Digital Technology and New Media as Dual Drivers of Brand Value Enhancement in Shenyang's "New New Three" Industries

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Abstract

This study aims to explore the effective approach to enhance the brand value of the "New New Three" brands in Shenyang city under the "double impetus" of digital technology and new media. The study adopts a literature review method, which combines the research results of related fields, and analyzes the development status and problems of the "New New Three" brands in Shenyang city in detail by combining the method of case analysis. The results show that digital technology can be used to target target groups more precisely, optimize products and services, and promote the efficiency of the brand operations, while new media technology such as social network, short video and live-streaming e-commerce provides new communication and transformation channels for brand. Through the analysis of the results, a marketing strategy of digital technology and the new media is proposed to solve the problems of brand building, enhance the brand value of "New New Three" brand in Shenyang and offer reference for the establishment of typical industrial brand in Shenyang.

Keywords

Digital technology, new media, Shenyang's "three new trends", and improvement of brand value.

1. Introduction

With the arrival of a digital economy era, digital technologies and new media have rapidly developed, bringing about new opportunities and channels for increasing brand value. The "New Three" industries in Shenyang are the vanguard of the economic development in Northeast China. At present, however, the "New New Three" brands of Shenyang are still facing a lot of problems in confronting the market competition; moreover, how to use digital technology and new media to enhance the brand value comprehensively is an urgent problem that needs to be solved. This paper will use the method of literature review and case analysis to research the strategies for strengthening the brand value of Shenyang's "New New Three" industries, under the dual driving effect of digital technologies and new media, so as to provide theoretical reference and practical suggestions for the development of Shenyang's unique industry brands.

2. Current Status of Brand Development in Shenyang's "New New Three" Industries

2.1. Overview of the "New New Three" Industries

Based on Shenyang's industrial structure adjustment and upgrading, gradually a "new three-pillar" industrial system has been formed, and cultural and creative industries, high-tech manufacturing industries and modern service industries are the three pillars. The cultural and creative industries include cultural industry brand design, historical and cultural resource

building, and other aspects, which is based on Shenyang's rich historical and cultural heritage, as well as a wealth of cultural resources [1]. The new manufacturing industries that rely on new technologies, such as big data and artificial intelligence, are new drivers of high-quality economic development in Shenyang. The modern service sector has brought in new and innovative services tools like digital marketing and live-stream e-commerce, that has revitalised the industrial services. As per the relevant research reports, these sectors play an important role in the economic development of Shenyang and are gradually developing into the growth poles for the development of the economy in the region [2]. Although these "new three-pillar" industries have great development potential, they have not developed into large-scale industrial chains yet, especially in the cultural and creative industries, there is still a need to further use the distinctive resources of the region to develop the brand.

2.2. Achievements in Brand Building

From the perspective of brand building, the "New New Three" projects of Shenyang have already started to have some stage-appropriate effects. In order to build up the brand awareness and reputation for cultural and creative industries in the market, cultural physical products have been developed, such as the Shenyang Imperial Palace Museum has been the first to successfully develop its brand awareness and reputation in the market [1]. Besides, a few high-tech companies have incorporated artificial intelligence knowledge into the product design and manufacturing processes for optimizing products, which increased the quality of their products and enhanced their brand competitiveness [2]. Regarding brand communication, some companies have explored into new media channels to carry out interactive marketing campaigns for their brands, thereby achieving a wider dissemination of their brands. One cultural and creative company has developed creative videos on short video platforms, which has won the attention of the younger generation of consumers, thus enhancing its brand image. It is noteworthy, however, that cases of success are mainly found in specific areas and that, overall, the process of brand building presents certain imbalances, such as in the case of brand internationalization, which has a long way to go.

2.3. Challenges in Brand Development

Despite the success that Shenyang's “New New Three” brands have had in building their brands, they have many challenges in their development process. First, from the perspective of brand positioning, in the face of intense competition, some enterprises are not able to fully understand the needs of their target customers, which leads to fuzzy brand positioning and hard to create brand differentiation [3]. Secondly, in the field of brand communication, the traditional advertising has been gradually losing its effect and the enterprises have introduced high technical requirements in marketing through new media. For instance, generating good content for short video platforms and precisely targeting consumers has become an urgent matter for these companies. Moreover, brand homogenisation is also a major problem as some products are not different at regional level and cannot be differentiated on the market, especially in the field of cultural and creative industry products [1]. Lastly, the constraint of talent availability and technical bottlenecks, especially in the dual use of digital technologies and new media in businesses, demand interdisciplinary competencies for their use in intricate market setup [2]. These challenges not only threaten the long-term development of Shenyang's "New New Three" brands, but also bring new challenges for the regional economic transformation and upgrading of the area.

