



Why do and why Don't people consume fast Food?: An application of the consumption value model

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ABSTRACT

This study explores the nature of the consumption values that differentiate regular consumers of fast food and non-regular consumers using the consumption value model. Data was collected from a total of 307 respondents via a self-administered online survey. The collected data was then classified into two groups, regular consumers (RCs, $n = 140$) and non-regular consumers (non-RCs, $n = 167$), based on the respondents' self-identification as either a regular fast food consumer or a non-consumer and their fast food consumption frequency (≥ 2 -3 times a week for RCs and ≤ 1 time a fortnight for non-RCs). Using factor analysis, 15 factors were extracted for the six consumption values (functional, social, emotional, conditional, epistemic, and process values). Discriminant analysis showed that 5 factors out of those 15 are influential in discriminating RCs and non-RCs. Specifically, RCs were found to consume fast food due to convenience and taste whereas non-RCs were found to avoid fast food due to the feelings of guilt when consuming fast food and the sense of accomplishment when not consuming fast food. Also, RCs and Non-RCs were found to deviate from their normal behavior when certain conditions are present (e.g., food safety issue, time pressure, stress). In all, the results of this study provide marketers a clearer understanding of the consumption values that regular consumers and non-regular consumers perceive in fast foods, further enabling the development of marketing strategies that appeal better to current and potential customers.

1. Introduction

Fast food, defined by Pereira et al. (2005) as "convenience food purchased in self-service or carry-out eating places (p. 36)", has long been a part of the American diet. According to the National Health and Nutrition Examination Survey, 36.6% of adults consumed fast food on a given day during 2013–2016, and the percentage was especially higher among younger adults in their twenties or thirties at 44.9% (Fryar et al., 2018). High consumption of fast food has been raising the concern among researchers due to its negative impact on health (Jeffery et al., 2006; Reidpath et al., 2002) as well as the environment and animal welfare (Martinko, 2015; Schwartz, 2011). In response, fast food chains (e.g., McDonald's) have recently been attempting to improve their images by using sustainably produced ingredients and providing healthier menu items. According to Hearst et al. (2013), eight leading fast food chains showed significant improvements in nutritional quality of their offerings. Despite the effort, however, fast food chains are still criticized

for their menu items' high calorie and sodium levels (McCrary et al., 2019) and for insincere socially responsible activities (e.g., environment and animal protections) (Lee, 2020). Given these recent positive efforts exerted by fast food chains, and the criticism from the academia that seems to persist nonetheless, we questioned how the general consumers perceive fast food nowadays.

A number of previous studies have investigated factors that impact people's tendency to consume fast food. Various factors, including time, financial resources, price, availability, and taste, have been found to encourage fast food consumption (Rydell et al., 2008; Bryant & Dundes, 2008; Rahkovsky et al., 2018). In addition, theoretical frameworks, such as the theory of planned behavior, were adapted to examine various aspects of consumer intention towards fast food consumption (Dunn et al., 2011). However, a gap in research is that reasons for not consuming fast food is relatively unknown, other than anecdotal assumptions that low nutritional quality of fast food may discourage fast food consumption. This study starts from the idea that both the

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consumers and non-consumers must be investigated in order to obtain a holistic understanding of the general consumers' perceptions toward fast food. Thus, the guiding research question for this study was, "why do and why don't consumers eat fast food?". We attempted to address this question via the theoretical lens of the consumption value model (Sheth et al., 1991a).

Individual food choices and eating behaviors are influenced by many interrelated factors. Understanding the values consumers consider during consumption is the first step to figuring out the motivations that guide consumers' purchase decisions. Values represent important and desirable end goals (Park, 2004). Values are formed based on historical, geographical, cultural, and social backgrounds of society to which individuals belong, and values can have the most important influence on individuals' behaviors, including consumption behaviors. Sheth et al. (1991b) designed a theoretical framework to explain consumption values influencing consumer choice behavior. They identified five consumption values, which include functional, social, emotional, conditional, and epistemic values. Functional value implies the expected performance of the product in terms of its functionality, physicality, and utilitarian ability; social value refers to the choice imagery acquired from an association with specific social groups; emotional value refers to the utility to arouse feelings or affective states; epistemic value indicates an utility to arouse curiosity, provide novelty, or satisfy a desire for knowledge; and conditional value is the perceived utility contingent upon a specific situation or set of circumstances. These five values are said to influence the consumers' choice to buy or not to buy, as well as the choice of product type and brand of a choice alternative. Since the initial proposal, the framework has been actively adapted across various disciplines and contexts, including marketing (Vigneron & Johnson, 1999), retailing (Sweeney & Soutar, 2001), tourism (Gallarza & Saura, 2006) and green consumption (Biswas & Roy, 2015; Gonçalves et al., 2016). Food consumption behaviors, including organic food (Finch, 2006) and convenience food (Rahkovsky et al., 2018), have also been explained by the consumption value model (Sheth et al., 1991a).

