



Communication series: Tables or charts?

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Representing data using Tables or Charts are always debated in consulting. In our opinion, both have their place in the proper communication. In this blog we highlight some of the dos and don'ts of presenting data with tables and provide some guidelines on when to choose table versus chart.

Table conundrum

Here are some of the reasons we find on why people want to use tables.

- There is **no way we can summarize** the details in charts!
- We spend gazillion **hours on this analysis**, I cannot show this on a chart!
- What if customer is interested in the **details**?

Think about it just for a second – are you convinced about these justifications? Let's take them one at a time –

- Summarization: If you cannot summarize the analysis into a few key points you are doomed anyway.
- Hours spent: Thank you very much for the hard work. That is why you are paid. Now show us, the client, the results – not the pain you went through.
- Details: No one is interested in the details without the conclusions.

It may sound counter intuitive to you – I am not against the tables but want to set you straight on why and when we want to use the tables. Hopefully by the end of the blog you will make up your mind on when to use tables, how to organize data in the tables to communicate and when to use charts (or a mix of tables and charts). Let's first start with a basic table.

Data dump → digestible information

The figure below illustrates some of the basic mistakes we make when communicating with tables. You can dump the expenses and revenue categories as shown on the left. The issue with this is the reader or the consumer of the information has to spend a significant amount of time going through the data and categorizing them in their mind. After reviewing five or six lines of data they give up. So, what are you accomplishing here? A simple organization of the data as shown in the middle of the figure below – taking an additional minute will help the customer, at least, read through the table. Here you are telling them focus on certain categories of data and providing intermediate results. You can further organize and deemphasize some of the details through techniques shown in the last table. Notice that we can add additional information such as profit calculation in this table. We transformed a mere data dump to digestible information – leading to a decent conversation with the client rather than the client throwing up their hands by getting lost in detail.

Table ...

Name	Expenses
Payroll	\$242,031
LabCorp	\$76,711
Rent	\$46,670
McKesson	\$11,012
Medical Insurance	\$10,303
HOA – Condo	\$11,348
Other Utility / IT expense	\$6,257
Advertisement	\$5,625
Cleaning	\$2,475
Property Tax	\$5,494
Misc	\$3,364
Total	\$421,290

Name	Amount
Patient Collections	\$354,967
Donations & Contributions	\$121,941

Organize the data

Category	Spend / Revenue
Revenue	\$476,908
Patient	\$354,967
Donations	\$121,941
Expenses	(\$421,290)
Payroll	(\$242,031)
Facility	(\$72,244)
Rent	(\$46,670)
HOA	(\$11,348)
Utility/IT	(\$6,257)
Cleaning	(\$2,475)
Tax	(\$5,494)
Medical	(\$98,026)
Labcorp	(\$76,711)
McKesson	(\$11,012)
Insurance	(\$10,303)
Other	(\$8,989)
Advertise	(\$5,625)
Misc.	(\$3,364)

Beautify and make them focus

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<i>Patient</i>	\$354,967
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Labcorp	(\$76,711)
McKesson	(\$11,012)
Insurance	(\$10,303)
<i>Other</i>	(\$8,989)
Advertise	(\$5,625)
Misc.	(\$3,364)
Profit	\$55,618



What is the problem?

Should you present the data using table or should you use a chart? What should be the balance of information to convince your leaders?

Key Takeaways

Tables and charts have their own place in the communicating data. Here are some recommendations:

- Always prefer a chart over a table
- If using table, make it
 - Readable
 - Intuitive on conclusions
 - Telling

When you absolutely need to dump the data (typically when you are performing sensitivity analysis etc.), provide visual cues on the trends and takeaways.

Yes you did the tough part of the analysis. But you still did not answer the - "so what"