3. Digital Technology-Driven Strategies for Enhancing Brand Value

3.1. Precision Targeting of Audiences Using Big Data

With the digital transformation quickly moving, Big Data Analytics has become a vital tool for enterprises to achieve precision marketing. The "Xin Xin San Yang" of Shenyang can not only perform multi-dimensional analysis of consumer behavior, preferences and needs, but also accurately grasp to which group the brand should focus, and draw more accurate brand marketing plans. In recent years, for instance, in the new energy vehicle industry, the big data technology can analyze the consumers' preference on purchasing vehicles, their usage habits, and their degree of interest in the vehicle's environmental performance, and offer market promotion and product design support based on big data [4]. Furthermore, when enterprises put their ads on social media, big data can monitor users' trending topics, and predict better user interests and needs, thus making communication more efficient. By harnessing data to precisely target potential customers, Shenyang's "Xin Xin San Yang" can further optimize the utilization of marketing resources and develop a closer bond with the consumers in the highly competitive market.

At the same time, big data analytics can also help enterprises to dynamically adjust their market strategies to respond to the changing market environment in real time. If the equipment manufacturing industry is a high-tech one, for instance, the company can maintain dynamic monitoring of world market demand, and grasp market opportunities of emerging markets and act promptly in time. This agility not only ensures the responsiveness of a brand to market changes, but also provides a solid basis for the expansion of the brand internationally [4]. But it is worth it to point out that enterprises must respect the law and regulations when using big data, particularly in collecting and processing data that involves users' privacy, to ensure the transparency and security of data application. Leveraging big data technologies, Shenyang's "New Three" brands can realize more precise and efficient brand marketing, and provide strong data support to enhance the brand value.

3.2. Optimising Products and Services Using Artificial Intelligence

Artificial Intelligence (AI) is one of the fundamental driving forces of digital technology, having a significant impact on the operational model of traditional industries, and with the product R&D, the production process optimization and customer service of Shenyang's "New New Three" being the key areas. In the product development process, AI can use machine learning algorithms to analyze a massive amount of data to identify patterns and trends that can be used to forecast future market trends and inform product development decisions. For instance, in the field of aerospace equipment, AI can simulate intricate flight conditions, optimize the design schemes of parts, and enhance the performance of the products, thereby boosting the reliability of the products to a great degree [4]. Meanwhile, AI can be applied as an NLP to converse with customers in a smart way and gather their opinions on existing products, which can help provide insights for product enhancement [5].

In the realm of production processes, AI has also shown to be fairly effective. The use of intelligent robots or automatic production lines can significantly enhance production efficiency, and also effectively reduce error rate due to human factors. For example, in the production of new-energy vehicles, AI-based quality inspection system can quickly identify even the smallest defects on the production line, ensuring that all vehicles are produced at high quality standards [4]. Furthermore, AI can also be used to help with the intelligent upgrading of SCM systems, allowing enterprises to maintain more balanced inventories, minimize capital tied up and optimize the SCM [5]. This technological development not only cuts production expenses, but also constructs a brand image for Shenyang's three “New New” products in the world market.

Customer service is another crucial sector where AI is playing an important role. By utilizing intelligent customer service systems, enterprises can provide customers with online customer service that can be consulted around the clock, and solve their problems that may occur during shopping and use. For high-tech equipment, the AI-powered virtual assistants provide customized working instructions and technical support, meeting the user's needs, resulting in significant customer satisfaction improvements [4]. In addition, sentiment analysis can continuously monitor the evolution of customer sentiment, empowering businesses to respond promptly to customer needs by tailoring their service approaches to meet those demands.Moreover, sentiment analysis can continuously track the changes in customers' sentiment, which can help businesses react quickly to the needs of different consumers by adjusting their service strategies accordingly [5]. In conclusion, the use of artificial intelligence has not only enhanced the quality of the products and services of Shenyang's "New Three" in three ways, but has also significantly boosted their competitiveness.

