



FP&A **Storytelling** in a **Data-Driven** **World**

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The financial planning and analysis (FP&A) storyteller has emerged as one of the five critical roles within the FP&A function. In a data-driven world, the volume of data that exists is exponentially increasing. Equally, the time available for managers to process insights from this data is decreasing. Therefore, the requirement that these insights be taken and used to drive leadership decisions has never been greater.

The impact of the FP&A storyteller reaches far beyond the boundaries of traditional finance. They work with every part of the business to present insights. How does a storyteller use their skill to drive action? How can the storyteller leave a lasting impression with stakeholders?

In the words of Mark Gandy, “FP&A storytellers possess the rare gift of turning complex issues into simple, digestible nuggets that any leader can grasp and understand.

The FP&A storytellers are adaptive. They can do a monologue but they are masters at dialogue too. They can create the narrative or improvise on the fly. Ad-hoc discussions do not scare them. In short, storytellers leave us wanting more by communicating the financial story in plain, simple language.”

Whilst all of these skills can seem daunting, this white paper breaks down the three distinct foundations necessary for becoming an effective storyteller (Figure 1).

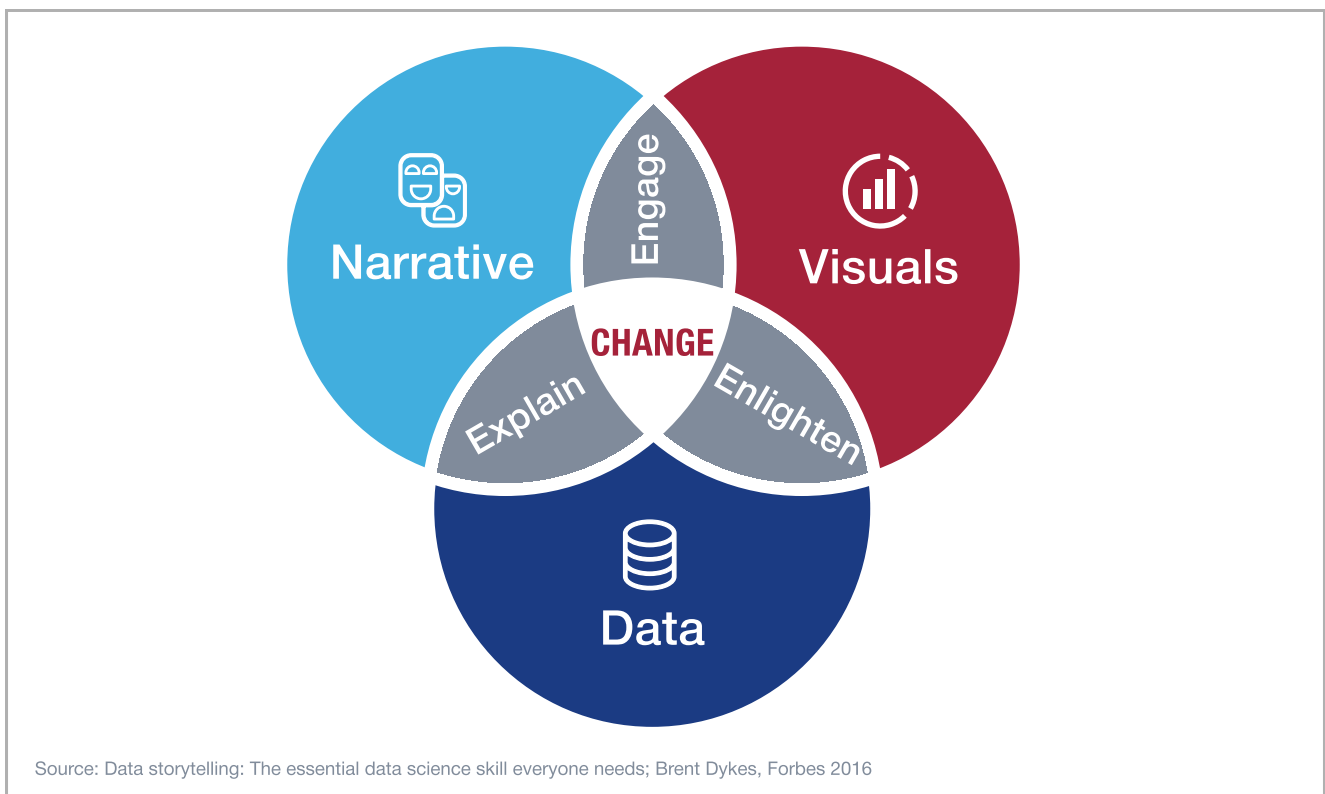


Fig 1: Three elements of FP&A story telling

1 Build a narrative and guide your audience through the data so they reach your same conclusion

You can build a narrative using three relatively simple steps:

- i. Understand the value drivers in your business.
- ii. Document the decisions that are made, and the data needed to support them.
- iii. Map the decision pathways, so that you can sequence your data in a manner that tells a story.

