charateristics* influence the *choice of flying with a LCC* (versus traditional airlines), collecting data from travellers departing from Apulian airports.

Previous research

- Castillo and Marchena (2010) and Ong and Tan (2010) study the *determinants of airline choice* (LCC vs FSC) using a sample of passengers at Spanish airports and Penang airport in Malesia, respectively;
  - both found that *socio-economics factors do not have a significant role* in determining airline choice.

- Focus on *business travellers and LCC*:
  - Fourie and Lubbe (2006) consider mainly *flight and ticket characteristics* as factors driving the choice of business travellers at Johannesburg airport, whereas Huse and Evangelho (2007) account *for some passenger and route characteristics.*

- Hess et al. (2007) use SP approach to explore air travel choice (airport/airline) :
  - disregard socio-economic factors and focus on airport/airline characteristics.

Data collection

- To collect data we conduct surveys at the Apulian airports (Bari and Brindisi) by administrating questionnaires, in anonymous form, to passengers waiting to be embarked;
  - Period 1: last week of January 2014;
  - Period 2: second week of June 2014.

- We end up with $\simeq$ 1000 complete and useful questionnaries;
  - we exclude 40% of original questionaries as people has been reluctant to provide information on income and age.

Questionnaire

SOCIO-ECONOMIC DATA

Gender	☐ Male	☐ Female	**Age:**_____				
Education	☐ Junior high school	☐ Senior high school	☐ University degree	☐ PhD			
Gross annual income	☐ up to 15.000 €	☐ 15–25.000 €	☐ 25–35.000 €	☐ 35-50.000 €	☐ 50–70.000 €	☐ more than 70.000 €	
Occupation	☐ Self-employed	☐ Employee	☐ Unemployed	☐ Student	☐ Retired	☐ Housewife	
Residence	Country:	City/Town:					

Questionnaire

TRAVEL INFORMATION

Please specify the destination:

Main travel purpose

☐ Tourism ☐ Studying ☐ Business ☐ Sport ☐ Other: _____
☐ Visiting relatives/friends ☐ Religion ☐ Health ☐ Events

Travel mates

☐ No-one ☐ Relatives ☐ Friends ☐ Colleagues ☐ Partner

Airline company chosen to fly:

Does your trip comprise more legs? ☐ YES ☐ NO

If YES, at which airport did you stopover? _____

If YES, what is airline(s) with whom you have stopped over? _____

Variables

SOCIO-ECONOMIC CHARACTERISTICS	
Male	equal to 1 if male; 0 otherwise
Age	
Income	income = 1 if income < 15.000, income = 2 if income is between 15-25.000, income = 3 if income is between 25-35.000, income = 4 income is between 35-50.000, income = 5 if income is between 50-70.000, income = 6 if income > 70.000.
Residence	Three dummies for Apulian, Italian not Apulian, Non-Italian passengers
Education	education = 1 for junior high school, education = 2 for senior high school, education = 3 for university, education = 4 for PhD
Employment status	Unemployed, Self-employed, Employee, Student, Retired, Housewife
TRAVEL CHARACTERISTICS	
Stop flight	equal to 1 for stop flights; 0 otherwise
Domestic flight	equal to 1 for domestic flights; 0 otherwise
Single traveler	equal to 1 if passenger is travelling alone; 0 otherwise
Travel purpose	Dummies for Business, Tourism, Visiting friends/relative, Studying, Others, Multiple purpose
Weekend	equal to 1 if flight is during the weekend; 0 otherwise
Winter	equal to 1 if flight is in January; 0 otherwise