3.3. Improving Brand Operational Efficiency Through Digitalisation

It has been fully integrated into the enterprises' "new new three categories" of supply chain management, marketing management and human resources management, and has become an essential assistant for enterprises to enhance the efficiency of brand operations. It can apply digital technology from the supply chain management point of view to achieve the real-time monitoring and intelligent scheduling of the whole raw-material procurement, production and processing and product delivery process. For example, for manufacturing such as an aircraft industry, a digital supply chain platform can link the information sources from the upstream and downstream partners and optimize the allocation of resources and shorten the delivery cycle [4]. Additionally, the advent of blockchain technology has contributed to greater transparency and traceability in the supply chain, aiding companies to minimize operational risks in a complicated global trading landscape [5].

Digital tools also have had a profound impact on businesses in the marketing management field. A Customer Relationship Management (CRM) system allows a company to keep the essential data of their customers, their purchases history and their interaction history in a single place and provide it with data to launch a personalised marketing campaign. For example, in the new energy vehicle industry, by analyzing the user's browsing behavior, interest tags, and other information, the digital marketing platform can provide personalized promotion information to users, boosting conversion rates and market share [4]. Meanwhile, more sophisticated data analysis tools enable businesses to understand the impact of their marketing campaigns which can help them adapt their marketing strategies to maximize the return on investment (ROI) on a continuous basis [5].

Human Resources Management (HRM) is another critical area in which digital management plays a crucial role. With the adoption of a Human Resource Information System (HRIS), businesses can streamline tasks like recruitment, training and performance management, which can significantly boost operational efficiency and cut down on labor expenses. For example, in a high-tech equipment manufacturer, an algorithmic tool on a digital platform could be used to match employees with the right candidate for talent acquisition; and an online learning platform can provide easier and more convenient professional development opportunities for employees [4]. Besides, digital management fosters an open and transparent organizational environment, and by sharing data and collaborating with each other, it improves communication and coordination among departments [5]. Overall, the full use of digital management in every aspect has significantly improved the efficiency of the brand operation of the "New Three New" of Shenyang, and provided a good foundation for their sustainable development.

4. New Media Marketing Strategies for Enhancing Brand Value

4.1. Interactive Marketing on Social Media Platforms

The digitization technology and new media have taken deep root and social media platforms have become an important communication channel between brands and consumers. The “New-New Three” brands have a large user base on the Internet and real-time communication advantage compared to the relatively small registered users of traditional media, which means it has a great opportunity for interactive marketing by social media such as Weibo and WeChat. By using creative topic discussion, online events and user generated content (UGC), brands can establish a good emotional connection with their targeted customers through brand awareness and brand reputation [4]. For example, on Weibo, by using a topic challenge, the brand can not only obtain more exposure but also make consumers feel that they belong to the brand by inviting them to share their experience of using the brand, or their creation. Apart from that, the WeChat Official Account platform, as an important tool for private traffic, can be used to regularly post high-quality content to improve user stickiness and interaction; it can also be used to carry out interactive games, giving the brand a deeper brand image. It is important to note that social media interactive marketing is not about content marketing; interactive marketing of content has to be relevant to the audience, and has to be supported by data analytics to allow for optimization of the marketing strategies, including relevance of content and effectiveness of communication [6].

Meanwhile, the dissemination and user experience in interactive marketing should be adjusted in social media. Consumer rejection or even backlash in the general public can occur if there is too much commercialization in the brand, which means the brand should be oriented towards what they are attractive and beneficial to the audience, and not for the sole purpose of selling products. In a previous study, it was concluded that it is necessary to improve the interaction between companies on social media platforms and the needs of the users, providing users with useful information about the product, the industry or lifestyle tips, it is a good way to gradually gain the users' trust in the brand [4]. Meanwhile, user behavior data can be analyzed using big data analysis, allowing brands to accurately understand the preference characteristics of different user segments, and then making corresponding interactive plans to target different segments [5]. With the data-driven social media marketing model, it can not only improve the effective communication of the "New New Three" brands of Shenyang, but also make the brand more visible and supported in the highly competitive market environment.

