

COMPARATIVE ANALYSIS OF LOW-COST AIRLINES WEBSITES

Liciniu-Alexandru Kovács, Babeş-Bolyai University, Faculty of Business, Cluj-Napoca, Romania
Traian-Ionuț Luca, Babeş-Bolyai University, Faculty of Business, Cluj-Napoca, Romania
Zoltán Élthes, Babeş-Bolyai University, Faculty of Economics Sciences, Sfântu Gheorghe, Romania

ABSTRACT

Due to many circumstances, there are more and more low-cost (sometimes called budget) airlines operating in Europe and around the world. But things change sometimes daily so it is nearly impossible to keep up to date with routes and prices. Luckily we have the Web service of the Internet where one can find teams of researches which regularly monitor available routes and maintain an accurate services database. Usually, the provided information is completely free of charge because it just refers to the airlines official websites to ensure we receive the best available prices. Thus, it is interesting to visit, observe and analyze low-cost airlines websites and find out how we can use them to inform ourselves in order to decide the right company and the right price for our traveling purposes.

Keywords: low-cost airline, budget airline, website, website pages key features, statistic analysis

1. INTRODUCTION

In today's civilized world traveling by air is not a problem. With so many information coming to our brain via different channels, we might dream to visit a place/region of the world or go on vacation based *only* on the information given by low-cost airline websites. After few steps with search engines, we reach usually a simple interface which enable us to find out which airlines provide a service on the route we want to travel. Ideas might come quickly, not only based on found webpages, but from images of elaborated charts which compare different offers.

Case study objective: to conduct an exploratory research in order to find out the stage of developing *specific* pages/elements of low-cost airlines companies in Europe.

Case study methods: visits and analysis of 14 pages/elements of 12 low-cost airlines websites. The first low-cost airline website was chosen randomly; there we selected some target pages/elements. All the pages/elements included in our case were visited and evaluated by 43 participants. The 43 sets of data were introduced in Microsoft Excel to determine the rounded integer mean values for each page/element of the websites taken into consideration. In the resulted table we calculated mean values, totals and elaborated charts; the statistic analysis was conducted in Statgraphics, as shown in the ensuing sections.

2. FINDING LOW-COST AIRLINE WEBSITES TO BE ANALYZED

In order to find lists of websites for low-cost airlines companies we used the Google search engine from <http://www.google.com>. The key word was low-cost airlines. Among the results we took into consideration LowCostAirlines.org at <http://www.etn.nl/lcostair.htm>. Within this website, for Europe it was chosen the link to LowCostAirlinesEurope.org at <http://www.discountairfares.com/lcosteur.htm>. From the list that contains the name of almost 60 low-cost airlines it was chosen randomly the name of one company and then, the first 11 from the beginning. Then we "jumped" to Wikipedia (the free encyclopedia) to the page with the List of low-cost airlines at http://en.wikipedia.org/wiki/List_of_low-cost_airlines#Europe.

We have to notice that it was not very difficult to find targeted low-cost airlines websites at Wikipedia because this organization offer (for free!) the company sites' addresses.

3. LOW-COST AIRLINE WEBSITE PAGES/ELEMENTS TO BE ANALYZED

As any other website, a low-cost airline one contains usually a very large number of web pages with many hyperlinks between them. The number of web pages is dependent on many parameters like company dimension, design team, management, target market, promotion policies, location, costs, etc. There is no

fixed number of pages per website, but, when surfing the Web, anybody can observe the existence of some commonly named pages.

