

Applying the Food Choice Process Model to Ultra-Processed Food Consumption: The Role of Dietary Globalization and Quality Perceptions

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Abstract

This study examines the determinants of ultra-processed food (UPF) consumption frequency among young adults within the Food Choice Process Model (FCPM), integrating macro-level (dietary globalization) and micro-level (perceptions of food quality, environmental awareness, and media exposure) influences. Data were collected in 2025 from a sample of 310 young adults to understand consumer dietary behavior. Ordinal logistic regression analysis was employed to test the hypothesized predictors of UPF consumption frequency.

The results indicate that dietary globalization is positively and significantly associated with UPF consumption, suggesting that greater exposure to international dietary patterns increases the likelihood of consuming UPFs. In contrast, negative perceptions of international food quality are significantly and negatively associated with consumption frequency, indicating that unfavorable quality evaluations can act as a deterrent. Environmental awareness and exposure to internet and social media content do not emerge as statistically significant predictors, implying that, in this context, broader structural influences and individual evaluative judgments may play a more prominent role than sustainability concerns or digital media exposure.

Overall, UPF consumption among young adults appears to be primarily shaped by globalization-related dietary exposure and perceptions of food quality, rather than by environmental or media-related factors. These findings provide empirical insight into the structural and cognitive drivers of contemporary dietary behavior and offer implications for public health strategies aimed at reducing UPF consumption.

Keywords: Ultra-processed food, dietary globalization, environmental awareness, food quality, food choice process model

Introduction

Consumer food trends play a pivotal role, as consumers are the final actors in the food system. Food systems are complex, encompassing “the related resources, inputs, production, transport, processing and manufacturing industries, retailing, and consumption of food, as well as its impacts on the environment, health, and society” (von Braun et al., 2021, p. 7). Similarly, the FAO (2018) defines food systems as the totality of actors and value-adding activities involved in producing, processing, distributing, consuming, and disposing of food, all within broader economic, social, and environmental contexts. Global food systems are shaped by strong macro-level pressures, such as population growth projected to reach 9.7 billion by 2050 (UNDP, 2022), conflicts, unexpected events, and long-term challenges, including climate change (Galanakis, 2021). These pressures highlight the need for sustainable and resilient food systems. Food systems innovation is paying attention, among other things, to changing the metrics used to measure progress, placing more emphasis on sustainable increases in dietary quality and total factor productivity rather than focusing solely on increasing yields.

Simultaneously, food consumption patterns are undergoing significant transformations. Key phenomena include shifts toward healthier and more sustainable diets, such as reduced red meat and sugar intake (Van Zanten et al., 2019; Willett et al., 2019); food enrichment with bioactive compounds; the increased popularity of novel products (Galanakis et al., 2020); the personalization of food choices (Mathers, 2019); and the influence of cultural diversity on culinary innovation (Enriquez & Achila-Godinez, 2021). This transformation has fueled a rising demand for time-saving convenience foods (Luga & Mehmeti, 2024), while simultaneously shifting industry priorities toward sustainability, emphasizing not only production yields, but also improvements in dietary quality and overall total factor productivity.

The main nutritional challenge of contemporary agri-food systems is access to healthy diets. Global data indicate widespread deficiencies: an estimated 3-3.5 billion people suffer from inadequate intake of iron or vitamin A, surpassing the number of undernourished individuals (Gómez et al., 2013).

Unlike the 20th century, when the primary concern was hunger eradication, today diet related health problems arise from excessive carbohydrate consumption and insufficient intake of essential micronutrients, dietary fiber, and bioactive compounds (Bai et al., 2021; FAO et al., 2020). Marketing campaigns promoting highly processed, convenient, and shelf-life foods reduce consumer sensitivity to nutritional quality (Barrett, 2021), while supermarket shelves frequently emphasize UPF at the expense of fresh and minimally processed foods characteristic of traditional diets (Leite et al., 2022).

This study aims to examine how dietary globalization, environmental sensitivity, perceptions of food quality, and the influence of online social media content affect the consumption of UPF among young adults. By integrating macro-level drivers (globalization, social media) with micro-level determinants (personal perceptions, environmental values), the study expects to identify the combined influence of structural, social, and individual factors on UPF consumption, providing a holistic understanding of contemporary dietary behavior.

Theoretical Framework: Food Choice Process Model (FCPM)

The FCMP (Furst et al., 1996) conceptualizes food consumption as a dynamic process shaped by multiple interacting factors, including personal, social, cultural, and environmental influences. According to the model, individuals' food choices are not only guided by personal preferences but also by life course experiences, social relationships, and contextual constraints, such as the availability and accessibility of food. The FCMP incorporates five main categories of influences on food choice: ideals, personal factors, sources, social frameworks, and the food context (Furst et al., 1996). These influences interact reciprocally, reinforcing, competing with, and shaping one another. While the boundaries between these influences are often blurred, the central themes of each remain distinguishable. Each influence affects the food choice process to the extent that it is salient for a specific eating event.

In the context of this study, dietary globalization represents the influence of international and globalized food availability on ideals and social frameworks, increasing exposure to UPFs. Environmental awareness reflects personal values that can constrain or guide choices toward more sustainable options. Perceptions of food quality influence the evaluation of available options, shaping both the selection process and the prioritization of health and nutrition. Finally, social media and online influencers act as sources and contextual drivers, shaping ideals and social norms around food consumption. Together, these factors interact dynamically within individual, social, and environmental contexts, influencing young consumers' decisions regarding UPF consumption.

