

Opportunities and Challenges of Candy Food Brands in the Digital Economy Context: A Case Study of BABE'S BOTTLE Food Co., Ltd.

Yihan Cao^{1,a,*}

*¹School of journalism and communication, Nanjing Normal University, Nanjing, 210023, China
a. 3044915154@qq.com*

**corresponding author*

Abstract: With the vigorous development of the digital economy, digital transformation and upgrading have become the inevitable path for enterprise development. Taking BABE'S BOTTLE Food Co., Ltd. as a case study, this paper investigate and assess the opportunities and challenges entailed in the digital transformation and upgrading of Candy Food brands. Candy Food brand is an emerging cultural and creative brand under the background of consumption upgrading, which has attracted much attention for its brand concept of endowing food with the attribute of "play". Through case analysis, this paper discerns that BABE'S BOTTLE'S cultural and creative ice cream has yielded substantial outcomes within the "online + offline" cultural marketing framework, while simultaneously presenting challenges attributable to elevated production costs and dependence on intellectual property. This paper puts forward three suggestions to help similar enterprises achieve digital transformation: establish a full-process digital production and operation system, build a digital management system, and implement a data-driven brand management approach. These proposals hold pertinent reference value for the digital transformation of small and medium-sized cultural and creative enterprises.

Keywords: Candy Food brand, digital transformation, data-driven

1. Introduction

The proliferation and integration of digital technology have fundamentally transformed the way society communicates, impacting both personal and professional spheres [1]. This transformation equally extends to the operations of companies functioning within contemporary, digitally-driven environments [2]. In recent years, with the advancement of the digital economy, the transformation and upgrading of brands have begun to focus on the application of the integration of digital technology and digital management philosophies. A brand, in essence, embodies a spiritual symbol and a value concept, and its establishment assumes a pivotal role in expanding corporate influence and increasing market share for its products [3]. However, in the economic environment of consumption upgrading, the process of brand digital transformation frequently encounters impediments stemming from the dearth of digital technological capabilities and the requisite management ideologies.

Extensive research has been undertaken regarding the digital transformation of brands, however, there exists a research gap regarding Candy Food brands. As an illustration, Chen Yufa and Chen

Nuo conducted a comprehensive analysis and discourse on various aspects including cost, supply chain, consumer psychology, and marketing status within the digital transformation and upgrading process of silk brands[4]. Carmen Lam asserts that in the era of digitalization, luxury-branded hotels need to go through digital transformation to meet the changing demands of customers. This necessitates adopting a strategic approach towards technology and innovation, underpinned by a conducive organizational culture that prioritizes data-driven and customer-centric practices[5]. Despite the established necessity for brand digital transformation and the extensive analyses of numerous cases, there is still a lack of research on Candy Food brands. The term "Candy Food" or "shí wán" originated in Japan, originally referring to small toys that come with packaged snacks [6]. However, in the twenty-first century, Candy Food brands refer to a new type of cultural and creative brand derived from food brands in the context of consumption upgrading, with the brand concept of imbuing food with a "playful" attribute.

In its initial stages, this article provides a comprehensive summary and analysis of prior research. Subsequently, through the utilization of the case analysis approach with BABE'S BOTTLE Food Co., Ltd. as an example, it concludes that within the digital economy framework, both opportunities and challenges coexist for Candy Food brands. Nevertheless, this enterprise has not effectively harnessed the advantages of digitalization, necessitating the implementation of targeted and efficient digital transformation and upgrading strategies. This study will offer valuable insights for the digital transformation of Candy Food brands and the upgrading of industry formats.

