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EE489 Seminar in industrial economics

What determine the customer behavior on buying clean food?

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Abstract

This paper aims to analyze the customer behavior, lifestyle and buying decision with the objective of defining the determinants of clean food of Bangkok citizens. An online survey was conducted via google form to collect 200 observations of Bangkok citizens age from 15-41 years old. The survey result was used for a statistical analysis as well as regression analysis.

The survey results indicates that clean food buyers are young female age between 20-24 with allowance of 9,000-15,000 baht per month. On the other hand, the regression result shows that the significant factors that affect customers in buying clean food are ingredients of the meal, occupation, review on social media, Body mass index, gender and frequency of going to fitness of consumers.

I.Introduction

Clean food industry was ranked by “euromonitor international” to be one of the top 5 businesses worth investing in along. The rising demand has been brought by the trend of people going to fitness, exercising, eating healthy as well as Thailand is entering the aging society. With that being said, the clean food industries has become very competitive in Thailand. Clean food products have been made to serve the demand of those who are into Bodybuilding and Diet. In the present, there are 1011 fitness centres with 546,000 members. (Ferquest 2011). These numbers can indicate the market size of clean food buyers. It is a common knowledge for people that work out that weightloss cannot be done by exercise alone. In general, eating right is accounted for 75 percent of weight loss and the rest is to do with exercise. (women’s healthmag).

An average price of clean food sold in the market is 150-250 baht which is approximately twice its cost. In reality, the cost of making clean food should be less than the cost of making normal food. Even Though, Jocelyn Voo (2017) has defined to be the food that has been through least process of refinement or the food that are closest to its natural origin.

In contrary, The characteristic of clean food in Thai market is far from the given definition that. A clear example is the food from “Dj’s poom menu”, one of the most popular clean food business in Bangkok which is own by a celebrity. Its top grossing menu is rice topped with stir-fried pork and basil leaves or khao-phad kra pao. This menu is made with 0 palm oil in stir frying process along sunny side up fried egg which is purely made by egg white and served with steamed vegetables and pumpkin. It is clear that the objective of this menu is to minimize the kilocalories of the meal. In other words, the definition of the clean food is differ by the push of demand from people who work out. Thus, the ingredients used to

make the clean food is less than normal food in terms of quantity and cost. The fact that this item require small cost and can be charged with high price is an interesting aspect of this product.

With the projection of 6.5 percent industry's growth rate per year, it is very beneficial to find out what are the true factors and theory behind these growing demands. This paper tries to examine the determinants of customer behavior on the purchase of clean food. There are 5 sections in this research paper. The First section is the literature review and followed up with the methodology. Methodology consists of 3 sections which are data collection, sample and econometric model that has been used to answer the research questions. Next, the result section will show the summary statistic, survey result analysis and regression result analysis. Lastly, the conclusion will discuss about the findings of the result, how this paper is beneficial and how what could be done to further analyze this topic.

Research objectives

The objective is to see the true factors that determine the customers' behaviour on buying clean food thus the following hypothesis have been created regarding the problem statement.

H1 : Frequent clean food buyers are the one who exercise regularly. Therefore, frequency of going to gym has a positive correlation with frequency of purchase.

H2 : Female are likely to consume more clean food than men. Therefore, gender should have a negative correlation with frequency of clean food purchased (female = 0, male=1).

H3 : Appearance of food correlates positively with the frequency of clean food purchased .

H4 : Body mass index shows a negative correlation with frequency of purchase as majority of clean food buyers consume clean food as a diet tool.

H5 : Clean food buyers are highly influenced by the trend on social media and celebrities.

II. Literature review

In the present, the consumption of healthy food has become necessity rather than preferences of consumers. The authors (H.H. Jensen, et al.,1988) have mentioned the fact that “food industry group, producer organizations, and government agencies have paid considerable attention to health related foods.” The statement clearly emphasize the importance of healthy food or could be referred to “clean food”. In Thailand, The growth of the clean has been very significant and steady in the recent years. However, it does not imply that people will consume clean food because it is necessary. The customer behavior is irrational and unpredictable.

The survey findings of Ricky Y.K. Chan (1999) suggested that Chinese people's ecological concerns are still rather low even though they have expressed exceptionally strong emotional attachment to ecological issues. In other words, people in general do not concern that much about the healthy issue if it isn't that severe. The external and internal factors affecting the customer behaviour on buying clean food may vary across different people with different personalities. The consumer behavior of people is much more complex than it could seems and it is not easy to predict the behaviour of individuals in general (J.Stavkova et al.,2007). Selecting food is a very common thing in everyday life. Nonetheless, the decision made always come with hidden objective such as taste, healthiness, appearance, nutritious, price, packaging, variety or even the environment surrounding the restaurant or the supermarket. (Jabir ali, Sanjeev kapoor, Janakiraman Moorthy at el., 2010)

In the same way, Stacey R. Finkelstein (2010) stated that “ people who are concerned with watching weight and individuals who are less concerned with watching their weight attribute to an external agent so both are likely to infer that they have made progress

toward the health goal and to experience a boost in the competing motive to fulfill their appetite”.