Dietary Globalization

Globalization functions as a platform for cultural exchange, enabling individuals within a society to share their traditions, values, and practices, thereby fostering mutual recognition and understanding across communities. Alongside a high degree of urbanization, these phenomena have influenced many aspects of life, including diet and eating patterns. Increasing attention has been directed toward the impact of globalization on eating practices, both in terms of physical and psychosocial health and the sustainability of food systems (Sproesser et al., 2019).

These changes are often described as the “colonization of the kitchen” or “McDonaldization,” referring to the widespread influence of fast-food culture (Hawkes, 2006). Despite the positive aspects of globalization, its negative consequences should also be acknowledged, such as the “supermarket revolution,” which has largely displaced traditional and culturally rooted diets (Mergenthaler et al., 2009). A simple look at supermarket shelves reveals that UPFs have become the cornerstone of a “globalized diet,” with consumption increasing across all regions regardless of income level (Baker et al., 2020).

According to Monteiro et al. (2019), UPFs are ready-to-eat or ready-to-heat products formulated by combining food substances, primarily commodity ingredients with “cosmetic” additives, and subjected to multiple industrial processes. This category encompasses a wide spectrum of products, which can make consumer understanding and orientation more challenging. Developments in the retail sector have further contributed to the rising consumption of UPFs, particularly in low- and middle-income settings (Baker et al., 2020). As a result, dietary patterns worldwide are becoming increasingly dominated by processed foods and are losing diversity.

Within the FCPM, dietary globalization aligns with the social and cultural domains. Exposure to international foods and globalized diets increases both the availability and desirability of UPFs, thereby shaping consumption patterns among young consumers. This provides support for H1, which proposes:

Hypothesis 1: Dietary globalization increases the likelihood of UPF consumption among young adults.

Environmental Awareness

Environmental awareness plays a key role in shaping consumer behavior, including that of young people (Lim, 2017). According to Liu et al. (2020), environmental awareness refers to an individual’s understanding of environmental issues, serving as a worldview through which environmental information is interpreted and beliefs are formed. Awareness and engagement

in environmental initiatives often depend on the willingness of both industries and individual consumers to adopt sustainable practices (Lim, 2022).

Environmental awareness has often been treated in a limited way, frequently conceptualized as a one-dimensional construct (Al Amin et al., 2023). From this perspective, the diversity of consumer behaviors related to environmental awareness tends to be overlooked (Lim et al., 2023). In contrast, environmental concern is a broader concept that encompasses the emotions and feelings individuals have toward the environment, which subsequently translate into consumer responses (Kennedy & Givens, 2019). These emotional triggers can motivate attitudes and behaviors toward environmentally friendly products and practices (Pong & Tam, 2023).

Several studies indicate a significant lack of public awareness regarding the environmental impact of dietary choices (Boermans et al., 2024). Through their food choices, consumers play a crucial role in influencing environmental outcomes (Burlingame & Dernini, 2012). However, factors such as price, convenience, sensory attributes, and health concerns are still identified as the primary drivers of food choices (Allès et al., 2017). Despite growing awareness of environmental issues, research suggests that consumers often do not prioritize environmental concerns to the same extent (Lehikoinen & Salonen, 2019).

Consumers are increasingly exposed to concepts related to environmental sustainability in the context of food and dietary choices. According to Burlingame & Dernini (2012), sustainable diets are those with low environmental impacts that contribute to food and nutrition security and support a healthy life for present and future generations. These diets are protective of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable, nutritionally adequate, safe, and healthy, while optimizing natural and human resources. The complexity of this definition highlights the importance of how consumers interpret sustainability in relation to their eating patterns.

Consumer understanding of sustainability in food has been examined primarily in the context of local and organic foods (Feldmann & Ulrich, 2015; Hartmann & Michael, 2017) or green products. However, the understanding of sustainability in the context of highly processed foods remains underexplored. In this regard, environmental awareness can be situated within the dimension of personal values and ethical considerations. Young consumers who are more environmentally conscious may intentionally avoid UPFs due to their perceived ecological impacts, supporting the following hypothesis:

Hypothesis 2: Environmental awareness has a negative effect on UPF consumption

Perception of Food Quality

Consumer concern about the quality of food products extends across every stage of the production chain. This has fueled growing demand for safe and high-quality food, particularly as rapid economic development and changes in the food supply chain have intensified interest in food quality. Over the past decade, research in food quality has increasingly adopted a consumer-centered perspective, emphasizing consumer perceptions, preferences, and decision-making processes (Grunert, 2005).

Previous studies have employed a range of theoretical approaches, including the means end perspective, expectancy value models, information economics frameworks, and satisfaction/dissatisfaction approaches. According to Grunert (2005), quality is an abstract and multidimensional concept structured around four interconnected pillars: health, hedonic characteristics, convenience, and the production process.

Consumers who strongly associate quality with food safety, linking it to organoleptic characteristics, health protection, origin of production, and ethical standards, tend to perceive a product as safe only if they also consider it to be of high quality (Van Rijswijk & Frewer, 2008). Identifying the determinants that shape food quality perceptions, as well as the consumer segments influenced by them, is essential for strategic market positioning and product differentiation. Mascarello et al. (2015) highlight that consumers evaluate food quality not only through hedonic satisfaction and the preservation of culinary traditions, but also through attributes related to production methods and geographical origin, which remain key drivers of perceived quality.