Build a picture of the activities that drive value in your organisation

Alfred Rappaport's seven drivers of value¹ is a framework that is commonly-used to define the activities that increase an organisation's value. This helps focus conversations and management actions. It is also a starting point for an organisation's metrics.

Very often Rappaport's framework is shown as a 'tree'. However, since this is a white paper on storytelling, visualisation and data technology, we have shown it as an adapted sunburst chart, a chart commonly used to display hierarchical information (Figure 2).

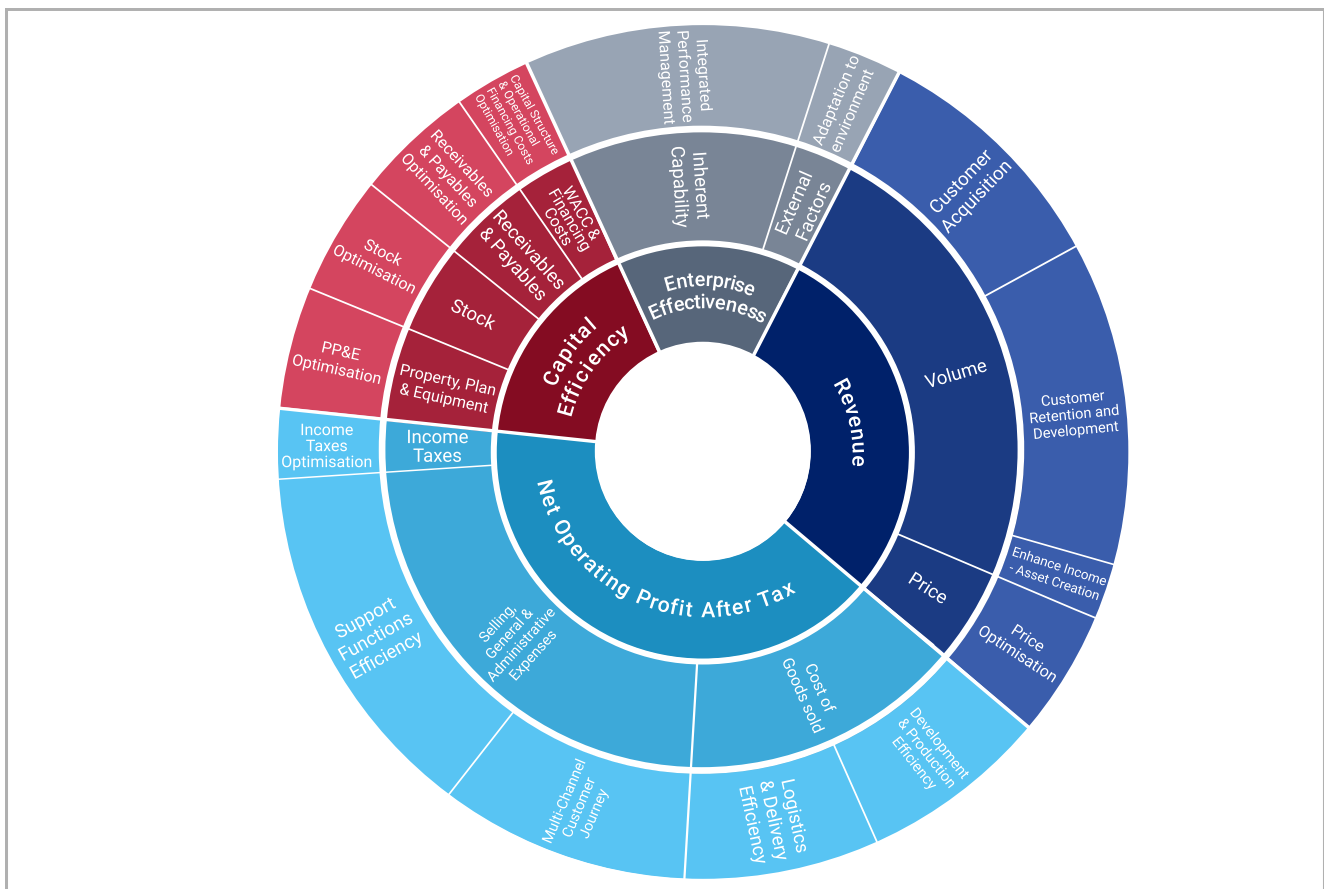
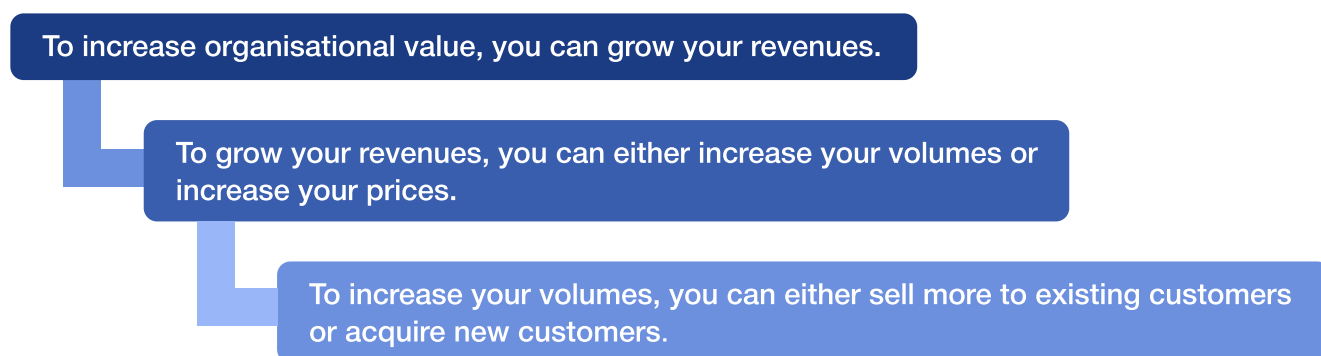


