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Brand position in the eyes of customers: assessment of selected airlines by the passengers' online reviews

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Abstract

Motivation: The motivation to write an article on airlines was the desire to rank them based on customer reviews and see how these reviews reflect the actual brand image. The opinions that companies collect about themselves have a very strong power when it comes to building its reputation.

Aim: The aim of the study was to use digital transformation and transform raw data into specific information that expressed customer emotions to create a profile of selected airlines. A secondary goal of the article was also to check how the analyzed airlines perform in similar areas.

Materials and methods: The data used for the analysis was collected from the eSky.com website and covers the 2019–2020 period. The airlines concerned by the customer reviews were LOT, Ryanair, Wizzair, Czarter, EasyJet, Lufthansa and Laudamotion. Their selection was dictated by the number of opinions necessary to conduct the analysis. The research based on the use of data mining techniques, but it should be noted that most of it uses text mining tools. Topic modelling was used to prepare the data properly and assign each word to groups with similar themes. In order to obtain information whether a given opinion has a positive, negative or neutral tenor, sentiment analysis was used. The final part of the analysis was based on the net sentiment score indicator. The entire analysis was carried out in the R-Studio.

Results: The most common subjects of opinions written by customers were “delay”, “service”, “boarding” and “airline”. It was confirmed that the opinions of each airline concern different topics, although some common topics were noticeable. Two topics were repeated among the 7 analyzed airlines — “service” and “delay”. Based on the sentiment analysis, for the Ryanair airline the percentage of negative opinions was highest and equal to 35%, almost 40% of neutral opinions fell on the WizzAir airline and the largest percentage of positive feedback, as much as 46%, was attributed to EasyJet. EasyJet line looks the best in the eyes of customers. The line that evoked uniformly positive, negative and neutral emotions in the opinions was Ryanair.

Keywords: data mining; text mining; branch; brand; opinion; R; client; airline; sentiment analysis

JEL: R49; O35

1. Introduction

The paper focuses on customer opinions which are very important from the point of view of today's world. The opinions that brands collect about themselves have a very strong power when it comes to building its brand and reputation. This is a factor that brands have been working on for years that can be spoiled by malfunctioning in a very short time. Therefore, it is important during the brand's existence to continue to attach equal importance to its customers and the created image. According to what [Eachempati et al. \(2022\)](#) write in their work, customer opinions are particularly important because they affect the company's growth rate, and thus its future profits.

Opinions are most often visible in the online world, because there we browse products and also arrange visits to places whose services we want to use. People very often make purchases based on the opinions displayed next to a given product. What's more, they help very often when a person is not sure which product / service they should choose. It is commonly believed that customers / consumers most often give opinions in case of negative situations. However, it is increasingly being noticed that customers also give opinions when they are very satisfied.

The project attempts to analyze the opinions of people who have used the services of individual airlines, including LOT, Ryanair, Wizzair, Czarter, EasyJet, Lufthansa and Laudamotion. Its main goal is to get to know the general opinion of customers of a particular airline and to obtain information on how a particular airline compared to the surveyed airlines.

The main goal of the project is to try to answer the question how, on the basis of the collected opinions, people using the services of individual airlines express their opinions about the services provided. This question is supposed to indirectly lead to obtaining information whether the customers of a given airline feel satisfied with the use of the services

of specific airlines and how individual of them perform compared to the analyzed airlines.

An answer to a given research problem can be obtained by answering more detailed questions, among which the following were allowed to distinguish:

- What are the most frequently discussed topics by the customers of the analyzed airlines?
- What topics are covered by customers of all airlines?
- Which airlines have the highest number of positive opinions?
- Which airlines have the highest number of negative reviews?
- Which airlines have the most neutral opinions?
- What is the similarity in terms of the topics of opinion between the various airlines?

2. Literature review

A literature review will be carried out in terms of the quality of airline services. The service quality factor is very much related to customer satisfaction, because the quality of services is measured precisely by their satisfaction. A study by [Jiang and Zhang \(2016\)](#) confirms this thesis, and authors also point to an additional aspect of loyalty and add it as one that is also influenced, in this case, by the quality of Chinese airlines' services. It must be admitted that measuring the quality of air services is very difficult. The methods that are used in the literature to measure the quality of these services include: quantitative research, survey methods, SERVQUAL, VIKOR and the sentiment analysis indicator also used in this work. The survey methods were used in the satisfaction survey of passengers choosing full services airline by [Allen et al. \(2020\)](#). Using survey tools, research was also carried out on the American consumer market, the results of which showed that customers of airlines in the analyzed area are indifferent to the quality of air services, i.e. they show neither satisfaction nor lack of it ([Leon & Martin, 2020](#)). The Fuzzy Weighted SERVQUAL model was developed in a Tai-

