Data mining your way to a more efficient business

Your business already gathers a large amount of data—why not put it to work for you? Predictive analytics mines your data to provide a robust, comprehensive view of your customer experience. Imagine identifying positive trends you can leverage to increase profitability, or uncovering emerging issues so you can reduce risk with early preventive action. With such meaningful insights, you have the power to forecast business outcomes before you take action.

To maximize return on your investments, it’s important that your business operates efficiently. A key part of that is using your resources and assets in the most effective ways to achieve key business goals. Predictive analytics can drive efficiencies by helping you identify your company’s strengths, weaknesses, opportunities, and risks, so you know where you need to act and what you need to do.

Predict before you act

Predictive analytics can identify issues before they escalate, enabling your business to take preemptive action and reduce risk. This approach is particularly effective for supply chain management and its extended network of suppliers and manufacturers. Any delay in production or delivery can impact all parts of the supply chain.

For example, distributors can plan for how increased fuel costs will impact delivery schedule and frequency. What are the impacts if you make frequent small deliveries vs. less frequent large shipments? Predictive analytics can forecast the possible outcomes of a process change, so you can plan an efficient strategy rather than finding out through trial and error.

Predictive analytics can also help with:

- **Accurate inventory management** – Ensure warehouses have enough supply to meet customer demand and limit overstocking the wrong product or inventory.

- **Predictive maintenance** – Identify potential future equipment failures to prevent unplanned work stoppages, service disruption, and customer dissatisfaction. For instance, utility companies can assess if a water line or transformer is on the verge of breaking and make necessary repairs before any equipment failures.

- **Quality assurance** – Failure patterns can identify issues in product quality, enabling manufacturers to minimize customer complaints and reduce defective product returns.

- **Demand forecasting** – Predict customer demand and ensure that your production facilities can supply enough goods.

Effectively manage risk

Predictive analytics also play a key role in managing risk. Leveraging data science is proving highly useful in financial services and insurance industries. For example, banks can identify good (or bad) candidates for mortgages and loans to reduce potential losses.
Analytics are also being used to strengthen fraud detection and prevention. Text analytics can identify trends or language that indicate the likelihood of fraud and identify suspicious claims that need further investigation. Tracking patterns of user activity, such as the location from which a customer typically accesses an account or how quickly the customer enters login information, also helps determine the legitimacy of a fraud claim.

For example, Infinity Property and Casualty Corporation used real-time claims scoring to determine whether claims were legitimate, reducing the time it took to send suspicious claims to its Special Investigations unit from 14 days to less than 24 hours.

**Hire the right people**

Developing a more productive workforce is another key way to run a more efficient business – and analytics can help you target the right people. Companies can use predictive analytics to identify the skills and professional attributes most likely to lead to high job performance.

For your existing employees, analytics can help you better understand their needs and how to boost efficiencies. Do your teams have the tools they need to succeed? What are common employee grievances? Do you have the workforce you need to achieve key objectives or do you need more people? Predictive analytics can help you forecast workforce requirements, determine how to best fill open positions, and identify the factors that lead to greater employee satisfaction and productivity.

**Data without limits**

Predictive analytics can open up a wealth of valuable insights to drive a more efficient business. You can use data science to implement new processes, forecast demand, mitigate equipment failure, and protect your company and your customers against fraud. You'll have the opportunity to make smarter decisions backed by data, and position yourself as a cutting-edge business leader.

How can your business leverage predictive analytics?