Concerning the consumption of food, value is traditionally interpreted as a product-centered concept such as nutritional value or value for money. However, Dagevos & van Ophem (2013) supposed that such an approach is too simplistic to fully capture the complexity of the phenomenon. Thus, they proposed the concept of food consumption value which consists of four elements; product, location, emotional, and process value. Product, location, and emotional values coincide with functional and emotional values of Sheth et al.'s (1991b) consumption value model. However, one unique characteristic of Dagevos & van Ophem's (2013) proposal is that the ethical aspect of food production was considered important in understanding contemporary food consumption, thereby resulting in the inclusion of the process value which embraces consumers' concerns about animal welfare and environmental pollution.

Value concerning fast food consumption has been generally explained in two types: utilitarian and hedonic values (Park, 2004; Nejati & Moghaddam, 2013; Basaran & Buyukyilmaz, 2015; Thaichon et al., 2019). Utilitarian value, which is in line with the functional value in Sheth et al. (1991b), involves the rational side of consumer behavior derived from task completion such as effectiveness and efficiency. Hedonic value results from enjoyment or excitement of the consumption, which is in line with the emotional value in Sheth et al. (1991b) and in Dagevos & van Ophem (2013). As per our understanding, the choice behavior of fast food has not been investigated using the consumption value model (no prior study has investigated values other than utilitarian or hedonic). Process value, which has not been investigated in fast food consumption studies, also needs to be considered as the fast food industry is involved in ethical aspects of production.

Therefore, to gain a better understanding of fast food consumption, this study seeks to identify the nature of the consumption values that differentiate consumers who regularly purchase fast food and those who do not. Examining the reasons for frequenting or avoiding fast food may

be useful in various ways. For example, such information would provide fast food marketers a clearer understanding of the consumption values that consumers and non-consumers perceive in fast foods, further enabling the development of marketing strategies that appeal better to current and potential customers. The information could also be helpful in providing future research directions for public health researchers as fast food consumption has been a frequent topic of interest due to its close relationship to individual health status (e.g., Garcia et al., 2012; Laxy et al., 2015).

2. Method

A self-administered online questionnaire format was used to identify the reasons for consuming or not consuming fast food. The specific questionnaire items were developed based on the procedure suggested by Sheth et al. (1991a). Specifically, focus group interviews were conducted to generate an initial list of measurement items. Next, these items were pre-tested and pilot-tested for validity and reliability, then utilized for the main survey. The detailed procedure is described in the following sections.

2.1. Development of measurement items

To understand what causes consumers to consume or not consume fast food, two focus group interviews were carried out with a small group of consumers (5 RCs – 2 female and 3 male, average age of 21) as well as of non-consumers (6 non-RCs – 4 female and 2 male, average age of 25). Undergraduate and graduate students majoring in hospitality management and business management at a Midwest university in the U.S. were recruited via email. The interviews took place in a quiet meeting room on campus and a monetary reward was provided upon completion. During the focus group interviews, questions relevant to the five consumption values from Sheth et al. (1991b) and the process value from Dagevos & van Ophem (2013) were asked. The focus group sessions were recorded, transcribed verbatim, and analyzed to identify responses that reflect salient concerns. These findings were then compared to previous studies of fast food consumption (Park, 2004; Dave et al., 2009; Dunn et al., 2008; Ma et al., 2016; Chen & Peng, 2018; Choe & Kim, 2019) to generate an initial list of measurement items. The procedure described thus far resulted in a total of 114 measurement items (36 items in functional value, 23 items in social values, 24 items in emotional value, 14 items in conditional value, 9 items in epistemic value, and 8 items in process value).

2.2. Questionnaire design

The questionnaire consisted of a total of eight sections. The purpose of the first section was to identify the RCs and non-RCs. This was done by asking the respondents to indicate their fast food consumption frequency and whether they consider themselves as a regular fast food consumer or not. In doing so, we asked the respondents to refer to the term "fast food" as traditional fast food such as burgers, French fries, and soda sold at fast food restaurants (e.g., McDonald's or Burger King). While the formal definition of fast food (e.g., Pereira et al., 2005) encompasses a larger variety of restaurants, we confined the scope as such to minimize any unwanted variances caused by potential confusion among respondents regarding whether a certain restaurant should or should not be considered a fast food restaurant.

Sections two through seven contained questions related to the six consumption values. For functional value, respondents indicated their level of agreement/disagreement toward benefits or problems associated with fast food using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree); for example, "fast food is convenient" and "fast food is not nutritious". For social value, respondents indicated what group of people they believe would be most and least likely to consume fast food (from 1 = least to 5 = most); for example, "health-conscious people",

“college students”, and “less-educated people”. For emotional value, respondents indicated their level of agreement/disagreement toward feelings associated with fast food (from 1 = strongly disagree to 5 = strongly agree); for example, “I feel a sense of belonging to the community when I eat fast food” and “I feel guilty when I eat fast food”. For conditional value, respondents indicated to what extent they would be willing to change their current behavior (change from non-consumption to consumption or from consumption to non-consumption) if certain conditions were present (from 1 = not at all to 5 = to a great extent). Example items included “nothing to eat at home” and “food poisoning incidents at fast food restaurants”. For epistemic value, respondents indicated their level of agreement/disagreement toward statements about behaviors that are triggered by curiosity (from 1 = strongly disagree to 5 = strongly agree). For process value, respondents indicated to what extent their behaviors were influenced by societal and environmental impacts of fast food production (e.g., “fair trade issues involved in fast food production”) (from 1 = not at all to 5 = to a great extent). Lastly, section eight of the questionnaire collected basic socio-demographic information including gender, age, marital status, education level, occupation, and income.

