

**ANALYZING THE EFFECT OF HEALTH AND  
APPEARANCE CONSCIOUSNESS ON INTENTION TO  
CALCULATE CALORIE INFORMATION IF DISPLAYED AT  
FAST FOOD RESTAURANT MENU**

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**ABSTRACT**

In fast food industry, there are so many challenges due to their non-healthy food images. In Indonesia, in Jakarta particularly, the increase of economic situation have bring up more and more people to better social and economic condition which make them tend to be more concerned with their health and safety of their food. In US, the initiative to display calorie information had begun. However, it is not yet done in Indonesia.

Therefore, the purpose of this study is to examine consumer's intention toward calculating calorie information when they buy fast food based on the Theory of Planned Behavior by Azjen (1985) and also considering consumer values which is health and appearance consciousness as antecedent of Attitude toward the behavior. Total of 146 valid respondents was collected through e-questionnaire from mid May to end of May 2013. Multiple regression analysis were conducted using SPSS 17.0 and the findings of this research indicating that health and appearance consciousness significantly and positively influence attitude toward calculating calorie information when buying fast food. Moreover, the results revealed that attitude, subjective norm, and perceived behavioral control also significantly and positively influence consumers' intention toward calculating calorie information when buying fast food.

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By understanding this study results, fast food industry could develop an effective marketing strategy in order to prepare the healthy lifestyle in urban area such as Jakarta which increase recently and repair the non-healthy food image.

**Keywords:** health consciousness, appearance consciousness, attitude, subjective norm, perceived behavioral control, theory of planned behavior, fast food.

## INTRODUCTION

It is common knowledge that fast food industry is not an industry which provides the health food. In fact most people's mind set is that fast food is similar to junk food. But still this industry has been increased exponentially since its first restaurant exists. But it doesn't mean that this industry has not had its downfall on their way to success.

In US the obesity has become major health issue. Between 1970 and 2000 the US fast food sales increased from \$ 6 billion to \$ 110 billion and within the same period one third of US population had met the criteria for obesity and another one third for becoming overweight (Dumanovsky, Huang, Bassett, & Silver, 2010). This fact makes the US government to impose a regulation that makes all food retailers required to provide nutritional information for the foods or beverages that they serve. This included the fast food restaurant which is well known as the cause of a lot of obesity cases for US citizen. In fact there were numerous cases which attack the fast food restaurant and jeopardized their business. In 2008, after a series of court challenge by restaurant industry, New York City became the first jurisdiction in the US to require restaurant chains to post calorie information on menus and menu boards (Dumanovsky, Huang, Bassett, & Silver, 2010). The biggest fast food restaurant chain in the world, McDonald's, reported by The New York Times, starting on September 12<sup>th</sup>, 2012 McDonald's New York would begin to post calorie counts on their menu which predicted soon will be followed by other fast food restaurants.

In Indonesia, Fast food Industry recorded a 9% growth in 2008 and registered sales of USD 912 million with outlet number grew 6% reaching over 3.800 outlet in 2008 (Euromonitor as cited by International Market Bureau, 2010). Among the existing fast food player, the leaders of foreign fast food restaurants are McDonalds and KFC, because of their early entry to Indonesian market. For the expansion and growth, Euromonitor International observed that the prospect of middle and upper-income consumer will be promising. This observation also came with a note that over the short term, the price and affordability have to remain as the key purchasing motivator. Nonetheless as middle to upper-income of Indonesian consumers are more and more urbanized, busier than before and better in education, they tend to be more concerned with their health and safety of their food (International Market Bureau, 2011). This is expected to be another factor of slowing down the fast food industry, especially the one with the main course are fried chicken, french fries and burger, since those foods are considered to be less healthy.

Despite all the negatives issue about fast food restaurant in US or UK, as a part of food industry, Park and Kim (2010, p.82) wrote that fast food restaurant have important role to play in providing consumers with not only tasty and convenient food but also nutritious and healthy foods. Even so, the respond of Fast Food restaurant in Indonesia in providing calorie and nutritional information which supporting healthy life style has been lacked. And the empirical research on Indonesian consumer regarding their behavior against calorie information is also lacking. Regarding this facts and information and in order to fill the gap in the literature, the writer intents to make an experiment on how is the intention of consumer of fast food restaurant, particularly in Jakarta, to calculate the calorie information when they buy fast food based on Theory of Planned Behavior (TPB) by Ajzen (1985). Thorbjørnsen, Pedersen, & Nysveen (2007) have observed that the TPB has been applied to predict an individual's behavior across a broad array of context (as cited by Kim & Chung, 2011), including predicting health behavior s among unique populations (Omondi, Walingo, Mbagaya, & Othuon, 2010). TPB believed that an individual's actual behavior is determined by his/her intention to perform the behavior, which in turn is influenced by the individual's attitude toward the behavior, his/her motivation to comply with the

subjective norms, and the perceived control he/she has over the behavior.

