Abstract

Automobile Industry is facing numerous challenges like plunging automobile sale, rising inventory, lowering margins and unsatisfied customers among others. Wrong understanding of customer needs and demands is badly affecting product designs and global ambitions of the auto industry. The auto industry needs an IT solution that will help them in understanding customer’s needs in a better way. Hence, the need for adequate performance measures has become more important than ever. In this paper problems like Customer Segmentation and finding top-k Cars are addressed. In Customer Classification Prediction Model, based on the customer’s profile and preferences a probabilistic result is provided. This result will
Maximizing Profits through Customer Segmentation and by finding Top-K Profitable Products for the Automobile Industry

predict a set of cars that the customer should most likely purchase. The advantage of this approach is that it assists companies with selecting the classifier which maximizes the profit. The other problem is finding Top-k Profitable Products. The products are compared to other products of different brands. Then a set of features which could be added to the products such that they are not dominated by the products in the existing market are found. In this problem, the prices of these products are set such that the total profit is maximized. Such products are referred as top-k profitable products. The algorithm will also calculate the profits generated by various segments of cars. Precise solutions to find the top-k profitable products efficiently are proposed. An extensive performance study using both synthetic and real datasets is reported to verify its effectiveness and efficiency.

References

- Qian Wan, Raymond Chi-Wing Wong, G 2011 Yu Peng, Finding Top-k Profitable Products, University of Science and Technology Clear Water Bay, Kowloon, Hong Kong

Index Terms

Computer Science

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Customer classification  Top-k  prediction  dominance.