

PROMOTION AND DISSEMINATION OF WULIANGYE YIBIN CULTURE IN THE ENGLISH-SPEAKING WORLD BASED ON PYTHON SEMANTIC ANALYSIS

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ABSTRACT

The promotion and dissemination of Chinese Baijiu globally has become a hot topic in recent years. As Sichuan Baijiu gains popularity in both the international and domestic markets, the exploration of its global road is becoming increasingly important. This study focuses on the global path of Wuliangye Yibin culture and aims to propose strategies for promoting and disseminating it in the English-speaking world. This study makes use of an online English corpus and Python natural language processing technology to create a small Wuliangye Yibin English news corpus (WNC). This study then analyzes the frequency distribution and emotional tendency of adjectives related to the corpus, ultimately promoting and disseminating Wuliangye Yibin culture in English-speaking world. These include enhancing Wuliangye Yibin's online presence, improving the quality of promotional materials translations, and targeting specific English-speaking audiences. Overall, this research serves as a valuable reference for the promotion of Chinese Baijiu culture on the global stage while adhering to China's laws and regulation.

Key Words: Wuliangye Yibin, Culture, Python, Promotion And Dissemination.

1. INTRODUCTION

In October 2019, the National Development and Reform Commission of the People's Republic of China issued the Guiding Catalogue for Industrial Structure Adjustment (2019 edition), which removed Chinese Baijiu (liquor) production lines from restricted light industries [1]. In January 2022, the Ministry of Industry and Information Technology of the People's Republic of China publicly solicited opinions on the Guiding Opinions on Accelerating the Construction of Modern Light Industry System (Draft for Soliciting Opinions), which included the proposal to develop diverse, trendy, personalized, and low-alcohol Baijiu products for both young and foreign consumers [2]. This indicated that China has recently focused more on Baijiu and encouraged its global expansion.

The "Six Golden Flowers" of Sichuan Baijiu include Wuliangye, Luzhou Laojiao, Jiannanchun, Tuopai Qujiu, Quanxing Daqu, and Langjiu. Recently, the GYbrand Global Brand Research Institute released their 2023 "Top 500 Most Valuable Brands in China" research report, and all six of these Baijiu brands made the list. Notably, Wuliangye Yibin ranked as the second strongest Chinese Baijiu brand in terms of brand value in 2023 [3]. With its unique geographical advantages and brewing techniques passed down for generations, Wuliangye Yibin has made significant contributions to the economic and social development of Sichuan Province.

In light of China's strong push for Baijiu to gain international recognition, it is worth delving into the global journey of Sichuan Baijiu, which currently holds a dominant position in both global and domestic markets. This study specifically concentrates on promoting and spreading the culture

of Wuliangye Yibin in English-speaking countries, aiming to offer valuable insights for the global expansion of Sichuan Baijiu.

2. CURRENT RESEARCH OF WULIANGYE YIBIN CULTURE

As of June 15, 2023, the subject word "Wuliangye" was input into CNKI, and 48 CSSCI articles on humanities and social sciences were retrieved. It can be seen that the domestic humanities and social sciences field has expressed important concerns about Wuliangye Yibin since 2000, reaching the highest level in 2010, but in recent years, the emphasis on Wuliangye Yibin has shown a downward trend. Then, by further analyzing the literature, it is found that the current domestic research on Wuliangye Yibin culture mainly focuses on brand promotion.

Kotler (2001) presented the importance of a brand and introduced that "a brand is a name, term, symbol, or design, or a combination of them, aimed at identifying the products or services of a particular seller or group of sellers and distinguishing them from the products and services of competitors." [4] Zhou (1999) pointed out the position and experience of Wuliangye Yibin brand earlier, and explained the necessity and urgency of implementing brand strategy through the success of Wuliangye Yibin brand [5]. Xia et al. (2001) also believed that the fundamental factor of Wuliangye Yibin's success was its innovative strategy of "regional brand" [6]. However, there are hundreds of liquor brands carrying the banner of "Wuliangye Yibin" in the market, and the brand extension also has the risk of devouring Wuliangye Yibin [7]. Therefore, Ye (2003) believes that Wuliangye Yibin still needs to make great efforts on the brand, maintain the power and vitality of innovation at a strategic level, and constantly improve the brand value [8]. Ge (2008) also put forward countermeasures and suggestions to contain risks through horizontal comparison between the brand strategies of Wuliangye Yibin and Moutai [9]. The above articles are aware of the importance of the brand strategy, and are concerned about the innovative shaping of Wuliangye Yibin enterprise brand, but they does not raise the brand construction to the international perspective, and there are no awareness of building a world brand.

