Analyzing the Effect of Social Media Marketing in Tourism spending

Huang Dali[*1]   Matsuo Yutaka[*2]

[*1, 2] Department of Technology Management for Innovation

Graduate School of Engineering, University of Tokyo

To tell the effectiveness of the information from social media to foreigners buying Japanese products in real world, we propose an experiment to analyze the ability of social media to introduce Japanese products to people overseas.

1. Introduction

In recent years, many Chinese travelers have come to Japan and brought back a great amount of Japanese products. This circumstance has been well known to many people in both countries; especially in Japan it is called "bakugai". The meaning of this word in Japanese, not only stands for the buying activity itself, but also points out the large quantity of goods bought in one consuming procedure [Wiki 2016]. Many researches about consuming and spending have been done with multiple economic models in the past decades. The econometric approach as well as some emerging new statistical and non-statistical methods, along with various data resources were introduced to this area. In the field of tourism spending research, previous studies are mainly about how tourists spend on their transportations or hotels during the travel [ICEC 2015].

Though we could get the rough image of Chinese people buying a lot of products in Japan, there comes a question that how Chinese people come all the way along and started to spend that much amount of money on those specific brand of products in Japan in only one day, especially when most of those products have never been publicized or sold in China mainland. This is different from normal ways of "promotion to sale" progress. And information on good products must travel from person to people by the most popular ways we use today, which is the social network systems. To figure out this tourism spending part of Chinese travelers in Japan, we tried to study the first part of the problem, which is, how Chinese people adopted the idea of buying Japanese products. And then we should know how them react in the real purchasing.

In this paper, we tried to get the real sales data of a Japanese product so we could compare them to the online information about it from the social network system. As none of current study use these two kinds of data together. The data from a Chinese twitter (Sina Weibo) is collected and used as influence data in this study. Also the other data related to the sales of a Japanese product is also collected from the biggest online shopping website in China. In order to tell the influence of the information from Sina Weibo resulted to the history sales number from online shopping website in real world, we analyzed the data and try to make a reasonable explanation to the activity of Chinese people buying Japanese goods.

2. Data Sets

2.1 Sales data set from the online shopping site

To study the influence of information from social network in people spending, the product must be determined as the key word to collect both sales data and communication data. In this primary research on this topic, we choose a Japanese popular cosmetic product named "Albion Exage white powder". This product released in April 5th 2010 [cosme net 2010] and was recently introduced to the Chinese consumers through the social network services.

Compare with most of the consumer behavior related researches, which often use sales data from the companies of the products; we use daily sales data to apply to analyzing. When people buy from stores and shops in the real world, the purchasing activity happens in that daytime, while the buying behavior online happens every time even in the middle of the night. In this paper, the real sales data collected from one of the most popular online shopping websites in China named "Taobao" (www.taobao.com). This website is chosen for several reasons. One is that the data from this site dates back to September 2015. Compare to most of the online shopping websites in China, it has the longest information in time among the all. Moreover, and the most important reason is that the most purchasing of Japanese products online happens through this website. Though it has closed its access to the data of sales number by time of each product, we could still collect the reviews of each products as the policy of this website [Taobao 2016]. As one review presents one purchase, whether the buyer wrote reviews or not, in total, 10,104 reviews from September 2015 to March 2016 of this website have been collected.

After searching this product on Taobao, the result is sort by sales number. As we could find, there are over 1000 shopper selling this product in these 23 pages of search result. In each link of this product provided by one shopper online, we would see the review part folded below the title. And it is not possible to see all reviews unless we click and choose to see all reviews.

Contact: Huang Dali, Weblab, Department of Technology Management for Innovation, Graduate School of Engineering, The University Of Tokyo. 113-0033, Room 92C1, Faculty of Engineering Bldg.2, 7-3-1 Hongo, Bunkyo-ku, Tokyo, Tel: +81-90-9970-8912, Facsimile number: 03-5841-7718, Email: dali.huang@gmail.com

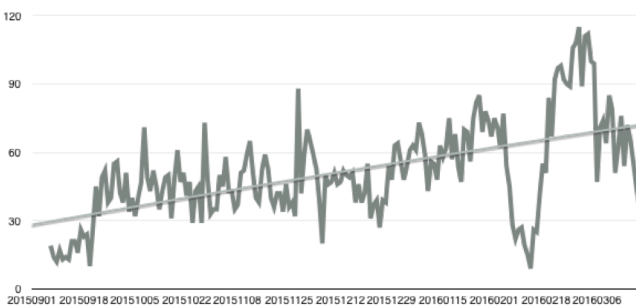Graph 1. Example of how whole reviews collected for each product

So there is no other choice other than collecting the reviews page by page through hands. Process showed in graph 1.

