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**PAPER** 

# **How Does the Congruence of Customer Brand Memory** and Nostalgia Proneness Affect Customer-Based Brand **Equity: Consequences in the Chinese Time-Honored Brands Context**

## Wenyi Zhang<sup>1</sup>, Ying Tian¹,²(⊠)

<sup>1</sup>Business School, University of Shanghai for Science and Technology, Shanghai, China

<sup>2</sup>School of Intelligent Emergency Management, University of Shanghai for Science and Technology, Shanghai, China

ty1992@usst.edu.cn

#### **ABSTRACT**

Under the backdrop of Chinese time-honored brands, this paper examines the impact and mechanism of customer brand memory (CBM) and customer nostalgia proneness (CNP) on customer-based brand equity (CBBE). It takes into account the customer's perspective and utilizes polynomial regression and response surface analysis. The study focuses on three aspects: consistency condition, difference under consistency condition, and asymmetry under inconsistency condition. The results show that: (1) CBBE increases when CBM and CNP are congruent or at similar levels; (2) the combination of high levels of CBM and CNP is more favorable for CBBE than the combination of low levels of CBM and CNP when they are congruent or at similar levels; (3) the combination of high levels of CBM and low levels of CNP is more conducive to customer-based brand equity (CBBE) than the combination of low levels of CBM and high levels of CNP when they are incongruent or at different levels. This study comprehensively examines the role of the memory-nostalgia relationship in the development of brand equity for Chinese time-honored brand enterprises. It offers new research insights for future studies and provides recommendations for brand management in these traditional brand enterprises.

#### **KEYWORDS**

customer brand memory (CBM), customer nostalgia proneness (CNP), customer-based brand equity (CBBE), Chinese time-honored brands, congruence

#### INTRODUCTION

A time-honored brand refers to the unique product technology and service that have been developed over a long history of inheritance. These brands have earned

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a good reputation and have accumulated many years of successful experience in a specific region [1]. Its development originates from a specific historical period and is rooted in a specific cultural soil. In its long-term historical development, it has developed its own distinct cultural heritage. For example, well-known foreign brands with a long history, such as Coca Cola, General Electric, Louis Vuitton, and Porsche, have been flourishing for more than a century [2]. China time-honored brands are a unique appellation for time-honored brands with a long history and cultural tradition in Chinese history. The time-honored brands are an important part of China's economic and historical development and play an important role in the development of China's brand. In the trend of consumption upgrading, people's demand for material culture is growing, and people pay more attention to the culture and history behind the products [3]. However, popularity is not equal to profitability. In 2019, according to the research results of the Ministry of Commerce, most of the existing, more than 1000 time-honored brands are facing operational difficulties. Only 10% of the time-honored brands are successful through innovation and development. Consumers are crucial [4]. The most basic thing that marketing professionals want is to understand customers [5]. In light of the aforementioned issues, numerous scholars have conducted extensive research and discovered that the primary factors contributing to the ongoing decline in performance and profitability are ideologies, ineffective brand innovation, and low brand value-added.

When the brand is consumed by customers, it leads to the creation of customer memories. If the brand wants to achieve long-term development, it needs to leave a long-term trace in the customer's memory. When it comes to time-honored brands, people will always seek to evoke their memories, recalling the products they have used in the past, the relevant experiences they have had, and the emotions they associate with them [6]. Brands whose pastness passes muster during this memory-identification stage should be vivid enough to invoke favorable memories among consumers who previously used or vicariously experienced and consequently recall particular brands' pasts [7]. Nostalgia is an emotional response to yearning for past experiences, products, or services. This emotional response can encourage individuals to take action [8]. Most customers will have memories, nostalgia, and even a yearning for past experiences when they engage with a time-honored brand. This type of emotion gives rise to customers' nostalgia proneness, which is formed based on past experiences. In turn, it will affect customers' cognition and decision-making about the brand and then affect brand equity. Therefore, it is very important to study customer brand memory (CBM), customer nostalgia proneness (CNP), and customer-based brand equity (CBBE).

