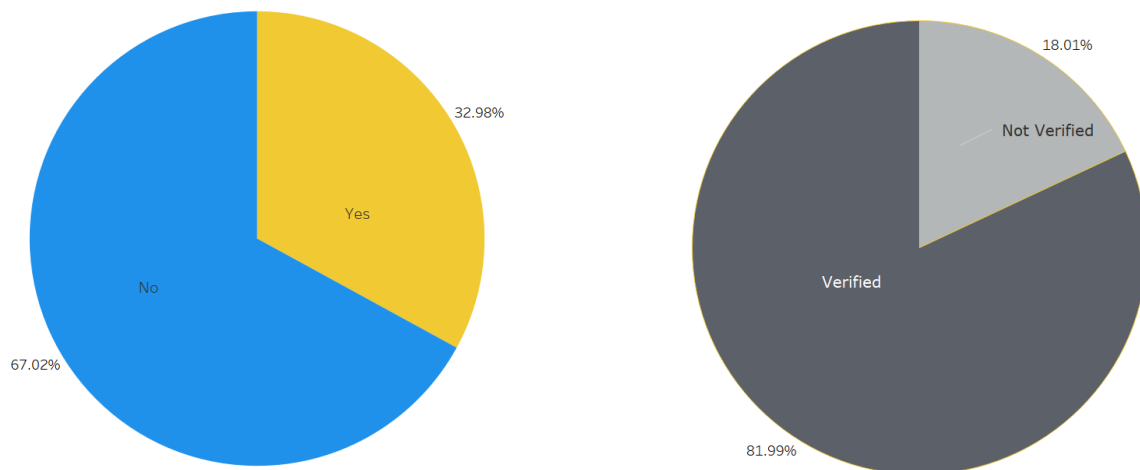


Know your Audience

The audience for this dashboard is travellers who have never flown with Ryanair, and might be contemplating using the airline. The audience could be aware that it is a budget airline and are possibly familiar with its reputation, including some negative coverage it may have received, and thus may have pre-existing notions and underlying biases already in place. The purpose of the dashboard is to aid the audience to make an informed, unbiased decision, and what to expect from Ryanair and a better understanding of its reputation. After engaging with the dashboard, users should feel equipped to decide whether to book a flight with the airline, including which airport to choose to fly to and from, which date and which ticket type.

What prior knowledge does the audience have already? They are likely familiar with chart types such as bar charts, line charts and pie charts, it is more likely that they can easily interpret the charts and data. These charts have been used enough, that a large percentage of an adult audience can see the patterns and understand their function.

Rule Number One of Data Vis: We Hate Pie Charts



“Save the Pies for Dessert” Stephen Few

Breaking the “No Pie Charts” Rule

I have made these with the purpose of comparing recommendations and verified reviews. When used to display only two values that make up the total count, yes or no, verified or not verified, the audience can easily see the proportion thus leveraging Gestalt principles for clarity. These pie charts have removed all ambiguity, and it is clear what the data shows. It is important for the audience to remember that not all of the reviews have been verified which could indicate that not all of the data is trustworthy. The pie charts are the same size to aid in better comparison, and I have purposely placed the lesser of the two values at a similar wedge angle for a more effective comparison between the number of reviewers who recommended the airline and the number of verified reviewers. I used the Ryanair colour scheme for the recommendation pie but wanted to maintain neutrality in the verification pie so used grey.

Colour Choice

By using a colour scheme associated with Ryanair marketing, aimed to foster brand recognition and familiarity. However, the trade-off for this was that the colour scheme poses readability challenges, and these colours may not be the best for accessibility. WebAIM’s Contrast Checker which showed

that Ryanair Saffron coloured text fails when placed on a white background, and Ryanair Curious Blue passes only if the text font is large on a white background.

(Available here: <https://webaim.org/resources/contrastchecker/>).

Textual Visualisation Rule: Avoid Word Clouds

Most Commonly Used Words in Reviews

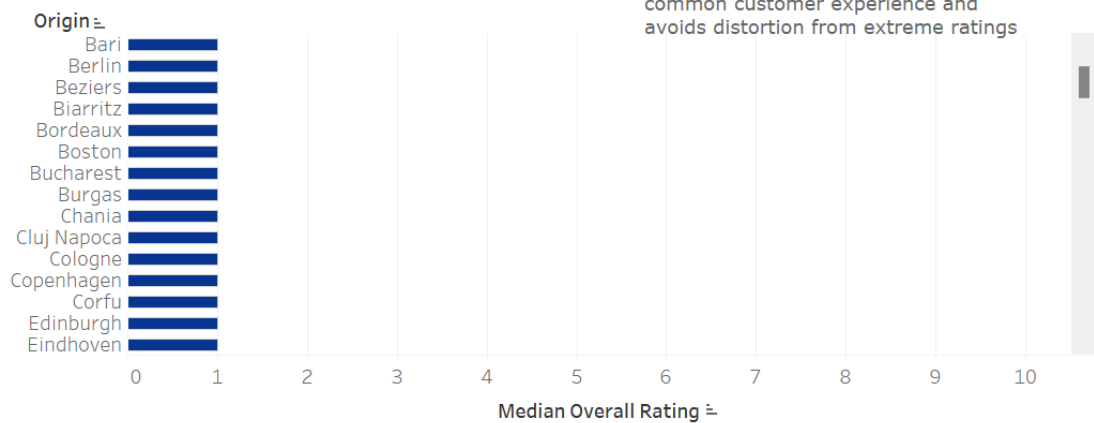
Ryanair	customer	fly	staff	boarding		crew		good		cabin			
	worst	money	time	fee	grea	onlin	extr	seat	reall				
flight	airline	hours	terrible		com	plan	plea	avoi	airp	bad			
		charged	would		bag		use		ref	ca	hel	nic	
service	never	value	delayed		last		55		on		pe	pri	wa
	check	friendly	get		overall		cheap		absolu		flo		hor
experience	pay	ever	efficient		pass		luggag		cancel		poli		wel
		flying	us		rude		late		didn't				

