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RESEARCH ARTICLE

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The Role of Perceived Benefits, Barriers, and Susceptibility in Free-From Gastronomy: A Health Belief Model Perspective

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Abstract

This study examines the key factors influencing consumer purchase intentions for free-from gastronomic products, focusing on the roles of perceived benefits, perceived barriers, and perceived susceptibility. The study applies the Health Belief Model (HBM) to explore how perceived susceptibility mediates the effect of perceived benefits on purchase intentions, while perceived barriers moderate this relationship. A quantitative research approach was adopted, utilizing a cross-sectional survey of 386 health-conscious consumers. Data were analyzed using Structural Equation Modeling (SEM) to test the direct, indirect (mediation), and interaction (moderation) effects. The results reveal that perceived benefits alone do not significantly influence purchase intentions; however, this relationship becomes significant when mediated by perceived susceptibility. Consumers who perceive themselves as at risk of diet-related health issues (e.g., diabetes, gluten intolerance) are more likely to purchase free-from products. Perceived barriers significantly moderate this relationship, such that consumers with higher perceived barriers (e.g., concerns about taste, price, and availability) are less likely to translate perceived benefits into purchase behavior. This study extends the HBM by demonstrating that perceived susceptibility plays a crucial mediating role in consumer food choices, particularly in the context of health-conscious purchasing behaviors. It also highlights the importance of barrier-reduction strategies in promoting free-from products. Marketers should emphasize health risk reduction messaging to increase perceived susceptibility, while simultaneously addressing price, taste, and availability concerns to mitigate perceived barriers. Strategies such as flavor innovations, affordability measures, and expanded distribution can enhance consumer adoption of free-from products. This study integrates HBM constructs into consumer behavior research, offering a novel approach to understanding psychological drivers of free-from product consumption. The findings provide practical recommendations for businesses and policymakers seeking to promote health-oriented food choices.

Keywords: *Consumer behavior, nutritional marketing, wellness trends, clean label products, free-from gastronomy*

Öz

Bu çalışma, algılanan faydalar, algılanan engeller ve algılanan duyarlılığın rollerine dayanarak, tüketicilerin arındırılmış (free-from) gastronomik ürünleri satın alma niyetlerini etkileyen temel faktörleri incelemektedir. Çalışma, algılanan duyarlılığın algılanan faydaların satın alma niyetleri üzerindeki etkisine nasıl aracılık ettiğini araştırmak için Sağlık İnanç Modelini (HBM) kullanırken, algılanan engeller bu ilişkiyi ılımlı hale getirmektedir. Nicel bir araştırma yaklaşımı benimsenmiş ve sağlık bilincine sahip 386 tüketiciyle kesitsel bir anket yapılmıştır. Veriler, doğrudan, dolaylı (aracılık) ve etkileşim (moderasyon) etkilerini test etmek için Yapısal Eşitlik Modellemesi (YEM) kullanılarak analiz edilmiştir. Sonuçlar, algılanan faydaların tek başına satın alma niyetlerini önemli ölçüde etkilemediğini, ancak algılanan duyarlılık aracılık ettiğinde bu ilişkinin anlamlı hale geldiğini ortaya koymaktadır. Kendilerini diyetle ilgili sağlık sorunları (örn. diyabet, glüten intoleransı) riski altında algılayan tüketicilerin free-from ürünleri satın alma olasılığı daha yüksektir. Algılanan engeller bu ilişkiyi önemli ölçüde azaltmaktadır; öyle ki algılanan engelleri yüksek olan tüketicilerin (örn. tat, fiyat ve bulunabilirlikle ilgili endişeler) algılanan faydaları satın alma davranışına dönüştürme olasılığı daha düşüktür. Bu çalışma, algılanan duyarlılığın, özellikle sağlık bilincine sahip satın alma davranışları bağlamında, tüketici gıda seçimlerinde önemli bir aracı rolü oynadığını göstererek HBM'yi genişletmektedir. Ayrıca, arındırılmış ürünlerin tanıtımında karşılaşılan engelleri azaltma stratejilerinin önemini vurgulamaktadır. Pazarlamacılar, algılanan duyarlılığı artırmak için sağlık riskini azaltma mesajlarını ön plana çıkarırken, aynı zamanda algılanan engelleri azaltmak için fiyat, tat ve bulunabilirlik endişelerini de gidermek zorundadır. Lezzet alanında yenilikler, satın alınabilirlik ölçütleri ve genişletilmiş dağıtım gibi stratejiler, tüketicilerin arındırılmış ürünleri benimsemesini artırabilir. Bu çalışma, HBM yapılarını tüketici davranışı araştırmalarına entegre ederek free-from ürün tüketiminin psikolojik etkenlerini anlamaya yönelik yeni bir yaklaşım sunmaktadır. Bulgular, sağlık odaklı gıda seçimlerini teşvik etmek isteyen işletmeler ve politika yapıcılar için pratik öneriler sunmaktadır.

