23. Analysis of customer's awareness on drinkable deep sea water through text mining and sentimental analysis algorithm

°Do-Hun Kim[1*], Tae-Hoon Kim[2] and Hyeon-Ju Kim[3]

[1*] Student, Department of Global Business, Gangwon National University (dounykim@naver.com)

[2] Graduate Student & Academic Coordinator, Master of Development Policy, KDI School

[3] Principal Researcher, Seawater Energy Plant Research Center, KRISO

The deep sea water (DSW) merchandise has been produced and commercialized after the "Development and management of deep sea water act (2007)" was enacted. Although various products have been manufactured and distributed to date, they seem to not reach the introduction stage of industry. To nurture DSW business into a full-fledged industry in the future, additionally treated deep sea water should be used to produce high quality and value-added products. Therefore, it is necessary to examine the customer satisfaction and to improve the quality of products.

This study surveyed the products and reviews in several consumer communication platforms, such as internet websites and social networks (SNS), where 'Drinkable Deep Sea Water' is a representative product. The purposes of survey were to identify the characteristics advantages and disadvantages of the merchandises and suggest the feasible ways to improve the products and services.

To analyze the available data collected from review sites, text mining techniques such as TF / IDF, sentiment analysis, and network analysis were utilized. Customer reviews were crawled from online shopping malls and Naver blogs.

Statistics and data mining, and graphics were analyzed and visualized using 'R', Big Data Analysis 'Textom', and Python that is an open source programming language based on C language.

Through this study, it was able to understand the major issues on 'Drinkable DSW', and pros and cons of the products that are currently sold on the market. Furthermore, the strategical direction of product development and service improvement has been proposed from sentiment analysis.

Keywords: Drinkable deep sea water, Big data, Online review, Text mining, Sentimental analysis, Production and marketing strategy