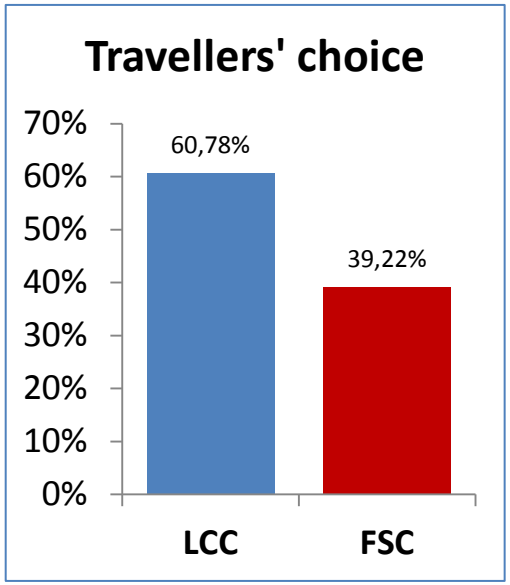
Empirical model

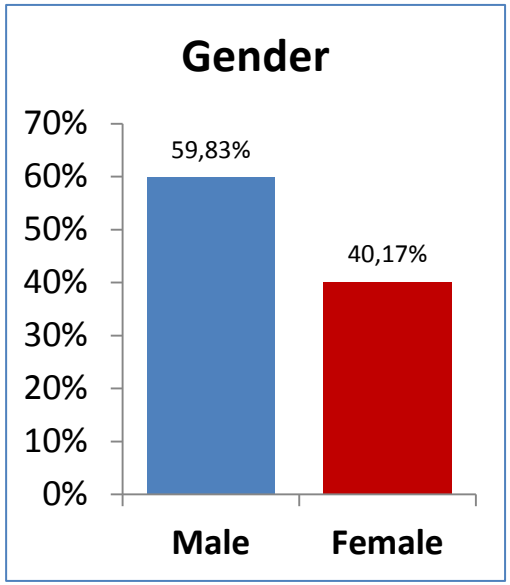
- A dichotomous-choice response question is examined: "Why does a traveller choose a LCC over its alternative (full-service carrier, FSC)?

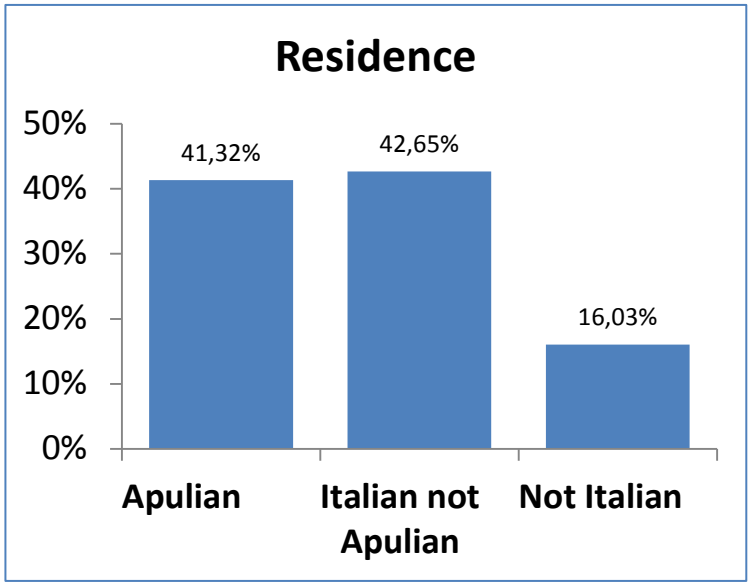
$$y_i = \begin{cases} 1 \text{ if a traveller chooses a LCC} \\ 0 \text{ if a traveller chooses a FSC} \end{cases}$$

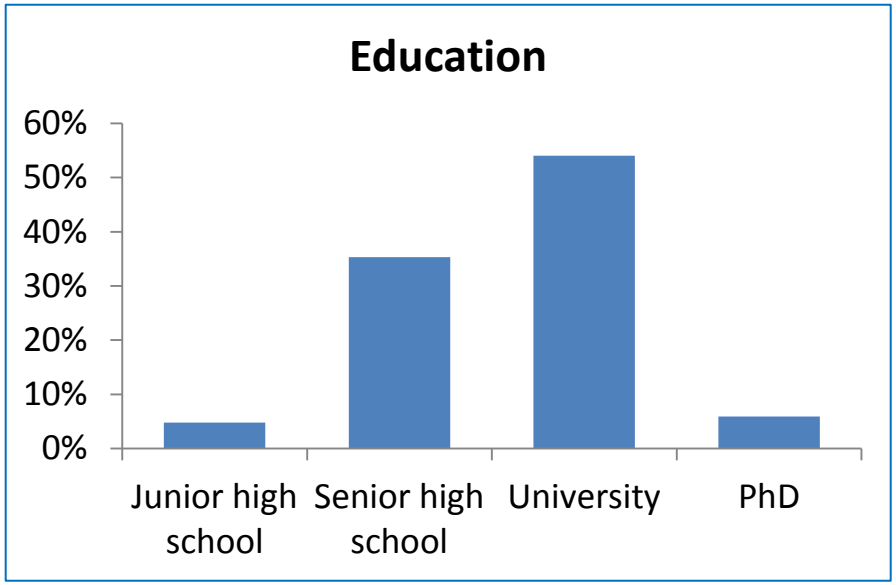
- We adopt both the Logit and Probit specification:
  - We prefer the model with higher log-likelihood.