Anahtar Kelimeler: *Tüketici davranışı, beslenme pazarlaması, sağlıklı yaşam trendleri, temiz etiketli ürünler, arındırılmış gastronomi*

Introduction

In recent years, the free-from food market has witnessed significant growth, driven by increasing consumer health consciousness, dietary restrictions, and ethical concerns. Free-from products—such as gluten-free, lactose-free, and sugar-free items—have become highly prominent as consumers seek alternatives that promise improved health outcomes and cleaner labels (Innova Market Insights, 2025; Aschemann-Witzel et al., 2019). This trend reflects a broader societal shift where consumers are not only interested in the nutritional benefits of their food choices but also in the ethical and environmental implications of food productizon.

Health concerns play a central role in the rising demand for free-from products. Many consumers perceive these products as healthier alternatives to conventional foods, a belief that is reinforced by the so-called "health halo" effect (Panidi et al., 2023). For instance, even individuals without diagnosed conditions, such as celiac disease, may opt for gluten-free products in the belief that these choices contribute to overall well-being (Dimidi et al., 2021). However, while the perceived benefits of free-from products are well-documented, research has also shown that other factors—such as price, taste, and availability, can serve as critical barriers that influence purchasing behavior (Steinhauser et al., 2020).

The theoretical underpinning for understanding these consumer behaviors is provided by the HBM, which suggests that an individual's health-related actions are shaped by their perceptions of susceptibility to and severity of health risks, alongside the perceived benefits and barriers to taking action (Rosenstock, 1974). In the context of free-from gastronomy, this model is particularly useful. Consumers who perceive a higher risk of health issues related to conventional food consumption (i.e., higher perceived susceptibility) are more likely to be motivated by the benefits associated with free-from products. At the same time, if these consumers also perceive significant barriers, such as high cost or compromised taste, these benefits may not fully translate into purchase intentions.

Despite the growing market and extensive literature on health and ethical food choices, there is a notable gap in research that simultaneously examines the interplay of perceived benefits, perceived susceptibility, and perceived barriers in driving purchase intentions for free-from products. Previous studies have often focused on individual components in isolation (e.g., the impact of health claims on consumer behavior or the role of sensory expectations), but few have integrated these constructs into a comprehensive model that explains consumer decision-making in this context (Rana & Paul, 2017; Liu & Wang, 2023). Understanding this interplay is crucial not only for advancing academic knowledge but also for developing practical marketing strategies that can effectively address consumer concerns and enhance product adoption.

The purpose of this research was to investigate how perceived benefits affect purchase intentions of free-from gastronomic foods by consumers using the HBM. We specifically tested whether the mediation effect of perceived susceptibility to diet risks existed between perceived benefits and purchase intentions and whether perceived barriers (price, taste, availability) moderated the benefits–intentions relationship. Specifically, the study posits that while perceived benefits may not directly drive purchase intentions, their influence is enhanced when consumers also perceive themselves as vulnerable to the negative health effects of conventional foods. Conversely, high perceived barriers can weaken the positive effect of perceived benefits on purchase intentions.

By integrating these constructs within the framework of the HBM, this study not only provides a more nuanced understanding of the factors influencing free-from product adoption but also offers practical insights for marketers. Effective communication strategies that emphasize the health risks associated with conventional food consumption—thereby increasing perceived susceptibility—combined with efforts to reduce perceived barriers, may significantly boost consumer purchase intentions.

In summary, this research contributes to the literature by bridging the gap between health behavior theory and consumer decision-making in the food sector. It offers a comprehensive model that explains how perceived benefits, susceptibility,

and barriers interact to influence purchase intentions, thereby providing a valuable foundation for both academic inquiry and marketing practice.

