

Digital Market Research using Social Listening Tool for Modern Trade in Thailand

Datchakorn Tancharoen¹, Supatta Viriyavisuthisakul¹, Su-amporn Parnsup¹

Kittipat Panruang¹ and Lunchakorn Wuttisittikulki²

¹ Faculty of Engineering and Technology, Panyapiwat Institute of Management
Nonthaburi, Thailand

datchakorntan,supattavir,suampornpar,kittipatpan@pim.ac.th

² Faculty of Engineering, Chulalongkorn University
Bangkok, Thailand

lunchakorn.w@chula.ac.th

Abstract: Modern trade is rapidly developing in Thailand. Market research is an important process for modern trade to know the customer need. Thai people use social media as a communication channel in daily life. They provide the opinions on social media that is useful for market research. Currently, there are some social listening tools which is benefit for digital market research. Thus, this paper presents digital market research using social listening tool for modern trade in Thailand. We apply some social listening tools for some famous brands of supermarket and convenient stores in Thailand. Social listening tools are demonstrated the visualization in terms of features and functions. Many functions are suitable for modern trade in Thailand especially Thai text detection. The experiments show that social listening tools can support digital market research and analyze the modern trade trend. Finally, there are some examples of market research using social listening tools from Thai people comments about modern trade in Thailand.

Keywords: Digital Market Research, Social Listening Tool, Modern Trade, Thailand

1. Introduction

Nowadays, digital technology is one of necessary factors for people. There are some useful applications on internet for business. Communication channels are also increasing via internet. Business organizations are interested in the customer opinions on internet especially on social media. Thus, social media is a powerful tool for online communication channel. Digital market research is an important issue for modern trade. The role of marketing has changed in various aspects due to the rapid change of technology. Market research is important in strategic decision making and acquiring the information about customers, products and marketplace [1]. Social media is also a powerful tool for digital marketing. There are four main themes of research studies including virtual brand communities, consumers, attitudes and motives [2]. Social media marketing is adopted as a new communication tool and offers a unique opportunity for market research [3]. This is useful to analyze the data from social listening tool. S-Sense is a social media sensing in Thailand which provides the useful

listening tool from social media [4]. Currently, social media which is useful for market research such as facebook, line, google+, instagram, twitter and web forum. Social media is an important source for research segmentation [5]. Language analysis classifies each text and social media sensing is developed to focus on intention and sentiment analysis [6]. Thus, we try to apply the social listening tool for market research. In this paper, we present digital market research for modern trade using social listening tool.

2. Digital Market Research

Market research is an important process for modern trade. It is useful to know the customer need. Digital technology is also benefit for market research. There are some listening tools which are useful for market research. Some social listening tools are selected to apply for modern trade business. The trust of audience is important to recommend products and services. Social media is necessary to create engagement such as Facebook, Twitter. Social listening tool can support social media marketing efforts and identify the areas of improvement. There are some interesting social listening tools which support Thai language such as Mention, Zocial Eye, S-Sense, Google Trends, etc. The data from social media is collected to analyse and discover some useful information for market research. Social analytics can monitor the customer opinions from social media. This tool supports the analysis module for market research. There are also social listening tools which are able to apply for market research in modern trade. A powerful example of social listening tools is a social mention which is a monitoring tool for brand mentions and interactions in visual format. This can find brand's strength, the passion of the posting, the sentiment and the reach. There are some features such as top keywords, users, hash tags, sources, etc.

The life cycle of digital market research is shown in Fig. 1. Social media data is collected from an internet. It is processed and analysed using data analytics. Market research has an objective to extract the customer needs and business opportunities. The customer needs are analysed to find some ideas and unmet needs. It is the useful information for market research to adapt the business strategy, products and services following customer needs.

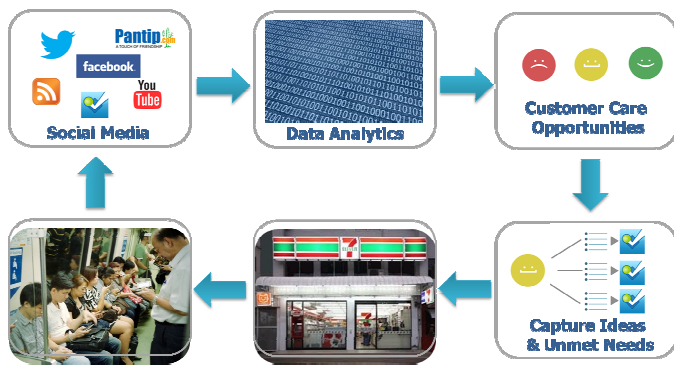


Fig. 1 The life cycle of digital market research.