2. Methodology

This study primarily employs the case analysis method, utilizing Beibei Bottle Food Co., Ltd. as a representative case to investigate and analyze the opportunities and challenges confronted in the digital transformation and advancement of food-play brands. Positioned within the framework of the digital economy, the objective is to probe into the advantages brought about by the digitalization of marketing for food-play brands, as well as the difficulties these brands encounter due to a dearth of digital technology. Data sources encompass the company's official website, the People's Data Asset Service Platform, pertinent literature, and white papers concerning the development of the cultural industry, spanning approximately from 2019 to 2023. The author meticulously scrutinized the sales fluctuations of Beibei Bottle's culturally creative ice cream, coupled with pertinent online public sentiment trends, in order to conduct a study on the opportunities and challenges within the digital transformation of food-play brands. Based on the gathered materials, it is noted that the case analysis method is widely prevalent in research related to enterprise digital transformation, but is notably scarce within the domain of food-play brands. This paper introduces an innovative approach in examining the opportunities and challenges confronting food-play brands within the context of the digital economy, thus deepening our comprehension of the digital transformation of these brands and the evolution of the industry format.

3. Case Study

Previous studies have mostly focused on brands related to clothing, housing, and transportation, encompassing silk brands, trendy brands, and luxury brand hotels. Candy Food brands, as emerging food brands with cultural creativity, have not become the focus of industry research. This paper, in order to study the opportunities and challenges encountered by Candy Food brands during their transformation and advancement, employs the case analysis method, taking BABE'S BOTTLE Food Co., Ltd. as a research example. It conducts comparative analysis of the product sales, revenue, profit margin, market share, and other data of BABE'S BOTTLE'S cultural and creative ice cream within the digital economy backdrop.

The specific analysis results will be described in the following three sections.

3.1. Introduction of BABE'S BOTTLE

BABE'S BOTTLE (Shanghai) Food Technology Co., Ltd. was established in 2020. BABE'S BOTTLE is a prominent manufacturer of trendy Candy Food brands. By infusing food with an element of "play," the company combines trendy concepts, stylish design, and a distinctive cultural touch. The company boasts a comprehensive industry chain coverage from design, research and development, production, logistics, promotion, operation, to sales. Its products are distributed across more than 310 scenic locations, with annual sales of creative ice creams surpassing 11 million units. This has positioned the company as a "unicorn" enterprise within the segmented ice product sector. The brand encompasses three product lines: Ice Cream Series, Lollipop Series, and Pastry Series, all characterized by intricate 3D modeling. Notably, the Ice Cream Series has collaborated with scenic spots, city parks, performances, museums, enterprises, and landmarks to introduce a diverse array of products.

3.2. Online + Offline Cultural Marketing Mode Promotes Sales Growth

The progressive evolution of digital marketing ideology has notably propelled the sales of BABE'S BOTTLE'S culturally creative ice cream under the "online + offline" cultural marketing paradigm.

On one hand, the online promotion channels continue to expand. This encompasses both active promotion efforts by scenic spots and the organic sharing activities of tourists. BABE'S BOTTLE'S products, integral components of the cultural and experiential offerings within scenic locales, consistently receive prominent exposure on the official websites of these destinations. Furthermore, owing to their distinctive and captivating designs, the cultural and creative ice creams have garnered widespread favor among consumers, steadily establishing themselves as indispensable items for tourists. Post-purchase, consumers instinctively share their experiences on various social platforms, including Red, TikTok, and WeChat Moments. Within this "social + experiential" marketing mode, it further enhances user interaction and better accumulates product reputation [7]. Concurrently, with the surge in popularity of diverse cultural and creative ice creams on the internet, Aonan Zheng, a leading figure within BABE'S BOTTLE'S design team, has been interviewed and reported by many mainstream media outlets such as CCTV and Xinhua News Agency. Thus, a successful full-media communication matrix has been established.

On the other hand, offline retail points have comprehensive coverage in scenic areas, with a concentrated and numerous distribution network. In response to the national strategy of integrating culture and tourism [8], prominent scenic spots across the country have proactively nurtured the cultural facets of their locales. As a popular cultural and tourist product, cultural and creative ice creams have assumed the role of cultural ambassadors for scenic spots, receiving robust endorsement from these spots. Beyond promotional information in tour guides and outdoor billboards, related retail points are spread throughout the scenic areas. Cultural and creative ice creams have almost surpassed the attractions themselves, transforming into a must-visit item for tourists.

