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Brand Image Affecting the Low-sugar Dessert Consumption of Generation Y: The Mediation Role of Identity and Attitude

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Abstract

Low-sugar desserts have emerged as the top choice for health-conscious young consumers. This study aims to explore the Path of brand image affecting the Generation Y's consumption intention of low-sugar desserts. We used online questionnaire data collected from 643 Gen Y consumers in 10 major cities in China who have intention to consuming low-sugar desserts. By constructing structural equation models, the results understand that brand image has a significant impact on the purchasing attitude and social identity of Generation Y consumers, which further affects their purchase intention of low-sugar desserts. In addition, purchasing attitude and social identity play as the crucial mediators in the relationship between the brand image and consumer intention towards low-sugar desserts. These results not only highlight the importance of the food industry in strategic communication and brand development, particularly in promoting healthy dietary choices, but also provide valuable insights for public health policymakers and professionals in the food and beverage industry.

Keywords: *health awareness, consumer behavior, sugar intake, generation Y, China, public health, dietary trends.*

1. Introduction

Advances in technology and globalization have had a profound impact on the global food landscape (Tamasiga et al., 2023). Within this context, opting for low-sugar desserts has emerged as a primary choice aligned with health-conscious living and dietary habits. However, the abundance of this food option also presents significant public health challenges. The prevalent intake of processed foods high in sugar content has precipitated a rapid escalation in the incidence of obesity, diabetes, and cardiovascular ailments, thus engendering a public health emergency(Nadathur et al., 2024). Notably, this crisis is particularly acute among younger demographics, who have been exposed to a growing array of unhealthy dietary options since early stages of development (Rodrigues et al., 2024).

After a period of slow and steady expansion with moderate but sustained growth from 2018 to 2019, there has been a noticeable downturn in the low-sugar dessert market in 2020(Xu et al., 2023). This trend may be influenced by the deep economic uncertainty and volatility triggered by the outbreak of the global pandemic (Uddin et al., 2021).

However, the market rebounded in 2021 and the growth trend continued into 2022, albeit at a slower pace. This volatility shows that despite consumer interest in the stability of low-sugar foods, China's economy has been declining since the outbreak and macroeconomic factors may profoundly affect the market (Tong et al., 2022).The sugar substitute market is forecast to grow steadily from 2015 to 2027. Rising demand for sugar alternatives is in line with a broader trend towards healthy dietary choices (Boukid & Castellari, 2021). The persistent consumer interest in low-sugar and sugar-free products highlights a sustained paradigm shift rather than a fleeting phenomenon(Marinescu et al., 2021). This enduring trend provides a fertile ground for probing into the consumption patterns of low-sugar confections within the demographic cohort of Generation Y. Despite experiencing a marginal decrease in sales during the year 2020, subsequent periods exhibited a resurgence in growth, suggestive of a certain level of market resilience. Such resilience could plausibly stem from an augmentation in consumer consciousness or evolving dietary preferences (Liaqat et al., 2024).

Although much research has focused on the health effects of general eating habits, research on specific product consumption, especially low-sugar desserts, remains relatively inadequate (Pinto et al., 2021). These desserts are a unique combination of health-conscious and indulgent needs and therefore deserve special attention. In addition, most of the current studies have adopted a comprehensive approach, covering different age groups. However, Gen Y's particular demographics, social influences, technological exposure, and economic challenges make their consumption behavior likely to differ from other age groups(Laor & Galily, 2022). Their choices are influenced by traditional values and modern forces, which can lead to a unique balance between health consciousness and actual consumption, especially in the case of the "sweet paradox" , that is, millennials pursuing healthy living and indulgent consumption at the same time.

Thus, this research aims to acquire an in-depth comprehension of the consumption inclinations regarding low-sugar confections within the Chinese millennial cohort and the underlying determinants, focusing particularly on delineating the influence of brand image, consumer attitudes, and social identity on consumption behaviors.

To begin, an exhaustive examination of scholarly literature will be undertaken to establish the theoretical foundations and conceptual framework of this study. Following this, a comprehensive elucidation of the research methodology will be presented, encompassing elements such as research design, data collection methodologies, analytical approaches, and ethical considerations. Leveraging these methodological underpinnings, this study will present the outcomes of quantitative analyses and scrutinize their associations with the research hypotheses. Subsequently, the manuscript will integrate the research findings, discourse their theoretical and practical implications, outline the limitations of the study, and propose avenues for future research trajectories.

