Report of Part III

VISUALIZATION

Comments about the existing layouts and proposal of improvements

The Cover slide presents a subplot with 7 different recordings regarding the first 7 days of the year based on a default choice or a user's query (upper right part). Each of these recordings is accompanied by 3 measurements in the first figure, while the average spent amount per order is decomposed on some selected categories for the same 7 days in the second figure. Some further stats are provided there, while the share of the x-axis is successful in that case for observing all these quantities per day. The use also of two different y-axes per case is convenient for including several metrics or KPIs. However, some issues occur:

- In the first figure, there are 3 measurements: Orders, Jokers, Acquisitions. While the first two are characterized by their y-axis, even without mentioning the second one in the right y-axis with a corresponding y-title, the third one is not reported to any y-axis. Instead, its raw values are recorded per day into the figure, while the same does not hold for the second one, which is also a line plot. Moreover, the raw value of each bar is depicted into the figure, even though their height can reveal those values. In general, we have two measurements that share the same format of plot, but with different properties, while their scale is enough similar, while the rest one, the Orders, has larger values. Through adopting the current layout, the underlying information is not easily exploited by the user. The use of stacked bar plots for the two latter measurements along with a line plot for the Orders keeping the two parallel y-axes could enhance the total quality of that view.

- Some similar issues take place also in the second part of the Cover slide. Here, we have 4 line-plots (3 well-placed and one almost hidden); the DH Average Basket Size that is measured in Euros, and three percentage metrics: Online Payment Share, Mobile Share and Order Failure Rate. While the choice of two parallel y-axes is really helpful here, different choice for the same formats has been used. The first tree measurements display their values into the figure, often overlapping and confusing that view, while this behavior is not applied at the latter, whose values are too small and would probably need it more than the others. The fact also that all these measurements, especially the percentage ones, are not complementary means that useful information are revealed by each of them. Since we have a shared x-axis between these two plots, i would suggest depicting the Online Payment Share and Mobile Share with stacked bar plots,

holding the two parallel y-axes for the rest two measurements. The use also of a logarithmic y-axis for the Order Failure Rate could present its information with a clearer manner.

- Finally, the Geographic breakdown view depicts 3 of the above-mentioned measurements per different city, recording at the same time their differences (Δ or %Δ) probably with the previous time interval (probably the previous week). However, some mistakes appear here; “Poli” or “sales_poli” do not constitute a proper naming format of those columns, while the Δ should be clarified both for its meaning and for the time interval that consider each time. The use also of the green and red arrows is useful and could further improved.

Outcome gained

By observing those visualizations, I definitely believe that there is much space for improvements. Applying just state-of-the-art visualization tools or libraries (DASH, PANEL, TABLEAU) does not settle any figure useful. There are several properties and assets that can be gained by adopting those layouts, but what is depicted is clearly not a default choice and needs engineering and data-driven mindset.