

Chinese Airline Official Microblog Influence Analysis

Zhang Li* and Lin Yan

School of Air Transportation, Shanghai University of Engineering Science, Shanghai, China

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Abstract

10 Airlines official micro-blog on the sina microblog platform as sample, airline official microblog influence is analysed. Six indexes, fans number, microblog open time; average daily microblog number, proportion of original microblog, average comment number and reposted number are used to found the principal component analysis model. Three principal components microblog activity, fans initiative and microblog innovation degree, contribute 84% of the total resources. Suggestions to improve airline microblog influence are given based on characteristics of the model.

Keywords

Airlines, microblog, influence, microblog marketing

1. Introduction

With the rapid development of social media, Internet marketing has become the inevitable choice of the enterprise. Enterprises pay more and more attention to microblog, WeChat marketing, etc. At the same time, consumer behaviour have also changed, more and more used to understand information via the Internet. With the rapid development of social media, Internet marketing has become the inevitable choice of the enterprise. Enterprises pay more and more attention to microblog, WeChat marketing, etc. At the same time, consumer behaviour has also changed, more and more used to understand information via the Internet. First, due to the fragmentation and indexation propagation a characteristic, microblog is not restricted by time and place, can transmit speed and range. Second, microblog is easy to manage for short content.

Relative to the television advertisements and print advertising cost of promotion and get feedback information is extremely low. Third, microblog content is rich and has affinity, so can be more close to the target consumers [1][2] .

Different from all previous media medium, the carrier of microblog marketing greatly reduces the content creation and the threshold of the information release. Quick updated enterprise microblog is equivalent to a convenient version of the home page. Enterprise microblog can attract target consumers' attention, so as to achieve the goal of broadcasting enterprises and products. In order to grasp the initiative and timeliness of information, more easily direct contact with the audience, many airlines launched official microblog through the network platform. Taking Sina microblog as an example, domestic airlines including Air China, China Eastern, China southern airlines, and Shenzhen airlines, Xiamen airlines, lucky airlines and the spring and autumn airlines, etc.

Among them, some airlines agency also opened the official Microblog to do more specific propaganda. Such as Air China opened south China, north China, southwest marketing center's official microblog. Xinjiang branch, Shenzhen branch, the north branch, Hubei branch, Jilin branch China southern airlines 's official microblog. Each branch of China southern airlines has official microblog. China Eastern airlines flight attendant opened their sina microblog use unified brand "LingYan".

2. Samples and benchmark

Based on the sina microblog, the top 10 domestic airlines are selected as the sample. They are Air China, China Eastern Airlines, China Southern Airlines, Spring Airlines, Hainan Airlines, Xiamen Airlines, Juneyao Airlines, Shenzhen Airlines, Sichuan Airlines and Shandong Airlines. China Southern Airlines and Xiamen Airlines have official

*Author for correspondence

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microblog earliest of all, has five and a half years. The later one is Sichuan Airlines, has four years already.

Consider microblog itself characteristic, six indicators are chosen for analysis. X1,X2,...,X6 are fans number, microblog open time, average daily microblog number, proportion of original microblog, average comment number and reposted number. The data collected from the blog, is taken by websites directly.

Table 1: Descriptive Statistics

Indicator	Minimum	Maximum	Mean	Standard deviation
X1	206341	4648967	1121160.8	1373776.48
X2	1438	2041	1853.68	199.70
X3	1.4	9.2	3.34	2.33
X4	40	100	78	19.89
X5	1.2	320	39.56	98.99
X6	2.4	153	30.62	45.78

Compared with other indicators, the average microblog comments and forwarding number difference is bigger, the popularity of these official microblog are very variable.

Table 2 shows correlation coefficient matrix between the various indicators, after the data standardization. No significant correlation between six indicators, Most are positive correlation between indicators. Except for the number of fans with average reposted number, the average number of microblog with average comment number and reposted number are smaller negative correlation. It suggests that big number of fans and microblog number may not have high interaction [3][4].

Table 2: Correlation Matrix

Indicator	X1	X2	X3	X4	X5	X6
X1	1	0.28	0.09	0.54	0.15	-0.06
X2	0.28	1	0.03	0.06	0.05	0.31
X3	0.09	0.03	1	0.15	-0.19	-0.32
X4	0.54	0.06	0.15	1	0.33	-0.53
X5	0.15	0.05	-0.19	0.33	1	0.28
X6	-0.06	0.31	-0.32	-0.53	0.29	1

3. Airlines microblog influence model

Using spss19.0 microblog for sample data to carry on the principal component analysis, each principal component characteristic value and contribution is in table 3. Three eigenvalues corresponding to the variance of explain degree is 84%, meet the general requirements of the principal component analysis. This shows that principal component analysis has obtained the good effect, at the same time also shows that the research conclusion higher credibility [5][6][7].

Table 3: Principal Components Characteristic Value and Contribution

principal component	eigenvalue	percent variance /%	cumulative percent variance /%
Z1	2.009	33.550	33.550
Z2	1.707	28.507	62.057
Z3	1.321	22.061	84.118
Z4	0.62	10.354	94.472
Z5	0.313	5.227	99.698
Z6	0.031	0.518	100.000

According to principal component loading table, table 4 get three principal component factor loading quantity.

Table 4: Principal components load coefficient

Indicator	Principal components Z1	Principal components Z2	Principal components Z3
X1	0.072	0.447	0.212
X2	0.676	0.586	-0.230
X3	0.912	-0.416	0.493
X4	0.412	0.149	0.689
X5	0.270	0.665	-0.433
X6	-0.445	0.653	0.147

Principal component Z1, load larger absolute value of the X2, X3, mainly reflect own microblog account activity indicator; X2, X5, and X6 load is greater than 0.5 in the principal component Z2, mainly reflects the twitter heat fans degree; Principal component in the Z3 maximum load factor is X4, followed by the X3, is microblog operation innovation index.

