Developing a Model for Enhancing Brand Equity in the Food Industry through a Sensory Marketing Mix and the BETTER Strategy Approach

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Abstract

This study aims to develop and validate a comprehensive model for enhancing brand equity in the food industry by integrating sensory marketing strategies and the BETTER framework. A mixed-methods research design was employed to investigate the interplay among key constructs such as sensory brand components, storytelling strategies, brand loyalty, customer experience, and emotional branding. The qualitative phase included expert interviews to contextualize the model, while the quantitative phase involved a structured survey administered to 384 participants across the food industry sector. Structural Equation Modeling (SEM) using SmartPLS was used to test the hypothesized relationships among variables. Reliability and validity were ensured through convergent validity (AVE), internal consistency (Cronbach's alpha and composite reliability), and model fit indicators, including the GOF index. The results revealed that brand equity enhancement significantly predicts sensory brand elements ($\beta = 0.663$), physical brand display ($\beta = 0.509$), brand loyalty ($\beta = 0.678$), emotional branding ($\beta = 0.670$), and differentiated brand performance ($\beta = 0.484$), all with $p < 0.001$. Storytelling-based sensory stimulation positively influenced emotional branding ($\beta = 0.670$), customer loyalty ($\beta = 0.268$), and product development ($\beta = 0.664$). Customer experience strongly predicted customer sensory experience ($\beta = 0.927$) and perceived importance of experience ($\beta = 0.735$). However, the path from shifting customer perception to brand equity was not significant ($p = 0.164$). Macro-environmental challenges had a substantial effect on innovation ($\beta = 0.527$) and organizational enablers but did not significantly moderate the relationship between sensory storytelling and brand equity ($p = 0.815$). The overall model demonstrated strong fit (GOF = 0.573). The findings confirm that integrating sensory marketing with the BETTER strategy offers a powerful, multidimensional approach to enhancing brand equity in the food industry. Sensory experiences, emotional storytelling, and strategic agility collectively form the backbone of sustainable brand value creation in dynamic markets.

Keywords: Brand equity, sensory marketing, emotional branding, BETTER strategy, storytelling, food industry, customer experience

1. Introduction

In today's hyper-competitive and emotionally charged market environment, the creation and sustainability of brand equity in the food industry require more than product functionality or pricing advantages. Consumers increasingly seek brands that not only fulfill their practical needs but also provide rich, immersive, and meaningful experiences. As a result, the construct of brand equity has evolved from a product-centric valuation to a multi-dimensional asset shaped by emotional, sensory, and cognitive interactions between consumers and brands. The food industry, with its inherently sensory nature, is uniquely positioned to leverage these dimensions through experiential branding strategies such as sensory marketing and narrative-driven storytelling, encapsulated in models like BETTER.

Brand equity, in its modern conception, is no longer a static outcome but a dynamic relationship co-constructed through ongoing brand–consumer interactions. This is particularly evident in the transition from traditional mass marketing to engagement-based, emotionally resonant strategies. Studies show that elements such as brand experience, perceived quality, brand love, and emotional connection significantly influence customer-based brand equity (Piña & Dias, 2020; Rodrigues, 2018). Sensory marketing, in particular, has emerged as a vital mechanism in building this equity, as it engages multiple senses simultaneously to form lasting brand impressions (Sekar et al., 2024). In the context of food brands—where sight, smell, taste, touch, and even sound interplay—this approach becomes especially powerful (Magdy, 2024).

Sensory attributes such as packaging design, in-store experience, product aroma, and texture are capable of forging deep psychological connections with consumers (Suárez & Guillén, 2021). These interactions foster emotional branding, encouraging brand loyalty and increased customer retention rates (Shariq, 2019). Moreover, as consumer expectations shift toward personalized experiences and ethically conscious consumption, brands are increasingly integrating purpose-driven storytelling and socially responsible narratives into their marketing strategies. Such elements not only differentiate the brand but also create a shared sense of identity and values with the consumer (Catherine et al., 2024; Kazmi & Zaman, 2024).

The BETTER strategy—an integrative model that emphasizes Brand Experience, Emotional appeal, Targeting, Trust, Engagement, and Responsiveness—aligns seamlessly with sensory marketing, creating a synergistic framework for brand equity enhancement. In this approach, storytelling plays a pivotal role, transforming abstract brand values into relatable narratives that evoke emotional responses and consumer loyalty (Gurupriya & Joyce, 2025; Tabelessy, 2024). When implemented alongside sensory stimuli, such as ambient music or tactile packaging, these stories become even more immersive, heightening customer engagement and recall (Rodrigues, 2018; Sekar et al., 2024).

Parallel to this evolution is the growing significance of digital platforms in shaping brand experiences. Social media, in particular, has redefined how consumers interact with food brands—allowing real-time engagement, content co-creation, and community-building that contribute directly to brand equity formation (Ali & Alquda, 2022; Midha et al., 2021; Miller, 2024). The role of user-generated content, influencer marketing, and emotionally resonant advertising campaigns on digital media has been empirically linked to greater brand awareness, trust, and consumer engagement (Ekklesi & Sondakh, 2025; Nurhadi et al., 2024). These online touchpoints also offer fertile ground for the BETTER strategy's engagement and responsiveness components to manifest through adaptive content and real-time interactions.

Moreover, in the highly fragmented and competitive food market, consumers are faced with an abundance of choices. In this context, brand equity acts as a decision-making heuristic, reducing perceived risk and increasing purchase confidence (Ghosh & Roy, 2021; Sharma, 2020). Studies indicate that consumers rely on brand equity as a proxy for consistent product quality and corporate credibility—attributes that are further amplified through multisensory brand interactions and emotional branding tactics (Dananjoyo, 2024; Yap & Suwarno, 2024). In fact, the affective dimensions of consumer–brand relationships, such as brand love and emotional resonance, have been identified as critical pathways to brand equity in several consumer sectors, including food and beverage (Abrar et al., 2022; Tabelessy, 2024).

