
Understanding Data Analytics, Its Application In Accounting And Embezzlement Audits And Its Benefits And Drawbacks

Data Analytics Report

What is Data Analytics?

Generally, data analytics refers to the techniques and processes used to examine large sets of data and identify patterns, trends, and other insights which help businesses to make more informed decisions.

The first step in the data analysis process is knowing where the data is coming from. If the data is coming from a company, it is crucial that you fully understand the business that company conducts. The second step is to identify what you are looking to get out of the data and how you plan to get it. Step three is the data collection itself, and step four is to narrow down the data to fit the criteria you set in step two. The fifth and final step is to analyze the data and translate it into information that is useful for making decisions.

The use of software to collect, narrow down, and report on data is a common technique for data analysis. The transformation of software generated reports into useful knowledge that everyone can understand is typically done by data analysts who understand both data and people enough to bridge the gap.

Where is Data Analytics Used and Why?

Data analytics plays a major role in society for consumers and businesses alike. In business, digital advertising has become a hugely effective way to advertise because of algorithms in place that track what users are interested in and then display ads relevant to those interest. In addition to advertising, data analytics is also behind the recommender systems that many major online retailers like Amazon use to suggest and promote other products of theirs that previous shoppers are interested in. Internally, data analytics can be used to improve the efficiency of business operations, prevent and detect fraud and fraud risk, and to plan for the future of the company. Other notable uses of data analytics that do not tie directly to the business/consumer relationship include internet search engines, speech and image recognition, and gaming.

As a result of how useful data analytics has become in our every day lives, it has far surpassed the limitations that traditional analysis always had. The simplest reason for this is due to the amount of data that is generated every day and the ease at which it can be collected. In the past traditional analysis worked not because there was less meaningful data, but because without the advancements in technology that we have today it was impossible to collect it all.

It was simple to collect small amounts of data from a single source, format it, and put it into a report. As technology advanced this became impossible. As more data came in from a larger variety of sources it became increasingly harder to learn anything from a report alone. People

needed a way to organize the data in a useful way, and from that data analytics is born. Data analytics takes in massive amounts of data, finds insights from it, organizes them, and presents it in a meaningful way that humans could not accomplish using traditional analysis.

Pros and cons of Data Analytics

Data analytics is the fastest and only efficient way to get through the large amounts of data that exist today. It provides almost unlimited storage possibilities for large data volumes and allows for data access from anywhere and any device because of cloud storage. The methods, technologies, and tools used in data analytics allow analysts to gain deep insights which could not be done in the past.

While data analytics provides a lot of useful information, there are some down sides to using it. One issue is that with a lot of data comes a lot of noise. This means that not all resulting data has meaning or even relevance. Another big issue is privacy problems that stem from data collection occurring without people's knowledge; think social networks. The last major issue with data analytics is the security of where the data is stored. Clouds are not as secure as on-site data warehouses making them an easier target for data theft.

Data Analytics in Accounting and Fraud Investigations

Data analytics in accounting focuses mainly on the benefits and opportunities that use of data technology can bring to operations, financial decision making, and improving reporting metrics. It allows for continuous monitoring and auditing as well as analyzing full sets of data where only samples were given in the past. Predictive analysis provides highly accurate analytic models for comparison with management reported numbers which speeds up the auditing process and reduces human error. While all of these things are important, one of the best uses of data analytics in accounting is in the prevention, detection, and investigation of fraud.

Information is the key to combatting fraud and data analytics provides that. Data analytics takes the mountains of data involved in accounting and condenses it into information that allows accountants to spot gaps in process flows or weaknesses in internal controls that could lead to fraud in the future. It also provides accountants with a baseline of how things should look so that they can more easily know when something is off. In this way data analytics provides a more proactive method of fraud prevention and detection. A red flag is raised if even one data point seems off and there is no explanation for why based on past data. The flag may not always mean fraud is occurring, but when it does the company is able to investigate further before it gets too far.