Brand equity is an important area of research in marketing. While promoting specific products and services, enterprises will spend millions of dollars and make great efforts to enhance their brand status and establish strong relationships with customers [9]. They attach great importance to brand equity and aim to increase the "added value" of products associated with brands [10]. They also strive to enhance the perceived utility and desirability of products attributed to brand names [11] or the influence of brand names [12]. Customer brand engagement is crucial [13]. The previous study of brand equity mainly focuses on the influence of various brand attributes and marketing activities on customers' attitudes (including cognition, emotion, and behavioral intention) and behaviors towards the brand. It also examines the intensity of various influences, such as customers' familiarity, liking, association, and loyalty to the brand [14]. But there are few studies on the brand equity of time-honored brands, especially in the context of Chinese time-honored brands. Most researchers regard brand equity as a structural outcome. However, they have not focused on the influence of the consistency of composite factors, nor have they clarified the difference in

influencing factors. This lack of attention hinders the full adaptation of the concept of brand equity to the context of Chinese time-honored brands.

More and more companies use nostalgia to segment their products and markets so as to distinguish them from their competitors and create an emotional attachment to the brand. Nostalgia can connect individuals with past experiences and influence customers' brand preferences.

Nostalgia proneness is an individual's love and good feeling for people, events, and things in the past formed over a long period of time, and it is an individual's implicit and stable attitude [15]. The more we expect to return to a peaceful life in the past, the greater the corresponding proneness to nostalgia [16]. The existing research has involved the causes and consequences of nostalgia, customer behavior, and brand research. In the study of antecedents, age [17] [18], gender [19], psychological patterns such as sensitivity to sensory stimulation [20] and time orientation [21] [22] are involved. The outcome variables can be analyzed from brand attachment [23], brand preference [24], and personal collection of brand items. In terms of brand research in the marketing field, Zimmer, Little, and Griffiths put forward a nostalgic brand strategy. In consumption, nostalgia positively affects attitudes toward products or brands [25]. In a marketing scenario, the cultivation of positive emotions towards brands and products, such as nostalgic emotions, can serve as a strong connector that deepens the connection between consumers and brands. In a study conducted by [26], nostalgia proneness was used as an intermediary variable to quantitatively examine the impact of nostalgia proneness, triggered by marketing stimuli, on advertising outcome variables such as advertising attitude, brand attitude, and purchase intention. To sum up, although the concept of CNP has gained increasing attention in the market and customer life, it has not yet established a robust theoretical system and structure in this field. In current research, CNP is often considered an intermediate variable in brand research, and it is less related to brand equity as an antecedent variable.

Customers' purchase decisions are, to a greater extent, influenced by their perception of brand recall and by their previous experiences [27]. The existing scholars mainly study brand memory from two angles. The first one combines brand associations, primarily based on the relational network memory model. Scenario memory refers to the scenario of customers' previous purchase experience and the fragmented details retained. [28] divided brand memory into brand recall and implicit memory when studying the influence of brand name on brand memory and brand choice. The factors that influence brand memory mainly include brand name, brand packaging [29], product quality, brand personality, and service experience [30].

To sum up, there are few studies that empirically explain the unique process of building CBBE formation in the context of China's time-honored brands, as well as the role of CNP and CBM in this process. Most studies have focused on a limited number of CBBE [31] and have failed to provide a more comprehensive view of the CBBE formation process. This oversight ignores the complexity and versatility of customer-based brand equity [32].

Accordingly, in terms of maintaining consistency, this study establishes the consistency configuration of CBM and CNP and incorporates it into the research framework of CBBE. By using polynomial regression and the response surface analysis method, we can examine the effects of consistency, differences under consistency conditions, and asymmetry under inconsistency conditions of CBM and CNP on CBBE. This analysis allows us to identify the optimal allocation mode for these two elements. In the context of China's time-honored brands, this study explores the role and impact of customers' perceptions of CBM and CNP on CBBE. Additionally, the study proposes suggestions to enhance the value-added of time-honored brands. It also helps enterprises

deepen CBM, stimulate CNP, and enhance brand awareness and loyalty. It provides a theoretical basis and practical guidance to assist long-established brand enterprises in leveraging their existing resources, maximizing the unique advantages of their brand, enhancing brand growth potential, and gaining a competitive edge in the market.

Hence, the rest of the article is organized as follows: Section 1 presents the theoretical background of the conceptual model, followed by hypothesis development. Sections 3 and 4 provide a description of the methodology and results. Finally, the discussion includes the theoretical and managerial implications, limitations, and directions for future research.

