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論文題目	Customer Sentiment Knowledge Management in Thai Life Insurance		
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論文の内容の要旨

This study explores service satisfaction with Thai life insurance based on customer sentiments expressed on social media. This task provides an analytical framework of customer sentiment knowledge management that shows how to benefit from social media feedback through immediate problem-solving. After customer opinions are identified through the sentiment extraction & analysis tool, the severity of problems is prioritized. This research presents a new social CRM that manages knowledge using a multidimensional sentiment cube to recommend processes that need to improve due to get a high volume of negative sentiment from user-generated content from social media. This method is an emerging approach that takes benefit from the sentiment cube concept with data mining. Text mining and natural language processing (NLP) is applied to extract valuable knowledge chunks with their sentiments from critiques web-blogging in the Thai language and then map each chunk to pre-defined dimensions in a cube.

In this work, a design of multidimensional sentiment cube on social CRM was demonstrated in a case study of the Thai Life Insurance Industry; dimensions are designed with consideration of standard CRM factors as well as CRM components and aspect-based sentiment analysis. Besides, we present the results of an empirical study conducted via a questionnaire survey. The concept of social customer relationship management (social CRM) is adopted by utilizing the sentiments expressed on social media as part of an active management process to improve customer satisfaction, retain customers, and recommend solutions positively received by respondents. This study investigates service evaluation factors, claim settlement quality, policy cancellation motives, and misunderstanding problems based on demographic characteristics, life insurance attitudes, experience, and knowledge in life insurance of Thai respondents using the extracted topics from social media.

Keywords: Customer sentiment knowledge management, Multidimensional sentiment cube, Thai life insurance, Social customer relationship management (Social CRM), Text Mining

論文審査の結果の要旨

In the social media era, the management of knowledge was generated by customer feedback is essential to improve customer relationships for business sustainability. Life insurance is a service that has intangible characteristics and difficult to declare its aspects. Most of the currently developed sentiment analysis methods are based on individual aspects or basic hierarchy levels, which can extract limited information. This study proposes a new approach using a cross operation between several aspects. The proposed approach is applied to extract sentiment words from Thai text data to identify their sentiment scores. Furthermore, this study also proposes a framework for managing knowledge of sentiment by the knowledge sharing process between social media, expert domain, and customer/non-customer in Thai life insurance. The candidate has addressed the novel and significant contributions, as follows:

- 1) Exploit the principle of social customer relationship management (SCRM) and life insurance service knowledge for identifying a concrete aspect.
- 2) Propose a novel analysis tool, the Multidimensional Sentiment Cube (MDSC), which combines Sentiment Analysis (SA) and Online Analytical Processing (OLAP) with deploying text mining in the Thai language.
- 3) Identify the hidden problems and problem-solving methods of customer dissatisfaction in Thai life insurance using a Customer Sentiment Knowledge Management framework (CSKM).

The candidate conducted this study with a considerably large volume of workload and obtained promising results. We approve awarding a doctoral degree to Miss SUCHARITTHAM Nanthawadee.