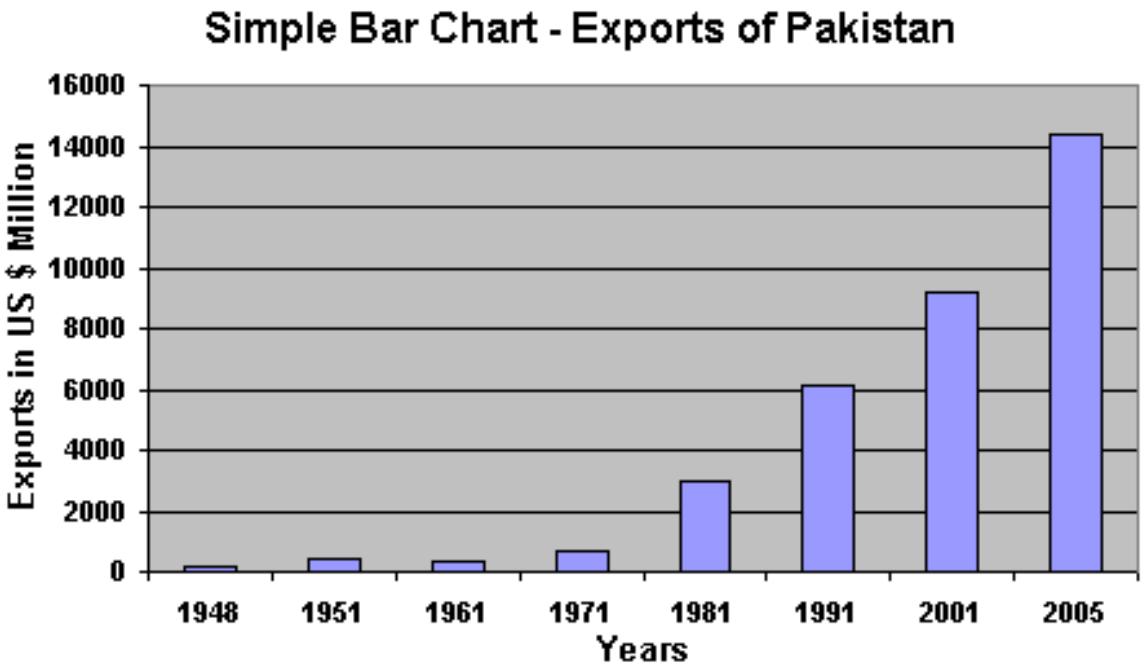


Source: http://zubairacadmy.blogspot.com/2013/12/18-types-of-charts-simple-bar-chart-b.html

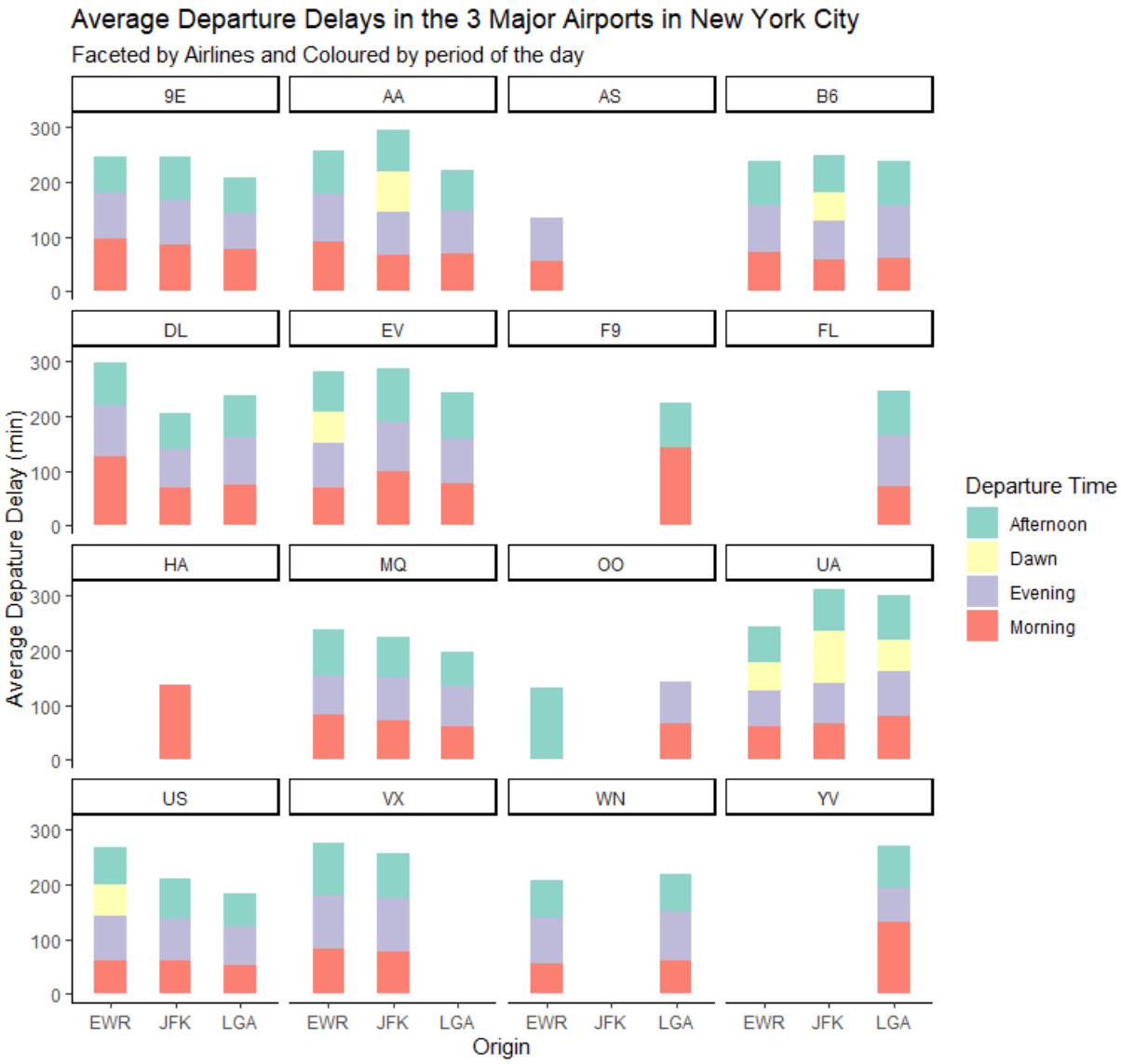
Bar charts are used in expressing the details of a frequency table visually. However, one needs to take a close look at the labels on the vertical and the horizontal axis to understand what the graph intends to communicate. The graph will be critically evaluated based on 5 points. Which include the gestalt principle and visual structure, keeping it simple, less is more, graphical data integrity and lie factor and annotation, and stand-alone readability.