2. Literature Review

2.1 Theoretical Foundations

The Consumer socialization theory (CST) investigates the mechanisms through which individuals develop skills and attitudes relevant to consumption via social interactions and cultural engagements (Chang et al., 2022). Notably, within the context of Generation Y, digital platforms assume a central role in facilitating this process of socialization (Tran, 2024). Generation Y is subject to the influence of brand communications and the exchange of experiences within digital communities, consequently shaping their inclinations and behaviors concerning low-sugar confections(Patel, 2023). These digital platforms function as vital sources of information, contributing to the construction of norms and expectations concerning healthy dietary habits and lifestyle choices.

Social influence theory focuses on the shaping effect of social factors on individual behavior. In the structural equation model of low-sugar dessert consumption of Generation Y, social impact theory provides an important theoretical framework (Jie et al., 2024). Generation Y's preference for low-sugar desserts is influenced by multiple social dynamics, such as the spread of health awareness in the brand image, the promotion of low-sugar desserts by health professionals and influencers, and the desire to align with their health-conscious peers (Jie et al., 2024).Through the perspective of social impact theory, we can better understand the social dynamics behind individual dietary choices, and provide theoretical support for developing relevant marketing strategies and promoting healthy food consumption.

The amalgamation of these theoretical perspectives has facilitated the elucidation of the underlying determinants driving Generation Y's preference towards low-sugar confections. Throughout this process, the Theory of Planned Behavior (TPB) has served as a fundamental framework for delineating how individual attitudes shape their consumption decisions(Azad et al., 2023). Furthermore, the CSTelucidates the influence of digital media in shaping these attitudes and behavioral norms. Concurrently, the social influence

theory underscores the broader societal forces that impact individual behaviors. The comprehensive integration of these theories not only enhances our comprehension of Generation Y's predilection for low-sugar confections but also furnishes theoretical groundwork and methodological direction for future research pursuits.

2.2 Hypothesis Statement

Generation Y's consumption of low-sugar desserts has become a sign of increased health awareness. Social influence theory is crucial to explain their consumption behavior. Gen Y's buying behavior is influenced by a number of factors, including the spread of health awareness, the promotion of low-sugar alternatives by health professionals and social authorities, and the desire to align with their health-conscious peers(Savelli et al., 2023). At the same time, a good brand image plays an important role in shaping consumer behavior. Brand image not only represents the lifestyle and social identity of consumers, but also reflects their values related to health awareness and sustainability (Jang & Kim, 2022). Consumers who support these values will often see brands as an extension of their social identity, Moreover, recognition from opinion leaders or influencers in personal social networks further solidifies the brand's position in the minds of Generation Y (Rodrigues et al., 2022). These social dynamics are intertwined, and together constitute the social background of Generation Y's preference for low-sugar desserts.

H1: *Brand image has a positive impact on consumers to form a good consumption attitude.*

Studies across various industries consistently demonstrate the significant influence of brand image on consumer perception and behavior(Fatma et al., 2022). In the realm of food products, including desserts, consumers often associate certain brands with specific attributes such as quality, healthiness, taste, and social status.With the growing global concern over health and wellness, particularly regarding the consumption of sugary foods, there's a rising demand for healthier alternatives, including low sugar desserts. Consumers who opt for these products are often driven by health-conscious motives, seeking to align their consumption choices with their personal values and lifestyle(Quaye et al., 2021).

Social identity theory posits that individuals derive a part of their self-concept from the groups they belong to or aspire to belong to(van den Scott, 2023). Previous research in consumer behavior and branding has consistently demonstrated the impact of brand image on consumer perceptions and behaviors. Consumers often choose brands that align with their self-concept and desired social identity.

The rising trend of health-conscious consumption, particularly in the food industry, underscores the importance of brands in shaping consumer perceptions of product attributes such as healthiness and quality. Brands that are perceived as trustworthy, transparent, and health-focused are likely to resonate more with consumers seeking low sugar dessert options. Social identity theory provides a

theoretical framework for understanding how individuals derive a sense of self from their membership in social groups. Brands in the low sugar dessert category often employ marketing strategies that emphasize health benefits, natural ingredients, and ethical practices(Konar et al., 2022). These strategies not only influence consumer perceptions of the brand but also contribute to the construction of a shared social identity among consumers who align with the brand's values and image. Hence, we posited:

H2: *Brand image positively impacts the social identity associated with low-sugar desserts.*

Hypothesis Development:

Research in psychology and consumer behavior consistently demonstrates a strong correlation between attitudes and behavioral intentions(Wang et al., 2021). Individuals tend to act in accordance with their attitudes, especially when the behavior in question aligns with their beliefs, values, or goals(Graham-Wisener et al., 2022). With increasing awareness about the detrimental effects of excessive sugar consumption on health, there has been a growing trend toward healthier dietary choices.

