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Research on the Network Communication Strategy of New Energy Vehicle Brand in Xi ‘an China
-- Taking NIO as an Example

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Abstract: With the increasing global attention to sustainable development and environmental protection, new energy vehicles have become the main direction of transformation and upgrading of the global automotive industry and green development. As one of the world’s largest auto markets, China is also actively promoting the development of the new energy vehicle industry. This project will visit the sales points and service centers of NIO in Xi ‘an market to understand the specific implementation of its network communication strategy. Therefore, this research intends to establish a perceived intention model to analyze the related factors of network communication effect in the light of Technology Acceptance Model (TAM). At the same time, the questionnaire survey method is adopted to collect data on the network communication strategy and consumer feedback of NIO, learn consumers’ feedback and satisfaction on the network communication strategy of new energy vehicles, provide key market insights, and better understand consumers’ demands and expectations.

Keywords: New energy vehicles; Network communication strategy; NIO

1. Introduction

As an important representative of green environmental protection and sustainable development, new energy vehicles have developed rapidly around the world in recent years. Especially in China, new energy vehicles have been established as a national strategy. Since the 18th National Congress of the Communist Party of China, the Party Central Committee with Comrade Xi Jinping as the core has attached great importance to the development of new energy vehicles and formulated a series of supporting policies and industrial plans. General Secretary Xi Jinping emphasized that the development of new energy vehicles is the only way for my country to move from an automobile power to an automobile power. It is necessary to deepen exchanges and cooperation in the new energy vehicle industry so that the results of innovative scientific and technological development can better benefit people all over the world. This strategy not only fits the global green development trend, but also points out the direction for the high-quality development of my country’s automobile industry.

China's local market plays a vital role in the promotion of new energy vehicles. Through this study, we can understand that the market environment, policy support and consumer acceptance in different regions are different, and there are different requirements for the promotion strategy of new energy vehicles. By in-depth research on the communication strategy of the local market in Xi'an, it can help new energy vehicle companies better adapt to the local market environment and enhance brand awareness and market share. As a leading company in China's new energy vehicle industry, NIO has made remarkable achievements in brand communication and market promotion. NIO has not only invested heavily in technology research and development, but also successfully established a high-end smart electric vehicle brand image through a series of innovative brand communication strategies. Studying NIO's network communication strategy can provide useful reference for other new energy vehicle companies. The objective of this survey is to verify the relationship between different variables in acceptance of online shopping, and to get the point the important factors that affect the change of university students’ online shopping intention.

Through an in-depth analysis of NIO’s online communication strategy in Xi’an, this study aims to:

1. Evaluate the effectiveness of NIO’s online communication strategy.

2. Propose suggestions for optimizing online communication strategies and provide reference for other new energy vehicle companies.

2. Research methodology and data analysis

2.1 Research methodology

2.1.1 NIO’s internet communication strategy

NIO’s online communication strategy mainly includes the following aspects:

Social media communication: NIO actively carries out brand communication activities on social media platforms such as Weibo and WeChat, and interacts with consumers by publishing product information, user stories, technological innovations and other content.

Website and e-commerce platform communication: Through the official website and e-commerce platform, NIO provides detailed product information, car purchase guides and after-sales service information to facilitate consumers to understand and purchase products.

Online advertising and search engine optimization (SEO): NIO increases brand exposure and search visibility by placing online advertisements and optimizing search engine rankings.

2.1.2 Previous studies

Brand communication refers to the process by which companies convey brand information to target consumers through various communication channels and means to enhance brand awareness and reputation. In the new energy vehicle market, brand communication is particularly important because consumers' cognition and acceptance of new energy vehicles directly affect their purchasing decisions. An effective brand communication strategy can help companies establish their brand image, enhance consumer trust, and promote sales growth.

In some past studies, Xu Yong pointed out: In terms of brand communication: New energy brands should adjust their brand identity labels and place more emphasis on the brand attributes of technology and humanity. In terms of communication, new energy brands need to adjust their strategies and adopt a combination of private domain traffic and public domain traffic media platforms to achieve integrated marketing communication and expand the breadth and depth of communication.