Literature Review

Free-From Gastronomy and Consumer Behavior

The demand for free-from food products, such as gluten-free, lactose-free, and sugar-free items—has surged in recent years, driven by health consciousness and dietary restrictions (Innova Market Insights, 2025). The rising demand for free-from gastronomic products (e.g., gluten-free, sugar-free, allergen-free) reflects growing consumer interest in health, ethical consumption, and sustainability (Aschemann-Witzel et al., 2019). Research suggests that free-from products are perceived as healthier alternatives, making them appealing to health-conscious consumers (Hartmann & Siegrist, 2017). However, consumer adoption of free-from products is influenced by multiple psychological and behavioral factors, including perceived benefits, perceived barriers, and perceived susceptibility (Rana & Paul, 2017).

H1: Perceived benefits positively influence purchase intentions.

Recent studies highlight that consumers are not only seeking to avoid allergens but are also motivated by a desire for cleaner labels and perceived health benefits associated with free-from products. For instance, a 2023 report indicates that 43% of consumers consider "no added sugars" claims influential in their purchasing decisions, and one-third are swayed by the absence of artificial ingredients (Web, Mintel)

Perceived Benefits and Purchase Intentions

Perceived benefits refer to the advantages consumers associate with a product, such as improved health, ethical alignment, and well-being (Chen, 2011; National Cancer Institute, n.d.). Prior studies show that perceived benefits strongly drive purchase intentions, particularly for health-related food products (Sweeney & Soutar, 2001; Schulte et al., 2021). Consumers who recognize the nutritional and ethical advantages of free-from products are more likely to purchase them (Steptoe et al., 1995). Consumers believing in the health advantages of gluten-free diets are more inclined to purchase gluten-free products, even without medical necessity (Panidi et al., 2023).

H2: Perceived benefits positively influence perceived susceptibility.

However, the direct relationship between perceived benefits and purchase intentions may not always be significant, as additional factors (e.g., price concerns, availability) may act as barriers (Dodds et al., 1991). In additon, the direct impact of perceived benefits on purchase intentions can be moderated by factors such as taste perceptions. Research indicates that while sugar-free labels enhance health perceptions, they may simultaneously reduce perceived sweetness and tastiness, potentially diminishing purchase intentions (Panidi et al., 2023).

Perceived Susceptibility as a Mediator

Perceived susceptibility refers to a consumer's belief in their likelihood of experiencing negative health consequences due to an unhealthy diet (Rosenstock, 1974). Research suggests that higher perceived susceptibility increases the perceived value of preventive health behaviors, including dietary choices (Champion, 1993). In the context of free-from gastronomy, consumers who believe they are at risk for diet-related illnesses (e.g., diabetes, celiac disease) are more motivated to choose healthier food alternatives (Dimidi et al., 2021). Empirical studies support this mediation effect, demonstrating that perceived susceptibility can enhance the influence of perceived benefits on health-related behaviors (Liu & Wang, 2023).

H3: Perceived susceptibility positively influences purchase intentions.
H4: Perceived susceptibility mediates the relationship between perceived benefits and purchase intentions.

Studies on health communication confirm that high-risk perception enhances the effectiveness of health messaging, increasing the likelihood of behavioral change (Rana & Paul, 2017).

Perceived Barriers as a Moderator

Despite recognizing benefits, consumers may still hesitate to purchase free-from products due to perceived barriers, such as higher prices, taste concerns, and limited availability (Aschemann-Witzel et al., 2019). Studies indicate that perceived barriers weaken the relationship between health benefits and purchase behavior, making price sensitivity a key determinant in consumer decision-making (Steinhauser et al., 2020).

H5: Perceived barriers moderate the relationship between perceived benefits and purchase intentions, such that higher perceived barriers weaken the relationship.

Marketing strategies that emphasize affordability, availability, and sensory improvements are crucial in overcoming these barriers (Ben Hassen et al., 2020). Emphasizing improvements in taste and affordability can enhance consumer acceptance of free-from products (Aschemann-Witzel et al., 2019).

Theoretical Foundation: Health Belief Model (HBM)

The HBM provides a strong framework for understanding consumer adoption of free-from products by integrating perceived susceptibility, perceived benefits, and perceived barriers as key predictors of purchase intentions (Rosenstock, 1974). Research applying the HBM to dietary behavior confirms that health-related beliefs significantly impact food purchasing decisions, particularly in the context of functional and organic foods (Hartmann & Siegrist, 2017). By incorporating HBM constructs, this study aims to bridge the gap between health risk perceptions and consumer behavior, providing insights into how marketers can tailor their messaging to different consumer segments.