#### 2 CONCEPTUAL FRAMEWORK AND HYPOTHESES

#### 2.1 Consistency effect: The congruence effect of CMB and CNP on CBBE

A study of literature shows that CBM is influenced by various factors, including physical, functional, and emotional brand attributes [33], brand personality [34], nostalgic experience [35], and brand heritage [36].

Nostalgia is popular in the marketing of products and services [37]. Marketers connect customers with CBM by incorporating nostalgia into product design and advertising campaigns. Nostalgia is defined as the recollection of past personal experiences that hold symbolic value for customers [37], bring a happy feeling [20], and are caused by CBM. Therefore, understanding CBM, especially their earliest and defining memories, provides a useful method for managers to uncover customers' current and future preferences, their relationship with brands, and CBBE. In addition, nostalgic memories of a brand can generate strong emotions and a positive intention to consume [38]. Due to the sociological transformation of customers' expectations, the relationship between customers and brands is no longer solely based on material rewards. Instead, it now incorporates and integrates more subjective dimensions, such as the search for emotional experiences, immersion in a sensory environment, and the social sharing of emotions and experiences (such as nostalgia). This shift in customer-brand relationships has a significant impact on the development of company products and brands, ultimately adding more value to brands.

Under the backdrop of Chinese time-honored brands, CNP has the ability to evoke customers' cultural identity and brand preference. It allows them to express their emotions and fulfill their values, while also building trust in the brand's quality. This helps to mitigate the risks associated with market decision-making and influences customers' purchasing decisions and consumption behavior. The brand symbol of Chinese time-honored brands also plays a special role in conveying the brand concept and cultural values to customers. Through external auditory, visual, and olfactory sensory stimulation, memories of the past or past experiences can be triggered, leading to a sense of nostalgia that aligns with positive brand memories. Therefore, CNP and CBM are inseparable and have a synergistic effect, which can achieve complementary advantages and increase CBBE. Based on this, this study speculates that CBM and CNP can complement each other's advantages, and when the two strengths are congruent or at similar levels, it is more conducive to enhancing CBBE. Therefore, hypothesis 1 is proposed:

H1: CBBE increases when CBM and CNP are congruent or at similar levels, and decreases when they are incongruent or at different levels in the context of Chinese time-honored brands.

# 2.2 Difference effect in the case of consistency

The consistency state of CBM and CNP is not the only one, for there are also high and low levels of consistency. The impact of varying consistency levels on the enhancement of CBBE may also vary. Specifically, it can be divided into "high-high" and "low-low" configurations to assess the differential impact of CBBE. Under the configuration of high CBM and high CNP, high CNP can better evoke customers' perception of their past selves (personal nostalgia), foster a sense of intimacy (collective nostalgia) among members of a community with shared interests, and leverage personal and cultural associations [39]. These factors can influence the market segmentation of Chinese time-honored brand products, positively stimulate customers' sense of identity, and facilitate brand renaissance [40]. High CBM helps to attract customers, improve their cognition of the brand, improve their loyalty, increase the consumption times of the brand, and correspondingly improve their actual perceived value. The empirical results show that perceived quality and brand image cognition are positively influenced by the level of nostalgia and the unique needs of customers. High CNP can evoke CBM more than low CNP. Therefore, it can be inferred that the competitive advantage of time-honored brand equity in the higher state of CBM and CNP is obviously stronger than that in the lower state of CBM and CNP. Furthermore, relevant research also confirms that as the consistency between CBM and CNP increases from a low level to a high level, the CBBE of time-honored brands will improve in a positive direction. This implies that a high level of consistency between CBM and CNP is more beneficial for increasing CBBE compared to a low level of consistency. Therefore, hypothesis 2 is proposed:

H2: The combination of high levels of CBM and CNP is more conducive to CBBE than the combination of low levels of CBM and CNP when they are congruent or at similar levels in the context of Chinese time-honored brands.

# 2.3 Asymmetric effect in the case of inconsistency: The incongruence effect of CMB and CNP on CBBE

When the strengths of CBM and CNP are congruent or at similar levels, the combination of "high-low" and "low-high" should also be distinguished. In the previous hypothesis deduction, it was found that the inconsistent combination of CBM and CNP has a lesser effect on the promotion of CBBE compared to the consistent combination. However, it is important to note that the ideal binary consistency state is not commonly observed, and this inconsistency between CBM and CNP is more prevalent. Different combinations of intensity can still influence CBBE through "one dominant and one supplementary" form, mainly including "high CBM and low CNP" and "high CNP and high CBM." What kind of factors dominate and what kind of factors supplement need to be further explored?

