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The Dynamic Impacts of Public Perceptions of Fast-Food Products with Nutrition Facts on Fast-Food Consumption

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Abstract: Although most American eat at a fast-food restaurant 1 to 3 times a week, they would realize that fast food consumption is highly associated with chronic diseases and generates negative impacts on their health. As fast-food consumers become more health-conscious, fast-food brands strive to build a more health-oriented image on their fast-food products. Thus, this study proposes a conceptual model that aims to examine direct and indirect impacts of consumers' BMI, self-efficacy, perceived brand trust, and brand commitment on their fast-food consumption. An online survey using Amazon Mechanical Turk is conducted with a total of 484 female and 380 male participants included in the final analysis. Results show that the mediating effects of self-efficacy, brand trust in, and brand commitment with the fast-food product with nutrition facts are significantly generated on consumers' fast-food consumption. Moreover, indirect effects are found on consumers' fast-food consumption via the nexus of their self-efficacy, brand trust, and brand commitment. The study also offers practical insights into the impact of health-conscious consumers' brand perceptions on their fast-food consumption.

Keywords: BMI; self-efficacy; brand trust; brand commitment; fast-food consumption

Citation: Pan, P.-L.; Bhandari, M.; Zeng, L. The Dynamic Impacts of Public Perceptions of Fast-Food Products with Nutrition Facts on Fast-Food Consumption. *Sustainability* **2024**, *16*, 9913. https://doi.org/10.3390/su16229913

Academic Editors: Victor Shi and Robert E. Pitts

Received: 30 August 2024
Revised: 29 October 2024
Accepted: 7 November 2024
Published: 14 November 2024

1. Introduction

The global fast-food market has reached a milestone. In 2022, the fast-food market was valued at $647.7 billion, signaling a growth route expected to continue through 2030 [1]. The United States is ranked first in fast food consumption around the world, with Americans indulging one-three times per week and contributing to an annual expenditure of $110 billion on fast food. This significant intake is reflected in the habits of 37% of Americans consuming fast food daily, more than 50% of Americans eating fast food at least once per week, and 83% of American households doing so weekly. As more than 50% of the money Americans spend on food is on fast-food, fast-food consumption has negative impacts on Americans' health [2]. Specially, fast food contains approximately 1000 calories on average per meal and accounts for more than 11% of the daily caloric intake for Americans. Consequently, fast food consumption is associated with a higher risk of obesity, type 2 diabetes, and heart disease. Other negative consequences due to fast food consumptions include higher risks of developing metabolic syndrome, unhealthy cholesterol in individuals, depression in adults, chronic kidney disease in adults, asthma and allergies in children, increased BMI, and decreased dietary quality and nutrient intake. From skyrocketing obesity rates to increased risk of chronic diseases, fast food consumption has painted a sobering picture of its negative impacts on Americans' health [3].

On the other hand, fast food marketing is heavily targeted towards children and adolescents. Fast food advertising makes up over 25% of all food-related TV commercials that generate insidious influences on the young generation [2]. Moreover, several fast-food brands, such as Chipotle, Chick fil-a, and Subway, attempt to change their unhealthy images by elaborating on their menu items with nutrition facts, offering more nutritious

entrees and sides, or serving healthier alternatives to meet the wants and needs of health-conscious consumers [4]. The changing images of fast-food brands would surely assist health-conscious consumers to develop their trust in and commitment with fast-food brands and further activate their fast-food purchase [5,6]. Therefore, the study proposes four research objectives. The first objective is to examine how health-conscious consumers' self-efficacy affects their fast-food consumption. The second object explores how they perceive fast-food products with nutrition facts in terms of their brand perceptions. The third objective looks at how their perceived brand trust and brand commitment impact their fast-food consumption. Finally, the conceptual model is proposed to investigate whether consumers' self-efficacy, brand trust, in and brand commitment with fast-food products with nutrition facts would mediate the impact of body mass index on their fast-food consumption.