The demand for UPFs continues to grow (Brief, 2025), driven by rapid urbanization, changing lifestyles, and aggressive food marketing strategies. Consumer perceptions of UPFs are often associated with high levels of undesirable ingredients and poor nutritional profiles. Some consumers perceive these products as meal replacements, while others view them as snacks, such as packaged sweets and processed meat products. Their popularity is further reinforced by convenience and perceived value for money (Baker et al., 2020).

While some consumers are attracted to UPFs due to their affordability and accessibility, others avoid them because of concerns about nutritional quality and long-term health risks. Perceptions of these products fluctuate across varying levels of trust and acceptance, influenced by advertising strategies, labeling information, and expert recommendations (Ilieva et al., 2025).

Within this framework, perceived food quality relates to the personal and sensory domains of the model. Consumers' beliefs about the nutritional value and healthiness of food guide their selection processes, supporting

Hypothesis 3, which proposes a negative relationship between perceived food quality and UPF consumption.

Hypothesis 3: A lower perception of food quality is associated with lower consumption of UPFs.

Influence of Internet and Social Media

The rise of digital technologies has transformed the way individuals interact, enabling them not only to sustain existing relationships but also to shape social influence and establish new connections (Ellison et al., 2007). Social networking platforms can be understood as online environments that facilitate large-scale content sharing, allow users to build personal networks by adding contacts, and make these connections visible within the digital community (Vural et al., 2010).

Technological innovation has intensified the speed, transparency, and reach of food-related information, reshaping how consumers evaluate and select products. Through video-based content, individuals can directly observe food production processes, which may either reinforce trust or generate skepticism toward specific brands or food categories. YouTube, as one of the most dominant video-sharing platforms, with billions of daily views (Radonjic et al., 2020), exemplifies how digital media amplifies exposure to food-related content on a global scale.

Beyond passive exposure, social media actively shapes consumer perceptions, attitudes, and behavioral intentions (Sebastián & Batalla, 2024). Moreover, evidence from Ding et al. (2022) indicates that live streaming of restaurant kitchens within online food delivery services increases perceived transparency and food safety assurance, thereby enhancing perceived well-being benefits.

A key and growing influence on the formation of social norms and eating behavior is social media, where the visual presentation of food plays a central role. Platforms such as Facebook and Instagram are saturated with images of food, particularly highly processed items, which subtly convey what is typical or desirable to eat (Barre et al., 2016; Holmberg et al., 2016). Many of these posts also depict social contexts, such as dining with friends or eating out, further reinforcing norms about what, how, and with whom people eat (Qutteina et al., 2019).

Within the FCPM, these dynamics can be interpreted as part of the broader social and informational environment influencing food decisions. Digital platforms function as contextual and social frameworks that shape beliefs, perceived risks, and trust formation, ultimately affecting food preferences and consumption patterns, particularly among digitally engaged cohorts such as young adults. The influence of the Internet and social media integrates the contextual and social network dimensions of the model. Visual

and interactive content on social media can normalize or promote certain eating behaviors, thereby supporting Hypothesis 4.

Hypothesis 4: Social media, through visual content, positively influences the consumption of UPFs.

By applying the FCPM, this study captures both macro-level influences, such as dietary globalization and social media exposure, and micro-level determinants, including personal perceptions of food quality and environmental values, on young adults' food consumption. The conceptual framework (Figure 1) illustrates how these study-specific factors are embedded within the broader FCPM. Each factor is positioned within the model's components ideals/social influences, personal values, resources, and social context, demonstrating its role in shaping food choices. Arrows from these factors toward UPF consumption highlight the hypothesized relationships (H1-H4), showing how structural, social, and individual influences converge to determine young consumers' decisions regarding UPF consumption.

