

Predictive Analytics: Extracting Value from Big Data

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ABSTRACT

What is predictive analytics and how it helps businesses grow? If you want to learn all that and more then continue reading.

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Introduction

In today's brutal business world that thrives on cut-throat competition, firms need all the help they can get to perform better to ensure their stay in the market. Keeping that in mind, business and data experts have developed many techniques to help corporations improve their business practices and streamline their corporate processes. Naturally, doing so required extensive research and data analysis that later resulted in the formation of theories, one of which is **predictive analytics**.

What Is Predictive Analytics?

As the name suggests, predictive analytics refers to an in-depth analysis of big data extracted from a business's past performances, picking out patterns in business to create insights for the future. Simply put, predictive analytics is a thorough study of a firm's past practices to draw out recurrent patterns in order to determine the best course of action to ensure success in the future.

It's pretty much like when a person does heavy introspection, list down their good and bad traits, and develops a plan to eliminate the bad qualities to do better as a person. Likewise, businesses learn to do better by studying their historical data and deciding a suitable, ideally, the best way forward.

According to a 2017 study by Zion Market Research, predictive analytics is a globally recognized phenomenon now, with a market expected to reach approximately \$10.95 billion by 2022, growing at a compound annual growth rate (CAGR) of around 21 percent between 2016 and 2022. These stats clearly

indicate how rapidly the corporate world is adopting predictive analytics.



Figure 1.

Studying graphs to do predictive analytics

How is Predictive Analytics Carried Out?

Predictive analytics is not a single technique that does all the work, i.e., studies past data and generates insights. Instead, it is a handful of methods pooled together that go through a corporation's historical records, stats, and documents, pick out essential trends, and present those as insights for the future.

A company can use predictive analytics in different ways to extract value from big data. From AI algorithms and predictive

marketing to data mining and deep learning, corporations use an endless stream of strategies to carry out predictive analytics. Needless to say, said techniques are conducted by high-performance computers and AI-driven software.

Predictive Analytics and Conventional Analytics

One key factor that differentiates predictive analytics from other data analysis practices is the dependence on predictions. That is, whichever system is employed to carry out the technique relies on probabilities and doesn't know in advance which data is essential. It assumes-*predicts* a particular portion of data to be responsible for a specific outcome, then runs the analytics to confirm the prediction.

In traditional analytics, users work with absolutes and not probabilities; hence the term predictive is explicitly used for predictive analytics and not all similar practices. To understand better, let's look at the example of one of the most commonly used predictive analytics practices; regression analysis.

Regression analysis is carried out to figure out if there is a correlation between two variables in your business. Let's say you run a digital retail trade, and you wish to determine how much, if any at all, your spend on social media marketing impacts your sales revenues. In the said case, your marketing expenditure is an independent variable, and your sales are the dependent function.

Based on the results of regression analysis, you will learn if the two entries have a positive or negative correlation. The prediction, in this case, would be a positive correlation, i.e., the more you spend on your social media marketing, the more sale revenue is generated. If that turns out to be accurate, you can continue spending the same, if not more, on your online advertising. If that is not the case, then obviously, you will have to fix your marketing strategy.

Conclusion

Predictive analytics is an excellent way of optimizing business processes and boosting profits. And as mentioned earlier, in today's relentless corporate world, every business owner needs innovative strategies to move forward