Omondi, Walingo, Mbagaya, & Othuon (2010) also pointed out that a new paradigm is emerging and many researchers right now focus on expanding and modified the TPB rather than using it according to traditional theory. Therefore this study will also include consumer values which are health and appearance consciousness to be integrated with TPB model in order to better understand about consumer's intention in calculating calorie information if they buy food at fast food restaurant menu.

## **LITERATURE REVIEW**

### **Theory of Planned Behavior**

The Theory of Planned Behavior or TPB (Ajzen, 1985, 1987) suggested that "Intention to perform behavior of different kinds can be predicted with high accuracy from attitudes toward the behavior, subjective norm, and perceived behavioral control; and these intentions, together with perception of behavioral control, account for considerable variance in actual behavior" (Ajzen, 1991). TPB is actually the result of enhancing the Theory of Reasoned Action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) which was limited only to predict the behavior over which people have incomplete volitional control (Ajzen, 1991). Looking at the suggestion above, the TPB that predict individual's behavioral intention has three antecedents which are: Attitude toward the behavior, Subjective Norm and Perceived Behavioral Control.

The TPB has been applied previously in numerous kinds of study such as: predict intention towards organic food (Salleh, Ali, Harun, Jalil, & Shaharudin, 2010; Suprpto & Wijaya, 2012; Tarkiainen & Sundqvist, 2005; Michaelidou & Hassan, 2008), predict intention towards organic personal care (Kim & Chung, 2011), predict healthy eating behavior (Grønhøj, Bech-Larsen, Chan, & Tsang, 2012) and predict intention towards buying healthy menu (Park & Kim, 2010; Park & Cho, 2012).

This study which main purpose is to measure the consumer's intention towards calculating calorie information when buying fast food is basically to examine the healthy behavior among the fast food consumer. Park & Kim (2010) observed that TPB has been applied previously to predict consumers' healthy related behavior, and the robustness of the theory has been confirmed. The attitude toward the behavior, subjective norm and perceived behavioral control are proven to be significant variable for behavioral intention in studies related to healthy diet and physical activity based on TPB (Baker, Little, & Brownell, 2003; Berg, Jonsson, & Conner, 2000; Conner, Martin, Silverdale, & Grogan, 1997; Verbeke & Vackier, 2005 as cited by Park & Kim 2010).

The recent empirical study was proposed as the modification of the TPB in order to improve the predictive power of the TPB model. Conner & Armitage (1998) explained that the TPB is open to the inclusion of additional antecedents to clarify a larger part of the variance in behavioral intentions (cited by Park & Kim, 2010).

Thus, current study will include two consumer values as antecedents of attitude toward calculating calorie information when buying fast food which are health consciousness and appearance consciousness.

### **Consumer Values – Health Consciousness & Appearance Consciousness**

For this study, value refers to the most fundamental element of an individual's belief system (Vaske & Donnelly, 1999 as cited by Park & Kim, 2010). Values may influence formation of an individual's attitude, which is personal evaluation being favorable or unfavorable to perform the behavior, by guiding him/her to look for objects that satisfy his/her values (Poortinga, Steg, & Vlek, 2004 as cited by Park & Kim, 2010). This current study is about the intention of consumer in calculating calorie information which supposing it is displayed on fast food restaurant menu. Assuming that consumer who will care for calculating calorie information is the one that care about health and also the one who is on diet in order to maintain the appearance, thus the relevant consumer values that might goes with this study is health consciousness and appearance consciousness. This proposed consumer value is also used in several studies before about food organic consumption (Salleh, Ali, Harun, Jalil, & Shaharudin, 2010;

Michaelidou & Hassan, 2008), organic personal care product (Kim & Chung, 2011) and healthy menu choice (Park & Kim, 2010).