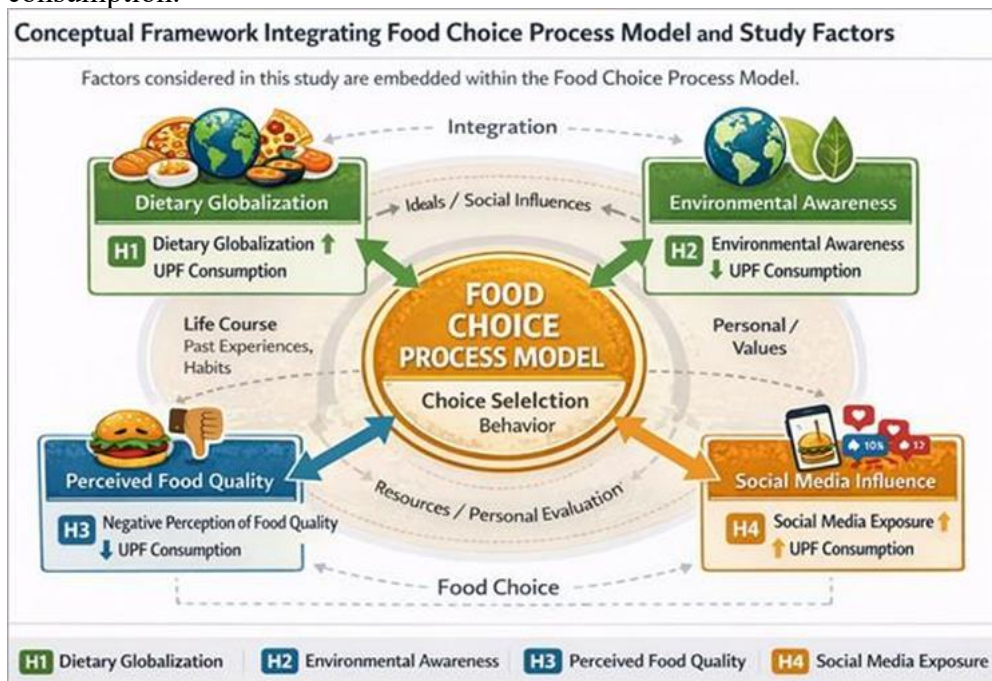


Figure 1: Conceptual Framework of the study

Methods

Data Collection and Sample Characteristics

Data were collected in 2025 from students at the Agricultural University of Tirana, Albania, to investigate young adults' behaviors and attitudes toward food consumption. The study followed standard ethical

principles for research. Participation was voluntary, informed consent was obtained from all respondents prior to completing the structured questionnaire, participants were informed about the purpose of the research and their right to withdraw at any time, and all responses were collected anonymously and treated confidentially.

A structured, self-administered questionnaire with closed-ended items was used, covering three main areas: demographic characteristics (gender, age, and total family income), general food consumption patterns, and attitudinal constructs measured on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree), including globalization of diet, environmental awareness, and the influence of internet and social media on food choices. The questionnaire was pretested on 5% of the sample to ensure clarity and reliability (Connelly, 2008).

Attitudinal constructs measured with multiple items (globalization of diet, environmental awareness, and influence of social media) were combined by averaging responses to create composite scores, providing a summary measure of each construct. Internal consistency of these multi-item scales was assessed using Cronbach's alpha, with all values exceeding 0.70 (Nunnally, 1981), indicating acceptable reliability. Single-item indicators were used for variables adequately captured by one measure, such as perceived quality of international food. This approach ensured that all variables included in the ordinal logistic regression (OLR) were reliably and appropriately operationalized for analysis.

A total of 310 valid responses were collected. The final sample included 116 males (37.4%) and 194 females (62.5%). Participants' ages ranged from 18 to 25 years, with a mean of 20.6 (SD = 1.67). Average total family income was 150,860.9 Albanian Lek (ALL) (SD = 51,503.2), ranging from 80,000 to 300,000 ALL. Most respondents reported changes in their diet over the previous five years (80.1%). The most frequently reported proportion of imported food in total dietary intake was 40-50% (51%), and 58.9% of participants perceived a decline in the quality of international food.

Table 1: Key demographic variables

	Mean	Median	Std. Dev	Min	Max
Age	20.6	20	1.67	18	25
Total family income	150,860.9	150,000	51503.2	80,000	300,000

This study employed a quantitative research design to examine factors influencing the frequency of UPF consumption among young adults. The OLR model was estimated using SPSS. The dependent variable was the frequency of UPF consumption, categorized as daily, 2-3 times per week, once per month, or never. Independent variables included globalization of diet, environmental awareness, perceived quality of international food, and

exposure to internet/social media, with gender included as a control variable. Multi-item scales were incorporated as composite scores, and single-item variables were included as measured. Proportional odds were assessed using the test of parallel lines, and details are presented in the results section.

Table 2: Variables included in the OLR model

	Variable Name	Measurement	Scale	Hypothesis
DV	Frequency of UPF consumption	1 = Daily; 2 = 2–3 times/week; 3 = Once/month; 4 = Never	Ordinal	-
IV	Globalization of diet	Perceived increase in international food consumption in young adults' diet	Likert scale (1-5)	H1 ✓
IV	Environmental awareness	Level of environmental concern related to food consumption	Likert scale (1-5)	H2 x
IV	Perceived quality of international food	0 = No (no decline), 1 = Yes (perceived decline)	Binary / Dummy	H3 ✓
IV	Influence of social media	Impact of online visual content on food choices	Likert scale (1-5)	H4 x
CON	Gender	0 = Female, 1 = Male	Binary / Dummy	Control

Note: DV- dependent variable; IV-independent variable; CON-control variable; Odds ratios reported in the regression are interpreted as average effects across UPF consumption categories due to partial violation of the proportional odds assumption; Multi-item constructs were averaged; internal consistency confirmed with Cronbach's alpha > 0.70; Single-item indicators used as coded above; ✓- hypothesis supported, x- hypothesis not supported

Results

Model Fit

The overall ordinal logistic regression model was statistically significant, indicating that the predictors collectively improved model fit compared to the null model ($\chi^2 = 39.991$, $df = 5$, $p < 0.001$). Goodness-of-fit tests suggested that the model adequately described the data, and the Nagelkerke pseudo R^2 indicated moderate explanatory power. The proportional odds assumption was assessed using the test of parallel lines, which indicated a violation. Despite this, OLR was retained for interpretability, and estimated odds ratios are interpreted as average effects across outcome categories, with results considered cautiously due to partial non-proportionality (Agresti, 2010; Long & Freese, 2014).