Fig 2: Drivers of organisational value (example)

¹ Creating Shareholder Value, Alfred Rappaport, 1986

A common line of discussion that FP&A storytellers use the framework to explain is:



To sell more to new customers, the FP&A storyteller needs to present information around marketing effectiveness and the cost of customer acquisition. To sell more to existing customers, the storyteller needs to present information on customer churn, the ‘share of wallet’ and cross-sell options. With all of this information in front of the leadership team, the FP&A storyteller can have a highly productive conversation with them and determine a set of actions that will be used to increase revenues.

By using this type of framework, FP&A can ensure that their reporting is relevant to their business stakeholders and reduce the circulation of non-value-add information. In a UK law firm, senior leaders mentioned that they had been wasting too much time simply navigating through irrelevant information. They developed a version of Rappaport’s value driver framework that allowed them to replace a 200-page monthly performance document with a 12-page dashboard that had live data refreshes.

This ‘top-down’ approach is tried and tested. However, as technology evolves, organisations are starting to use artificial intelligence (AI), in particular machine learning (ML), to identify hidden drivers through patterns and correlations. The storytellers of the future will be able to work through a more inductive approach, as well as the top-down deductive method.

Build a decisions calendar

Do you know what decisions are made? Who makes the decisions? And how often? What data do they need to support these decisions? By documenting a decisions calendar, you can plan stakeholder meetings, gather data and prepare scenarios, and therefore associated stories, in advance.

Walk through the decision steps using analytical pathways

Each business decision is a sequence of business questions leading to a conclusion and necessary action. If there is a decisions calendar, is it possible to simply send the data to the leaders and let them interpret it themselves to make a decision? If the answer is yes, you are merely a gatekeeper. To become a trusted strategic advisor, you need to do much more than that.

You need to remember that communication is an event that happens in the mind of the receiver. It is important to ensure that stakeholders’ see the data in the same way that you do and essentially guide them through the data, in sequence. For a large proportion of decisions, logic trees or analytical pathways can be built. A simple example is “if the market share has fallen, increase marketing spend”. Most decisions are more nuanced and have a larger number of variables. We documented the key decisions for one UK professional services organisation and cross-referenced them with value drivers to check they were the right decisions. We re-created the analytical pathways for each of these decisions. Figure 3 shows one of these decisions – “should we re-tender for a client contract?”