Additionally, the rise of sustainability and health-conscious consumption patterns has heightened the importance of aligning brand experiences with consumer values (Khandelwal et al., 2019; Nguyen-Viet, 2022). Food brands that adopt green marketing practices, transparent sourcing, and ethical messaging tend to enjoy stronger consumer loyalty and brand advocacy. When sensory marketing is integrated with sustainability narratives—such as eco-friendly packaging that appeals visually and tactilely—consumer perceptions of authenticity and

responsibility are strengthened (Anggraheni & Haryanto, 2023; Zhu, 2019).

Understanding the mediating role of brand experience in these dynamics is essential. Research confirms that brand experience acts as a conduit through which marketing strategies, including social media marketing and product design, translate into brand equity gains (Amin & Nika, 2019; Sasivardhini & Kalaivani, 2024). For instance, enjoyable and memorable brand experiences can enhance consumer-based brand equity by reinforcing brand associations, improving brand attitudes, and encouraging word-of-mouth behavior (Šerić et al., 2020). The BETTER strategy, with its emphasis on holistic and personalized experience delivery, is thus well-suited to serve as a guiding framework for food companies seeking sustainable brand differentiation.

Empirical investigations also highlight the importance of customer engagement as a driver of brand equity. Engaged consumers are not only more loyal but also more likely to become brand advocates who contribute to brand image formation through social sharing and co-creation (Ali & Alquda, 2022; Yap & Suwarno, 2024). Co-creation behavior—when consumers actively participate in shaping brand experiences—has been shown to increase emotional investment and perceived ownership of the brand, further reinforcing loyalty and purchase intention (Jiang, 2023; Nurhadi et al., 2024). Such participatory mechanisms are at the core of the BETTER strategy's responsiveness and engagement pillars.

Against this backdrop, the current study seeks to develop a comprehensive model for enhancing brand equity in the food industry through the synergistic application of the sensory marketing mix and the BETTER strategy.

2.   Methods and Materials

This study employed a mixed-methods research approach, specifically an exploratory sequential design, which is suitable when the objective is to first explore a phenomenon qualitatively and then quantitatively test the emerging model. The research was conducted in two main phases. In the qualitative phase, data were gathered through in-depth semi-structured interviews with experts to explore concepts and categories associated with brand equity enhancement through sensory marketing and the BETTER strategy. The participants were purposefully selected from among experienced academic scholars and senior managers in the marketing departments of food companies in Tehran.

The selection process followed a theoretical sampling logic, which is typically used in grounded theory research to maximize conceptual richness. Data collection continued until theoretical saturation was reached, which occurred after 14 interviews. The participants included marketing professors and experienced managers with at least five years of relevant practice in the field of sensory or strategic marketing within the food industry. These participants were chosen based on their academic contributions, executive roles, and insights into strategic brand management.

In the quantitative phase, the population included customers working at the retail level of the Saminia Food Industry Company. Using Morgan's sampling table, a total of 384 valid questionnaires were analyzed from a larger pool of 440 distributed forms. This sample size is considered adequate for structural equation modeling (SEM) based on the assumptions of variance estimation and normal approximation.

In the qualitative phase, the main instrument was a semi-structured interview guide, designed based on the literature review and expert input. The interviews focused on six thematic areas: causal factors, contextual conditions, intervening variables, core categories, strategic actions, and consequences related to the enhancement of brand equity. Each interview lasted between 30 to 50 minutes, and responses were recorded, transcribed, and subjected to detailed analysis. These interviews were particularly aimed at generating grounded insights that would inform the conceptual model and the development of the quantitative instrument.

In the quantitative phase, a researcher-made questionnaire was constructed based on the qualitative findings and existing literature. The questionnaire consisted of two sections: general demographic questions and 62 specialized items related to the components of brand equity, sensory marketing mix, and the BETTER strategy. Items were structured using a five-point Likert scale. The instrument underwent rigorous validation procedures including content validity assessment by academic experts, construct validity via confirmatory factor analysis (CFA), and criterion-related validity through correlation with established constructs. Cronbach's alpha coefficient was calculated to assess internal consistency reliability and yielded a value of 0.95, indicating high reliability.

The qualitative data were analyzed using inductive content analysis with a three-step coding process: open coding, axial coding, and selective coding. Open coding involved identifying meaningful units and labeling them as

initial concepts. These were grouped into categories during axial coding by establishing relationships among them, particularly causal, contextual, and strategic dimensions. Finally, in selective coding, a central category was defined that represented the core theme of the study — the enhancement of brand equity via a dual approach of sensory marketing and the BETTER strategy. The qualitative software MAXQDA facilitated the coding and retrieval process to ensure systematic data handling.

For the quantitative phase, data were analyzed using both descriptive and inferential statistics. Descriptive analysis included frequency distributions, means, and standard deviations for demographic variables. Inferential analysis was conducted using Structural Equation Modeling (SEM) via SmartPLS software. The PLS approach was selected due to its suitability for small to medium samples and for data that may not conform to multivariate normality. It enabled simultaneous estimation of measurement models (outer models) and structural models (inner models), examining the relationships between latent constructs. Model validity was tested through convergent and discriminant validity metrics, while hypothesis testing involved examining path

coefficients, R-squared values, and model fit indices. The outcome of this phase provided statistical confirmation of the qualitative findings and helped refine the proposed conceptual model into its final validated form.

