HOW DATA VISUALISATION CAN IMPROVE YOUR DECISION MAKING

JARMANY

Why do tech giants spend millions on implementing a cohesive data strategy within their business? This article explains all!

In 1597 Sir Francis Bacon famously said, "knowledge itself is power."1 Four centuries later, his words are proving to be more accurate than ever, as knowledge in the form of big data delivers an increasing amount of power to businesses.

Tech giants like Google and Facebook have made it abundantly clear that, to them, big data is a goldmine of insights. Therefore, forward-thinking organisations need to invest in and develop a comprehensive data strategy to improve how they obtain, store, manage, share, and use their data.

However, many businesses struggle to make data work for them. A Mckinsey survey found that 47% of business leaders feel that data & analytics have fundamentally transformed their industries, but they still had difficulties putting data to work for their organisations.2

While new technologies allow organisations to collect lots of data, raw data in and of itself has little value. Instead, the value arises when that data is presented in a way that provides actionable insights, informing business leaders on the best course of action.

That's why in this blog post we're going to be looking at how data visualization improves decision making. Let's dive straight in.

What is data visualisation?

Data visualisation is the final part of a process that includes the collection, cleansing and analysis of information from numerous data sources. This final stage is all about creating a pictorial representation of that data which can then function as a single source of truth for businesses.

The goal behind creating these visually stimulating visualisations is to tell a compelling story using raw data whilst keeping crucial KPIs in mind during review processes. With the help of data visualisation, key insights and information, such as trends and patterns, can be digested and understood by stakeholders much quicker.

Types of data visualisation

When it comes to visualising their data to help communicate the story behind it to their stakeholders, there are a number of things businesses need to consider. Chief among these is the category of visualisation they want to focus their efforts on, either:

- Data exploration: Data exploration helps to uncover insights and identify patterns that need further attention.
- Data explanation: By presenting an easy-to-understand graph or illustration, data explanation helps an audience better understand the results of that data.

Understanding which of those two ends a given visualisation is intended to achieve is essential in order to achieve success in an overarching data strategy.

While there are just two broad categories of data visualisation, there are a number of specific types of visualisations that organisations can deploy to better understand their data. These include:

- 2D area visualisations: 2D area data visualisations are typically geospatial, as they relate to the relative position of things on the earth's surface.
- Temporal visualisations: Temporal visualisations have a start and finish time and elements that may overlap.
- Multidimensional charts: Multidimensional charts are those with two or more dimensions that help explore correlations and discover casualty, which is why these are amongst the most commonly used visualisations.
- Hierarchical charts: Hierarchical data sets are the arrangement of groups in which larger groups encompass smaller sets, allowing users to drill down or drill up to conduct in-depth analysis.
- Network visualisations: Network data visualisations show how data points are related within a wider network.

How does data visualisation improve decision making?

Data visualisation helps decision-makers see the big picture. From understanding trends and patterns to highlighting issues and areas of concern, data visualisation is crucial to obtaining enhanced oversight over business operations.

Research has shown that organisations that leverage their customer behaviour data to generate insights and make data-driven decisions can outperform their peers by as much as 85% in sales growth. 3

Consequently, any organisation with an eye on the future needs to make sense of its data through data visualisation techniques and tools to enlighten its decision-making processes. Without effective visualisation, organisations are relying more on guesswork and interpretation when it comes to making crucial decisions.

Benefits of data visualisation

Whilst the primary benefit of data visualisation centres around making better business decisions, it's worth digging into some of the more specific benefits it can help organisations obtain. These include:

1. Improving speed: Many bad decisions are just good choices with bad timing, as timing is an often overlooked aspect of decision-making. Data visualisation can help businesses draw insights from vast amounts of data in real-time, increasing response times to challenges.
2. More accurate numbers: Although data provides decision-makers with potentially all the information they need, it's usually not presented in an easily digestible format.

© Jarmany Ltd **Confidential**

Data visualisation simplifies the information, boosting our comprehension of the data and reducing the need to fill the gaps with our biases, making our decisions more accurate. However, in order to ensure accuracy, it's pivotal that the data used within visualisations is of the highest quality.

3. Simplified communication: Once executives and other decision-makers use data to decide on a specific direction, that decision must be communicated to the team responsible for implementation. While the decision may seem obvious, other stakeholders may not fully understand the reasoning behind it, thereby reducing efficiency. With data visualisation, decision-makers could use graphs and charts to communicate the reasons behind the decision clearly.
4. Identify benchmarks and trends: An effective visualisation makes it easier than ever before for users to recognise relationships and patterns within their data. By exploring these patterns, users are able to focus on specific areas that need attention to help drive their business forward.
5. Empowering collaboration: Data visualisation helps organisations by presenting data in a universally understood form, empowering people to contribute to decision-making with their perspectives. Approaching any challenge from multiple perspectives enables decision-makers to make better choices.
6. Understand the story behind your data: Ultimately, all of these benefits of data visualisation lead to one key outcome — a more comprehensive understanding of the story behind a business's data. Armed with this knowledge, businesses can make better informed decisions that help to drive outcomes and business success in the long term.

Data visualisation tools

Cutting-edge data visualisation tools are essential for converting raw data into actionable insights. As a result, identifying and deploying the right tools is vital for businesses looking to uncover valuable insights that can help drive growth.

Fortunately, there are now a range of data visualisations tools available to businesses looking to harness the power of their data. The most popular among these include:

- Microsoft Power BI: Power BI is an interactive data visualisation software developed by Microsoft with a primary focus on business intelligence.
- Domo: Domo is a cloud software company specialising in business intelligence tools and data visualisation.
- Dundas BI: Dundas Data Visualization, Inc. is a software company specialising in data visualisation and dashboard solutions.
- Infogram: Infogram is a web-based data visualisation and infographics platform.
- Looker: Part of the Google Cloud Platform following a 2019 acquisition, Looker markets a data exploration and discovery business intelligence platform.
- Qlik: Qlik is a business analytics platform that provides software products such as business intelligence and data integration.
- Sisense: Sisense is a business intelligence software company best known for embedded analytics.

© Jarmany Ltd **Confidential**

- Tableau: Tableau Software is an interactive data visualisation software company focused on business intelligence specialising in visualisation techniques.

Even if businesses have access to one or more of these tools, that isn't enough to ensure effective visualisations. Remember, collecting, sorting, cleansing and analysing data before it gets fed into a cutting-edge tool is essential to ensuring accurate and relevant insights.

And that's not all. On top of that, businesses also need knowledge, skills and expertise to ensure that tools such as those outlined above are used correctly and therefore produce results that drive positive outcomes.

Enhance your decision making with data visualisation

Data visualisation has a track record of driving progress. For example, the 1854 Cholera Outbreak Map of London marked the locations of outbreaks, revealing that affected households used the same drinking water wells. Examination of these wells demonstrated a connection between cholera and contaminated water.4 These results helped the city eradicate cholera and contributed to Louis Pasteur's discovery of modern germ theory.

Over a hundred years later, businesses are looking to leverage data to ensure both growth and prosperity. A comprehensive data strategy that facilitates visualisations that enhance decision-making processes has therefore become essential to long-term success.

However, that requires access to significant knowledge, expertise and cutting-edge tools, all of which can be difficult to obtain and retain in-house. That's where data analytics providers like Jarmany come in. We're here to ensure that your business can establish a successful data strategy that delivers insights through stimulating visualisations.

So, if you're ready to start using your data to predict needs, deliver efficiencies, connect people and achieve growth targets, get in touch with us today.

JARMANY

Discover how to work with data the right way with Jarmany's support

Contact Us