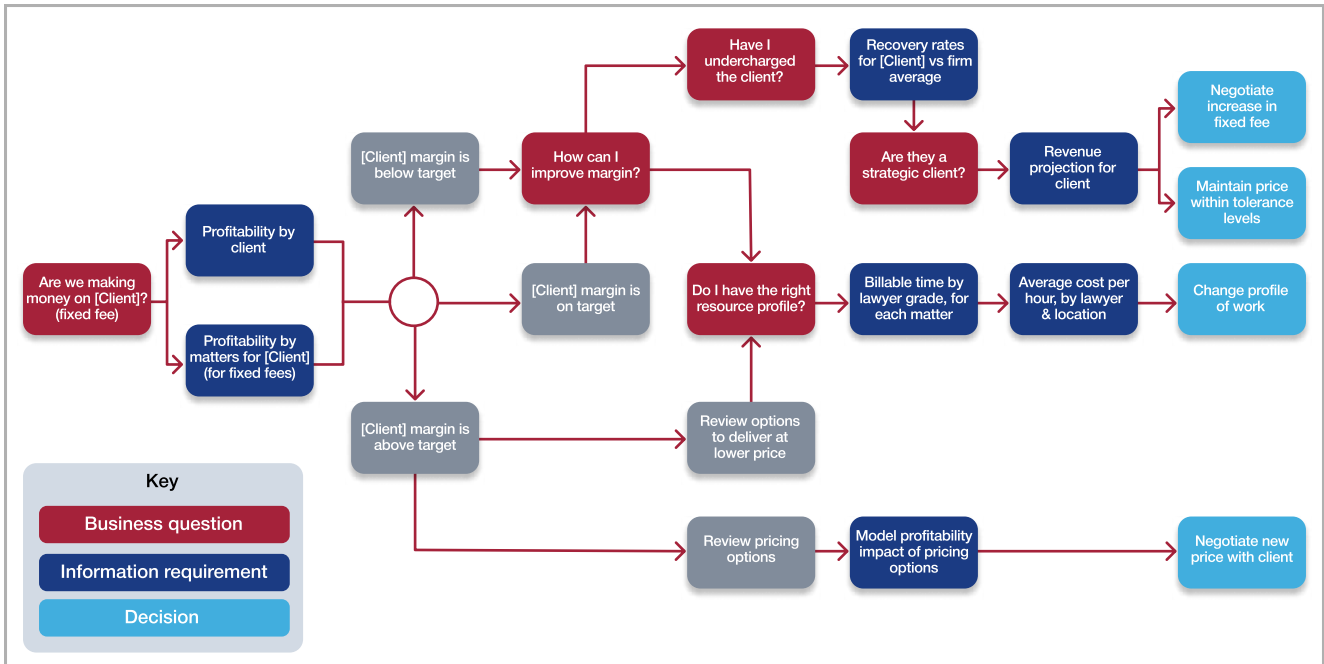


Fig 3: Example of an 'analytical pathway' (left to right)

Whilst this diagram attempts to simplify what can be a very complex business scenario, it can be used for a large proportion of decisions. It brings standardisation to the way an organisation views and acts on its data.

In one financial services organisation, machine learning is used to generate various permutations of analytical pathways and the required subsequent data. The ML reduces the effort needed to define pathways, meaning the storyteller can focus on guiding the managers through the decision scenarios.

Static charts are an FP&A storyteller's enemy

We have just seen how a typical data discussion can unfold. The FP&A storyteller has to react to the situation, and the options the leaders are trying to explore. In many organisations, it can develop like this:

FP&A

"So this is my analysis on revenue growth, we have shown a modest quarter-on-quarter growth."

"Which segment is diluting the overall revenue growth? What happens if we run an extra marketing campaign?"

FP&A

"Let me come back to you tomorrow, as I need to create a new view of the data and re-run my scenarios."

Leader

This scenario is surprisingly common. Some storytellers will come prepared with data for multiple different types of questions. However, there is only a limited number of scenarios that you can prepare for. In days gone by, we have prepared over a hundred different sets of data for a strategy meeting, and yet we still received questions that were not covered in the data provided.

Thankfully, modern analytical tools now allow us to explore data in near-real-time. In this example, instead of the FP&A storyteller saying that they will be back tomorrow, they can say “sure, let's drill into different product groups, and overlay this with territories. By running the marketing campaign, we can boost revenue by X%”. This type of collaboration and scenario analysis allows more agile decisions at both strategic and operational levels.

2 Visualise your data to communicate insights and create impact

A picture paints a thousand words. Your communications are more effective in a visual format. During our [International FP&A Board](#) meetings across the world, a consistent theme has emerged. Data visualisation makes things happen. Visualisations bring data to life and help non-data-savvy stakeholders gain an instant understanding of business performance so that they can engage in all discussions.

During one of the International FP&A Board meetings, we discussed how data visualisation has become a powerful component of a storyteller's armour. However, be careful since many teams get caught in the trap of creating visualisations for presentational improvement. As a consequence, their visuals become overly complex and the reader gets lost.

Data visualisation allows us to see trends within the data that we would otherwise miss

When engaging with finance leaders, we usually come up against some resistance to data visualisation. These folks have been viewing data in tabular formats for many years. Indeed, most CFOs are very good at creating the data picture in their minds. Whilst this may be a useful skill to have, it presents three issues:

- Important insights and trends within the data are likely to be missed.
- Stakeholders are not used to seeing data presented in tables.
- Non-finance stakeholders will remain disengaged. How can you expect other departments to jump into action with only a table of data?

To counter these issues, we go back to the data textbooks and present Anscombe's quartet. Anscombe's quartet is a table of four sets of data, with identical sums, means and standard deviations. Whilst they appear to be the same, once plotted into a line chart, they show four completely different distributions.