Michaelidou & Hassan (2008) noted that health conscious consumers are aware and concerned about their wellness and motivated to improve and/or maintain their health and quality of life to prevent illness by engaging in healthy behaviors and being self-conscious regarding health (Newsom et al. 2005; Kraft & Goodell, 1993; Plank & Gould, 1990; Gould, 1988). Similarly, Jayanti and Burns (1998) explained that health consciousness is the degree to which health concerns are integrated into consumer's lifestyle and daily activities. They also distinguished health consciousness from health motivation. Health motivation refers to an internal characteristic of a person, while health consciousness refers to an external characteristic of how a person takes care of his/her health. A person who is categorized as health conscious is more likely to undertake preventive health-behavior such as reading the ingredients of the food, eating nutritious food and exercising regularly, including concern about calorie information.

Appearance Consciousness, according to Scandell (2001), is identified as public-self consciousness and it refers to one's concern with how others might think about one's specific physical appearance. Appearance-conscious people will be more interested in things that express a change in their image (Lee & Lee, 1997 as cited by Park & Kim, 2010). The consumer who desires to change or to improve their appearance through dieting strategies will be more likely to eat healthier menu items such as low-fat or low-calories (Park & Kim, 2010) which means they will tend to be more concerned about calorie information.

Thus the study proposes for hypothesis #1 and 2 are:

**H1: Health Consciousness positively influences attitude toward calculating calorie information when buying fast food.**

**H2: Appearance Consciousness positively influences attitude toward calculating calorie information when buying fast food.**

### **Attitude, Subjective Norm & Perceived Behavioral Control**

Ajzen (1991) explained that attitude toward behavior refers to the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question. The more favorable the attitude

toward the behavior, the stronger should be the individual's intention to perform it. Park & Kim (2010) with their research about intention to buy healthy menu at fast food restaurant is considered similar with this current study, and they found that there are significant relationship between attitude and behavioral intention for healthy food.

Subjective Norm refers to perceived social pressure to perform or not to perform the behavior (Ajzen, 1991). If consumer believes that other persons, who are closely related to them, whether they are friends of family, think that calculating calorie information is good for him/her, he/she would be more likely to perform that behavior. On Park and Kim (2010) study, they found that there is significant relationship between subjective norm and purchase intention for healthy menus at fast food restaurants. Therefore, it is expected that there is also a significant relationship between subjective norm and intention to calculate calorie information when buying fast food.

Perceived Behavioral Control (PBC) plays an important role in TPB because what makes it different from previous theory which is Theory of Reasoned Action is on this part. PBC is refers to the degree of control that an individual perceives over performing the behavior (Chen, 2007; Kang et al., 2006 as cited by Kim & Chung, 2011). Ajzen (1991) also explained that the resources and opportunities which available to a person will influence the likelihood of that person doing the behavior. Related to this study, the resource which is relevant is the knowledge about how to calculate calorie information by referring to how many calories per day he/she does needs. Because every person may have different calorie need depend on their activities, age, or circumstances. Therefore it is expected that consumers who know the knowledge of how to calculate calorie information are more likely to do the calculation when buying fast food.

Therefore based on discussion above, the hypothesis #3 – 5 will be as the following:

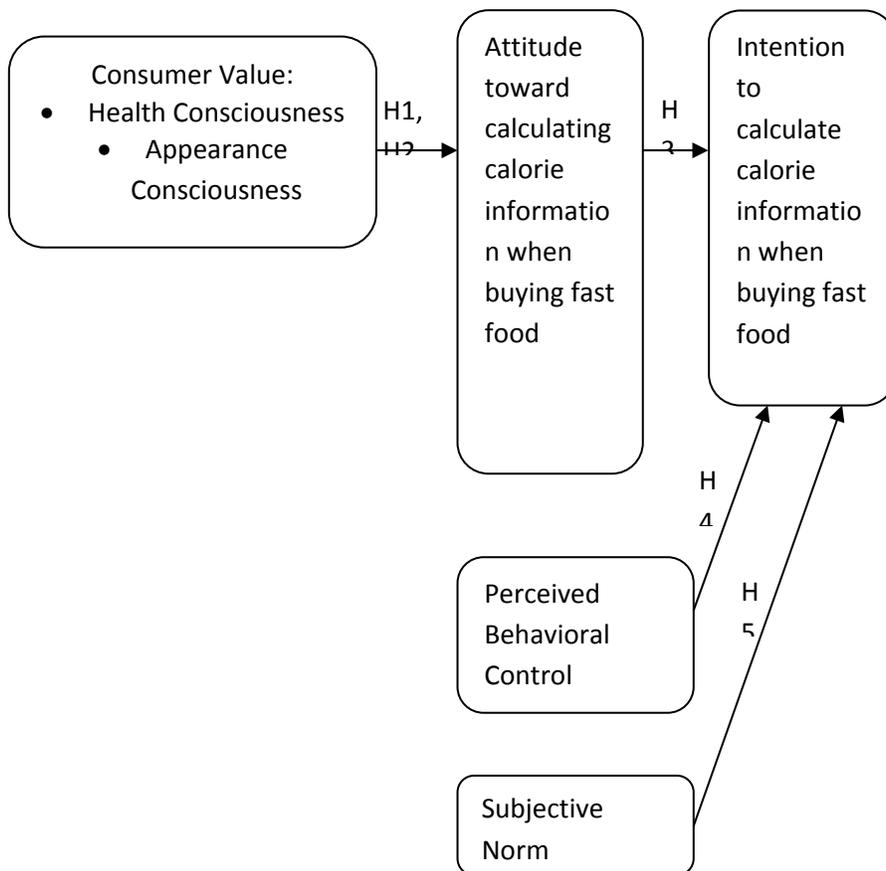
**H3: Consumer's Attitude toward calculating calorie information when buying fast food positively influences on their Intention to calculating calorie information when buy fast food.**