Ethical, Environmental, and Clean-Label Motivations

Aside from health, ethical consumption and sustainability reasons are increasingly behind free-from gastronomy. Hartmann and Siegrist (2017) illustrated that environmental and animal-welfare concerns encourage consumers to embrace alternative protein sources, engaging the same drivers in free-from markets. Ben Hassen et al. (2020) also illustrated that the COVID-19 pandemic increased consciousness regarding sustainable food systems, supporting ethical reasons to eschew ingredients.

In the meantime, the clean-label trend—the call for short, understandable ingredient lists—has proven to be an effective trust cue. Aschemann-Witzel et al. (2019) discovered that clean-label assertions strongly enhance consumer faith in product safety and quality, particularly if combined with understandable certification.

Lastly, HBM applications to food decision-making highlight the functions of perceived benefits, barriers, and susceptibility within clean-label and ethical settings. Champion's (1984) initial HBM scale development study was the foundation for dietary behavior research, and Liu & Wang (2023) extended HBM constructs to online health information, validating model effectiveness in preventive eating behavior prediction.

Methodology

Research Design

This study employs a quantitative research design to examine the relationships between Perceived Benefits, Perceived Barriers, Perceived Susceptibility, and Purchase Intentions in the context of free-from gastronomy. A cross-sectional survey method was used to collect primary data from consumers who are aware of or interested in free-from food products. The study follows the positivist research paradigm, which focuses on hypothesis testing using statistical techniques (Saunders et al., 2019).

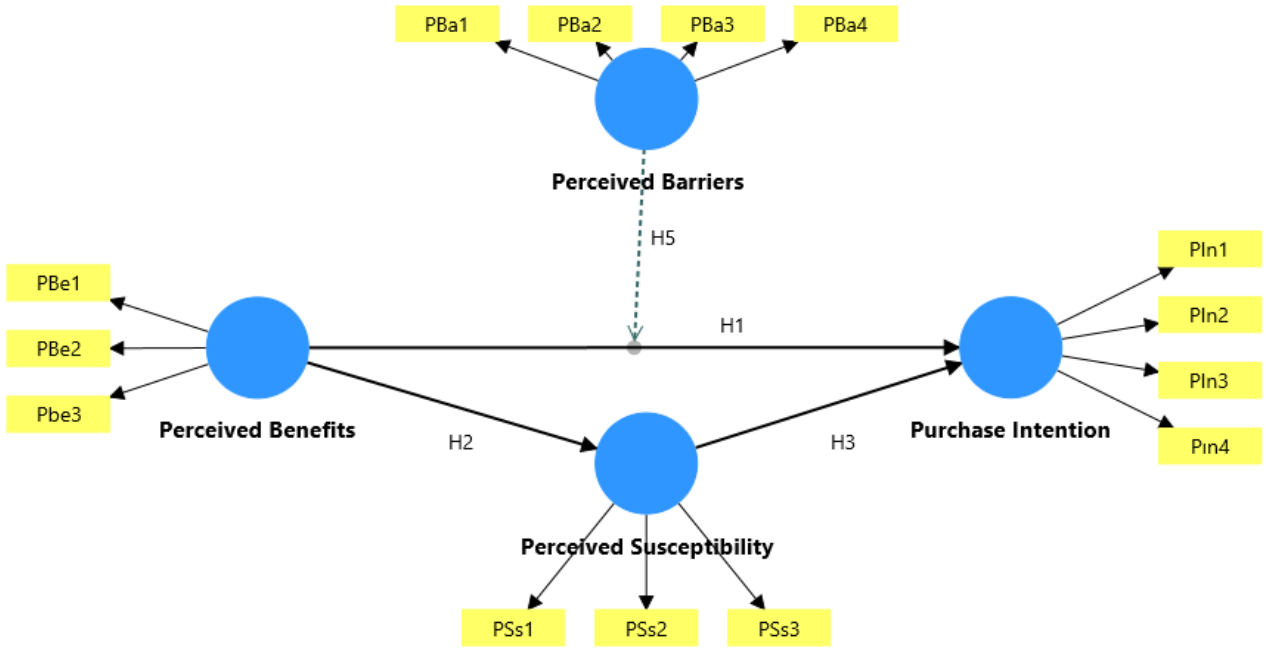

Figure 1. Research Model

Target Population and Sampling

Target population consists of health-conscious consumers who have previously purchased or shown interest in free-from gastronomic products (e.g., gluten-free, sugar-free, allergen-free). In this research, non-probability purposive sampling was employed, targeting respondents with relevant experience or awareness of free-from products (Hair et al., 2019). A minimum of 300 respondents was determined to ensure sufficient statistical power for SEM analysis (Kline, 2015).