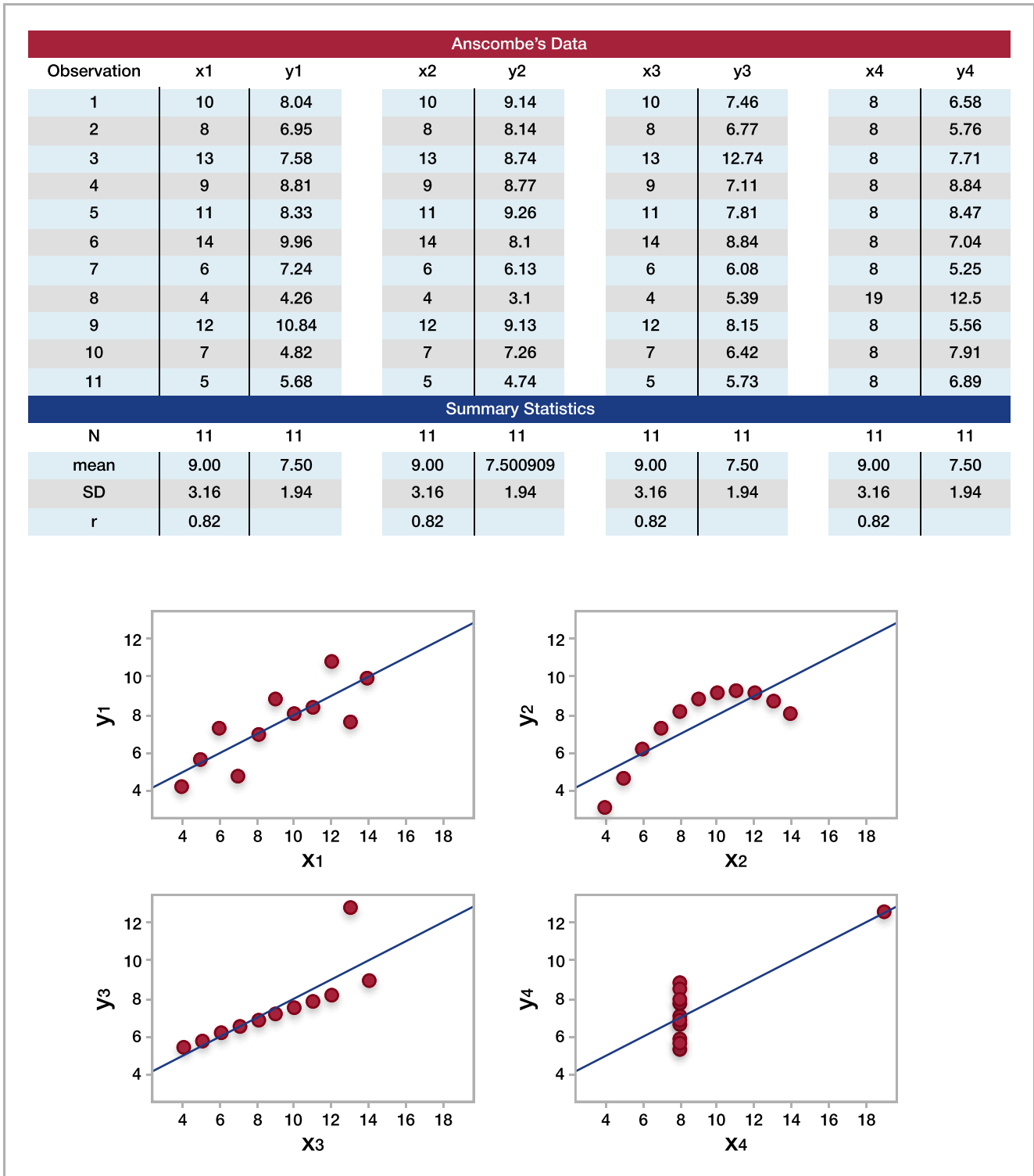


Fig 4: Anscombe's quartet

To the majority of trained eyes these different distributions are missed. Therefore is it reasonable to expect a non-finance person to identify these trends?

Visualisation helps FP&A storytellers communicate data insights to different audiences

As a storyteller, it is important to communicate insights. There are some very common rules around the types of charts that can be used to communicate these insights. They are as follows:

- For comparison over time: line charts.
- For comparison among items: bar charts.
- For distribution: scatter plot or histogram.
- For composition: stacked bar charts, icicles or treemaps (but never a pie chart).
- For relationships: scatter or bubble plots.

Incorporating these rules into your data story will help an audience understand your explanation faster, and reach the same conclusions.