A growing number of consumers, especially younger ones, want to eat healthier [7], and brands need to continually prosper and increase the value of the brand to consumers and marketers for brand sustainability [8]. The study's insights can help fast-food brands better understand their consumers to address their health needs and accordingly evolve to remain competitive in the marketplace, and, along the way, also impact the long-term health and sustainability of human beings in general. The study attempts to offer insights into the need to include nutrition facts with fast-food products to promote the healthy and sustainable images of fast-food brands, increase consumers' health consciousness, and finally activate consumers to choose these sustainable brands for their healthier eating.

2. Literature Review

2.1. Body Mass Index

Body Mass Index (BMI) provides an anthropometric estimate of fatness and is a useful metric to track progress in the fight against obesity [9]. It captures the weight-to-height ratio and is calculated by dividing one's weight (in kilograms) by square of height (in meters). When calculating it using pounds (lb) and inches (in), the weight in pounds is divided by the square of inches and then multiplied by a conversion factor of 703 [10]. While Adolphe Quetelet described the index weight by height squared in the 19th century, Ancel Keys reinvented the index in the 1950s and coined it as BMI [9].

Relatively simple measurement is an advantage of BMI in public health research, although studies—-especially large-scale ones—-often need to rely on self-reported measures of BMI, given financial and other challenges associated with directly measuring health and weight or other anthropometric characteristics in participants in a large-scale study [11].

Given it is an estimate of fatness BMI is used to indicate whether one is obese (over 30), overweight (25–29.9), or underweight (below 18.5). Consumers with higher BMI (over 25) are categorized as overweight. Higher BMI usually means increased chances of experiencing conditions such as Type II diabetes mellitus, insulin resistance and hyperinsulinemia, hypertension, dyslipidemia, coronary heart disease, asthma, arthritis, gallbladder disease, several cancers, depression, and an increased all-cause mortality [12–15]. Overweight consumers (classified based on higher BMI) may be more likely to have poor psychological health and greater mortality risks [16–18]. Studies also show BMI can be related to consumers' eating habits, food choice, physical activity, and healthy behavior [19–21].

The current study uses BMI as a central variable in connection with consumers' fast-food consumption. It is likely that those with lower BMI—-healthier, less overweight consumers—-may consume less fast food. But exposure to nutrition information may impact the relationship between consumers' BMI and likelihood of fast-food consumption through self-efficacy, brand trust, and brand commitment. This is what we discuss in the next sections.

2.2. Self-Efficacy

Another important concept the study examines is self-efficacy, or confidence in one's abilities to carry out the behaviors needed to reach a desired outcome [22,23].

Perceived self-efficacy (hereby, just "self-efficacy") can vary in its effects across activities and situational constraints, but mostly has been found to have positive effects [23]. Self-efficacy can drive human action and can affect how well a person functions through cognitive, motivational, affective, and decisional processes [23]. Self-efficacy can determine people's motivation and resilience to challenging situations through the setting of their goals, expectations of outcome, and how they attribute their differing outcomes in their lives, be it successes or failures [23]. Self-efficacy can regulate emotional states and their susceptibility to mental issues and stress. Also, self-efficacy can influence what options people consider when making choices and ultimately what choices they make at critical junctures and thereby what they become in life [23]. Measuring self-efficacy can be a standard and convenient way to evaluate consumers' self-management potential.

Self-efficacy can generate a positive impact on people's health [24–26]. As self-management support can improve self-efficacy and an increase in self-efficacy can be associated with better health outcomes [27], Marks et al. also hypothesize higher self-efficacy being associated with better health outcomes [28]. Self-efficacy has been shown in studies to influence increased physical activity and exercise [29] and promote proper lifestyle and exercise behaviors in healthy adults [30]. It can also impact the effectiveness of self-management interventions, which usually include healthy eating habits [31]. In fact, increased self-efficacy can also lead to more use of online mediums for health purposes, thereby supporting self-efficacy's relation with online nutrition information seeking [32,33]. Higher self-efficacy consumers may thus better control their behavior and reduce fast-food consumption. Moreover, some studies have also reported an inverse correlation between eating self-efficacy and fast-food consumption [34].

