

Colour and Furniture Brand Identity: Exploring the Strategic Value of Brand's Iconic Colour

Tingli Tang* and Yushu Chen

This research explores the intersection of colour marketing and brand identity, focusing on the role of iconic colour in furniture branding. A comprehensive framework for crafting a furniture brand's iconic colour was developed, and structural equation modeling was used to analyze data from three offline experiments with a total sample size of 111 subjects. The findings highlight the crucial influence of iconic colour on brand identity, revealing that both the referential meaning of hue and gender significantly impact brand perception. Contrary to conventional beliefs, variations in saturation and value are not solely detrimental; they can also enrich brand identity. The iconic colour serves as a cornerstone for ensuring consistency across internal and external brand dimensions, solidifying the brand's core identifiers, and resonating with consumers' minds. This research underscores the pivotal role of iconic colour in forging a coherent and distinct brand identity, offering valuable insights for marketers and brand strategists in the furniture industry and beyond.

DOI: 10.15376/biores.19.2.2763-2781

Keywords: Colour marketing; Brand marketing; Brand identity; Brand co-creation; Furniture brand

Contact information: College of Furnishings and Industrial Design, Nanjing Forestry University, Nanjing 210037, China; *Corresponding author: Tangtingli777@163.com

INTRODUCTION

In the current competitive marketplace, colour plays a crucial role in shaping brand identity and influencing consumer perceptions. It serves not just as an aesthetic element but also as a trigger for emotions and purchase decisions (Conejo and Wooliscroft 2015; Keller 2016; Bagozzi *et al.* 2021). While colour marketing has become an integral component of branding strategies over the past two decades (Gorn *et al.* 2004; Abril *et al.* 2009; Chan and Park 2015; Bagozzi *et al.* 2021; Padela *et al.* 2022), its specific impact on brand building, particularly in industries where visual appeal is paramount such as the furniture sector, has received less attention.

This study aims to deepen the understanding of colour marketing strategies within the furniture industry, focusing on how colour influences brand identity and consumer behavior. It explores the concept of a brand's iconic colour, which is defined as a distinct colour associated with a brand, playing a crucial role in brand recognition, market differentiation, and forging emotional connections. The attributes of colour—hue (the appearance or character of a colour), saturation (the intensity or purity of a colour), and value (the lightness or darkness of a colour)—are essential in enhancing a brand's image and reputation. Examples illustrating these three terms are shown in Fig. 1. For instance, the provocative red of the Mae West Lips Sofa by the Spanish brand BD Barcelona exemplifies how a brand's iconic colour can become emblematic of a brand's artistry, opulence, innovation, and uniqueness, thereby significantly contributing to the brand's

recognition and differentiation in the market. This investigation offers insights for brands to align with consumer expectations and market dynamics, emphasizing the strategic importance of a brand's iconic colour in the competitive landscape.

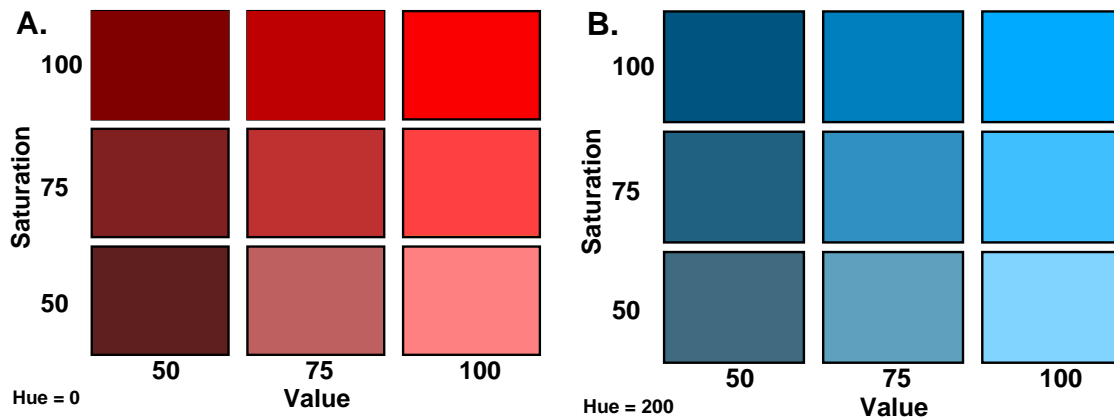


Fig. 1. Examples of different saturation (vertical axis) and value (horizontal axis) of colors for two arbitrarily selected hues (A = 0; B = 200) in the HSV colour system

Literature reviews have underscored the significance of colour in brand identity, highlighting its role in conveying brand values and differentiating brands in the marketplace (Urde 2013; Chiang *et al.* 2020). Despite the acknowledged importance of colour, research on the specific effects of a brand's iconic colour within the furniture industry remains sparse (Conejo and Wooliscroft 2015; Veloutsou 2023). This paper seeks to bridge this gap by investigating the influence of colour attributes (hue, saturation, and value) on brand identity and consumer perception.

In summary, this research contributes to the branding literature by providing a focused analysis of the strategic use of colour in the furniture industry. Guided by the seminal works of previous researchers, the study examines the role of a brand's iconic colour with the aim of offering actionable insights for enhancing brand identity and positioning in the market.

Materials Colour: A Design Element of Brand Identity

A strong brand identity is crucial for establishing a significant market presence. Brands use symbols to communicate their value and stand out (Veloutsou and Delgado-Ballester 2018). These symbols should showcase the brand's unique features to connect with consumers effectively (Urde 2013). Brand identity is central to marketing, bridging internal brand meaning and external perception, including brand image and reputation (Iglesias *et al.* 2023). The design of brand identity must align with brand goals, reflecting the brand's core essence over time (Foroudi *et al.* 2017). Unique design elements are vital for maintaining a competitive edge (Bravo *et al.* 2017).