Reports indicate that BABE'S BOTTLE, a leading Candy Food creative enterprise, is responsible for the design and manufacture of over 90% of cultural and creative ice creams in China. Public data from BABE'S BOTTLE shows that between 2019 and 2021, the sales of cultural and creative ice products (mainly referring to cultural and creative ice creams) surged from approximately 80,000 units to surpassing 10 million. with partnerships established with over 350 scenic spots [9]. It is evident that the digital economy has endowed Candy Food brands with the "online + offline" cultural marketing mode, ushering in substantial developmental prospects for these brands.

3.3. BABE'S BOTTLE Encounters Development Challenges Due to Lack of Digital Technology and Management Thinking

As an emerging Candy Food brand, BABE'S BOTTLE introduced creative cultural and creative ice creams to the consumer market. Consequently, with the implementation of extensive digital media marketing strategies, sales of cultural and creative ice creams associated with scenic areas witnessed a notable upturn. Nonetheless, the company confronts persistent challenges, notably stemming from insufficient digitalization, including elevated production costs and uneven product revenues (attributable to significant differences in individual online popularity).

3.3.1. High Production Costs Constrain the Expansion of BABE'S BOTTLE'S Cultural and Creative Ice Cream Market Share

As illustrated in Figure 1, prominent brands like Yili, Wall's, Mengniu, and Nestle, collectively hold over 50% of the offline ice cream market share in China, maintaining their status as the market's pivotal players. Conversely, apart from BAXY, none of the other brands have a market share exceeding 5%. Even when compared to Bright brand, which holds a mere 1% market share, the annual sales volume of BABE'S BOTTLE'S cultural and creative ice creams, approximately 11 million units, appears comparatively modest. It is evident that the market share of BABE'S BOTTLE'S cultural and creative ice creams is almost negligible.

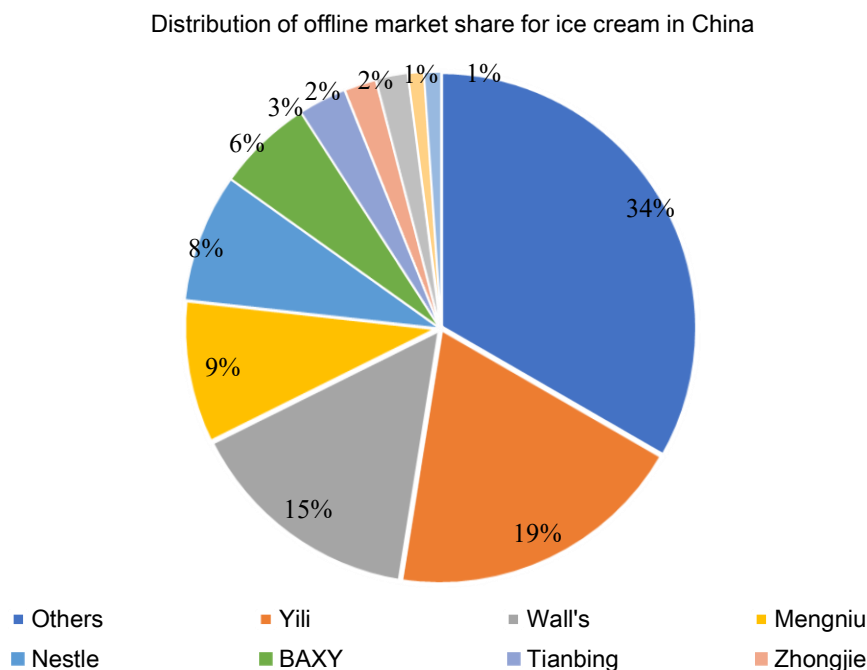


Figure 1: Distribution of offline market share for ice cream in China.

The high production costs of BABE'S BOTTLE'S cultural and creative ice creams yield a lower profit margin, consequently constraining the brand's potential for market expansion. According to relevant data from the People's Culture and Tourism, a cultural and creative ice cream priced at 20 yuan encompasses costs related to ice cream molds, production, transportation, storage, and labor within the scenic area. Among these components, raw material costs account for 70%, mold shaping and packaging expenses account for 20%, and distribution costs account for 10%. The per-unit cost amounts to no less than approximately 17 yuan, resulting in a profit margin of approximately 15%.