3. Findings and Results

In the qualitative phase of the study, semi-structured interviews were conducted with experts and senior managers to explore and identify the underlying components influencing the development of a model to enhance brand equity in the food industry using the sensory marketing mix and the BETTER strategy. Through rigorous coding and thematic analysis of the interview data, several major themes and categories emerged, which were organized according to the grounded theory structure: causal conditions, contextual conditions, intervening conditions, core category, strategies, and consequences. The resulting categories reflect a comprehensive understanding of the dynamics of brand equity enhancement grounded in both emotional and sensory experiences.

Table 1

Extracted Themes and Categories from Qualitative Analysis

Thematic Dimension	Subcategories Identified
Causal Conditions	Perceived product quality, customer trust, brand social responsibility, sensory experience, strategic consistency in sensory marketing, continuous innovation, brand differentiation, information transparency, integrated brand messaging, evolving consumer expectations regarding health and quality, customer experience focus, brand storytelling, declining brand loyalty, customer engagement, personalization, unique experiences, data-driven prediction of needs, brand touchpoint synchronization, product quality monitoring, feedback integration, compliance with hygiene standards
Contextual Conditions	Food culture and eating habits, preference for healthy/organic options, awareness of modern and fast foods, brand awareness via advertising and customer experience, purchasing power and income levels, impact of economic fluctuations, role of digital technology in purchasing behavior, influence of online reviews and e-commerce, governmental regulations and policies affecting food branding and production
Intervening Conditions	Innovation level in food product development, market competition intensity, global brand penetration, R&D costs, consumer lifestyle shifts, supply chain reliability, market sensitivity to quality, rising raw material prices, customer awareness of quality, media and social media influence, emotional branding storytelling, legal requirements, digital data analysis, organizational marketing capabilities, health and environmental regulations, packaging sustainability, financial constraints on innovation
Core Categories	Brand loyalty, emotional connection with consumers, daily brand use, multisensory brand experience (taste, sound, touch, smell, sight), emotional attachment, brand community, sensory identity elements (sound logo, auditory memory), sensory marketing mix (five senses, visual and olfactory stimulation), packaging aesthetics, innovative flavors, consumer-centric food design, physical brand visibility, store layout, advertising effectiveness, sensory storytelling, competitive differentiation, digital engagement, brand social responsibility
Strategies	Sensory-driven new product development, flavor and packaging innovation, emotional branding via storytelling and customer narratives, emotional advertising, humanized brand voice
Consequences	Increased customer loyalty, repeat purchases, brand recommendation, enhanced brand image and distinct market positioning, stronger emotional connections, improved brand resilience in crises, willingness to pay premium prices, sustainable competitive advantage through

The causal conditions represent the foundational drivers that motivate organizations to seek enhancements in brand equity. Participants emphasized the critical role of perceived product quality, customer trust, and corporate social

responsibility as key precursors to consumer loyalty. The experience of the brand through sensory dimensions—such as taste, scent, and visual appeal—was highlighted as a powerful tool in reinforcing brand perception. Additionally,

the need for continuous innovation, strategic consistency in marketing, and differentiation in competitive markets emerged as central motivators in branding efforts. The increasing importance of customer experience and the relevance of brand storytelling in creating emotional bonds were also recurring themes. Participants further mentioned the impact of data utilization to create personalized and unique experiences and the strategic management of brand touchpoints across physical and digital platforms.

In terms of contextual conditions, the findings reveal that cultural food habits, local traditions, and consumer shifts toward healthy and organic consumption strongly influence brand perception and acceptance. The target market's brand awareness, often driven by previous customer experiences and media exposure, was another essential factor. Moreover, purchasing power, affected by economic instability, shaped consumers' choices between premium and low-cost options. Digital transformation was cited as a disruptive force reshaping purchasing behaviors through online platforms, apps, and user-generated reviews. Regulatory environments and governmental policies were also seen as important contextual variables affecting brand strategy and compliance.

The intervening conditions are mediators that either facilitate or hinder the implementation of branding strategies. The interviews indicated that the pace of innovation, entry of international brands, and rising R&D costs placed pressure on domestic companies to respond swiftly to changing consumer expectations. At the same time, supply chain vulnerabilities, fluctuating ingredient costs, and intense market sensitivity to quality standards posed additional challenges. Participants also noted the dual influence of media support and regulatory constraints, which simultaneously shaped and restricted brand messaging. Technological capabilities within the organization and pressures from environmental and sustainability regulations further complicated strategic decisions.

The core categories derived from the data signify the central phenomena around which the branding model revolves. At the heart of the model is the development of brand loyalty through emotional and multisensory experiences. Themes such as affective attachment, daily brand usage, and consumer identity expression with the brand were commonly noted. The concept of multisensory branding encompassed aspects like sound logos, aesthetic packaging, and experiential store layouts. Furthermore, advertising's role in emotional engagement and competitive brand distinction—especially through sensory narratives and storytelling—were critical to reinforcing brand presence both in the marketplace and in the minds of consumers.

The strategies proposed by participants focused on innovating through sensory-driven product development, particularly by enhancing flavor profiles and packaging design. Another key strategy was emotional branding, achieved through compelling brand narratives, customer storytelling, and emotionally resonant advertising that humanizes the brand and fosters customer intimacy.

Finally, the consequences of effectively implementing the model were reported as highly favorable. These included greater customer loyalty, increased repeat purchases, and positive word-of-mouth. Participants noted that these outcomes contribute to enhanced brand image, distinctive market positioning, and even price elasticity where consumers are willing to pay more for brands that deliver rich, emotional, and sensory experiences. The combination of these outcomes culminates in a sustainable competitive advantage anchored in the emotional and sensory connections between the brand and its consumers.

