# BUSINESS ANALYTICS

As technology and intelligence have become more prevalent in today's business environment, it has become critical to make full and efficient use of business data to remain competitive. With the ability and tools to analyze and understand your data, you are able to realize and make more confident decisions, which in turn provide greater impact to the bottom line. Successful business analytics can help an organization achieve goals through more efficient and improved business performance, reduced uncertainty in the decision making process, minimized operating costs, and improved customer relations. Our staff of statistical and business professionals jumpstart this process by making use of various statistical methodologies and data mining techniques. We are confident that through our knowledge and expertise we can strengthen the link between critical decision making and long term success.

## INFERENCE

By successfully incorporating statistical inference techniques into your business, uncertainty in everyday decisions can be greatly reduced. All too often, small misconceptions in these techniques lead to misleading results. For example, what is the correct method for addressing missing data in a particular situation? What are the risks associated with drawing inferences from an overfitted model? How can imperfections within your sample affect your conclusions? By providing employees with support and training in these areas, we can reduce the possibility of unexpected results.

## DATA MINING

As the means to collect and store large volumes of data become more realistic for companies, the need to analyze and comprehend underlying consumer behavior in this data becomes increasingly important. Utilization of these techniques will allow you to get the most out of your data while providing a basis for confident decision making. Behavior analysis will make possible the evaluation of current business rules and policies, while providing grounds for developing new ones. Along with understanding your consumer, comprehending the vast amount of data collected can also lead to determining areas to reduce cost and expand revenue.

## FORECASTING

Webster's dictionary defines forecasting as "an activity to calculate or predict some future event or condition." To remain competitive, businesses require more sophisticated and proven techniques beyond simply providing educated guesses. Statistical forecasting eliminates the guesswork by identifying business trends and determining the factors that affect those trends. Benefits of this technique include understanding historical trends, predicting future events, and obtaining a better understanding of performance. Want to predict inventory or plan next year's budget? Statistical forecasting can help you address these areas. Business planning becomes much easier when future events can be predicted within some degree of certainty.

## PROCESS IMPROVEMENT

Statistical quality control techniques have traditionally been limited to the manufacturing industry. However, these methodologies are applicable and can be beneficial to many of your everyday business processes. For example, would you like to improve the quality of service to your customers? After breaking down the individual processes used to service a customer, statistical and graphical techniques can be used to determine sources that affect the process and in turn control the variation associated with those sources. Once control is established, optimal productivity can be determined and achieved through statistically designed experiments.