Consumers often form attitudes based on their perceptions of the benefits associated with a particular product or behavior. Social factors, including social norms and peer influence, play a significant role in shaping attitudes and behaviors related to food consumption(Hogreve et al., 2021). As societal norms increasingly emphasize health and wellness, individuals may feel social pressure to adopt healthier dietary habits, including reducing their intake of sugary foods. Positive attitudes toward low-sugar desserts may thus be reinforced by social approval and acceptance within one's social network.

There is a link between the consumer psychology and health behavior have provided evidence of the link between attitudes and behavioral intentions. Consumers who hold positive attitudes   are more likely to express an intention to consume these products in the future. The increasing emphasis on health and wellness in contemporary society has led many individuals to prioritize health-conscious behaviors, including dietary choices(Shimul et al., 2021). Positive attitudes toward low-sugar desserts reflect a motivation to make healthier food choices, driven by concerns about personal health and well-being(Mahony et al., 2023). Consumers evaluate products based on their perceived value and benefits. Positive attitudes toward low-sugar desserts indicate that individuals perceive these products as valuable in contributing to their health goals, whether it be weight management, diabetes management, or overall well-being(Ho et al., 2024). Attitudes serve as predictors of behavioral intentions, which, in turn, influence actual behavior. Individuals who express a positive intention to consume low-sugar desserts are more likely to follow through with their intentions and incorporate these products into their dietary habits. Hence, this study posits:

H3: *A positive consumption attitude toward low-sugar desserts leads to a higher intention to consume low-sugar desserts.*

The learning trajectory of individuals is significantly shaped by their social milieu and the observation of others' conduct through media channels, implying that the dissemination of knowledge could potentially impact both brand reputation and consumer perceptions (Borghi & Mariani, 2022). Alterations in attitudes often transpire via either the central route, characterized by systematic processing of information and logic, or the peripheral route, which is susceptible to external cues such as brand reputation (Xiao et al.). Attitudes mold behavioral inclinations, with brand image and information propagation playing pivotal roles in shaping consumer perceptions. The dissemination of information regarding low-sugar desserts has the potential to influence consumer cognition, thereby potentially augmenting brand image(Heller et al., 2020). Should the disseminated information resonate with consumers' values, such as health consciousness or sustainability, it could positively sway consumer perceptions (Shen et al., 2024). Consequently, effective knowledge dissemination and the cultivation of a robust and favorable brand image are imperative for nurturing positive consumer perceptions. Consumers who identify with the concept of low-sugar desserts are more likely to intend to consume such products. Hence, this research assumes:

H4: *Social identity associated with low-sugar desserts positively influences consumption intention.*

Brand image significantly influences consumer perspectives and actions, particularly considering the central role that attitudes play in shaping purchase intentions (Gidaković et al., 2022). Amidst the prevailing backdrop of escalating health consciousness, there has been a gradual upsurge in public interest towards low-sugar and healthier dessert alternatives. Brand image serve as conduits for effective brand-consumer communication and interaction, thereby facilitating the cultivation of more favorable attitudes towards low-sugar desserts. Marketing endeavors on the development of brand image, by cultivating positive attitudes, potentially act as a conduit linking marketing strategies with consumer aspirations (Del Giorgio Solfa et al., 2023). Additionally, brand image furnish social validation through feedback, endorsements, and shared experiences, reinforcing positive attitudes and consequently broadening purchase intentions (Majeed et al., 2024). The circulation of quality content and trustworthy endorsements through these channels enhances the credibility of low-sugar desserts in the public domain, thereby impacting consumer attitudes and ultimately molding their buying choices. thus, the study posits:

H5: *Consumption attitudes mediate the relationship between brand image and consumption intentions towards low-sugar desserts.*

Individual actions often align with societal identities, influenced by factors like media exposure. Social identity pivotal role in shaping consumer attitudes and behaviors. As the low-sugar confectionery market expands, the increasing public focus on health and awareness of sugar-related health concerns also impacts market dynamics (Keller &