Compared to Yili's ice cream enterprise, which boasts a profit margin of 48.6%, BABE'S BOTTLE lags significantly, with its revenue falling short of one-third that of Yili [10]. It is precisely because of the high production costs of BABE'S BOTTLE'S cultural and creative ice creams that, to some extent, in order to ensure profitability and prevent losses, BABE'S BOTTLE can only continue to raise prices.

However, BABE'S BOTTLE'S cultural and creative ice creams, priced between 20 and 40 yuan, lack a competitive pricing edge in comparison to Yili's products, which are priced around 5 to 10 yuan. Furthermore, given that the designs of cultural and creative ice creams predominantly draw from cultural artifacts found in scenic areas, their sales are also limited by specific consumption scenarios. Once removed from their designated environments, they struggle to contend with established national ice cream brands, let alone secure a larger market share.

Therefore, even though the Chinese ice cream market is vast, the high production costs of BABE'S BOTTLE'S cultural and creative ice creams continue to inhibit their capacity for market growth. They face challenges in capitalizing on opportunities and establishing a competitive foothold in the market. For this brand, finding a breakthrough is imperative.

3.3.2.Strong Dependency on IP Leads to Uneven Revenue for Subsidiary Products

The fundamental revenue model for BABE'S BOTTLE'S cultural and creative ice creams is a profit-sharing partnership with scenic areas, wherein the proceeds from ice cream sales are distributed proportionately. Nonetheless, it is this very revenue model that renders the product's earnings significantly contingent on the popularity of the scenic area's intellectual property (IP).

Figure 2 provides relevant data on the internet-generated public opinion attention for 14 popular domestic cultural and creative ice creams. A visual examination allows us to discern a pronounced correlation between product attention levels and the popularity of the corresponding scenic area's intellectual property (IP). Taking the Old Summer Palace as an example, situated in Beijing and benefiting from its strategically advantageous geographical position, it is a well-known representative attraction. Consequently, both the visitor footfall and online attention directed towards this scenic area surpass those of alternative attractions. Naturally, the cultural and creative ice creams fashioned around the distinctive IP attributes of this scenic area are similarly influenced by its appeal, leading in both purchase rate and product attention among various cultural and creative ice creams.

However, with high product popularity comes the neglect of other products. The substantial reliance of BABE'S BOTTLE'S cultural and creative ice creams on IP proves to be a double-edged sword. While cultural and creative ice creams associated with the Old Summer Palace can achieve commendable performance levels, courtesy of the scenic area's renown, ice creams originating from less popular locales may struggle to gain recognition, ultimately culminating in subdued sales figures. Therefore, how BABE'S BOTTLE'S cultural and creative ice creams can improve individual revenue disparities has become an urgent issue to address.