For a low-cost airline company, there are many pages/elements worth considering, but our case study studies and analyses only *specific* pages/elements containing the following key features:

1. **Home Page** – to make visitors/clients feel welcome to the airline website. It offers the hyperlinks that facilitate navigation in the sites' sections and the possibility of rapidly finding the needed information. This page should contain some original graphics/images able to illustrate the main message.
2. **About us** – to introduce the company's goals, strengths and strategies. It also provides information about the company's roots and background, and – very importantly – a message from the owner or the general manager.
3. **Sitemap** – to let visitors view the entire site at a glance. It usually contains an image with active areas, with hyperlinks to related pages.
4. **Destinations** – providing all the destinations that the company operates, including related data. It might contain a less or more sophisticated animated map which can make a good impression. Special destinations offers are to be mentioned separately.
5. **Online reservations** – to provide a complex form containing many fields with validation buttons in order to be completed quickly and avoid incomplete data. Clients can choose various channels to confirm the reservation (e-mail, SMS, fax, etc.). It is one of the most important pages of the entire airline company website.
6. **Rates and tariffs** – to specify the rates for destinations of all kinds, grouped on certain criteria. This page or set of pages should have links to the prices for all the other services offered. Discount policies are to be mentioned in a special section.
7. **FAQ** – providing a systematically developed list of clear and concise answers to frequently asked questions about the low-cost airline's available services.
8. **Terms and Conditions** – a compulsory page or set of pages. Here, one should find general and special arrangements, provisions, requirements, rules, standards and a specification of restrictions for the use of goods or services. It is the best area of the website to publish the data about check-in and embarkation, refusal and limitation of carriage, schedules, delays, cancellation of flights, administrative formalities, etc..
9. **Jobs** – indicating the company's employment policies, details of how to compose and send resumes (CV's), positions available, deadlines for applications, and contact persons. It might contain subsections designed according to database principles with information regarding job requirements. A feedback online form is highly desirable.
10. **Relations with Investors** – to inform about contact details for a sample of analysts who actively published research on the key drivers and metrics behind airline's company success like: volume growth, cost containment, cost per passenger, passenger growth forecasts, etc.
11. **Events** – providing information of airline company's most recent happenings, promotions and news, usually one gets there if he/she is subscribed to receive newsletters.
12. **Services** – to present services like travel insurance, air ambulance, baggage tracking, hotel reservation at destination, rent-a-car, and all sorts of other outstanding services. It is the place where services can be promoted in order to differentiate the company on the air travel market. In case of many possibilities, the page can be organized as a list with hyperlinks to pages with more detailed data. A database could also be very helpful. The company has to be sure that the listing is comprehensive and covers all its services.
13. **Versions in foreign languages** – to facilitate the attraction of clients from different countries or target markets. Versions in widely spoken languages like English, French, Spanish, German and Italian are recommended.
14. **Contact information** – to provide information about the company location(s), a list of its main departments and a brief description of these. It is recommended to include mail and e-mail addresses, phone and fax numbers, and contact persons for each department. Photos should be included too. A feedback form can help the airline company to get timely information from visitors to the site. For example, a drop-down menu for the type of feedback (e.g. comments, bug reports, suggestions, questions) can help guide this information to the right people.

The web pages listed above should contain valuable information for all kinds of visitors, clients, especially for those willing to travel for an event (business presentation, conference, seminar, wedding, etc.). In our case, we supposed that the 43 persons who participated in the case study were tourists willing to travel low-cost within countries from Europe.

For our case analysis, first, we arranged all the sites visited and qualifiers (very poor, poor, good, very good, and excellent) in a spreadsheet file (Microsoft Excel). Then, a certain number of points were given for each qualifier: 1 for very poor, 2 for poor, 3 for good, 4 for very good, and 5 for excellent. If the site does not contain a specific page/element, the cell in the table has a "0" (zero) value. Finally, we obtained 43 tables, one from each participant. Then, it was calculated the rounded mean values of the 43 sets of scores which are illustrated in fig. 1 (together with the distributions).