Therefore, this topic focuses on the world road of Wuliangye Yibin culture, and analyzes the semantics of Wuliangye Yibin English news corpus through Python Natural language processing technology, with a view to providing references for Wuliangye Yibin's promotion and dissemination in English speaking worlds. The specific research contents include: First, this paper retrieves and downloads Wuliangye Yibin related English news corpora from online English corpora, and creates Wuliangye Yibin English news corpus; Second, the parts of speech, word frequency and emotional tendency of Wuliangye corpus are analyzed through Python; Third, it discusses the promotion and dissemination of Wuliangye Yibin culture in English speaking world; And finally, the specific promotion and communication strategies of Wuliangye Yibin culture in English speaking world are proposed to help Wuliangye Yibin create an international brand and open up international markets.

3. PYTHON-BASED SEMANTIC ANALYSIS OF WULIANGYE NEWS CORPUS

3.1. Retrieval of Wuliangye News Corpus

Firstly, we visited the website <https://www.english-corpora.org/>, clicked [the News on the Web \(NOW\)](#) link, entered the keyword "Wuliangye" on the jump page, and then 181 English news texts related to Wuliangye Yibin were retrieved (by June 16, 2023). In the same way, we entered the keyword "Baijiu" again and retrieved 1396 pieces of English news. It can be seen that the number of English news of Wuliangye Yibin is much less than that of Baijiu English news.

Then we input keywords such as "wuliangye", "moutai" and "absolute vodka" on the jump page, compare and analyze the annual number of English news published by the famous Sichuan Baijiu brand "Wuliangye Yibin", the famous Chinese Baijiu brand "Moutai" and the world famous Baijiu "Absolut Vodka" through the chart function of online corpus NOW. Please refer to Table 1 for details:

Table 1 Run chart of annual publication of English news of Wuliangye, Moutai and Absolut Vodka

| | All | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|-----------|------|------|------|------|------|------|------|------|------|------|-------------|------------|------------|------|
| Wuliangye | 180 | 1 | 1 | 1 | 2 | 3 | 2 | 11 | 18 | 20 | 22 | 33 | *52 | 14 |
| Moutai | 1236 | 5 | 13 | 34 | 11 | 24 | 58 | 51 | 201 | 186 | *232 | 193 | 162 | 66 |
| Vodaka | 773 | 16 | 24 | 34 | 47 | 31 | 41 | 62 | 69 | 60 | 87 | *90 | 77 | 70 |

At the same time, through the chart function, this paper compares and analyzes the distribution of English news publishing countries and regions of the famous Sichuan Baijiu brand "Wuliangye Yibin", the famous Chinese Baijiu brand "Moutai" and the world famous Baijiu "Absolut Vodka". Please refer to Table 2 for details:

Table 2 News Distribution of Countries and Regions of Wuliangye, Moutai and Absolut Vodka

| | US A | Canada | UK | Australia | India | Malaysia | Singapore | the Philippines | South Africa | Nigeria | Ghana |
|-----------|-------------|--------|------------|------------|-------|------------|------------|-----------------|--------------|------------|-------|
| Wuliangye | *80 | 3 | *10 | 2 | 0 | *17 | *15 | *32 | 8 | 0 | 7 |
| Moutai | *258 | 15 | 58 | 4 | 11 | *89 | *88 | *377 | *188 | 36 | 14 |
| Vodaka | *160 | 59 | *75 | *73 | 7 | *88 | 4 | 47 | 1 | *83 | 17 |

It can be seen from Table 1-2 that the year of the most English news release of the famous Sichuan Baijiu brand "Wuliangye Yibin" is 2021 (52 articles), and the top five countries and regions with the most English news releases are the United States (80 articles), Singapore (32 articles), India (17 articles), Malaysia (15 articles), and the United Kingdom (10 articles); The year with the most English news releases of the famous Chinese Baijiu brand "Moutai" was 2019 (232 articles), and the top five countries and regions were Singapore (377 articles), the United States (258 articles), Hong Kong (188 articles), India (89 articles), and Malaysia (88 articles); The year with the most English news releases of the world famous Baijiu brand "Absolut Vodka" is 2020 (90 articles), and the top five countries and regions are the United States (160 articles), India (88 articles), South Africa (83 articles), the United Kingdom (75 articles), and Ireland (73 articles).

3.2 The Creation of News Corpus for Sichuan Baijiu

All Wuliangye Yibin texts retrieved by typing the keyword "Wuliangye" on NOW were downloaded and saved as text in txt format to create a small Wuliangye News Corpus (WNC). Then, through Python, the text of WNC was read and cleaned locally. After the Punctuation, Stop word, numbers, and non alphabetic characters (linked lists) in the text were removed from all the corpus texts, the output results were saved in txt format to get a clean corpus of WNC (cleaned WNC). Python was then applied to call the NLTK function library, tag the cleaned corpus with parts of speech, filter and extract adjectives, and finally get CSV formatted text about the adjectives of the cleaned WNC.