2.3. Pre-test and pilot test

A pre-test was conducted to verify the content validity, clarity and conciseness of the measurement items. Specifically, 34 university students enrolled in hospitality management classes at a Midwest university in the U.S. were recruited then asked to complete the questionnaire and provide feedback on the general length and complexity of the questionnaire. All participants were able to complete the questionnaire within 10 min and a general consensus was reached on the overall quality of the measurement items. Followed by the pre-test, a pilot test was conducted to identify whether all the measurement items were ascertained by a sample of general consumers and to check for any weakness (Oppenheim, 1992). The pilot test was conducted based on a sample of 154 RCs and 47 non-RCs recruited via Amazon Mechanical Turk (MTurk). A factor analysis using principal axis factoring was performed to remove any questionnaire items with factor loadings not greater than 0.5 and communalities of <0.4 (Hair et al., 2010). As a result, a total of 15 items were deleted and 99 items were maintained for the final version of the questionnaire (29 items in functional value, 21 items in social values, 20 items in emotional value, 13 items in conditional value, 9 items in epistemic value, and 7 items in process value).

2.4. Main survey

Final version of the questionnaire was distributed online via MTurk in December 2019. A total of 398 completed surveys were returned (200 RCs; 198 non-RCs) and a small reward was given to each respondent to appreciate their participation. The collected data was further prepared for analysis by removing any inconsistent responses. Specifically, based on the two questions asked in the first section of the questionnaire (respondents’ self-identification as either a RC or a non-RC; fast food consumption frequency), we screened out any respondents who indicated themselves as a RC but reported their consumption frequency as <2–3 times a week and those who indicated themselves as a non-RC but reported their consumption frequency as more than once a fortnight. The screening process resulted in a final sample of 140 RCs and 167 non-RCs.

2.5. Analysis

Data obtained from the main survey was analyzed via factor analysis, analysis of covariance (ANCOVA), and discriminant analysis. Factor analysis using principal axis factoring was utilized to extract the main factors underlying the consumption value. As in the pilot test, factors with eigenvalues of <1.0 were not selected and items with factor

loadings below 0.5 and communalities of <0.4 were considered for removal (Hair et al., 2010). Reliability of each factor was evaluated using Cronbach’s alpha (Nunnally and Bernstein, 1994) for factors with more than two items and Spearman-Brown coefficient for a two-item factor (Eisinga et al., 2013). ANCOVA was used with age and gender as covariates in order to test the differences between RCs and non-RCs in terms of the extracted factors. Discriminant analysis was used to identify the factors that are influential in discriminating RCs and non-RCs. All statistical analyses were processed using the Statistical Package for Social Sciences (version 25.0; SPSS, Inc., Chicago, IL).

3. Results

3.1. General characteristics

Table 1 shows the demographic profile of the respondents. The frequency analysis indicated that 58.3% of the respondents were male. The average age was 36.2 years. Married respondents accounted for 48.5% of the sample, and about 49% were college graduates (Bachelor’s degree). The most common occupation was management or professional job. Interestingly, the gender ratio and average age were significantly

Table 1
General characteristics of the respondents.

Characteristics	Regular Consumers(n = 140)	Non-Regular Consumers(n = 167)	Total(n = 307)	p-value ²⁾
Gender				
Male	93 (66.4) ¹⁾	86 (51.5)	179 (58.3)	0.008
Female	47 (33.6)	81 (48.5)	128 (41.7)	
Age	34.3 ± 9.5	37.8 ± 12.2	36.2 ± 11.2	0.005
Marital status				
Married	70 (50.0)	79 (47.3)	149 (48.5)	0.267
Never married	64 (45.7)	73 (43.7)	137 (44.6)	
Others	6 (4.3)	15 (9.0)	21 (6.8)	
Education level				
≤ High school	34 (24.3)	41 (24.6)	75 (24.4)	0.546
Associate’s Degree	25 (17.9)	21 (12.6)	46 (15.0)	
Bachelor’s Degree	67 (47.9)	83 (49.7)	150 (48.9)	
Post-Graduate Degree	14 (10.0)	22 (13.2)	36 (11.7)	
Occupation				
Management, professional Service	53(37.9)	56(33.5)	109 (35.5)	0.487
	21(15.0)	21(12.6)	42 (13.7)	
Sales and office	23(16.4)	38(22.8)	61 (19.9)	
Others	31 (22.1)	32 (19.2)	63 (20.5)	
Unemployed (including students)	12(8.6)	20(12.0)	32 (10.4)	
Annual income (\$)				
≤ 25,000	29(20.7)	42(25.3)	71 (23.2)	0.909
25,001–49,999	44(31.4)	50(30.1)	94 (30.7)	
50,000–74,999	36(25.7)	38(22.9)	74 (24.2)	
75,00–99,999	16(11.4)	18(10.8)	34 (11.1)	
≥ 100,000	15 (10.7)	18 (10.8)	33 (10.8)	

¹⁾ n (%) or mean ± SD, ²⁾ p-value by chi-square test or t-test

different between RCs and non-RCs. The RC group had a significantly higher ratio of male respondents compared to the non-RC group ($p = 0.008$) and the average age of the non-RC group (37.8 years) was significantly higher than the RC group (34.3 years) ($p = 0.005$). These differences suggest that RCs tend to be younger and more male dominant compared to non-RCs. No significant difference between RCs and non-RCs was observed in marital status, education level, occupation, and annual income.