To sum up, people with better maintained (lower) BMI can lead to a higher degree of self-efficacy perceptions, and higher BMI may reduce self-efficacy perceptions and therefore have reduced resistance to unhealthy food consumption. Therefore, the lower self-efficacy in folks with a higher BMI may result in higher fast-food consumption. The first hypothesis is proposed as follows:

H1: *Consumers' self-efficacy will mediate the impact of their BMI on their fast-food consumption.*

2.3. Brand Trust and Its Role as a Mediator

Trust is a complex concept with multiple dimensions. It usually contains (a) a party that trusts and the other that is trusted; (b) an uncertain situation requiring trust; (c) risk-taking action as a result; and (d) subjectivity (e.g., consumers differ in how much trust is needed for an action [35]. It is one of the dimensions of the organization–public relationship [36].

Scholars have also identified dimensions of brand trust, including reliability, intentions, integrity, benevolence, ability, and predictability of the brand [37–39]. To earn consumers' trust, brands need to show reliability or competency in solving people's needs and the intention of placing consumers first [37]. Thus, having more trust in a brand means less uncertainty about the brand's intentions to benefit us or place us first.

Negative emotions about brands negatively impact brand trust [40], but, on the other hand, stronger trust in the brand positively affects behavioral outcomes such as purchase intentions or loyalty [38,41,42]. This positive effect of brand trust on behavioral outcomes can be relevant for this study, whereby people with higher fast food brand trust could consume more fast food.

Thus, overall, in the context of fast-food brands, higher brand trust seems likely to lead to more fast-food consumption. In addition, fast-food product brand trust is likely to mediate BMI's effects on fast food consumption behaviors, whereby those with lower BMI—who are likely to be more active—could trust more the fast-food brand with nutrition information, as that information may prove more useful for them to make better food

choices. It may indicate, at least to some extent, that the brand has intentions to help consumers make better decisions. Those with more negative emotions or less emotional stability tend to have a higher BMI [19,20]. The presence of nutrition information may make such high-BMI folks feel worse when enjoying their (fast) food, and hence this may lead them to develop less positive emotion toward the brand, even though the nutrition information provided is to inform people to make rational choices. That BMI is negatively related to conscientiousness and emotional stability [20] supports this line of thinking as well. Thereby, this negativity in high-BMI participants can translate into lower brand trust for products with nutritional information. And then, ultimately, because of the relationship between brand trust and behavioral outcome noted above, the negative (positive) effect of higher (lower) BMI on brand trust for products with nutrition information could lead to a lower (higher) intention to consume fast food. This way, brand trust for products with nutrition information may mediate BMI effects on fast food consumption. It is likely to do so in a way that enhances fast food consumption for folks with lower BMI and reduces consumption for folks with higher BMI.

H2: *Consumers' brand trust in the fast-food product with nutrition facts will mediate the impact of their BMI on their fast-food consumption*.

2.4. Mediation of Brand Commitment with the Fast-Food Product with Nutrition Facts

Brand commitment also seeks to capture the perceived relationship of consumers with the brand, particularly as an indicator of brand-consumer bonding strength [36]. Brand commitment is needed for brands and consumers to achieve valuable outcomes [39]. Brand commitment as used here is thus mainly consumers' perceived obligation to the brand or organization, whereby consumers consider it important enough to put effort into continuing the exchange with the brand [36,39].

The effect of BMI on fast-food choice via brand commitment—a component of organization-public relationship—should follow a similar pattern to brand trust. Lower BMI consumers—more concerned about what they eat—may feel better about maintaining brand commitment when the brand provides nutrition information, and this positive effect should consequently help strengthen low-BMI individuals' intention to consume the fast-food brand providing nutrition information. Hence, this way brand commitment may also mediate BMI effects on fast food consumption, enhancing fast food consumption likelihood for folks with lower BMI and, on the other hand, reducing or not affecting consumption likelihood for folks with higher BMI. Therefore,

H3: *Consumers' brand commitment with the fast-food product with nutrition facts will mediate the impact of their BMI on their fast-food consumption*.

Based on the above three hypotheses, the conceptual model is proposed in Figure 1 to examine how consumers 'self-efficacy, brand trust in, brand commitment with the fast-food products with nutrition facts mediate the impact of their BMI on their fast-food consumption. Although not formally stated in the three hypotheses, higher self-efficacy's impact on brand trust as well as brand commitment is also likely to be negative. Those with higher self-efficacy may be generally more cautious about brands selling fast food (generally an unhealthy item), and thus less committed to and less trusting of them.