3.3 Word Frequency Analysis of Sichuan Baijiu News Corpus

We used the Python Intrinsic function library FreqDist to conduct word frequency statistics on the CSV text of the adjectives of the cleaned WNC, and the results were shown in Figure 1.

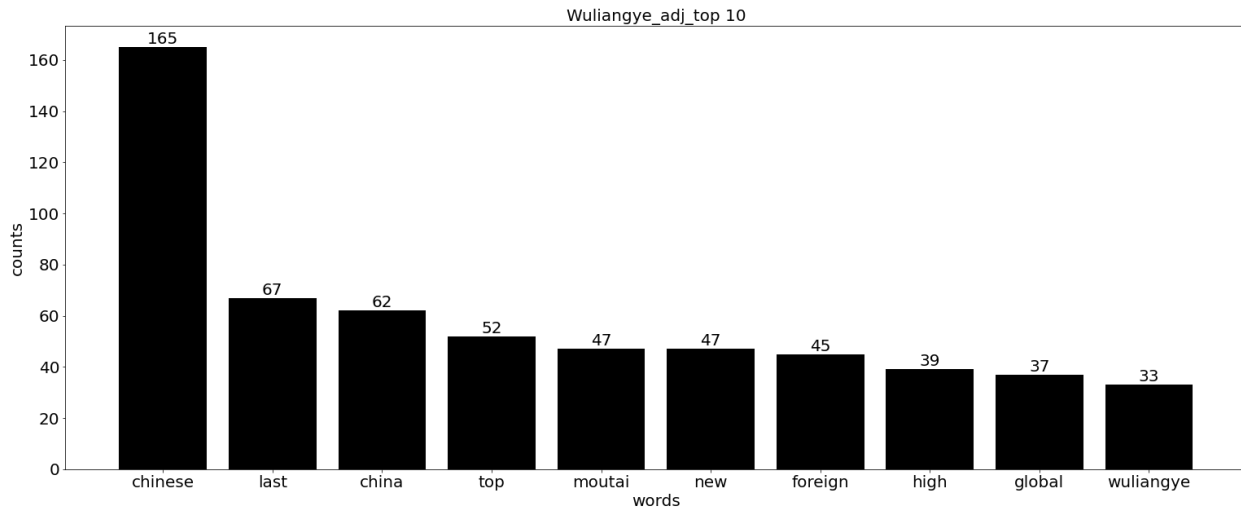


Figure 1: Distribution of the Top 10 Adjectives in WNC

According to figure 1, the top ten adjectives in the CSV-formmated text are “chinese, last, china, top, Moutai, new, foreign, high, global, wuliangye”. Among those adjectives, “last, top, new, foreign, high, global” are typical ones.

We then applied textblob to analysis the emotional tendency of those typical adjectives, the polarity and subjectivity were listed in table 3.

Table 3 Polarity and Subjective of Top Typical Adjectives in WNC

| | | | | | | |
|-----|------|----|-----|-------|------|------|
| all | last | to | new | forei | high | glob |
| | | p | | gn | | al |

| | | | | | | | |
|--------------|-----|------------------|----|------------------|------|------------------|-----|
| Polarity | 0.1 | 0.0 | 0. | 0.13636363636363 | - | 0.16 | 0.0 |
| | 1 | | 5 | 63635 | 0.12 | | |
| | 2 | | | | 5 | | |
| Subjectivity | 0.2 | 0.06666666666666 | 0. | 0.45454545454545 | 0.12 | 0.53999999999999 | 0.0 |
| | 81 | 66667 | 5 | 45453 | 5 | 9999 | |

3.4 Emotional Analysis of Sichuan Baijiu News Corpus

Through Python, the textblob software package was called to analyze the emotional tendency of the CSV format text of all the adjective of WNC. The descriptive analysis of the polarity and subjectivity were shown in Table 4.

Table 4 Descriptive Analysis of the Polarity and Subjectivity of WNC

| | Count | Mean | Std | Min | 25% | 50% | 75% | Max |
|--------------|-----------|--------|--------|--------|--------|--------|--------|--------|
| Polarity | 3627.0000 | 0.0415 | 0.1853 | - | 0.0000 | 0.0000 | 0.0000 | 1.0000 |
| | 00 | 05 | 50 | 1.0000 | 00 | 00 | 00 | 00 |
| | | | | 00 | | | | |
| Subjectivity | 3627.0000 | 0.1568 | 0.2741 | 0.0000 | 0.0000 | 0.0000 | 0.2500 | 1.0000 |
| | 00 | 16 | 16 | 00 | 00 | 00 | 00 | 00 |

The output of TextBlob to polarity task is a Floating-point arithmetic number with a range of [-1.0, 1.0], where -1.0 is completely negative and 1.0 is completely positive. This Floating-point arithmetic number can also be equal to 0, representing a neutral evaluation of a statement, because it does not contain any words in the training set. In other words, the higher the polarity value, the higher the evaluation of a statement; The smaller the polarity value, the lower the evaluation of a statement. It can be seen from Table 2 that the mean value of the polarity description of WNC is 0.041505, which is greater than the pertinent evaluation of 0, indicating that Wuliangye Yibin has a certain positive evaluation in English speaking world, but most of them are neutral (the scores of 25%, 50% and 75% of the polarity evaluation are all 0).