Some studies have pointed out that, compared with CNP, CBM is the fundamental component of brand management. It is considered easier to implement and achieve success, particularly for Chinese time-honored brand enterprises. Brand memory can generate strong emotions and a positive intention to consume [41]. Moreover, CBM serves as the carrier and foundation of CNP, and the implementation of CNP requires the support of advanced CBM. Product identity, product characteristics, product quality, and customer experience are the lifeblood of time-honored brands. Brand recognition, packaging, communication, and environment, along with other brand-related

stimuli, can stimulate customers' subjective and internal reactions, including sensory, emotional, and cognitive responses [42]. The brand experience allows customers to have a heightened sensory experience, thereby enhancing their memory of the brand's characteristics. Brand knowledge is crucial in creating brand equity, and the value of knowledge experience is the outcome of customers acquiring brand knowledge. Brand knowledge is derived from the establishment of brand memory. For Chinese time-honored brand enterprises, the most effective measure is to establish brand recognition and loyalty, which is crucial for the growth of CBBE. The role of CBBE depends more on the role of CBM. Accordingly, hypothesis 3 is proposed:

H3: The combination of high levels of CBM and low levels of CNP is more conducive to CBBE than the combination of low levels of CBM and high levels of CNP when they are incongruent or at different levels in the context of Chinese time-honored brands.

Accordingly, the conceptual model of this study is shown in Figure 1.

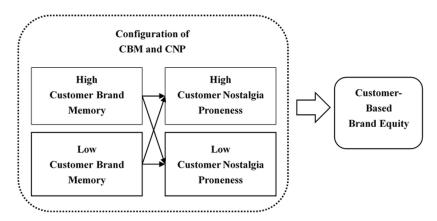


Fig. 1. Conceptual model

## 3 METHOD

#### 3.1 Sample and data collection

Due to the widespread use of well-established brands, this study utilizes a combination of online and offline data collection methods. Offline and online data collection are conducted simultaneously. The offline approach primarily involves establishing direct contact with customers at the physical stores of well-established brands in Beijing, Shanghai, Suzhou, Guangzhou, and other cities. This approach includes distributing questionnaires during the weekend when there is a high volume of foot traffic. Adopt the method of random sampling and collect information in person immediately to ensure the accuracy and effectiveness of data collection. Online research primarily utilizes Internet tools to distribute questionnaires to respondents and conduct interviews online. In this paper, the online questionnaire service website "questionnaire star" is selected for online data collection. The data collection process on this website is standardized, ensuring the authenticity and reliability of the data. As a result, it has become the preferred method for questionnaire collection in academic research in China.

There are 17 items to be measured in this study, and the number of samples should be greater than 170. On the whole, 250 questionnaires are expected to be sent out to ensure the authenticity and validity of the collected data. The data collection lasted

for one month, and 238 questionnaires were collected. Among these, 44 invalid questionnaires with missing selections and logic errors were eliminated, leaving 208 valid questionnaires. The effective questionnaire recovery rate was 87.39%. The number of samples meets the requirements for multiple regression analysis.

In terms of gender, 51.4% of the respondents were men, and 48.6% were women. In terms of age, the majority falls within the 31–40 age range, accounting for 42.8% of the total. Those under 20 years old make up 1.4%, while 21–30-year-olds represent 19.2%. Additionally, 29.3% fall between the ages of 41–60, and 7.2% are over 60 years old. On the one hand, it shows that customers aged 21–40 have a high level of recognition for time-honored brand products. On the other hand, because some questionnaire data is collected online, the samples in the database are customers familiar with the Internet online questionnaire service, so the overall age of the samples tends to be under 40 years old. In terms of education level, the majority of the sample consists of undergraduate students, accounting for 68.3%. In terms of income level, the majority of the sample falls within the range of 4001–6000 Yuan, accounting for 45.2%. In terms of purchasing experience, the majority of people choose to buy products "occasionally," accounting for 69.2%. This indicates that time-honored products still have a significant market share.