Colour is a powerful aspect of brand identity, significantly affecting visual communication (Alves *et al.* 2020; Song *et al.* 2022). It can influence consumer perception and memory, playing a pivotal role in brand recognition. Companies use colour strategically in marketing to drive growth and enhance brand visibility (Singh 2006). For instance, FedEx uses orange and purple to strengthen its brand identity, showing how controlled colour use can positively impact consumer attitudes. Effective use of colour is essential for companies looking to gain a competitive advantage in the market.

The Influence of Brand's Iconic Colour on Brand Identity

Brand identity is always associated with human visual, behavioral and emotion. Colour can serve as a non-verbal key cue to convey identity signals. Consumers tend to build brand associations through colour (Labrecque and Milne 2012). These associations are symbolic, whose signals come from objective substances in the environment and the subjective experience of the consumer. They can trigger consumers' mental representations, which influence the outcome of market action (intention and behavior) (Jeon and Baeck 2016). The whole process is also related to consumers' self-identity and self-expression, so brand identity is an expression of an individual's understanding of the brand meaning. Through colours, people can show who they are and build their own identity, linking brand associations directly to brand identity.

An iconic colour (brand's iconic colour) can help consumers recognize the most important brand attributes, which is useful for strengthening brand associations and achieving a distinct brand identity. A strong brand must have a clear and rich brand identity (Chiang *et al.* 2020). This is because brand associations are formed by an instant, unique and differentiated brand identity, especially when consumers are exposed to the brand's iconic colours that will help to stimulate individuality. A clear brand identity is key to ensuring consistency of brand meaning both internal and external. Rich identity signals that are aligned with the brand's touchpoints will help to activate the brand meaning (De Chernatony and Segal-Horn 2001).

Campaigns and Positioning for Brand Identity

Brands offer perceptions in the minds of consumers (Ali and Wahyuni 2018). Consumers receive and process company-controlled identity signals, leading to the formation of mental images and perceptions related to the brand (Buhalis 2022). Over time, these perceptions develop into external brand meanings (brand image and brand reputation). External brand meaning is abstracted and refined by consumers to form consumers' brand mindset, which is composed of rational (brand assessment) and affective (brand feelings and brand relationships) elements (Seric *et al.* 2017). Abstract and fuzzy experience imagery can be extracted from the semantic layer to narrow the cognitive gap between companies and consumers (Veloutsou 2023). Brand mindset is associated with market intention and behavior. When the brand identity matches with the consumer's self-consciousness, brand resonance occurs and positive attitudes, sensations, and feelings are formed. If the brand image colour can convey a unified and clear brand imagery, it will be conducive to brand marketing communications.

Brand identity exists as an essential attribute of a brand (brand positioning). A good brand identity clearly expresses what the brand is and what the brand does. Brands need to have a deep understanding of what they stand for. The core of the brand is hidden under the product claims (tangible products and intangible services) to find out what unconscious behavior they come from. Brands should refine their brand imagery so that consumers actively and substantively make valid assessments of the brand meaning. This share of attitude is a cognitive expression of brand characteristics (Seric *et al.* 2017). Specifically, the process of brand positioning can include focusing on product scope, grasping product personality, exploring product value and understanding experience imagery. Maintaining a stable relationship between the core brand identity and brand positioning is essential.

As reiterated throughout literature reviews, colour plays a pivotal role in brand identity, guiding its formation, evolution, and market perception (Labrecque and Milne 2012; Baxter *et al.* 2018; Elliot 2019). The furniture industry presents a unique landscape

where both function and aesthetic hold equal sway in consumers' purchase decisions. Thus, the use of colour here is not merely about differentiation but also about eliciting specific emotional and psychological responses aligned with the brand's desired image. Although colour has been used as a brand identity element in brand building, little research has discussed the iconic colour of a brand. Certain researchers have concentrated on brand logos from the perspective of brand personality, emphasizing that brand logos are one of the key contributions to the perception of brand associations and brand meaning (De Chernatony and Riley 1999; Kotler and Keller 2003). However, there is a lack of research on attributes other than hue. Previous work has suggested that colour mobilizes consumers' experience imagery and thus influences their intention and behavior, but it has not considered the mediating role of consumers' characteristics. This paper focuses on the brand logo as the object of study and explores the influence of colour elements of brand's iconic colour and consumer characteristics on the brand identity of a furniture brand.

Conceptual Framework and Research Hypotheses

This study introduces a conceptual framework for exploring the impact of a furniture brand's iconic colour on brand identity, drawing upon the basic communication system model comprising five elements: source, transmitter, channel, receiver, and destination (Shannon 1948). This model, previously applied in product design research (Mono 1997), is adapted to develop a brand identity design framework centered around the iconic colour of a furniture brand, facilitating an exploratory investigation into the feedback process of brand identity design influenced by the iconic colour. This process involves organizing specific building blocks and identifying design factors and elements related to colour (Fig. 2).

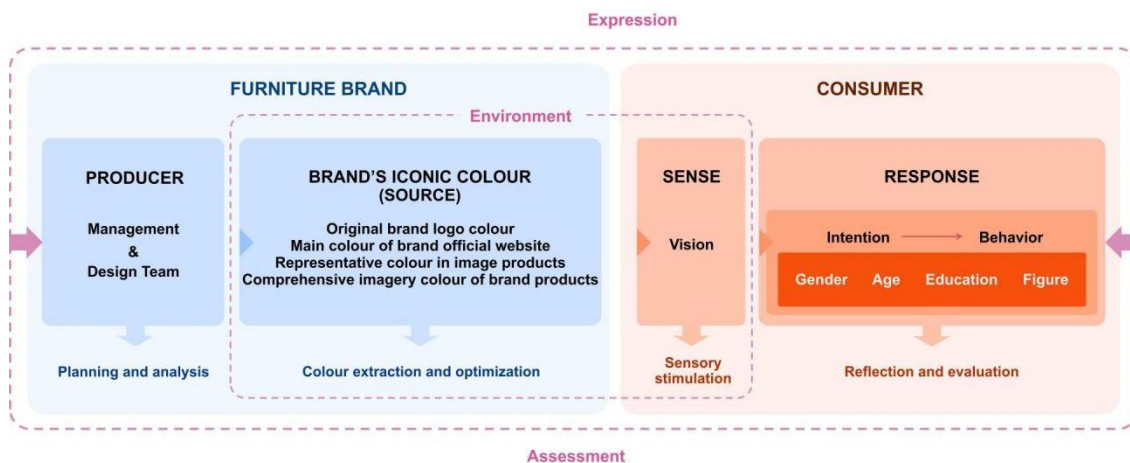


Fig. 2. The brand identity design framework for the furniture brand's iconic colour

The framework is structured around two primary components: the 'furniture brand' and the 'consumer,' creating a feedback loop through the exchange of signals (assessment and expression). The source of the design includes the brand management and design team, responsible for planning and analyzing the brand from an internal perspective, focusing on brand values. The iconic colour of the furniture brand is derived and optimized from four primary sources and integrated into new brand products as a signal primarily processed by the consumer's visual perception, resulting in sensory stimulation. This interaction typically occurs within a physical environment.