3.2. Factor analysis

Factor analysis results for the six consumption values are presented in Table 2, 3, 4, and 5. The reliability coefficients for the extracted factors ranged between 0.75 and 0.94, except for social value 4 (budget-restricted people), which was 0.59.

For functional value, four factors were extracted and they were labeled “location”, “convenience”, “unhealthiness”, and “taste”. Factor 1, “location”, included items related to the environment of fast food restaurants. Examples include “the atmosphere of fast food restaurants is

Table 2
Results of factor analysis of functional value.

Factor label and items	Factor loadings	Eigen-value	Variance (%)	Cronbach's alpha
Functional value 1:				
Location				
Fast food restaurants have good facilities	0.791	7.046	28.183	0.892
The atmosphere of fast food restaurants is clean	0.774			
Fast food restaurants are aesthetically appealing	0.709			
Fast food restaurant employees are kind	0.707			
Fast food restaurant employees are competent	0.702			
The mood and interior design of fast food restaurants are appealing.	0.694			
Fast food is hygienic	0.659			
Fast food provides a high standard of quality	0.635			
Fast food provides a variety of ingredients	0.607			
Functional value 2:				
Convenience				
Fast food is convenient	0.799	4.484	17.936	0.843
Fast food is easily accessible	0.777			
Fast food is everywhere	0.692			
Fast food is consistent	0.651			
Fast food is familiar	0.648			
Fast food saves me time	0.607			
Fast food is reliable	0.559			
Functional value 3:				
Unhealthiness				
Fast food does not provide health benefits	0.750	2.053	8.212	0.824
Fast food is low quality food	0.741			
Fast food is not nutritious	0.738			
Fast food is unhealthy	0.722			
Fast food makes weight control difficult	0.704			
Fast food is unsafe to people with severe allergies	0.630			
Functional value 4: Taste				
Fast food provides appealing flavors	0.696	1.226	4.904	0.834
Fast food tastes good	0.679			
Fast food is tempting	0.661			
Total % of variance			59.234	

Table 3
Results of factor analysis of social value.

Factor label and items	Factor loadings	Eigen-value	Variance (%)	Cronbach's alpha
Social value 1: Health-conscious people				
Health-conscious people	0.870	5.967	31.407	0.908
Environmentally conscious people	0.833			
Vegetarian	0.827			
People doing active exercise	0.822			
People on certain diets	0.809			
Rich people	0.750			
Women	0.633			
People with disease	0.582			
Social value 2: Young and busy people				
College students	0.726	3.416	17.980	0.781
Younger people	0.717			
Teenagers	0.712			
People not wanting to cook	0.650			
Office workers	0.583			
People with time constraints	0.520			
Social value 3: Low class and obese people				
Less-educated people	0.813	1.352	7.117	0.745
Residents in black neighborhood	0.665			
Overweight or obese people	0.611			
Social value 4: Budget-restricted people				
People on a budget	0.821	1.032	5.430	0.587 ¹⁾
Bigger families	0.795			
Total % of variance			61.934	

¹⁾ Spearman-Brown coefficient

clean” and “fast food restaurant employees are kind”. Items in Factor 2 were related to the convenience aspect of fast food such as “fast food is convenient” and “fast food is familiar”. Factor 3 was related to unhealthiness of fast food. Examples include “fast food does not provide health benefits” and “fast food makes weight control difficult”. Factor 4 was related to the taste of the food (e.g., “fast food provides appealing flavors”).

Social value consisted of four factors. Factor 1, which was labeled “health-conscious people”, included items such as “vegetarian” and “people on certain diets”. Factor 2, labeled “young and busy people”, included items such as “college students”, “younger people”, and “office workers”. Factor 3, which was labeled “low-class and obese people”, included items such as “less-educated people” and “overweight or obese people”. Factor 4, labeled as “budget-restricted people,” included two items, “people on a budget” and “bigger families”. It should be noted that the reliability score for Factor 4 was slightly lower than ideal due to there being only two items, however, the correlation between the two items was statistically significant ($r = 0.415, p < 0.001$).

The extracted three factors of emotional value were labeled “socialization”, “guilt”, and “pleasure”. Factor 1, “socialization”, included items associated with a sense of belonging or interaction (e.g. “I feel a sense of belonging to the community when I eat fast food”). Factor 2, “guilt”, represented negative emotions associated with fast food. Examples include “I feel accomplished when I do not eat fast food” and “I feel guilty when I eat fast food”. Factor 3, “pleasure”, included items related to positive emotions such as “I feel happy when I eat fast food” and “I feel pleased when I eat fast food”.