The sample frame were individuals who had purchased one or more free-from products (e.g., gluten-free or sugar-free) within the previous year and read food labels as routine to guide their food choice. The internet survey was advertised on social media health networks and online forums, and respondents were screened by two screening questions:

- Have you bought a free-from product during the last year?
- Do you read food labels regularly and make food decisions based on this information?

Participants who answered "yes" to both questions were defined as "health-conscious" and included in analyses (n = 386).

There were 482 returns; 96 participants that did not pass either screening question were excluded from further analysis.

Research Model

The research model for this study integrates key constructs from consumer behavior theory and the HBM to explain purchase intentions for free-from gastronomic products. The model posits that the influence of perceived benefits on purchase intentions is not direct but is transmitted through and moderated by other critical factors: perceived susceptibility and perceived barriers. A conceptual diagram of the research model is structured in Figure 1.

Hypotheses

- **H1:** Perceived benefits positively influence purchase intentions.
- **H2:** Perceived benefits positively influence perceived susceptibility.
- **H3:** Perceived susceptibility positively influences purchase intentions.
- **H4:** Perceived susceptibility mediates the relationship between perceived benefits and purchase intentions.
- **H5:** Perceived barriers moderate the relationship between perceived benefits and

purchase intentions, such that higher perceived barriers weaken the positive relationship.

Perceived benefits are hypothesized to affect purchase intentions both directly and indirectly via perceived susceptibility, while perceived barriers are expected to attenuate the direct benefits–intentions link.

Data Collection Method

A structured questionnaire was developed and distributed via online platforms (e.g., Google Forms, Qualtrics). The survey was conducted over a four-week period to ensure a diverse sample. A pilot study with 30 respondents was conducted to assess the reliability and clarity of the survey items (Malhotra et al., 2020).

Reliability and Validity Testing

The survey was administered in its original English version to indigenous English-speaking respondents who were recruited through Amazon Mechanical Turk (MTurk). No translation and back-translation process was therefore necessary. All the items on the scales (Perceived Benefits, Perceived Barriers, Perceived Susceptibility, and Purchase Intentions) stayed in English and surfaced verbatim as in their original studies. Pilot testing of 30 MTurk respondents provided Cronbach's α measures between 0.78 and 0.88 across constructs, which show good internal consistency.

Following the pilot study, Cronbach's Alpha (α) was used to assess internal consistency on the main sample (n = 386), with a threshold of 0.70 indicating acceptable reliability (Nunnally & Bernstein, 1994) . Composite Reliability (CR) and Average Variance Extracted (AVE) were calculated to evaluate construct reliability and validity (Fornell & Larcker, 1981). Exceeded 0.70, confirming construct validity . Confirmatory Factor Analysis (CFA) was performed to verify the measurement model. AVE exceeded 0.50, indicating good convergent validity.

Table 1 presents the results of the confirmatory factor analysis including factor loadings for each construct. All factor loadings > 0.7, indicating good convergent validity.

Table 1. Factor Loadings

Item	*Construct*	*Factor Loading*
PBa1	*Perceived Barriers*	0.884
PBa2	*Perceived Barriers*	0.870
PBa3	*Perceived Barriers*	0.882
PBa4	*Perceived Barriers*	0.915
PBe1	*Perceived Benefits*	0.891
PBe2	*Perceived Benefits*	0.937
PBe3	*Perceived Benefits*	0.896
PIn1	*Purchase Intentions*	0.783
PIn2	*Purchase Intentions*	0.740
PIn3	*Purchase Intentions*	0.752
PIn4	*Purchase Intentions*	0.861
PSs1	*Perceived Susceptibility*	0.938
PSs2	*Perceived Susceptibility*	0.960
PSs3	*Perceived Susceptibility*	0.958

Table 2 presents Cronbach's Alpha, CR and AVE for assessing internal consistency and construct validity.