3. Social Listening Tools

Following the life cycle of digital market research, an important part is data collection from social media and data analytics using digital tools. It is benefit that many tools are developed to support the data analytics. It is possible to monitor and listen to customer voice from digital world. There are several listening tools which are useful for market research. However, we select some social listening tools to apply for market research. Social listening strategy is demonstrated in Fig. 2. The information from social media is gathering following social listening strategy. A lot of data from internet need the processing step to transform the data to information. There are three steps to utilize the data including collection, processing and analysis. Data collection is the first step to gather the data from internet. Data processing is a step to prepare the data to a suitable form for analysis. Data analysis is applied to find the interesting information.

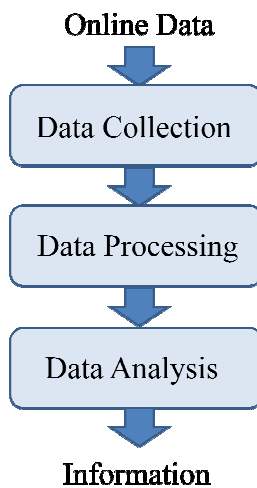


Fig. 2 Social listening strategy.

Social media is a powerful communication channel. The trust of audience is important to recommend products or services. Some social media such as Facebook, Twitter, and other platforms are necessary to create engagement. Thus,

social listening tool can support the trust for marketing efforts and identify the areas of improvement in each business.

There are many social listening tools such as Social Mention, Talkwalker, Mention, Zocial Eye, S-Sense and Google Trends which are possible to apply for market research. Each tool is introduced as following.

3.1 Social Mention

There are many useful social media monitoring tools. One of the powerful monitoring tools is a social mention. Social mention is a monitoring tool for brand mentions and interactions in visual format. This can find your brand's strength, the passion of the posting, the sentiment and the reach. The top keywords, users, hash tags and sources are presented as well. Social mention is an excellent way to search for people who are talking about your brand and it is a free online service.

3.2 Talkwalker

Talkwalker is a monitoring tool which an alert is set up from keyword. This tool can give the brand mentions and the sources where these mentions occur. There are some advantages including the performance of brand mention, the engagement levels, influencers talking about your brand both of website and social media, sentiment analysis, tag cloud and demographic data such as location. There is a world map tracking to know the location of conversations and present on every location to indicate the sentiment in each country.

3.3 Mention

Mention is a tool which is similar to Google Alerts. This tool can send emails to notify when a keyword you specified was detected online. It is possible to monitor millions of sources in real time and support several languages. We can apply an online search or receive a daily email from the related mentioned messages. This is a useful tool which can export the data in the format of CSV to share with others.

3.4 Zocial Eye

Zocial Eye collect all social media that Thai people use daily. Data is collected from consumer's voice online venue including Facebook, Twitter, Instagram, Pantip.com and famous webboard. It is necessary to understand Thai language and Thai people well. ZocialEye understands Thai language included with slang and new coming word.

3.5 S-Sense

S-Sense is one of monitoring tool which provides the function of sentiment analysis which is useful to monitor the customers' opinion from social media. It consists of four analysis modules. Language usage analysis classifies each text based on two aspects, the use of obscene and informal

languages. Detecting obscenity is useful since many texts with strongly negative sentiment could sometimes contain obscene language. Intention analysis classifies each text into four classes: announcement, request, question and sentiment. Sentiment analysis from S-Sense is developed which focuses on intention and sentiment analysis. Four different intentions were analyzed and two sentiments were classified [7].

3.6 Google Trends

Google Trends is a public web facility of Google based on Google search to show how often a search-term is entered relative to the total search-volume. The horizontal axis of the main graph represents time and the vertical is how often a term is searched for relative to the total number of searches. There is also popularity by countries, regions, cities and language below the main graph.

4. Experiments

The experiments are investigated based on several social listening tools which are useful for the market research of modern trade. We applied the social listening tool to collect the data of modern trade in Thailand. The information from social listening tool is presented to show the online discussions of each modern trade. In our experiments, we apply some social listening tools that are popular in Thailand including social mention, Mention, Zocial Eye, S-Sense and Google Trends. The experiments are explained as follows.

Social mention is used easily by typing the name and click search to see the links to your mentions. It is similar to Google search. The results are presented the statistics including strength, sentiment, passion and reach. This tool is not practical to use for Thai language. However, there are some tools such as Mention which is possible to detect Thai language and supports to monitor some interested keywords. Therefore, we examine the usage of these tools as following.

