Big data in chemicals industry essay sample

Business, Company



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Big data refers to enormous volume of both organized and free data that is challenging to process by means of the normal database and software procedures. Big Data allows the organizations to take appropriate decisions, and precisely access performance, as Big Data can provide concealed data that is beneficial for the company. Big Data is used in many sectors such as automobile, social networking, retail business, and so on. One such sector is Chemical industry that has been focusing on consumer market so far, and now wants to shift to application market to leverage Big Data and advanced analytics, to understand the demand estimates, and pricing decisions. This shift can be achieved by understanding the datasets, parameters, and analytics that need to be applied on a decision taken.

In the early 1990's chemical companies relied on information technology for the design, process modeling and management, using the tool called ASPEN+. In 2005, technology improved and advanced analytics was being used to improve logistics, which also analyzed the spending methods on raw materials in Dow chemical company. Two features that make Big Data important in the organizations are the Pricing Strategy that is critical for the commercial operation, and Market forecasting, which is essential for effective production. The company that introduced advanced analytics has been successful in understanding the sales forecast, early indication of monthly target including corrective action, and refined data staffing models.

Overall, Big Data and advanced analytics can generate many prospects for the chemicals industry, particularly and make the business profitable.

Managing Big Data properly does not only allow quicker and effectual decision making, but also enables business makeover processes that have never been achieved earlier. Big Data is also significant in innovation management, and R&D, and companies that use Big Data create numerous growth opportunities.