In the quantitative phase of the study, a total of 384 valid participants contributed demographic data. Regarding gender, 244 participants (64%) were male and 140 participants (36%) were female. In terms of age distribution, 115 individuals (30%) were under the age of 40, 179 participants (47%) were between 40 and 50 years old, and 90 individuals (23%) were aged 50 and above. Educational background showed that 60 participants (16%) held a bachelor's degree, 208 (54%) had a master's degree, and 116 (30%) possessed a doctoral degree. As for work experience, 111 respondents (29%) had less than 10 years of experience, 98 (26%) had between 10 and 15 years, 85 (22%) had between 15 and 20 years, and 90 (23%) had more than 20 years of professional experience.

Table 2

Kolmogorov–Smirnov Test for Normality of Research Variables

Main Constructs	Kolmogorov–Smirnov Statistic
Brand Sensory Elements	0.005
Enhancing Brand Equity in the Food Industry	0.007
Brand Promotion	0.014
Customer Experience Enhancement	0.003
Sensory Stimulation Strategy with Storytelling	0.008
Shifting Customer Perceptions of the Brand	0.012
Increasing the Importance of Customer Experience	0.0036
Customer Loyalty Growth	0.0045
Creating Competitive Advantage	0.0036
Emotional Branding	0.0025
Customer Sensory Experience	0.0013
Customer Experience	0.004
Organizational Capabilities	0.003
Product Development	0.004
Brand Positioning	0.012
Media Support	0.0065
Audience Insight and Strategic Orientation	0.003
Brand Capital Growth	0.016
Innovation Level	0.0075
Personalization of Customer Experience	0.006
Differentiated Brand Performance	0.013
Health Regulations	0.014
Brand Loyalty	0.022
Physical Brand Display	0.0055
Sustainability and Reliability	0.013
Macro-Level Challenges	0.026

As shown in Table 2, the results of the Kolmogorov–Smirnov test for all key constructs revealed p-values below the conventional significance threshold ($p < 0.05$), indicating that the distribution of all measured variables significantly deviated from normality. For instance, constructs such as Customer Sensory Experience (0.0013), Customer Experience Enhancement (0.003), and Emotional Branding (0.0025) demonstrated especially low p-values, confirming non-normal distributions. Even constructs with relatively higher values, such as Brand Loyalty (0.022) and Macro-Level Challenges (0.026), still fell below the significance level, further affirming the overall non-normality of the dataset. Given these results, non-parametric statistical techniques or variance-based structural equation modeling (such as PLS-SEM) are appropriate for subsequent analyses.

Table 3

Results of the Outer Model (Measurement Model)

Indicator	Loading	Standard Error	T-Value	p-Value
x1 ← Customer Sensory Experience	0.856	0.015	57.208	0.000
x2 ← Customer Sensory Experience	0.818	0.018	46.279	0.000
x3 ← Customer Sensory Experience	0.861	0.014	62.415	0.000
x4 ← Increasing Importance of Experience	0.808	0.018	45.042	0.000
x5 ← Increasing Importance of Experience	0.849	0.017	50.887	0.000
x6 ← Increasing Importance of Experience	0.804	0.020	40.316	0.000
x7 ← Personalizing Customer Experience	0.840	0.019	45.184	0.000
x8 ← Personalizing Customer Experience	0.739	0.039	18.879	0.000
x9 ← Personalizing Customer Experience	0.778	0.034	22.936	0.000
x10 ← Customer Experience Enhancement	0.874	0.016	53.500	0.000
x11 ← Customer Experience Enhancement	0.885	0.015	59.459	0.000
x12 ← Customer Experience Enhancement	0.865	0.017	49.772	0.000
x13 ← Brand Positioning	0.904	0.020	46.026	0.000

