Received Date: 28 November 2022 I Accepted Date: 14 March 2023

OPUS Journal of Society Research

RESEARCH ARTICLE

Price Sensitivity, Perceived Food Quality, and Intention to Purchase Fast Food in the Context of Health-Consciousness of University Students

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March 2023
Volume:20
Issue:52
DOI: 10.26466//opusjsr.1210008

Citation:
Gültekin, B. and Veuphuteh, F. M.. (2023). Price sensitivity, perceived food quality, and intention to purchase fast food in the context of health-consciousness of university studentss. *OPUS– Journal of Society Research, 20*(52), 317-334.

Abstract

This study aims to investigate the moderating effect of university students' health consciousness on the relationship between price sensitivity and their intention to purchase, as well as the relationship between perceived food quality and their intention to purchase in the fast-food industry. Data were collected from 147 and 144 university students in Canada and Turkey, respectively, and analyzed using PROCESS analysis. The results of the analyses revealed that the moderating role of health consciousness is significant in the food quality-purchase intention and price sensitivity-purchase intention relationships in both samples. In the Canadian sample, the influence of price sensitivity on purchase intention becomes weaker (stronger) when health consciousness increases (decreases). In Turkey sample, the influence of price sensitivity on fast-food purchase intention is significant when health consciousness is at a low level, however, as health consciousness increases (i.e., medium and high), the effect of price sensitivity on purchase intention becomes insignificant. Moreover, when health consciousness increases (decreases), the impact of perceived food quality on fast-food purchase intention decreases (increases). Understanding these mechanisms is of substantive importance for managers and policymakers considering the growing prevalence of fast-food products in most developed and developing countries and their consumption by university students.

Keywords: *Health Consciousness; Price Sensitivity; Perceived Food Quality; Purchase Intention; Fast Food; University Students.*

Öz

Bu çalışma, üniversite öğrencilerinin sağlık bilincinin fiyat duyarlılığı-satın alma niyeti ve algılanan gıda kalitesi-satın alma niyeti arasındaki ilişkilerdeki düzenleyici etkisini fast food sektöründe araştırmayı amaçlamaktadır. Kanada ve Türkiye'den sırasıyla 147 ve 144 üniversite öğrencisinden veri toplanmış ve PROCESS analizi kullanılarak analiz edilmiştir. Analiz sonuçlarına göre, her iki örneklemde de gıda kalitesi-satın alma niyeti ve fiyat duyarlılığı-satın alma niyeti ilişkilerinde sağlık bilincinin düzenleyici rolü bulunmaktadır. Kanada örnekleminde, sağlık bilinci arttığında (azaldığında) fiyat duyarlılığının satın alma niyeti üzerindeki etkisi zayıflamaktadır (güçlenmektedir). Türkiye örnekleminde, sağlık bilinci düşük seviyede olduğunda fiyat duyarlılığının fast-food satın alma niyeti üzerindeki etkisi anlamlı iken, sağlık bilinci arttıkça (orta ve yüksek) fiyat duyarlılığının satın alma niyeti üzerindeki etkisi anlamsız hale gelmektedir. Ayrıca, sağlık bilinci arttığında (azaldığında) algılanan gıda kalitesinin fast-food satın alma niyeti üzerindeki etkisi azalmaktadır (artmaktadır). Çoğu gelişmiş ve gelişmekte olan ülkede fast-food ürünlerinin artan yaygınlığı ve bunların üniversite öğrencileri tarafından tüketilmesi göz önüne alındığında, bu mekanizmaların anlaşılması yöneticiler ve politika yapıcılar açısından önem taşımaktadır.

Anahtar Kelimeler: *Sağlık bilinci; fiyat duyarlılığı; algılanan gıda kalitesi; satın alma niyeti; fast food; üniversite öğrencileri*

.

Introduction

Fast food poses public health problems, such as obesity (Wie & Giebler, 2014). It makes consumers vulnerable to diet-related non-communicable diseases (NCDs) (Polsky, Moineddin, Dunn, Glazier, & Booth, 2016) such as hypertension, diabetes, and cardiovascular diseases (Saha, Al Mamun, & Kabir, 2021). It was found that the frequency of eating fast food by young adults aged 18-30 was directly related to weight gain or an increase in weight (Dahm et al., 2010). Onurlubaş and Yılmaz (2013) found in their study that more than 90% of participants consider fast food to be unhealthy. Furthermore, when asked about the harmful effects of fast food, 80.8% of participants cited obesity, 72.8% cited cardiovascular problems, and 57.7% cited high cholesterol.

Even fast-food restaurants may adversely affect the well-being of society in the long run if consumed in excess and for long periods of time. Fast food is becoming increasingly popular among people of any age, and young adults, in particular, continue to be the largest fast food consumers worldwide (Saha et al., 2021). Fast food has become popular for young adults who eat more outside of the home, which contributes to greater consumption of it (Saha et al., 2021). University life places financial and time constraints on students who do not live with their parents, forcing them to adopt laissez-faire dietary lifestyles with little worry about the consequences (Arnett, 2000; Roehrich, 2004; Stockton & Baker, 2013). Compared to other age groups in society, university students have some of the worst eating habits (Pelletier & Laska, 2013). Poor dietary lifestyles make university students six times more likely to gain weight than the general population (Small, Bailey-Davis, Morgan, & Maggs, 2013). University students are also associated with obesity and diet-related NCDs (Horacek et al., 2013). Young adults, such as university students, purchase fast food at increasing levels due to low prices and time and budget constraints. Also, they complain about the unavailability of tasty, healthy, and affordable foods on-campus (Racine et al., 2022). Accordingly, examining fast-food consumption on campus in the context of university students is crucial.

The growing health concerns pose a threat to the fast food industry (Keynote, 2016), and the stigma inherited from negative health and wellness publicity remains in the minds of consumers (Franchised Help, 2015). To overcome this, the social marketing orientation requires companies to consider the welfare of the society in addition to satisfying customers and gaining profits (Kotler, Armstrong, & Opresnik, 2020). Based on this perspective, the fast-food industry has responded with improvements to their menus to include healthier menu items such as salads and fruit juices (Namkung & Jang, 2007). However, even if fast-food restaurants offer healthier options, will consumers choose them over other alternatives? It is unclear whether providing consumers with healthy food options will result in their choice (Racine et al., 2022). Thus, marketing managers of fast-food restaurants may be hesitant to invest in healthy alternatives.

Consumers consider their health when making any form of food purchase (Chambers et al., 2016). For example, health threats from fast food showed a significant impact on customer satisfaction (Ali & Lee, 2019). However, this finding and its potential implications have not been analyzed further. Earlier research frequently placed an emphasis on consumers' overall health perceptions of entire menu items or consumer perceptions of fast-food meals without considering their health consciousness (Hwang & Cranage, 2015).

In this context, marketing managers in the fast-food industry strive to create *value* for their target market. Value serves as the basis for marketing (American Marketing Association, n.d.) and can be defined in various ways (Gültekin & Kement, 2018). A central perspective on value, according to Zeithaml (1988), is the exchange between a "give" component, such as price, and a "get" component, such as quality. In other words, "value is affordable quality." (Zeithaml, 1988, 13) Similarly, Onurlubaş and Yılmaz (2013) find that the most frequently mentioned factor as a cause for university students to prefer fast food is the price-quality relationship.

Relying on this value approach, the price should be reviewed first. Fast-food restaurants had the lowest acceptable prices among the other types of restaurants, such as fine dining/gourmet, theme/ambiance, and popular/family restaurants (M.-A. Lee, 2007). Furthermore, price is the most important factor for both Korean and Filipino college students when selecting fast-food restaurants (Baek, Ham, & Yang, 2006). This may be due to the students' price sensitivity (Baek, Ham, & Yang, 2006). Fast-food restaurants demonstrated the highest level of price sensitivity compared to other types of restaurants (M.-A. Lee, 2007). Accordingly, companies in the fast-food industry focus on attributes such as low prices (Wie & Giebler, 2014). Low prices enable businesses to obtain a competitive advantage (M. Lee & Ulgado, 1997). Even though several studies have examined the factors that influence price sensitivity (Hsieh & Chang, 2004; Ramirez & Goldsmith, 2009; Wakefield & Inman, 2003), there has been little research into the effect of price sensitivity on customers' behavioral intentions. Furthermore, some findings concerning the price sensitivity research contradict one another. For example, Meyer et al. (2014) found that individuals prefer fast food more frequently when the price is low, which was significantly higher among participants with less education, whereas Kim et al. (2010) emphasized that one of the reasons university students prefer fast food is because of the relative low price. In this context, it is crucial to find out how the price sensitivity of university students impacts their purchase intentions for fast food.