wanese airline article, where the dimensions are reliability and confidence, responsiveness, empathy, tangibles and flight pattern. When it comes to the weight of items, the most important are safety, complaints, courtesy of the crew, punctuality and comfort (Chou et al., 2011). At the topic stage of modelling in this paper aspects such as delay, service, comfort, other problems, airline, departure and boarding. In turn, Noviantoro and Huang (2021) in their study point to boarding, Wi-Fi, baggage handling and in-flight entertainment as factors contributing to passenger satisfaction. Research conducted by Farzadnia and Raeesi Vanani (2022) on the analysis of 10 Arab airlines showed that using more topics (10), with their appropriate division, can give detailed information about the services that a given airline needs to improve in order to improve the quality of its services.

3. Materials and methods

The data used for the analysis was collected from the eSky.com (2022) website and covers the 2019–2020 period. The airlines concerned by the customer reviews were LOT, Ryanair, Wizzair, Czarter, EasyJet, Lufthansa and Laudamotion. Their selection was dictated by the number of opinions necessary to conduct the analysis (Table 1). The research based on the use of data mining techniques, but it should be noted that most of it uses text mining tools. Topic modelling was used to prepare the data properly and assign each word to groups with similar themes. In order to obtain information whether a given opinion has a positive, negative or neutral tenor, sentiment analysis was used. Text analysis was based on the use of NLP (Natural Language Processing) and machine learning. The analysis of the customer sentiment for each analyzed airline allowed to distinguish 3 categories: positive, negative and neutral. It was possible thanks to the use of sentiment lexicon which is a list of words with a specific emotional marking. It is described in detail by Liu (2011).

The final part of the analysis was based on the net sentiment score indicator. The en-

tire analysis was carried out in the R-Studio and the NSR values were obtained with MS Office.

The sentiment analysis method was applied to unstructured data obtained from the eSky.com (2022) website. The stages that enabled its implementation were carried out on the basis of the instructions presented by D’Andrea et al. (2015), and Baj-Rogowska (2017). The procedure followed in this work is briefly outlined below.

The first stage was data collection consisting in collecting data on the analyzed objects. The next step was text preparation which including cleaning the data with emotes, tabs, and punctuation marks. The cleared text is then analyzed for words with an emotional meaning (sentiment detection). The last step is sentiment classification, which is a process that classifies user opinions as good, bad or neutral. After this step, we get classified data that can be plotted on the chart.

The basis for calculating the net sentiment ratio (NSR) in the analyzed period are positive and negative opinions. Like the author of Baj-Rogowska (2020), the following algorithm is also used in this work:

$$NSR = \frac{(PO - NO)}{(PO + NO)}, \quad (1)$$

where:

PO — positive opinions;

NO — negative opinions.

Moreover, $NSR \in (-1, 1)$, where -1 means opinions are totally negative and 1 means opinions are totally positive.

In this study, the Net Sentiment Rate is used to express the net value of airline customers opinions submitted in comments on eSky.com (2022).

4. Results

In order to be able to define the strength of the net sentiment, the classification proposed by Baj-Rogowska (2020) was used and it is as follows:

- $0.0 < |NSR| \leq 0.1$ — weak positive/negative sentiment;
- $0.1 < |NSR| \leq 0.3$ — average positive/negative sentiment;
- $0.3 < |NSR| \leq 0.5$ — high positive/negative sentiment;
- $0.5 < |NSR| \leq 0.8$ — very high positive/negative sentiment;
- $0.8 < |NSR| < 1.0$ — almost complete positive/negative sentiment.

When analyzing the results presented in [Table 2](#), it can be noticed that the highest value of the indicator in terms of service was recorded for the LOT airline and it was 0.57, a slightly lower value, because equal to 0.56, characterized the service of the Lufthansa airline, which proves a very high positive sentiment. The average positive service rating is visible for Wizzair, Ryanair and Easyjet as it is 0.13, 0.15 and 0.18 respectively. For the Charter airline, the service rating was 0.0. When it comes to a factor such as delay, it is very difficult to interpret, as the associated assessment should not always be treated negatively. Often, customers in positive opinions point to the lack of delays or a short delay, which leads to the fact that the overall sentiment resulting from a given opinion is treated positively. And so then the LOT airline has a high positive value of the indicator in terms of delays, equal to as much as 0.5. The same value of the indicator is recorded for the Wizzair line. Weak negative sentiment for delays has been observed for Easyjet and Ryanair. When it comes to satisfaction, a very high negative value of the indicator was noticed at LOT, as it was as high as -0.56. On the other hand, for the Lufthansa line the indicator was at a high positive level of 0.47 for satisfaction. It is also worth noting that comfort was rated at 0.35 and 0.71 for the Wizzair and Easyjet lines, respectively. When analyzing the overall results in [Table 3](#), it can be concluded that the customers of Lufthansa, Easyjet and Wizzair have the most positive feelings about the topics indicated. Rather average results in terms of the nature of the opinion were recorded for the lines of Czarter, Laudamotion and Rya-

nair. It is very difficult to generalize the nature of the opinions of LOT airline customers, because there are high positive and negative values there. Additionally, based on the [Charts 1-7](#), it can be stated that:

1. On the basis of [Chart 1](#) the emotions that most often accompanied by LOT's customers were, in their opinions, rather positive and based on trust. It was often the opinions that the customers had a feeling of anticipation when flying with this airline.
2. Based on the [Chart 2](#) the emotions that most often accompanied Lufthansa's customers were, in the opinions, rather positive and based on trust. It was often the opinion that the customers had a feeling of anticipation when flying with this airline.
3. Based on the [Chart 3](#) it can be concluded that sentiment analysis returns a high positive, trust and anticipation value when it comes to the feelings accompanying customers of Czarter when giving opinion. Negative feelings are very rare.
4. [Chart 4](#) indicates that the sentiment analysis shows a high degree of both positive and negative emotions evoked by Ryanair customers. You can see a high degree of anticipation from customers and trust when it comes to a given brand.
5. The sentiment analysis, which based on the [Chart 5](#), showed that values such as trust dominated among EasyJet customers. Customers were rather positive about the airline, but anticipation was also high.
6. Regarding the Wizzair airline, [Chart 6](#) shows that Sentiment analysis returns a high value of the positive emotions that accompanied customers in the opinions they expressed. Anticipation and trust also achieved a high value.
7. Based on the [Chart 7](#) it can be said that the sentiment analysis again shows a high degree of positive emotions, this time among Laudamotion customers. Anticipation has also shaped a high value, and a trust not much below it.

5. Conclusion

Opinion mining based on the opinions of customers using the services of various airlines. Opinions were collected (97, 114, 78, 115, 432, 243 and 109) for EasyJet, Lufthansa, Charter, LOT, Ryanair, WizzAir and Laudamotion, respectively. Due to the availability of data, the research period is 2019 and 2020. In order to obtain the best result of the answer to the research problem, a few additional questions were formulated that were more detailed and one fundamental question: How do people using the services? Are individual airlines talking about the services they provide? The most common subjects of opinions written by customers were “delay”, “service”, “boarding” and “airline”. It was confirmed that the opinions of each airline concern different topics, although some common topics were noticeable. Two topics were repeated among the 7 analyzed airlines — “service” and “delay”. Full list of topics and examples of opinions that appeared on a given topic are presented in [Table 3](#). Due to the high thematic similarity of the opinions collected, it was decided to carry out the clustering process. However, this process showed a completely different similarity to that resulting from the topics assigned to the opinion of a given airline.

Based on the sentiment analysis, information was obtained which of the analyzed opinions were positive and which were negative. The analysis also allowed to distinguish opinions for which the value was obtained, i.e. neutral opinions. The lowest percentage of negative opinions was recorded for WizzAir (19%). In turn, the highest percentage was noted for the Ryanair airline, where the percentage of negative opinions was as high as 35%. Based on the degree of negative reviews, it can be assumed that the airlines among which the least dissatisfied passengers are WizzAir and Lufthansa. The greatest satisfaction in the opinions can be noted for EasyJet, as 47% of the opinions are perceived as positive. The lowest degree of satisfaction was that of Ryanair customers as their percentage was around 34%. About 29% of neutral opin-

ions appeared in opinions written about EasyJet services and it was the lowest percentage of such opinions. The highest percentage, almost 40%, of neutral opinions fell on the WizzAir airline. As for positive opinions, it was noticed that a similar situation was developed as in the case of negative opinions. The largest percentage of positive feedback, as much as 46%, was attributed to EasyJet, and the lowest corresponded to the opinions of RyanAir customers. Based on the above conclusions, taking into account the number of positive, negative and neutral comments as well as the NSR indicator, it can be said that the Easyjet line looks best in the eyes of customers. On the other hand, the line that evoked uniformly positive, negative and neutral emotions in the opinions was Ryanair.