x14 ← Brand Positioning	0.896	0.022	40.658	0.000
x15 ← Shifting Customer Perception	0.865	0.046	18.710	0.000
x16 ← Shifting Customer Perception	0.828	0.058	14.323	0.000
x17 ← Strategic Audience Insight	0.500	0.160	3.364	0.001
x18 ← Strategic Audience Insight	0.663	0.138	5.161	0.000
x19 ← Strategic Audience Insight	0.780	0.109	7.742	0.000
x20 ← Strategic Audience Insight	0.761	0.104	7.832	0.000
x21 ← Strategic Audience Insight	0.431	0.166	2.763	0.006
x22 ← Brand Loyalty	0.822	0.020	40.532	0.000
x23 ← Brand Loyalty	0.803	0.025	32.814	0.000
x24 ← Brand Loyalty	0.795	0.021	37.356	0.000
x25 ← Brand Sensory Elements	0.757	0.025	30.060	0.000
x26 ← Brand Sensory Elements	0.754	0.028	27.229	0.000
x27 ← Brand Sensory Elements	0.778	0.025	31.058	0.000
x28 ← Brand Sensory Elements	0.793	0.020	39.423	0.000
x29 ← Physical Brand Display	0.859	0.022	39.117	0.000
x30 ← Physical Brand Display	0.872	0.017	51.451	0.000
x31 ← Differentiated Brand Performance	0.841	0.023	36.518	0.000
x32 ← Differentiated Brand Performance	0.895	0.015	60.370	0.000
x33 ← Product Development	0.770	0.028	27.684	0.000
x34 ← Product Development	0.829	0.018	44.872	0.000
x35 ← Product Development	0.812	0.021	38.292	0.000
x36 ← Emotional Branding	0.799	0.024	33.086	0.000
x37 ← Emotional Branding	0.831	0.018	47.304	0.000
x38 ← Emotional Branding	0.825	0.018	45.472	0.000
x39 ← Innovation Level	0.801	0.023	35.184	0.000
x40 ← Innovation Level	0.800	0.023	34.609	0.000
x41 ← Innovation Level	0.841	0.018	46.563	0.000
x42 ← Sustainability & Reliability	0.597	0.049	12.345	0.000
x43 ← Sustainability & Reliability	0.819	0.023	36.128	0.000
x44 ← Sustainability & Reliability	0.788	0.024	33.071	0.000
x45 ← Media Support	0.812	0.021	37.889	0.000
x46 ← Media Support	0.836	0.018	47.757	0.000
x47 ← Media Support	0.847	0.016	51.854	0.000
x48 ← Organizational Capabilities	0.802	0.024	32.930	0.000
x49 ← Organizational Capabilities	0.767	0.032	23.995	0.000
x50 ← Organizational Capabilities	0.559	0.053	10.592	0.000
x51 ← Health Regulations	0.853	0.017	48.835	0.000
x52 ← Health Regulations	0.837	0.017	49.919	0.000
x53 ← Health Regulations	0.822	0.018	44.599	0.000
x54 ← Increasing Customer Loyalty	0.836	0.028	30.044	0.000
x55 ← Increasing Customer Loyalty	0.863	0.026	32.920	0.000
x56 ← Increasing Customer Loyalty	0.841	0.025	33.142	0.000
x57 ← Brand Capital Growth	0.665	0.035	18.975	0.000
x58 ← Brand Capital Growth	0.787	0.026	30.378	0.000
x59 ← Brand Capital Growth	0.715	0.042	17.142	0.000
x60 ← Creating Competitive Advantage	0.818	0.022	36.961	0.000
x61 ← Creating Competitive Advantage	0.801	0.025	31.828	0.000
x62 ← Creating Competitive Advantage	0.801	0.024	33.245	0.000

As indicated in Table 3, the results of the outer measurement model confirm the reliability and significance of all factor loadings across the observed variables. All factor loadings exceed the commonly accepted threshold of 0.70 (except a few slightly below), indicating strong convergent validity. For instance, indicators for Customer Sensory Experience (x1–x3) ranged between 0.818 and 0.861 with extremely high t-values (e.g., 62.415 for x3), confirming robust measurement properties. Similarly, constructs such as Brand Positioning (x13–x14), Customer Experience Enhancement (x10–x12), and Emotional Branding (x36–x38) demonstrated loadings well above 0.80, reinforcing the model's measurement strength.

Even indicators with moderate loadings—such as x21 (0.431) and x17 (0.500) under Strategic Audience Insight—were still statistically significant ($p < 0.01$), supporting their

inclusion in the model due to conceptual relevance. The t-values for all items were above the minimum significance level, and all p-values were equal to or below 0.001, indicating that the paths from constructs to indicators were highly significant. This comprehensive performance of the outer model provides strong evidence of indicator reliability and the sound measurement structure of the proposed branding model.

Table 4

Convergent Validity of Research Constructs (Average Variance Extracted - AVE)

Construct	AVE
Brand Sensory Elements	0.596
Enhancing Brand Equity in the Food Sector	0.648
Brand Promotion	0.648
Customer Experience Enhancement	0.767
Sensory Stimulation Strategy	0.648
Shifting Customer Perceptions	0.745
Increasing Importance of Experience	0.674
Increasing Customer Loyalty	0.719
Creating Competitive Advantage	0.653
Emotional Branding	0.671
Customer Sensory Experience	0.715
Customer Experience	0.688
Organizational Capabilities	0.517
Product Development	0.648
Brand Positioning	0.813
Media Support	0.674
Strategic Audience Insight	0.693
Brand Capital Growth	0.525
Innovation Level	0.664
Personalizing Customer Experience	0.621
Differentiated Brand Performance	0.755
Health Regulations	0.703
Brand Loyalty	0.653
Physical Brand Display	0.752
Sustainability and Reliability	0.550
Macro-Level Challenges	0.725

Table 4 presents the results for convergent validity based on the Average Variance Extracted (AVE) for each latent construct. All constructs surpassed the recommended threshold of 0.50, indicating that more than 50% of the variance of the indicators is captured by the latent construct. Particularly strong convergent validity was observed for constructs such as Brand Positioning (AVE = 0.813), Customer Experience Enhancement (0.767), and Differentiated Brand Performance (0.755), demonstrating that their respective indicators are highly consistent in measuring the intended concepts. Constructs like Organizational Capabilities (0.517) and Brand Capital Growth (0.525), while showing relatively lower AVE values, still met the minimum criteria and were retained in the model. These results confirm the internal consistency and conceptual coherence of the measurement model.

Table 5

Reliability of Research Constructs (Cronbach's Alpha and Composite Reliability)

Construct	Cronbach's Alpha	Composite Reliability (CR)
Brand Sensory Elements	0.774	0.855
Enhancing Brand Equity in the Food Sector	0.729	0.847
Brand Promotion	0.729	0.847
Customer Experience Enhancement	0.848	0.908
Sensory Stimulation Strategy	0.729	0.847
Shifting Customer Perceptions	0.653	0.871
Increasing Importance of Experience	0.757	0.861