Consumers interpret and respond to these signals through internal processes of reflection and evaluation. Traditional consumer behavior models suggest that responses start with intention formation, leading to actual behavior (Bloch 1995). The interaction with the brand's iconic colour aids consumers in developing an understanding of the brand, which is influenced by personal characteristics such as gender, age, education, and body type. Notably, research has shown distinct gender differences in colour preferences and perceptions, with certain colours viewed as more 'masculine' or 'feminine' due to societal and cultural influences (Ostrom *et al.* 2015; Huang and Dev 2020; Padela *et al.* 2022). This distinction underscores the importance of considering gender when evaluating the impact of a brand's iconic colour on its identity. Additionally, individuals may choose colours based on their ability to highlight strengths or mask weaknesses, affecting their colour preferences.

Most studies on colour attributes utilize colour spaces such as HSV, HSI, RGB, CMYK, HSL, *etc.* (Ibraheem *et al.* 2012). This research adopts the HSV colour space (hue, saturation, and value), which aligns closely with human colour perception (Smith 1978). Saturation measures the colour's vividness, while value indicates its brightness and clarity. Based on the proposed conceptual framework, the following hypotheses are formulated:

- H1: The comprehensive imagery colour of the brand's products, representing the brand's iconic colour, more accurately conveys the brand image.
- H2a: Hue-related imagery of the brand's iconic colour positively affects brand identity.
- H2b: Among consumer characteristics, the gender factor has the most significant impact on the assessment attitude towards the brand's iconic colour.
- H3: Changes in the saturation and value of the brand's iconic colour negatively affect brand identity.

EXPERIMENTAL

Research Methodology

To explore the nuanced relationship between brand signals and consumer behavior, this study employs a semantic assessment approach, bridging perceptual experiences with tangible brand attributes. Semantic Differential and Fuzzy Evaluation methods were utilized to conduct a survey that collects data on participant characteristics and their perceptions of the brand. The experimental phase is structured as follows:

- Imagery Semantic Evaluation Experiment: This initial phase identifies valid sources of the brand's iconic colour, selecting the specific shade for further analysis.
- Imagery Semantic Matching Experiment: Investigates how the hue of the brand's iconic colour and consumer characteristics (*e.g.*, gender, age) influence brand identity.
- Imagery Semantic Judgment Experiment: Examines the impact of modifications in the iconic colour's saturation and value on brand identity.

Before experimentation, subjects underwent visual testing to ensure normal visual sensory capabilities, excluding any individuals with colour vision deficiencies. Colour

extraction from sample images utilized the pipette tool in Adobe Photoshop CC 2018, with RGB values converted to the HSV colour space to facilitate a more intuitive representation of colour characteristics. The conversion formulas from RGB colour space to HSV colour space are as shown in Eq. 1. Note that the equation was first proposed by Alvy Ray Smith in 1978.

$$\begin{aligned}
 V &= \max (R, G, B) \\
 S &= \begin{cases} \frac{V - \min (R, G, B)}{V} & , \text{if } V \neq 0 \\ 0 & \end{cases} \\
 H &= \begin{cases} 60(G - B)/(V - \min(R, G, B)) & , \text{if } V = R \\ 120 + 60(B - R)/(V - \min(R, G, B)) & , \text{if } V = G \\ 240 + 60(R - B)/(V - \min(R, G, B)) & , \text{if } V = B \\ 0 & , \text{if } R = G = B \end{cases}
 \end{aligned}
 \tag{1}$$

Research Preparation

Creation of the Iconic Colour Sample Set for Brand B

Brand B, renowned for its innovative designs and global trend-setting influence in modern interior decoration, has been selected for this study as the epitome of modern aesthetics and functionality. High-resolution product images were sourced from the brand’s official website, processed in Photoshop to isolate product colours from their backgrounds.

The iconic colour sample set was derived from four sources (Fig. 3):

- Source A: The brand’s logo colour, obtained directly from the official website, provided a monochromatic baseline.
- Source B: The main colour of the brand’s website, identified as the central visual theme.
- Source C: Colours from image products, selected for their brand differentiation qualities without a primary focus on sales. The Delphi method was used to choose five representative colours from a pool of 420.
- Source D: A comprehensive analysis of product imagery colours using Matlab for RGB ratio recognition, resulting in 751 colour samples. These were refined using the k-means clustering algorithm in SPSS (26.0) to ensure representativeness.





Source	Sample 1			Sample 2			Sample 3			Sample 4			Sample 5			Graphic
	H	S	V	H	S	V	H	S	V	H	S	V	H	S	V	
Original brand logo colour	0	0	0	—	—	—	—	—	—	—	—	—	—	—	—	
Main colour of brand official website	193	8	42	—	—	—	—	—	—	—	—	—	—	—	—	
Representative colour in image products	277	17	30	342	65	60	10	8	58	29	66	75	202	29	36	
Comprehensive image colour of brand products	226	28	18	174	55	47	6	88	78	242	53	56	25	69	71	

Fig. 3. Brand’s iconic colour sample set

Collection of imagery semantic words for brand image

Semantic words capturing the visual perception of the furniture brand's image were gathered from furniture exhibitions, websites, and other sources. After a semantic screening test involving 26 school students familiar with Brand B, 30 imagery semantic words were selected to describe the brand's image. These words were then clustered by 22 subjects based on lexical similarity, using a 30×30 matrix for analysis in SPSS. The resultant imagery semantic labels—elegant, comfortable, creative, romantic, and modern—reflect the comprehensive brand image of Brand B (Fig. 4).

