With increased competition bearing down on all industries, the use of data mining to help in business decision-making continues to grow.

Tangible proof of this trend is the current wide adoption, in a broad range of industries, of customer relations management (CRM) software and processes, which use data mining for analysis.

This is the general outlook for data mining technology according to experts attending the three-day Asia-Pacific Knowledge Discovery and Data Mining Conference which ends on Wednesday. The conference was organised by the E-Business Technology Institute of the University of Hong Kong.

"Interest is definitely on the rise," said Ronny Kohavi, the conference's keynote speaker and director of data mining at CRM vendor Blue Martini. "Many companies today are discovering the value of data mining to know what their customers want."

Simply put, data mining is the analysis of data for relationships that have not previously been discovered. As part of the CRM process, the technology is used to analyse large databases to solve business-decision issues.

Information gathered from such analysis, for example, can be used by a catalogue-based retailer's marketing department to target which profitable customers to give their new catalogues to.

According to research firm International Data Corp (IDC), the need for new and established companies to measure, predict and optimise business performance has fuelled demand for analytic application solutions.

It said worldwide revenue in this market space was expected to accelerate at an annual growth rate of 28 per cent, from US$2 billion in 1999 to more than US$6 billion in 2004.

"To succeed in today's business and e-business environments, companies must look at ways to optimise financial performance, customer relationships and the production and delivery of products and services," said Henry Morris, vice-president for IDC's data warehousing and information access program.

"Analytic applications software automates the planning, forecasting and..."
predictive modelling activities for companies, giving them the edge they need over the competition."

IDC said CRM applications would remain the fastest-growing segment. Revenue, which grew 75 per cent in 1999, is projected to surpass US$2.3 billion in 2004. Driving its growth is Web site analysis, the success of which is linked to personalisation. Personalisation is the driving force behind turning Web browsers into buyers.

Data mining is thought to be even more important today because of the huge volumes of data generated by e-commerce sites.

Used by online stores, the results of Web-based data mining transform data "into insights and predictions that both improve the quality of the shopping experience for the customer and the profitability of the site for the merchant", Mr Kohavi said.

He noted that data mining insights can be highly strategic revenue drivers for companies when redesigning their Web sites, making product selections and introducing promotional programs to improve browse-to-buy rates, shopping cart size and customer loyalty.

Mr Kohavi was formerly manager of Silicon Graphics' acclaimed MineSet project, a ground-breaking application of data mining techniques integrated with visualisation capabilities used by companies such as Ford Motor Company and Chase Manhattan.