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Increasing Customer Loyalty	0.806	0.885
Creating Competitive Advantage	0.735	0.849
Emotional Branding	0.754	0.859
Customer Sensory Experience	0.800	0.882
Customer Experience	0.729	0.887
Organizational Capabilities	0.513	0.759
Product Development	0.729	0.847
Brand Positioning	0.771	0.897
Media Support	0.757	0.861
Strategic Audience Insight	0.779	0.871
Brand Capital Growth	0.547	0.767
Innovation Level	0.747	0.856
Personalizing Customer Experience	0.727	0.831
Differentiated Brand Performance	0.678	0.860
Health Regulations	0.789	0.876
Brand Loyalty	0.735	0.850
Physical Brand Display	0.670	0.858
Sustainability and Reliability	0.578	0.783
Macro-Level Challenges	0.623	0.841

Table 5 reports the reliability statistics of all constructs using both Cronbach's Alpha and Composite Reliability (CR). Across the board, the values for CR exceeded the recommended benchmark of 0.70, confirming the internal consistency and reliability of the constructs. Notably, Customer Experience Enhancement (CR = 0.908), Brand Positioning (0.897), and Customer Experience (0.887) achieved the highest reliability scores, reflecting strong measurement quality. While a few constructs such as Organizational Capabilities (Cronbach's Alpha = 0.513) and Brand Capital Growth (0.547) demonstrated relatively lower alpha values, their CR values still remained above acceptable levels, justifying their retention. These findings reinforce the robustness of the instrument in capturing complex branding phenomena and confirm that the items within each construct reliably measure the same underlying dimension.

Table 6

Results of Hypotheses Testing

Path	Mean Estimate	Standard Deviation	T-Value	P-Value
Enhancing Brand Equity → Brand Sensory Elements	0.663	0.029	23.047	0.000
Enhancing Brand Equity → Sensory Stimulation Strategy	0.228	0.054	4.215	0.000
Enhancing Brand Equity → Differentiated Brand Performance	0.484	0.040	12.020	0.000
Enhancing Brand Equity → Brand Loyalty	0.678	0.030	22.318	0.000
Enhancing Brand Equity → Physical Brand Display	0.509	0.042	12.112	0.000
Brand Promotion → Creating Competitive Advantage	0.593	0.037	15.948	0.000
Brand Promotion → Brand Capital Growth	0.624	0.030	20.806	0.000
Sensory Strategy → Brand Promotion	0.240	0.055	4.321	0.000
Sensory Strategy → Increasing Customer Loyalty	0.268	0.051	5.161	0.000
Sensory Strategy → Emotional Branding	0.670	0.029	23.296	0.000
Sensory Strategy → Product Development	0.664	0.028	23.728	0.000
Shifting Customer Perceptions → Enhancing Brand Equity	0.071	0.053	1.395	0.164
Customer Experience → Enhancing Brand Equity	0.114	0.044	2.596	0.010
Customer Experience → Enhancing Customer Experience	0.354	0.043	8.195	0.000
Customer Experience → Importance of Customer Experience	0.735	0.021	35.854	0.000
Customer Experience → Customer Sensory Experience	0.927	0.005	168.980	0.000
Customer Experience → Personalization of Customer Experience	0.585	0.027	21.638	0.000
Brand Positioning → Enhancing Brand Equity	0.172	0.048	3.605	0.000
Strategic Audience Insight → Enhancing Brand Equity	0.197	0.055	3.123	0.002
Macro-Level Challenges → Sensory Stimulation Strategy	0.277	0.054	5.142	0.000
Macro-Level Challenges → Organizational Capabilities	0.660	0.029	23.023	0.000
Macro-Level Challenges → Media Support	0.631	0.031	20.712	0.000
Macro-Level Challenges → Innovation Level	0.527	0.038	13.777	0.000
Macro-Level Challenges → Health Regulations	0.518	0.037	14.044	0.000
Macro-Level Challenges → Sustainability and Reliability	0.659	0.029	22.997	0.000
Interaction (Moderator): Macro Challenges × Sensory Strategy	0.009	0.045	0.234	0.815