According to the price-quality value approach, quality is discussed next. There are various studies that investigate the effect of fast-food quality on satisfaction (Lefrid, 2021; Majid, Rojiei, Shafii, Ghoni, & Hassan, 2021; Zhong & Moon, 2020) and behavioral intention (Lefrid, 2021). Furthermore, consumer surveys in developed countries show that price, quality, taste, and health are the most influential factors in determining food preferences (Fox, Davis, Downs, McLaren, & Fanzo, 2021). However, while fast food, in terms of price and quality, provides value to consumers and is influential in their fast-food preferences, research on the health aspect in this context is limited. In addition, consumer preferences, which determine demand, play a crucial role in achieving healthy diets (Fox et al., 2021). Although university students are price sensitive, favour fast-food quality, and thus prefer fast food, health consciousness could act as a boundary condition. For instance, health consciousness has been shown to act as a moderator in the consumption of organic (Singhal, 2017) or healthy foods. Thus, it is important to consider how university students' health consciousness levels influence their food quality perceptions and price sensitivity levels within the fast-food industry.

In this context, the aim of this study is to examine the moderating role of health consciousness on the effect of price sensitivity and food quality on university students' intentions to purchase fast food. Accordingly, the results of this study would help managers make decisions about their product assortment and promotional messages to university students.

2. Conceptual Framework and Development of the Hypotheses

2.1. Moderating Role of Health Consciousness in the Price Sensitivity-Purchase Intention Relationship

Ramirez and Goldsmith (2009) pointed out how important it is for future research to investigate the consequences of price sensitivity. Fast-food restaurant customers are sensitive to price changes (Min & Min, 2011). In other words, a significant increase in price without a corresponding increase in food quality or service quality leads to a decrease in sales (Min & Min, 2011). For example, a 20% price increase in fast-food products resulted in a 25% decrease in visits to a fast-food restaurant (Gordon-Larsen, Guilkey, & Popkin, 2011). This explains why firms in this industry always strive to set low prices to remain competitive (M. Lee & Ulgado, 1997). These low prices tend to attract and retain price-sensitive customers in the fast-food industry. Accordingly, it could be argued that there is a positive relationship between consumers' price sensitivity and their intention to purchase low-priced fast-food products.

This relationship can be explained using the food choice process model of Furst et al. (1996). According to this conceptual model, consumers' food choices are influenced by various factors. Besides monetary considerations, consumers' food choices are influenced by a variety of factors, such as health, quality, social context, food context, convenience, and value negotiations. Also, economic theory postulates that individuals with less disposable income are more price-sensitive when faced with a purchase situation (Andreyeva, Long, & Brownell, 2010). Thus, the high price sensitivity of low-income consumers, such as university students, could increase their preference for fast-food products due to their relatively low prices.

Over the lifetime of a consumer, their income level influences the development of a personal value system for food choices. Personal value systems represent the repeated food selection experiences throughout a consumer's lifetime (Furst, Connors, Bisogni, Sobal, & Falk, 1996). In other words, customers with limited financial resources will develop a price-sensitive personal value system when making food choices unless their financial resources significantly increase over the duration of their lives. However, the boundary condition of health consciousness might change this price sensitivity-purchase intention relationship. Health consciousness influences consumers' willingness to pay for healthy food (Her & Seo, 2017). Therefore, as the health consciousness of university students increases, the effect of price sensitivity on purchase intention decreases.

The moderating role of health consciousness can be explained by Rogers' (1975) Protection Motivation Theory. Rogers' Protection Motivation Theory explains how fear appeals influence health attitudes and protective behaviours (Ronald W. Rogers, 1975). According to this theory, an individual's motivation to adopt protective behaviours results from a perceived threat and the individual's desire to avoid the possible negative outcome (Floyd, Prentice-Dunn, & Rogers, 2000). Consider an educational flyer that describes the threat of obesity and diet-related NCDs and recommends regular exercise and a healthy diet to prevent or reduce this threat. According to the Protection Motivation Theory, such a fear appeal activates cognitive appraisal processes regarding the severity of the threat, the probability of its occurrence, and the effectiveness of the recommended coping response (Ronald W. Rogers, 1975). These cognitive processes act as mediating variables between a fear appeal and an individual's motivation or intention to adopt a protective behavior (R. W. Rogers, 1983). Moreover, customers need to keep their attitudes and behaviors consistent to reduce the unpleasant feeling of cognitive dissonance that occurs after a purchase transaction (Gawronski & Strack, 2004). Accordingly, as customers become more health-conscious, the likelihood that they will prefer unhealthy fast-food products decreases. Accordingly, the following hypothesis is proposed:

H1: *Health consciousness has a moderating role between consumers' price sensitivity and their fast-food purchase intention. As health consciousness increases, the influence of price sensitivity on fast-food purchase intention decreases.*

2.2. Moderating Role of Health Consciousness in the Food Quality-Purchase Intention Relationship

The quality of the food has become an important factor for customers when they are deciding on dining out (Keynote, 2016). Memery, Angell, Megicks, and Lindgreen (2015) state that quality is one reason why consumers buy local food. Research has shown that food quality is one of the main reasons that influences consumers to purchase fast food (Ehsan, 2012; Goyal & Singh, 2007). The relationship between food quality and consumers' purchase intentions can be explained using Radder and Le Roux's (2005) food choice model. According to this conceptual model, consumers use sensory variables such as color, taste, appearance, texture, and smell to guide their food choices. A positive relationship exists between these food quality dimensions, such as the appearance dimension (55% of respondents), color

(52% of respondents), and smell (59% of survey respondents), which positively influence consumers' purchase intentions (Radder & Le Roux, 2005). Furst et al. (1996) found that food quality is one of the predominant values articulated by participants in their conceptual food choice process model that needs further research in other populations.

Besides food quality, health is a primary concern in purchasing food because of the increasing prevalence of obesity and diet-related NCDs, which affect societal well-being, especially in most developed countries (Mai & Hoffmann, 2015). Health-conscious customers pursue health-protective behaviors (Ahadzadeh, Sharif, & Ong, 2018). Lee et al. (2014) found that when healthful food options are provided, high-health-conscious customers perceive a restaurant to be socially responsible and are more willing to dine in such restaurants than low-health-conscious customers.

Her and Seo (2017) emphasize how important the "health halo effect" is to how people choose what to eat. The health halo effect refers to an erroneous reasoning process whereby consumers perceive food as healthy due to the nutrition claim, brand, package, price, promotion, or distribution. For example, consumers prefer more side dishes in the restaurants declared to be healthy, such as Subway, than restaurants without such claims like, McDonald's (Her & Seo, 2017).

Since health-conscious consumers' willingness to consume healthy options causes them to make healthier choices than less health-conscious consumers, health consciousness is crucial in terms of consumer food choice decisions (Shin & Mattila, 2019). In this context, high health consciousness causes customers to have more healthy and nutritious food and helps them avoid fast food. Accordingly, this paper examines the moderating role of health consciousness on the influence of food quality on fast-food purchase intention. We propose that health consciousness changes the positive influence of food quality on fast-food purchase intention. Thus, the following hypothesis is proposed:

H2: *Health consciousness has a moderating role between consumers' food quality perceptions and their fast-food purchase intentions. As health consciousness increases, the influence of food quality on fast-food purchase intention decreases.*

Based on the hypotheses established, the proposed model of the study is given in Figure 1.