Group 1	Group 2	Group 3	Group 4	Group 5
elegant	comfortable	creative	romantic	modern
generous	qualitative	chic	perky	fashionable
aesthetic	cozy	individual	flexible	minimalist
sophisticated	pleasant	unique	gorgeous	useful
luxurious	smooth	full	vivid	harmonious
high-end	—	special	bright	functional
particular	—	—	—	—

Fig. 4. Classification of imagery semantics words

RESULTS AND DISCUSSION

Experiment 1

Sample preparation

The experimental samples were derived from the iconic colour sample set of brand B. The colour data were superimposed on the brand logo one by one in Photoshop to create the samples.

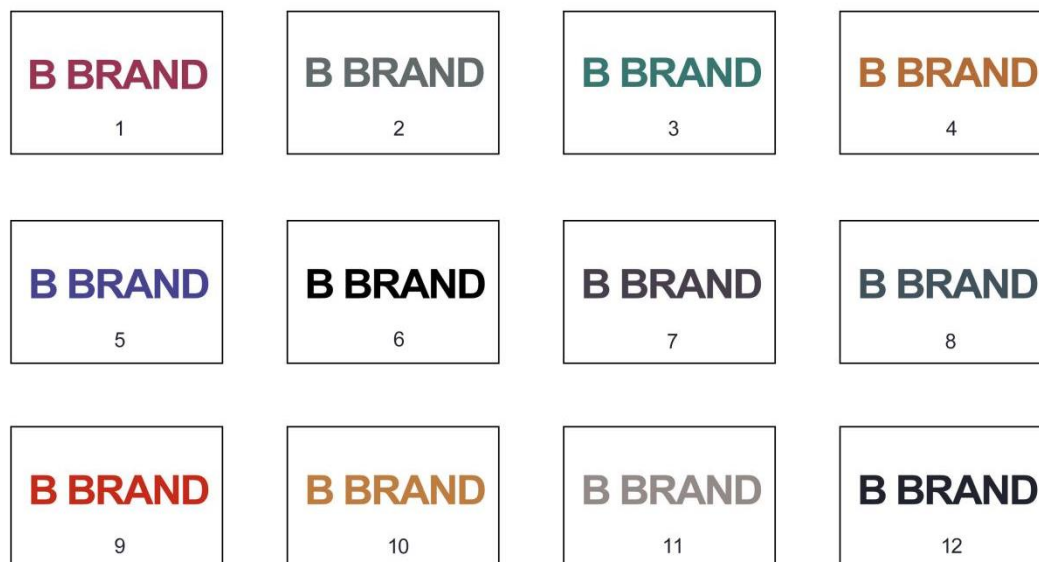


Fig. 5. Sample stimuli for Experiment 1

The background canvas size (2100px×1500px) and colour (white) of the samples were standardized. The samples were disrupted, randomized in order and coded (Fig. 5). A total of 20 subjects with a professional background in furnishings and industrial design were invited to participate in the experiment. Subjects ranged in age from 22 to 25 years ($M=23.65$, $SD=0.988$) and there were 10 males and 10 females.

Experimental design and procedure

The experiment used a 5-point scale assessment questionnaire, designed with the Semantic Differential Method. This method uses five imagery semantic words as measurement scales. A higher score indicates a closer match between the subjects' perception of the sample and the imagery semantics of the words. To assess brand familiarity with Brand B, a questionnaire incorporating three items from Kent and Allen's brand familiarity scale was used, with scales ranging from unfamiliar to familiar, not knowledgeable to knowledgeable, and inexperienced to experienced. The display device chosen was the Retina screen of a MacBook Pro, positioned to ensure the screen's center was at the participants' eye level, at a visual distance of approximately 0.9 m.

Data results and analysis

A total of 20 valid sample data were obtained, and the evaluation result data of each subject were statistically averaged. Subjects were familiar with Brand B ($M=3.20$, $SD=0.951$), so the results of the subjects' evaluation of brand perception were significant. A weighted average of the sample scores from each brand' iconic colour source was solved. The results show that the original brand logo colour contained sample 6, with a mean score of 15.60; the main colour of the brand's official website contained sample 2, with a mean score of 12.00; the representative colours in image products contained sample 1, 7, 8, 10, and 11, with a mean score of 13.87; and the comprehensive imagery colours of brand products contained sample 3, 4, 5, 9, and 12, with a mean score of 15.77. Source D had the highest mean score, indicating that the colours taken from the comprehensive imagery of Brand B products matched the imagery semantic words of brand B image to the highest degree. That is to say, the comprehensive imagery colours of brand B products convey the brand image of Brand B more accurately than the colours from other sources. A prime example is the iconic Tiffany Blue, which is extensively used across Tiffany & Co.'s range of products, including jewelry, home accessories, and perfumes. This distinct colour not only reinforces the brand's identity but also exemplifies the strategic application of an iconic colour in enhancing brand recognition and consumer connection. Hypothesis 1 is, therefore, supported.

The mean score of the imagery semantic evaluation of each brand's iconic colour sample ($M_{\text{sample1}}=17$, $M_{\text{sample2}}=12$, $M_{\text{sample3}}=16$, $M_{\text{sample4}}=15.25$, $M_{\text{sample5}}=17.5$, $M_{\text{sample6}}=15.6$, $M_{\text{sample7}}=12.5$, $M_{\text{sample8}}=14.6$, $M_{\text{sample9}}=16.6$, $M_{\text{sample10}}=11$, $M_{\text{sample11}}=14.25$, $M_{\text{sample12}}=13.5$) were analysed. Sample 5 has the highest mean score, which indicates that sample 5 is most consistent with B's brand image compared to other samples; sample 10 has the lowest mean score, which indicates that this sample is the least consistent with B's brand image. In addition, sample 6, which is taken from the original logo of Brand B, has a higher mean score and ranks fifth among the total samples. Specifically, the HSV of sample 6 matches black, which is a powerful and inclusive colour. However, black is an achromatic colour and does not have any hue. Comparing sample 1, 3, 5, and 9, the perceived dimensions of brand identity changed when the logo had colour. Especially when the colour and the match with the words are higher, the hue plays an important role in it.