Zocial Eye is applied to collect various sources of social media including facebook, twitter, instagram, forum, news and blog. The consumer's voice from various sources is presented in Fig. 3. It is able to flashback the data and monitor back to the past 90 days before tracking. In this figure, we see that the biggest number of interested keyword was found in twitter. Thus, twitter is an impact social media of this keyword.

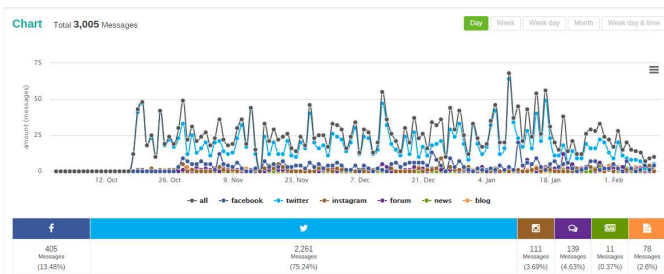
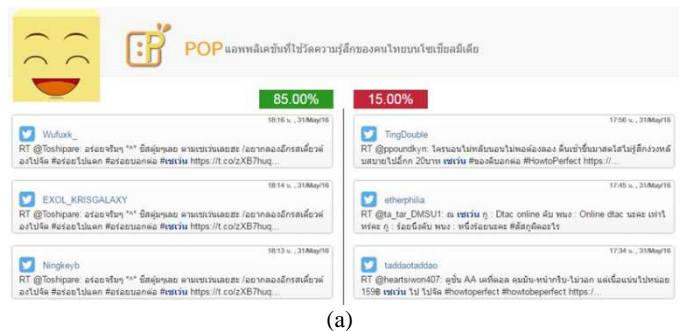


Fig. 3 The experiment from Zocial Eye.

An experiment is examined using S-Sense which is a social listening tool for Thai language. It is developed by NECTEC. This social media information is obtained from Twitter and a famous web forum in Thailand. This tool can save the time to listen the consumer opinions. The experiment from S-Sense is presented in Fig. 4. We search the brand of modern trade using two different keywords including modern trade 1 and 2. The visualization of S-Sense consists of the emotion from smile icon and sad icon. If there are many positive comments, it will display the smile icon. Otherwise, it will display the sad icon. The sentiment analysis from S-Sense demonstrated the positive keyword for modern trade 1 as shown in Fig. 4 (a) and the negative keyword for modern trade 2 as shown in Fig. 4 (b). We can see the details of each comment under the percentage of number for positive and negative comments.



(a)



(b)

Fig. 4 The experiment from S-Sense.

The experiment of modern trade in Thailand is examined. The data was collected from a famous web forum about modern trade in Thailand for a year. The percent of topics related to each modern trade is shown in Fig. 5. This is useful to compare the discussions of modern trade in digital world.

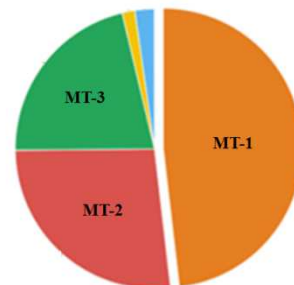


Fig. 5 The experiment from modern trade in Thailand.



Fig. 6 Tags cloud from modern trade keywords.

From the experiment, there are three main modern trades which represent the large number of modern trade keywords in digital world. Therefore, we selected to compare these three modern trade keywords. Fig. 6 presented the tags cloud which is related to the modern trade keywords including 7-Eleven, Big C and Tesco Lotus. The data was collected from a famous web forum in Thailand.

We also apply Google Trends for the experiment of modern trade in Thailand. Three modern trades are investigated including 7-Eleven, Big C and Tesco Lotus to measure the number of online discussions on social media. The visualization of modern trade in Thailand is demonstrated in Fig. 7. The number of keywords on webpage in Thailand is shown from 2004 to 2016. Moreover, we can see the density map of Thailand to show the number of each keyword appear in each province. This is also benefit for the market research in each region. Google Trends demonstrated the modern trade keywords in different media sources. The experiment is preformed to compare three modern trades in Thailand using Thai language keywords. The number of three modern trade keywords on media sources including web, image and video is collected from 2008 to 2016 as shown in Fig. 8. This experiment presented the discussions on each media sources. The number of modern trade 1 is increasing more than modern trade 2 and 3 on webpage and it showed the highest number on image and video continuously. This figure also presented the trend of modern trade on social media.