Two factors were extracted for conditional value. Factor 1, which was labeled “unsafety”, involved food safety related concerns that may cause respondents to shift their behavior from consumption to non-consumption. Examples include “food poisoning incidents at fast food

Table 4
Results of factor analysis of emotional value.

Factor label and items	Factor loadings	Eigen-value	Variance (%)	Cronbach's alpha
Emotional value 1:				
Socialization				
Eating fast food would give me social approval	0.865	6.486	34.139	0.930
Eating fast food would help my relationship with friends	0.835			
I feel a sense of belonging to the community when I eat fast food	0.823			
Eating fast food would make a good impression on other people	0.823			
I feel my identity when I eat fast food	0.819			
I feel socialized when I eat fast food	0.808			
I feel accepted when I eat fast food	0.754			
Emotional value 2: Guilt				
I feel accomplished when I do NOT eat fast food	0.843	5.317	27.983	0.911
I feel confident when I do NOT eat fast food	0.818			
I feel in a higher position when I do NOT eat fast food	0.794			
I feel better when I do NOT eat fast food	0.780			
I feel safer when I do NOT eat fast food	0.777			
I feel prepared for the day when I do NOT eat fast food.	0.715			
I feel superior when I do NOT eat fast food.	0.709			
I feel lighter when stopped eating fast food.	0.708			
I feel guilty when I eat fast food.	0.699			
Emotional value 3: Pleasure				
I feel satisfied when I eat fast food.	0.764	1.036	5.450	0.889
I feel happy when I eat fast food.	0.754			
I feel pleased when I eat fast food.	0.744			
Total % of variance			67.572	

restaurants” and “poor food qualities”. Factor 2, “accidental situation”, included items about atypical conditions that may cause respondents to shift their behavior from non-consumption to consumption. Examples include “time pressure” and “stress”.

Epistemic value was defined by a single factor, labeled “curiosity”, which reflects the consumers’ diversity seeking behavior. Lastly, process value was also defined by a single factor, labeled “sustainability”, which reflects the consumers’ concerns about ecological, societal matters, and environmental impacts of fast food production.

3.3. Factors influencing consumption or non-consumption of fast food

Followed by the factor analysis, ANCOVA was conducted to examine the mean differences in ratings between RCs and non-RCs in terms of all the extracted factors. As shown in Table 6, there were significant differences in all four factors of functional value. Location ($p < 0.001$), convenience ($p < 0.001$), and taste ($p < 0.001$) ratings were significantly higher for RCs compared to non-RCs; and unhealthiness ratings were significantly higher for non-RCs compared to RCs ($p = 0.002$). In

Table 5
Results of factor analysis of conditional, epistemic, and process value.

Factor label and items	Factor loadings	Eigen-value	Variance (%)	Cronbach's alpha
Conditional value 1: Unsafety				
Food poisoning incidents at fast food restaurants	0.900	5.186	47.148	0.936
Sickness or disease	0.876			
Diet restriction	0.868			
Poor food qualities	0.842			
Food consistency is not guaranteed	0.824			
Poor service	0.823			
Doctor's advice	0.802			
Conditional value 2: Accidental situation				
Time pressure	0.839	2.396	21.782	0.778
Nothing to eat at home	0.789			
Stress	0.732			
At unfamiliar areas (e.g., traveling)	0.731			
Total % of variance			68.930	
Epistemic value 1: Curiosity				
I am curious about fast food.	0.820	5.240	58.218	0.909
I want to learn more about fast food.	0.803			
Eating fast food is a good opportunity for me to learn new things.	0.789			
I like to taste new menus.	0.782			
Promotions and reward programs attract me.	0.774			
I like to do things that are new and different.	0.754			
I like a change of pace.	0.736			
I am bored with other food.	0.700			
Many people around me eat fast food.	0.698			
Total % of variance			58.218	
Process value 1: Sustainability				
Environmental impacts of fast food production	0.912	5.010	71.567	0.933
Ecological matters of fast food production	0.894			
Fair trade issues involved in fast food production	0.864			
Animal welfare issues involved in fast food production	0.846			
Societal matters of fast food production	0.842			
Mass production of fast food	0.802			
Use of food additives in fast food production	0.751			
Total % of variance			71.567	

terms of the social value factors, differences between RCs and non-RCs were mostly insignificant except for “health-conscious people” where non-RCs were slightly less likely than RCs to believe that health-conscious people would consume fast food ($p = 0.019$). For emotional value, RCs were relatively more likely to feel socialization ($p < 0.001$) and pleasure ($p < 0.001$) by consuming fast food. But non-RCs were relatively more likely to feel guilt with fast food consumption and feel accomplished when not consuming fast food ($p < 0.001$). Regarding conditional value, RCs were more likely than non-RCs to alter their behavior due to unsafety reasons ($p < 0.001$), whereas non-RCs were more likely than RCs to alter their behavior due to accidental situations ($p < 0.001$). As for epistemic value, RCs were more likely than non-RCs to be variety seekers and curious about fast food ($p < 0.001$). Lastly, for process value, both RCs and non-RCs were moderately influenced by the

Table 6
Comparison of values between regular consumers and non-regular consumers.