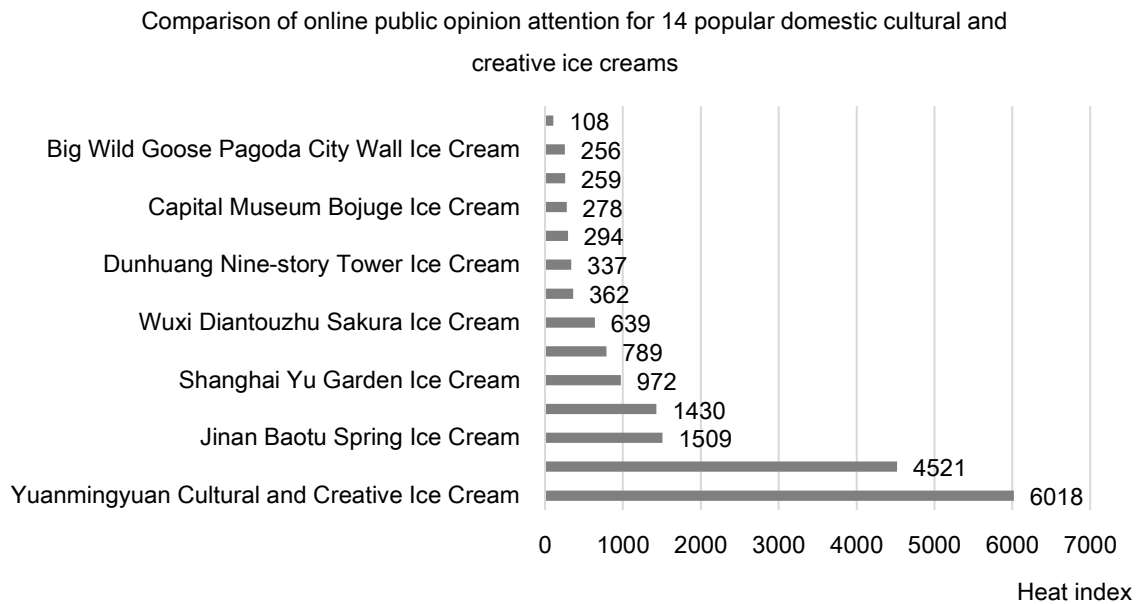


Figure 2: Comparison of online public opinion attention for 14 popular domestic cultural and creative ice creams[11].

3.3.3. Lack of PR Measures Leads to Significant Influence from Public Opinion Guidance

BABE'S BOTTLE'S cultural and creative ice creams have consistently captured public attention owing to their distinctive social check-in attributes. However, their high prices, ranging from 20 to 40 yuan, have also dissuaded many consumers, earning them the nickname "ice cream assassins". "Ice cream assassins" is a popular term on the internet, a synonym for "exorbitantly priced ice creams". It refers to those unassuming-looking ice creams hidden in the freezer, which, when it comes time to pay, deliver an unexpected sting to your wallet. For instance, taking the cultural and creative ice creams found in various parks in Beijing, they generally command prices several times higher than the admission fees. Entry tickets for parks like Yuyuantan Park, Temple of Heaven Park, and Fragrant Hills Park range from 2 to 10 yuan. In contrast, the respective cultural and creative cherry blossom ice cream, Qiniandian ice cream, and red leaf ice cream come with price tags ranging from 15 to 30 yuan each.

Recently, a survey conducted by China Newsweek on Micro-Blog addressed the question of whether "cultural and creative ice creams can be considered ice cream assassins." Figure 3 illustrates that out of 1,694 respondents, 55% deemed them ice cream assassins due to their elevated prices. Another 34% of the respondents expressed neutrality, asserting that they shouldn't be overly expensive. Furthermore, 11% of the respondents were willing to pay for the design [12]. It is evident that while cultural and creative ice creams can effectively allure young individuals seeking a "check-in" experience, nearly 90% of consumers find the high pricing of these products hard to accept.

