

A Geodemographic Segmentation Analysis of EasyJet's UK Customers

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Project Background

The objective of this study is to analyse EasyJet's customer and booking data to further understand who the airline's primary customers are. A range of different geographical analysis will be used to assist within this study project along with the use of K-means Clusters, this technique was able to highlight customers with similar characteristics based on their historic booking data and segment customers into clusters. Demographic analysis within the airline industry has been a rather recent subject due to the dramatic changes to the industry. Many of the past studies have been on a personal level which has limited the volume of customers included within the research, resulting in unrepresentative conclusions. This research is based on data provided by EasyJet to aid in producing clear and representable results for all EasyJet customers within the United Kingdom in conjunction with previous research and analysis.

Data and Methods

The data being used has been provided by EasyJet and covers a three year period from May 1st 2011 to May 1st 2014. This consisted of all bookings made within the UK and customers which have used EasyJet and departed from one of the UK airports. The data used within the project includes customer data, booking data, airport data, postcode data, boundary data and 2011 census data. The project was implemented using a variety of differing analysis approaches. To start with Population pyramids were constructed to visualise the age distribution of EasyJet customers. Customers address locations was also analysed using the postcode data provided with the booking data to create dot density and choropleth maps highlighting the density of customers within the UK. A Location Quotient (LQ) was carried out to highlight 'unique' regions or groups. This method was used against the Output area classifications to highlight which socio-

economic groups have the highest percentage of customer using EasyJet. The next stage was aggregating destinations by winter/summer season to highlight a seasonal variance. Finally, a K-means analysis was carried out to cluster customers into distinctive groups based on destination and booking variables; which included the frequency of flights by a destination categorisation and season.

Key Findings

Firstly EasyJet customers were classified based on their date of birth to create a population pyramid (fig. 1). The results highlighted that 50 % of all female customer were aged between 21 and 38, with the average age of the female customer being 40 and 43 for the male customers, resulting in the average age being 42. The results also identified that there was a slightly higher number of men than woman using the airline with 55% of customers being male. This could be due to the male association of business trips. To establish whether a customer living closer to an airport is more inclined to use air travel. A 30 mile radius around airports was established. Those living within a 30 miles radius of an airport on average have taken 1.9 trips a year compared to those living outside the radius taking 1.5 trips a year. The results to the OAC Location Quotient (LQ) displays the top three categories of whom are EasyJet Customers; Inner City Students, Comfortable Cosmopolitans and Aspiring Affluent (fig. 2). The OAC group least likely to be EasyJet's customers included the Migration and Churn, Industrious Communities and Hard Pressed Ageing Workers. Finally, the K-means detected 9 distinctive groups based on the EasyJet customer data.

Value of the Research

The benefits of performing this study have provided EasyJet with valuable information on their current customers. This will assist them to target the correct audience to gain and retain customers, keeping one step ahead of rival low cost airlines.

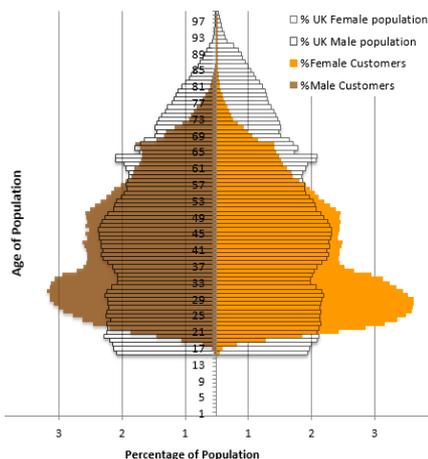


Fig. 1. Population pyramids of EasyJet customers

Ageing City Dwellers	59.73	Ethnic Family Life	106.76
Ageing Rural Dwellers	69.24	Farming Communities	84.15
Ageing Urban Living	128.29	Hard-Pressed Ageing Workers	40.63
Asian Traits	146.42	Industrious Communities	39.48
Aspirational Techies	218.40	Inner-City Students	388.12
Aspiring and Affluent	358.60	Migration and Churn	37.27
Challenged Asian Terraces	53.35	Rented Family Living	81.07
Challenged Diversity	47.16	Rural Tenants	73.68
Challenged Terraced Workers	58.46	Semi-Detached Suburbia	86.16
Comfortable Cosmopolitans	362.69	Students Around Campus	208.41
Constrained Flat Dwellers	222.55	Suburban Achievers	142.45
Endeavouring Ethnic Mix	139.38	Urban Professionals and Families	111.92
Ethnic Dynamics	86.46	White Communities	70.57

Fig. 2. Representation of EasyJet customers by 2011 OAC groups (100 = average penetration)