Executive DBA, Université Paris Dauphine – PSL

PSL·巴黎九大高级工商管理博士学位项目

Empirical Research on the Correlation between Brand Equity and Voice of Customer (VOC) in the Automotive Industry

(Thesis submitted for the degree of Executive Doctorate in Business Administration)

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18th September 2024

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ABSTRACT

Mobile Internet is getting increasingly intelligent with more and more big data being produced. According to *The 53th Statistical Report on China's Internet Development* by China Internet Network Information Center (CNNIC), the number of Chinese netizens reached 1.092 billion as of December 2023, an increase of 24.80 million over December 2022, with the internet availability rate reaching 77.5%. The user scale of online video in China reached 1.067 billion, accounting for 67.7% of the total internet users. As of December, the number of online shopping users in China reached 915 million, accounting for 83.8% of the total number of netizens. In 2023, the national online retail sales reached 15.4 trillion yuan, ranking first in the world for 11 consecutive years. The public opinion environment in the mobile Internet era fully reflects the important concept of building a community with a shared future proposed by General Secretary Xi Jinping. Every netizen is both a receiver and a disseminator of information about news events. As an important manifestation of social public opinion, network public opinion features dynamic network communication in which information disseminators intermingle with each other, dissemination subjects are diverse, and dissemination effects are unpredictable. Particularly, from 2019 to date, the globally ongoing outbreak of COVID-19 pandemic, along with network public opinion intensifying, has aroused widespread attention and sentiment, and network public opinion has played a positive role in both social stability and national governance. For consumers, network public opinion has an increasingly important role in regulating the society. As traffic-driven platforms like Wechat, Weibo, Bilibili and Tik-tok advance, hotspot events can provoke a butterfly effect as they arise and spread online, expand further offline, and then rapidly permeat online once again, with active participation driven by the need for wemedia traffic capitalization. The spread of events such as Tesla owner's protest (Li Yunshi, 2021) can ultimately be fatal to corporate and personal brands. Apart from significant impairment of brand reputation, the company concerned may also have to face high damages and serious legal liabilities, ultimately hampering development and thus unable to survive sustainably.

"The words or opinions of the mass make a brand, and word of mouth is brand." One's words are their credit. When their words are verified, they are trustable; when their words are not true, they are untrustable and dangerous. In the age of big data, the accumulation of credit to

restore the truth based on facts is particularly important for brand equity. And in brand communication, it is pressing to pay more attention to people's emotions, which can replace the truth when emotions outweigh the truth. By drawing on theories and models of modern behavioral economics, combined with emotional psychology, behavioral economics and marketing, this thesis aims to study the correlation between automotive brand equity and customers' awareness, emotions and evaluations, through qualitative case studies, questionnaires and quantitative regression analysis with SPSS software. It also proposes to establish and validate the model relationship between the voice of customer (VOC) and brand equity, providing scientific and effective early warning and countermeasures for companies through established case database and accumulated consumer data. In the event of a product quality crisis, companies can therefore scientifically develop effective strategies to turn "crisis" into "opportunity". This has far-reaching implications for the companies, the industry and even social stability.

Past research on network public opinion in crisis contexts focuses on refining crisis response strategy models, or macro strategies, or technical analysis of word frequency and lexicon of certain social media, lacking scientific methods for quick judgement and effective solutions for middle management team (executives). This research employs the Emotions as Social Information (EASI) model, combined with industry expert interviews and literature review, and proposes the following hypotheses:

1. VOC is an aggregate variable that is strongly correlated with brand equity and can affect it in case of a crisis.

2. In case of a crisis, the netizens' emotions are positively correlated with brand equity evaluation. When making decisions in response to criris, the brand management should consider various factors triggering emotional changes, to make effective decisions.

Particularly, with the continuous development of the metaverse and ChatGPT, on the one hand, the rapid iteration of various algorithms, together with the reverse push for netizens in information retrieval, make it easy to form information cocoons, strengthening misconception about brand; on the other hand, the "keyboard men" involved in network public opinion may be replaced by AI, serving as a blower for competitor brands.

In social network public opinion, for socializing convenience, netizens' VOC about event truth does not necessarily reflects consumers' consumption identity, but the strengthened

social identity of social media and traffic-driven platforms. In case of a crisis, without verification by effective offline consumer models, it is easy to be caught in the trap of “virtual fallacy” by network public opinion. The thesis aims to develop a new scientific and quantitative evaluation method of brand equity by balancing impacts of virtual reality on the real world in the environment of social media. This is also the significance and feature of the thesis.

For questionnaire design, this research adopts the innovative approach of crisis-based case description, and measures respondents’ emotions before and after reading the cases, to simulate a real-life network public opinion scenario. In the conclusion, online audiences’ perceptions and judgments of high-emotion events are critically analyzed, gradually forming a more refined and precise model of emotion attribution from the original simple language model. By constructing refined evaluation criteria and indicators at all levels, this research gives the management a more quantitative basis for problem solving and scientific approaches.

Sensing management and mastering the way of evolution. With the advent of ChatGPT technology and the expansion of application scenarios by AI technology companies such as Microsoft based on OpenAI cooperation, network public opinion models are gaining increased attention from brands in terms of improving brand services and marketing results. In order to prepare the questions and answers, a variety of daily, quarterly and monthly reports of social media based on such models are reviewed, to summarize customers’ comments therein and analyze their emotions, for quickly draw conclusions and scientific warning countermeasures.

Key Words: Brand Equity; Expectancy Theory; Voice of Customer (VOC); Crisis Communication; Emotions as Social Information (EASI)

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