Is Creative Ice Cream Considered an Ice Cream Assassin" percentage of votes

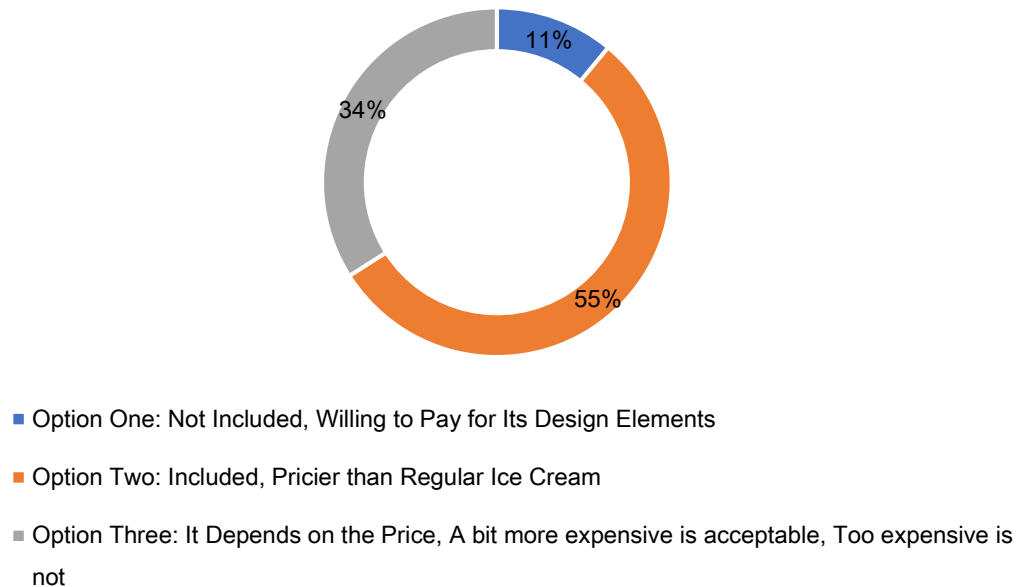


Figure 3: "Is Creative Ice Cream Considered an Ice Cream Assassin" percentage of votes.

Apart from the price controversy, consumers also feel that the design of some individual creative ice creams appears somewhat sloppy, which does not align with their high prices. For instance, the "Beijing Fragrant Mountain Red Leaf" creative ice cream featuring a grimacing face has frequently drawn criticism from visitors for its perceived lack of ingenuity, perfunctory design, and overall absence of aesthetic appeal.

At this point, BABE'S BOTTLE, as a leading figure in the field of creative ice creams, has been highly controversial. Online public sentiment has indeed exerted a certain negative influence on the company's reputation. However, in such a situation with negative public sentiment, neither the company nor the design team took timely measures to address it. They refrained from issuing relevant statements to actively shape public opinion, opting for inaction, which ultimately allowed the situation to deteriorate.

4. Suggestion

The Chinese government vigorously advocates for small and medium-sized enterprises to embark on digital reforms, offering policy support and guidance to facilitate their progress in digital transformation and upgrading. As a constituent of China's small and medium-sized enterprises, BABE'S BOTTLE Food Co., Ltd. should heed the national initiative and proactively engage in corporate digital transformation.

4.1. Establishing a Fully Digitalized Production and Operation System

BABE'S BOTTLE Food Co., Ltd. already possesses comprehensive industry chain capabilities of design, research and development, production, logistics, promotion, operation, and sales. However, the company's creative ice cream products still follow a profit-sharing model through collaboration with scenic spots, which fails to fully capitalize on the advantages offered by a complete industry chain. Confronted with the challenge of high production costs leading to low profitability, BABE'S

BOTTLE should orient itself towards digital transformation, with the goal of efficient production and operation. This involves the application of digital production technology and information technology, utilizing the latter to optimize the entire production process, ultimately culminating in the establishment of a fully digitalized production and operation system.

To further propel digital transformation and instate a "design, research and development, production, logistics, promotion, operation, sales" fully digitalized production and operation system, the company should enhance its granular control capabilities in production and operation. This endeavor seeks to centralize oversight of production, operation, and promotion, thereby effecting the integration of production, sales, and supply for a closed-loop management of the entire process. Additionally, establishing a data-driven fully digitalized production and operation system can enable the real-time monitoring and control of production line operations. This facilitates timely adjustments to production equipment operation parameters, optimizes operational efficiency, thereby amplifying production output, reducing costs, and heightening the company's competitive edge [13].

4.2. Establishing a Digital Management System

In the era of the digital economy, digital management has evolved into an indispensable tool for enterprises to proficiently manage costs, enhance efficiency, and mitigate risks. However, the internal management framework of BABE'S BOTTLE Food Co., Ltd. has long lagged behind the developmental trajectory of the digital economy. Confronted with extant challenges, BABE'S BOTTLE Food Co., Ltd. needs to modernize and revamp its management processes and organizational framework, exerting a consolidated endeavor towards constructing a digital management system.

The establishment of a digital management system encompasses facets ranging from enterprise organizational structure, business strategy, management philosophy, corporate culture, to technical production. BABE'S BOTTLE Food Co., Ltd. should execute the digital transformation of the current management framework, forging connections among various units within the company's management platform. This process should continually refine the division of labor mechanisms across departments such as design, research and development, production, logistics, promotion, operation, and sales, guaranteeing that each quality control point in the product chain receives the most judicious alignment and oversight [14]. Furthermore, BABE'S BOTTLE should proactively expand collaborations with external supply chain partners both upstream and downstream; accomplish the digital amalgamation of cutting-edge equipment, novel materials, new technologies, scientific management, and high-caliber talent. This will culminate in the unified delivery of high-quality and highly efficient creative ice cream products.