**H4: Consumer's Subjective Norm toward calculating calorie information when buying fast food positively influences on their Intention to calculating calorie information when buy fast food.**

**H5: Consumer's Perceived Behavioral Control toward calculating calorie information when buying fast food positively influences on their Intention to calculating calorie information when buy fast food.**

## RESEARCH METHODOLOGY

### Research Model



**Figure 1.** Research Model

### **Research Design**

This study is descriptive study which is aim to ascertain and be able to describe the characteristic of the variable of interest in a situation (Sekaran & Bougie, 2010). The unit analysis of this study is the individual who had experienced in buying food at fast food restaurant. Time horizon for the study is cross-sectional or one-shot which is data are gathered just once over a period of weeks in order to answer the research questions (Sekaran & Bougie, 2009). Data collection method for this study is using online survey tool made by Google Drive. An online survey was able to reduce limitation such as geographic boundaries and respondent time pressure and screen out the respondent who had never dined at fast food restaurant (Park & Kim, 2010).

### **Sampling Method**

Due to the limitation of time, this current study is using quota sampling which is part of purposive sampling and categorized as nonprobability sampling. Cohen (1988) explained that for TPB studies using multiple regression approach a moderate effect size would be a reasonable sample (as cited by Francis, et al. 2004). And Francis, et al. (2004) suggested that a sample size of 80 would be acceptable. After reliability and validity test with 20 respondents, using e-questionnaire made with Google Drive over two weeks period, from mid May 2013 until end of May 2013, 149 respondents were attained and among 149 responses received, 3 responses have to be discarded for admitted that they never had bought fast food. As a result 146 responses were obtained for data analysis.

### **Questionnaire Design**

The survey questionnaire consists of three sections. The first section is the question about respondent's demographic and socioeconomic characteristic. The second section is question about consumer value which is health and appearance consciousness. And the last section is question about consumers' attitude, subjective norm; perceive behavioral control and intention toward calculating calorie information when buying fast food. All measurement for each variable question was using four-point Likert scale from 1 for "strongly disagree" to 4 for "strongly agree". The reason for using four-point Likert scale is to avoid neutral responses and to narrowing

the choice. And by doing this, researcher hoped to get a firm response from respondent.

Respondent profile is asked for the purpose of identifying the respondents' socio-demographic characteristic included gender, age, education background, occupation, monthly expenditure and their behavior regarding purchasing or dining out at fast food restaurant. To measure respondent health consciousness five items were assessed. The question is adapted from Jayanti & Burns (1998) and Hong (2009). Appearance consciousness is measured with four items, adapted from Wojslawowicz (2005). Attitude toward calculating calorie information when buying fast food is measured with two items, adapted from Conner, Warren, Close, & Sparks (1999). For this study, researcher has chosen necessary/unnecessary and good/bad to measure respondent's attitude. Subjective Norm in this study is measured with two items, adopted from Bansal & Taylor (2002). Perceived Behavioral Control in this study is also measured with two items, adapted from Bansal & Taylor (2002) and Francis, et al. (2004) with consideration that the resource that is needed to calculate calorie information is all about the knowledge and understanding of how to calculate it according to one's need. And last one, for measuring Intention toward calculating calorie information when buying fast food used five items, adopted from Francis, et al. (2004) for question 1 to 3 and for question 4 to 5 is additional question for researcher to find out further intention in more extreme manner.