Hypothesis Testing

Parameter estimates indicated that dietary globalization was positively associated with UPF consumption frequency ($B = 0.561$, $p = 0.043$, 95% CI: 0.018 - 1.104), fully supporting the hypothesis that exposure to international

dietary patterns increases the likelihood of UPF consumption. In contrast, negative perceptions of international food quality were significantly and negatively associated with consumption frequency ($B = -1.675$, $p < 0.001$, 95% CI: -2.267 to -1.083), supporting the hypothesis that unfavorable quality perceptions reduce UPF intake. Environmental awareness ($B = -0.053$, $p = 0.850$) and exposure to the internet and social media ($B = 0.184$, $p = 0.450$) did not emerge as statistically significant predictors of UPFs consumption frequency. Gender was also not statistically significant ($B = -0.259$, $p = 0.260$), but was retained in the model to control for potential gender-related differences. Detailed information on variable coding, scales, and reference categories is provided in Table 2.

Overall, these findings indicate that UPF consumption frequency among young adults is primarily shaped by exposure to globalized dietary patterns and evaluative perceptions of food quality, whereas environmental concerns and social media exposure do not appear to exert a significant influence within this sample.

Discussion

Eating patterns and consumer behaviors versus dietary habits are widely accepted to combine internal consumer factors such as personal preferences that, under the influence of factors such as time, affordability, food market competitiveness, cultural norms, and business influence through marketing, influence various decisions.

This study applied the FCPM to examine how macro-level and micro-level influences shape UPF consumption among young adults in Albania. By integrating dietary globalization, environmental awareness, perceived food quality, and social media influence into the model, the study provides empirical insight into how structural and perceptual determinants interact in a transitional food environment.

Dietary Globalization as a Structural Driver of UPF Consumption

The findings confirm Hypothesis 1, demonstrating that dietary globalization significantly increases the likelihood of UPF consumption. This result aligns closely with the social and cultural spheres of the FCPM, where ideals and social frameworks shape food-related norms and availability structures. Exposure to international food products, imported brands, and standardized retail systems appears to normalize UPF consumption among young adults.

These findings resonate with the concept of “McDonaldization” introduced by George Ritzer, which describes the global diffusion of efficiency-driven, standardized food systems. The “globalizer” school attributes the decisive weight to the pressure of Globalization/Americanization

/McDonaldization, which pushes towards the cultural homogenization of cultures (Ram, 2025). In emerging economies such as Albania, globalization does not merely expand food variety; it restructures dietary aspirations, convenience expectations, and symbolic meanings associated with modern consumption. UPF becomes embedded in everyday routines not necessarily because they are preferred nutritionally, but because they represent accessibility, modernity, and time efficiency. This conclusion is consistent with the fact that food is also an area where young people create their identity and from where they derive their identity and group affiliation (Priya, 2017). The influence of peers and businesses is as influential as that of cultural elements that come from family eating habits, creating a tension of forces in the formation of eating habits (Leibowitz et al., 2012). Within the FCPM framework, globalization operates at the macro-structural level but penetrates the “food context” domain, influencing availability, affordability, and habitual exposure. The positive association observed in this study suggests that structural exposure outweighs personal resistance mechanisms among young consumers.

Perceived Food Quality as a Protective Factor

Hypothesis 3 was also supported. A negative perception of international food quality significantly reduced UPF consumption. This finding highlights the importance of evaluative cognitive processes in food choice decisions. When young consumers perceive imported or highly processed foods as nutritionally inferior or less trustworthy, they are less likely to consume them frequently. This supports the multidimensional conceptualization of quality proposed by Grunert (2004), who emphasizes health, sensory characteristics, convenience, and production processes as interconnected pillars of perceived quality (Grunert et al., 2004). In this study, quality perception appears to function as a filtering mechanism within the personal domain of the FCPM, counterbalancing structural globalization pressures. Interestingly, more than half of the respondents reported a perceived decline in the quality of international food. This may reflect skepticism toward industrial processing, additives, and standardized production methods. It also suggests that awareness of nutritional concerns may be more influential than broader environmental narratives in shaping actual consumption behavior. The magnitude of the coefficient ($B = -1.675$) indicates that perceived quality is a stronger predictor than globalization in this model. This reinforces the idea that cognitive evaluation and risk perception play a critical moderating role in food decision-making among young adults (da Cunha, 2025)

The Non-Significant Role of Environmental Awareness

Contrary to Hypothesis 2, environmental awareness did not significantly predict UPF consumption. Although respondents expressed environmental concern, this did not translate into measurable differences in consumption frequency. This finding reflects the well-documented attitude-behavior gap in sustainable consumption research. While environmental awareness is increasing globally, behavioral change often remains constrained by convenience, price sensitivity, and habitual patterns. Price sensitivity often outweighs environmental concerns and thus consumer attitudes toward food consumption (Yue, 2020). Within the FCPM, environmental awareness falls under personal values, yet the model also acknowledges that values influence behavior only when salient within a specific eating event. For young adults, food decisions may be driven more by convenience and taste than by ecological considerations. Furthermore, environmental sustainability in the context of UPS may not be cognitively linked in consumers' minds. Habitual behaviors, lack of knowledge, and cognitive dissonance, which reflects conflicting values and purchasing behavior, contribute to unsustainable consumption (Bosone, 2022). Many sustainability discussions emphasize local or organic foods, while the environmental impact of industrial processing receives less visible attention in everyday purchasing contexts. Thus, environmental awareness alone may be insufficient to counteract structural dietary globalization, particularly in settings where economic and convenience constraints are strong.

