

# Data Mining in Business

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**Abstract-** The move today is towards gathering more and more data for the business as more data gathered; there are better chances of getting superiority over the competitor. Companies now seek for the competitive edge as it is the demand of this era. But piling up too much information doesn't guarantee success rather getting the right information from the pile of information is what needed (Chen et al., 1996). This is done through a process called data mining. They further stated that data mining is the process constituting of extraction and analysis of data to be used in business. It carries immense importance for business as businesses are keen to adopt such a process for developing a competitive edge over their competitors.

## Introduction

Every minute for business is humungous as so much is going on in the market, within the company environment and in the external market that businesses cannot afford to lose any sort of information. This has resulted in businesses gathering up piles of data. Data mining has made the process of analyzing so important for businesses that now businesses are keener towards gathering big data (Fayyad et al., 1996). Firstly data mining offers business to forecast business trends accurately which was not possible before. Bose & Mahapatra (2001) propagated and considered it to be a proactive approach as it helps in identifying the important pattern for the future. Identifying the future trends and pattern in the market helps the company to focus on proving the customers with the desired product more efficiently. Since data mining is based on the data gathered from customers, it allows company to analyses the buying trends of its customer and then shapes its strategies accordingly. Previously businesses used to know only what customers and client have done but now with the help of data mining techniques, it is possible to know what the client and customer will do in the future (Hall et al., 2009). Data mining has helped in reducing the amount of uncertainty associated with the businesses as businesses operate in relatively unstable or dynamic environment where it becomes necessary to put a continuous check on customers taste and preferences. In such volatile markets where customers tastes and preferences changes so quickly businesses need to keep themselves ahead of others by first predicting the future accurately and then planning for it. The key to success is thinking proactively and this data mining technique provides the businesses with such reactivity.

## Various Techniques of data mining and their role in social media

Various data mining techniques have been developed by scientists in order to overcome the problems such as size, noise and dynamic nature of the social media data. Due to the large volume of data in the social media, an automatic data processing is needed in order to analyze it within a given time span. The dynamism in the social media data leads to the rapid evolution of the data sets over time; such dynamic data can be easily handled by various data mining techniques (Adedoyin-Olowe, Gaber, & Stahl, 2013). Different types of data mining techniques are discussed as follows.

### How firms make good decisions?

Data mining allows the companies to make better decisions, not on the basis of judgments rather on the basis of statistics and ratios derived from the data mining (Bose & Mahapatra, 2001). Such decisions that are based on some sort of solid information are always better than decisions based on heuristics and judgments. The probability of making wrong decisions gets narrow down with such data mining technique. Especially when starting a new venture or launching a new product, it becomes highly important to do data mining and extract and then analyze all the important and relevant information so that chances of getting failed in the new venture reduces. It is a knowledge based technique that answers questions of businesses which were traditionally unanswered (Apte et al., 2002).

Data mining allows the business to segment its market more efficiently on the basis of concrete information (Fayyad et al., 1996). For instance a company can divide its market on the basis of age, gender, professions and other characteristics through data mining. It allows the business to better serve its market as every segment within the larger market has its own preferences and hence demands for unique and separate treatments and ultimately leading towards better customer satisfaction and more profitability for

the business. Also connecting to this is the benefit of producing products according to the segments made through data mining as it allows the company the confidence required to cater differently and gain competitive edge.

It can substantially save cost for the businesses as well. Since it gives business the leverage to analyze the costs involved in the company and compare them with the competitors cost, it helps in cost saving. Moreover, it is also important because it helps business to reduce the rejection/faults rate. Gathering data on number of warranties claimed by the customers will help the company to find out the fault in the product and hence allow them the chance of rectifying the fault and reducing the number of warranty claims and ultimately saving up the cost. Quality issues get resolved through customer feedback data and then working on delivering what customer wants always help businesses to get success.

In such a competitive market where businesses are involved in the deadliest price wars, there are likely chances of customers leaving one company's product for other companies. So it becomes equally important for the business to keep up the customer loyalty level by continuously changing up the products and services according to customer preferences and likings. So data mining also help businesses in creating loyal customers. Hall et al. (2009) suggested that data mining is also important because it allows businesses to target the customers more efficiently. Holding on to the customer buying profiles and looking up on their preferences will provide business with the important insights and on these information, business can do target marketing which is more beneficial than sending marketing messages to uninterested customers. Apte et al. (2002) stated in their research that companies are getting leaner and leaner to save their cost and double their efficiencies. One way of doing this is through reducing the stockholding cost and implements 'Just in Time' approach. Doing such requires strong and credible data analysis to get the desired quantity of merchandise required so it doesn't add up to the stockholding cost and neither has it resulted in losing sales. Lastly it helps companies to accurately forecast sales and reduce the chances of losing up potential sales due to conventional techniques of forecasting.

Summing up, data mining is an important tool for gaining competitive edge over the

competitors and keeps the company proactive in its approach. No business can afford to be left behind in the competition, so to remain on toes companies need to implement techniques like data mining as it allows the businesses to reduce the chances of making mistakes.

## References

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