### **Tool Selection**

In order to achieve the research objective, this study will use SPSS (Statistical Package for the Social Sciences) version 17 to do validity and reliability analysis, descriptive statistic, and multiple regression analysis. Descriptive statistic is used to describe the demographic and socioeconomic characteristic and also to find out the data description on variable such as mean, minimum, maximum and standard deviation. Multiple regression analysis is performed to test the proposed hypothesis. There are 2 equation presented in this study. The first one is to calculate the influence of Health Consciousness and Appearance Consciousness variables against Attitude toward the behavior and the second one is to calculate the influence of Attitude, Subjective Norm and Perceive Behavioral Control variables against

Intention toward the behavior. Thus the equations will be as the following:

- **$Att = \alpha + \beta_1HC1 + \beta_2AC2 + \epsilon_1$**   
*Att* = the value of Attitude as dependent variable  
 $\alpha$  = Alpha is the Constant  
 $\beta_i$  = Beta coefficients (regression coefficients)  
*HC* = the value of Health Consciousness as independent variable  
*AC* = the value of Appearance Consciousness as independent variable  
 $\epsilon_1$  = random error
- **$Int = \alpha + \beta_1Att1 + \beta_2SN2 + \beta_3PBC3 + \epsilon_1$**   
*Int* = the value of Intention as dependent variable  
 $\alpha$  = Alpha is the Constant  
 $\beta_i$  = Beta coefficients (regression coefficients)  
*Att* = the value of Attitude as independent variable  
*SN* = the value of Subjective Norm as independent variable  
*PBC* = the value of Perceive Behavioral Control as independent variable  
 $\epsilon_1$  = random error

## RESULT

### Validity & Reliability Test

Validity Test is conducted using Corrected Item-Total Correlation. Sample used for this validity and reliability test is 20 with significance value 0.05 and using 2 tail test. By referring at r table, 0.444 is attained. This means that validity test with value less than 0.444 will be deleted due to invalid. While Reliability test is measured by looking at Cronbach's Alpha. Sekaran (2010) pointed out that Cronbach's Alpha less than 0.6 is categorized as bad reliability, 0.6 to 0.79 is categorized as acceptable and over 0.8 is categorized as good reliability. In the results of this study four variables are categorized as good reliability and one variable is categorized as acceptable.

**Table 1.** Validity & Reliability Test Results (N=20)

Measurement Model		Corrected Item-Total Correlation	Validity	Cronbach's Alpha
<b>Health Consciousness (HC)</b>	1. I think myself as a health-conscious consumer (HC1)	.711	Valid	.826
	2. I choose food carefully to ensure good health (HC2)	.767	Valid	
	3. No matter how busy I am, I always find time each week to do a few hours of exercises(HC3)	.560	Valid	
	4. I'm careful in what I eat in order to keep my weight under control (HC4)	.685	Valid	
<b>Appearance Consciousness (AC)</b>	1. I'm usually aware of my appearance (AC1)	.858	Valid	.863
	2. I'm concerned about the way I present myself (AC2)	.662	Valid	
	3. I'm concerned about my style of doing things (AC3)	.743	Valid	
	4. I'm concerned about what other people think of me (AC4)	.645	Valid	
<b>Attitude (Att)</b>	1. I think that calculating about calorie information when buying fast food is necessary (Att1)	.706	Valid	.825
	2. I think that calculating about calorie information when buying fast food is good (Att2)	.706	Valid	
<b>Subjective Norm (SN)</b>	1. People who influence my decision would approve that I calculating calorie	.791	Valid	.878

Measurement Model		Corrected Item-Total Correlation	Validity	Cronbach's Alpha
	information when buying fast food (SN1) 2. People who are important to me would approve that I calculating calorie information when buying fast food (SN2)	.791	Valid	
<b>Perceived Behavioral Control (PBC)</b>	1. I'm confident that I have the knowledge (information) to understand calorie information when buying fast food (PBC1)	.517	Valid	.682
	2. For me to understand calorie information when buying fast food is easy (PBC2)	.517	Valid	
<b>Intention toward behavior (Int)</b>	1. I probably will calculate calorie information when buying fast food (Int1)	.817	Valid	.887
	2. I will try to calculate calorie information when buying fast food (Int2)	.863	Valid	
	3. I intend to calculate calorie information when buying fast food (Int3)	.708	Valid	
	4. I intend to choose different menu when I know the calorie information (Int4)	.596	Valid	
	5. I intend to choose fast food restaurant with calorie information on their menu (Int5)	.679	Valid	