Most people would agree that the food which are considered to be healthy are likely to be less tasty than normal food. This is in contrast to the conclusion of Stacey R. Finkelstein (2010). With the survey tested on sixty two students of university of Chicago to have a slice of low calorie bread and a chocolate bar then assigned them that the sample bread was full of nutritious and vitamins. As a result, individuals who sample an item framed as healthy consumer more than those who sampled an item framed as tasty due the fact that it will make they become more healthy will help them reach the higher level of satisfaction.

On the other hand, for food in general, the factor that has the most impact on buying behavior are quality, price, discount, habit and product attributes. In contrary, Advertising brand and package were not important when buying food and the level of their influence was considered low. Despite the fact from the survey, the result may not be true. The effect of advertising actually an important factor but respondents just don't seem to perceive it even though they were affected by them. This hypothesis is confirmed by many authors (J.Stavkova, et al.,2007). Apart from the 10 variables that the authors have tested, they also mentioned the common factors behind which are emotional subtext, rational behavior which is obviously difficult if not impossible to test.

Another author (Paul Huntington.,1991) also finds a similar empirical evidence about the importance of quality of the product where it is a decisive factor in choosing between options and also there is a positive relationship between price and the product quality.

Among those important factors, the “quality of food” is the one that showed the highest impact to consumer's decision. Implicitly, freshness and “cleanliness” could be considered to be one of the aspect defining quality of food. So it is likely that “taste” and

“appearance” are going to be two of the most influence factors on clean food buying since these are factors which are most related to the word “quality”.

Contribution

After the literature review, it helps my paper in term of expectation of outcome. The variables and questionnaire that I came up with are based upon the outcome of these papers. In summary, the factors that are used in the OLS regression are generally the one that define the word “quality” of clean food like taste, appearance etc.

III. Methodology

3.1 Data collection

To analyze a buying pattern or the factors affecting consumer behaviour on buying clean food, an online survey has been conducted via google form to collect a cross-sectional data (appendix). The questionnaire will be categorized into 3 sections consisting of personal characteristic, accessibility and component of food based on the 23 variables I came up with. . The personal characteristic section will collect demographic information. Next, perception section will collect information about their attitude and perception towards clean food as well as implicitly test their understanding of clean food. Lastly, the component of food section will ask their interest towards each component of clean food like the packaging, appearance etc.

3.2 Sample data

Thai clean food and non-clean food buyers age between 15-60 years old who live in Bangkok. The survey will be done in Thai language to prevent misconceptions. Two hundred observations will be used to represent all Thailand citizens. However, as an undergraduate university student, it is very difficult to collect data from respondents from different age group with different occupation. Therefore, the type of respondents are not random enough which could create some sampling bias.

Unintentionally, the majority of data would likely represent the clean food buyers and non-clean food buyers who are “university students” instead of Thai citizens age between 15-60 years old as intended.

3.3 Econometric model

Econometric model will be applied to analyze the survey data through multiple linear regression (STATA 14). Ordinary Least Square method will be used as “frequency of purchase” is selected as a Y variable. Frequency of purchase is a continuous number. Frequency of purchase is how many times each consumer purchase clean food per one month.

$$\begin{aligned}
 Freqpur = & \beta_0 + \beta_1 \text{freqgym} + \beta_2 \text{atthealth} + \beta_3 \text{attweight} + \beta_4 \text{traineradv} + \beta_5 \text{BMI} \\
 & \beta_6 \text{health} + \beta_7 \text{knowledge} + \beta_8 \text{age} + \beta_9 \text{income} + \beta_{10} \text{sex} + \beta_{11} \text{educ} + \beta_{12} \text{status} + \\
 & \beta_{13} \text{job} + \beta_{14} \text{ingre} + \beta_{15} \text{realfood} + \beta_{16} \text{promo} + \beta_{17} \text{varmenu} + \beta_{18} \text{price} + \\
 & \beta_{19} \text{reviewmedia} + \beta_{20} \text{appear} + \beta_{21} \text{pmtmet} + \beta_{22} \text{taste} + \beta_{23} \text{ads}
 \end{aligned}$$