4.2. Content Marketing on Short-Video Platforms

With the rapid growth of the short video format, TikTok and Kuaishou are becoming important channels for brand communication. They are user-friendly and display information in eye-catching formats, their algorithms have been successful in product recommendations. They offer a great platform for the “New New Three” brands of Shenyang to present their products' features and cultural connotation. Well done, creative, short videos can grab the attention of consumers and spread the brand's essence in a short time.High-quality, original and short video production helps brands gain the attention of consumers and express the key value propositions in a short period of time, thereby enhancing the brand image and market awareness [4]. For instance, the narratives can be built around the design philosophy, production processes and the use cases for the “New New Three” products. Product functions can be incorporated into storytelling to make the product resonate with the consumer, leading to his purchase of the product. Furthermore, the production of content should align with popular trends on short videos; it is necessary to adapt and make full use of the interaction features provided by short videos, including “challenge” and “sticker effect” to achieve user participation and further expand brand influence [5].

What's especially notable is that creating content for short video sites involves a blend of creativity and shareability. The content should be visually striking, entertaining and have to incorporate brand cultural elements to ensure consistency and coherence of the messages [6]. The study shows that short video marketing campaigns that drive virality can be done in a short period of time, normally within the first few days, and this is done by in-depth understanding of the target audience's psychology and the flexible use of rules for each platform [4]. From this perspective, the content marketing strategies of “Xin-Xin Three Brands” in Shenyang should fully leverage big data analysis to comprehend the audience's viewing habits and the interest tags of the audience and then develop targeted content strategies and distribution plans. Besides, these brands can also leverage the exponential spread of content by partnering with influencers in order to promote together [5].

4.3. Improving Sales Conversion Through Live-Stream E-Commerce

Over the last years, live-stream e-commerce is an emerging marketing model which has strong sales conversion ability. Live streaming e-commerce can be used to effectively shorten the time for decision making, directly push the product sales conversion of Shenyang's "New Three" product categories, and promote the brand market share by vividly displaying products, answering consumer questions, and introducing interaction with the audience. Professionalism and personal charm of the hosts is also an important factor: They ought to have a deep knowledge of the products and good communication and adaptability skills for the different situations that may happen during the live broadcast [5]. Furthermore, proper planning of the live stream content is needed to create urgency and engagement and get consumers to buy.

To get the best out of live-stream e-commerce, brands should also utilize data analytics technologies to optimize their live-streaming strategies with data. Brands, for example, can leverage live-streaming data from the past to determine the best time to stream and the best products to offer by studying the popularity of the different product combinations at specific times, to ensure the optimal live stream schedule and product assortment [6]. At the same time, social media's promotional resources can be used to carry out pre-launch campaigns like teaser videos and promotional posters to gain more potential users to participate in live-stream and interactive activities [4]. Live-stream shopping is not just a transactional tool, it's a major opportunity for brands to create a lasting relationship with shoppers. As a result, in the live-stream environment, brands need to communicate their values and culture and need to have their consumers trust and support them by providing genuine service and quality products, and thus build more loyal customers [5].

5. Integration Strategies and Challenges for Digital Technology and New Media

5.1. Strategies for Integrating Digital Technology and New Media

The improvement of the brand value of Shenyang's “three new” brands relies on the in-depth penetration and complementarity between the two. Digital technology one of the important technologies is big data analysis, it can provide the scientific basis for enterprises to make decisions on new media marketing, which can help to obtain more accurate consumer behavior data and market trends. For instance, by analyzing consumer interests through big data, consumers' buying preferences, and behaviors in social interactions, businesses can make more precise social media promotion plans, and efficiently reach and spread the brand messages out [4]. Meanwhile, AI technology has also been applied to realize the efficient production and dissemination of new media content. For instance, social media content can be highly relevant and appealing to the audience, capturing their interest and affection for a brand, if it's created

based on personalization, which is achieved with the help of natural language processing and recommendation algorithms [5].