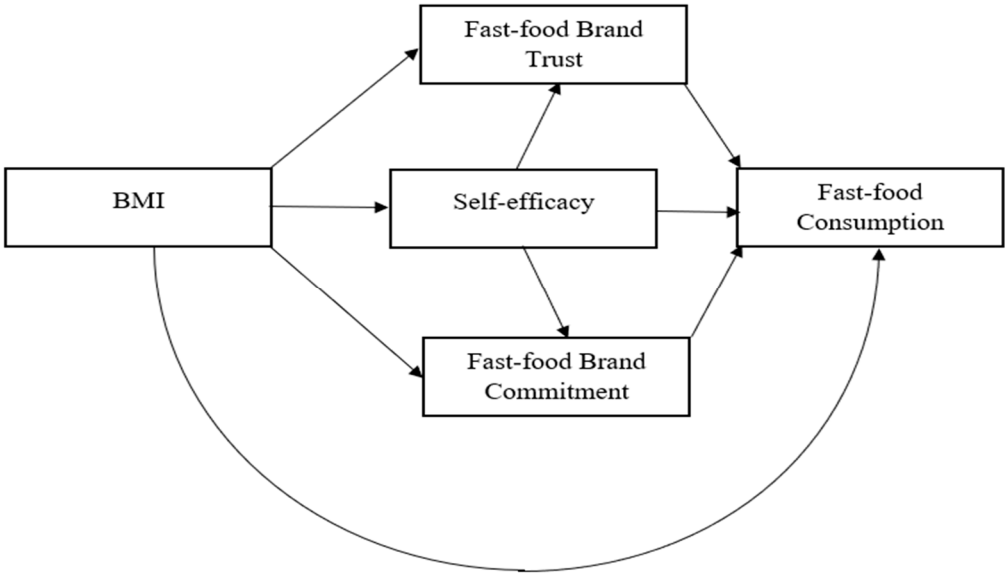

Figure 1. Conceptual model with self-efficacy, brand trust, and brand commitment as mediators.

3. Methods

3.1. Online Survey

After receiving approval from the Institutional Review Board, an online survey was created and posted on Amazon Mechanical Turk (MTurk), offering a small compensation for participation. MTurk assisted in recruiting 897 participants, consisting of 484 females (54.0%), 380 males (42.4%), and 33 who did not disclose gender (3.6%). The average age was 29.98 years old (*SD* = 12.66). The participants were primarily Caucasian (*n* = 583, 65%), followed by African American (*n* = 135, 15.1%) and Hispanic (*n* = 34, 3.4%). Since 96 participants with missing data were removed, 801 cases were used in the final analysis.

3.2. Sampling

MTurk is a crowdsourcing platform that is used to help individuals and businesses outsource their processes and jobs to a distributed workforce who can perform these tasks virtually. MTurk workers generally provide high-quality data, given that they exhibit a high level of engagement and participation in research [43] and appear to be more representative of the U.S. population (in terms of gender, age, race, and education) than conventional in-person convenience samples [44]. According to Google Scholar, MTurk is frequently used in 15,000 articles published between 2006 and 2014 [45] and 17,400 articles by mid-2017 [46], which confirms the validity for the usage of MTurk workers in academic research. As crowdsourcing is defined as a non-probability sampling approach, the growing popularity of MTurk has made it the most useful non-probability sampling platform available to researchers [45].

3.3. Measures

Body mass index (BMI) was calculated based on participant's height and weight. The formula for BMI was weight in kilograms divided by height in meters squared. All participants were asked to answer their heights and weights that were used to calculate BMI. A higher BMI showed higher fatness.