Figure 1

Final Model of the Study
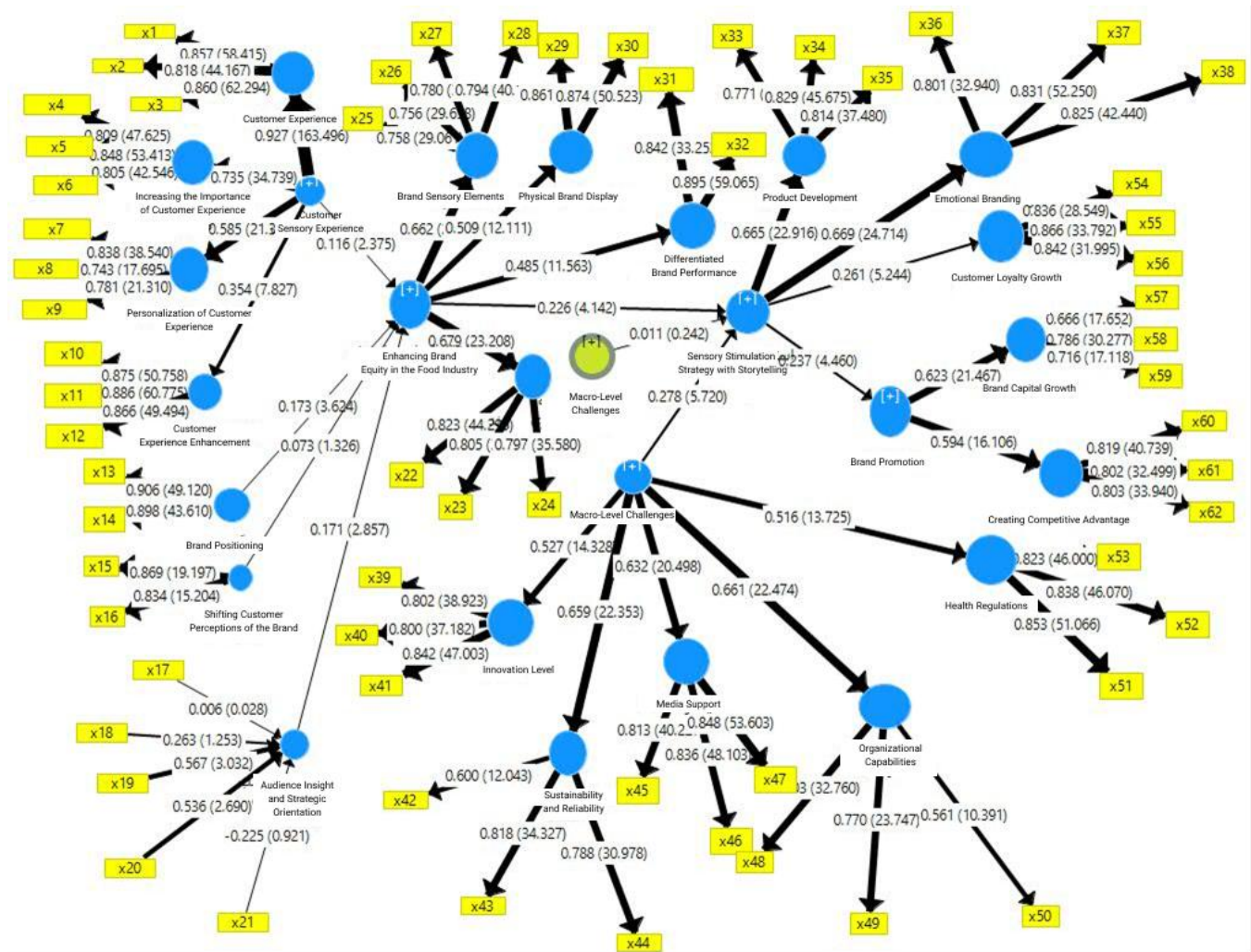
As presented in Table 6, the results of hypothesis testing demonstrate that nearly all hypothesized paths in the structural model are statistically significant at the 0.01 level or better, except one. Notably, the relationship between Enhancing Brand Equity and its direct effects on Brand Loyalty ($\beta = 0.678$, $t = 22.318$, $p < 0.001$), Brand Sensory Elements ($\beta = 0.663$), and Physical Brand Display ($\beta = 0.509$) were among the strongest, indicating their foundational role in brand equity development. Similarly, Customer Experience showed robust predictive power over Customer Sensory Experience ($\beta = 0.927$, $t = 168.980$), confirming the centrality of experiential factors in brand perception. The Sensory Strategy with Storytelling significantly influenced Emotional Branding ($\beta = 0.670$) and Product Development ($\beta = 0.664$), reinforcing its utility as a core strategic tool. Interestingly, the path from Shifting Customer Perceptions to Enhancing Brand Equity was not significant ($p = 0.164$), indicating it does not directly influence brand equity when other factors are present. Finally, the interaction term assessing the moderating role of Macro-Level Challenges on the relationship between sensory strategy and brand equity was also nonsignificant ($p = 0.815$), suggesting that external challenges do not significantly alter the effectiveness of sensory storytelling strategies. Overall, the model is well-supported, with most paths confirming theoretically grounded relationships.

The Goodness of Fit (GOF) index, introduced by Tenenhaus et al. (2004), is used to evaluate the overall fit of the measurement and structural components of a model. According to their guidelines, GOF values of 0.01, 0.25, and 0.36 represent weak, moderate, and strong model fit, respectively. Although recent literature has questioned the universal applicability of this index, it still serves as a useful general indicator. In this study, the calculated GOF value

was 0.573, which exceeds the threshold for a strong fit. Therefore, the model demonstrates a satisfactory level of overall goodness of fit and is considered well-specified and robust for interpretation and application.

4. Discussion and Conclusion

The results of this study provide empirical support for a comprehensive model to enhance brand equity in the food industry through the integration of sensory marketing and the BETTER strategy. The structural model tested revealed that enhancing brand equity significantly influences critical constructs such as brand sensory elements, physical brand display, brand loyalty, emotional branding, and differentiated brand performance. Among the strongest relationships observed was between brand equity enhancement and brand loyalty ($\beta = 0.678$), followed closely by its effect on brand sensory elements ($\beta = 0.663$) and physical display elements ($\beta = 0.509$). These results confirm that emotional and sensory pathways are not merely supplementary, but central to the architecture of consumer-based brand equity in the food sector.

These findings align with earlier research that underscores the foundational role of sensory brand experiences in shaping consumer perception and loyalty. Multisensory engagement—via visual aesthetics, olfactory cues, and tactile packaging—has been shown to elevate consumer satisfaction and build strong emotional bonds with the brand (Rodrigues, 2018; Sekar et al., 2024). In food branding, sensory inputs often act as immediate indicators of quality and authenticity, thereby strengthening brand equity through experiential differentiation (Magdy, 2024; Suárez & Guillén, 2021). Furthermore, the strong linkage between brand equity and emotional branding in the current study affirms the growing relevance of affective branding tactics in competitive industries where functional benefits alone no longer suffice (Gurupriya & Joyce, 2025; Tabelessy, 2024).

The mediating role of storytelling strategies as part of the sensory stimulation construct further emphasizes the importance of narrative in building memorable brand experiences. As shown by the significant relationship between sensory storytelling and both emotional branding ($\beta = 0.670$) and product development ($\beta = 0.664$), it is evident that consumers respond positively to emotionally resonant and contextually grounded brand narratives. Previous literature confirms that storytelling creates brand meaning and facilitates consumer identification with brand values, particularly when embedded within multisensory delivery channels (Catherine et al., 2024; Kazmi & Zaman, 2024). Moreover, the BETTER strategy's dimension of "Emotionality" is operationalized in this framework through affective storytelling that elevates brand salience and consumer trust (Ali & Alquda, 2022).