4.3. Implementing a Data-Driven Brand Management Approach

With the swift advancement of digital technology, a profusion of new digital technologies including big data, cloud computing, and artificial intelligence have emerged in abundance. The brand management model of BABE'S BOTTLE Food Co., Ltd. should evolve progressively from being steered by conventional production factors to being propelled by data intelligence. This entails implementing a data-driven brand management approach, with a heightened focus on consumer interaction, data aggregation from consumers, attentiveness to consumer sentiments, delving into consumer potential, and catalyzing consumer behavior [15].

The implementation of a data-driven brand management approach capitalizes on data and algorithms to amass a vast trove of consumer data, which is then used to furnish precise input to the design and production processes. This enables products to more accurately match market requisites, thereby expanding sales. In addressing the developmental hurdles confronting BABE'S BOTTLE,

establishing a robust data feedback mechanism can effectively mitigate the predicament of irregular revenue for the ice creams produced by BABE'S BOTTLE, attributable to their pronounced reliance on intellectual property. Moreover, in instances of adverse public opinion events, BABE'S BOTTLE'S operations department can expeditiously discern the trajectory of public sentiment and take commensurate public relations measures.

5. Discussion and Conclusion

In the preceding sections, this paper took BABE'S BOTTLE Food Co., Ltd. as an example and utilized a case analysis methodology to study and analyze the opportunities and challenges confronting Candy Food brands in the milieu of the digital economy. For instance, BABE'S BOTTLE'S creative ice cream has achieved a noteworthy surge in sales owing to its distinctive design and resonance with the target audience, all within the framework of the "online + offline" cultural marketing model. Nevertheless, BABE'S BOTTLE also faces the dilemma of limited market share expansion and uneven revenue due to high production costs.

In this context, we have proffered several suggestions to guide BABE'S BOTTLE and akin small and medium-sized enterprises toward successful digital transformation. Firstly, these enterprises should institute a fully digitalized production and operation system to amalgamate production, sales and supply, thereby improving production efficiency and reducing costs. Secondly, it is imperative to institute a digital management system, streamlining internal managerial processes and augmenting organizational operational efficacy. Finally, advocating for a data-driven brand management approach, through data analysis and feedback mechanisms, can more precisely meet market demands.

Absolutely noteworthy is the broad applicability of these research findings. They extend their relevance beyond the realm of Candy Food brands, offering valuable insights for the digital transformation of small and medium-sized enterprises, particularly those in the cultural and creative sectors. In the context of the digital economy, enterprises should actively respond to policies, accelerate the pace of digital transformation, and strive to maintain competitiveness and achieve sustainable development. Looking ahead, research on the digital transformation of enterprises across diverse sectors are bound to emerge as a new research focus.