Fig 5: Example of an icicle

Use the data visualisation maturity curve to plan an analytical transformation journey

Through our research and member conversations, we have identified trends on maturity levels within organisations. These are summarised in Figure 6. The best-in-class organisations, known as *Visualisers @ Scale*, can both generate instant information at scale and provide a high degree of

personalisation to the user and their decision requirement. They also have the capability to provide exploratory information, rather than declarative

Some organisations can generate a high volume of standard reporting, referred to as *The Factory*. Others have FP&A teams who can craft a story and create tailored visuals for specific purposes, but this is generally considered a one-off task due to the manual nature of reports. These fall into the *Infographic Artists* category.

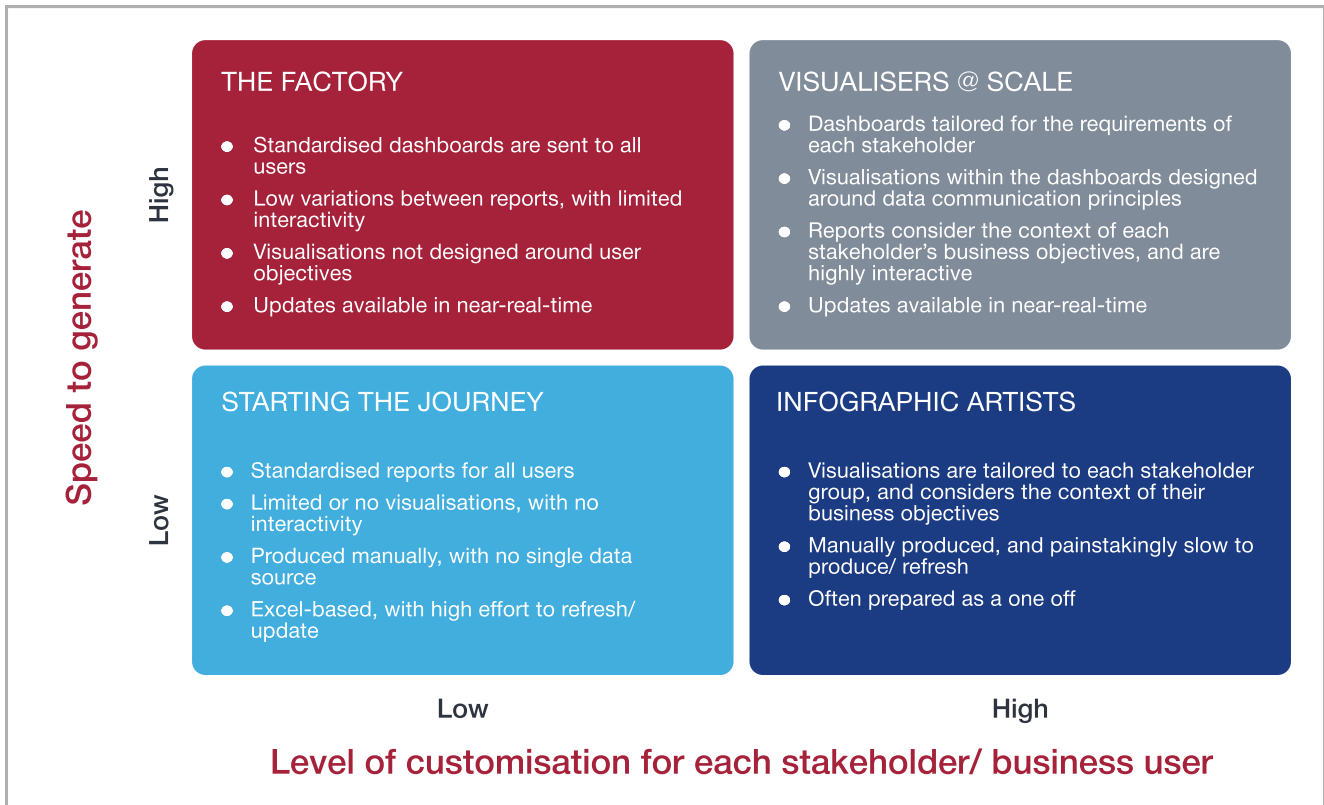


Fig 6: The FP&A Trends Group visualisation maturity model

Organisations that are *Starting their Journey* typically produce basic reporting with limited data visualisation. Additionally, their reporting is driven by small data sets which are time-consuming to curate. We have seen organisations who are in this category that have some pretty amazing financial models in Excel. In fact, the FP&A team at one international retail organisation prepared weekly information using a series of interlinked Excel models, each of which had reached its capacity. However, the information took the team 3 to 4 days to prepare each week. By the time it was received by the commercial team, it was too late for them to take actions for the week. On top of this, the report did not engage the commercial team since it was in the same tabular format every week, with only an odd line chart for variety. Although there was a lot of useful detail in the reports, it was often lost among the tables.