#### 3.2 Measures

The questionnaire primarily utilizes the self-report method and employs a Likert five-level scale to assess the respondents' level of identification with the items. Among them, "1" represents "strongly disagree" and "5" represents "strongly agree". Measurements are shown in Table 1.

**Customer-based brand equity.** There are two important methods to measure brand equity: financial and customer perspectives. Although the financial evaluation method may yield a more accurate brand valuation, the customer-based evaluation method is more suitable for marketing strategy management. This method can provide valuable customer insight, including attitude, loyalty, attachment, and perceived quality [43]. On the basis of the above research, this study proposes seven items to measure CBBE from three aspects: brand awareness, brand loyalty, and customer perceived value.

**Customer brand memory.** Most studies use brand recall and brand recognition to evaluate the brand memory of the costumer. Brand recall primarily examines whether customers remember the brand, while brand recognition assesses the ability of customers to recognize the brand when they are exposed to brand cues [44]. This study proposes 10 items to measure CBM from brand-identified memory, brand functional memory, and brand experiential memory.

**Customer nostalgia proneness.** Nostalgia proneness scale measures customers' feelings of nostalgia for past people, events and things. Through an in-depth investigation of the interviewees, the study identified 10 items that fully capture the nostalgic feelings of the participants. [45] developed the Chinese nostalgia tendency scale (CHINOS) based on empirical research. This scale divides nostalgia into three aspects: personal nostalgia, interpersonal nostalgia, and family nostalgia. [46] developed a scale to measure CNP when studying the relationship between customers' brand cognition and nostalgia proneness. Based on the scale provided above, this study proposes six items to measure CNP.

**Control variables.** Men and women have different attachments to the nostal-gic styles they experienced in their youth [35]. Previous studies have shown that age affects nostalgic product preference and consumption behavior [17]. Customer personality, income level, past experience, education, and other factors also have a

significant impact on customer brand preference [32]. Based on the above research, we use dummy variables to measure and control for the following factors: (1) gender, (2) age, (3) education, (4) income, and (5) purchasing experience.

**Table 1.** Measurements

Variables and Items	Factor Loading	Alpha	CR	AVE			
Customer Brand Memory [45]							
• I have a clear idea of the product category of these time-honored brands from China.	0.673 (.000)	0.843	0.92	0.58			
• When referring to the topic of China's time-honored brands, I can quickly think of the name of the brand.	0.823 (.000)						
When referring to the packaging of China's time-honored brands (including trademarks, patterns, etc.), I can quickly recall the brand's packaging.	0.829 (.000)						
• When referring to the packaging of China's time-honored brands (trademarks, patterns, etc.), I quickly associate it with the brand's functional quality.	0.652 (.000)						
• I have a clear understanding of the functional quality of these time-honored brands from China.	0.815 (.000)						
When referring to products with such an effect, I can quickly think of this brand.	0.607 (.000)						
When considering the cultural characteristics of this brand, it quickly comes to mind.	0.840 (.000)						
• When provided with historical and cultural information, I can quickly discern whether it pertains to the brand's history and culture.	0.824 (.000)						
Customer Nostalgia Proneness [46]							
This brand evokes memories of a specific historical era.	0.818 (.000)	0.752 0.846		0.58			
This brand reminds me of myself or others when I was young or in my childhood.	0.710 (.000)						
This brand evokes nostalgic memories of the past in the present.	0.737 (.000)						
These brand products make me feel a little nostalgic.	0.775 (.000)						
Customer-based Brand equity [47] [48]							
The brand is more well-known than its peers.	0.628 (.000)	0.755	0.84	0.51			
I can easily distinguish this brand from other brands.	0.756 (.000)						
I would like to recommend the brand to my friends.	0.759 (.000)						
Using this brand's product aligns with my personal goals.	0.660 (.000)						
• The quality of this brand is better than that of other similar products.	0.769 (.000)						

 $Notes: \chi^2/d \ f = 2.796, \ NFI = 0.90, \ CFI = 0.932, \ IFI = 0.933, \ TLI = 0.937, \ RMSEA = 0.028; \ p-values are reported in parentheses.$ 

# 4 ANALYSES AND RESULTS

## 4.1 Reliability and validity

As shown in Table 1, Cronbach's  $\alpha$  and composite reliability (CRs) of all variable structures are higher than the generally recommended threshold of 0.7.

