DEMO

M-Navigator: Customized Marketing Strategy Support Service for Small Businesses

Sa-Kwang Song*[+], Minee Cho*, Choong-Nyoung Seon*

*Dept. of Decision Support Technology Lab, Korea Institute of Science and Technology Information South Korea

[+]Dept. of Big Data Science, Korea University of Science and Technology, South Korea

Emails: {esmallj, mini, wilowisp}@kisti.re.kr

Abstract

M-Navigator is a system that recommends customized marketing strategy scenarios that support marketing activities to increase sales of small business owners using big data such as sales records of the owners from Credit Card Company, text from the blogs, records of floating population, etc. It is composed of customer and sales analysis, providing future profit and marketing strategy scenarios. To minimize risks to the market and respond to environmental changes preemptively in the current situation where the dismissal rate of small business owners is increasing, we can cope with the uncertain future by predicting changes in the market and simulating the marketing activities in advance. M-Navigator is a marketing strategy management service that forecasts future profits based on sales transaction history, social media trends, and big data related to each region and industry with the aim of supporting them at all times. M-Navigator has a function of analyzing the status of stores to diagnose current business status of small business owners, setting target sales and marketing execution options for establishing plans for future marketing activities. More detail information about M-Navigator is as follows.

- Store status analysis function
  - ✓ - Provides multidimensional big data analysis of current conditions, in order to identify potential customers and maximize sales by utilizing big data related to commercial and residential areas such as hinterland population, residential type, floating population, and sales information of the vicinity of the current commercial area of small business owners
  - ✓ - Provides comprehensive analysis of current status of small business owners in the same kind of business through comparative analysis of sales, purchasing customers, and potential customers according to day/time/age/ender
- Setting sales target for small business owners and setting marketing execution options
  - ✓ Providing the ability to set the target amount that a small business owner intends to achieve within a month
  - ✓ Provide the ability to set up target customers and set up marketing activities that can be performed from the perspective of small business owners.
- Function to provide customized marketing scenarios according to user's goal setting
  - ✓ Provides the ability to recommend business scenarios (strategies) based on direct analytics that are optimized for the target revenue set by the small business owner.

- ✓ Business scenarios can be used to identify when (day and time) marketing activities should do such as distributing promotional materials, operating signage, distributing coupons, utilizing part-time jobs, changing business hours
- ✓ Provides the ability to configure scenarios by setting marketing execution options from the perspective of a small business owner and to configure optimized scenarios from a system perspective
- ✓ Provide predicted sales results by the recommended scenarios

Presenters

Sa-Kwang Song, Ph.D., Principal Researcher, Professor
245 Deahak-ro, Yuseong-gu, Daejeon, Korea (34141)(esmallj@kisti.re.kr)
He received his Ph.D. degree in Computer Science at Korea Advanced Institute of Science and Technology (KAIST: http://www.kaist.ac.kr), Korea. He joined Korea Institute of Science and Technology Information (KISTI: http://www.kisti.re.kr), Daejeon Korea in 2010. He is currently the head of Dept. of Decision Support Technology Research Lab since 2015 and a professor of Dept. of Big data science at University of Science and Technology (UST: http://www.ust.ac.kr) since 2014. His current research interest is mainly on Text Mining, Big data Analytics, Business Intelligence, Semantic Web, Information Retrieval, and Natural Language Processing.

Minhee Cho, Senior Researcher
He joined Korea Institute of Science and Technology Information (KISTI: http://www.kisti.re.kr), Daejeon Korea in 2005.
His current research interest is mainly on Text Mining, Big data Analytics, Business Intelligence, and Natural Language Processing.