Self-efficacy was measured using the general self-efficacy scale by Schwarzer and Jerusalem [47]. This 10-item scale was rated at a five-point rating of agreement (1 = Not true at all; 5 = Extremely true), including (1) I can always manage to solve difficult problems if I try hard enough; (2) If someone opposes me, I can find the means and ways to get what I want; (3) It is easy for me to stick to my aims and accomplish my goals; (4) I am confident that I could deal efficiently with unexpected events; (5) Thanks to my resourcefulness, I know how to handle unforeseen situations; (6) I can solve most problems if I invest

the necessary effort; (7) I can remain calm when facing difficulties because I can rely on my coping abilities; (8) When I am confronted with a problem, I can usually find several solutions; (9) If I am in trouble, I can usually think of a solution; and (10) I can usually handle whatever comes my way. The ratings were summed and averaged to indicate the participant's self-efficacy (Cronbach's Alpha = 0.88; M = 3.89; SD = 0.68).

Brand trust in and *brand commitment to the fast-food product with nutrition facts* were measured based on Kim's organization–public relationship scale [36]. For brand trust, four items were rated at the five-point ratings of agreement (1 = Not true at all; 5 = Extremely true), including (1) This fast-food brand treats people like me fairly and justly; (2) Whenever this fast-food brand makes an important decision, I know it's concerned about people like me; (3) I believe that this fast-food brand takes the opinions of people like me into account when making decision; and (4) Sound principles seem to guide this fast-food brand's behavior. For brand commitment, five items were also assessed by using the five-point ratings of agreement (1 = Not true at all; 5 = Extremely true). These five items were: (1) I can see that this fast-food brand wants to maintain a relationship with people like me; (2) There's a long-lasting bond between this fast-food brand and people like me; (3) Both this fast-food brand and people like me benefit from their relationship; (4) Generally speaking, I am pleased with the relationship this fast-food brand has established with people like me; and (5) I feel people like me are important to this fast-food brand. The participants' responses to both scales were summed and average, respectively, to demonstrate their brand trust in (Cronbach's Alpha = 0.78; M = 3.21; SD = 0.94) and brand commitment to the fast-food product with nutrition facts (Cronbach's Alpha = 0.85; M = 3.21; SD = 1.02).

Fast-food consumption was used to assess the frequency of fast-food consumption. The participants were asked to answer the following questions: (1) How often do you eat fast food for your breakfast per week? (2) How often do you eat fast food for your lunch per week? (3) How often do you eat fast food for your dinner per week? Their responses to the above questions were assessed at the five-point scale (1 = Never; 2 = At least 1 time; 3 = 2–3 times; 4 = 4–5 times; 5 = More than 6 times). The participants with higher fast-food consumption were more likely to eat fast food in their daily lives (Cronbach's Alpha = 0.73; M = 2.21; SD = 1.09).

4. Results

This study analyzed the relationships between all measured variables by using Hayes' PROCESS (Model 81) [48] to examine the direct effects of four measured variables—BMI, self-efficacy, brand trust, and brand commitment—on fast-food consumption. The analysis was conducted to examine how all measured variables directly affect fast-food consumption and whether all would come to play together to jointly affect fast-food consumption. Next, using fast-food consumption as an only dependent variable in the study, the analysis further looked at mediating effects of self-efficacy, brand trust, and brand commitment on the relationship between BMI and fast-food consumption in order to test the proposed model and serve the purpose of this study.

H1 was proposed to examine a mediating effect of consumers' self-efficacy on the relationship between their BMI and fast-food consumption. Table 1 demonstrated how consumers' BMI, self-efficacy, brand trust in, and brand commitment with the fast-food products with nutrition facts significantly affected their fast-food consumption. The results showed that consumers' BMI yielded a direct effect on their self-efficacy (t = −3.81, SE = 0.0045, $p < 0.01$) while their self-efficacy directly affected their fast-food consumption (t = −4.14, SE = 0.0431, $p < 0.01$). Moreover, a direct effect of consumers' BMI on their fast-food consumption was terminated (t = 1.00, SE = 0.0055, p = 0.31), indicating that the mediating effect of consumers' self-efficacy was significantly produced. Thus, H1 was supported (BMI → self-efficacy → fast-food consumption, BootLLCI = 0.0008; BootULCI = 0.0061). More specifically, higher BMI would lead to lower self-efficacy, which resulted in higher fast-food consumption.

Table 1. Coefficients for statistical model of fast-food consumption.