The floating range of the subjective recognition task report is [0.0, 1.0], where 0.0 is very objective, 1.0 is very subjective, and 0.5 is an intermediate attitude. Table 5 shows that the mean value of the subjective description of WNC is 0.156816, indicating that the description of Wuliangye Yibin in English speaking world is relatively objective (0.156816<0.5).

In order to better understand the number and proportion of Wuliangye Yibin's specific positive/negative evaluations, this study continued to analyze the above values of Wuliangye Yibin using Python. See Table 5 for details.

Table 5 Positive/Negative Descriptive Number and Proportion Analysis of WNC

| Count of negative words | Count of positive words | Ratio of negative words | Ratio of positive words |
|-------------------------|-------------------------|-------------------------|-------------------------|
|-------------------------|-------------------------|-------------------------|-------------------------|

| | | | | |
|-----------|------|-----|--------|-------|
| Wuliangye | 3426 | 201 | 94.46% | 5.54% |
|-----------|------|-----|--------|-------|

In positive/negative judgment, we specify a polarity value >0.5 as positive evaluation, and a polarity value <0.5 as negative evaluation. Table 5 shows that the overall evaluation of Wuliangye Yibin in English speaking world is not quite positive (the positive number accounts for only 5.54%; the negative number accounts for 94.46%).

4. PROMOTION AND DISSEMINATION OF WULIANGYE YIBIN IN THE ENGLISH-SPEAKING WORLD

4.1 Promotion of Wuliangye Yibin in the English-speaking world

"Promotion" in this study refers to "telling and conveying" (from Modern Chinese Dictionary). The promotion of Wuliangye Yibin in the English-speaking world refers to the breadth of Wuliangye Yibin in English speaking world. Based on the discussion and analysis in section 3.1, the following conclusions can be drawn:

(1) Wuliangye Yibin has very little promotion in the English-speaking world, and there is still much room for promotion. According to the statistical analysis of the number of corpora in Section 3.1, Wuliangye Yibin's texts promoted in the English-speaking world account for only 12.97% of Chinese Baijiu.

(2) Sichuan Baijiu brands, Chinese Baijiu and world Baijiu brands have different promotion peaks and concentration areas in the English-speaking world.

4.2 Dissemination of Wuliangye Yibin in the English-speaking world

In this study, "dissemination" refers to "spreading and spreading" (from Modern Chinese Dictionary), and the dissemination power of Wuliangye in English speaking world refers to the state in which Wuliangye spreads in English speaking countries. According to the discussion and analysis in 3.3-3.4, we can draw the following conclusions: Wuliangye Yibin's dissemination in English speaking world is very small, and it still needs a lot of communication.

5. PROMOTION OF DISSEMINATION STRATEGIES OF WULIANGYE YIBIN IN ENGLISH-SPEAKING WORLD

Therefore, this study proposes the following strategies for the promotion and dissemination of Wuliangye Yibin in English speaking world.

(1) to increase the promotion of Wuliangye Yibin in English speaking world. To be more exactly, Wuliangye Cooperation should increase the number of promotional materials on various platforms (online media, social media, etc.) in English speaking world, and increase the promotion in promotional materials. Specifically, there is a need to increase advertising in markets in Europe (such as the UK and Ireland), Africa (such as South Africa and Kenya), and Oceania (Australia and New Zealand).

(2) to strengthen the dissemination of Wuliangye Yibin in the English-speaking world. That is, Wuliangye Cooperation should add more positive description of quality in Wuliangye Yibin publicity materials. For instance, the Cooperation could use "smooth, distinctive, aromatic, balanced, flavorsome, crisp, clean, light, refreshing, fragrant, delicate, refined, rich, complex, velvet, mellow, robust, nutty, fruity, full bodied, etc".

6. CONCLUSION

In view of the current research situation of Wuliangye Yibin at home and abroad, this study focuses on the world road of Wuliangye Yibin culture, and creates the Wuliangye News Corpus (BNC) with the help of online corpus; Through Python, it analyzes the frequency distribution of adjectives in English news corpus, calculates the emotional tendency of adjectives, and discusses the promotion and dissemination of Wuliangye Yibin culture in the English-speaking world; Finally, it puts forward the specific promotion and dissemination strategies of Wuliangye Yibin culture in the English-speaking world.

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