Sample 5, the comprehensive imagery colour derived from the brand's products, is considered to be the most consistent with B's brand image compared to the other samples. That is, the sample most accurately conveys the brand image. Therefore, sample 5 was chosen as the iconic colour of Brand B for this research.

Experiment 2

Sample preparation

Experiment 2 applied the independent sample t-test was applied to analyse the difference between the brand's iconic colour and common colours in the perception of brand image to test H2a. The influence of consumers' characteristics on the assessment attitude of the brand's iconic colour was explored to test H2b.

It has been proposed that esthetic stimuli have the potential to mobilize and form people's perceptions through embodied meaning and referential meaning (Zeltner 1975). This experiment is concerned with the relationship between colour design in brand identity and the consumer's brand mindset, so the referential meaning of colour was emphasized (Crowley 1993). Referential meaning relies on the network of associations that people make when they are exposed to esthetic stimuli. The formation and activation of colour associations can be understood using models of semantic memory (Bower 1981), which inspired the research methodology of this experiment.

Based on the results of Experiment 1, the brand's iconic colour in Experiment 2 was selected as sample 5 (H, S, V=242, 53, 56) in Experiment 1. Experiment 2 was conducted under the same experimental environment and equipment conditions as Experiment 1. A total of 5 males and 5 females in each of the four age groups of 20-29, 30-39, 40-49 and 50-59 were invited to the experiment (N=40, M=39.45, SD=11.361).

Experimental design and procedure

The human eye can perceive a range of light influenced by the atmosphere, resulting in six common colours: red (H, S, V=0, 100, 100), orange (H, S, V=30, 100, 100), yellow (H, S, V=60, 100, 100), green (H, S, V=120, 100, 100), blue (H, S, V=240, 100, 100), and violet (H, S, V=270, 100, 100). The colour data of the selected brand's iconic colour and common colours were superimposed on the brand logo one by one in Photoshop to create the samples. The background canvas size and colour of the samples were standardized. The samples were disrupted, randomized in order and coded (Fig. 6). Subjects still used a 5-point scale to match picture samples with imagery semantic words.

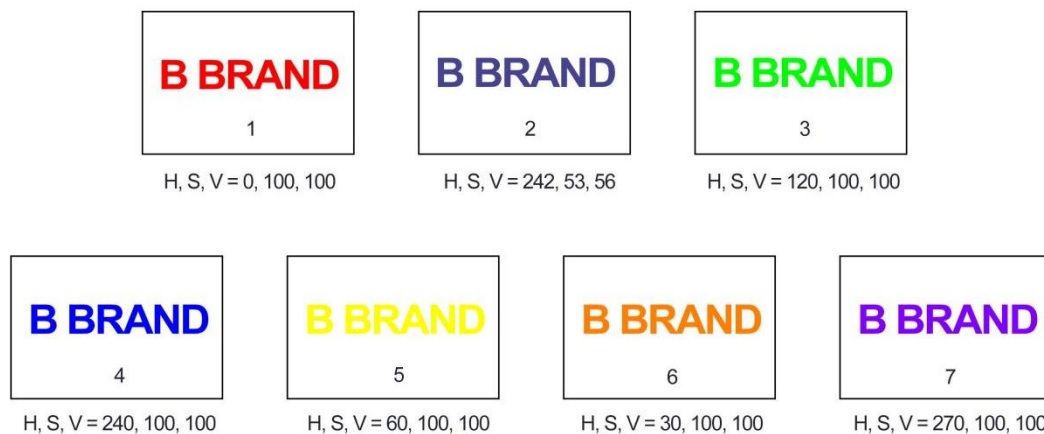


Fig. 6. Sample stimuli for Experiment 2

Before the start of the experiment, researchers collected information on subjects' characteristics (gender, age, education, and figure), as well as brand familiarity and colour sample favourability. Subjects were less familiar with Brand B ($M=2.28$, $SD=1.154$). The experiment measured the subjects' figures by classifying them into four categories: thin, normal, fat, and overweight through the body mass index (BMI), which is equal to weight (kg) divided by the square of height (m). Concerning the Chinese standard by the National Health Planning Commission, adult weight status is classified as thin ($BMI < 18.5$), normal ($18.5 \leq BMI \leq 23.9$), overweight ($24 \leq BMI \leq 27.9$), and obese ($BMI \geq 28$). In this study, no subjects were obese, with BMIs ranging from 14.9 to 26.

Data results and analysis

A total of 40 valid sample data were obtained from the experiment. Independent samples t-tests were conducted on the results of matching the brand's iconic colour (Sample 2) with the imagery semantic words of each common colour, respectively. Total scores corresponding to the five dimensions were used as the test variables, and the colour samples were used as the grouping variables for two-by-two analyses, as captured in Table 1. In the group normalcy test, the samples as a whole obey the normal distribution ($p > 0.05$).