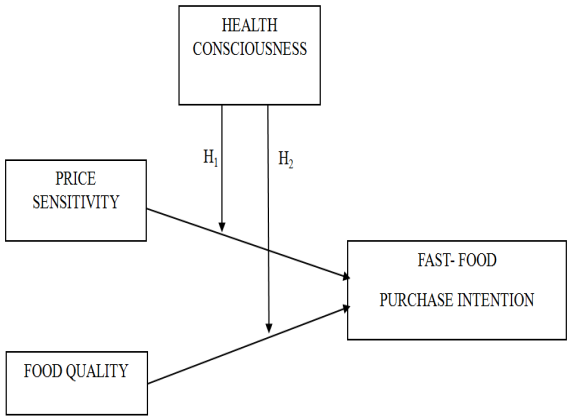

Figure 1. *Conceptual framework*

3. Methodology

3.1. Sampling

The present study is conducted among public university students of the department of business administration in Toronto (Canada) and Ankara (Turkey). The health of people in a country is determined by the behaviors they adopted when they were young (Lomax, 1999). Stockton and Baker (2013) stated that university students are youths who are on the cusp of becoming the parents and leaders of tomorrow. In other words, university students are the future decision-makers in the world of business and society. Therefore, using university students as a sample for food-related research is one way to influence the future dietary habits of a society (Kral & Rauh, 2010).

In addition, some university students also live in hostels, which give them some freedom from their parents (Arnett, 2000). This independence may lead them to espouse laissez-faire dietary lifestyles without caring much about the consequences (Stockton & Baker, 2013). Also, their new independent environment created by university life may result in financial and time constraints (Dodd et al., 2010). These constraints could influence university students to develop a

strong preference for cheap and convenient fast-food products. Moreover, according to Pelletier and Laska (2013), university students exhibit some of the poorest dietary lifestyles compared to other age groups in society. In other words, university students generally consume low-quality meals (high in calories, sugar, fat, and salt) and consume inadequate amounts of fruits and vegetables (Harring et al., 2010). Poor dietary lifestyles cause university students to gain weight at a rate that is six times higher than that of the general public (Mihalopoulos et al., 2008, cited in Small, Bailey-Davies, Morgan & Maggs, 2013). Similarly, university students have been associated with obesity and diet-related NCDs (Horacek et al., 2012).

Despite policy interventions from some universities to provide healthy food options on campuses, poor food choices still persist among university students (Small et al., 2013). This view is supported by several authors (Lee & Ulgado, 1997; Ehsan, 2012; Bujisic et al., 2014; Hwang & Cranage, 2015) who report that university students constitute the heavy user segment of fast-food restaurants. Accordingly, it can be argued that most university students do not make healthy food choices (Stockton & Baker, 2013). University students between the ages of 18 and 24 represent an appropriate market segment to use when studying consumers' perceptions towards fast-food products (Bujisic et al., 2014). Thus, examining the effect of food quality, health consciousness, and price sensitivity on fast-food purchase intentions amongst university students may contribute to the global fight against obesity and diet-related NCDs.

Research found that price sensitivity might differ due to the gross national income (GNI) per capita (Yeh, Schafferer, Lee, Ho, & Hsieh, 2017) and type of restaurant (M.-A. Lee, 2007). The GNI per capita for Canada is $ 46,370 while that for Turkey is $ 9,690 (World Bank, 2019). Therefore, considering two countries with different levels of development is also important. The convenience sampling method was used to collect data from 147 respondents in Canada and 144 in Turkey, as given in Tables 1 and 2. Of these respondents, 88 and 77 are female, and 101 and 121 classify themselves in the low and middle-income groups in the samples of Canada and Turkey, respectively. The mean age of the respondents is 27.27 years in Canada and 23.60 years in Turkey. Moreover, 68 participants in the sample in Canada and 98 participants in the sample in Turkey are of normal weight. About 33% of the consumers in the Canadian sample and almost half of the Turkish sample consume fast food on a monthly basis.

Table 1. Frequencies and Percentages of Respondents' Demographic Characteristics

	Turkey		Canada	
Variable	**Number of Respondents**	**Percentage**	**Number of Respondents**	**Percentage**
Gender				
Female	77	53.5	88	59.9
Male	67	46.5	59	40.1
Total	144	100	147	100
Academic Semester				
1st or 2nd Semester	37	25.7	56	38.1
3rd or 4th Semester	53	36.8	68	46.3
5th or 6th Semester	36	25.0	12	8.2
7th or 8th Semester	13	9.0	4	2.7
9th and above	5	3.5	7	4.8
Total	144	100	147	100
Income Level				
Very Low	8	5.6	42	28.6
Low	19	13.2	52	35.4
Average	102	70.8	49	33.3
High	14	9.7	3	2.0
Very High	1	.7	1	.7
Total	144	100	147	100
Body Mass Index				
Underweight	13	9.0	8	5.4
Normal weight	98	68.1	68	46.3
Overweight	25	17.4	35	23.8
Obese	8	5.6	36	24.5
Total	144	100	147	100
Age				
Less than 21	21	14.6	18	12.2
21 – 24	85	59	38	25.9
25 – 28	20	13.9	46	31.3
29 – 32	14	9.7	21	14.3
33 and above	4	2.8	24	16.3
Total	144	100	147	100

There are no differences in participants' ratings of price sensitivity, food quality, health consciousness, and fast-food purchase intention by

differences in gender, income, semester, and body mass index (BMI) in Canada, as given in Table 2 ($p > 0.01$). Similarly, there are no differences in participants' ratings of food quality, price sensitivity, and fast-food purchase intention by differences in gender, income, semester, and BMI in Turkey as given in Table 3 ($p > 0.01$). However, in Turkey, there is a significant difference in participants' BMI and health consciousness ratings, as shown in Table 3. Multiple comparisons from Scheffe's post-hoc test show that there is a significant difference between normal ($\bar{X}$ =3.36) and obese ($\bar{X}$=2.34) participants' ratings of health consciousness ($p = 0.024$). In other words, respondents with a normal BMI have a significantly higher level of health consciousness than those in the obese category.

Table 2. ANOVA results of the variables in terms of gender, income, semester, and body mass index (Canada Sample)

	Price Sensitivity F (between groups d.f., within groups df), p Mean	Food Quality F (between groups d.f., within groups df), p Mean	Health Consciousness F (between groups d.f., within groups df), p Mean	Purchase Intention F (between groups d.f., within groups df), p Mean
Gender	F (1,145) =1.456, p = 0.230	F (1,145) = 0.030, p = 0.863	F (1,145) = 1.206, p = 0.274	F (1,145) = 1.790, p = 0.183
Female	3.32	3.40	3.40	2.89
Male	3.54	3.38	3.25	3.11
Income	F (4,142) =0.654, p = 0.625	F (4,142) =0.567, p = 0.687	F (4,142) =0.942, p = 0.442	F (4,142) =1.878, p = 0.118
Very low	3.27	3.30	3.19	3.01
Low	3.56	3.39	3.30	3.20
Medium	3.35	3.42	3.51	2.71
High	3.78	3.91	3.46	3.44
Very high	2.67	4.00	3.36	2.33
Academic Semester	F (4,142) =1.368, p = 0.248	F (4,142) =1.079, p =0.369	F (4,142) =1.001, p = 0.409	F (4,142) =0.579, p = 0.678
1st or 2nd Semester	3.24	3.39	3.27	2.96
3rd or 4th Semester	3.53	3.37	3.44	2.98
5th or 6th Semester	3.78	3.32	3.09	2.81
7th or 8th Semester	2.75	4.21	3.73	3.67
9th and above	3.19	3.27	3.10	3.05
Body Mass Index	F (3,143) =0.199, p = 0.897	F (3,143) =0.661, p =0.577	F (3,143) =0.679, p = 0.566	F (3,143) =1.012, p =0.390
Underweight	3.46	3.18	3.56	3.29
Normal weight	3.46	3.38	3.26	3.09
Overweight	3.42	3.54	3.46	2.82
Obese	3.29	3.31	3.33	2.86

Table 3. ANOVA results in terms of gender, income, semester, and body mass index (Turkey Sample)