Guyt, 2023). As an illustration, the implementation of "healthy indulgence" initiatives via social identity has the potential to augment brand recognition and consumer perspectives, consequently impacting their social identities. Moreover, research indicates that identity serves as a mediator in the relationship between brand image and consumer intentions(Farzin et al., 2021). Brand communities, integrating them into a social identity aligned with brand values, thus further bolstering purchase intentions. Effective brand image not only bolster brand credibility but also fortify the social identities linked to low-sugar products, thereby shaping consumer preferences Therefore, this study assumes:

H6: *Social identity plays a mediating role between brand image and low-sugar dessert consumption intention.*

3. Research Method

This study was conducted using quantitative research methods and selected 643 Gen Y consumers aged between 25 and 44 with experience in consuming low-sugar desserts as participants through a purposeful sampling strategy. The sample population was drawn from the ten cities in China known for their high consumption of low-sugar desserts, namely Beijing, Shanghai, Chengdu, Chongqing, Shenzhen, Guangzhou, Hangzhou, Changsha, Wuhan, and Xi'an. A 5-point Likert scale was employed to assess each variable. The detailed measurements of specific variables are delineated as follows:

The brand image of low-sugar desserts was conceptualized. Lietal defined consumption attitudes towards low-sugar desserts and assessed them by respondents' agreement to specific statements. Identity within the realm of low-sugar confections was assessed to evaluate participants' feeling of inclusion and alignment of principles with the low-sugar confection community. In addition, some scholars conceptualized the consumption intention of low-sugar desserts, including evaluating the possibility of buying and consuming low-sugar desserts in the future(Riquelme et al., 2022).

This research comprehensively considers the brand image, consumption attitude, social identity and consumption intention, and adopts a multi-faceted analysis method. The methodologies employed in this study encompass a range of analytical techniques. These include conducting descriptive statistical analyses to summarize the data, employing reliability testing to ensure the consistency of measurements, performing confirmatory factor analysis to validate the measurement model, and utilizing structural equation modeling (SEM) to examine the relationships between variables in the proposed theoretical framework.

4. Results

4.1 Descriptive Analysis

Table 1 offers a comprehensive overview of participant demographics, covering key aspects like gender, geographic spread, education, and annual household income. Gender balance is evident, with females representing 51.1% and males 48.9% of the sample, ensuring fair gender representation and enhancing the survey's gender-related findings. Participants come from ten major cities in China, with strong representation in Beijing

(12.1%), Chongqing (10.3%), and Shenzhen (12.0%). This wide geographic distribution ensures diverse urban representation, crucial for understanding regional differences. Regarding education, a significant portion of participants holds advanced degrees, with 27.5% undergraduates, 22.2% master's students, and 25.6% doctoral candidates, indicating high educational levels that may influence their responses. Annual household income varies, with 20.5% in the 250,000 – 300,000 yuan and 18.2%=more than 300,000yuan, suggesting a notable presence of affluent participants. This dispersion underscores participants from varying socioeconomic backgrounds, crucial for analyzing economic factors in the study.

Table 1. Essential Information.

		Frequency	Per cent
Gender	Male	315	48.9
	Female	328	51.1
Region	Beijing	78	12.1
	Shanghai	54	8.4
	Chengdu	62	9.6
	Chongqing	66	10.3
	Shenzhen	77	12.0
	Guangzhou	58	9.0
	Hangzhou	57	8.9
	Changsha	70	10.9
	Wuhan	59	9.2
	Xi'an	62	9.6
Education Level	High school diploma	159	24.7
	Bachelor's degree	177	27.5
	Master's degree	143	22.2
	Doctorate	164	25.6
Annual Family Income (in RMB)	Less than 100,000	103	16.0
	100,000 - 150,000	78	12.1
	150,000 - 200,000	118	18.4
	200,000 - 250,000	95	14.8
	250,000 - 300,000	132	20.5
	More than 300,000	117	18.2

4.2 Reliability and Validity Analysis

Reliability testing for each component using Cronbach's alpha are presented in Table 2. Cronbach's α values, ranging from 0.767 to 0.887, are reported for constructs spanning "brand image of low-sugar desserts" to "intention to consume low-sugar desserts." These values exceed the widely accepted threshold of 0.7, indicating improved survey reliability and consistent measurement of target constructs across questionnaire items for each component. Notably, the construct "social acceptance of low-sugar desserts" demonstrates the highest consistency ($\alpha = 0.887$), affirming robust internal reliability in this domain.