Antecedent	Model 81		
	Fast-Food Consumption		
	β	***SE***	***t***
Constant **	1.94	0.27	7.11
BMI	0.01	0.01	1.01
Self-efficacy **	−0.18	0.04	−4.14
Brand Trust *	0.10	0.05	2.00
Brand Commitment **	0.16	0.05	3.40
	$R^2 = 0.07$, $F = 15.54$, $p < 0.01$		

Note: ** $p < 0.01$; * $p < 0.05$.

H2 examined whether consumers' brand trust in the fast-food product with nutrition facts would mediate the impact of their BMI on their fast-food consumption. The results found that a direct effect of consumers' BMI was generated on their brand trust ($t = -2.01$, $SE = 0.0052$, $p < 0.05$) as well as a direct effect of their brand trust on their fast-food consumption ($t = 1.99$, $SE = 0.0493$, $p < 0.05$). Specifically, consumers with lower BMI would be affected by their higher brand trust in the fast-food product with nutrition facts to consume the fast food more frequently. As consumers' BMI did not yield a direct effect on their fast-food consumption, their brand trust in the fast-food product with nutrition facts significantly mediated the effect of their BMI on their fast-food consumption (BMI → brand trust → fast-food consumption, BootLLCI = −0.0028; BootULCI = 0). Thus, H2 was confirmed.

H3 was proposed to look at whether consumers' commitment to the fast-food product with nutritional facts would yield a mediating effect on the relationship between their BMI and fast-food consumption. The results suggested that consumers' BMI would directly affect their brand commitment to the fast-food product with nutrition facts ($t = -2.61$, $SE = 0.0055$, $p < 0.01$), while their brand commitment would also generate a direct effect on their fast-food consumption ($t = 3.41$, $SE = 0.0464$, $p < 0.01$). Moreover, consumers with lower BMI were led by their higher brand commitment to the fast-food product with nutrition facts to eat the fast food more frequently. Simply saying, consumers' brand commitment to the fast-food products with nutrition facts would mediate the contributing relationship between their BMI and fast-food consumption (BMI → brand commitment → fast-food consumption, BootLLCI = −0.0048; BootULCI = −0.0004). Therefore, H3 was supported.

Figure 2 summarized all path analyses that simply demonstrated the mediating roles of self-efficacy, brand trust in, and brand commitment with the fast-food product with nutrition facts. Moreover, the results suggested that when consumers' BMI did not yield a direct effect on their fast-food consumption, some indirect effects were found on their fast-food consumption via the nexus of their self-efficacy and then brand trust (BMI → self-efficacy → brand trust → fast-food consumption, BootLLCI = −0.0004; BootULCI = 0). In the same way, some indirect effects on consumers' fast-food consumption were also yielded via the junction of their self-efficacy and brand commitment (BMI → self-efficacy → brand commitment → fast-food consumption, BootLLCI = 0; BootULCI = 0.0006).