The above graph intends to show the trend in the volume of export from Pakistan from 1948 to 2005. However, there is a lie factor in the scale on the horizontal axis which is intended to show a uniform time gap. It started from 1948, jumped to 1951, and maintained a 10-year interval until 2001 and then a 4-year interval to 2005. Here, the focus of the author is clearly distorted, and this makes the trend inconsistent. Thus, there is a deception when one takes a critical look at the horizontal axis and hence the graphic integrity of the bar chart is flawed.

Also, extra ink is used in colouring the background and showing the gridlines which could have been avoided. The horizontal axis could have been ignored and the individual values represented by the bars could have been annotated on the various bars.

This bar graph is presented in a very simple manner and the values are easy to read even though this could be improved to prevent the audience from struggling to guess the value of bars that fall in between gridlines. The gridlines could have been faded out to serve the same purpose.

Given that this was intended to show a trend, a line graph could have been more appropriate. The axes are clearly labeled, and the title is clearly specified even though it was unnecessary to state that it was a bar graph since it can clearly be seen as such. This to say that the design of the bar graph was good though it could be significantly improved to convey the information it intends to pass.


Average Departure Delays in the 3 Major Airports in New York City
Faceted by Airlines and Coloured by period of the day
9E
AA
AS
B6
DL
EV
F9
FL
HA
MQ
OO
UA
US
VX
WN
YV
Average Depature Delay (min)
0
100
200
300
EWR
JFK
LGA
Origin
Departure Time
Afternoon
Dawn
Evening
Morning
Note: Figures in the table only consider flights which have records of delays more than 20 minutes.
Source: Flights that departed NYC in 2013

The decision on which airline to travel by is crucially dependent on the historical delays of their scheduled departure times. Usually, passengers pay a premium when booking a flight to be compensated for their time spent during the departure delays after a specified amount of time. With this as the background, I decided to check the average delays of airlines that departed the 3 major airports in New York City recorded in 2013 and the time of the day when the delays usually occurred.

The figure shows component bar graphs that show the proportion of delays according to the time of the day with the average departure delays in minutes on the vertical axis and the departing airport on the horizontal axis. This design was chosen in order to show the count of average departure delays as well as the proportion of delays within the time of the day at the same time.

From the data gathered, it appeared that some airlines departed earlier than scheduled but most people get worried when the flights are delayed. In this regard, the data used included only flights which delayed their departure by at least 20 minutes. This could help passengers in their choice of airline if they care so much about delays at their time of departure. It could also serve as a determinant for insurance companies in deciding how much premium to charge their customers depending on the airlines they choose, the time of their scheduled flight, and which airport they decide to depart from New York City.

This could serve as a guide to passengers in deciding which airline to choose to choose. It could also inform the operator of airlines about the possible decline in their clientele.