Table 2. ***Internal Consistency***

Construct	*Cronbach's Alpha*	*Composite Reliability (CR)*	*AVE*
Perceived Barriers	0.910	0.937	0.788
Perceived Benefits	0.894	0.934	0.825
Perceived Susceptibility	0.948	0.967	0.879
Purchase Intentions	0.861	0.923	0.798

Table 3 indicates the diagonal values that represent the square root of AVE, which are higher than the off-diagonal values, indicating good discriminant validity.

Table 3. Discriminant Validity - Fornell-Larcker Criterion

Construct	**1**	**2**	**3**	**4**
1.Perceived Barriers	0.888	0.215	0.250	0.236
2.Perceived Benefits	0.215	0.908	0.272	0.076
3.Perceived Susceptibility	0.250	0.272	0.952	0.319
4.Purchase Intentions	0.236	0.076	0.319	0.865

Table 4 has all HTMT values which are below 0.90, confirming discriminant validity (Henseler et al., 2015).

Table 4 .Discriminant Validity - HTMT Ratio

Relationship	*HTMT Value*
Perceived Benefits <-> Perceived Barriers	0.239
Perceived Susceptibility <-> Perceived Barriers	0.268
Perceived Susceptibility <-> Perceived Benefits	0.293
Purchase Intentions <-> Perceived Barriers	0.279
Purchase Intentions <-> Perceived Benefits	0.099
Purchase Intentions <-> Perceived Susceptibility	0.319

Table 5 presents Variance Inflation Factor (VIF) scores, which assess the presence of multicollinearity among variables. All VIF values are below 3.0, indicating that multicollinearity is not a concern (Hair et al., 2019).

Table 5. Multicollinearity Assessment (Variance Inflation Factor - VIF)

Relationship	*VIF*
Perceived Barriers → Purchase Intention	1.122
Perceived Benefits → Perceived Susceptibility	1.000
Perceived Benefits → Purchase Intention	1.179
Perceived Susceptibility → Purchase Intention	1.129
Perceived Barriers × Perceived Benefits → Purchase Intention	1.132

Table 6 presents model fit statistics, which assess how well the proposed model fits the data. SRMR < 0.08 suggests good model fit (Hu & Bentler, 1999). NFI > 0.90 indicates acceptable model fit (Bentler & Bonett, 1980). Chi-Square test is significant, but this is expected in large samples.

Table 6. Model Fit Indices

Fit Index	*Saturated Model*	*Estimated Model*
SRMR (Standardized Root Mean Square Residual)	0.049	0.074
Chi-Square	338.630	345.855
NFI (Normed Fit Index)	0.904	0.902
d_ULS (Unweighted Least Squares Discrepancy)	0.250	0.569
d_G (Geodesic Discrepancy)	0.142	0.147

Table 7 has BIC values, and lower BIC values indicate a better-fitting model relative to alternative specifications (Schwarz, 1978).

Table 7. Model Selection Criteria (Bayesian Information Criterion - BIC)

Construct	BIC Value
Perceived Susceptibility	-18.722
Purchase Intention	-16.646

Measurement Scales and Constructs

All constructs in this study were measured using validated scales from prior research, adapted for the free-from gastronomy context. A 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) was used for all survey items.

Structural Equation Modeling (SEM)

SEM was conducted to examine direct, indirect (mediation), and interaction (moderation) effects (Kline, 2015). Conducted using SmartPLS 4 to examine direct, indirect (mediation), and interaction (moderation) effects. Bootstrapping (5,000 resamples) was used to test the statistical significance of indirect effects (Hayes, 2018).

Perceived benefits scale is the independent variable and adopted from Raghunathan et al. (2006) and Steptoe et al. (1995). Scale Items are:

- Consuming free-from products contributes positively to my health.
- I believe free-from options are a healthier alternative to traditional food products.
- Choosing free-from products aligns with my ethical and environmental values.
- Perceived barriers scale is the moderator and adapted from Champion (1984) and Block & Keller (1995). Scale items are:
- Free-from products are too expensive compared to regular alternatives.
- It is difficult to find free-from products in most places I shop or dine.
- I am concerned that free-from products may not taste as good as regular products.
- The variety of free-from products is too limited for my needs.
- Perceived susceptibility scale is the mediator and adapted from Champion (1993), scale items are:
- I believe I am at risk of developing health problems due to my diet.
- Eating unhealthy foods could negatively impact my long-term health.
- My diet significantly influences my overall health risks.