Xiao Chun pointed out: In the communication method, the ritual sense marketing combined with the scene has been added, and the high degree of correlation between consumers and the brand has been strengthened in unconsciousness. Because most of the current new energy vehicles are combined with networking technology, the more mature artificial intelligence technology is embedded inside the car remote control. Increasing it; the choice of communication channels will no longer simply put on TV advertisements, but use self -brand value and other micro -movies or implant network comprehensives to enhance the attention of netizens. It will also promote consumers to actively spread on social platforms with extensive interpersonal relationships such as Weibo and WeChat.

2.1.3 Hypotheses development and theoretical framework

Because NIO Automobile is a new energy -source car company with high popularity, rapid development and prominent communication problems, this article chooses to analyze the case of the car company, including the analysis of its network communication strategy and network communication issues. Based on the above phenomenon, according to the results of the impacts of Network Communication Channels (NCC) and Network Communication Methods (NCM) on Network communication effect, the two hypotheses of online shopping intention are as below:

H1: Nio vehicles Network Communication Channels bring a significant positive impact on Network communication effect of Xi'an citizens.

H2: Nio vehicles Network Communication Methods bring a significant positive impact on Network communication effect of Xi'an citizens.

Davis proposed The Technology Acceptance Model (TAM)model in 1986, which is a model widely adopted in the research to describe and predict user behavior and their intentions in technology use. Based on TAM theory, this paper will take NCC and NCM, as independent variables that affect Network communication effect. Therefore, the research framework (Figure 1) is developed as follow;

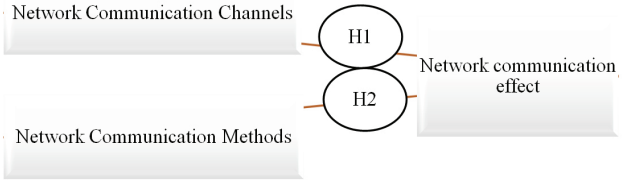

Figure 1. Conceptual Framework

2.1.4 Population and sampling

This study uses quantitative analysis, combined with questionnaire surveys and network data analysis, to evaluate NIO's online communication strategy in Xi'an. The specific methods include data collection, statistical analysis, and result interpretation, striving to draw scientific and objective conclusions.

In April 2024, Data collection was conducted in a combination of online and offline methods, the sample consisted of 580 people:

1. Online questionnaire: Questionnaires were published through online platforms (such as Wenjuxing, WeChat App, etc.) to invite Xi'an residents to participate in the survey.

2. Offline questionnaire: Questionnaires were distributed and field surveys were conducted at new energy vehicle sales points, exhibitions, charging stations, and other locations in Xi'an.

The sample selection adopts a combination of random sampling and stratified sampling to ensure that the sample is representative and covers different age groups, genders, educational backgrounds and professional backgrounds to ensure the diversity and comprehensiveness of the data. The Likert 5-level evaluation method was used, the questionnaire surveys from four aspects: Annual income; degree of understanding of the NIO brand; Network Communication Channels; Network Communication Methods.

2.1.5 Measurement and scales of Research Variables

Because of the data was analyzed by SPSS. The author used 4 factors on Network communication effect (NCE), 5 factors on NCC and 4 factors on NCE, and the scale for this study was drawn from earlier literature and published studies.

The primary data for this research were gathered from the questionnaires distributed on the impacts of NCC and NCE on Network communication effect. Sekaran and Bougie regarded secondary data as data collected through existing sources and secondary sources adopted in this study were obtained from theoretical books, other relevant literatures and the data through the Internet.

2.2 Data analysis

2.2.1 Descriptive analysis

A total of 580 valid questionnaires were collected for this study, and the sample covers Xi'an residents of different age groups, genders, educational backgrounds and occupational backgrounds. The sample description is as follows:

• Age: 8% aged 18-25, 30% aged 26-35, 45% aged 36-45, and 17% aged 46 and above.

• Gender: 55% male, 45% female.

• Education: 60% with bachelor's degree or above, 30% with junior college degree, and 10% with high school degree or below.

• Occupation: 40% white-collar workers, 25% civil servants and employees of public institutions, 15% self-employed, 5% students, and 15% others.

Next, I will analyze brand awareness and attitude, communication channel preferences and communication content evaluation.

Brand awareness and attitude: 88% of respondents have heard of NIO, and 52% of them have a positive opinion of NIO; 60% of respondents expressed their intention to purchase NIO.