The validity was tested through exploratory factor analysis. Firstly, the KMO values of CBM, CNP, and CBBE are 0.796, 0.759, and 0.744, respectively. These values are higher than the recommended threshold of 0.7, indicating that the sample size is sufficient and surpasses the minimum requirement for factor analysis. Additionally, the  $\chi^2$  values of Bartlett's spherical test were 668.593, 192.068, and 258.531, respectively. These values were found to be significant at the level of P < 0.001, suggesting that each item is correlated and suitable for factor analysis.

#### 4.2 Common method variance

According to Harman's one-factor test, if there are significant common method biases, a single factor will explain the majority of the variance of the model. The results of the factor analysis showed that the four factors with characteristic roots greater than 1 explained 65.077% of the variance. The percentage of variance explained by each factor was 38.836%, 11.272%, 10.338%, and 6.631%, respectively. There is no general factor that can account for most of the variance, so it can be considered that the problem of common method biases will not have a significant impact on this study.

# 4.3 Hypothesis testing results

We utilized polynomial regression and response surface methodology to test Hypotheses 1–3. Specifically, the five polynomial terms–b1 CBM, b2 CNP, b3 CBM $^2$ , b4 CBM  $\times$  CNP, and b5 CNP $^2$ -were regressed on the control variables.

To facilitate the interpretation of results, we mean-centered CBM and CNP before calculating second-order terms. Then, we use the regression coefficients to plot the three-dimensional response surface [47]. CBM (X) and CNP (Y) were plotted on the horizontal axes perpendicular to each other, while CBBE was plotted on the vertical axis.

The regression results are presented in Table 2. The response surfaces are shown in Figure 2. The CBM and CNP scores are depicted in the X-Y plane in Figure 2, while CBBE is represented on the vertical Z-axis. The line of fit, where X = Y, is the line that extends from the left to the right of the graph. It can be seen that CNP has a significant positive effect on customer-based brand equity.

A congruence effect was predicted in Hypothesis 1. That is, CBBE increases when CBM and CNP increase while remaining aligned (i.e., when the degree of CBM and CNP is the same). The response surface of this polynomial regression is shown in Figure 2. The inverted U-shape in Figure 2 shows that CBBE is higher when CBM and CNP are symmetrical. These results support Hypothesis 1 by establishing a congruence effect.

**Variables** Model1 Model2 Model3 Control variables b (se) b (se) b (se) Gender -0.079(0.069)0.057\*\* (0.028) Age 0.157\*\*\* (0.054) Education Income 0.048 (0.030) 0.239\*\*\* (0.051) Purchasing experience Polynomial terms b1 CBM (X) 0.022 (0.068) 0.093 (0.178) b2 CNP (Y) 0.654\*\*\* (0.069) 0.488 (0.204) b3 CBM2 -0.429\*\*\* (0.129)  $b4 CBM \times CNP$ 0.905\*\*\* (0.212) b5 CNP2 -0.402\*\*\* (0.140)

 $\textbf{Table 2.} \ \textbf{Polynomial regression analyses results}$ 

(Continued)

Table 2. Polynomial regression analyses results (Continued)

Variables	Model1	Model2	Model3
Response surface features			
Congruence line $(X = Y)$			
Slope (a1 = b1 + b2)			0.58*** (0.07)
Curvature (a2 = b3 + b4 + b5)			0.07 (0.06)
Incongruence line $(X = -Y)$			
Slope (a3 = b1 $-$ b2)			-0.40*** (0.38)
Curvature ( $a4 = b3 - b4 + b5$ )			-1.74*** (0.42)
Model fit			
F-value	9.403***	107.47***	50.624***
Adj-R <sup>2</sup>	0.189	0.512	0.545
Δ Adj-R <sup>2</sup>			0.556***
Observation	208	208	208

*Notes*: b unstandardized regression coefficient, se standard error. Significance depends in part on standard errors. \*, \*\*\*, and \*\*\* are significant at the significance levels of 0.1, 0.05, and 0.01 respectively. Customer-brand memory (CBM), customer nostalgia proneness (CNP), customer brand equity (CBBE).