Among them, the number of fans in the three main components of load is not high, this may and some fans account silence and existing zombie powder, and so on and so forth. Index coefficient in each principal component is computed by dividing the load matrix by the corresponding eigenvalue square root.

Table 5: Index Coefficient

	Z1	Z2	Z3
X1	0.05	0.34	0.18
X2	0.48	0.45	-0.20
X3	0.64	-0.32	0.43
X4	0.29	0.11	0.60
X5	0.19	0.51	-0.38
X6	-0.31	0.50	0.13

Three principal component formulas and general factor score formula as shown below.

$$Z1 = 0.05X1 + 0.48X2 + 0.64X3 + 0.29X4 + 0.1$$

(1)

$$Z2 = 0.34X1 + 0.45X2 - 0.32X3 + 0.11X4 + 0.5$$

(2)

$$Z3 = 0.18X1 - 0.2X2 + 0.43X3 + 0.6X4 - 0.3$$

(3)

$$Z = 0.4Z1 + 0.34Z2 + 0.26Z3$$

(4)

4. Airlines microblog influence ranking

According to the formula of the principal component scores, it is concluded that active degree, fans heat degree, microblog innovation degree of the top five official microblog. Top three active degree airlines, microblog time is relatively long, but not all of the top. The average numbers of microblog are 9.2, 4.8 and 4.1, higher than that of other airlines. Standardization score is more significant. Shenzhen Airlines is the highest heat fans degree. Recent highest forwarding and comments number content were propaganda airline meals, air green emergency relief channel, prize interactive of aviation risk publicity, new routes publicity, etc. Obviously, fans for airlines focus more on content or information related to the airline's main business. Interactive and lucky draw type microblog can attract fans. Microblog innovation mainly reflects in microblog original degrees, Hainan Airlines did very well on the subject. Most microblog begin with # topic#, such as the # high in the clouds# propaganda series, everyday

Hna good morning# and# Hna goodnight #, as well as content combination with network hot spots.

Table 6: The principal component scores ranking

Rank	Active degree	Fans heat degree	Microblog innovation degree
1	Hainan Airlines	Shenzhen Airlines	Hainan Airlines
2	China Southern Airlines	Xiamen Airlines	Spring Airlines
3	Air China	Spring Airlines	Air China
4	Spring Airlines	China Southern Airlines	China Southern Airlines
5	Shenzhen Airlines	China Eastern Airlines	Juneyao Airlines

Take standardized data generation into comprehensive scoring formula, 10 airlines microblog influence overall ranking can get. Through the weight of three principal component processing, Spring Airlines' single principal component is not outstanding, but comprehensive ranking is the first.

Table 7: Airlines microblog comprehensive score

Rank	Airlines	comprehensive score
1	Spring Airlines	0.84
2	Shenzhen Airlines	0.78
3	Hainan Airlines	0.60
4	China Southern Airlines	0.40
5	Air China	0.33
6	China Eastern Airlines	-0.27
7	Shandong Airlines	-0.39
8	Xiamen Airlines	-0.45
9	Juneyao Airlines	-0.73
10	Sichuan Airlines	-1.11

5. Conclusion and Future Work

(1)By the analysis above, the influence of the microblogging is a function of microblog activity (0.4), fans popularity (0.34) and innovation degree coefficient (0.26). Therefore, Airlines should careful management microblog, to increase the number and activity of microblog. For improving the marketing effect and influence, the content should combine interesting and brand personality, to increase the

interaction. (2)The weight of the average number of microblog in all indexes is the largest. In the network or information society, the scarce is not material, even not information, but attention. Enterprises should pay attention to the real-time updating of microblog and initiate microblog activities. (3)As can be seen from the principal component load table, numbers of fans on the three principal component loads are relatively low. Microblog management should pay attention to the quality rather than quantity of fans, to increase the number of active fans and the certification fans. Such as carefully selected high quality fans and concerned about him. Airline official microblog can spread to a larger scope through these active fans[8]. Second, to strive for more fans. Through microblogging certification has a great influence in the field of a person or organization microblog usually have more fans, conducive to the invasive spread of information.

(4) Interaction is the basic feature of the microblogging marketing. Fans heat degree is mainly manifested in the forward and comment on microblog. Effective two-way communication with fans is helpful to build a stable interaction. Airlines can do some creative and interactive activities to enhance followers' sense of participation [9]. At the same time, the manager should also responsive to fans and search for microblog about the company from fans. (5) The fundamental purpose of airlines with microblog is marketing products and spreading brand. Elaborate content and creative expression impress fans and consumers. This makes fans or consumers feel the enterprise brand personality and good services. Consumers will resonate with the enterprise, to achieve long-term brand preference. So as to achieve enterprise marketing goals and effect, create the economic benefits of enterprises.

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Zhang Li graduated with her B . Sc. degree in statistics from Department of Mathematics, Shanxi University, Taiyuan, China, in 2001.She achieved her M.E. degree in Systems Engineering from Business School, University of Shanghai for Science and Technology, Shanghai, China, in 2004.

She is presently working as Associate Professor in School of Aviation Transportation at Shanghai University of Engineering Sciences in China, working on the research about air transport planning and management. Her main directions are aviation enterprise management, demand analysis for air transportation, and Airline network planning etc.

Email: zhanglisues@163.com



Lin Yan received her B.Eng. degree in civil aviation transportation management from Nanjing University of Aeronautics and Astronautics, China, in 2001.In the same school, she was awarded the M.E. degree in Management science and Engineering in 2005. Now, she is a lecturer at the

Shanghai University of Engineering Science. She is engaged in aviation management and aviation logistics technology research.