

## BUILDING BUSINESS INTELLIGENCE THROUGH DATA ANALYTICS



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Data are kept historically for future retrieval and reference in the context of dispute. The development of massive data warehouse allowed better data retention benefitting from the economies of scale, further, the technological innovations have pushed the boundary of processing speeds to allow massive data sets to be churned to good use.

Businesses have slowly recognised the importance of information technology to jolt-up their businesses by using objective data sets rather than substantive inputs from industry 'experts'. The use of data analytics, while a relatively new concept to most businesses, is now beginning to blossom as a whole new separate industry from professionals with combined competencies in economics, statistics and IT.

Data analytics is currently used by businesses primarily as a tool for assessing the current operational status of the company. The use of massive data sets allowed companies to use a bigger sample size, albeit, a complete population, to analyse the company's performance at a very granular level and as a tool for market based analytics through metadata accumulated from customer purchase histories.

Recent versions of enterprise resource planning systems have introduced powerful analytics tools within the system such as allowing companies to forecast minimum order quantities and purchase quantities through running algorithms in the background considering the historical sensitivities of these stocks to customer purchase. Further, retail businesses have grown interest in data analytics to perform better business decision in product placements and cash counter operations.

While use of data analytics to understand the present condition of the company is prevalent in the current business setting, the use of predictive analytics is one of the expected areas where companies are expected to focus on to gain more value from its high capital investments in data storage and processing capabilities.

Data analytics is a rather wide concept, I would generally classify data analytics in business as falling into either accounting analytics, operations analytics or market analytics. Analytics as applied in operations and market analysis are the two most commonly used data analytics in business since analytics specialists generally have little finance and accounting background. Analytics specialists in the industry generally comes from those with strong IT, statistics and economics background who are capable of pulling good quality operational and market-based analytical outputs.

Accounting analytics is a rather new branch of data analytics which I haven't really seen much in practice. Doing an online search for accounting analytics would result to almost nothing related to data analytics. Current accounting analytics concepts are primitive and academic/moot. Accounting analytics is presented in the market just as a better term for financial statement analysis, and if

marketed by accounting software providers, it is just a dashboard beautifully presented with colourful graphs to show the current financial status of the company.

Going back to the context of data analytics, accounting analytics is a branch of data analytics used to analyse the present financial condition of the company which provides objective evidence of financial health and identifies potential financial red flags through analysing detailed financial history. However, the power of accounting analytics is on its application to predict the company's financial future. Current business models have relied heavily on subjective inputs to financial models and budgets which are based on crude forecasting methods using revenue growth to drive the whole company's budget allocation. The use of big data would enable the use of extensive historical information to forecast budget information using a statistically sound approach.

Data analytics used in business have been briefly introduced above. However significant risks are involved in these investment as well. As data storage requirement increases to accommodate the historical and market-sourced data, there is an increased level of cost for data storage, data processing, data analysis, visualisation, interpretation and most importantly – data security. As more and more corporate information are now stored in network and cloud, the necessary security to ensure that sensitive company information is not jeopardised is the most important thing to consider in deploying data analytics.

The role of the C-suite is ever expanding with the growth of these technological innovations. Corporate giants have heavily invested in Chief Information and Risk Officer positions as companies implement these heavily IT-reliant business processes. The risks related to these investments are high considering the extrinsic and intrinsic costs involved. However, companies ignoring the vital importance of analytics in this IT-reliant industry are bound to lag against the competition.

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