Table 2. Demographic Information.

Study variables	Number of questions	Cronbach's α

Brand image of low-sugar dessert	4	0.822
Attitude towards low-sugar dessert consumption	3	0.795
Social identity of low-sugar dessert consumption	6	0.887
Purchase intention towards low-sugar dessert	3	0.767

Using Kaiser-Meyer-Olkin (KMO) measurements and Bartlett sphericity tests, we verify the adaptability of the structural equation model for Generation Y low-sugar dessert consumption. The results showed that the KMO value=0.945 (>0,9), which exceeded the minimum threshold of 0.6, indicating that the appropriateness of the sample was sufficient and the data was suitable for factor analysis. In addition, the Chi-square value of the Bartlett sphericity test is 6916.905 and the significance level is 0.000, rejecting the null hypothesis about the identity matrix and confirming the significant correlation between the variables.

Table 3. KMO and Bartlett's Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		**.945**
Bartlett's Test of Sphericity	Approx. Chi-Square	6916.905
	df	253
	Sig.	.000

Collectively, Tables 2 and 3 showcase the statistical robustness employed in this investigation. The reliability stats affirmed construct measurement coherence, while KMO and Bartlett's tests supported factor analysis, laying a solid foundation for analyzing low-sugar dessert data.

4.3 Confirmatory Factor Analysis

By analyzing the fitting indexes and observations in the structural equation model, we find some key findings. The $\chi2/df$ ratio was 1.533, well below the threshold of 3, while the RMSEA value was 0.029, below the standard of 0.08. In addition, all GFI, AGFI, NFI, TLI, and CFI values exceeded the conventional threshold of 0.9. These results show that the model has good fit and robustness, and can describe the features of the data set effectively.

Table 4 . Measure Model Fit Metrics.

Fit index	$\chi2/df$	RMSEA	GFI	AGFI	NFI	TAG	CFI
Reference standards	<3	<0.08	>0.9	>0.85	>0.9	>0.9	>0.9
Result	1.533	0.029	0.956	0.944	0.953	0.980	0.983

The comprehensive evaluation shows that the structural equation model for low-sugar dessert consumption of Generation Y has good internal consistency and reliability. The observed factor loads range from 0.706 to 0.787, reflecting the close correlation between

each measurement item and its corresponding underlying variable, while the entity factor loads highlight the effectiveness of each indicator in measuring its corresponding concept. In addition, the overall reliability (CR) scores ranged from 0.768 to 0.887, all exceeding the confidence threshold of 0.7, indicating high confidence in the measurement tools.

Table 5. Convergence Validity.

Latent variables Factor loading	Observation indicators	CR	AVE
Brand image of low-sugar dessert	BIL1 0.721	0.822	0.537
	BIL2 0.774		
	BIL3 0.723		
	BIL4 0.711		
Attitude towards low-sugar dessert consumption	CAL1 0.763	0.796	0.565
	CAL2 0.735		
	CAL3 0.756		
Social identity of low-sugar dessert consumption	SIL1 0.787	0.887	0.567
	SIL2 0.751		
	SIL3 0.779		
	SIL4 0.751		
	SIL5 0.708		
	SIL6 0.740		
Purchase intention towards low-sugar dessert	CIL1 0.706	0.768	0.525
	CIL2 0.718		
	CIL3 0.749		

Table 6 presents the standardized coefficients (β) from a structural equation modeling analysis, depicting the relationships among latent variables related to low-sugar dessert consumption. Starting with the first column, the brand image of low-sugar desserts significantly influences attitudes toward low-sugar dessert consumption (β = 0.733, $p <$ 0.001), indicating that a positive brand image is associated with more favorable attitudes towards consuming low-sugar desserts. Attitudes towards low-sugar dessert consumption positively influence both social identity (β = 0.629, $p < 0.001$) and purchase intention (β = 0.752, $p < 0.001$). Social identity of low-sugar dessert consumption significantly affects both purchase intention (β = 0.618, $p < 0.001$) and brand image (β = 0.649, $p < 0.001$). This

indicates that individuals who strongly identify with low-sugar desserts are more likely to have higher purchase intentions towards them and contribute to shaping the brand image positively.Finally, the fourth column reveals that purchase intention towards low-sugar desserts is positively influenced by all preceding latent variables: brand image (β = 0.669, p < 0.001), attitude (β = 0.567, p < 0.001), and social identity (β = 0.725, p < 0.001). This demonstrates that individuals with a positive brand image, favorable attitudes, and a strong social identity towards low-sugar desserts are more inclined to intend to purchase and consume them. Overall, the results suggest a sequential relationship among the latent variables, where a positive brand image leads to favorable attitudes, which in turn foster social identity and purchase intention towards low-sugar desserts. This highlights the interconnectedness of these factors in influencing consumer behavior in the context of low-sugar dessert consumption.