Factor	Regular Consumers(n = 140)	Non-Regular Consumers(n = 167)	Total (n = 307)	p-value ²⁾
Functional value 1: Location	3.44 ± 0.78 ¹⁾	2.93 ± 0.81	3.2 ± 0.8	< 0.001
Functional value 2: Convenience	4.34 ± 0.62	4.00 ± 0.76	4.2 ± 0.7	< 0.001
Functional value 3: Unhealthiness	3.63 ± 0.76	3.92 ± 0.83	3.8 ± 0.8	0.002
Functional value 4: Taste	4.19 ± 0.73	3.52 ± 1.08	3.8 ± 1.0	< 0.001
Social value 1: Health conscious people	2.46 ± 1.04	2.20 ± 0.86	2.3 ± 1.0	0.017
Social value 2: Young and busy people	4.18 ± 0.65	4.12 ± 0.61	4.1 ± 0.6	0.467
Social value 3: Low class and obese people	3.90 ± 0.83	3.97 ± 0.76	3.9 ± 0.8	0.424
Social value 4: Budget restricted people	3.61 ± 1.04	3.60 ± 0.95	3.6 ± 1.0	0.891
Emotional value 1: Socialization	2.78 ± 1.07	2.15 ± 1.01	2.4 ± 1.1	< 0.001
Emotional value 2: Guilt	2.99 ± 1.00	3.49 ± 0.97	3.3 ± 1.0	< 0.001
Emotional value 3: Pleasure	3.60 ± 0.93	2.59 ± 1.11	3.1 ± 1.1	< 0.001
Conditional value 1: Unsafety	3.64 ± 0.88	1.96 ± 1.05	2.7 ± 1.3	< 0.001
Conditional value 2: Accidental situation	2.67 ± 1.09	3.33 ± 0.95	3.0 ± 1.1	< 0.001
Epistemic value 1: Curiosity	3.12 ± 0.97	2.46 ± 1.01	2.8 ± 1.0	< 0.001
Process value 1: Sustainability	2.97 ± 1.15	3.21 ± 1.15	3.1 ± 1.2	0.068

¹⁾ mean ± SD, ²⁾ p-value by ANCOVA: Age and gender were included as covariates.

sustainability factor, though non-RCs were shown to consider it more seriously compared to RCs (p = 0.068).

While the ANCOVA results provide an understanding of how RCs and non-RCs differ in terms of each extracted factor, it does not offer any explanation on what different factors cause RCs to consume and non-RCs to not consume. That is, further analysis was needed to determine the key factors that differentiate RCs and non-RCs. Thus, we conducted a discriminant analysis which allows the researcher to identify influential discriminating factors by examining group differences in terms of multiple factors simultaneously (Hair et al., 2010). Specifically, a stepwise discriminant analysis was performed with the 15 consumption value factors (identified via factor analysis) included as independent variables and the group categorization (RCs and non-RCs) included as a dependent variable. Results of the stepwise discriminant analysis is summarized in Table 7 and visualized in Fig. 1. Among the 15 factors, 5 factors

Table 7
Standardized Canonical Discriminant Function.

Factor Names	Function Coefficient	Mean responses by group Regular Consumers	Non-Regular Consumers
Conditional value1: Unsafety	0.951	0.697	-0.584
Conditional value 2: Accidental situation	-0.443	-0.320	0.268
Functional value 2: Convenience	0.335	0.165	-0.138
Functional value 4: Taste	0.215	0.329	-0.276
Emotional value 2: Guilt	-0.187	-0.242	0.202

Eigen value 1.185, Wilks' lambda 0.458, chi-squared 236.382, df 5, significance < 0.001

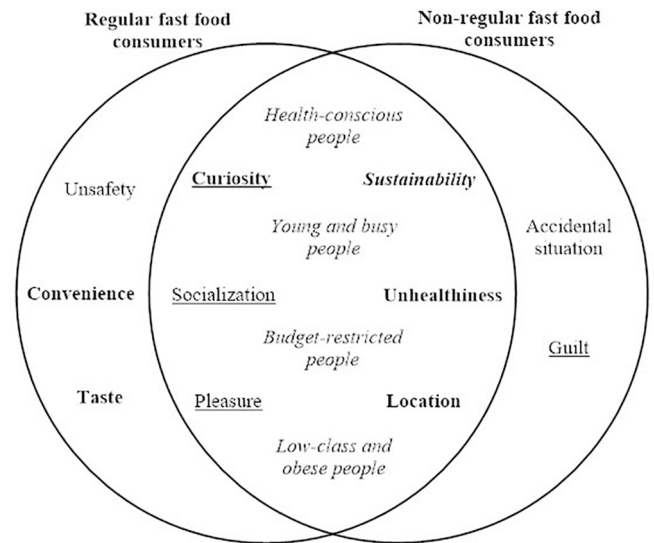


Fig. 1. Summary of discriminating factors of regular consumers and non-regular consumers. Note. Bolded = Functional value factor; Italicized = Social value factor; Underlined = Emotional value factor; No font style = Conditional value factor; Bolded and underlined = Epistemic value factor; Bolded and italicized = Process value factor.