PAGINA / PAGE																
Compania	Acasa	Despre noi	Harta site-ului	Destinatii	Rezervare online	Preturi si tarife	Intrebari frecvente	Termeni si conditii	Locuri de munca	Relatii cu investitorii	Evenimente	Servicii	Pagini in limbi straine	Date de contact	Total	
Company	Home Page	About Us	Sitemap	Destinations	Online Reservations	Rates and Tariffs	FAQ	Terms and Conditions	Jobs	Investor Relations	Events	Services	Foreign Languages	Contact	Total	
Ryanair	4	5	5	5	4	4	5	5	3	4	4	4	5	5	62	
Aegean Airlines	4	2	3	2	3	1	1	3	1	2	1	2	3	3	31	
Aer Arann	4	3	3	2	2	2	1	4	3	0	0	2	2	4	32	
Air 2000	3	2	0	3	3	3	2	2	4	0	0	3	0	3	28	
Air Baltic	4	3	4	2	3	2	3	3	3	0	0	3	5	3	38	
Air Berlin	3	3	4	2	3	3	3	3	2	3	0	3	5	3	40	
Air Finland	3	2	0	0	2	2	0	2	0	0	0	1	1	2	15	
Air Serviceplus	2	0	0	0	0	0	0	0	0	0	0	0	5	0	7	
Air Southwest	3	1	0	2	2	2	3	3	0	0	0	1	1	3	21	
Alpi Eagles	2	3	0	3	1	1	0	1	4	3	0	1	3	3	25	
Baboo	3	2	0	3	3	2	3	3	3	0	0	3	3	3	31	
Belle Air	4	3	0	2	2	2	3	3	3	0	0	2	3	3	30	
Media / Mean	3.25	2.42	1.58	2.17	2.33	2.00	2.00	2.67	2.17	1.00	0.42	2.08	3.00	2.92		
Qualifier																
Non existing	0	1	7	2	1	1	3	1	3	8	10	1	1	1		
Very poor	0	1	0	0	1	2	2	1	1	0	1	3	2	0		
Poor	2	4	0	6	4	6	1	2	1	1	0	3	1	1		
Good	5	5	2	3	5	2	5	6	5	2	0	4	4	8		
Very good	5	0	2	0	1	1	0	1	2	1	1	1	0	1		
Excelent	0	1	1	1	0	0	1	1	0	0	0	0	4	1		

FIG. 1 – ROUNDED MEAN VALUES & DISTRIBUTIONS FOR AIRLINES WEBSITES PAGES/ELEMENTS

NOTE: The Microsoft Excel file containing the above data and related charts can be found on the personal websites of Liciniu-Alexandru Kovács, at www.geocities.com/liciniu/index.html and www.liciniu.ro in the Research section. All sheets and charts protections are without password. Anyone can download and use the file for free.

4. CONCLUSIONS

4.1 Conclusions based on fig. 1 and fig. 2

- In our study, the low-cost airline company randomly chosen (*Ryanair*) has obtained the best score among a total of 12 companies. More precisely, it has scored (fig. 1):
 - 7 times for "excellent" (5 points),
 - 6 times for "very good" (4 points),
 - 1 time for "good" (3 points).
- Best score was obtained by the *Home Page* category (an average of 3.25 points, fig. 1).
- Poorest element is *Event* (an average of 0.42 points, fig. 1).
- About 50% of the low-cost airline companies websites have between 30 and 40 points (fig. 2).
- About 42% of the low-cost airline companies websites have less than 30 points which means that the quality of their websites is relatively low (fig. 2).