References

- [1] B.Melović, M.Jocović, M.Dabić, T.Backović Vulić, B.Dudic, "The impact of digital transformation and digital marketing on the brand promotion, positioning and electronic business in Montenegro," *Technology in Society*, vol. 63, 2020. DOI: 10.1016/j.techsoc.2020.101425.
- [2] G. Vial, "Understanding digital transformation: a review and a research agenda," *The Journal of Strategic Information Systems*, vol. 28, no. 2, pp. 118-144, 2019. DOI: 10.1016/j.jsis.2019.01.003.
- [3] Chen Zhongyi, "Multidimensional Construction of Corporate Brand Image Leading and Promoting Corporate Transformation and Reform," *Architecture Design and Management*, vol. 34, no. 04, pp. 16-17, 2017. [Online]. Available: <https://kns.cnki.net/kcms2/article/abstract?v=3uoqIhG8C44YLTlOAiTRKibYlV5Vjs7iAEhECQAQ9aTiC5BjCgn0RsJlqzqZpNRbFn5PfZLJfphcOJrvdiQEZWGL0U6kOhLI&uniplatform=NZKPT>.
- [4] Chen Yufa and Chen Nuo, "Research on the Marketing Transformation and Upgrading of Hangzhou Silk Enterprises under the Digital Economy," *Fujian Textile*, no. 03, pp. 20-22, 2022. [Online]. Available: https://kns.cnki.net/kcms2/article/abstract?v=3uoqIhG8C44YLTlOAiTRKibYlV5Vjs7iJTKGjg9uTdeTsOI_ra5_XVbrcMwBI5XbGkCZyqkbrP7Xdpzk0jsgrLTOUjhmJ4-&uniplatform=NZKPT.
- [5] C. Lam and R. Law, "Readiness of upscale and luxury-branded hotels for digital transformation," *International Journal of Hospitality Management*, vol. 79, pp. 60-69, 2019. DOI: 10.1016/j.ijhm.2018.12.015.
- [6] "Candy food," Wikipedia. [Online]. Available: https://zh.wikipedia.org/zh-hk/Candy_food.
- [7] Baoyuezhong, "How to Excel in Experiential Marketing," *Chinese Real Estate Industry*, no. 23, pp. 53-55, 2017. DOI: 10.13562/j.china.real.estate.2017.23.019.
- [8] "Guiding Opinions of the Ministry of Culture and Tourism on Promoting the Integrated Development of Culture and Tourism," 2009. [Online]. Available: <https://baike.baidu.com/item/Guiding%20Opinions%20of%20the%20Mi>

nistry%20of%20Culture%20and%20Tourism%20on%20Promoting%20the%20Integrated%20Development%20of%20Culture%20and%20Tourism/8408873?fr=aladdin.

- [9] "The True Ice Cream 'Assassin' Quietly Amassing Wealth," *Interface News*, 24 July 2023. [Online]. Available: <https://www.jiemian.com/article/9798721.html>.
- [10] "Cultural and Creative Empowerment of Ice Cream: Hot Start, Limited Scenarios," *Sina Finance*, 5 June 2021. [Online]. Available: <https://baijiahao.baidu.com/s?id=1701659775137898475&wfr=spider&for=pc>.
- [11] "People's Data Asset Service Platform," [Online]. Available: <https://baijiahao.baidu.com/s?id=1775004757077395715&wfr=spider&for=pc>.
- [12] "Why Are Cultural and Creative Ice Creams Pricier Than Theme Park Tickets?" *China Newsweek*, 3 July 2023. [Online]. Available: <https://mp.weixin.qq.com/s/mWhawKJRcIGyL4aBj8Rmbw>.
- [13] J. Liu, X. Li, Y. Li, H. Chen, W. Zhao, and X. Yang, "Construction of Digitalized Production and Operation Control System," *Entrepreneurs*, vol. 2022, no. S2, pp. 60-62. [Online]. Available: https://kns.cnki.net/kcms2/article/abstract?v=3uoqIhG8C44YLTlOAiTRKibYIV5Vjs7i0sWKd_U1u4nmpAkF6_FluSw-Z9GulakUjfiE77WzAMC2ucVvH1OSMXLweUPuLoa6&uniplatform=NZKPT.
- [14] Q. Zhongwen, X. Yang, S. Zheng, Y. Yiwen, and T. Xu, "Digital Full-process Management with the Goal of Improving Efficiency and Quality in the Supply Chain," in *Innovative Practice in Management of Chinese Power Enterprises*, 2020, pp. 357-360. DOI: 10.26914/c.cnkihy.2021.035329.
- [15] L. Chen, H. Chen, and H. Liang, "Research on Brand Cultivation Strategy Driven by Consumer Data: A Case Study of Liuzhou Company," *Academic Paper Compilation of Liuzhou Branch of Guangxi Zhuang Autonomous Region Tobacco Company*, 2020, pp. 117-124. Available: https://kns.cnki.net/kcms2/article/abstract?v=3uoqIhG8C467SBiOvrai6TdxYiSzCnOEEIKB-6S51JyFOld47yB1sAYlZMyZ44RNA-Ass-YQsaqrJont38gybZMttOn_96oQ8-BVpekGERw%3d&uniplatform=NZKPT.