Purchase Intentions scale is the dependent variable, and adapted from Dodds et al. (1991) and Grewal et al. (1998). Scale Items are:

- I intend to purchase free-from products in the near future.
- I am likely to choose free-from options when available.
- I plan to prioritize free-from products when shopping or dining.

- I am willing to pay a premium for free-from products.

Table 8. SEM Results

Relationship	*Path Coefficient*	*Significance*
Perceived Benefits → Perceived Susceptibility	0.272	*Significant*
Perceived Benefits → Purchase Intentions	-0.014	*Not Significant*
Perceived Susceptibility → Purchase Intentions	0.244	*Significant*
Perceived Barriers → Purchase Intentions	0.191	*Significant*
Perceived Barriers × Perceived Benefits → Purchase Intentions	0.034	*Significant but weak*

Table 8 presents the standardized path coefficients from the SEM results, highlighting the strength and direction of relationships between variables.

Table 9 reports the moderating effect of perceived barriers on the relationship between perceived benefits and purchase intentions. Interaction term (Perceived Benefits x Perceived Barriers) = 0.034, significant but small effect.

Table 9. Moderation Analysis

Interaction Term	*Coefficient*	*Significance*
Perceived Barriers × Perceived Benefits → Purchase Intentions	0.034	*Significant but weak*

Table 10 presents the indirect effects of the mediation analysis, examining whether Perceived Susceptibility mediates the relationship between Perceived Benefits and Purchase Intentions. Indirect Effect of Perceived Benefits on Purchase Intentions via Perceived Susceptibility = 0.067, significant.

Table 10. Mediation Analysis

Relationship	*Indirect Effect*	*Significance*
Perceived Benefits → Perceived Susceptibility → Purchase Intentions	0.067	*Significant*

Ethical Considerations

All respondents were informed about the study's purpose, voluntary participation, and the confidentiality of their responses (Saunders et al., 2019). No identifying personal data was collected. Data was securely stored and used strictly for academic purposes. Ethical approval for this research was granted by the Scientific Research and Publication Ethics Committee for Social Sciences and Humanities at Istanbul Beykent University, under approval number 178029, dated February 14, 2025.

Discussion

The findings of this study provide significant insights into consumer behavior in the context of free-from gastronomy, particularly regarding the roles of perceived benefits, perceived barriers, and perceived susceptibility in influencing purchase intentions.

The results indicate that perceived benefits alone do not directly lead to higher purchase intentions. While consumers recognize the health, ethical, and nutritional advantages of free-from products, these benefits are not sufficient motivators for purchase unless they are reinforced by other psychological factors, such as perceived susceptibility. This finding aligns with previous studies emphasizing that consumers may recognize the advantages of a product but still hesitate due to other competing considerations, such as sensory attributes and cost (Panidi et al., 2023).

In our results, the surprising small negative direct influence of perceived benefits on purchasing intentions ($\beta = -0.014$) can be attributed to a health halo backlash where "free-from" leads consumers to think too favorably about the healthfulness of a product and hence end up being skeptical about other parameters like taste or overall credibility (Panidi et al., 2023; Joyful Eating Nutrition, 2022). This is consistent with health-halo effects research that indicates individual health claims (e.g., "gluten-free" or "low-fat") shift consumers' focus away from nutritional information or produce exaggerated expectations, ultimately suppressing purchasing intent.

Additionally, while perceived barriers moderated benefits–intention linkage considerably, the effect size was low ($\beta = 0.034$). What it indicates is that while taste and price, for example, can dilute the power of perceived benefits, their power is smaller than the power of drivers like risk perceptions and benefit awareness (Steinhauser et al., 2020). Hence, the interaction between perceived

susceptibility and perceived barriers establishes that perceived susceptibility consumers are going to use free-from products despite barriers, whereas weaker susceptibility consumers are going to be more deterred by the same barriers. This interaction highlights necessity for simultaneously enhancing risk communication and barrier decrease measures in order to maximize free-from product consumption.

Perceived susceptibility plays a crucial mediating role between perceived benefits and purchase intentions. Consumers who feel vulnerable to diet-related health risks (e.g., diabetes, gluten intolerance) are more likely to act on their awareness of free-from product benefits. This supports previous findings suggesting that risk perception strengthens the motivation for behavioral change, particularly in health-related consumer decisions (Liu & Wang, 2023). Thus, marketing strategies should emphasize risk reduction messaging, particularly for health-conscious consumers.