### Demographic & Socioeconomic Characteristic

Total valid sample are 146. The sample consist of 51 male (34.9%) and 95 female (65.1%). Young Adult respondent with age within 26 – 35 years took the majority of sample population for this research with 60.3%; and the second largest respondent is adult with age range of 38 – 45 years for 21.2%. With most of young adult respondents, it could be predicted that most of this research respondents are employee with total percentage of 64.4%. And The Respondents who work as professional is 13.7% and the one who become entrepreneur is 8.9%. 74.0% of the respondents are diploma or bachelor graduated, 17.8% is master or doctoral degree graduated and only 8.2% is high school graduated. Most of the respondents live in Bodetabek with 28.8%, 21.9% lives in West Jakarta and 21.2% lives in South Jakarta. The monthly expenditure among the respondents is equally big for expenses less than 5 million and expenses between 5 to 10 million with percentage 38.4% for both. And also there are 12.3% of respondents who expenses 10 to 15 million per month and 11% of respondents who expenses above 15 million per month.

**Table 2.** Demographic & Socioeconomic Characteristic (N=146)

Variable	Frequency	Percentage (%)
Sex		
Male	51	34.9
Female	95	65.1
Age		
Below 18	2	1.4
19 – 25 years	18	12.3
26 – 35 years	88	60.3
36 – 45 years	31	21.2
Above 45 years	7	4.8
Occupation		
Student	9	6.2
Employee	94	64.4
Professional	20	13.7
Entrepreneur	13	8.9
Housewife	10	6.8
Education		

Variable	Frequency	Percentage (%)
High School	12	8.2
D3/S1	108	74.0
S2/S3	26	17.8
Living Area		
Central Jakarta	18	12.3
West Jakarta	32	21.9
East Jakarta	18	12.3
North Jakarta	5	3.4
South Jakarta	31	21.2
Bodetabek	42	28.8
Monthly Expenditure		
Less than 5 millions	56	38.4
5 – 10 millions	56	38.4
10 – 15 millions	18	12.3
Above 15 millions	16	11.0

### Consumer Behavior in Fast Food Consumption

Majority of the respondents, 84.2%, admitted that they are not the kind of fast food consumers who eat it regularly. The definition of “regularly” here is that the consumer already have regular schedule about when they want to eat out at fast food restaurant, for example: once a week, every three days, everyday or else. Therefore could be concluded that most of the respondents only eat fast food occasionally; for example when certain fast food restaurant offer interesting gimmick or offering special price for certain period of time.

With most of the respondents who are not a regular fast food consumer, most of them answer a week ago when asked their last fast food purchase with 47.9%. And 21.2% of them answer a month ago.

As the earliest fast food restaurant coming to Indonesia KFC still occupy the most favorite fast food restaurant among the respondents with 39%. Surprisingly the next favorite fast food restaurant was not McDonalds, but Burger King with 18.5%. McDonalds came next with 12.3%.

**Table 3.** Consumer Behavior in Fast Food Consumption (N=146)

<b>Variable</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Regularity of fast food purchase		
Yes	23	15.8
No	123	84.2
Last purchase		
Today	5	3.4
Yesterday	24	16.4
A week ago	70	47.9
A month ago	31	21.2
More than a month	16	11.0
Favorite fast food restaurant		
McDonalds	18	12.3
KFC	57	39.0
Burger King	27	18.5
Wendy's	6	4.1
Lotteria	4	2.7
Pizza Hut	17	11.6
Others	17	11.6

### **Hypothesis Testing**

To test the hypotheses in this study, researcher used multiple regression analysis. Since there are two equations, the hypothesis test was also consisted in two parts. The first part is to examine the relationship between consumer values, health consciousness and appearance consciousness, and attitude toward calculating calorie information when buying fast food (hypothesis 1 and hypothesis 2). And the second part is to examine the relationship between attitudes, subjective norm, perceived behavioral control and intention to calculate calorie information when buying fast food (hypothesis 3, hypothesis 4 and hypothesis 5).

Before running the equation with regression, normality test was also been analyzed. All independent and dependent variable were found to be normally distributed through the examination of Skewness and Kurtosis.