The topic of customer service turned out to be the best for LOT and Lufthansa customers, as the value of the indicators for these lines was as high as 0.56 and 0.57, which could be interpreted as a very high result. The remaining airlines showed average customer satisfaction when it comes to passenger service, with Ryanair, Wizzair, Laudamotion and EasyJet hovering around 0.06–0.18. Customer service can be interpreted as one of the main factors influencing the overall customer satisfaction, therefore it can be concluded that LOT and Lufthansa rank best when it comes to the analyzed airlines. The transformation of raw data and the application of digital transformation made it possible to compare selected airlines in terms of the topics specified. The remaining topics do not lead to uniform conclusions, so there is a need to gather more opinions and conduct a sentimental analysis on the examined objects once again. As for the profiles of airlines that were created in the eyes of customers, they were as follows:

1. The LOT airline is a brand distinguished by a high level of customer service, delays, but low customer satisfaction.
2. The Lufthansa airline is an airline that is characterized by a high level of customer service and a high level of customer satisfaction.

3. The Charter airline, in turn, is characterized by high customer satisfaction when it comes to boarding
4. The Ryanair is an airline that is perceived by customers very average when it comes to service or slightly negatively when it comes to departures and delays
5. The Wizzair is an airline that is perceived very positively by passengers, both in terms of travel comfort and satisfaction, which is strange, unfortunately, there is a high level of delays of a given airline
6. The Laudamotion line is also a very average brand in the eyes of customers
7. The Easyjet line, on the other hand, is characterized by high comfort when it comes to customer journeys.

References

- Allen, J., Bellizzi, M.G., Eboli, L., Forciniti, C., & Mazzulla, G.. (2020). Air transport service quality factors: a systematic literature review. *Transportation Research Procedia*, 45, 218–225. <https://doi.org/10.1016/j.trpro.2020.03.010>.
- Baj-Rogowska, A. (2017). Sentiment analysis of Facebook posts: the Uber case. *Eighth International Conference on Intelligent Computing and Information Systems* (pp. 391–395), <https://doi.org/10.1109/INTELCIS.2017.8260068>.
- Baj-Rogowska, A. (2020). Evaluation of a company's image on social media using the Net Sentiment Rate. In E. Lechman, & M. Popowska (Eds.), *Society and technology: opportunities and challenges* (pp. 202–218). <https://doi.org/10.4324/9780429278945>.
- Chou, C.-C., Liu, L.-J., Huang, S.-F., Yih, J.-M., & Han T.-C. (2011). An evaluation of airline service quality using the fuzzy weighted SERVQUAL method. *Applied Soft Computing*, 11(2), 2117–2128. <https://doi.org/10.1016/j.asoc.2010.07.010>.
- D'Andrea, A., Ferri, F., Grifoni, P., & Guzzo, T. (2015). Approaches, tools and applications for sentiment analysis implementation. *International Journal of Computer Applications*, 125(3), 2015, 26–33. <https://doi.org/10.5120/ijca2015905866>.
- Eachempati, P., Srivastava, P.R., Kumar, A., de Prat, J.M., & Delen, D. (2022). Can customer sentiment impact firm value: an integrated text mining approach. *Technological Forecasting and Social Change*, 174, 121265. <https://doi.org/10.1016/j.techfore.2021.121265>.
- eSky.com. (2022). Retrieved 01.03.2022 from <https://www.esky.com>.
- Farzadnia, S., Raessi Vanani, I. (2022). Identification of opinion trends using sentiment analysis of airlines passengers' reviews. *Journal of Air Transport Management*, 103, 102232. <https://doi.org/10.1016/j.jairtraman.2022.102232>.
- Jiang, H., & Zhang, Y. (2016). An investigation of service quality, customer satisfaction and loyalty in China's airline market. *Journal of Air Transport Management*, 57, 80–88. <https://doi.org/10.1016/j.jairtraman.2016.07.008>.
- Leon, S., & Martín, J.C. (2020). A fuzzy segmentation analysis of airline passengers in the U.S. based on service satisfaction. *Research in Transportation Business and Management*, 37, 100550. <https://doi.org/10.1016/j.rtbm.2020.100550>.
- Liu, B. (2011). Opinion mining and sentiment analysis. In: B. Liu, *Web data mining. Data-centric systems and applications* (pp. 459–526). Springer. https://doi.org/10.1007/978-3-642-19460-3_11.
- Noviantoro, T., & Huang, J.-P. (2021). Investigating airline passenger satisfaction: data mining method. *Research in Transportation Business and Management*, 43, 100726. <https://doi.org/10.1016/j.rtbm.2021.100726>.

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Appendix

Table 1.
Number of opinions by airline

No.	Airline	Number of opinions
1	LOT	115
2	Lufthansa	114
3	Czarter	78
4	Ryanair	432
5	WizzAir	243
6	Laudamotion	109
7	EasyJet	97

Source: Own preparation based on [eSky.com](https://www.esky.com) (2022) website.

