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#### Improve business operation efficient through the use of automatic intelligent model building system

**P**rescriptive analytics can be used to improve business operation, however, many constraints factors including (i) the shortage of high-quality data analysts; (ii) the time to develop a useful prescriptive model takes very long time; (iii) the lifespan of the prescriptive model is relative short prevent the usage of prescriptive analytics. Automatic intelligent model building system which is capable (a) of building prescriptive model automatically with relatively short time (hours instead of weeks or months); (b) being used effectively by IT personnel with adequate knowledge of data sources; and (c) deploying easily can be used to overcome all the constraints. Thus, it overcomes all shortages of traditional modeling approach and it can be used to improve business operation. A portal type of automatic intelligent model building system has been developed. It is capable of fixing data problems such as missing values, skewness and high cardinality. It supports neural network, decision trees, gradient boosting, rand forest and many regression algorithms. This system also attempts to open the black box to allow the user to see some insight of the modeling results such as interaction among predictors, important predictors, how to alter predictors to change the predicted values. Two case studies will be discussed to demo the capability of how to use this system to enhance business operation. The first case study is to a precision marketing system. The second case study is on employ management system. The results from both cases studies are very positive and encouraging.

#### **Biography**

Morgan C Wang received his PhD from Iowa State University in 1991. He is the funding Director of Data Mining Program and Professor of Statistics at the University of Central Florida. He has published one book (Integrating Results through Meta-Analytic Review Using SAS Software, SAS Institute, 999) and over 80 papers in refereed journals and conference proceedings on topics including interval analysis, meta-analysis, computer security, business analytics, healthcare analytics and data mining. He is the elected member of International Statistical Association and member of American Statistical Association and International Chinese Statistical Association.

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