Social Media Influence

Hypothesis 4 was not supported, as exposure to social media did not significantly influence UPF consumption frequency. This result is noteworthy given the widespread assumption that digital platforms shape eating norms among young people. From the perspective of the FCPM, social media functions as both a source of information and a social framework that shapes ideals and perceived norms. However, the absence of statistical significance suggests that mere exposure to food related content may not directly translate into measurable consumption frequency. Several interpretations are possible in this case. Social media influence may operate indirectly, shaping attitudes rather than frequency. The effect may be moderated by individual traits such as susceptibility to peer norms. Exposure may include both healthy and unhealthy food content, neutralizing net effects. While visual platforms such as Instagram and YouTube intensify food visibility, this visibility alone may not override structural determinants such as availability or entrenched habits. In this sample, globalization and quality perception exerted stronger explanatory power than digital exposure.

Theoretical Implications

By embedding globalization, environmental values, quality perception, and digital influence into the FCPM, this study demonstrates the model's flexibility in capturing contemporary food system transformations. The findings reinforce the multi-level nature of food choice: Macro-level drivers (globalization) significantly increase UPF consumption. Micro-level evaluative processes (quality perception) significantly reduce it. Value-based orientations (environmental awareness) and digital exposure (social media) did not show direct effects. These results suggest that structural availability and cognitive evaluation are more decisive than normative or value-based factors in this context. The violation of the proportional odds assumption also indicates that predictors may influence different consumption levels differently. For example, globalization may primarily increase frequent consumption, whereas quality perceptions may mainly differentiate between moderate and low consumers. Future research could explore partial proportional odds models to capture these nuanced effects.

Practical Implications

The findings carry important implications for public health and policy in transitional food systems: Regulatory interventions addressing the availability and marketing of UPF may be more effective than awareness campaigns alone. Quality-focused communication strategies highlighting nutritional risks and ingredient transparency could reduce consumption more effectively than generalized sustainability messaging. Universities and educational institutions could integrate food literacy programs that strengthen critical evaluation of processed food claims. Since environmental awareness alone did not predict behavior, policymakers should consider bridging the gap between sustainability narratives and concrete dietary consequences.

Limitations and Future Research

Several limitations of this study should be acknowledged. First, the cross-sectional design prevents causal inferences, limiting our ability to determine the directionality of the observed associations. Second, the sample was drawn from a single university, which may reduce the external validity and limit the generalizability of the findings to other populations or regions. Third, dietary intake and consumption frequency were self-reported, which could introduce reporting biases such as social desirability or recall errors, potentially affecting the accuracy of the data.

Future research could address these limitations by employing longitudinal designs to examine behavioral changes over time, investigating mediating or moderating mechanisms between social media exposure and consumption patterns, comparing findings across urban and rural populations,

and exploring potential interactions between environmental awareness and perceived food quality.

Conclusions

This study demonstrates that UPF consumption among young adults in Albania is primarily shaped by structural exposure to globalized dietary patterns and by individual evaluations of food quality. While environmental awareness and social media exposure are conceptually relevant within the FCPM, they did not exert significant direct effects in this sample. The findings highlight the dominance of globalization-driven availability and cognitive quality assessments over value-based sustainability concerns in determining UPF consumption behavior.

However, these conclusions should be interpreted with caution. The study is based on a sample of students from a single university and relies on cross-sectional self-reported data, which may limit the generalizability of the findings and preclude causal inferences. Therefore, while the results provide useful insights into the relative importance of different determinants within this specific context, further research across more diverse populations and using longitudinal or experimental designs is needed to confirm the observed relationships.

Understanding this hierarchy of influences remains important for informing the design of nutritional interventions in rapidly globalizing food environments.

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References:

1. Agresti, A. (2010). Analysis of ordinal categorical data (2nd ed.). Hoboken, NJ: Wiley.
2. Al Amin, M., Ahad Mia, M. A., Bala, T., Iqbal, M. M., & Alam, M. S. (2023). Green finance continuance behavior: The role of satisfaction, social supports, environmental consciousness, green bank marketing initiatives and psychological reactance. *Management of Environmental Quality: An International Journal*, 34(5), 1269-1294.