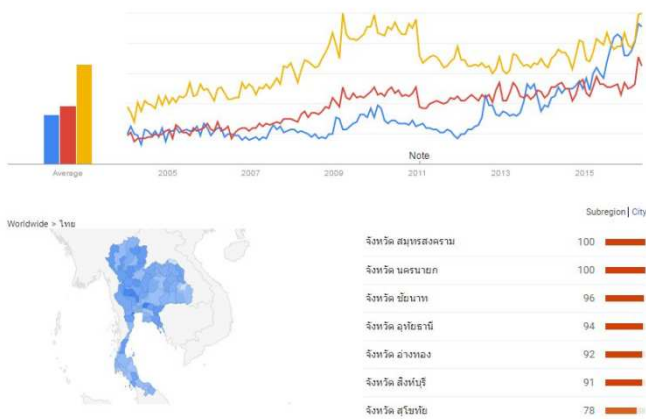


Fig. 7 The visualization of modern trade in Thailand.

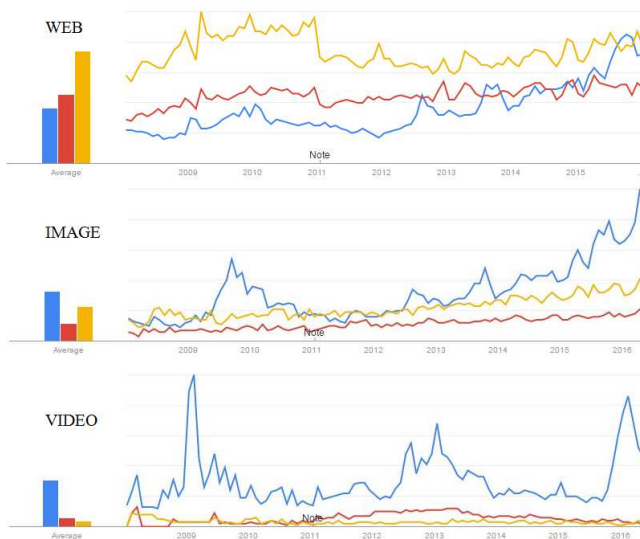


Fig. 8 The number of modern trade keywords on each media.

5. Conclusions

Social listening tools for modern trade are presented in terms of their useful features and necessary functions. This is benefit for digital market research in Thailand. The visualization of modern trade business on digital world is demonstrated in the experiments. Some social listening tools were applied for modern trade in Thailand including social mention, Mention, Zocial Eye, S-Sense and Google Trends. Some tools can support Thai language but some tools cannot support. Therefore, we selected the suitable tools for the experiments that are practical for modern trade in Thailand. The experiments showed that three modern trades have an impact for customers on social media. This is the modern trade trend in digital world. Many useful features such as data collection, visualization, statistics, tag cloud, graph, map and sentiment analysis are demonstrated for social listening tools. Thus, it is benefit to apply social listening tool for the organization. Anyway, some requirements need an advance technology to analyse the data for market research.

References

- [1] C. E. Woodruff, "An introduction to marketing research.," *Optometry*, vol. 75, no. 2, pp. 129–131, 2004.
- [2] B. Gould, "The futures of marketing.," *The Antidote*, vol. 3, no. 5, pp. 6–8, 1998.
- [3] J. Repschlaeger, K. Erek, and R. Zarnekow, "Cloud computing adoption: An empirical study of customer preferences among start-up companies," *Electron. Mark.*, vol. 23, no. 2, pp. 115–148, 2013.
- [4] D. Uri, H. Paquette, and H. Paquette, "Social Media as a Marketing Tool : A Literature Review," 2013.
- [5] M. I. Dahnii, K. M. Marzuki, J. Langgat, and N. F. Fabeil, "Factors Influencing SMEs Adoption of Social Media Marketing," *Procedia - Soc. Behav. Sci.*, vol. 148, pp. 119–126, 2014.
- [6] Isah, H., Trundle, P., and Neagu, D., "Social Media Analysis for Product Safety using Text Mining and Sentiment Analysis", 14th IEEE Workshop on Computational Intelligence, pp. 1 – 7, 2014.
- [7] C. Haruechaiyasak, A. Kongthon, P. Palingoon and K. Trakultaweekoon, "S-Sense: A Sentiment Analysis Framework for Social Media Sensing," *IJCNLP Workshop on Natural Language Processing for Social Media (SocialNLP)*, pp. 6–13, 2013.