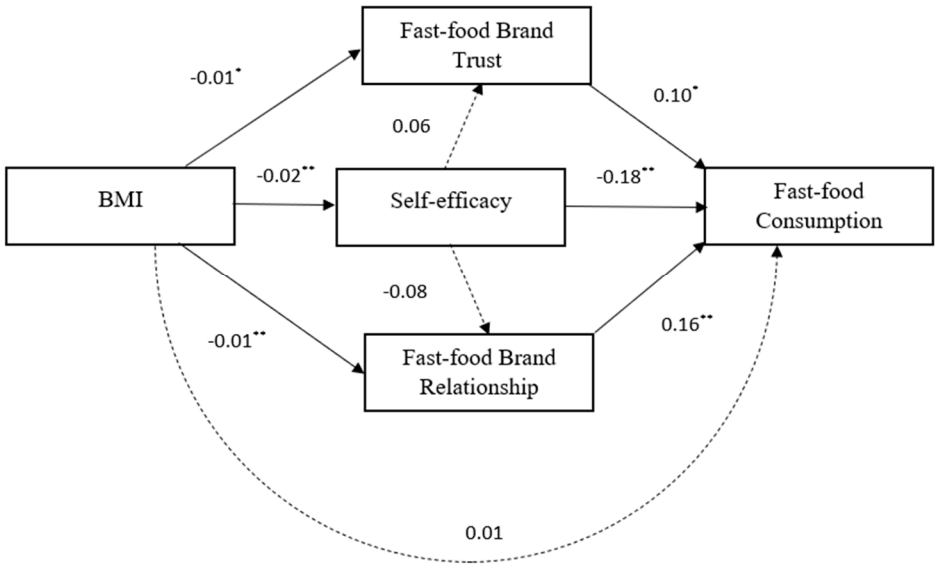

Figure 2. Statistical model with self-efficacy, brand trust, and brand commitment as mediators. Note: ** $p < 0.01$; * $p < 0.05$.

5. Discussion

The results of this online survey illuminate the intricate relationship between BMI and fast-food consumption, mediated by key psychological factors such as self-efficacy, brand trust, and brand commitment. The findings challenge the common belief that people with higher BMI consume more fast food, which is unhealthy and thus contributes more to weight gain, while those with a lower BMI eat healthy and hence less fast-food consumption. Instead, the study suggests that fast-food consumption is influenced by a range of factors beyond simple weight metrics.

5.1. BMI, Self-Efficacy, and Fast-Food Consumption

The study reveals that BMI indirectly affects fast-food consumption through its impact on self-efficacy—the belief in one's ability to make healthy dietary choices. Self-efficacy plays a crucial role in determining fast-food consumption in the sense that higher BMI is associated with lower self-efficacy, which in turn leads to increased fast-food consumption. This suggests that individuals with higher BMI may struggle with confidence in their food decisions, perpetuating a cycle of unhealthy eating and weight gain.

The finding that individuals with higher self-efficacy are less likely to consume fast food is consistent with the literature linking self-efficacy to healthy eating habits [31] and online nutrition information seeking [32,33]. This also supports the broader body of research about the positive impact of self-efficacy on better health outcomes [37–39].

These findings highlight the psychological challenges faced by individuals with higher BMI. Improving self-efficacy, particularly among this population, is pivotal for breaking the cycle of unhealthy eating and weight gain. Interventions that foster self-belief can facilitate long-term healthy behavior changes and ultimately improve overall health outcomes. Public health initiatives could prioritize boosting individuals' confidence in their ability to make healthier food choices through educational programs, support groups, or personalized coaching.

5.2. BMI, Brand Trust, and Fast-Food Consumption

Although BMI is found to have no direct impact on fast-food consumption in this survey, BMI indirectly affects fast-food consumption through brand trust. The finding of a significant negative direct effect of BMI on brand trust indicates that consumers with lower BMI are likely to have higher trust in fast-food brands that provide nutritional facts. As Bhandari and Pan [41] noted, greater trust is associated with stronger purchase intentions,

which explains why individuals with lower BMI choose certain fast-food products more often in this study. This finding also aligns with previous research showing that health-conscious consumers tend to trust fast-food brands that offer nutritional information and healthier alternatives, thereby increasing their fast-food purchases [5,6].

This observation accentuates the importance of psychological factors in dietary decision-making, where brand trust can sometimes outweigh health concerns. It also reflects a cognitive mistake where the availability of nutritional information is equated with the healthfulness of the food, leading to increased consumption of unhealthy food. To attract health-conscious consumers, marketers can build and maintain brand trust through nutritional transparency. For policymakers and public health professionals, however, there lies a potential challenge: while nutritional transparency is important, it may inadvertently encourage fast-food consumption if it fosters a false sense of security that the food is healthy. Consumers should be made aware through health ad campaigns and messaging that while nutritional transparency is important, it does not necessarily mean that fast-food products with nutritional facts are healthy or healthier than those that omit such information. Therefore, consumer education must go beyond merely providing nutritional facts and aim to empower individuals to critically assess the overall healthfulness of fast-food products.

5.3. BMI, Brand Commitment, and Fast-Food Consumption

Similarly to the above observations about how BMI influences fast-food consumption through brand trust, the study also finds that brand commitment mediates the effect of BMI on fast-food consumption. Specifically, consumers with lower BMI tend to develop stronger brand commitment to fast-food products with nutritional transparency, leading to more frequent consumption. A possible explanation is that lower-BMI individuals may perceive these brands as healthier or more trustworthy because the inclusion of nutritional facts aligns with their health-conscious behaviors.