The moderating analysis reveals that perceived barriers significantly weaken the relationship between perceived benefits and purchase intentions. Consumers with higher perceived barriers—such as concerns about price, taste, and availability—are less likely to translate perceived benefits into actual purchase behavior. This confirms prior research suggesting that sensory and economic trade-offs often override health motivations in consumer decision-making (Aschemann-Witzel et al., 2019). These findings highlight the importance of reducing perceived barriers through targeted marketing strategies, such as improving accessibility, taste perception, and affordability of free-from products.

Marketing Applications

To make these findings useful, marketers will need to break down three things:

1. Product Positioning: Gastronomy brands who position themselves as "free-from" have to create a niche, specializing in their value proposition (e.g., "clean label," allergen-safe) or contrasting with conventional and other health-oriented options. A gluten-free bakery is an example that positions itself not only "gluten-free" but also "artisan, small-batch baked goods for digestive health," competing on taste and health at the same time (Nine Blaess, 2025).
2. Strategies of Labeling: Definite, truthful label assertions are imperative. As "free-from" labeling is vague under U.S. law, companies must practice open labeling by applying supportive detailed allergen-management statements (e.g., "produced in a dedicated dairy-free environment"). Food System Primer suggests employing recognizable symbols (e.g., an allergy-safe badge) in conjunction with clear concise descriptive wording in an attempt to establish trust and inform purchasing decisions (Food System Primer, n.d.).
3. Promotional Campaigns: Sidelining trial hesitation such as price concern, providing free trials or promotion discounts can stem hesitation. NerdWallet recognizes that "offer free samples" is a cost-effective tactic with high conversion, particularly for products with sensory risks (e.g., taste of sugar-free products) (Anthony, 2023). Moreover, time-limited bundles (e.g., "2 for the price of 1") and focused digital advertising through Google My Business can increase prominence and short-term sales (Gyant, 2020).

By product positioning, open labeling, and using low-risk promotions, free-from gastronomy products can increase perceived susceptibility communications and lower practical barriers, thereby resulting in more powerful purchase intentions.

Theoretical Contributions

This study extends the HBM by demonstrating that perceived susceptibility functions as a crucial mediator in the context of food choices, particularly in free-from gastronomy. While the HBM has traditionally been applied to preventive health behaviors, this study confirms its relevance in consumer purchasing behavior, reinforcing the need for a risk-benefit framing in marketing campaigns.

Conclusion

This study aimed to understand the determinants of consumer purchase intentions for free-from gastronomic products, with a focus on the roles of perceived benefits, perceived barriers, and perceived susceptibility. The findings reveal that perceived benefits alone do not significantly drive purchase intentions, but when combined with high perceived susceptibility, their influence becomes stronger. However, perceived barriers remain a key obstacle, limiting the impact of benefits on purchasing behavior.

Practical Implications

The results provide actionable insights for marketers and businesses in the free-from gastronomy sector. Marketers should emphasize health risk reduction messaging, as perceived susceptibility significantly influences purchase behavior. Overcoming taste concerns by highlighting flavor innovations and product improvements can help counteract negative sensory perceptions. Reducing price sensitivity through promotions and expanding product availability in mainstream retail channels can enhance adoption.

Limitations and Future Research

Though this study is useful, it has limitations. First, the study employs cross-sectional survey data, which constrains causality. Future studies can employ longitudinal studies, where they follow consumer behavior as a function of time. Second, the study in this case centers mostly on perceived health risk; future studies can investigate environmental and ethical issues as alternative predictors of purchase intentions. Third, experimental research would be able to test additional marketing interventions to further confirm the effect of perceived susceptibility and barriers to consumer choice. Our sample was also only based on English-speaking MTurk users who indicated they were health-conscious, making generalizability to more or alternative consumer groups potentially limited. Relying on self-report measures also heightens the threat of social desirability bias, in which respondents overstate being healthier in their behaviors than actually exists. Use of valid measures of social desirability or implicit measures of attitudes could prevent this bias in future research. Second, Qualitative research techniques, such as focus groups and in-depth interviews, would produce a rich understanding of the explanations behind the health-halo backlash and consumer mistrust. Third, cross-national comparisons across a few nations would offer insights into cultural norms and regulatory situations and how these affect the interrelationships between perceived benefits, susceptibility, barriers, and purchase intentions.

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