I wanted to display the most commonly used words in reviews so I used python to find the most frequent words, and excluded common stopwords, as these are not interesting and do not provide any value. A treemap naturally gave structure to the frequency. The bigger the size of the rectangle and darker the shade, the more frequent the word. Of the visual cues ranked by Cleveland and McGill, shading and colour saturation are the least accurately perceived. However, by also incorporating size to scale for frequency, allows a more accurate visualisation. A treemap allowed the display of many words in a relatively small area, enhancing data density, and a deeper exploration. Some less frequent words cannot be displayed fully, as the size shrinks to scale, so tooltips were enabled to provide full information when hovered over these words. The treemap is intuitive with the most frequent words clustered in the top right corner, and the less common words clustered in the bottom right corner.

Titles and Top (Tool)Tips

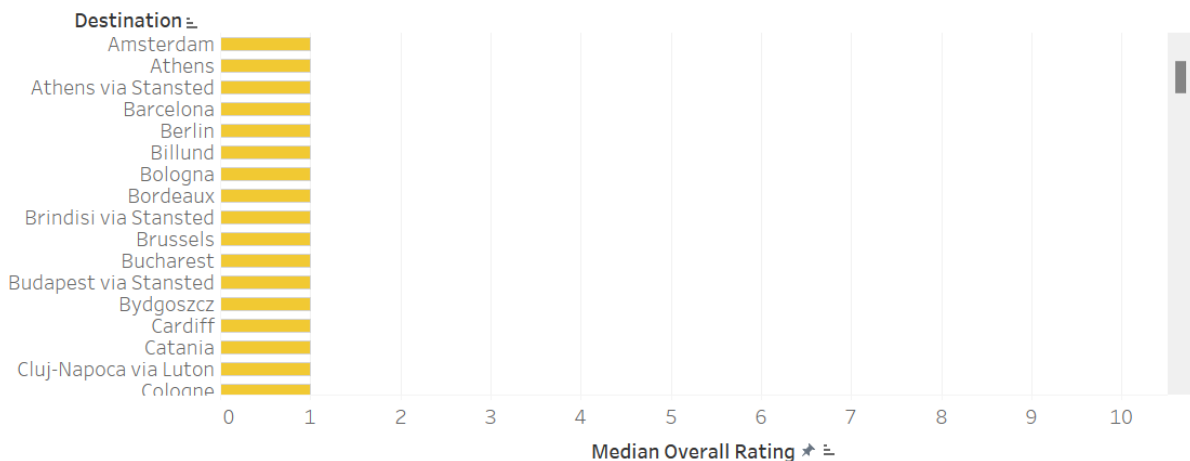
Using descriptive titles informs the audience what they are looking at and can prompt at what they can look for in the data. Utilising tooltips reduces clutter and limits chartjunk, while providing additional information and value. Posing questions as titles of charts encourages the audience to take a closer look and to spend some time working through and filtering the data. Leading questions can get the audience thinking: **is Ryanair a good airline?** What is important as a passenger, **value for money or cabin service?** When should a customer fly, what seat should they book, what is the most important aspect of the travel?

Median Rating for Origin Airports



Most users are aware what an ‘average’ value means, however median may not be so common. Therefore, the addition of an explanation as to why some of the charts are measured using the median rating, ensures that the audience understands what they are looking at.

Median Rating for Destination Airports



Bar Charts Labels

It is awkward to have country names on the x-axis because their labels will overlap, so I made the unorthodox decision to have the values on the y-axis. It is still effective at comparing values and since there are so many airports a scrollbar enables the audience to view all airports without the chart taking up the whole dashboard.

Interactivity: Tailoring the Audience’s Experience

There are elements of interactivity present. The user can filter ratings by passenger type (i.e. economy, business etc.), by airport, and by word type. This interactivity empowers users to customise their viewing experience and allows users to explore the data dynamically based on their specific interest or queries. However, there is a lot of data on display on this dashboard, and it is not suitable to view on small screens or on mobile phones.