



Reading: Business intelligence drives change

As you have been learning, a business's ability to identify issues before they become problems or act on opportunities before their competition is key to intelligent decision-making. Now more than ever, we have access to data about our marketplace, organizations, customers, competitors, and employees. But in order to turn that data into rapid results, we need business intelligence. Business intelligence involves automating processes and information channels in order to transform relevant data into actionable insights that are easily available to decision-makers.

In this reading, you're going to explore two examples of how BI has helped real businesses gain insights, access the right data, and find ways to grow and improve their processes to put those insights to work.

Restaurants reducing waste



Consider a fictitious scenario about a fast-food restaurant chain. Leaders at this company have huge amounts of data to manage, such as:

- customer transactions
- marketing data related to promotions
- customer satisfaction
- employee information

And so much more! But on top of all of that, the company also has to consider the logistics for individual restaurants. That's where the problem comes in.

The problem

The restaurants need to have ingredients to cook and serve customers, but if they have too much, that extra stock often goes to waste. Company leadership consults with their BI team to consider how to approach two concerns:

- How to ensure the restaurants' numerous locations have enough ingredients to meet customer demand
- How to reduce food waste

However, these stakeholders currently don't have metrics in place to specifically measure food waste or strategies to reduce it. This is exactly where the BI team will need to start.

The solution

In order to address the stakeholder's needs, the BI team spends time gathering information about current metrics and processes. They first use this information to determine what data they have and how it's being used. They discover that there are already useful metrics being applied in other ways by various teams in the company, including:

- How many ingredients are delivered to each location
- How much of each menu item is made each day
- How much of each menu item is actually being ordered each day

By comparing these existing metrics, the company can better understand how much food is going to waste. Thus, the BI analysts are able to gather the necessary information on incoming food delivery, customer orders, and food consumption in the form of a dashboard for stakeholders to monitor food waste. The BI analysts then organize this data within the database systems and deliver it to new tables that report the results for stakeholders to consider as they strategize how to reduce food waste.

The results

Knowing how much food is actually going to waste now enables stakeholders to better achieve their goals. The restaurant chain discovers that the largest source of food waste is the French fries. Across their locations, 10–20% of French fries are left over at the end of the month. With this information, the company's central operations team sends out a memo to all branches recommending they reduce their incoming French fry delivery by 10%. In this way, the BI analysts are able to help the business identify an area for improvement and reduce waste.

Hospitals promoting patient care



Hospitals also have to manage a lot of different kinds of data — especially patient information. They also have a variety of data sources that they need to access and share to ensure that other connected users — such as doctors working outside of the hospital — can get patients the treatment they need without wasting time or resources.

The problem

For this scenario, consider a hospital system that's challenged to communicate effectively with doctors who don't work within the same hospital system. Administrators have noticed that this creates a few different problems:

- Doctors outside of the system can't access test results from the hospital
- Patients are being tested multiple times

This is expensive and inefficient, both for the hospital and patients. So, decision-makers choose to work with a team of BI specialists to create database systems that get data in the hands of doctors who need it.

The solution

Basically, this hospital system is experiencing a problem related to inaccessible patient data. There is a lot of data streaming in from multiple source systems that needs to be consolidated into one destination that can be used by doctors, including information about:

- Previous visits
- Tests
- Allergies

And other relevant medical information. So, the BI team develops a pipeline system that ingests data from all key sources, processes and transforms it so that it is consistent, and delivers it to a database system where doctors are able to access all the information they need.

The results

By streamlining the hospital's many data sources into one consolidated database, the BI team helps save the hospital money and resources by eliminating duplicate tests. Now, doctors are better able to treat patients, patients save money on redundant tests and procedures, and the hospital can run more efficiently. This is all thanks to the tools built by the BI team!

Key takeaways

No matter what industry you're working in, BI can automate processes and information channels to empower the people who need that data to answer questions and make decisions. From restaurants reducing waste to hospitals advancing patient care, BI analysts create systems and tools to anticipate needs and enable organizations to reach their objectives.