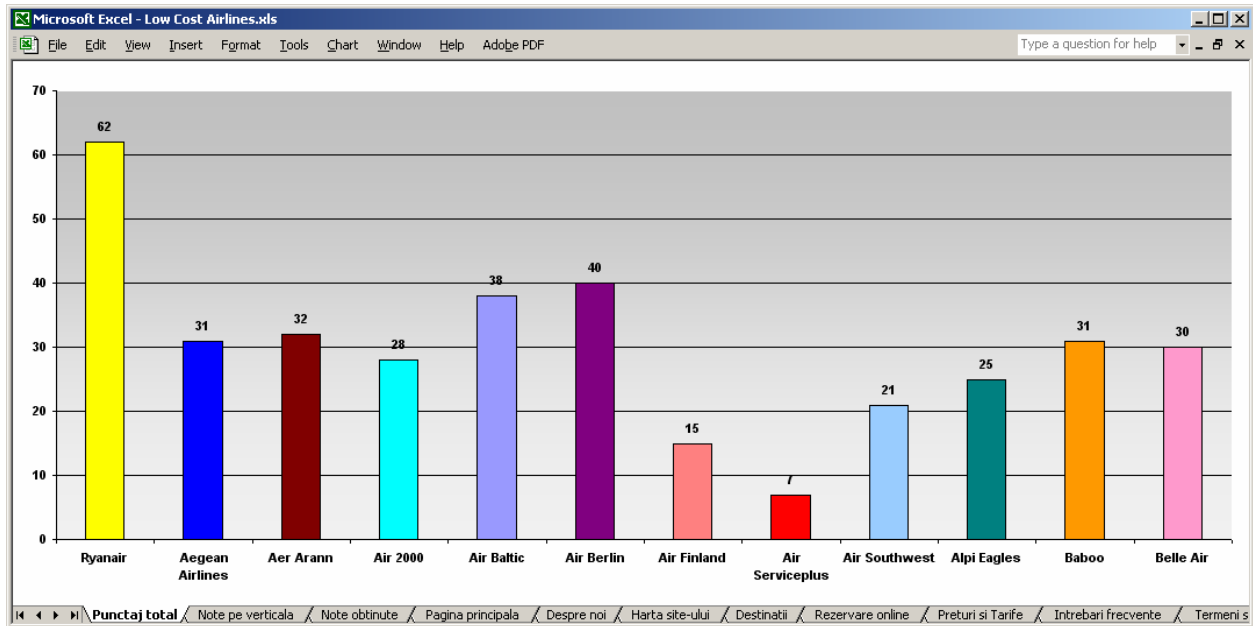


FIG. 2 – COMPARISON BETWEEN TOTAL POINTS FOR PAGES/ELEMENTS OF ALL WEBSITES

4.2 Conclusions based on 14 generated charts (fig. 3 represents one of them)

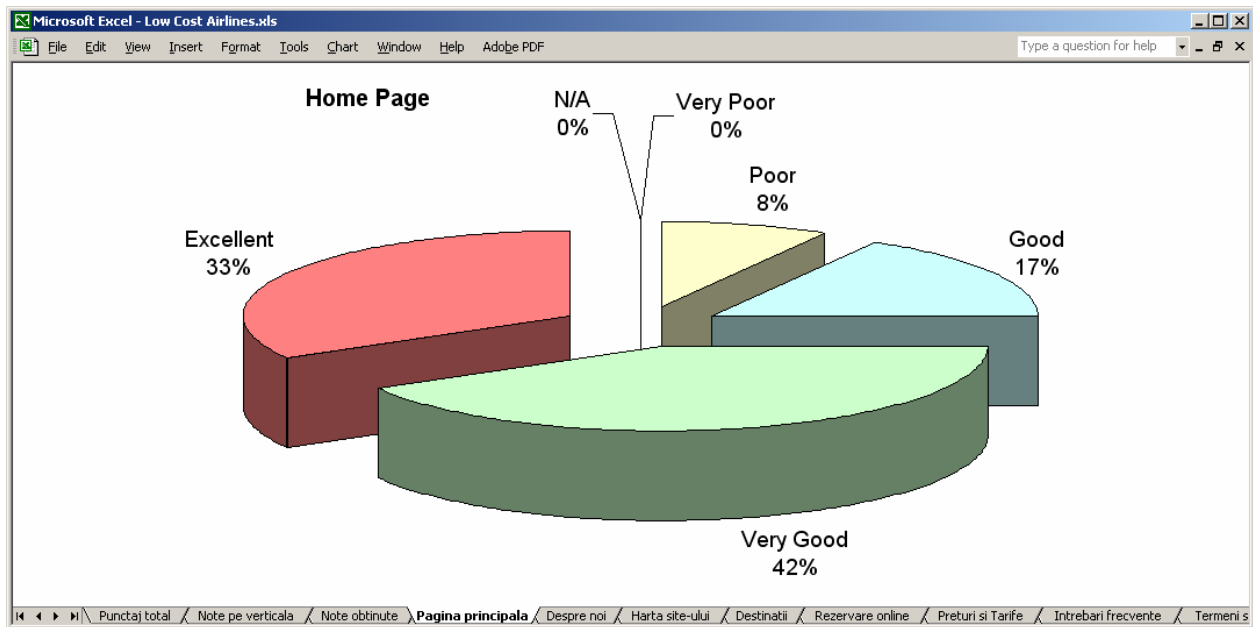


FIG. 3 – THE CHART FOR HOME PAGE CATEGORY

1. On the *Home Page* category, more than 75% are "very good" and "excellent".
2. In more than 92% of the cases, the *About Us* category is at least "good".
3. *Sitemap* category is "excellent" in 50% but is missing in 42% of the cases.
4. Almost 70% of the *Destination* category are "good", "very good" and "excellent".
5. *Online Reservations* are "good" for 34%, "very good" for 33% and "excellent" for 25% of the analyzed websites.
6. The *Rates and Tariffs* category is at least "good" for more than 75% of the cases.

7. FAQ is "excellent" for 25% but missing for 59%(!).
8. On the *Terms and Conditions* category more than 59% of the pages are "excellent".
9. More than 42% of the analyzed sites don't have *Jobs* category.
10. It seems that *Investor Relation* is specific only to one low-cost airline company.
11. The *Events* category is spread almost equally between non-existing to "excellent".
12. *Services* are "good" and "excellent" for more than 49% of the cases.
13. More than 17% of the websites don't have *Foreign Languages* versions.
14. *Contact* category is poor only for 17% of all cases.

5. STATISTICS

Throughout this paper we have worked with the mean values. Statistically speaking, it is important to see if the mean values are representative or not. We have obtained the following average values and coefficient of variations. Also we estimated the average of points for each website pages/elements using the confidence intervals at 95% confidence level (table 2).