were identified as factors that are influential in discriminating RCs and non-RCs. It should be noted that we also estimated a discriminant function with coefficients for the 5 factors in order to maximize the variance between two groups (RCs and non-RCs) and minimize the variance within each group (Hair et al., 2010). As shown in Table 7, conditional value factors were the most influential in discriminating RCs and non-RCs. The most discriminating factor (with a coefficient of 0.951) was “unsafety”, suggesting that examining the tendency to alter one’s regular behavior due to unsafety related conditions would be the most effective in differentiating RCs and non-RCs. The second most discriminating factor (with a coefficient of -0.443) was “accidental situation”, which includes atypical conditions (e.g., time pressure, stress) that may cause non-RCs to eat fast food. The next most discriminating factors were “convenience” (with a coefficient of 0.335) and “taste” (with a coefficient of 0.215), suggesting that RCs can be distinguished from non-RCs based on their level of agreement toward convenience and taste as important benefits of fast food. Lastly, “guilt” (coefficient of -0.187) was also found to be influential in discriminating non-RCs and RCs. The fact that only 5 out of 15 factors were identified via the discriminant analysis implies that the remaining 10 factors do not significantly discriminate RCs and non-RCs (despite the significant mean differences shown in the ANCOVA results).

Table 8 provides evidence of predictive validity for our results. The classification analysis compares actual versus predicted fast food consumption behavior for the respondents in this study. As shown, the analysis revealed a relatively high percentage of respondents correctly identified at 82.7%. More specifically, 84.3% of RCs and 81.4% of non-RCs were correctly classified on the basis of their ratings for the 5 discriminating factors.

Table 8
Classification results.

Actual choice	Predicted choice Regular Consumers	Non-Regular Consumers	Subjects
Regular Consumers	118(84.3%)	22(15.7%)	140
Non-Regular Consumers	31(18.6%)	136(81.4)	167

82.7% of original grouped cases correctly classified

4. Discussion

This study enriches the body of food consumption literature by utilizing the consumption value model (Sheth et al., 1991b) and the food consumption value model (Dagevos & van Ophem, 2013) to investigate simultaneously the determinants of fast food consumption and non-consumption. Previous studies have utilized the concepts of attitude, perception, and belief to investigate fast food consumption behavior, resulting in the identification of important factors that encourage consumers to approach fast food (Rydell et al. 2008; Dunn et al. 2008; Bryant & Dundes 2008; Dave et al., 2009; Namin, 2017). While the significance of these studies should not be overlooked, an important gap in literature is that no study has investigated fast food consumption from a consumption value perspective. Understanding fast food consumption through the consumption value model is particularly important due to the model's ability to not only examine why consumers consume fast food but also why consumers don't consume fast food (Sheth et al., 1991b), further enabling the researcher to also understand what differentiates consumers and non-consumers of fast food.

We extracted 15 factors pertaining to the six consumption values, and most of them except for the social value factors and the process value factor were rated differently by RCs and non-RCs. For example, the functional value factors, which include "location", "convenience", and "taste", were more highly rated by RCs. This result was predictable as many previous studies (Rydell et al. 2008; Dunn et al. 2008; Bryant & Dundes 2008; Dave et al., 2009; Namin, 2017) reported similar factors as major reasons for frequent fast food consumption. Regarding emotional value, our results showed that RCs felt more pleased and socialized compared to non-RCs when they eat fast food. Important to note is that the low overall mean score acquired for the socialization factor (see Table 6) is consistent with previous findings that socializing, having fun and entertaining are the least frequently reported reasons to consume fast food (Rydell et al., 2008) and that frequency of fast food consumption has no significant association with fun and social attribute of fast food (Dave et al., 2009).

Despite the significant difference between RCs and non-RCs in terms of their ratings for most factors, only five factors were shown as influential in discriminating RCs and non-RCs. The most discriminating factors were the two conditional value factors, "unsafety" and "accidental situation". According to our results, individuals who tend to alter their behavior due to unsafety of fast food are more likely to be RCs, and those who tend to alter their behavior due to accidental situations are more likely to be non-RCs. Such significance of conditional value is consistent with previous studies of organic food consumption in which conditional value was also suggested as the most significant predictor of consumption (Finch, 2006; Rahnema, 2017; Wang et al., 2018).

Besides conditional value, our results suggest that RCs can be characterized by the tendency to attach more importance to the functional benefits of fast food rather than social, emotional, and epistemic benefits. This finding is in line with Dave et al. (2009) who found strong and significant association between frequency of fast food intake and perceived convenience of fast food. As for non-RCs, emotional value was found to be an important distinguishing factor. That is, non-RCs can be characterized by the tendency to feel guilty about fast food consumption and feel accomplished when not consuming fast food. It is worth noting that RCs' tendency to seek functional values can also be linked to the earlier discussed gender and age characteristics of RCs (predominantly male and younger). According to the consumer behavior literature, male consumers, compared to female consumers, are more strongly influenced by utilitarian values rather than hedonic values (e.g., Borges et al., 2013; Yang and Lee, 2010). Within the advertising literature, it has been found that younger consumers, compared to older consumers, respond more favorably to rational rather than affective ads (e.g., Drolet et al., 2007; Williams and Drolet, 2005).