Table 2.
Values of the indicators for specific airlines

Airline	Topic	Absolute value of the indicator	Interpretation of the indicator
LOT	service	0.57	very high positive
LOT	delay	0.5	high positive
LOT	satisfaction	-0.56	very high negative
LOT	boarding	0.08	weak positive
Lufthansa	brand assessment	0.38	high positive
Lufthansa	service	0.56	very high positive
Lufthansa	satisfaction	0.47	high positive
Lufthansa	delay	0.0	-
Czarter	boarding	0.58	very high positive
Czarter	delay	0.2	average positive
Czarter	departure	0.0	-
Czarter	service	0.0	-
Ryanair	departure	-0.1	weak negative
Ryanair	delay	-0.11	weak negative
Ryanair	brand assessment	0.1	weak positive
Ryanair	service	0.15	average positive
Wizzair	service	0.13	average positive
Wizzair	comfort	0.35	high positive
Wizzair	delay	0.5	high positive
Wizzair	satisfaction	0.5	high positive
Laudamotion	airline	0.39	high positive
Laudamotion	delay	0.1	weak positive
Laudamotion	service	0.06	weak positive
Laudamotion	boarding	0.17	average positive
Easyjet	problems	0.5	high positive
Easyjet	comfort	0.71	very high positive
Easyjet	delay	-0.06	weak negative
Easyjet	service	0.18	average positive

Source: Own preparation.

Table 3.
Sample opinions

Airline	No.	Topic label	Topic description	Comments examples	Topic proportion (%)	Number/% of documents
EasyJet	1	problems	Describes potential problems which clients had.	"No problems." "I've always found easy jet great to fly with. Everything usually does smoothly and the staff etc are lovely."	27.1	36/33
EasyJet	2	comfort	Describes clients comfort of the journey, and feelings about the trip.	"EasyJet did well processing me as a customer." "Just ideal."	27.1	22/20.2
EasyJet	3	delay	Describing the clients experience connected with waiting time and length of the flight.	"Return journey had delayed departure of 50 minutes Outward journey 15 minutes early arrival at Bristol." "Delayed."	27.5	29/26.6
EasyJet	4	service	Describes the level of service and in-flight amenities.	"All went very well, except baggage reclaim delays at Bristol Airport on return."	27.3	22/22.20
Lufthansa	1	airline	Describes general impressions of flight with a given airline.	"Everything was well explained and well organised." "On time and efficiently, friendly service, on national lines snacks and free drinks."	25.1	37/32.5
Lufthansa	2	service	Describes the level of service and in-flight amenities.	"Friendly staff. Food not special." "Great planes, great staff, free food and drink, very old-school"	25.2	27/23.7
Lufthansa	3	satisfaction	Describes the satisfaction of customers with the flight.	"My travel experience was positive." "Very nice and smooth registration and flight."	24.9	31/27.2

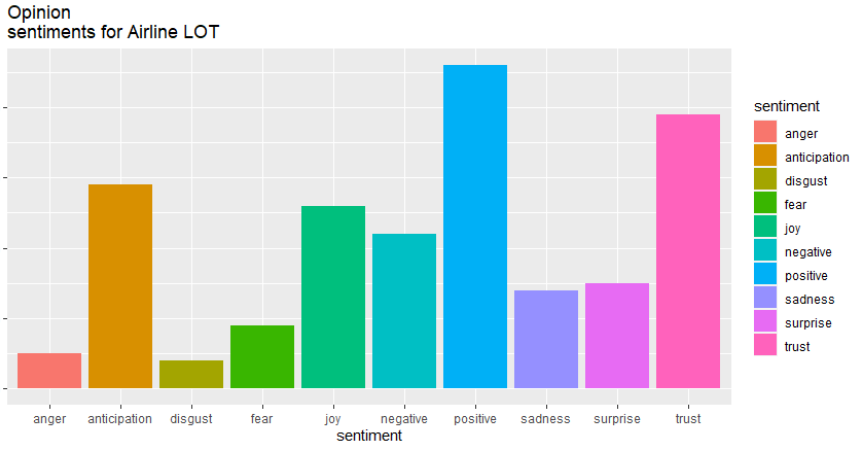
Airline	No.	Topic label	Topic description	Comments examples	Topic proportion (%)	Number/% of documents
Lufthansa	4	delay	Describing the clients experience connected with waiting time and length of the flight.	"My family who speaks minimum amount of English had to travel through Munich, but less than 24 hours before hand their flight was cancelled due to the streak on the airline. They were generous rebooked to a different flight from Frankfurt to Dublin, just to be notified 10 min prior departure from Frankfurt, that this flight, also has been cancelled. Then leaving the gate, and going to information, they are told that the flight will happen. With 1 hour delay they made it to Dublin, but stress as beyond what they needed on the first day of their holiday."	24.8	19/16.6
Laudamotion	1	airline	Describes general impressions of flight with a given airline.	"I truly enjoyed my first experience with Laudamotion, all went very well and smooth."	25	43/37.5
Laudamotion	2	delay	Describing the clients experience connected with waiting time and length of the flight.	"We booked a Laudamotion flight and was booked on a Ryan air flight. We were made to pay again for our bag and was not allowed on our flight until we paid again."	25.1	22/19.1
Laudamotion	3	service	Describes the level of service and in-flight amenities.	"I was very happy with both the booking and the flight. Every time I felt some solution was needed a professional response met my perception sweetly in perfect time."	25.3	25/23
Laudamotion	4	boarding	Describes the check-in and preparation process.	"Totally shocked that I had to pay twice for boarding passes due to my ignorance of modern technology."	24.6	16/14.6
LOT	1	service	Describes the level of service and in-flight amenities	"Excellent flights in both directions." "The complimentary drinks are the best."	25	43/37.5
LOT	2	delay	Describing the clients experience connected with waiting time and length of the flight.	"If it were not described in the subject of theft, the rest of the trip except the inconvenience, when giving luggage in Dusseldorf in the best order." "Flights late, planes rented, map seats."	24.6	22/19.1