At the opposite end of the maturity curve, Procter and Gamble is an example of an organisation in the *Visualisers @ Scale* quadrant, with their [business spheres and decision cockpits](#). They can provide visualisations customised to 50,000 analytics users as well as provide updated information in near-real-time. More impressively, the data is presented in a way that guides the audience to the right decision.

There are two ways to move up the maturity curve. Improve your technology or improve your FP&A storytelling skills. We have discussed how to use analytical pathways to build your story. However, you cannot tell an effective story without access to the data. Thankfully a modern technology stack can help deliver this data.

3 Digital analytical transformation with technology

We cannot be effective storytellers without technology. We need to build trust and to build trust, we need good data. From our research:

“72% of companies have had at least one strategic initiative fail in the last three years because of delays in decision-making, while 42% say they have lost competitive advantage because they have been slower to make decisions than more agile competitors.”²

The [FP&A Trends Survey 2020](#), highlighted that just 26% of FP&A time is spent on value-added activities. This is a problem that can be fixed. Technology allows us to spend less time gathering data and more time analysing insights and building stories. We can now go deeper into the data, faster and therefore build more scenarios. Stories can change the organisation’s culture by creating more time to act on presented data. Microsoft has fully automated large parts of their forecasting. Time spent on forecasting cycles have been slashed and managers can now focus on corrective action.

We are aware that Excel has a fervent following. However, it limits the ability to scale and our capacity to explore the data. If an organisation wants to move up the maturity curve, it needs to invest in data applications.

Corporate performance management (CPM) applications have evolved considerably since the 2000s

Planning and financial modelling are performed within CPM applications, which are linked to the organisation’s source systems. Once dominated by three big players, the CPM market has since undergone significant disruption. New entrants have developed less cumbersome products that are based around FP&A team routines, and do not require IT specialists to build or maintain them. The size and lead time of implementations have also fallen. Where once deployment would take up to 18 months, now a system can be up and running in a matter of weeks.

Cloud technology has also made a huge impact in this space. Firstly, you do not have to spend months building servers to host applications. The provider takes care of the hosting, which is available instantly – you just need to configure the tables, define the calculations and upload your data.

Secondly, you only need to pay for what is used in the cloud. A finance director’s dream – a fixed cost into a variable one.

Lastly, the cloud allows for greater collaboration across the organisation, together with fewer constraints on network bandwidth and computer power. Colleagues do not have to take turns entering data into one spreadsheet and models can be connected from all parts of the organisation to give a near-real-time view.

² The report by American Institute of CPAs (AICPA) and the Chartered Institute of Management Accountants (CIMA), “Joining the Dots: Decision Making for a New Era” (2016).

The technology is readily available, so why is it so difficult to get value from implementations?

Cloud technology has enabled faster access to data technologies. Most organisations already invest significant sums in this area, yet organisations struggle to provide the information that is needed by business leaders. A [2020 FP&A trends survey](#) showed that only 35% of organisations were able to provide live access to key business information. Poor data quality and a lack of data culture were cited as issues that prevented this. However, these issues do not tell the full story since there are some underlying issues that need to be resolved. Good areas to focus on during technological changes are data availability, data quality and the people.

i) Define your information strategy and data quality framework

Let's understand the information strategy and data quality framework requirements by looking at the best-in-class organisations. Best-in-class organisations will have a **clearly articulated information strategy** which documents the drivers of the organisation, the decisions that need to be made and the performance indicators that need to be tracked. These organisations will likely have a model similar to that shown in Figure 2 (Drivers of Organisational Value). The model itself will include:

- Information that has been captured and is available for analysis;
- Data that has been captured but requires cleaning and preparation before use;
- Data that has not yet been captured.

The latter is important to guide an organisation's future systems development roadmap.

Best-in-class organisations also have a data strategy that defines how data is captured, stored and presented.

In addition, best-in-class organisations have a **data quality management and governance framework**. This will include activities such as data cataloguing, data lineage tracking and data profiling where outliers are eradicated. Additionally, some system applications often apply data validation rules at source. For example, dates can only be entered in a required format.

In our opinion, what makes these organisations stand out as best-in-class is not the types of successful tech that they have at their disposal, but the element of pragmatism that they use to deliver data products. Historically, implementing this for an entire organisation took many years. However, a modern application stack can be deployed in a much shorter time period. These applications also allow for builds to be performed in much smaller increments. For example, the revenue models can be built first, before moving onto workforce planning and everything else. This way, the organisation can experience the benefits of the revenue model while the other model parts are being developed, without having to wait for the whole solution to be completed. It is important to identify the areas where the highest impact can be delivered and prioritise their deployment. Indeed, using an agile approach to deliver data products is proven to be far more successful than traditional project management methods.