Interestingly, unhealthiness, which is frequently addressed as a major problem of fast food and anecdotally assumed as a major reason

for avoiding fast food, was not influential in discriminating RCs and non-RCs. Which in turn, suggests that non-RCs' decision to not consume fast food is not necessarily elicited by poor nutritional quality of fast food. This finding explains why many people perceive fast food as unhealthy but it doesn't stop them from eating it (Dugan, 2013). Dave et al. (2009) also reported similar findings that perceived unhealthiness of fast food has no influence on frequent fast food consumption. Based on the above, it can be assumed that perceived unhealthiness of fast food leads to the avoidance of consumption only when the perception is accompanied by other reasons to stop eating fast food - such as the feeling of guilt as suggested by our results. Obesity prevention programs may take advantage of this finding by developing strategies to increase guilt appeal with fast food consumption. While the concept of guilt appeal has been proved to encourage healthy behaviors such as exercising and smoking cessation (Xu & Guo, 2018) and discourage the selection of tempting foods such as candy and ice cream (Ruddock & Hardman, 2018; Steenhuis, 2009), only limited research (e.g., Steenhuis, 2009) examined the concept within the context of fast food. Thus, future studies may benefit from exploring the link between guilt appeal and fast food consumption (e.g., what induces feelings of guilt toward fast food?).

Another interesting finding is the insignificance of social value and process value in discriminating RCs and non-RCs. That is, fast food consumers are not influenced by the social image of fast food (i.e., young, busy, low class, obese, and budget restricted people are more likely to eat fast food). This finding, however, is not consistent with the general notion that social cues such as sociability, social norm and social image influence eating behaviors (König et al., 2017; Renner et al., 2012; Teysier et al., 2014). The weak influence of social cues on fast food consumption might be explained by unique contexts relevant to fast food (e.g., everyday meal, more frequently consumed alone than occasional dining experiences) as the strength of social influences on eating behavior has been found to be moderated by various factors (Higgs & Ruddock, 2020). A recommendation for future research would be to explore specific reasons behind the low impact of social cues on fast food consumption. As for the insignificance of process value, such finding was unanticipated especially given the fact that the method of food production and processing is becoming more important to consumers (Baltas, 2001). Ethical production in terms of animal and human welfare, and environmental protection has become a key issue within the food industry (Harper & Makatouni, 2002; Grankvist et al., 2004), and thus, an increasing number of companies are emphasizing the protection of environment and their workers' health, safety, and rights. Given the above, it is recommended that future studies examine more in-depth the insignificance of process value in a fast food context. Possible research questions to explore include whether the insignificance is due to the consumers' lack of awareness toward the sustainability issues within the fast food industry.

From a practical standpoint, fast food restaurants may utilize the five discriminating factors to determine whether an individual is a RC or a non-RC. For instance, if an individual is found to value convenience and taste, it could be assumed that the individual is likely to be a RC. Our results could also be utilized to enhance the effectiveness of fast food restaurant marketing strategies by placing more emphasis on the five discriminating factors rather than other insignificant factors. For instance, fast food commercials may appeal better to potential customers if more focus is placed on the product features that are related to convenience and taste rather than nutritional quality, social image, or sustainability.

In sum, the results of this study suggest that RCs consume fast food mainly due to convenience and taste, and that RCs may alter their consumption behavior if they encounter food safety issues. Non-RCs avoid fast food mainly due to the feelings of guilt associated with fast food consumption and the sense of accomplishment associated with not consuming fast food, and non-RCs may alter their consumption behavior if they encounter accidental situations such as time pressure or stress.

While the implications of this study for fast food researchers and practitioners are obvious, there are some limitations that should be discussed. First limitation is that our sample size was relatively small, and therefore, caution is needed when generalizing our results. That said, future research may consider testing our results using a larger sample size or a sample group with specific demographic or psychographic characteristics. In particular, valuable findings may be acquired by investigating whether the classification result presented in Table 8 remains consistent or varies across different groups of populations. Future study could also consider exploring the impact of cultural factors as previous studies suggest that consumption values for fast food may differ among different countries (Park, 2004; Bryant and Dundes 2008). Second limitation is that the scope of the survey was confined to traditional fast food (e.g., burgers and French fries). While the confinement was necessary to prevent excessive variance, this would require future studies to utilize our results with caution especially given the variety of fast foods available in today's market (e.g., sandwich, taco, or pizza). Additional studies may be needed to verify whether our results vary across different types of fast food. Last limitation is that social value factors were developed based on the social image of fast food, whereas the sociability aspect of fast food was included as an emotional value factor. This process was justified based on Sheth et al. (1991b), however, questions may be raised since some studies (e.g., Sweeney & Soutar, 2001) considered socialization as a social value factor. In order to resolve such inconsistencies, future studies may consider investigating more in-depth the role of various social cues that are relevant to the context of fast food consumption.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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