	Price Sensitivity F (between groups d.f., within groups df), p Mean	Food Quality F (between groups d.f., within groups df), p Mean	Health Consciousness F (between groups d.f., within groups df), p Mean	Purchase Intention F (between groups d.f., within groups df), p Mean
Gender	F (1,142) =1.260, p = 0.263	F (1,142) =0.118, p = 0.732	F (1,142) = 0.699, p = 0.405	F (1,142) = 0.005, p = 0.946
Female	2.95	3.35	3.35	3.05
Male	3.13	3.30	3.22	3.06
Income	F (4,139) =2.316, p = 0.060	F (4,139) = 1.514, p = 0.201	F (4,139) = 1.528, p = 0.197	F (4,139) = 0.604, p = 0.661
Very low	2.75	3.14	2.97	2.67
Low	3.60	3.62	2.94	2.84
Medium	3.00	3.33	3.41	3.14
High	2.71	2.96	3.11	2.95
Very high	2.67	4.14	3.18	3.33
Academic Semester	F (4,139) = 0.575, p = 681	F (4,139) = 1.662, p = 0.162	F (4,139) = 0.974, p = 0.424	F (4,139) = 0.647, p = 0.630
1st or 2nd Semester	3.10	3.10	3.05	2.93

3rd or 4th Semester	3.13	3.37	3.32	3.09
5th or 6th Semester	2.85	3.32	3.41	3.20
7th or 8th Semester	2.90	3.53	3.49	3.13
9th and above	3.20	4.03	3.44	2.47
Body Mass Index	F (3,140) = 2.205, p = 0.090	F (3,140) = 0.416, p = 0.742	F (3,140) = 3.305, p = 0.022	F (3,140) = 0.504, p = 0.680
Underweight	3.08	3.44	3.22	3.28
Normal weight	2.98	3.34	3.36	3.08
Overweight	3.39	3.31	3.35	2.84
Obese	2.46	3.02	2.34	3.08

The t-test results demonstrate that there is no difference, except for price sensitivity (t (2.79, 289) = 3.10, $p < 0.05$), in terms of food quality (t (0.331, 289) = 0.628, $p > 0.1$), health consciousness (t (1.89, 289) = 0.470, $p > 0.1$), and purchase intention (t (4.06, 289) = -0.633, $p > 0.1$) between the Canada and Turkey samples as given in Table 4.

Table 4. t-test Analysis Results for Canada and Turkey

	Canada Mean	Turkey Mean
Price Sensitivity t (2.79, 289) = 3.10, p = 0.002	3.40	3.03
Food Quality t (0.331, 289) = 0.628, p=0.530	3.38	3.32
Health Consciousness t (1.89, 289) = 0.470, p=0.639	3.34	3.29
Purchase Intention t (4.06, 289) = -0.633, p=0.527	2.97	3.05

In this study, fast food is defined as a limited menu of foods (e.g., hamburgers, pizzas, chicken, or sandwiches) produced using assembly line techniques (Rabotata & Malatji, 2021) and served in classic fast food restaurants such as "McDonald's, Burger King, and others" that "have built their brand identities and reputation over time." (Lefrid, 2021: 4348). At the time the data were collected, both campuses had at least one of the above-mentioned fast-food outlets.

The data collection technique used for this study was an online survey, which supports anonymity. Furthermore, the voluntary participation form stated that there were no right or wrong answers in the survey and that participants could opt out at any time if they did not wish to participate. We also assessed the extent of common method bias in the research questionnaire using Harman's single-factor approach (Harman, 1976). In the Canada sample, Harman's single-factor test revealed that four factors emerged from unrotated factor solutions, and the first factor explained only 31.859% of the total variance. In the Turkey sample, exploratory factor analysis revealed five factors, and the first factor explained only 32.024% of the total variance. The first factors' total variances explained in both countries are below the 50% threshold. Thus, the results give the authors confidence that common method bias is not a problem in either the Canadian or Turkish samples.

3.2. Measures

The questionnaire was first designed in English and then translated into Turkish, employing the translation/back-translation technique (Brislin, Lonner, & Thorndike, 1973). All of the research constructs were measured with multi-item reflective measures that had already been tested in other studies and found to be valid. Food quality was measured using six items (e.g., "The restaurant offers nutritious options" and "Food presentation is visually attractive.") from Namkung and Jang (2007) and one general food quality measurement item (e.g., "The restaurant serves quality food") from Kivela et al. (1999). *Price sensitivity* was measured using Wakefield and Inman's (2003) three-item (e.g., "I am sensitive to differences in the prices of fast-food products") measurement. *Health consciousness* was assessed using 11 items (e.g., "Careful of what I eat to keep my weight in control" and "Use a lot of low-calorie products") from Dutta-Bergman (2004). *Purchase intention* of fast food was measured using a three-item scale (e.g., "I intend to purchase fast food within the next fortnight."), adapted from Michaelidou and Hassan (2008). All of the scales are of the Likert type, with 1 indicating *strongly disagree* and 5 indicating *strongly agree*.

3.3. Analyses and Results

3.3.1. Measure Validation

The confirmatory factor analysis (CFA) was run to assess the validity of the study measures. The CFA results show acceptable model fit in both samples (Canada Model Fit Indices: χ^2 (244) = 435.299, CFI

= 0.904; RMSEA = 0.073; Turkey Model Fit Indices: χ^2 (244) = 434.288, CFI = 0.905, RMSEA = 0.074). All the factor loadings are high and statistically significant (Anderson & Gerbing, 1988). Cronbach's alpha scores for all the multi-item scales were greater than the threshold level of 0.70, indicating that the measures are reliable in both samples. The average variance extracted (AVE) and composite reliability (CR) scores given in Table 4 exceeded 0.50 and 0.70, respectively (Bagozzi & Yi, 1988), except for the AVE of food quality in the Turkish sample. This score can also be regarded as acceptable due to its CR score (0.87) being greater than 0.60, as suggested by Fornell and Larcker (1981). These findings suggest evidence of the convergent validity of the scales. Discriminant validity was tested using the AVE-squared correlation comparison test (Fornell & Larcker, 1981). In both samples, for all pairs of constructs, the AVE estimates were higher than the corresponding squared correlations as given in Tables 5 and 6. This confirms the presence of discriminant validity in both samples.

Table 5. Descriptive Statistics for Canada Sample

Variables	Mean	Std.Dev.	α	AVE	CR	1.	2.	3.	4.
1. Food Quality	3.38	0.82	0.89	0.53	0.89	**0.73**⁺			
2. Price Sensitivity	3.40	1.08	0.87	0.70	0.87	0.45**	**0.84**⁺		
3. Health consciousness	3.34	0.82	0.91	0.47	0.91	0.43**	0.17*	**0.69**⁺	
4. Purchase Intention	2.97	0.99	0.85	0.66	0.85	0.24**	0.33**	-0.12	**0.81**⁺

**** p < 0.01, ** p < 0.05, * p < 0.1; ⁺Diagonal axis square root of AVE.*

Table 6. Descriptive Statistics for Turkey Sample

Variables	Mean	Std.Dev.	α	AVE	CR	1.	2.	3.	4.
1. Food Quality	3.32	0.87	0.87	0.49	0.87	**0.70**⁺			
2. Price Sensitivity	3.03	0.92	0.76	0.54	0.78	0.33**	**0.74**⁺		
3. Health consciousness	3.29	0.97	0.93	0.54	0.93	0.41**	0.13	**0.74**⁺	
4. Purchase Intention	3.05	1.12	0.88	0.71	0.88	0.43**	0.16	0.03	**0.84**⁺

*Significance codes: *** p < 0.01, ** p < 0.05, * p < 0.1; ⁺Diagonal axis square root of AVE.*

3.3.2. Measurement Invariance

Cross-national research needs to consider three levels of measurement invariance, such as configural, metric, and scalar (Steenkamp & Baumgartner, 1998). First, the multi-group CFA model, the baseline model, examines configural invariance. In this model, cross-group factor constraint was not imposed (Byrne, 2016). In other words, the factor loadings of the constructs across the Canada and Turkey samples were freed. This baseline model fits the data well (χ^2 (488) = 869.587; p < 0.001; CFI = 0.904; RMSEA = 0.052). This result proves that the study constructs exhibit configural invariance between the two samples.