Airline	No.	Topic label	Topic description	Comments examples	Topic proportion (%)	Number/% of documents
LOT	3	satisfaction	Describes the satisfaction of customers with the flight.	"It was a no frill flight, as expected. Stewardess went out of their way to serve the passengers."	25.2	29/25.2
LOT	4	boarding	Describes the check-in and preparation process.	"Traveller business class. Food on planes only ordinary, but staff and environment good."	25.2	21/18.2
Czarter	1	boarding	Describes the check-in and preparation process.	"First hand, poor service. The other way around, half of my chair was occupied by an obese Lord so it was uncomfortable. Poor store supplies many products were missing."	25.4	32/41
Czarter	2	delay	Describing the clients experience connected with waiting time and length of the flight.	"The departure from Warsaw was delayed by almost 3h, but we flew 3, 5h later than planned. When buying a flight, the return flight was about 11.05, was postponed to 6.15, that is, our holiday was shortened together by more than 8h. On the way back we got two meals at an interval of 7h. There was no information about which to be given..."	25	16/20.5
Czarter	3	departure	Describes the departure process and the overall organization.	"Low-budget flight, economical standard of low-cost airlines: tight, uncomfortable seats, etc. But the price of the flight attractive:)"	24.8	16/20.5
Czarter	4	service	Describes the level of service and in-flight amenities.	"Very good impression, super landing at a difficult airport in Madeira."	24.8	14/17.9
WizzAir	1	service	Describes the level of service and in-flight amenities.	"Nice, professional and friendly crew" "Please understand some of the people with the cabin bag don't put them to paid 23€ because the cabin bag is bigger with few cm."	24.5	53/21.8
WizzAir	2	comfort	Describes clients comfort of the journey, and feelings about the trip.	"Strange seat allocation. Obviously not placed together in an attempt to get customer to purchase seats. Families split up but opposing couples able to switch."	25	66/27.2

Airline	No.	Topic label	Topic description	Comments examples	Topic proportion (%)	Number/% of documents
WizzAir	3	delay	Describing the clients experience connected with waiting time and length of the flight.	"Our flight on the 15th Feb 2020 to London was a scary one because the strong winds in London and the pilot was excellent!! I fly with Wizzair because it is safe and clean and affordable. Thank you."	25	53/21.8
WizzAir	4	satisfaction	Describes the satisfaction of customers with the flight.	"Very nice company." "Comfortable flight and nice service."	25.3	71/29.2
RyanAir	1	departure	Describes the departure process and the overall organization.	"Information about the luggage allowance was lost. I was forced to empty most of my suitcases on to the airport table. I lost my personal items and almost all of the gifts I was carrying. Same thing would have happened on the way back but the person checking me in found my luggage allowance later. She explained it wasn't clear to her from what was recorded."	25.1	121/28
RyanAir	2	delay	Describing the clients experience connected with waiting time and length of the flight.	"Problem with the aircraft meant a two hour delay due to diversion to Marseille. Flight crew stressed out by queues for toilet as no facilities at Marseille boarding gate. A weak bladder revolt ensued!"	25.1	130/30
RyanAir	3	airline	Describes general impressions of flight with a given airline.	"Very professional, curious and extremely helpful nothing was too much bother; excellent updates and kept well informed which we gratefully appreciated in this current climate. Flight staff and checking in staff were welcoming. Staff were a credit to the airline."	24.9	85/19.6
RyanAir	4	service	Describes the level of service and in-flight amenities.	"Straight forward easy check in and smooth flight." "It has been a wonderful traveling with RyanAir; the time is accurate, and the experience is great."	24.9	96/22.2