Table 6. Discriminant Validity Test.

Latent variables	1	2	3	4
Brand image of low-sugar dessert	0.733			
Attitude towards low-sugar dessert consumption	0.629 ***	0.752		
Social identity of low-sugar dessert consumption	0.649 ***	0.638 ***	0.753	
Purchase intention towards low-sugar dessert	0.669 ***	0.567 ***	0.618 ***	0.725

4.4 Structural Equation Model

Table 7 illustrates the fit assessment for the structural equation model (SEM), confirmed by various indicators. Notably, the $\chi2/df$=1.553, with an RMSEA=0.030. Furthermore, metrics such as GFI, AGFI, NFI, TLI, and CFI exceed conventional thresholds, suggesting the model aptly captures the observed data within the research framework.

Table 7. Model Fit Metrics.

Fit index	$\chi2/df$	RMSEA	GFI	AGFI	NFI	TAG	CFI
Reference standards	<3	<0.08	>0.9	>0.85	>0.9	>0.9	>0.9
Result	1.553	0.030	0.956	0.944	0.952	0.979	0.982

Table 8 details the structural relationships in the low-sugar dessert study is provided. This table meticulously scrutinizes four hypotheses (H1-H4), investigating the interplay among constructs like brand image (BI). consumer attitudes (CA), social identity (SI) and consumer intentions (CI).An evaluation of the path from brand image to consumer attitudes (H1 hypothesis) shows a normalization coefficient (β) of 0.465, a standard error (S.E.) of 0.064, and a critical ratio (C.R.) of 7.627, which significantly supports the H1 hypothesis. Similarly, the evaluation of the remaining H2 to H4 hypotheses also yielded positive results, with p-values ranging from 0.001 to 0.014, corresponding to the C.R. The values are consistent. These results indicate the statistical significance of each pathway, that is, they are important for explaining the low-sugar dessert consumption behavior of Generation Y.In the specific path, for example, from brand image to consumption attitude

(β = 0.465) and brand image to social identity (β = 0.275), the β value is higher, indicating that brand image has a significant impact on consumption attitude and brand image on social identity. In contrast, lower beta values, such as H4 (social identification to consumption intent, beta = 0.159), suggest a weaker but still significant correlation. Therefore, the statistics support the H1 to H4.

**Table 8.** Structural Equation Model Path Test.

Hypothesis	Path	Estimate	β	S.E.	C.R.	P	Results
H1	BI→CA	0.489	0.465	0.064	7.627	***	Supported
H2	BI→SI	0.275	0.254	0.058	4.722	***	Supported
H3	CA→CI	0.183	0.199	0.057	3.195	0.001	Supported
H4	SI→CI	0.159	0.178	0.054	2.949	0.003	Supported

The mediation effects analysis was performed using the bootstrapping method, focusing on indirect associations between potential variables within the framework of low-sugar dessert consumption. Each hypothesis (H5 to H6) delves into a specific intermediary path, such as the path from brand image to consumer attitude to consumer intent (BI→CA→CI). At the same time, the effect size, standard error (SE) and 95% deviation-corrected confidence interval (CI) were also calculated. Bootstrapping method was used to analyze the intermediate effect, focusing on the structural equation model of low-sugar dessert consumption of Generation Y. The results confirm the presence of all mediating effects, showing that these potential variables do not interact directly with each other, but rather act indirectly through the mediation of other concepts. For example, the influence of brand image on consumer intention is partly mediated by consumer attitudes and social identity. This result supportsH5 and H6, emphasizing the mediating role of identity and attitude.

Table 9 Mediation Effect Bootstrap Test.