To test metric invariance across the Canada and Turkey samples, the authors constrained all the factor loadings to be invariant across the two samples (χ^2 (508)= 888.603; p < 0.001; CFI = 0.905; RMSEA = 0.051). The difference in χ^2 from the configural model was not statistically significant ($\Delta\chi^2(20)$ = 19.016, p = 0.520). Similarly, the difference in the CFI values met the recommended cut-off criterion of 0.01 (ΔCFI = 0.001) (Cheung & Rensvold, 2002). This indicates that both samples attribute the same meaning to the latent constructs, confirming the presence of metric invariance across the research samples. Next, we tested for scalar invariance by constraining all factor loadings and intercepts to be equal across the Canadian and Turkish data sets. This resulted in χ^2 (518)= 906.289; p < 0.001; CFI = 0.903; and RMSEA = 0.051. The difference in χ2 from the metric model was not statistically significant ($\Delta\chi^2(10)$ = 17.686, p = 0.060). Further, the difference between the CFI values was less than 0.01 (ΔCFI = 0.002), supporting the presence of scalar invariance. Overall, these tests support the cross-country comparison of the Canada and Turkey measurement models.

3.3.3. Process Analyses

To test the moderating role of health consciousness in the relationship between price sensitivity and purchase intention (H1), process analyses (Model 1) of Hayes (2017) were conducted for the Canada and Turkey samples. Health consciousness is a moderator in the relationship between price sensitivity and purchase intention in the Canadian (b = -.19, 95% CI [-.34, -.03], t = -2.4840, p < 0.05) and Turkish samples (b = -.27, 95% CI [-.45, -.09], t = -3.01, p < 0.05). Thus, H1 is supported for both samples.

In the Canadian sample, as health consciousness increases, the strength of the relationship between price sensitivity and purchase intention decreases, as shown in Table 7. Besides, at low, medium, and high levels of health consciousness, the impact of price sensitivity on purchase intention is significant, and this relationship is weakened as health consciousness increases.

Table 7. Process Analysis Results for the Moderator Role of Health consciousness: Price Sensitivity-Purchase Intention (Canada Sample)

	B	*S.E.*	*t*	*p*
Predictors of Purchase Intention (R^2= .17)				
Constant	3.00	.07	39.67	.00***
Price Sensitivity	.34	.07	4.92	.00***
Health consciousness	-.24	.09	-2.59	.01***
Price Sensitivity*Health consciousness	-.19	.07	-2.48	.01***
	Conditional Effect of Health Consciousness			
ΔR^2 = 0.03; F (1, 143) = 6.17	*Boot Effect*	*Boot SE*	*Boot LLCI*	*Boot ULCI*
Health consciousness: Low (-.79) Price Sensitivity ~~Purchase~~ Intention	*.50*	*.09*	*.31*	*.69*
Health consciousness: Medium (.11) Price Sensitivity ~~Purchase~~ Intention	*.32*	*.07*	*.18*	*.46*
Health consciousness: High (.77) Price Sensitivity ~~Purchase~~ Intention	*.19*	*.09*	*.02*	*.37*

*** p < 0.01, ** p < 0.05, * p < 0.1; b: Unstandardized beta coefficient; SE: Standard error of unstandardized estimate; LLCI: lower level confidence interval; ULCI: upper level confidence interval.

In the Turkey sample, health consciousness operates as a moderator in the relationship between price sensitivity and purchase intention, as shown in Table 8. At the low level of health consciousness, the impact of price sensitivity on purchase intention is significant and positive. However, at medium and high levels of health consciousness, the impact of price sensitivity on purchase intention is insignificant. Therefore, health consciousness as a moderator weakens the strength of the positive relationship between price sensitivity and purchase intention.

Table 8. Process Analysis Results for the Moderator Role of Health consciousness: Price Sensitivity-Purchase Intention (Turkey Sample)

	b	*S.E.*	*t*	*p*
Predictors of Purchase Intention (R^2= .08)				
Constant	3.09	.09	34.06	0.00***
Price Sensitivity	.11	.09	1.24	0.21***
Health consciousness	-.09	.10	-.94	0.34***
Price Sensitivity*Health consciousness	-.27	.09	-3.01	0.00***
	Conditional Effect of Health Consciousness			
ΔR^2 = 0.05; F (1, 140) = 9.08	*Boot Effect*	*Boot SE*	*Boot LLCI*	*Boot ULCI*
Health consciousness: Low (-.92) Price Sensitivity ~~Purchase~~ Intention	*.37*	*.11*	*.14*	*.60*
Health consciousness: Medium (-.01) Price Sensitivity ~~Purchase~~ Intention	.12	.09	-.06	.31
Health consciousness: High (.88) Price Sensitivity ~~Purchase~~ Intention	-.12	.13	-.03	.14

*Significance codes: *** p < 0.01, ** p < 0.05, * p < 0.1; b: Unstandardized beta coefficient; S.E.: Standard error of unstandardized estimate; LLCI: lower level confidence interval; ULCI: upper level confidence interval.*

It was found that health consciousness has a moderating role between food quality and purchase intention in the Canadian (b = -.15, 90% CI [-.30, -.01], t = -1.79, p < 0.10) and Turkish samples (b = -.19, 90% CI [-.35, -.03], t = -2.34, p < 0.05). In both samples, when health consciousness is low, medium, or high, food quality positively affects purchase intention, as given in Table 9 (Canada sample) and Table 10 (Turkey sample). Therefore, H2 is supported in both samples.

Table 9. Process Analysis Results for the Moderator Role of Health consciousness: Food Quality-Purchase Intention (Canada Sample)

	b	*S.E.*	*t*	*p*
Predictors of Purchase Intention (R^2=0.13)				
Constant	3.02	.08	37.33	.00***
Food Quality	.40	.10	3.83	.00***
Health consciousness	-.34	.10	-3.31	.00***
Food Quality*Health consciousness	-.15	.08	-1.79	.07***
	Conditional Effect of Health Consciousness			
ΔR^2 = 0.01; F (1, 143) = 3.21	*Boot Effect*	*Boot SE*	*Boot LLCI*	*Boot ULCI*
Health consciousness: Low (-.79) Food Quality ~~Purchase~~ Intention	*.52*	*.11*	*.33*	*.72*

Health consciousness: Medium (.11) Food Quality → Purchase Intention	.38	.10	.20	.55
Health consciousness: High (.77) Food Quality → Purchase Intention	.27	.13	.05	.49

Significance codes: *** p < 0.01, ** p < 0.05, * p < 0.1; b: Unstandardized beta coefficient; S.E.: Standard error of unstandardized estimate; LLCI: lower level confidence interval; ULCI: upper level confidence interval.

Table 10. Process Analysis Results for the Moderator Role of Health Consciousness: Food Quality-Purchase Intention (Turkey Sample)

	B	*S.E.*	*t*	*p*
Predictors of Purchase Intention (R^2= .19)				
Constant	3.11	.08	35.68	.00***
Food Quality	.47	.10	4.37	.00***
Health consciousness	-.19	.09	-1.96	.05***
Food Quality*Health consciousness	-.19	.08	-2.34	.02***

	Conditional Effect of Health Consciousness			
ΔR^2 = 0.03; F (1, 140) = 5.48	*Boot Effect*	*Boot SE*	*Boot LLCI*	*Boot ULCI*
Health consciousness: Low (-.92) Food Quality → Purchase Intention	.65	.11	.43	.87
Health consciousness: Medium (-.11) Food Quality → Purchase Intention	.48	.10	.26	.69
Health consciousness: High (.88) Food Quality → Purchase Intention	.30	.14	.009	.60

*Significance codes: *** p < 0.01, ** p < 0.05, * p < 0.1; b: Unstandardized beta coefficient; S.E.: Standard error of unstandardized estimate; LLCI: lower level confidence interval; ULCI: upper level confidence interval.*

More specifically, as health consciousness increases, the positive impact of food quality on purchase intention decreases in both the Canadian and Turkish samples. Health consciousness weakens the positive relationship between food quality and purchase intention. When health consciousness is high (low), the likelihood of purchase intentions of the respondents relying on the food quality is low (high).