Another significant pathway in the model involved brand promotion leading to competitive advantage ($\beta = 0.593$) and brand capital growth ($\beta = 0.624$). These findings are consistent with the strategic branding literature, which has long posited that well-executed promotional strategies enhance brand strength by fostering consumer confidence and perceived value (Ghosh & Roy, 2021; Midha et al., 2021). The BETTER framework's dimensions of "Trust" and "Responsiveness" are directly activated through targeted brand promotion, which conveys consistency, credibility, and adaptability in response to changing consumer needs (Anggraheni & Haryanto, 2023). When promotional messaging is integrated with sensory storytelling—especially in visual or auditory formats—it produces synergetic effects on consumer engagement and memory retention (Nurhadi et al., 2024; Šerić et al., 2020).

The strong path from customer experience to customer sensory experience ($\beta = 0.927$) and importance of experience ($\beta = 0.735$) illustrates that brand equity is increasingly tied to how consumers feel during their interactions with the brand. This is echoed in previous empirical work suggesting that experiential quality, including both hedonic and utilitarian components, plays a vital role in driving brand loyalty and advocacy behavior (Amin & Nika, 2019; Yap & Suwarno, 2024). Notably, this result also confirms the mediating role of experience in translating brand strategy into tangible brand equity gains—an insight also emphasized by recent studies in retail and hospitality contexts (Dananjoyo, 2024; Sasivardhini & Kalaivani, 2024).

Interestingly, not all hypothesized relationships were supported. For example, the path between shifting customer perception and brand equity enhancement was statistically insignificant ($p = 0.164$), suggesting that attitudinal change alone may not directly influence brand equity unless paired with experiential or emotional reinforcement. This nuance is in line with cognitive psychology theories which posit that beliefs must be linked to affective or behavioral experiences to drive long-term brand loyalty (Huang & Bunchapattanasakda, 2023; Nguyen-Viet, 2022). Simply altering brand image without reinforcing it through experiential strategies may result in superficial or short-lived impact.

Another compelling finding is the influence of macro-level challenges—including technological shifts, regulatory pressures, and changing consumer lifestyles—on key organizational enablers such as media support, organizational capabilities, and innovation. The significant relationships observed (e.g., macro challenges → innovation: $\beta = 0.527$; macro challenges → organizational capabilities: $\beta = 0.660$) reflect how external volatility can act as both a constraint and a stimulus for strategic brand evolution. These findings correspond to studies that highlight the importance of agility and adaptive branding in the face of dynamic consumer and regulatory landscapes (Khandelwal et al., 2019; Sharma, 2020).

Of particular note is the lack of significance in the moderating role of macro-level challenges on the relationship between sensory strategy and brand equity ($p = 0.815$). This result suggests that, despite external pressures, the internal coherence and effectiveness of the sensory and storytelling strategy remain stable and resilient. Such consistency in impact reinforces the robustness of sensory marketing and the BETTER approach as enduring strategies for brand development, irrespective of macro-environmental shifts (Shariq, 2019; Zhu, 2019).

The strong model fit, as indicated by the GOF index (0.573), further validates the theoretical and practical relevance of this model. It highlights the multi-dimensional, interdependent nature of brand equity, particularly in the food industry where sensory appeal and emotional connection play dominant roles. The results collectively affirm that brand equity can no longer be viewed through the lens of awareness and loyalty alone; it must also encompass emotionality, sensory engagement, narrative alignment, and adaptive responsiveness (Ekklesi & Sondakh, 2025; Miller, 2024).

Despite its comprehensive design and strong empirical support, this study has several limitations. First, it is context-specific to the food industry within a particular cultural and geographic setting, which may limit the generalizability of its findings. Consumer perceptions of sensory marketing and storytelling strategies may vary across cultures, especially in markets with different levels of digital maturity or emotional advertising receptiveness. Second, although the study utilized a mixed-methods design to enhance validity, the qualitative phase relied on purposive sampling, which may introduce selection bias. Third, the quantitative model focused on linear and direct relationships, potentially overlooking complex interactions or feedback loops among constructs that could further enrich understanding.

Future studies could explore the model in other industries where sensory engagement is relevant, such as cosmetics, hospitality, or luxury retail, to evaluate the universality of the proposed relationships. Cross-cultural comparisons would also provide valuable insights into how cultural values influence the reception of emotional storytelling or sensory branding strategies. Additionally, future research may consider longitudinal designs to examine how brand equity evolves over time in response to sustained sensory and storytelling interventions. Incorporating moderating variables such as consumer personality traits, brand familiarity, or technological adoption rates could also refine the explanatory power of the model.

Practitioners in the food industry should recognize the strategic power of multisensory experiences and emotional storytelling in strengthening brand equity. Integrating the BETTER strategy with sensory marketing can offer a holistic blueprint for crafting consistent, immersive, and emotionally resonant brand experiences. Marketers should invest in sensory cues that align with their brand identity—from packaging design to ambient retail elements—and weave coherent narratives that express the brand's purpose and values. Furthermore, leveraging data-driven personalization and engaging consumers through co-creative digital platforms can amplify brand loyalty and emotional investment. Ultimately, brands that humanize their voice and stimulate the senses stand to build deeper, longer-lasting relationships with consumers in an increasingly experience-driven marketplace.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

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Declaration of Interest

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In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were considered.

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