Hypothesis	Mediation path	Effect size	SE	Bias-Corrected 95%CI	Results
H5	BI→CA→CI	0.090	0.041	0.019 0.180	Supported
H6	BI→SI→CI	0.044	0.025	0.006 0.109	Supported

Figure 1 presents a graphical representation of the structural equation model, clearly showing the relationship between brand image, consumption attitude, social identity, and consumption intention of low-sugar desserts (LSD). The model was built to determine the mediating role between attitude and identity.
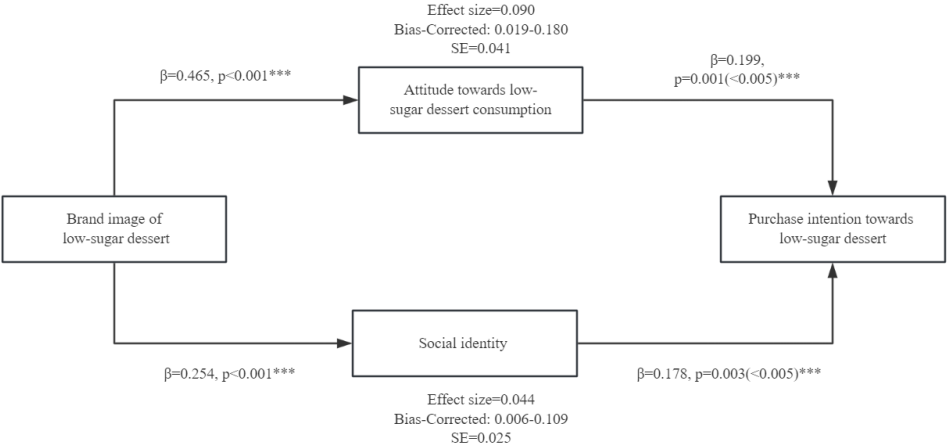
Figure 1. Model of brand image affecting the purchase intention

5. Discussion and Conclusion

Through structural equation model (SEM) analysis, we explored the complex relationship between Generation Y's attitude and intention towards low-sugar dessert consumption and brand image and social identity. The results show that consumer attitude plays a key mediating role between brand image and consumption intention, which highlights the importance of consumer attitude in purchasing decision(Yu et al., 2021). At the same time, social identity also plays an important role in the model, which further promotes consumers' preference for low-sugar desserts by promoting the connection between brand image and the willingness to consume low-sugar desserts. These findings provide insights for the food industry, highlighting the impact of brand image and social acceptance on healthy eating choices among young consumers. In practice, these results could guide food companies to develop more effective marketing strategies to meet Generation Y's growing demand for low-sugar desserts. In summary, the results of this study not only deepen the understanding of consumer behavior academically, but also have practical significance, and provide a valuable reference for the development of the food industry.

5.1 Theoretical Implications

This study reveals the role of consumer attitude, social identity and brand image on their consumption intention. The results have not only deepened the understanding of Gen Y consumer behavior, but also expanded the significance of the health food market. In addition, the findings have important implications for the food industry and marketing strategies, highlighting the critical role of brand image and social identity in shaping consumer buying behavior. This is important for developing targeted marketing strategies, promoting healthy food consumption and meeting the needs of young consumers.

Consumer socialization theory (CST) emphasizes the role of social interaction in shaping consumer behavior. This assertion aligns with existing research emphasizing the fundamental role of social learning in shaping consumer behavior(Huang et al., 2023). This finding fills a gap in the earlier CST literature on the impact of digital platforms, revealing the evolution of Gen Y consumers' behavior in the digital environment. Consistent with social identity theory (SIT), individual behavior is influenced by the social environments they are embedded in(Arshad et al., 2022). This observation echoes Speers' insights into the influence of norms and the societal dissemination of information. Nonetheless, our research brings attention to some variations in the strength of indirect effects, particularly regarding the mediating role of brand image. This suggests that the interaction of social influence may be more complex than traditional concepts of social identity theory present.

5.2 Practical Implications

The consumption of low-sugar desserts carries substantial managerial implications for a diverse array of stakeholders, including marketing professionals, health policy makers, and specialists in consumer education(Moura & Aschemann-Witzel, 2021). Each of these implications furnishes distinct insights that can facilitate the formulation of targeted strategies and policies, while also keeping relevant parties well-informed.