Conclusion and Discussion

Fast-food managers' creation of value by means of price and quality would make university students prefer fast food. However, fast food is usually associated with being unhealthy (Shin & Mattila, 2019), and in the long run, would have serious consequences such as hypertension, diabetes, cardiovascular diseases (Saha et al., 2021), and obesity (Wie & Giebler, 2014). Although there are various causes of obesity, such as more sedentary lifestyles that are influenced by computer games, reduced levels of physical exercise in schools, poor nutrition at home, and genetics, fast-food restaurants have received the greatest share of the blame (McCann, 2004; Baker, 2009). Managers of fast-food restaurants also have the moral obligation to protect consumers, especially students who live away from home during their university education.

Managers introduced healthy options to their menus. However, it is not clear whether the students would prefer these. This study suggests that university students' health consciousness is a critical factor in whether or not they buy fast food within a well-established value creation mechanism based on affordable price and quality. This explains whether there is market potential in terms of health-related concerns.

The findings of this study indicate the moderating effect of health consciousness, similar to Shin and Mattila (2019) and Singhal (2017), on the effects of price sensitivity and food quality on purchase intention in both the Canada (a developed country) and Turkey (a developing country) samples. More specifically, in the Canadian sample, the influence of price sensitivity on purchase intention becomes weaker (stronger) when health consciousness increases (decreases). Similarly, in the Turkey sample, the influence of price sensitivity on fast-food purchase intention is significant when health consciousness is at a low level. This is consistent with the findings of a study from Turkey, which stated that consumers with health concerns about food safety issues and those considering price as a critical variable when eating out tend to consume less fast food (Akbay, Tiryaki, & Gul, 2007). On the other hand, as health consciousness increases (i.e., medium and high), the effect of price sensitivity on purchase intention becomes insignificant. Thus, health consciousness level changes the basic value creation method in terms of the positive influence of price sensitivity and purchase intention. Accordingly, fast food

companies operating on campuses should consider not only price sensitivity but also health consciousness in their strategies in Turkey. Fast-food products are generally preferred by university students due to their relatively low prices and large sizes. However, in the Turkey sample, this study clarified that consumers who are health conscious do not even consider price sensitivity in their fast food purchases when their health consciousness level is high.

As mentioned in the sampling section, the cross-national differences between Canada and Turkey were significant only for the price sensitivity variable ($\overline{X}_C$ =3.40; $\overline{X}_T$ =3.03; t (2.79, 289) = 3.10; p = 0,002; p < 0.01). It was found that Canadian respondents were more price sensitive than Turkish respondents. This finding is similar to that of Lee and Ulgado (1997), who found that Americans placed more importance on low fast-food prices than South Koreans. Similarly, this difference could also stem from the differences in fast-food perceptions between individualistic and collectivist cultures. In Turkey, research suggests that eating at global franchised fast-food chains is perceived as a status symbol in collectivist cultures, while it is seen as a common daily meal for convenience in individualistic cultures (Etemad-Sajadi & Rizzuto, 2013). Since Turkey is considered a collectivist culture and Canada an individualistic culture (Hofstede, Hofstede, & Minkov, 2010), differences in cultural perceptions could also change the interaction of health consciousness with price sensitivity in the Turkish sample.

Food quality should be considered with the boundary condition of health consciousness on purchase intention in both samples. In other words, the analysis revealed a significant interaction between health consciousness and food quality in predicting purchase intention. When health consciousness increases (decreases), the impact of perceived food quality on fast-food purchase intention decreases (increases). This result is consistent with Rogers' (1975) Protection Motivation Theory. Food quality is not perceived differently by the samples from Canada ($\overline{X}_C$ = 3.38) and Turkey ($\overline{X}_T$ = 3.32) t (0.331, 289) = 0.628, p = 0.530; p > 0.1). Therefore, from a social perspective, firms in the fast-food industry should assess consumers' health consciousness levels when planning operations in a developing country and invest in developing healthy options in their menu.

6.Implications for managers and health policymakers

6.1. Implications for managers

Understanding motivations for eating various food categories can help facilitate new food product development and better understand the marketing of these new products (Chambers et al., 2016). For example, Akbay et al. (2007) found the importance of 'socio-economic and demographic characteristics of households, facilities, restaurant environments, the presence of children, health, and price on fast-food purchase. Since it is not solely one indicator, such as price sensitivity or food quality, that influences fast-food purchase intention, the interaction effect of health consciousness should be considered by managers. This might be the reason why fast-food restaurants, which are widely perceived to be unhealthy, now include healthy options such as organic products (Shin & Mattila, 2019).

Accordingly, managers become certain about whether the basic option for creating value (e.g., the price-quality relationship) with consumers' having low or high health consciousness will encourage or discourage their preference for fast food. Based on their levels of health consciousness, managers would be more confident in investing in healthy alternatives and capturing value in return. Also, when they better understand the role of health consciousness, they will have greater insight into choosing keywords for their promotional messages.

Fast-food restaurants also have the moral obligation to protect the health of students who have limited purchasing power and are living away from home. Although health-conscious consumers may not be the target market of fast-food companies, this study found that consumers' health consciousness interacts with price

sensitivity and food quality in determining their fast-food purchase intentions.

Managers of fast-food restaurants on Canadian university campuses should pay close attention to how students feel about the quality of the food, how health-conscious they are, and how sensitive they are to price. This is because these factors have a significant impact on whether or not students plan to buy fast food. For example, marketing managers could transform the negative effect of health consciousness on fast-food purchase intention that was identified in the Canadian sample into a competitive advantage. This could be done by developing new menu items that are more nutritious, healthy (i.e., contain small amounts of fat, salt, sugar, and cholesterol), and affordable in order to meet the needs of the health-conscious and price-sensitive market segments identified in the study. In addition, marketing managers of university-based fast-food restaurants should post the calorie information of their newly developed healthier menus and provide other nutrition information to students on request. This recommendation is in accordance with Wie and Giebler (2014), who found that the majority of university students always believed that calorie information posted on marketing communication media like brochures and indoor menu boards at all restaurants could assist in weight gain or weight loss. It is also consistent with the findings of Kim and Kim (2020), who concluded that respondents in a low brand-health issue fit situation reacted more favorably to a health issue-focused advertising message than a brand-focused advertising message. Such an approach could, in the long run, positively change the perceptions of the health-conscious segment about the nutritional value of fast-food products and create the potential for university students to improve their menu choices and eating habits (Wie & Giebler, 2014).

Just like their Canadian counterparts, university-based fast-food restaurant managers in Turkey need to pay attention to consumers' perceptions food quality because of its positive effect on fast-food purchase intentions. Although both the health consciousness and price sensitivity constructs did not have a significant direct effect on fast-food purchase intentions in Turkey, a closer examination of the boundary conditions relating to these variables suggests there is a health-conscious and price-sensitive market. Therefore, Turkish fast-food restaurant managers should also offer healthier and more affordable menu items to satisfy the health-conscious and price-sensitive market segments.

5.2. Implications for health professionals and policymakers

Diet-related NCDs such as obesity and coronary heart disease are prevalent in Canada (Branchard et al., 2018) and Turkey (Chambers et al., 2016). Examining the food preferences of the youth in both countries would guide the governments in preparing suitable dietary programs to improve their eating habits. Thus, in the context of Canada and Turkey's health policies, it is recommended that basic health education lessons in relation to healthy foods and diets be provided, particularly at the primary school level. Within the scope of this education, emphasis must be placed on daily calorie limits and the relationship between the non-respect of these limits and conditions like overweight, obesity, and diet-related NCDs. In addition, public spots (radio and television), social media tools (such as Twitter and Facebook), and advertising campaigns could be used to increase consumers' health consciousness levels.