(1) Savings range by pod acceptability

		SFU, N, 5000 - 2500									
		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
S	(418,883,167)										
SFU, N, < 2500		10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
		\$506.14	\$503.93	\$501.72	\$499.51	\$497.30	\$495.09	\$492.89	\$490.67	\$488.47	\$486.23
		\$486.54	\$484.32	\$482.12	\$479.91	\$477.70	\$475.48	\$473.28	\$471.06	\$468.86	\$466.62
		\$466.94	\$464.72	\$462.51	\$460.30	\$458.09	\$455.88	\$453.68	\$451.46	\$449.26	\$447.02
		\$447.33	\$445.12	\$442.91	\$440.70	\$438.49	\$436.28	\$434.08	\$431.86	\$429.66	\$427.42
		\$427.73	\$425.51	\$423.30	\$421.09	\$418.88	\$416.67	\$414.47	\$412.25	\$410.05	\$407.81
		\$408.12	\$405.91	\$403.70	\$401.49	\$399.28	\$397.07	\$394.87	\$392.65	\$390.45	\$388.21
		\$388.53	\$386.31	\$384.11	\$381.90	\$379.68	\$377.47	\$375.27	\$373.05	\$370.85	\$368.61
		\$368.92	\$366.70	\$364.50	\$362.29	\$360.08	\$357.87	\$355.66	\$353.44	\$351.24	\$349.01
		\$349.32	\$347.10	\$344.90	\$342.69	\$340.48	\$338.27	\$336.07	\$333.85	\$331.64	\$329.41
		\$329.69	\$327.48	\$325.27	\$323.06	\$320.85	\$318.64	\$316.44	\$314.22	\$312.02	\$309.78

As shown in the figure below, we have

Use conditional formatting for showing trends, use metric calculation for "so what" communication

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		\$447.33	\$445.12	\$442.91	\$440.70	\$438.49	\$436.28	\$434.08	\$431.86	\$429.66	\$427.42
		\$427.73	\$425.51	\$423.30	\$421.09	\$418.88	\$416.67	\$414.47	\$412.25	\$410.05	\$407.81
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		\$349.32	\$347.10	\$344.90	\$342.69	\$340.48	\$338.27	\$336.07	\$333.85	\$331.64	\$329.41
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Percent Change: 39% Metrics
Not significant enough

created a data table to analyze the outcome in two dimensions. On the top table we have shown the results.

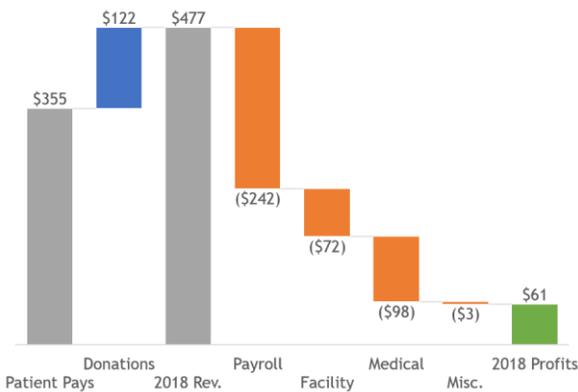
Again – thank you for

all the hard work. So what? Unless the client is able to make meaningful decisions based on the analysis that you have provided, it does not mean anything. The table below provides a couple of quick changes to the table – providing conditional formatting to give a visual idea on the sensitivity and couple of metrics that compares the impact of these changes against other sensitivity that you may be performing. Adding these minor changes will turn the data dump into an insightful analysis.

Tables or graphs

Graph ...

2018 Revenue and Expenses (in thousands)



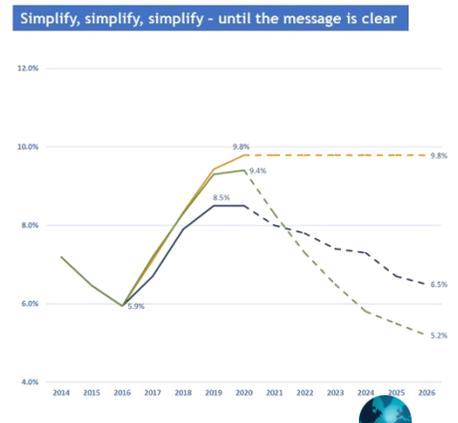
Tables or graphs can be made boringly detailed or can be aggregated to an appropriate level to the audience. We did some work on the data table shown on the side. Look at the waterfall graph created from the same data. The graph provides an additional information that the table could not provide. Firstly, it is shown in thousands – making the client focus on the higher-level details. Secondly, it gives a perspective on the revenues and costs and their proportions – leading to a quick understanding of the steps to be taken to be profitable. Finally, a proper graph is selected to tell the story and is appropriately color coded for the client to get quick perspective. Here we made a data dump in the form of a table communicate with the client through few minor changes.

Table ...

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Remember our final goal is to make the client see the so-what from all this data crunching.