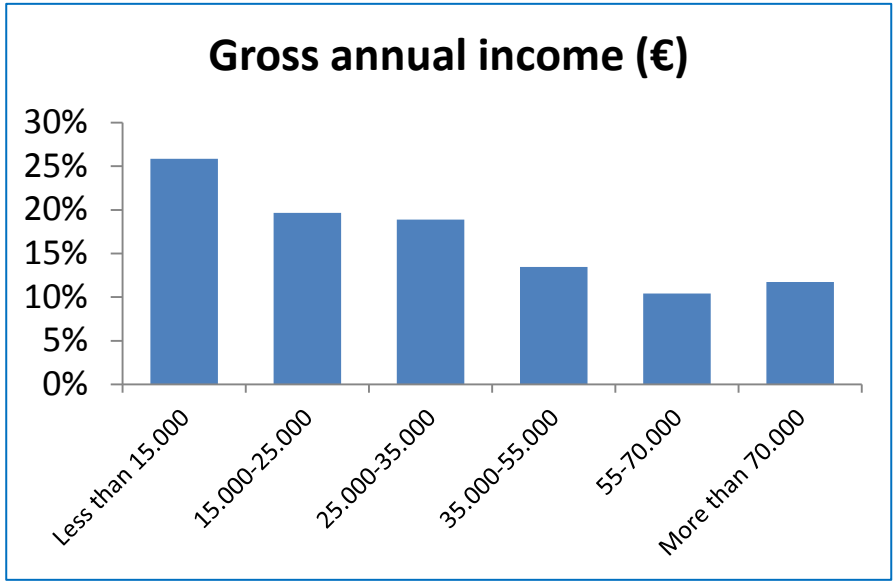
Descriptives











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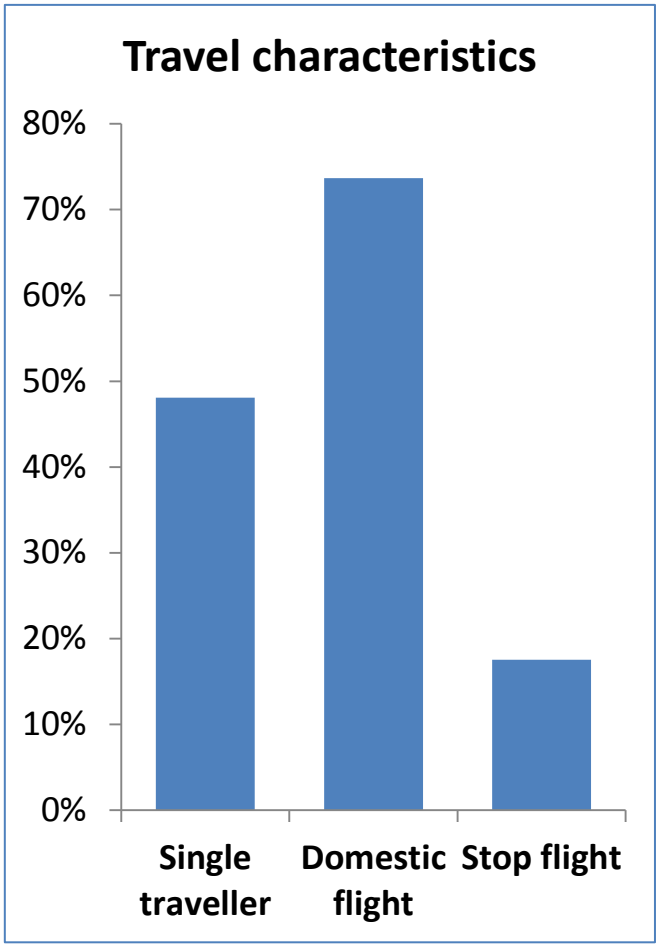