TABLE 1 – ROUNDED MEAN VALUES FOR AIRLINES WEBSITES PAGES/ELEMENTS

Home Page	About Us	Sitemap	Destinations	Online Reservations	Rates and Tariffs	FAQ	Terms and Conditions	Jobs	Investor Relations	Events	Services	Foreign Languages	Contact
4	5	5	5	4	4	5	5	3	4	4	4	5	5
4	2	3	2	3	1	1	3	1	2	1	2	3	3
4	3	3	2	2	2	1	4	3	0	0	2	2	4
3	2	0	3	3	3	2	2	4	0	0	3	0	3
4	3	4	2	3	2	3	3	3	0	0	3	5	3
3	3	4	2	3	3	3	3	2	3	0	3	5	3
3	2	0	0	2	2	0	2	0	0	0	1	1	2
2	0	0	0	0	0	0	0	0	0	0	0	5	0
3	1	0	2	2	2	3	3	0	0	0	1	1	3
2	3	0	3	1	1	0	1	4	3	0	1	3	3
3	2	0	3	3	2	3	3	3	0	0	3	3	3
4	3	0	2	2	2	3	3	3	0	0	2	3	3

TABLE 2 – STATISTICS AND ESTIMATIONS FOR WEBSITES PAGES/ELEMENTS

Pages/elements	Mean	Coefficient of variation (%)	Confidence interval (at 95% confidence level)
Home Page	3.25	23.19	2.77; 3.73
About Us	2.42	51.31	1.63; 3.20
Sitemap	1.58	127.62	0.30; 2.87
Destinations	2.17	61.71	1.32; 3.02
Online Reservations	2.33	45.99	1.65; 3.01
Rates and Tariffs	2.00	52.22	1.34; 2.66
FAQ	2.00	79.77	0.97; 3.01
Terms and Conditions	2.67	48.85	1.84; 3.49
Jobs	2.17	70.50	1.20; 3.14
Investor Relations	1.00	153.74	0.02; 1.98
Events	0.42	279.48	-0.32; 1.17
Services	2.08	55.90	1.34; 2.82
Foreign Languages	3.00	58.60	1.88; 4.12
Contact	2.92	39.92	2.18; 3.66

In the above table (table 2), the values of the coefficient of variation show us that the mean value (average score) is representative only for *Home Page* category. If we generalize the average score obtained by each website page/element for all possible clients, we obtain the results from the confidence interval column.