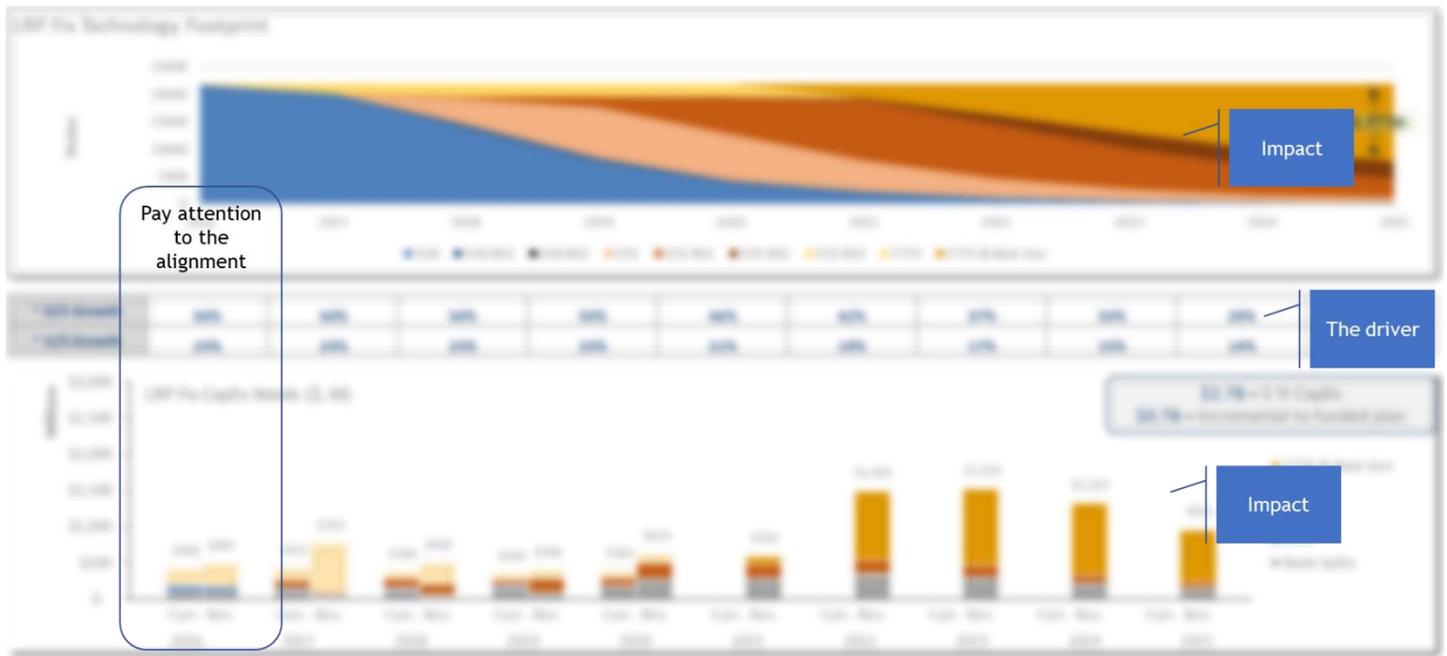
Let me drive this table versus chart debate a little bit deeper. Look at the figure to the right. This is another example, presented to C-level folks (!), on the left are tables and exposing complexity. The graph on the right is how we forced the doers to think about the decision makers. The graph with the solid line actuals and dotted line projections was the first step. We further pushed the team to reduce the



clutter in the graph by adding labels at the meaningful inflection points. This was presentable to the C-suite and was able to make a meaningful decision-making conversation – as opposed to throwing tables at the leaders.

Are tables doomed?

Not exactly – you can keep them in the backup slides, use it for the detailed oriented stakeholders (mainly to validate the numbers) etc. But even in these cases, you would benefit from following some of the basics as highlighted in this article. There are some corner cases where tables and charts can be used together to make insightful conclusions.



As shown in the figure above, we were asked to analyze the couple of impact analysis due to the upstream and downstream drivers. These drivers are presented in a tabular form for the sake of brevity and the footprint and financial implications as graphs. See the alignment on the years across. The takeaway here is, there will be cases where we may have to mix and match the tables and graphs, but these are very rare and for specific cases.

In summary, we recommend you pick charts over tables unless tables are absolutely called for. If you are forced to use tables, follow the guidelines provided in this blog.