Similarly, according to Wie and Giebler (2014), providing customers with information on what constitutes good food quality would contribute to combating the global obesity epidemic. When university students have sufficient nutritional knowledge about healthy foods and diets, they would be more critical in evaluating menu items in fast-food restaurants, and this might contribute to compelling firms within the industry to provide healthier menu items. For Canada and Turkey, it is recommended that fast-food restaurants be required by law to provide the number of calories and nutritional information on their menus. In addition, more stringent monitoring of food establishments should be undertaken by the government. Such an approach could ensure compliance by fast-food restaurants in providing relevant nutritional information to guide students' fast-food choices. In other words, as consumers become more health-conscious, unhealthy fast-

food purchase intentions could decrease. This decrease could prompt university-based fast-food managers to offer healthier menu items in order to improve consumers' perceptions about the healthiness of fast-food products. Such measures could contribute partly to combating the global obesity epidemic and diet-related NCDs in the long run.

Limitations and future directions

This study examines purchase intention with only two antecedents (price sensitivity and food quality) and one moderator (health consciousness). Accordingly, we propose that in future research, variables in the context of value creation by means of cost-benefit analysis be included in the model. For example, besides price, other costs such as effort and time can be included. For the benefits, besides quality, convenience and customer service may be included in the model.

This study examined consumers' perceptions of fast-food quality from a general perspective. Future studies could examine consumers' food quality perceptions towards a specific fast-food product like a hamburger, French fries, or pizza, which are commonly offered in several fast-food restaurants. Also, consumers' health consciousness levels were examined from a general perspective. Future studies could investigate consumers' health consciousness levels towards fast-food products or a specific fast-food product. Future studies could examine consumers' perceptions towards local fast-food products like 'kebab' and 'döner' in different countries. Such an approach could lead to the classification of fast-food products according to their levels of healthiness (Hwang & Cranage, 2010). In addition, future studies could examine consumers' health consciousness levels towards products like cigarettes or genetically modified foods.

Malik and Guptha (2014) reported that a celebrity endorser contributes significantly to positively influencing customers' purchase intentions in both the personal care and food product categories. Future studies could examine the effect of cultural factors such as status and power distance on fast-food purchase intentions. Also, the research model developed in this study could be tested in mid- to up-scale restaurants. Finally, in order to guide multi-national firms in their global expansion strategies, the research model developed in this study should be tested in countries other than Turkey and Canada.

References

Ahadzadeh, A. S., Sharif, S. P., & Ong, F. S. (2018). Online health information seeking among women: The moderating role of health consciousness. *Online Information Review*, *42*(1), 58–72. https://doi.org/10.1108/OIR-02-2016-0066

Akbay, C., Tiryaki, G. Y., & Gul, A. (2007). Consumer characteristics influencing fast food consumption in Turkey. *Food Control*, *18*, 904–913. https://doi.org/10.1016/j.foodcont.2006.05.007

Ali, A., & Lee, J.-I. (2019). Determinants of Consumer Satisfaction in Fast Food Industry of Lahore Pakistan. *Journal of the Korean Society of Food Culture*, *34*(4), 424–431. https://doi.org/https://doi.org/10.7318/KJFC/2019.34.4.424

American Marketing Association. (n.d.). Definitions of Marketing. Retrieved January 30, 2022, from https://marketing-dictionary.org/m/marketing/

Andreyeva, T., Long, M. W., & Brownell, K. D. (2010). The impact of food prices on consumption: A systematic review of research on the price elasticity of demand for food. *American Journal of Public Health*. https://doi.org/10.2105/AJPH.2008.151415

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, *55*(5), 469. https://doi.org/10.1037/0003-066X.55.5.469

Baek, S. H., Ham, S., & Yang, I. S. (2006). A cross-cultural comparison of fast food restaurant selection criteria between Korean and Filipino college students. *International Journal of Hospitality Management*, *25*(4), 683–698. https://doi.org/10.1016/J.IJHM.2005.07.001

Branchard, B., Deb-Rinker, P., Dubois, A., Lapointe, P., O'Donnell, S., Pelletier, L., & Williams, G. (2018). At-a-glance - How Healthy are Canadians? A brief update. *Health Promotion and Chronic Disease Prevention in Canada*, *38*(10). https://doi.org/https://doi.org/10.24095/hpcdp.38.10.05

Brislin, R. W., Lonner, W. J., & Thorndike, R. M. (1973). *Cross-Cultural Research Methods*. New York: John Wiley & Sons.

Byrne, B. M. (2016). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming*. *Structural Equation Modeling With AMOS*.

Chambers, D., Phan, U., Chanadang, S., Maughan, C., Sanchez, K., Di Donfrancesco, B., … Esen, E. (2016). Motivations for Food Consumption during Specific Eating Occasions in Turkey. *Foods*, *5*, Article Number 39. https://doi.org/https://doi.org/10.3390/foods5020039

Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling*, *9*(2), 233–255. https://doi.org/10.1207/S15328007SEM0902_5

Ehsan, U. (2012). Factors important for the selection of fast food restaurants: An empirical study across three cities of Pakistan. *British Food Journal*, *114*(9), 1251–1264. https://doi.org/10.1108/00070701211258808

Etemad-Sajadi, R., & Rizzuto, D. (2013). The antecedents of consumer satisfaction and loyalty in fast food industry: A cross-national comparison between Chinese and Swiss consumers. *International Journal of Quality and Reliability Management*, *30*(7), 780–798. https://doi.org/10.1108/IJQRM-May-2012-0069

Floyd, D. L., Prentice-Dunn, S., & Rogers, R. W. (2000). A meta-analysis of research on protection motivation theory. *Journal of Applied Social Psychology*, *30*(2), 407–429. https://doi.org/10.1111/j.1559-1816.2000.tb02323.x

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.2307/3151312

Fox, E. L., Davis, C., Downs, S. M., McLaren, R., & Fanzo, J. (2021). A focused ethnographic study on the role of health and sustainability in food choice decisions. *Appetite*, *165*, 105319. https://doi.org/10.1016/J.APPET.2021.105319

Franchised Help. (2015). Fast Food Industry in 2015 at a Glance. Retrieved from https://www.franchisehelp.com/industry-reports/fast-food-industry-report/

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. https://doi.org/10.1006/appe.1996.0019

Gawronski, B., & Strack, F. (2004). On the propositional nature of cognitive consistency: Dissonance changes explicit, but not implicit attitudes. *Journal of Experimental Social Psychology*, *40*(4), 535–542. https://doi.org/10.1016/j.jesp.2003.10.005

Gordon-Larsen, P., Guilkey, D. K., & Popkin, B. M. (2011). An economic analysis of community-level fast food prices and individual-level fast food intake: Longitudinal effects. *Health Place*, *17*(6), 1235–1241. https://doi.org/10.1016/j.healthplace.2011.07.011

Goyal, A., & Singh, N. P. (2007). Consumer perception about fast food in India: An exploratory study. *British Food Journal*, *109*(2), 182–195. https://doi.org/10.1108/00070700710725536

Gültekin, B., & Kement, Ü. (2018). *Müşteri İlişkileri Yönetimi*. Ankara: Nobel Akademik Yayıncılık.

Harman, H. H. (1976). *Modern factor analysis*. Chicago, IL: University of Chicago Press.

Her, E. S., & Seo, S. (2017). Health halo effects in sequential food consumption: The moderating roles of health-consciousness and attribute framing. *International Journal of Hospitality Management*, *62*, 1–10. https://doi.org/10.1016/j.ijhm.2016.11.009

Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: software of the mind : international cooperation and its importance for survival*. New York: McGraw-Hill.

Horacek, T. M., Erdman, M. B., Byrd-Bredbenner, C., Carey, G., Colby, S. M., Greene, G. W., …

White, A. B. (2013). Assessment of the dining environment on and near the campuses of fifteen post-secondary institutions. *Public Health Nutrition*, *16*(7), 1186–1196. https://doi.org/10.1017/S1368980012004454

Hsieh, A. T., & Chang, W. T. (2004). The Effect of Consumer Participation on Price Sensitivity. *The Journal of Consumer Affairs*, *38*(2), 282–296. https://doi.org/https://doi.org/10.1111/j.1745-6606.2004.tb00869.x

Hwang, J. J., & Cranage, D. (2010). Customer health perceptions of selected fast-food restaurants according to their nutritional knowledge and health consciousness. *Journal of Foodservice Business Research*, *13*(2), 68–84. https://doi.org/10.1080/15378021003781174

Hwang, J. J., & Cranage, D. A. (2015). College Students' Health Perceptions of Individual Fast Food Menu Items According to Nutrition Knowledge and Health Consciousness. *Journal of Foodservice Business Research*, *18*(5), 520–535. https://doi.org/10.1080/15378020.2015.1093584

Keynote. (2016). Restaurants: Market Reports 2016. Retrieved from https://www.keynote.co.uk/

Kotler, P., Armstrong, G., & Opresnik, M. O. (2020). *Principles of Marketing*. *Pearson* (Global Edi). Essex, United Kingdom.