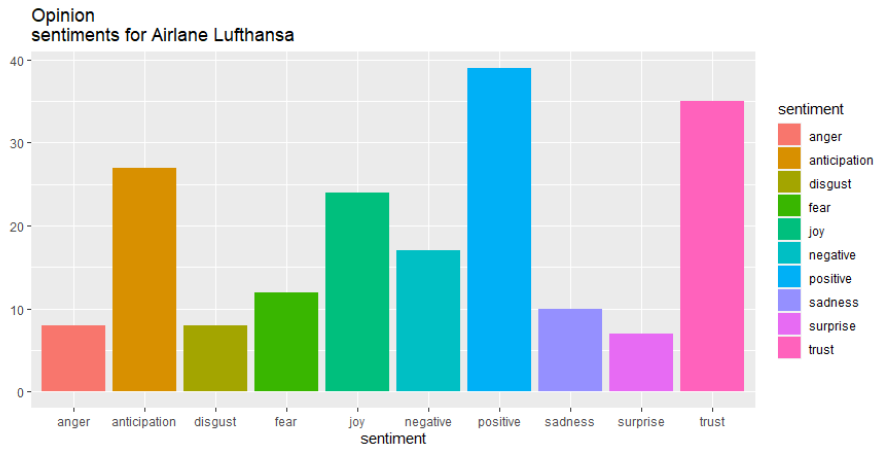
Source: Own preparation based on [eSky.com](https://www.esky.com) (2022) website.

Chart 1.
Opinion sentiments for LOT



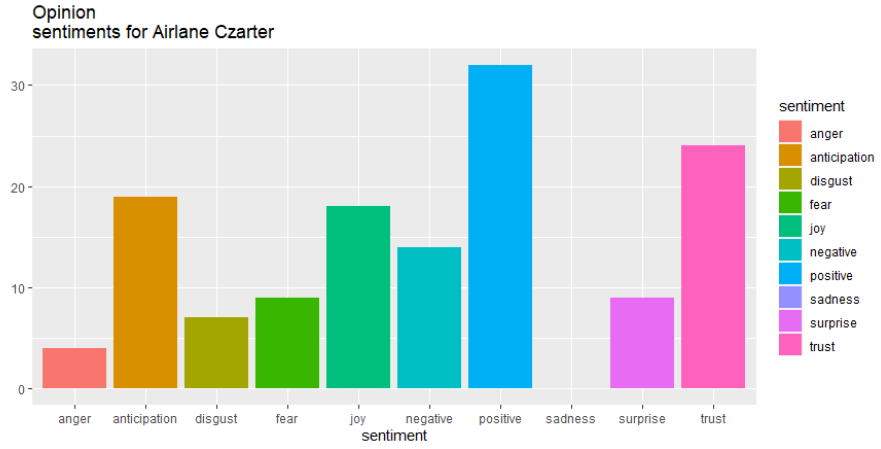
Source: Own preparation based on eSky.com (2022) website.

Chart 2.
Opinion sentiments for Lufthansa



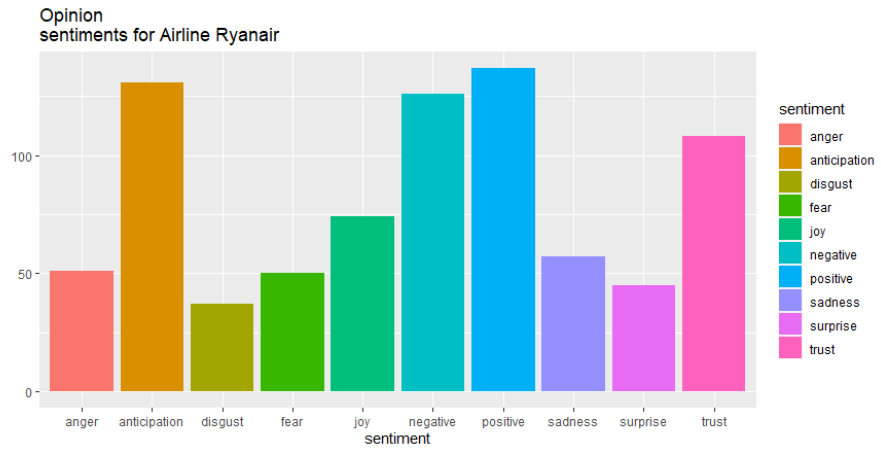
Source: Own preparation based on eSky.com (2022) website.