The first regression model that predicted health consciousness and appearance consciousness positively influence attitude toward calculating calorie information when buying fast food was statistically significant. R value 0.535 indicated that the influence is categorized as strong. R<sup>2</sup> value was 0.287 which means that the regression equation explained 28.7% of the variance in attitude toward calculating calorie information when buying fast food. The complete equation for part one is

**Table 4.** Model Summary of Equation part one

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.535 <sup>a</sup>	.287	.277	1.246

**Table 5.** Multiple Regression Analysis of Equation part one

Variable	Regression Coefficients	Std. Error	t	Sig.	Collinearity Statistics	
					Tolerance	VIF
(Constant)	.923	.677	1.363	.175		
Health Consciousness	.245	.052	4.705	.000	.744	1.344
Appearance Consciousness	.159	.058	2.745	.007	.744	1.344

The first hypothesis postulated that consumer's health consciousness would positively influence attitude toward calculating calorie information when buying fast food. At coefficients table, t value for health consciousness is 4.705. With significance value 0.025 (2 tail test) and df=143, t table value is  $\pm 1.976$ . Since t value > t table, H<sub>1</sub> could be accepted and that means Health Consciousness positively influences attitude toward calculating calorie information when buying fast food.

The second hypothesis postulated that consumer's appearance consciousness would positively influence attitude toward calculating calorie information when buying fast food. At coefficients table, t value for appearance consciousness is 2.745. Comparing with the same t table value, 2.745 is bigger than 1.976, thus  $H_1$  could be accepted and that means Appearance Consciousness positively influences attitude toward calculating calorie information when buying fast food.

Looking at significance value between two variables, Health Consciousness is proved to be more significantly influence Attitude toward calculating calorie information (sig. value 0.000) rather than Appearance Consciousness (sig. value 0.007).

For the second part, the three predictors, Attitude, Subjective Norm and Perceived Behavioral Control, positively influence Intention toward calculating calorie information when buying fast food and the regression model was proved to be statistically significant. R value 0.686 indicated that the influence is categorized as strong.  $R^2$  value was 0.471 which means that the regression equation explained 47.1% of the variance in intention toward calculating calorie information when buying fast food. Finally, looking at coefficients table, the complete equation for part one is

**Table 6.** Model Summary of Equation part two

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.686 <sup>a</sup>	.471	.460	2.420

**Table 7.** Multiple Regression Analysis of Equation part two

Variable	Regression Coefficients	Std. Error	t	Sig.	Collinearity Statistics	
					Tolerance	VIF
(Constant)	2.332	1.026	2.272	.025		
Attitude	.902	.160	5.634	.000	.734	1.362
Subjective Norm	.727	.160	4.550	.000	.816	1.226
Perceived Behavioral Control	.379	.164	2.306	.023	.755	1.324

The third hypothesis postulated that Attitude toward calculating calorie information when buying fast food would positively influence Intention toward calculating calorie information when buying fast food. At coefficients table 4.25, t value for attitude is 5.634. With significance value 0.025 (2 tail test) and df=142, t table value is  $\pm 1.976$ . Since t value > t table,  $H_1$  could be accepted and that means Attitude positively influences Intention toward calculating calorie information when buying fast food.

The fourth hypothesis postulated that Subjective Norm would positively influence Intention to calculate calorie information when buying fast food. At coefficients table 4.25, t value for Subjective Norm is 4.550. Since this value is bigger than t table (1.976), thus  $H_1$  could be accepted. Subjective Norm also does positively influence Intention to calculate calorie information when buying fast food.

The fifth hypothesis postulated that Perceived Behavioral Control, within this study means that the knowledge of how to utilize calorie information would positively influence Intention to calculate calorie information when buying fast food. The t value for Perceived Behavioral Control is 2.306 (see 4.25) and it is bigger than the t table (1.976), thus  $H_1$  also could be accepted. Perceived Behavioral Control also does positively influence Intention to calculate calorie information when buying fast food.

All the t value results is in positive value, which indicated that the more positive attitude, subjective norm and perceived behavioral

control toward calculating calorie information when buying fast food, the higher is the intention to calculate calorie information when buying fast food. And between all three variables, attitude and subjective norm significantly give more influence (sig. value 0.000) rather than perceived behavioral control (sig. value 0.023).

## **CONCLUSION & RECOMMENDATION**

The objective of this study is to examine the consumer's intention toward calculating calorie information when buying fast food by utilizing the Theory of Planned Behavior by Ajzen (1985). In addition this study also added two Consumer's values, Health and Appearance Consciousness, as the antecedent of Attitude toward behavior. The result of this study proved that Health Consciousness positively influence the attitude toward calculating calorie information when buying fast food. This result is consistent with researcher's expectation and also the statement that "consumers with high health consciousness are concerned with healthy eating in food choice" (Jayanti & Burns, 1998; Lockie et al., 2002 as cited by Park & Kim, 2010). Moreover between Health and Appearance Consciousness, people have more favorable attitude when they are concern about health rather than their appearance. This result is consistent with the observation of International Market Bureau (2011) that Indonesian consumers are tend to be more concerned with their health and safety of their food.