In addition, new media marketing campaigns are more efficient and controllable with the introduction of digital control platforms. ERP systems can also be connected to customer relationship management (CRM) systems, thus allowing businesses to monitor how effective their new media marketing efforts are in real time and take action for strategy changes as soon as data is returned. For example, in the context of campaign marketing activities that are performed on short video platforms, enterprises can use digital platforms to track relevant indicators such as the number of video views and the interaction rate of viewers in real time, and then use big data analysis to adjust the content creation strategy, maximizing the effectiveness of brand communication [4]. On the other hand, live shopping is an emerging new media marketing, which also gains the benefit of digital technology support. By using Augmented Reality (AR) technology, product features may be shown or even virtual fitting effects may be presented to enhance consumers' shopping experience and boost sales conversion rates and the brand's market position [5]. In summary, the digital technology and new media can be used to enhance the efficiency of brand communication, broaden the communication scope, and optimize brand marketing strategies by data, which provide strong support for the long-term development of Shenyang's “New New Three” brands values.

5.2. Challenges in the Integration Process

The use of digital technology and new media has brought the marketing of Shenyang's “three new” many new opportunities, but it has also faced a series of practical implementation problems such as technological issues, talent shortages, data security issues, etc. Firstly, technical issues are mainly compatibility issues between various technology platforms and integration issues. For example, large data analytics systems could need to connect to a social media promotion platform and come across challenges such as interface incompatibility and incompatible data formats that can increase project developing prices and slow down projects [4]. Businesses, meanwhile, need to seek out the technology that is based on open-architecture and standard protocols, and have a specialized technical service provider maintain the systems for their efficient operation and integration.

Secondly, the lack of talent is also a major factor that is limiting digital technology's integration with new media. Digital technology and new-media marketing needs many specialties (data analysis, algorithm designing, content making, etc.) and enterprises can't find people who have multi-disciplinary expertise. To combat this, companies can start to cultivate their own talent pool by training their employees, cross-departmental training and hiring external talent. For example, it is possible for these companies to periodically send their employees to study courses on digital technology; invite experts in the field to present the most recent case studies of the use of digital technology; develop joint mechanisms with universities and research institutes for talent development, with the aim of constantly upgrading the professional skills and innovative thinking of the team [5].

Finally, for enterprises to advance their digital adoption and use new media, data security is crucial. Companies today are handling vast amounts of users' information regarding their privacy, and if the information is compromised or misused, it can be the company's downfall. It is, therefore, important for enterprises to develop and improve strong data security management systems, such as applying rigorous data access policies, using encryption tools to prevent data leaks and regularly auditing data security [4]. Furthermore, companies need to improve the Data Security Awareness training of their employees, making sure that all employees follow the data security policies and regulations they have in place in their everyday operations, reducing as much data security risks as possible. This could help enterprises overcome these obstacles and smoothly implement the integration of digital technology and

new media, setting a solid base for the in-depth improvement of the brand value of Shenyang's "New-New Three" [5].

6. Conclusion

The study digs out the profound influence of digital technology and new media on the brand value of the “New New Three” categories in Shenyang in depth, and uncovers the effectiveness to build a focused brand based on big data, optimize the products and services with artificial intelligence, improve the operation efficiency through digitalized management and interactive marketing, short video content marketing and live-stream ecommerce. The research results indicate that digital technologies and new media are not only generating awareness and reputation of the brand but it also enhances the overall competitiveness of the brand by optimizing the supply chain management and enhancing the customer services. Moreover, it is important to note that the two approaches also generate synergies, providing the potential for further value creation for the brand.

The research can serve as the reference to establish characteristic industrial brand in Shenyang. One thing is clear, brand building, in the first place, should make the most of the advantages of the digital technologies and go digital with the brand. Second, the new media platforms are used diversifiedly, which offers an abundant communication opportunity for brands, as they are influential in the young consumers' eyes. It's worth noting, however, that as part of this integration process, businesses have to overcome a number of obstacles, including technological hurdles, skill gaps, and data security, which requires a strategic approach to resource integration and risk management in strategic planning.

But the findings of this study indicate that there is a relatively systematic approach to the improvement of brand value, with some limitations. The study has been conducted, to a large extent, using literature and public sources, and not a detailed examination of the application of the different strategies by individual enterprises, so further research could strengthen the effectiveness of the different strategies with the help of case studies. Concurrently, as technology advances, the ability to dynamically adapt brand strategies to suit new technology and market developments is another research avenue to be further explored. Finally, this study has theoretical significance and provides practical solutions to better promote the value of Shenyang's "New New Three" and other unique industrial brands.

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