Hypothesis 2 predicts the difference in effect of improving CBBE under the consistency condition of high levels of CBM and high levels of CNP. In Figure 2, the highest level of CBBE is at the back corner of the graph, where CBM and CNP are both high, and the lowest at the front of the graph, where CBM and CNP are both low. This finding indicates that brand equity can be increased through an additive model, where the combination of high levels of CBM and CNP. These results support Hypothesis 2 in establishing the differential effect of congruence.

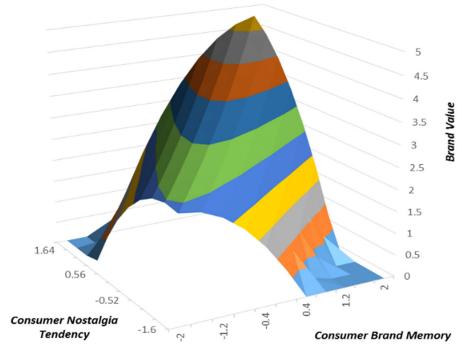


Fig. 2. Congruence and incongruence effects of CBM and CNP

Hypothesis 3 predicted an asymmetrical incongruence effect, suggesting that CBBE would be higher when CBM is greater than CNP, compared to when CNP is higher than CBM. The response surface in Figure 2 also shows that CBBE was higher in the condition of high CBM and low CNP incongruence than in the condition of low CBM and high CNP incongruence, thus supporting Hypothesis 3.

### 5 CONCLUSION

This study expands our understanding of the causes of the brand equity of Chinese time-honored brands. Previous studies have found that CNP has a significant impact on CBBE from a unilateral perspective. However, this perspective fails to explain the reasons for CBBE differentiation and overlooks the influence of multiple composite factors. Therefore, this study introduces the polynomial regression response surface method, which integrates these different factors into a specific CBBE framework and quantifies these dimensions. From the perspective of their consistency, differences under consistency conditions, and asymmetry under inconsistency, this paper studies the impact of CBM and CNP on CBBE and answers the question "How customers make product purchase decisions based on brand memory and nostalgia proneness." It is beneficial to conduct in-depth research on brand equity, as it helps expand our understanding of the factors that contribute to brand equity and investigate the impact of different combinations of two elements. It is conducive to the rational allocation of resources and achieving the maximum benefits of CBM and CNP. The results show that CBBE is the highest when CBM is consistent with CNP. When CBM and CNP are aligned, a higher level of CNP is more likely to enhance CBBE compared to CBM. When CBM and CNP are inconsistent, a higher CBM is more likely to promote CBBE than CNP. Besides, this study enriches our understanding of the effects of CNP and CBM. This study extends the role of CBM and CNP to CBBE and explores the impact of consistency on CBBE. By identifying the optimal allocation mode of these two elements, this study challenges the simplistic conclusion that "CBM and CNP are either consistent or inconsistent." It provides a comprehensive understanding of the role of the memory-nostalgia relationship in the development of brand equity for Chinese time-honored brand enterprises. This study also introduces a new paradigm and research ideas for future research.

Time-honored brand enterprises can consider brand positioning from the four quadrant dimensions of CBM and CNP and conduct a self-examination to enhance CBBE. When enterprises are faced with two forms of inconsistency, the best choice is to strengthen the "weak points" by moving closer to consistency and transitioning from inconsistency to consistency. When a time-honored brand enterprise is in the high CBM and high CNP quadrants, it should focus on consolidating both CBM and CNP. This can be achieved by deepening CBM and stimulating CNP simultaneously. When operating in the quadrant of high CNP and low CBM or high CBM and low CNP, established brand enterprises should not solely concentrate on one aspect of CBM or CNP. Instead, they need to develop in all areas simultaneously, aiming to minimize the gap so that they can achieve a synergistic effect where "1+1>2". Conversely, when operating in the quadrant of low CBM and low CNP, the most effective strategy is to enhance both aspects.

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#### 7 AUTHORS

**Wenyi Zhang** is an undergraduate student at Business School of University of Shanghai for Science and Technology (USST), in Shanghai, China. Her research mainly focuses on marketing (E-mail: gezelligzwy@163.com).

**Ying Tian** is a Lecture at Business School of University of Shanghai for Science and Technology (USST), in Shanghai, China. She works also as a part-time researcher at School of Intelligent Emergency Management of University of Shanghai for Science and Technology (USST). Her research mainly focuses on marketing and innovation (E-mail: ty1992@usst.edu.cn).