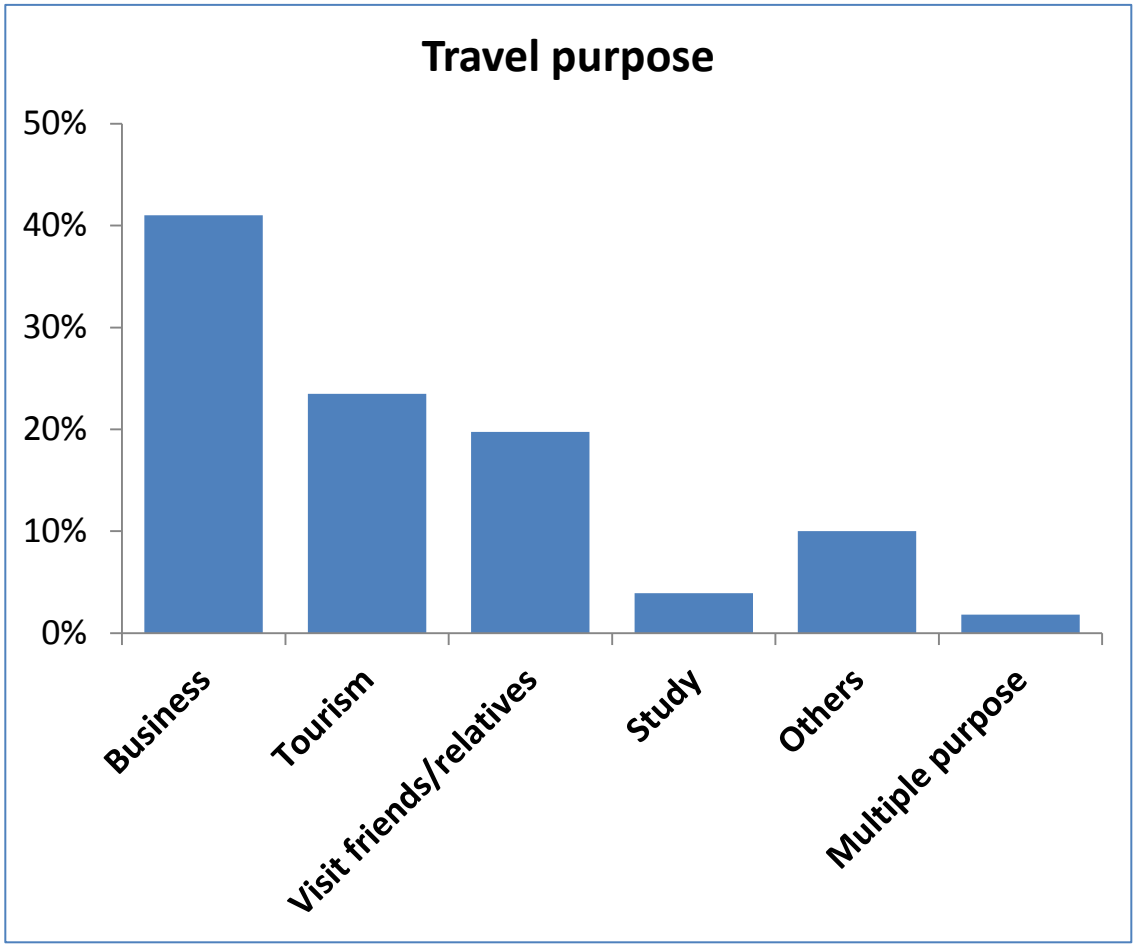

RESULTS

			Logit	ME	Probit	ME
SOCIO-ECONOMIC FACTORS	Male		0.369**	0.066**	0.227**	0.068**
			(0.163)	(0.029)	(0.095)	(0.028)
	Age		-0.003	-0.001	-0.002	-0.001
			(0.007)	(0.001)	(0.004)	(0.001)
	Income		-0.210***	-0.037***	-0.123***	-0.037***
			(0.053)	(0.009)	(0.031)	(0.009)
	Residence	Apulian	-0.274	-0.048	-0.165	-0.050
	(o.c.: Italian not Apulian)		(0.172)	(0.030)	(0.102)	(0.030)
		Non-Italian	-0.428	-0.076	-0.243	-0.073
			(0.293)	(0.052)	(0.167)	(0.050)
	Education		-0.122	-0.022	-0.066	-0.020
			(0.118)	(0.021)	(0.070)	(0.021)
TRAVEL CHARACTERISTICS	Stop flight		-2.578***	-0.455***	-1.504***	-0.450***
			(0.261)	(0.037)	(0.140)	(0.034)
	Domestic flight		-1.276***	-0.225***	-0.743***	-0.222***
			(0.263)	(0.045)	(0.142)	(0.041)
	Single traveler		-0.325**	-0.058**	-0.192**	-0.057**
			(0.162)	(0.029)	(0.096)	(0.029)
	Travel purpose	Tourism	1.068***	0.187***	0.640***	0.192***
	(o.c.: Business)		(0.230)	(0.039)	(0.133)	(0.039)
		VFR	1.360***	0.240***	0.802***	0.240***
			(0.225)	(0.037)	(0.128)	(0.036)
		Studying	0.563	0.100	0.345	0.105
			(0.439)	(0.077)	(0.247)	(0.074)
		Others	0.522**	0.092**	0.316**	0.095**
			(0.249)	(0.044)	(0.150)	(0.045)
		Multiple purpose	1.628**	0.287**	0.955**	0.286**
			(0.736)	(0.129)	(0.379)	(0.113)
	Weekend		-0.070	-0.012	-0.035	-0.011
			(0.165)	(0.029)	(0.097)	(0.029)
	Winter		0.278*	0.049*	0.159*	0.048*
			(0.155)	(0.027)	(0.091)	(0.027)
	Log-Likelihood		-553.749		-554.283	

Summary and conclusions

- We find evidence that:
  - two socio-economic factors – *gender* and *income* – matter in the choice of flying with a LCC;
  - travel characteristics influence the choice of flying with a LCC to a greater extent than socio-economics.

- The non-significant role of *residence* in influencing the choice might indicate that the partnership of Apulian airports with LCCs does not merely serves to fly Apulians.

- Developments for future research are to enrich the data to study the evolution in time of passengers' choice.