With the prevalence of social media, digital marketing's efficacy has soared, necessitating marketers' keen attention to crafting engaging online content that fosters consumer interaction(Dutta & Kumar, 2024). Notably, active engagement on social media platforms holds substantial sway over the attitudes and purchasing behaviors of Generation Y consumers, particularly concerning low-sugar desserts. It follows that a strategic focus on cultivating a strong brand image for low-sugar desserts can wield significant influence over consumers' attitudes and social identities. Therefore, marketers should prioritize efforts in branding and digital marketing strategies aimed at accentuating the health-conscious, sustainable, and indulgent aspects of low-sugar dessert offerings. Moreover, educators should incorporate media literacy education into their curriculum, equipping consumers with the skills to critically evaluate information, especially pertaining to health-related claims on social media. By bolstering consumers' ability to discern the credibility and relevance of such content, they can make informed and health-conscious choices. This concerted approach not only enhances consumers' media literacy but also empowers them to align their lifestyle and dietary decisions with their values, ultimately fostering healthier eating habits and a more positive societal impact(Anurogo et al., 2023).

The significance of a well-defined brand image is evident in its profound impact on consumer purchasing decisions(Grimm & Wagner, 2021). Marketing professionals should therefore prioritize enhancing brand activities, particularly by emphasizing the health benefits and superior quality of low-sugar desserts. Moreover, policy makers might consider collaborating with businesses to foster healthier eating practices. Typically, endorsements by reputable brands are powerful tools in altering consumer habits(Chavadi et al., 2021).

Understanding and shaping consumer beliefs and preferences is critical, which has important implications for developing targeted marketing strategies(Huang et al., 2021). This may involve targeted advertising campaigns designed to align with consumers' values and lifestyle preferences. Additionally, dispelling myths about low-sugar desserts, coupled with informational campaigns and educational initiatives, can positively transform consumer attitudes.

5.3 Conclusion

In this study, we explored Generation Y's intention towards low-sugar dessert consumption through structural equation models. We deeply analyze the decision-making process of consumers choosing low-sugar desserts through the brand image to intention. The results show that brand image have significant effects on consumer attitudes and social identity, furthermore to enhance the intention. This demonstrates the importance of emerging brand image to the consumer decision-making process. Furthermore, this study makes a significant contribution to the academic field by focusing on the brand image, consumption attitude and social identity in the context of low-sugar desserts. The results enhance our understanding of health-conscious food consumption. Moreover, by employing an integrative theoretical framework, this research

conducts a thorough examination of consumer behavior intention. Through an emphasis on brand image, the study underscores the pivotal role of digital platforms in shaping consumer decisions. Additionally, an investigation into the mediating function of brand imagery provides novel insights into how brand perceptions impact consumer attitudes and behaviors, thus adding substantial depth to the body of knowledge concerning brand management and marketing strategies.

Acknowledging the contributions of this investigation, it is imperative to consider the limitations imposed by the geographical confines of the sample, which potentially affect the extrapolation of the results. The profound impact of cultural and regional contexts on consumer perceptions and behaviors cannot be underestimated, indicating that the findings may not seamlessly extend to varied demographic or cultural groups. Furthermore, the employment of a cross-sectional design in data gathering restricted the ability to deduce causal links. A longitudinal approach would yield a deeper insight into the dynamics of consumer attitudes and behaviors over time.

Future inquiries should target a broader spectrum of geographical and cultural settings to amplify the applicability of the results. Undertaking cross-national or cross-regional comparative analyses could elucidate the cultural determinants influencing consumer preferences for low-sugar desserts. Longitudinal research is essential to track the consistency and fluctuations in consumer attitudes and behaviors, especially in response to the shifting paradigms of marketing tactics and public health campaigns(Kabir, 2023). Additionally, it would be prudent for subsequent studies to consider other variables, such as environmental or ethical issues, which may sway consumer decisions toward low-sugar desserts. An exploration of these factors would facilitate a more comprehensive understanding of the motivations behind healthier food choices, thereby enriching the existing body of knowledge on consumer behavior in the context of health-conscious consumption.

Authors' contribution

J.M, and S.J: conceptualization and writing—original draft preparation.

G.J, J.D :methodology, formal analysis, and writing—review and editing.

All authors have read and agreed to the published version of the manuscript.

Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Data Availability Statement

Accessing the dataset provided poses challenges due to the proprietary interests of collaborators and privacy considerations, resulting in the confidentiality of certain data points. Nonetheless, we extend an invitation to individual scholars or experts interested in utilizing these datasets for academic purposes or other scholarly endeavors. Requests for access to these datasets should be directed to Jie Ma: ma.jie@rmutr.ac.th.

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