As we have used just the same sample for all 12 low-cost airline companies, it is interesting to see some comparison of mean values of the pages/elements between themselves. Using again some statistical tools (ANOVA), we have observed that there exist considerable differences between website pages/elements at a 95% confidence level. It was interesting to observe that there are differences between: *About Us* and *Events*, *About Us* and *Investor Relations*, *Contact* and *Events*, *Contact* and *Investor Relations*, *Contact* and *Sitemap*, *Destinations* and *Events*, *Destinations* and *Investor Relations*, *Events* and *FAQ*, *Events* and *Foreign Languages*, *Events* and *Home Page*, *Events* and *Jobs*, *Events* and *Online Reservations*, *Events* and *Rates & Tariffs*, *Events* and *Services*, *Events* and *Terms & Conditions*, *Events* and *Sitemap*, *FAQ* and *Home Page*, *Foreign Languages* and *Investor Relations*, *Foreign Languages* and *Sitemap*, *Home Page* and *Investor Relations*, *Home Page* and *Rates & Tariffs*, *Home Page* and *Services*, *Home Page* and *Sitemap*, *Investor Relations* and *Jobs*, *Investor Relations* and *Online Reservations*, *Investor Relations* and *Terms & Conditions*.

TABLE 3 – STATISTICS AND ESTIMATIONS FOR THE 12 LOW-COST AIRLINE COMPANIES

Pages/elements	Mean	Coefficient of variation (%)	Confidence interval (at 95% confidence level)
Aegean Airlines	2.21	44.03	1.65; 2.78
Aer Arann	2.29	58.01	1.52; 3.05
Air 2000	2.00	70.71	1.18; 2.82
Air Baltic	2.71	50.94	1.91; 3.51
Air Berlin	2.86	38.48	2.22; 3.49
Air Finland	1.07	100.02	0.45; 1.69
Air Serviceplus	0.50	280.11	-0.31; 1.31
Air Southwest	1.50	81.65	0.79; 2.21
Alpi Eagles	1.79	76.65	0.99; 2.58
Baboo	2.21	56.51	1.49; 2.94
Belle Air	2.14	63.31	1.40; 2.89
Ryanair	4.43	14.59	4.05; 4.8

In table 3, the values of the coefficient of variation show us that the mean values (average scores) are representative only for *Ryanair* and *Air Berlin* low-cost airline companies. If we generalize the average score obtained by each analyzed company for all possible clients, we obtain the results from the confidence interval column. In fig. 4 the confidence interval can be seen as Lower limit and Upper limit columns.

As we have used just the same sample for all 12 low-cost airline companies, it is interesting to see some comparison of mean values of the low-cost airline companies between themselves. Using again same statistical tools (ANOVA), we have observed that there exist considerable differences between website pages/elements at a 95% confidence level. It was interesting to observe that there are 31 differences between website pages/elements, as seen in fig. 5.

6. OVERALL CONCLUSIONS

In order to obtain better results, one can increase the number of visited websites or the number of visitors who evaluate websites, and can use several Internet browsers (e.g. Internet Explorer, Opera, Mozilla, Konqueror, Netscape, FireFox, Hot Java Browser, etc.) under different operating systems (e.g. Windows, Linux, Solaris, etc.).

From the statistic point of view, it is necessary only to increase the sample volume (the number of visitors) and to work directly the primary scores.

