Data Trials and Triumphs

This read focuses on why accurate interpretation of data is key top data-driven decisions. You have been learning why data is such a powerful business tool and how data analysts help their companies make data-driven decisions for great results. As as quick reminder, the goal of all data analysts is to use data to draw accurate conclusions and make good recommendations. That all starts with having complete, correct, and relevant data.

ERROR

> Keep in mind, it is possible to have solid data and still make the wrong choices. It is up to the analysts to interpret the data accurately. **When data is interpreted incorrectly, it can lead to huge losses. Consider the following examples**

Coke Launch Failure (New Coke)

In 1985, *New Coke* was launched, replacing the classic coke formula. The company had done taste tests with 200,000 people and found that test subjects preferred the taste of *New Coke* over *Pepsi*, which had become a tough competitor. Based on this data alone, class Coke was taken off the market and replaced with *New Coke* this was seen as the solution to take back the market share that had been lost to *Pepsi*.

But as it turns out, *New Coke* was a massive flop and the company ended up losing tens of millions of dollars. How could this have happened with data that seemed correct? It is because the data wasn't complete, which made it inaccurate. The data didn't consider how customers would feel about *New Coke* replacing *Classic Coke*. The company's decision to retire *Classic Coke* was a data driven decision based on incomplete data.

Mars Orbiter Loss

In 1999, ***NASA*** lost the $125 Million *Mars Climate Orbiter*, even though it had good data. The spacecraft burned to pieces because of poor collaboration and communication. The Orbiter's navigation team was using the *SI or Metric SYstem (Newtons)* for their calculations,m but the engineers who build the spacecraft used the *ENglish Engineering Units System (Pounds)* for force calculations.

No one realized a problem existed un,til the Orbiter burst into flays in the Martian atmosphere. Later, a *NASA* review board investigating the root cause of the problem figured out that the issue was isolated to the software that controlled the thrusters. One problem calculated the thrusters' force in pounds; another program looking at the data assumed it was in newtons,. The software controllers were making data0driven decisions to adjust the thrust bashed on 100% accurate data, but these decisions were wrong because of inaccurate assumptions when interpreting it. A conversion of the data from one system of measurement to the other could have prevented the loss.

CheckList

When data is used strategically, businesses can transform and grow their revenue. Consider the examples below.

Crate and Barrel

At *Crate and Barrel*, online sales jumped more then 40% during stay at home orders to combat the global pandemic. Currently;y, online sales make up more then 65% of their overall business. They are using data insights to accelerate their digital transformation and bring the best of online and offline experiences together for customers.

BigQuery enables *Crate and Barrel* to "draw on 10 times [as many]information sources (compared to a few years ago) which are then analyzed and transformed into actionable insights that can be used to influence the customer's next interaction. And this, in turn, drives revenue".

Read more about *Crate and Barrel's* data strategy in 'How one retailer's data strategy powers seamless customer experiences.

PepsiCo

Since the days of the *New Coke* launch, things have changed dramatically for beverage and other consumer packaged goods (CPG) companies.

PepsiCo "hired analytical talent and established cross-functional workflows around an infrastructure designed to put consumers' needs first Then they set up the right processes to make critical decisions based on data and technology use cases. Finally, they invested in the right technology stack and platforms so that data could flow into a central cloud-based hub. This is critical. When data comes together, they develop a holistic understanding of the consumer and their journeys."

Read how **PepsiCo** is delivering a more personal and valuable experience to customers using data in How ine of the world's biggest marketers ripped up its playbook and learned to anticipate intent.

Key skills for Triumphant results

As a data analyst, your own skills and knowledge will be the most important part of any analysis project. It is important for you to keep a data-driven mindset, ask lots of questions, experiment with many different possibilities, and use both logic and creativity along the way, You will then be prepared to interpret your data with the highest levels of care and accuracy. Note that there is a difference between making a decision with incomplete data and making a decision with a small amount of data. You learned that making a decision with incomplete data is dangerous. But sometimes accurate data from a small test can help you make a good decision, You will learn about how much data to collect later in the program.