To identify the most impactful areas, understanding the value drivers of the business becomes imperative. You do not need all data at the lowest level of granularity. In a typical organisation, 70% of decisions can be made using only two or three levels of the data hierarchy. This will save a lot of time and associated cost when building the first data products. Focusing on a smaller data footprint will result in applications that run faster, are easier to maintain, and have fewer data errors.

ii) Educate the FP&A team and develop their data skills

Within one legal services organisation, we observed that two FP&A team members spent each morning collating a daily sales report. This required several SQL queries from each database, their import into Excel and the use of multiple VLOOKUP formulae. However, this is not ideal. While Excel is an easy to use application and most people have been using it since they were at school, its use for this particular task makes it time-consuming and manual. An alternative solution would be to add just a few lines of SQL code to automate the task they have been performing manually for years. In fact, the team do not even need to know how to write these lines of SQL code. If they were made aware of this possibility, they could simply asked for help from data specialists.

Suddenly, two team members had an extra half day for additional analysis. Since they were no longer constrained by repetitive data wrangling, they could draw insights and make recommendations. This illustrates how a little bit of data training can provide a step-change in performance. After this small change, the FP&A team members became enablers to business performance, rather than just gatekeepers of information.

We have observed an increase in the number of FP&A roles that require an ability to manipulate and query data through SQL. Our FP&A trends group network have a tendency to mandate data skills as a core competency, certainly for the roles of *FP&A architect* or *FP&A analyst*. Whilst not every role requires full knowledge of SQL (or R, or Python), knowledge of its potential is essential.

Enhanced data skills across the business will increase adoption of new technology

We have observed several organisations where the data products were implemented successfully. The applications worked as specified however, their usage was low. There were still armies of analysts working in Excel. These analysts had never been trained with data skills beyond Excel and did not understand the concepts of a database. They were not able to work with the newly deployed analytical models and therefore reverted to what they knew best.

Ever since the days of Kotter and Lewin, the importance of change management during projects has been widely understood. A recent [McKinsey study](#) signals that there is around a 70% chance of failure and that a major contributing factor is the lack of change management initiatives. Implementing data analytics and visualisation is no different. The users need to have the right skills. They need to see that their issues and bottlenecks are being addressed. They need to feel that their lives will be simpler after implementation. Our final tip with regards to implementation is that you need to make the user think that it was their idea and make sure the system is built around the way they already work. When employees are truly invested in change, it is 30% more likely to stick.

The future of FP&A storytelling

The concepts and theories of storytelling and data technologies are already mature. Their usage is not. Organisations have shown us the way by fully automated their planning and reporting. By using technologies that are proven and readily available, a storyteller can focus their time on developing insights and working with the business.

Developments in AI and ML also open up a huge range of possibilities. Whilst I like the idea of using an Oculus headset to virtually walk through the data, the real benefits will come through augmented intelligence, where the machine will identify trends, uncover hidden insights and provide recommendations. Then the humans step in to navigate and act.

4 Conclusions

During several of our FP&A Board meetings across the globe, the consensus has always been that the combination of storytelling and technology has a transformative impact on an organisation's performance. Within this white paper, we have discussed the approaches that can be used to build this capability:

- Focus your narratives around the drivers of organisational value and tell the story about how to improve the organisation's performance.
- Use data visualisation to communicate insights with greater effectiveness and ensure the audience interprets the data in the same way.
- Implement the technology that is already available and will provide instant insights. Maximise your investment by building an information and data quality framework.
- Lastly, remember to bring your people along on the journey. Not only do they need to develop their skills, but they also need to feel that it is for their benefit.



Tanbir Jasimuddin

Tanbir is an experienced finance director with a track record of delivering significant performance improvements in organisations. He has held finance leadership roles at several global organisations, and has also worked as a management consultant for several leading consultancies.

Having worked with 30+ finance teams, developing a deep understanding of the issues that they face, he is passionate about coaxing the FP&A community to leave Excel behind and embrace the digital age through knowledge of core data analytics skills. His expertise includes deploying finance and analytics systems, alongside building the required data culture that maximises the benefits.



Larysa Melnychuk

Larysa is a passionate Financial Planning & Analysis (FP&A) professional and influencer who has held senior FP&A roles at leading organizations before setting up the International FP&A Board in 2013. In the last three years, she successfully expanded the Board into 27 chapters in 16 countries across 4 continents.

Larysa is also the founder and CEO at [FP&A Trends Group](#), the leading online resource for FP&A professionals. She chairs the [Global AI/ML FP&A Committee](#) and runs a number of high-profile initiatives in the area of modern financial analytics.

Larysa holds a Master of Science degree in physics of materials and is a qualified chartered management accountant (CIMA), chartered global management accountant (CGMA) and is a holder of an FP&A certification. She is also a member of the exam content writing team for the Association of Finance Professionals (AFP) FP&A certification.

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