Table 1. Results of Independent Samples T-Tests

	Colour Sample	Mean	Standard Deviation	Levene Variance Equality Test		Independent-Samples T Test		
				F	P	t	df	Sig. (2-tailed)
Total scores of imagery semantic matching	1-red	129	6.745	8.308	0.02	-3.101	5.120	0.026
	3-green	126.8	6.140	6.204	0.037	-4.103	5.339	0.008
	4-blue	139.2	2.168	0.435	0.528	0.134	8	0.897
	5-yellow	128.8	8.044	2.859	0.129	-2.703	8	0.027
	6-orange	132.8	5.215	3.301	0.107	-2.388	8	0.044
	7-violet	135	10.296	10.611	0.012	-0.843	4.489	0.442

In the independent samples t-tests, colour sample 1 ($M_{\text{sample1}}=129$, $SD=6.745$, $t=-3.101$, $p=0.026 < 0.05$), colour sample 3 ($M_{\text{sample3}}=126.8$, $SD=6.140$, $t=-4.103$, $p=0.008 < 0.05$), colour sample 5 ($M_{\text{sample5}}=128.8$, $SD=8.044$, $t=-2.703$, $p=0.027 < 0.05$), and colour sample 6 ($M_{\text{sample6}}=132.8$, $SD=5.215$, $t=-2.388$, $p=0.044 < 0.05$) all show significant differences from colour sample 2 ($M_{\text{sample2}}=139$, $SD=2.550$). There is no statistically significant difference between colour sample 4 ($M_{\text{sample4}}=139.2$, $SD=2.168$, $t=0.134$, $p=0.897 > 0.05$), colour sample 7 ($M_{\text{sample7}}=135$, $SD=10.296$, $t=-0.843$, $p=0.442 > 0.05$) and colour sample 2. Therefore, it is not yet statistically possible to conclude that there is a statistically significant difference between colour sample 4, colour sample 7 and colour sample 2 in terms of the assessment of imagery semantics. Combining the mean values with the H-values of the colour samples, the more similar the colour samples are in terms of hue to the brand's iconic colour, the higher the degree of conformity to the imagery semantic words, and the higher the corresponding assessment scores. As shown by the brand familiarity, the brand's iconic colour selected in the experiment was a brand-new symbol for the subjects. No brand association has yet been formed in their memory, and the resulting perception is mainly based on activated association triggered by the referential meaning of the colour (sample 4). These results are largely dependent on the familiar cue of blue, which is why the mean score for the assessment of sample 4 is higher than that of the brand's iconic colour. Thus, H2a is supported by the validation.

Gender, age, education, figure, brand familiarity and favourability of the common colour sample were used as independent variables and favourability of the brand's iconic colour was used as the dependent variable for the stepwise regression analysis, as captured in Table 2. After the automatic test of the regression model, the explanatory variables including age, brand familiarity, favourability_{sample1}, favourability_{sample3}, favourability_{sample5}, and favourability_{sample7} all have insignificant linear relationships with the explained variables, so these variables should not be kept in the regression equation. In the end, the remaining five variables, gender, education, figure, favourability_{sample4}, and favourability_{sample6}, were kept in the regression equation. Since there are multiple explanatory variables in this equation, the coefficient of determination concerning Adjusted R² was chosen. The regression equation explains 51.4% of the variation in preference for the brand's iconic colour (Adjusted R²=0.514). The regression model passed the F-test (F=9.233, p=0.000<0.05), indicating that the model is valid. All of the VIF values in the model can be found to be less than 5, which means that there is no multicollinearity. Moreover, the D-W value around 2 indicates that there is no auto-correlation in the model, and there is no correlation between the sample data, the better the model performs. Specific analysis shows that the regression coefficient value of gender in consumers' characteristics is the largest ($\beta=1.946$, $t=4.344$, $p=0.000<0.01$), which means that the independent variable gender has the largest and significant positive effect on the dependent variable of brand's iconic colour favourability.

Table 2. Multivariate Regression Results of Experiment 2

Parameter	Regression Coefficient	95% CI	Collinearity Diagnostics	
			VIF	Tolerance
Constant	-5.344* (-2.443)	-9.631 to -1.057	—	—
Gender	1.946*** (4.344)	1.068 to 2.823	3.497	0.286
Figure	0.197* (2.588)	0.048 to 0.347	3.491	0.286
Education	0.370* (2.638)	0.095 to 0.644	1.014	0.986
Favourability _{sample4}	0.437*** (3.657)	0.203 to 0.671	1.144	0.874
Favourability _{sample6}	-0.232* (-2.424)	-0.420 to -0.044	1.170	0.855

Notes: N=40; Adjusted R²=0.514; F(5,34)=9.233, p=0.000; D-W=1.975; *p<0.05 **p<0.01 ***p<0.001, the value of t in parentheses

Experiment 3

Sample preparation

Experiment 3 aims to explore the relationship between saturation and value and brand image through imagery semantic judgment experiments, and to further explore the effects of changes in saturation and value on brand identity for the created target brand's iconic colour to verify H3.

The brand's iconic colour in Experiment 3 was continued using Sample 5 from Experiment 1 (H, S, V=242, 53,56). Experiment 3 was conducted under the same experimental environment and equipment conditions as Experiment 1. A total of 51 subjects including 23 males and 28 females with an average age of 29.451 (N=51, SD=10.21041) were invited for Experiment 3.

Experimental design and procedure

According to the HSV colour space saturation (high saturation and low saturation) and value (high value and low value) are two parameters for elemental analysis, and they can be converted into two projects and four categories. Specifically, the higher the saturation, the more vivid the colour performance; the lower the saturation, the darker the colour performance. The higher the value, the clearer and brighter the image appears; the lower the value, the more blurry and profound the image appears. On this basis, the saturation and value were adjusted in combination with the brand's iconic colour. To improve the representativeness of the samples, based on the characteristics of the target parameters will be limited to the parameter settings of $S_{adjusted}=S \pm 1/2S$ and $V_{adjusted}=V \pm 1/2V$, which can be obtained from eight different colours (Fig. 7). The colour data of the eight colours were superimposed one by one on the brand logo in Photoshop, following standardized parameter settings and random coding.