3. Allès, B., Péneau, S., Kesse-Guyot, E., Baudry, J., Hercberg, S., & Méjean, C. (2017). Food choice motives including sustainability during purchasing are associated with a healthy dietary pattern in French adults. *Nutrition Journal*, 16, 58. <https://doi.org/10.1186/s12937-017-0279-9>.
4. Bai, Y., Alemu, R., Block, S. A., Headey, D., & Masters, W. A. (2021). Cost and affordability of nutritious diets at retail prices: Evidence from 177 countries. *Food Policy*, 99, 101983.
5. Baker, P., Machado, P., Santos, T., Sievert, K., Backholer, K., Hadjidakou, M., Russell, C., Huse, O., Bell, C., & Scrinis, G. (2020). Ultra-processed foods and the nutrition transition: Global, regional and national trends, food systems transformations and political economy drivers. *Obesity Reviews*, 21, e13126.
6. Barre, L., Cronin, A., & Thompson, B. S. (2016). What people post about food on social media (Poster abstract). *Journal of Nutrition Education and Behavior*, 48, S52.
7. Barrett, C. B. (2021). Overcoming global food security challenges through science and solidarity. *American Journal of Agricultural Economics*, 103(2), 422-447.
8. Boermans, D. D., Jagoda, A., Lemiski, D., Wegener, J., & Krzywonos, M. (2024). Environmental awareness and sustainable behavior of respondents in Germany, the Netherlands and Poland: A qualitative focus group study. *Journal of Environmental Management*, 370, 122515.
9. Bosone, L., Chevrier, M., & Zenasni, F. (2022). Consistent or inconsistent? The effects of inducing cognitive dissonance vs. cognitive consonance on the intention to engage in pro-environmental behaviors. *Frontiers in Psychology*, 13, 902703.
10. Brief, B. (2025). The overconsumption of ultra-processed foods in the United States. Retrieved December 1, 2025, from <https://ballardbrief.byu.edu/issue-briefs/the-overconsumption-of-ultra-processed-foods-in-the-united-states>
11. Burlingame, B., & Dernini, S. (Eds.). (2012). Sustainable diets and biodiversity: Directions and solutions for policy, research and action. Food and Agriculture Organization of the United Nations. <https://www.fao.org/3/i3004e/i3004e.pdf>
12. Connelly, L. M. (2008). Pilot studies. *MEDSURG Nursing*, 17(6), 411–412.
13. da Cunha, D. T. (2025). Risk perception, communication and behaviour towards food safety issues. *Foods*, 14, 322.
14. de Blanes Sebastián, M. G., & de Matías Batalla, D. (2024). Analysis of video game streaming on consumer behavior and digital marketing

- strategies. In *Marketing innovation strategies and consumer behavior* (pp. 348-363). IGI Global.
15. Ding, Y., Nayga, R. M., Jr., Zeng, Y., Yang, W., & Snell, H. A. (2022). Consumers' valuation of a live video feed in restaurant kitchens for online food delivery service. *Food Policy*, *112*, 102373.
 16. Ellison, N. B., Steinfield, C., & Lampe, C. (2007). *Spatially bounded online social networks and social capital: The role of Facebook* (Paper presented at the Annual Conference of the International Communication Association). International Communication Association.
 17. Enriquez, J. P., & Achila-Godinez, J. C. (2021). Social and cultural influences on food choices: A review. *Critical Reviews in Food Science and Nutrition*, *62*, 3698–3704.
 18. FAO. (2018). Sustainable food systems - Concept and framework. Food and Agriculture Organization of the United Nations. <https://openknowledge.fao.org/server/api/core/bitstreams/b620989c-407b-4caf-a152-f790f55fec71>.
 19. FAO. (2020). *The state of food security and nutrition in the world 2020: Transforming food systems for affordable healthy diets*. Food and Agriculture Organization of the United Nations. <https://www.fao.org/3/ca9692en/online/ca9692en.html>
 20. FAO. (n.d.). *Dietary guidelines and sustainability*. Retrieved December 15, 2025, from <http://www.fao.org/nutrition/education/food-dietary-guidelines/background/sustainable-dietary-guidelines/en/>
 21. Feldmann, C., & Ulrich, H. (2015). Consumers' perceptions and preferences for local food: A review. *Food Quality and Preference*, *40*, 152-164.
 22. Fielding-Singh, P. (2017). A taste of inequality: Food's symbolic value across the socioeconomic spectrum. *Sociological Science*, *4*, 424-448.
 23. Furst, T., Connors, M., Bisogni, C. A., Sobal, J., & Falk, L. W. (1996). Food choice: a conceptual model of the process. *Appetite*, *26*(3), 247-266.
 24. Galanakis, C. M. (Ed.). (2021). *Environment and climate-smart food production*. Springer. <https://doi.org/10.1007/978-3-030-71571-7>
 25. Galanakis, C. M. (2020). Food ingredients and active compounds against the coronavirus disease (COVID-19) pandemic: A comprehensive review. *Foods*, *9*, 1701.
 26. Galanakis, C. M. (2023). The “vertigo” of the food sector within the triangle of climate change, the post-pandemic world, and the Russian–Ukrainian war. *Foods*, *12*, 721.

27. Gómez, M. I., Barrett, C. B., Raney, T., Pinstrup-Andersen, P., Meerman, J., Croppenstedt, A., Carisma, B., & Thompson, B. (2013). Post-Green Revolution food systems and the triple burden of malnutrition. *Food Policy*, *42*, 129-138.
28. Grunert, K. G. (2005). Food quality and safety: Consumer perception and demand. *European Review of Agricultural Economics*, *32*(3), 369-391.
29. Grunert, K. G., Bredahl, L., & Brunsø, K. (2004). Consumer perception of meat quality and implications for product development in the meat sector: A review. *Meat Science*, *66*(2), 259-272.
30. Hartmann, C. (2017). Consumer perception and behaviour regarding sustainable protein consumption: A systematic review. *Trends in Food Science & Technology*, *61*, 11-25.
31. Hawkes, C. (2006). Uneven dietary development: Linking the policies and processes of globalization with the nutrition transition, obesity and diet-related chronic diseases. *Globalization and Health*, *2*, 1-18.
32. Holmberg, C., Chaplin, J. E., Hillman, T., & Berg, C. (2016). Adolescents' presentation of food in social media: An explorative study. *Appetite*, *99*, 121-129.
33. Ilieva, G., Yankova, T., Ruseva, M., Dzhabarova, Y., Klisarova-Belcheva, S., & Dimitrov, A. (2025). Consumer perceptions and attitudes towards ultra-processed foods. *Applied Sciences*, *15*(7), 3739.
34. Kennedy, E. H., & Givens, J. E. (2019). Eco-habitus or ecopowerlessness? Examining environmental concern across social class. *Sociological Perspectives*, *62*(5), 646-667.
35. Lehtikoinen, E. & Salonen, A. O. (2019). Food Preferences in Finland: Sustainable Diets and their Differences between Groups. *Sustainability*, *11*(5), 1259. <https://doi.org/10.3390/su11051259>
36. Leibowitz, J., Rosch, J. T., Ramirez, E., Brill, J., & Ohlhausen, M. (2012). *A review of food marketing to children and adolescents: Follow-up report*. Federal Trade Commission.
37. Leite, F. H. M., Khandpur, N., Andrade, G. C., et al. (2022). Ultra-processed foods should be central to global food systems dialogue and action on biodiversity. *BMJ Global Health*, *7*, e008269.
38. Lim, W. M. (2017). Inside the sustainable consumption theoretical toolbox: Critical concepts for sustainability, consumption, and marketing. *Journal of Business Research*, *78*, 69-80.
39. Lim, W. M. (2022). The sustainability pyramid: A hierarchical approach to greater sustainability and the United Nations Sustainable Development Goals with implications for marketing theory, practice, and public policy. *Australasian Marketing Journal*, *30*(2), 142-150.