Communication channel preference:72% of respondents prefer to obtain information about new energy vehicles through social media; 51% of respondents prefer to obtain information through official websites and e-commerce platforms; 29% of respondents learn about new energy vehicle brands through online advertisements.

Communication content evaluation: 85% of respondents believe that NIO's content on social media is attractive; 75% of respondents believe that the content on NIO's official website is credible; 65% of respondents believe that NIO's online advertisements are highly relevant.

Reliability test

This paper will use Cronbach's Alpha value to verify the reliability of the data. Normally the coefficient of Cronbach's alpha is between 0 and 1. According to Nasution and Usman, the minimum value should reach 0.6 and it would be better if the value is over 0.8 (close to 1).

Table 1. Cronbach Alpha α

Factors	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Network Communication Channels (NCC 5 variable) α= 0.792		
Network Communication Methods (NCM 4 variable) α= 0.849		
Network Communication Effect (NCE 4 variable) Cronbach's Alpha= 0.822		

According to the statistical result table 1, the reliability coefficient values of the data in this study are all around 0.8, indicating that the reliability of the data is in good condition and can be used for the next step of analysis.

2.2.2 Pearson correlation

Pearson's correlation value is method to evaluate the correlation and the relationship between the dependent variable and the independent variables. Correlation variables indicate that the relationship between the dependent variable and the independent variable is significant or not.

From the results of SPSS, the correlation coefficient between the different variables of NCC and NCE is an average of 0.74**. The above coefficient is significantly correlated at the 0.01 level. Therefore, it can be preliminarily judged that H1 is established.

Then we look forward to the relationship between the different variables of NCM and NCE, the correlation coefficient is an average of 0.76**. The above coefficients are significantly correlated at the 0.01 level. Accordingly, it can be preliminarily judged that H2 is established. Through the above correlation analysis, we can confirm that both NCC and NCM have strong correlation with Network communication effect, and confirm the hypothesis.

2.2.3 Multiple linear regression

Based on the previous analysis results, some hypotheses mentioned in this paper have been preliminarily verified, but correlation analysis can only analyze the correlation and closeness between different variables. Furthermore, cause and effect cannot be explained. Therefore, the method of multiple linear regression was adopted to study the causal relationship of the research hypothesis in this paper.

With NCC and NCM as independent variables and NCE as the dependent variable, regression analysis was conducted to verify the impact on network communication effectiveness. The results of regression analysis indicate that the p value between NCC and NCE is 0.005**, and p value between NCM and NCE is 0.005**, which means the overall regression effect was significant.

At the same time, social media communication strategy has a significant positive impact on brand awareness ($\beta = 0.50$, $p < 0.01$). And the attractiveness of communication content has a significant positive impact on consumer attitudes ($\beta = 0.55$, $p < 0.01$).

3. Conclusions

The main purpose of this article is to analyze the strategies and effects of online communication of new energy brands in Xi'an. According to the TAM theory, two independent variables, Network communication Channels (NCC) and Network communication Methods(NCM), are extracted.

The research results and significance of this article are as follows: This study discovered the relationship between NCC, NCM and Network communication effect (NCE), and verified that both variables have a significant impact on network communication effects. This finding shows that the more consumers value online communication strategies or means, the more likely they are to accept the convenience and diversity brought by the Internet. In addition, for most Xi'an citizens, the Internet has become a part of their lives, and they can get more happiness from it. They are also more inclined to obtain more interesting content and easily accessible information on the Internet, therefore, the channels and methods of online communication are very critical links.

By systematically studying the network communication strategy of NIO in Xi'an, this paper aims to provide theoretical support and practical guidance for new energy vehicle brand communication and promote the healthy development of the new energy vehicle industry.

References

[1] Blackwell, R. D., Miniard, P. W., & Engel, J. F. (2001). Consumer behavior (9th ed.). New York: Dryden.

[2] Sekaran, U., & R. Bougie. (2009). Research Methods for Business: A Skill Building Approach 5th edition. John Wiley and Sons, New Jersey.

[3] Nasution, M. E., & Usman, H. (2007). Proses Penelitian Kuantitatif. Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia, Jakarta.

[4] Xu Yong. Research on Optimization of New Energy Vehicle Marketing Strategy. 2021. Hunan Normal University, MA thesis.

[5] Xiao Zhun. Research on online advertising communication strategies for new energy vehicles. 2022. East China University of Political Science and Law, MA thesis.