From a marketing perspective, these results highlight the importance of cultivating brand commitment among health-conscious consumers. Brands that successfully align with consumers' health values and communicate nutritional transparency are likely to build strong loyalty, even among those who typically make cautious dietary choices. Providing nutritional details is essential to developing brand loyalty, which can boost sales of both traditional fast-food items and healthier alternatives from the same brands. However, fast-food brands should also recognize the potential public health implications of fostering increased consumption among health-conscious consumers and market their products responsibly. Companies' loyalty programs should not misuse the strategy to encourage excessive fast-food consumption, especially of less healthy items in their menu. Companies should instead encourage consumption of the healthiest options in their menu and provide more attractive loyalty promotions for those healthiest items.

The finding that brand commitment can lead to higher fast-food consumption among health-conscious consumers suggests that brand loyalty can sometimes outplay general health concerns in dietary decision-making. From a public health perspective, therefore, it is crucial to ensure that consumers remain critical of the food they consume and do not equal nutritional transparency to healthiness, thereby preventing brand loyalty from leading to unhealthy eating habits. In this regard, public health campaign messages could seek to emphasize the need to critically look at each fast-food brand and food item consumers put inside their mouth, regardless of the brand. Moreover, excessive unhealthy fast-food consumption for fast-food loyalty program members—who may have more trust in their fast-food joint—could be discouraged, urging them to not be lax in critically looking at each item they eat each time.

5.4. Conclusions

Overall, the study unveils the complex interplay between psychological factors, health metrics, brand loyalty, and dietary behavior, offering valuable insights for both fast-food marketing and public health strategies. These observations highlight the complexity of

fast-food consumption and suggest ways in which brands and public health strategies can address health concerns while meeting consumer demands. As sustainable brands grow, evolve, and prosper [8] to increase the importance of eating healthy for consumers [7], addressing the health concerns while meeting consumer demands is going to be an important factor for the sustainability of fast-food brands and the good health of human beings in society. Thus, the sustainability of fast-food brands can further contribute to better public health outcomes by balancing their marketing strategies with a commitment to health-conscious messaging. While building brand trust and commitment can boost sales, brand managers should be mindful of the broader impact of their messaging on consumer health. To be more sustainable, fast-food brands must offer genuinely healthier alternatives and avoid tactics that encourage overconsumption via their indirect impacts of fast-food consumption. At the same time, public health efforts should focus on empowering consumers through education and enhancing self-efficacy, ensuring that individuals make informed choices and do not mistake brand loyalty for healthier eating.

5.5. Suggestions for Future Research

The study opens avenues for future research on the role of other potential mediators, such as socioeconomic status, cultural factors, and frequency of exposure to brand messaging, in fast-food consumption and brand trust. Moreover, longitudinal studies could examine how these relationships and perceptions of nutrition labels evolve over time as consumers become more health-conscious. Also, while the study's use of self-reported measures of BMI and fast-food consumption was useful, future research could further validate the study's findings by using measures such as food diaries or health data from tracking applications. Future research could also explore whether the level of details in nutritional information affects brand trust, brand commitment, and food consumption. All these can have implications for not just the brand sustainability of fast-food brands but also for good health in society.

Author Contributions: Conceptualization, P.-L.P., M.B. and L.Z.; methodology, P.-L.P.; software, P.-L.P. and M.B.; validation, P.-L.P. and L.Z.; formal analysis, P.-L.P.; investigation, P.-L.P. and M.B.; resources, L.Z.; data curation, L.Z.; writing—original draft preparation, P.-L.P., M.B. and L.Z.; writing—review and editing, P.-L.P., M.B. and L.Z.; visualization, M.B. and L.Z.; supervision, P.-L.P.; project administration, P.-L.P. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki and approved by the Institutional Review Board of Arkansas State University (Approval Code: FY19-20-341; Approval Date: 29 May 2020).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The original contributions presented in the study are included in the article, further inquiries can be directed to the corresponding author.

Conflicts of Interest: The authors declare no conflict of interest.

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