40. Lim, W. M., Ciasullo, M. V., Douglas, A., & Kumar, S. (2023). Environmental social governance (ESG) and total quality management (TQM): A multi-study meta-systematic review. *Total Quality Management & Business Excellence*, 1-23.
41. Liu, P., Teng, M., & Han, C. (2020). How does environmental knowledge translate into pro-environmental behaviors? The mediating role of environmental attitudes and behavioral intentions. *Science of the Total Environment*, 728, 138126.
42. Long, J. S., & Freese, J. (2014). Regression models for categorical dependent variables using Stata (3rd ed.). College Station, TX: Stata Press.
43. Luga, E., & Mehmeti, G. (2024). Factors that affect the intention of consumers to buy food products online. *Economia Agro-Alimentare*, 26(2), 55-82.
44. Mascarello, G., Pinto, A., Parise, N., Crovato, S., & Ravarotto, L. (2015). The perception of food quality: Profiling Italian consumers. *Appetite*, 89, 175-182.
45. Mathers, J. C. (2019). Paving the way to better population health through personalised nutrition. *EFSA Journal*, 17(Suppl. S1), e170713.
46. Mergenthaler, M., Weinberger, K., & Qaim, M. (2009). The food system transformation in developing countries: A disaggregate demand analysis for fruits and vegetables in Vietnam. *Food Policy*, 34(5), 426-436.
47. Monteiro, C. A., Cannon, G., Levy, R. B., et al. (2019). Ultra-processed foods: What they are and how to identify them. *Public Health Nutrition*, 22, 936-941.
48. Nunnally, J. C. (1981). Psychometric theory (2nd ed.). McGraw-Hill.
49. Pong, V., & Tam, K. P. (2023). Relationship between global identity and pro-environmental behavior and environmental concern: A systematic review. *Frontiers in Psychology*, 14, 1033564.
50. Qutteina, Y., Hallez, L., Mennes, N., De Backer, C., & Smits, T. (2019). What do adolescents see on social media? A diary study of food marketing images on social media. *Frontiers in Psychology*, 10, 2367.
51. Radonjic, A., Fat Hing, N. N., Harlock, J., & Naji, F. (2020). YouTube as a source of patient information for abdominal aortic aneurysms. *Journal of Vascular Surgery*, 71, 637-644.
52. Ram, U. (2025). McDonaldization: Reviving classical sociological theory. *Thesis Eleven*, 191(1), 100-106.

53. Sharma, J., & Nagar, L. (2021). Globalization and fusion of cuisine: Getting variety or homogenization. *International Journal in Commerce, IT and Social Sciences*, 8(5), 40-45.
54. Sproesser, G., et al. (2019). Understanding traditional and modern eating: The TEP10 framework. *BMC Public Health*, 19, 1-14.
55. United Nations Department of Economic and Social Affairs, Population Division. (2022). *World population prospects 2022: Ten key messages*.
56. Van Rijswijk, W., & Frewer, L. J. (2008). Consumer perceptions of food quality and safety and their relation to traceability. *British Food Journal*, 110(10), 1034-1046.
57. Van Zanten, H. H., Van Ittersum, M. K., & De Boer, I. J. (2019). The role of farm animals in a circular food system. *Global Food Security*, 21, 18-22.
58. Von Braun, J., Afsana, K., Fresco, L., Hassan, M., & Torero, M. (2021). Food systems: Definition, concept and application for the UN Food Systems Summit. *Scientific Innovation*, 27, 27-39.
59. Vural, B., & Bat, M. (2010). Yeni bir iletişim ortamı olarak sosyal medya: Ege Üniversitesi İletişim Fakültesine yönelik bir araştırma. *Journal of Yasar University*, 20(5), 3348-3382.
60. Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., & Vermeulen, S. (2019). Food in the Anthropocene: The EAT- Lancet Commission on healthy diets from sustainable food systems. *The Lancet*, 393, 447-492.
61. Yue, B., Sheng, G., She, S., & Xu, J. (2020). Impact of consumer environmental responsibility on green consumption behavior in China: The role of environmental concern and price sensitivity. *Sustainability*, 12, 2074.