Kral, T. V. E., & Rauh, E. M. (2010). Eating behaviors of children in the context of their family environment. *Physiology and Behavior*, *100*(5), 567–573. https://doi.org/10.1016/j.physbeh.2010.04.031

Lee, M.-A. (2007). Analysis of Foreign Customers' Price Sensitivity on Korean Traditional Restaurants Using Price Sensitivity Measurement. *The Korean Society of Food Science and Nutrition*, *36*(1), 124–130. https://doi.org/https://doi.org/10.3746/jkfn.2007.36.1.124

Lee, M., & Ulgado, F. M. (1997). Consumer evaluations of fast-food services: a cross-national comparison. *Journal of Services Marketing*, *11*(1), 39–52. https://doi.org/10.1108/08876049710158358

Lefrid, M. (2021). Dining at gas stations: an analysis of nonconventional fast-food outlets from a consumer behavior perspective. *British Food Journal*, *123*(12), 4347–4366. https://doi.org/10.1108/BFJ-01-2021-0070

Lomax, A. K. (1999). *Healthier kids contribute to a healthier tomorrow: A study into the importance of a comprehensive health curriculum*. Pacific Lutheran University. Retrieved from https://search.proquest.com/docview/304585181?pq-origsite=gscholar&fromopenview=true

Mai, R., & Hoffmann, S. (2015). How to combat the unhealthy = Tasty intuition: The influencing role of health consciousness. *Journal of Public Policy and Marketing*, *34*(1), 63–83. https://doi.org/10.1509/jppm.14.006

Memery, J., Angell, R., Megicks, P., & Lindgreen, A. (2015). Unpicking motives to purchase locally-produced food: Analysis of direct and moderation effects. *European Journal of Marketing*, *49*(7/8), 1207–1233. https://doi.org/10.1108/EJM-02-2014-0075

Min, H., & Min, H. (2011). Benchmarking the service quality of fast-food restaurant franchises in the USA: A longitudinal study. *Benchmarking*, *18*(2), 282–300. https://doi.org/10.1108/14635771111121711

Namkung, Y., & Jang, S. C. (2007). Does Food Quality Really Matter in Restaurants? Its Impact On Customer Satisfaction and Behavioral Intentions. *Journal of Hospitality and Tourism Research*, *31*(3), 387–409. https://doi.org/10.1177/1096348007299924

Onurlubaş, E., & Yılmaz, N. (2013). Fast food consumption habits of university students. *Journal of Food, Agriculture & Environment*, *11*(3&4), 12–14.

Pelletier, J. E., & Laska, M. N. (2013). Campus food and beverage purchases are associated with indicators of diet quality in college students living off campus. *American Journal of Health Promotion*, *28*(2), 80–87. https://doi.org/10.4278/ajhp.120705-QUAN-326

Polsky, J. Y., Moineddin, R., Dunn, J. R., Glazier, R. H., & Booth, G. L. (2016). Absolute and relative densities of fast-food versus other restaurants in relation to weight status: Does restaurant mix matter? *Preventive Medicine*, *82*, 28–34. https://doi.org/10.1016/j.ypmed.2015.11.008

Rabotata, S., & Malatji, T. L. (2021). Factors influencing fast food consumption: a case study of University of Venda Students, Limpopo, South Africa. *Technium Social Sciences Journal*, *26*(December), 888–899.

Racine, E. F., Schorno, R., Gholizadeh, S., Bably, M. B., Hatami, F., Stephens, C., … Paul, R. (2022). A College Fast-Food Environment and Student Food and Beverage Choices: Developing an Integrated Database to Examine Food and Beverage Purchasing Choices among College Students. *Nutrients* . https://doi.org/10.3390/nu14040900

Radder, L., & Le Roux, R. (2005). Factors affecting food choice in relation to venison: A South African example. *Meat Science*, *71*(3), 583–589. https://doi.org/10.1016/j.meatsci.2005.05.003

Ramirez, E., & Goldsmith, R. E. (2009). Some Antecedents of Price Sensitivity. *Journal of Marketing Theory and Practice*, *17*(3), 199–213. Retrieved from http://www.jstor.org/stable/40470409

Roehrich, G. (2004). Consumer innovativeness - Concepts and measurements. *Journal of Business Research*, *57*, 671–677. https://doi.org/10.1016/S0148-2963(02)00311-9

Rogers, R. W. (1983). Cognitive and psychological processes in fear appeals and attitude change: A revised theory of protection motivation. In J. T. Cacioppo & R. E. Petty (Eds.), *Social psychophysiology* (pp. 153–176). New York: Guilford Press.

Rogers, Ronald W. (1975). A Protection Motivation Theory of Fear Appeals and Attitude Change1. *The Journal of Psychology*, *91*(1), 93–114. https://doi.org/10.1080/00223980.1975.9915803

Saha, S., Al Mamun, M. A., & Kabir, M. R. (2021). Factors Affecting Fast Food Consumption among College Students in South Asia: A Systematic Review. *Journal of the American College of Nutrition*, 1–11. https://doi.org/10.1080/07315724.2021.1940354

Shin, J., & Mattila, A. S. (2019). When organic food choices shape subsequent food choices: The interplay of gender and health consciousness. *International Journal of Hospitality Management*, *76*, 94–101. https://doi.org/10.1016/j.ijhm.2018.04.008

Singhal, N. (2017). A Study of Consumer Behavior Towards Organic Food and the Moderating Effects of Health Consciousness. *The IUP Journal of Marketing Management*, *XVI*(3), 45–79.

Small, M., Bailey-Davis, L., Morgan, N., & Maggs, J. (2013). Changes in Eating and Physical Activity Behaviors Across Seven Semesters of College: Living On or Off Campus Matters. *Health Education and Behavior*, *40*(4), 435–441. https://doi.org/10.1177/1090198112467801

Steenkamp, J. B. E. M., & Baumgartner, H. (1998). Assessing measurement invariance in cross-national consumer research. *Journal of Consumer Research*, *25*(1), 78–90. https://doi.org/10.1086/209528

Stockton, S., & Baker, D. (2013). College students' perceptions of fast food restaurant menu items on health. *American Journal of Health Education*, *44*(2), 74–80. https://doi.org/10.1080/19325037.2013.764242

Wakefield, K. L., & Inman, J. J. (2003). Situational price sensitivity: the role of consumption occasion, social context and income. *Journal of Retailing*, *79*(4), 199–212. https://doi.org/10.1016/J.JRETAI.2003.09.004

Wie, S., & Giebler, K. (2014). College Students' Perceptions and Behaviors Toward Calorie Counts on Menu. *Journal of Foodservice Business Research*, *17*(1), 56–65. https://doi.org/10.1080/15378020.2014.886910

World Bank. (2019). Gross national income per capita 2019, Atlas method and PPP. Retrieved February 9, 2022, from http://databank.worldbank.org/data/download/GNIPC.pdf

Yeh, C. Y., Schafferer, C., Lee, J. M., Ho, L. M., & Hsieh, C. J. (2017). The effects of a rise in cigarette price on cigarette consumption, tobacco taxation revenues, and of smoking-related deaths in 28 E.U. countries - Applying threshold regression modelling. *BMC Public Health*, *17*(1), 676. https://doi.org/10.1186/s12889-017-4685-x

Zhong, Y., & Moon, H. C. (2020). What Drives Customer Satisfaction, Loyalty, and Happiness in Fast-Food Restaurants in China? Perceived Price, Service Quality, Food Quality, Physical Environment Quality,

and the Moderating Role of Gender. *Foods* .
https://doi.org/10.3390/foods9040460