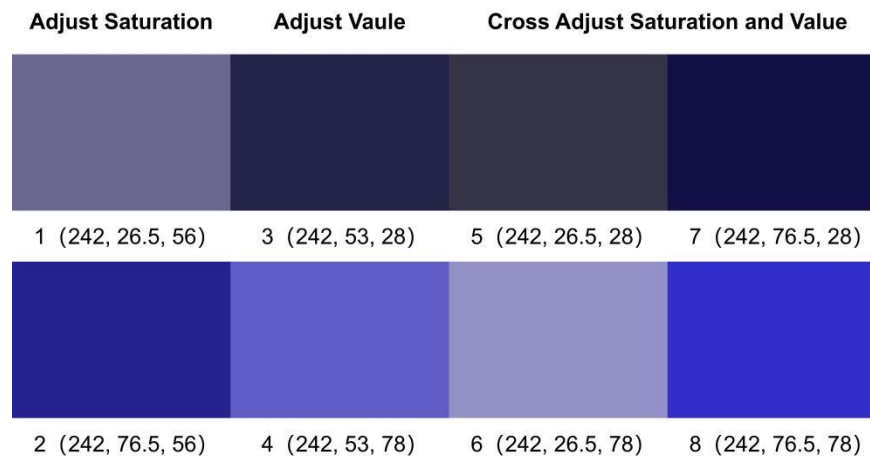


Fig. 7. Sample stimuli for Experiment 3

Before the start of the experiment, the researchers recorded each subject's basic information (gender, age), brand familiarity ($M=2.137$, $SD=1.149$), and hue favourability. It is known that the subjects were not familiar with Brand B. The researchers used a 5-point semantic differential scale to ask the subjects to assess the imagery semantic words of the picture samples and the B's brand image, which included two parts: the imagery semantic test for the brand's iconic colour sample and the imagery semantic judgment for the adjusted samples.

Data results and analysis

A total of 51 valid sample data were obtained for analysis, as summarized in Table 3. The independent variables considered included gender, age, brand familiarity, hue favorability, and judgments for samples 1 to 8. The dependent variable was the test result of the brand's iconic colour sample, used for stepwise regression analysis. Following regression model analysis, explanatory variables with non-significant linear relationships were excluded. Eventually, the remaining hue favourability, $Judgment_{sample2}$, and $Judgment_{sample5}$ were kept in the regression equation. Since there are multiple explanatory variables in this equation, the coefficient of determination concerning Adjusted R^2 was chosen. This regression equation explains 79% of the variation in the imagery semantic

test for the brand's iconic colour (Adjusted $R^2=0.790$). The regression model passed the F-test ($F=59.003$, $p=0.000<0.05$), indicating that the model is valid. All the VIF values in the model are less than 5, which means that there is no multicollinearity. Moreover, the D-W value is around 2, which means that there is no auto-correlation in the model, there is no correlation between the sample data, and the model is better. Specific analysis shows that the regression coefficient value of $Judgment_{sample2}$ is 0.241 ($t=2.614$, $p=0.012<0.05$), which means that the increase of saturation will have a significant positive effect on brand identity under the condition that the value remains unchanged. The regression coefficient value of $Judgment_{sample5}$ is -0.466 ($t=4.502$, $p=0.000<0.01$), indicating a significant negative effect of decreased saturation and value on brand identity, thus partially supporting H3.

Table 3. Multivariate Regression Results of Experiment 3

Parameter	Regression Coefficient	95% CI	Collinearity Diagnostics	
			VIF	Tolerance
$Favourability_{hue}$	15.512*** (5.331)	9.809 to 21.216	—	—
$Judgment_{sample2}$	0.241* (2.614)	0.060 to 0.422	2.038	0.491
$Judgment_{sample5}$	-0.466 *** (-4.502)	-0.669 to -0.263	2.476	0.404

Notes: N=51; Adjusted $R^2=0.790$; $F(3,47)=59.003$, $p=0.000$; D-W=2.310; * $p<0.05$ ** $p<0.01$ *** $p<0.001$, the value of t in parentheses

Theoretical Contributions

This study presents a brand identity design framework for furniture brands' iconic colours by synthesizing, expanding, and updating existing knowledge. Acknowledging the significance of colour marketing to companies' strategies and the importance of understanding consumers, it highlights the role of consumers as co-creators of brands (Elliot 2019; Veloutsou 2023). The relevant research has indicated that to maintain a brand in a changing context, brands need to reposition to meet the expectations of external consumers and understand the impact of consumer behavior, which may affect the internal understanding of the brand and lead to brand identity or controlled brand signaling modifications (Ostrom *et al.* 2015). With the latest research trends, brand-building methodology needs to adapt to rapidly changing contexts, maintain consistent brand meaning, and allow external consumers to actively, stability, and diversely participate in brand creation.

The framework proposed in this paper treats brand's iconic colour as a form of attention, which plays the role of offer and campaign in both the internal brand and external market. It demonstrates the design approach to brand's iconic colour in the furniture sector and how colour signals activate consumer perception and brand engagement in the brand identity design, as well as emphasizing brand-consumer nonlinear information processing and participate in the co-creation of brand meaning, where consumers' characteristics are a previously neglected factor in brand identity. Research has shown that brand signals do not automatically translate into desired market action (Cova and Paraque 2016). This research draws on semantic assessment to gather external consumers' brand mindset as a guide for designing a new brand identity. The results of the assessment inform and update the consumer's perceptions of the original information and enable the consumer to self-

guidance and self-regulation (Bagozzi *et al.* 2021). The brand's iconic colour is designed with consumers in mind, so the brand identity design is easy to create positive responses (brand resonance). This means that the brand's iconic colour will be high consumer-based brand equity (Chatzipanagiotou *et al.* 2016).

The brand's iconic colour emphasizes the brand's core identifiers and external consumer minds. As an identifier of the brand for the external market, it can be a symbol that represents the core characteristics of the brand, and that maintains brand coherent and consistent over time. Brand's iconic colour is essentially an information coding that transmits and receives to the consumer brand-related information, develops impressions related to each isolated experience (brand image), and collects and integrates feedback through assessment to provide direction for updating the accumulated brand knowledge (brand reputation). It plays a key role in developing a clear brand identity and securing internal and external brand meaning consistency.