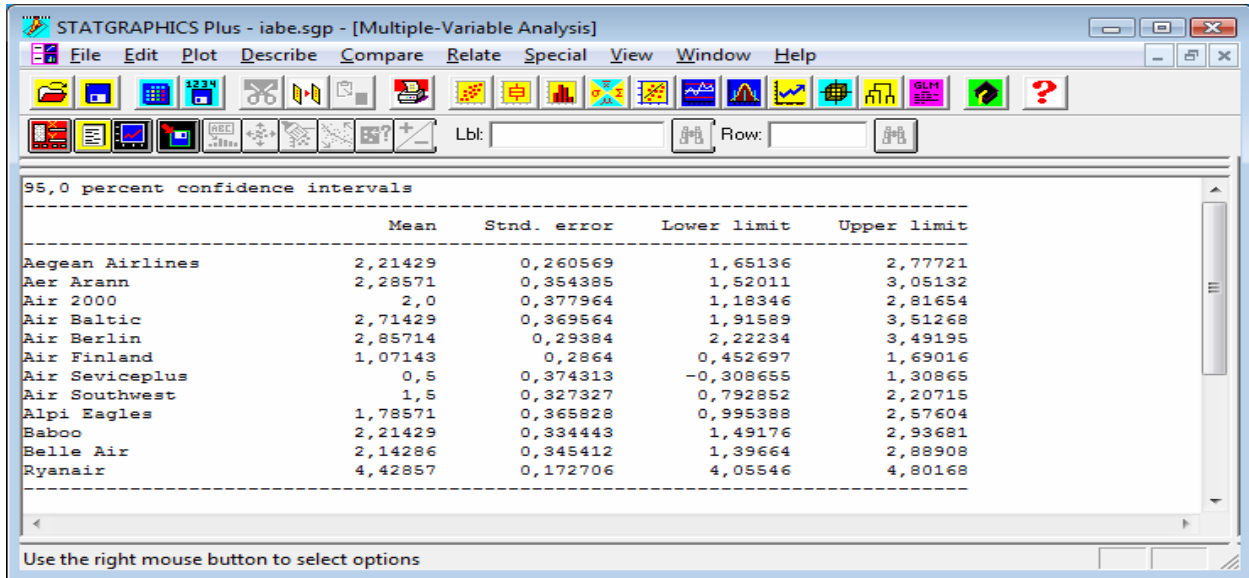


FIG. 4 – STATISTICS AND ESTIMATIONS IN STATGRAPHICS

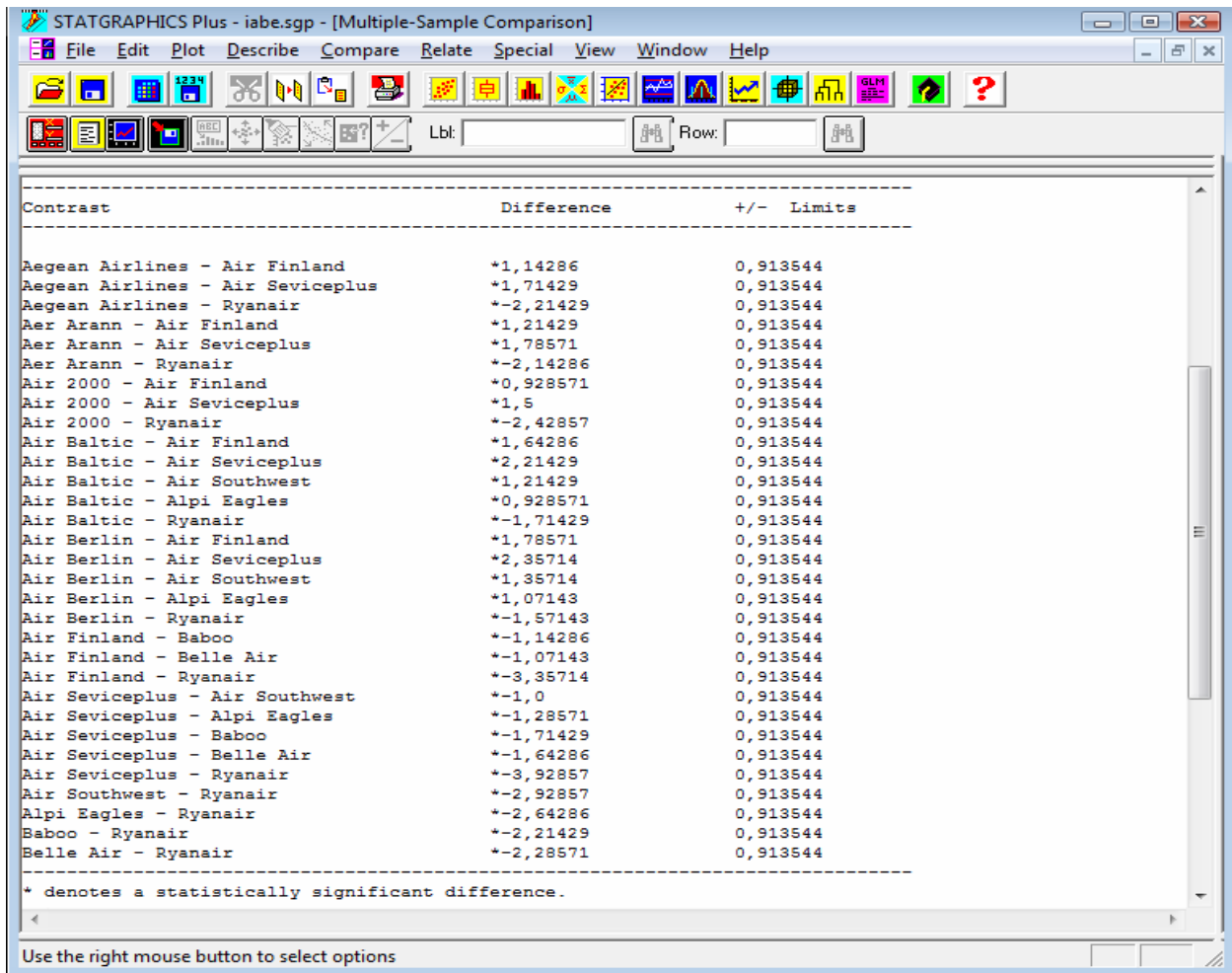


FIG. 5 – CONSIDERABLE DIFFERENCES BETWEEN WEBSITE PAGES/ELEMENTS

BIBLIOGRAPHY

1. Gálfi, V.M., Kovács, L.A., Chifu-Oros, C.I., Moldovan, Ș., Web presence of travel agencies from Transylvania-Romania and Hungary, SINTES 12 International Symposium, XIIth Edition, October 20-22, 2005, Craiova, Romania, Vol.3, pp. 521-526.
2. Kotler, P., Armstrong, G., Saunders, J, Wong, V., Principiile Marketingului - Ediția Europeană, TEORA, București, 1999.
3. Kovács, L.A., Rus, V.R., Chifu, C.I., Case study on French, Greek and Romanian hotel websites, IABE-2006 Annual Conference, October 15-18, 2006, Las Vegas, Nevada, USA (published in IJBR, Volume VI, Number 1, 2006, ISSN 1554-5466).
4. Kovács, L.A., Șchiopu, N.F., Case study on Romanian hotels' websites, Studia Universitatis Babeș-Bolyai, Negotia XLVIII, 2003.
5. Internet Resources – Google Search Engine, Wikipedia, etc.

Authors Profiles:

Dr. Liciniu-Alexandru Kovács earned his Ph.D. at Babeș-Bolyai University of Cluj-Napoca, Romania, Faculty of Psychology and Educational Sciences in 2000. Currently he is a professor of e-business and project management at the same university, Faculty of Business.

Mr. Traian Ionuț Luca, is going to earn his Ph.D. in dynamic optimization at Babeș-Bolyai University of Cluj-Napoca, Romania, Faculty of Mathematics and Informatics. Currently he is a teaching assistant of applied mathematics and statistics at the same university, Faculty of Business.

Dr. Zoltán Élthes earned his Ph.D. at Babeș-Bolyai University of Cluj-Napoca, Romania, Faculty of Economics Sciences and Business Management in 2005. Currently he is an associate professor of information technology and e-commerce at the same university, college of Sfântu Gheorghe, Romania.