Chart 3.
Opinion sentiments for Czarter



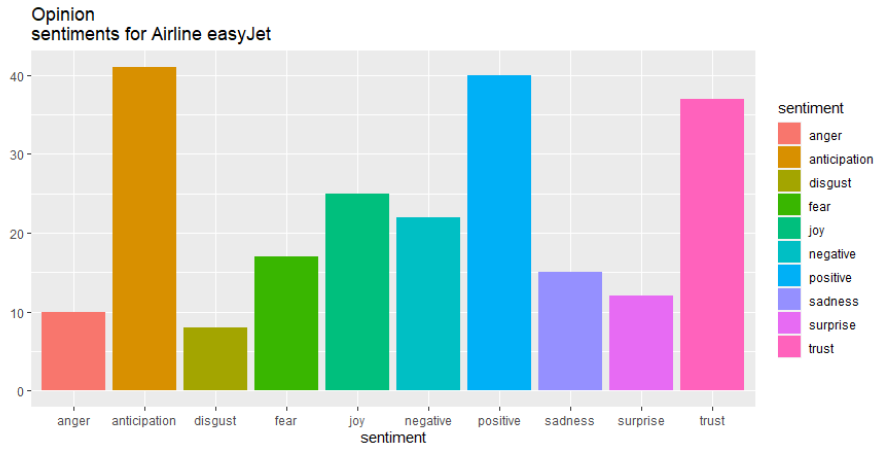
Source: Own preparation based on eSky.com (2022) website.

Chart 4.
Opinion sentiments for Ryanair



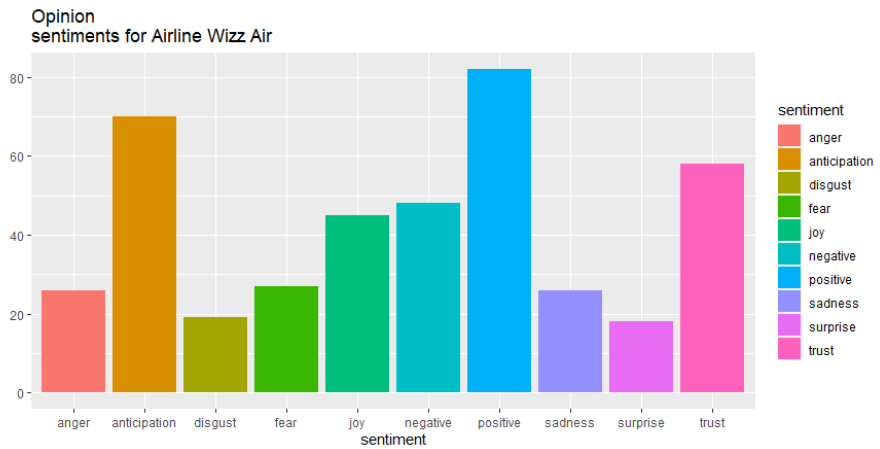
Source: Own preparation based on eSky.com (2022) website.

Chart 5.
Opinion sentiments for Easyjet



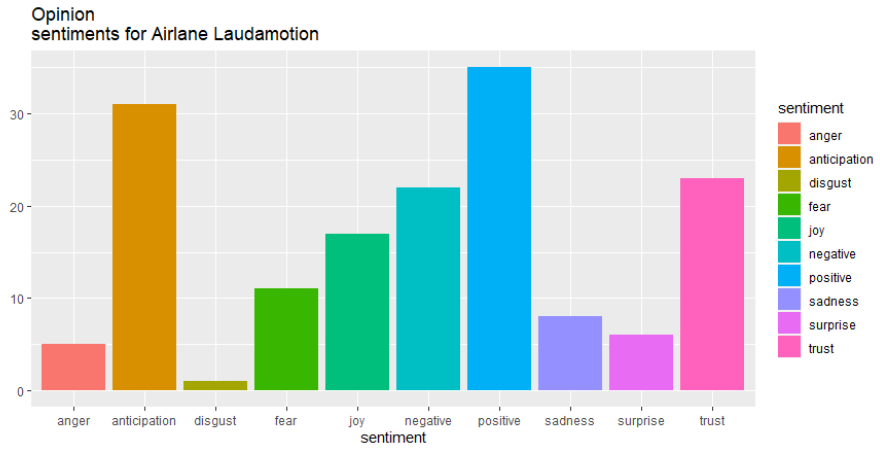
Source: Own preparation based on eSky.com (2022) website.

Chart 6.
Opinion sentiments for Wizzair



Source: Own preparation based on eSky.com (2022) website.

Chart 7.
Opinion sentiments for Laudamotion



Source: Own preparation based on eSky.com (2022) website.

