

## Data Mining in brief

Nowadays, data mining is applied in all human undertakings including scientific research, medical science and practice, public security and most business sectors. Data mining is particularly attractive to young industries with a rapid growth and in business sectors where things change rapidly. Come to mind the stock market, financial services, marketing agencies, retail chain stores and the video game industry. Companies now realize that DM can help them understand and predict consumer behaviors. The added insight allows for increased interaction between vendors and consumers. We are moving towards a more personalized marketing that benefits both parties.

Data mining consists of scrutinizing large data sets in order to discover new information. The discovery of new patterns, trends and correlations serves to enhance business decisions. It often leads to original and beneficial solutions. Reliable and timely information allows for the development of new marketing strategies such as a move toward one-on-one communications with customers and prospects. *Database Marketing* and *Customer Relationship Management*, made easier by data mining, can boost profitability and provide major competitive advantages.

Through data mining, one can determine where, when and **why** a given product or service sells. Historical purchases, demographics and psychographics are used to build customer behavior models, allowing for knowledge acquisition and the timely development of reliable predictions. Using customer insight, one can target the most valuable sub-groups and launch relevant promotions. The efficiency of marketing campaigns constantly improves, yielding more revenues and reducing marketing costs. Prediction models allow marketers to conduct small-scale tests, measure results and make timely adjustments to the message or the targeting. Quality interactions boost sales and relieve the negative impact of repeated mass advertisement and promotions. Customer-centric programs strengthen branding and customer loyalty.

### Marketing strategies

Marketers need to know whether they should endeavor to attract new customers or attempt to increase loyalty. Choosing the right strategy is made much easier by using data mining. Smart strategic orientations will reduce your marketing costs and improve the efficiency of your promotion campaigns.

Automated data mining will track the effect of your decisions, making it easier to make sound decisions in matters of pricing, range of products and services, cross-selling, up-selling, promotions, advertisement, communication media,

branding, etc. Prediction models can also factor in 'external' variables related to economic indicators, market evolution and competition.

### **The syndrome of the forest hidden by the trees**

Nowadays, data accumulation can become overwhelming and make it hard to sort out what really matters. Data mining will highlight the useful information from the mass of data. From the moment when a marketer can identify likely responders, reliance on mass advertising will diminish, allowing for the conception of less expensive and more effective marketing programs.

Data mining can help you find reliable answers to such questions:

- Which customers are likely to become disloyal and **why**?
- Which customers are most profitable for our company?
- Which customers are least profitable for our company?
- Which customers are most likely to purchase additional products?
- Which purchase behaviors matter to our company?
- Which product a given customer is likely to buy?
- How can we optimize product pricing?
- Which combination of products a given customer is likely to buy?
- Why is this store more/less profitable than the others?
- What is the efficiency of our latest promotion campaign?
- How can we reduce our marketing unit costs without affecting revenues?
- How can we personalize our promotions?
- What types of customers are likely to respond to a given promotion?
- Which products are likely to run out of stock within two weeks?
- How can we predict sales of product "A" over the next quarter?
- What web click sequences lead to a sale?
- How can we prevent web visitor dropouts?
- How can we improve consumers' perceptions of our products and services?

Data mining will help in solving a wide variety of business problems in diverse domains.

For additional information, please visit our web site [www.axoneintelligence.com](http://www.axoneintelligence.com) or contact us.

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