The result of this study also found that Appearance Consciousness also positively influence the attitude toward calculating calorie information when buying fast food. This result is consistent with previous research by Park & Kim (2010) with difference that in this research's result, Appearance Consciousness didn't give the most significant influence toward the attitude.

The second hypothesis test was examined the relationship between the three predictors in Theory of Planned Behavior which are Attitude, Subjective Norm and Perceived Behavioral Control, and Intention toward calculating calorie information when buying fast food. The result of this study showed that Attitude is significant and positively influence the Intention toward calculating calorie information when

buying fast food. Moreover, the result also showed that among the three predictors in TPB model Attitude has the strongest significant effect on intention toward behavior. This result is consistent with the prior research showing that attitude relatively has a strong correlation with intention among the three predictors of behavioral intention (Ajzen, 1991; Conner & Armitage, 1998; Trafimow & Finlay, 1996 as cited by Kim, 2009). Next to Attitude, Subjective Norm proved to be the second most significant predictor of Intention toward calculating calorie information when buying fast food. This result is consistent with the prior research about the consumer behavior of organic personal care product (Kim, 2009) and green consumer behavior (Bamberg, 2003 as cited by Kim, 2009). Therefore, as reflected in the survey questions, if consumers believe that others would approve calculating calorie information then consumers have greater intention to calculate calorie information. Moreover, the result also showed the positive relationship between Subjective Norm and Intention toward the behavior which also in line with prior researches mentioned above. Finally, Perceived Behavioral Control also proved to positively influence the Intention toward calculating calorie information when buying fast food. In particular, when consumers believe that they have resource, they will have higher intention to calculate calorie information when buying fast food. In this case the resource referred to is the knowledge about how to read and interpret the calorie information. However, in this research Perceived Behavioral Control also proved to be the least important predictor of Intention among the three. This result is also consistent with prior researches mentioned above.

There are several limitations in this study. The scope of this research is limited to only Jakarta and Bodetabek citizens only which the results probably could not be applied to other cities in Indonesia. Due to the limitation of time frame and resources, this research is done by quota sampling which might not enough to represent the population of fast food consumer in Jakarta and Bodetabek. And this research was conducted with limitation to fast food restaurant kind of type. Other restaurant setting such as full service or casual dining restaurant might have different results.

In conclusion, this study shows an insight for fast food industry especially with their consumer behavior. As the health consciousness

of the Indonesia's consumer is getting higher due to the increase of economic situation, this could be a threat for the future of fast food industry. And this study shows that between health and appearance consciousness, health consciousness took significant part to influence consumer attitude in calculating calorie information. And the respondents' intention to calculating calorie information, it is strongly influence by their attitude toward calculating calorie information. From these findings, marketers of fast food restaurant industry should be aware about it, prepare and develop effective marketing strategies in emphasizing the health aspect in advertising or in the menu.

Looking at the conclusion above, several recommendations could be offered in based on this study. As starting point, fast food restaurant could develop a variety of healthy menus. For example the food which emphasizes several of the following: less sugar, less sodium, more fiber, more vitamin and mineral and grilled food instead of fried. With the availability of healthy food variance, then the fast food restaurant could confidently start the initiative to display the calorie information on the menu.

However, these initiatives should not be taken rashly. Dumanovsky et al (2010) pointed out that New York city accepted the regulation about calorie labeling in fast food restaurant and finally become effective in 2008. But an article by Strom (2012) reported that McDonald started to posting calorie information on that year. Even for Mc Donald in New York city, they took 5 years to finally confident enough to do such initiatives. Therefore, before started to posting calorie information on menu and launching the healthy food menus, there should be a Focus Group Discussion first. And as a pilot project, there should be a branch selection. The branch which will apply the initiatives could be the branch where most of the customer is the urban people or located near fitness center.

Another thing that should be considered when applying the initiatives is about the education process. One of the goals of showing calorie information is to give consumer enough information about what they eat and be responsible of what they eat. Therefore, if there is enough education material about calculating calorie information, consumer would positively respond to calorie information and not misinterpret it.

Lastly, if healthy lifestyle has penetrated deeply in the market, there could be a new brand launched for specially responding the health conscious consumer. This is similar to what happened nowadays when coffee drinking has become lifestyle and finally McDonalds launched McCafe and KFC launched KFC Coffee in several of their branches.

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