In Taobao site, each selling would come with a review. If the customer write a review or only choose to vote "good, just-so-so, or bad", the time of the review represents the time of sell. But if the customer done nothing with the review part after buying, the system would give a "default good" review 15 days after the date it sold. Due to this policy of this cite, we could form a timeline of when each product was sold through this website. As a result, we could collect the sales of 4,932 in 2015 and 5172 in 2016 among those 1012 shoppers online.
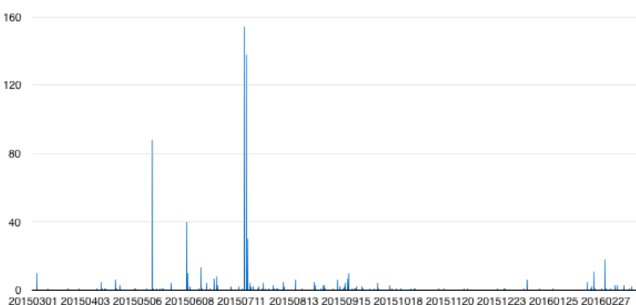
2.2 Data sets about Japanese products from Weibo

After looking into the phenomenon of Chinese people buying Japanese products, we find out that those goods that are not been sold in China mainland for now have been more popular than which being sold in stores in mainland. The products are mostly cosmetics, drugs and household electrical appliances [Sankei News 2016] [livedoor news 2016]. So we choose to start our research with focusing on one very popular Japanese cosmetic product. This product has never been promoted in China mainland, so most of the consumers living in China could only

Graph 2 the sales data from 2015-09 to 2016-03

Graph 3 the re-tweet data from 2015-03 to 2016-03

get to know this product from the social network system. In order to get the information about this product from the most active open social network system, we choose to dig into the micro blog site in China, named Sina Weibo.

Since the study needs to tell us how information from social network influence the sales data of real product, the time of users' re-tweets about this product is collected from Sina Weibo. Till March 20th 2016, there are 764 in total.

3. Result and Discussion

3.1 The result of data

The data from the online shopping website Taobao shows in graph 2. It tells the sales number of this specific product on daily bases from September 7th 2015 to March 20th 2016. As to the reviews and rates policy of this website, there might still be some "default good" reviews not shown on time. So only take the data from September of 2015 to the head of March in 2016 in consideration, the trend of sales goes up from time to time. The evident sales down around February 2016 were lead by the national delivery break for the traditional spring festival. Moreover, there is always a sales rise around November 11th as Taobao made great amount of sales volume every year at that day with their discounts and bargains. But the sales of this product show no evident rise than usual time.
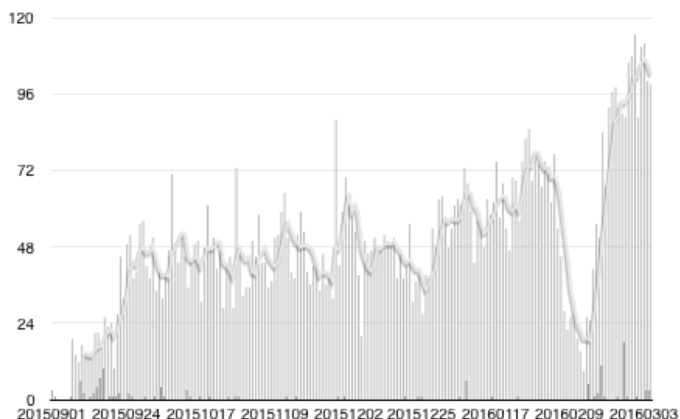
The data from the most popular micro blog Sina Weibo demonstrates in graph 3. Though this product has been released since 2010, with the lack of information about this product in language of Chinese, the early adopters of this product showed up in late 2014. Around May and July of 2015, this product has got preliminary promoted by some users who could be the social network celebrities in the cosmetic field. Most of the re-post of this product is done from these two primary posts.

3.2 Discussion

Apart from the tourists from other countries, Chinese tourists now are traveling with more and more interests in buying local products. This not only contributes to the sales of products in Japan but also helps with the overseas market of "made in Japan" goods.

The information about Japanese products from the social network systems obviously makes some positive influence on the sales of them (in graph 4). With the disclosing of this product online, the sales volume met a constant rising in the recent year (in graph 2). The information boost in Sina Weibo in September

Graph 4 Comparison of sales data and re-post data from
2015-09-01 to 2016-03-05

2015 and February 2016 brought out two set of rising trend above the average sales volume.

4. Future work

Consumer behavior is influenced by lots of factors at the real world. In the selling of cosmetic products, such as commercials, free sampling and discounts could make great influence as well as the online information sharing. All of them make it hard to say how social network services induce the purchasing of it. With more and more Chinese people participate in the "bakugai" activity of Japanese products, our study could tell some interesting result from the phenomenon.

In the next stage of this research, we will try to collect data of various categories of Japanese products, that is, from cosmetics to household electrical appliances. Moreover, to evaluate how people get to know the products only sold in Japan, more data should be found in this side of research. Thus, in our future work, to study the consumer behavior of Chinese through social network data, we could try with a range of potential methods.

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