The experimental results provide insights and support for the research on brand's iconic colour and consumer characteristics for furniture brand building. Experiment 1 displayed the method of furniture brand's iconic colour selection. Experiment 2 investigated the value of referential meaning of hue and consumers' characteristics on brand identity. The experiment demonstrated that the referential meaning of hue is an important stimulus for triggering associations and that it positively influences consumers' identification of brand image. Brand assessment attitudes were significantly influenced by consumers' characteristics, which varied across gender, education, and figure, with the gender factor having the greatest influence on weight. Although the test results did not show a significant effect of age, so age is considered a potential influence for the time being. Experiment 3 confirms that changes in saturation and value have different effects on brand identity, and reveals the incremental value of saturation and value in the brand's iconic colour. The experiment proved that saturation and value affect brand identity, but not in a single negative effect. Under the premise of constant hue, lower saturation and value will hurt brand identity; higher saturation and unadjusted value will have a positive effect on brand identity. Additionally, these findings validate the idea that saturation has a positive relationship with associative arousal and value has a negative relationship with associative arousal (Chan and Park 2015).

Managerial Contributions

This work proposes a framework for brand identity design that establishes internal and external brand associations and promises. The findings are pertinent to the requirements of companies that employ colour-driven brand marketing strategies, which have the potential to evolve into transformative experiences and enduring brand development initiatives that generate brand worth for the brand. Branded offers are perceived by various external consumers and can be triggered by brand identity design to stimulate proactive consumer behavior (Veloutsou 2023). This can be an inspiration for practicing managers. By targeting consumer brand knowledge building and developing brand's iconic colour as part of the brand knowledge that the brand places in the minds of external consumers, the complexity and ambiguity of the brand identity design is understood (Fetscherin *et al.* 2019). The brand benefits perceived by consumers are expected to support the intended brand purpose. The brand's iconic colour is a strategic move that produces the desired consumer response.

This research's theoretical framework and experimental results provide further evidence that brand building is essential for enhancing consumer perceptions and growing

all strong and active brands. Developing a brand's iconic colour will likely be one of the ways to reduce brand-building efforts, even though branding can be very complex. The research specifically classifies colour sources according to the characteristics of furniture brands and extracts essential elements of colour identity for associations focused on consumers, which can assist companies in creating design solutions and product offerings. The findings of the experiments demonstrate that brand's iconic colour can be used as an important and controllable variable to manage image standardization and convey brand information through colour signals; brand identity is closely related to consumers' characteristics, and an in-depth understanding of the target consumer group can help to develop positive brand action; brands can give meaning to colour, and at the same time, brand's iconic colour can help to build the brand image and reputation. Moreover, saturation and value elements have polarity, and within an adjustable range, they can make the brand identity more diverse, which provides inspiration and ideas for new product development and repositioning of the brand.

Brand's iconic colour can help to reduce the brand and consumer brand cognitive bias, so that all parties in the brand identity design have a more consistent perception of the brand meaning, to achieve low-cost differentiation of the competitive strategy. Nonetheless, theories need to be applied and validated by objective principles. In addition, strong brands have deep brand knowledge and can connect brand perceptions and brand relationships through assessment, but smaller and medium-sized companies should begin by developing their brand awareness.

Limitations and Directions for Future Research

This paper is an in-depth exploration and an important attempt to research brand identity design and brand-consumer relationships in brand building. The theoretical framework and experimental results have contributed to both academics and practice, but there are still some limitations.

Research objectives

Brand identity is a rich concept and is influenced by many moderating factors which include design and non-design factors (Elliot 2019). This research focuses only on the colour design of the brand logo to explore the value of brand's iconic colour for brand identity (Chiang *et al.* 2020). This study investigated the visual senses, but design interacts with multiple sensory organs, such as hearing and smell. Future studies could also investigate the impact of differences in sensory abilities on brand identity design, such as measuring the reflections of people with colour vision or visual abnormalities to deepen the concept of caring design. Monochromatic design of the brand logo selected for this research provides space for the development of multi-coloured logos. The interaction between multiple colours would be an interesting topic.

Research sample

This paper examines a representative well-known furniture brand, future research can use the theory of equivalence trend for multiple brands to extract the brand's iconic colour and classification for comparative analysis. In the experimental process, a large number of picture samples were collected and strictly screened, but the influence of "theory of colour in context" in determining the source of brand's iconic colour remains to be tested (Elliot 2015). Among the personal characteristics of consumers, the research incorporated gender, age, education, and figure, but also included relevant elements such

as regional customs, esthetic literacy, and season of the times. The subjects were all Chinese, and the experiment showed little difference in cultural identity, yet the influence of cultural dependence on brand assessment attitudes could not be ignored. Meanwhile, the relationship between age factor and brand assessment attitude needs to be further explored.

Research results

The regression equation in Experiment 2 explains only 51.4% of the brand's iconic colour favourability, indicating that there are still elements of influence that have not been considered. To gain a better understanding, a more in-depth analysis should include other aspects of consumers' characteristics. Experiment 3 emphasizes that saturation and value have a significant effect on brand identity, but this effect should be limited to a range and be related to brand strength and attitudinal consumer-based brand equity (Swaminathan *et al.* 2020). Defining the appropriate range of adjustment to achieve the desired brand identity and exploring the link between these effects and the product category are areas for future investigation. Moreover, future research should delve deeper into the role of the brand's iconic colour in consumer communication, transaction, and reaction, moving from a brand mindset to brand action. Consequently, researchers should investigate the brand's iconic colour in more detail in the context of consumer communication, transaction and reaction.

CONCLUSIONS

1. This research elucidates the profound impact of colour in brand marketing, with a specific focus on the furniture industry.
2. Introducing a groundbreaking framework for the brand's iconic colour utilization, the study not only bridges existing gaps in brand building practices but also provides a strategic road map for brands.
3. This study contributes to a deeper understanding of colour marketing strategies in the furniture industry, offering actionable insights for enhancing brand identity and positioning. By examining the role of a brand's iconic colour, this research provides valuable guidance for brands seeking to align with consumer expectations and market dynamics.

ACKNOWLEDGMENTS

The authors are grateful for the support of the National Key R&D Program of China (2017YFD0601104), sponsored by Qing Lan Project (Jiangsu Teacher Letter [2022] No. 51).

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Article submitted: February 22, 2024; Peer review completed: March 9, 2024; Revised version received and accepted: March 10, 2024; Published: March 18, 2024.

DOI: 10.15376/biores.19.2.2763-2781