3.4 Variable definition

Table 1 : variables' definition

Variable	definition	type of data
fregym	This measures how frequent the respondents go to fitness per month	continuous number
frepur	This measures how frequent the respondents purchase a meal of clean food per month	continuous number
atthealth	This shows whether the respondents think that clean food will make them healthy or not.	1 : yes 0 : no
attweight	This show whether the respondents think that clean food will they lose their weight or not	1 : yes 0 : no
traineradv	Advice from personal trainers	1-5 influence level in ascending order
BMI	Body mass index $[\text{weight}(\text{kg})/[\text{height}(\text{m})^2]]$	continuous number
health	Shows how much health concern influence decision in buying clean food	1-5 influence level in ascending order
knowledge	This shows whether the respondents think that they understand the meaning of clean food or not	1 : yes 0 : no
age	Age of respondents	0 : 15-19 years old, 1 : 20-24 years old, 2 : 25-29 years old, 3 : 30-34 years old, 4 : 35-40 years old, 5 : 41 or above
Allowance	This represent the allowance of the respondents earn per month in baht term	(0 : 9,000-15,000 baht, 1 : 15,001-21,000 baht, 2 : 21,001-27,000 baht, 3 : 27,001-32,000 baht, 4 : 32,001-38,000 baht, 5 : 38,001-44,000 baht, 6 : 44,001-50,000, 7 : 50,001 or above)
sex	gender of respondents	1 : Male, 0 : Female

The following factors will be measured by a level of satisfaction each respondent has towards each variable ranging from 1 : least influencing to 5 : most influencing

Table 2 : variables' definition (preference)

Variable	definition	type of data
educ	This factor represent the level of education the respondents have	0 : below bachelor degree, 1 : Bachelor degree, 2 : master degree, 3 : PHD)
status	This factor represent the legal status of respondents	1 : single, 0 : married
job	This factor represent the occupation of respondents	0 : Students, 1 : working for government, 2 : working for private company, 3 : Private business
ingre	The ingredients that have been put into clean food	1-5 influence level in ascending order
realfood	The clean food that look and taste like normal food	1-5 influence level in ascending order
promo	Promotions or discount on clean food	1-5 influence level in ascending order
varmenu	Number of menus of clean food or the variety of menus	1-5 influence level in ascending order
price	The price of clean food	1-5 influence level in ascending order
reviewmedia	The review on social media (Facebook, instagram, youtube)	1-5 influence level in ascending order
appear	The appearance of the clean food (The food decoration)	1-5 influence level in ascending order
pmtmet	The number of methods of payment	1-5 influence level in ascending order
taste	Taste of the clean food	1-5 influence level in ascending order
ads	Advertisement (Banner, Poster)	1-5 influence level in ascending order

Note *

Weight and height have been included in the questionnaire. They were collected in order to calculate BMI or body mass index. The index measures the weight/height ratio which will categorize people into 5 categories according to their height and weight which are severely underweight, underweight, normal, overweight and obesity.

3.5 Model specification

There will be 3 models constructed to answer different hypothesis

Model 1

The first model will consist of variables regarding the health concern which are freqgym, atthealth, attweight, trainer adv, BMI and health

Model 2

The second model are consist of variables in model 1 and variables that represent demographic which are age, income, sex, educ, status and job

Model 3

The model are consist of variables from the first two models plus variables regarding the preference which are ingre,real food, promo, varmenu, price, review media, appear, pmtmet, taste and ads.

IV. Result

4.1 Summary statistic

The table below show the summary statistic of each variables presented consisting of Mean, Standard deviation, minimum and maximum based on 200 observations from the survey.

Table 3 : Summary Statistic

Variable	Mean	Std. Dev.	Min	Max
freqgym	5.88	6.1087	0	30
freqpur	4.71	6.1109	0	30
atthealth	0.96	0.2078	0	1
attweight	0.74	0.4397	0	1
traineradv	3.45	1.3213	1	5
BMI	21.68	3.9764	15.79	35.63
health	3.78	1.0182	1	5
knowledge	0.92	0.2720	0	1
age	25.49	5.6710	17.5	41
income	1.81	2.3088	0	7
sex	0.43	0.4963	0	1
educ	1.01	0.4701	0	3
status	0.91	0.2869	0	1
job	0.93	1.1428	0	3
ingre	4.23	0.8430	1	5
realfood	4.24	0.9201	1	5
promo	3.79	1.1500	1	5
varmenu	4.24	0.8980	1	5
price	4.18	0.8879	1	5
reviewmedia	3.60	1.1474	1	5
appear	4.06	0.9781	1	5
pmtmet	3.75	1.0751	1	5
taste	4.40	0.7957	1	5
ads	3.68	1.0739	1	5

4.2 survey result analysis

Table 4 : survey results

Sex

	Observation	percentage
Male	86	43.00
Female	114	70.81

Age

	Observation	percentage
15-19	12	6.00
20-24	117	58.50
25-29	37	18.50
30-34	13	6.50
35-40	13	6.50
41 or above	8	4.00

Income

	Observation	percentage
9,000-15,000 baht	85	42.50
15,001-21,000 baht	36	18.00
21,001-27,000 baht	28	14.00
27,001-32,000 baht	12	6.00
32,001-38,000 baht	7	3.50
38,001-44,000 baht	7	3.50
44,001-50,000 baht	4	2.00
50,000 or above baht	21	10.50

Occupation

	Observation	percentage
Student	117	58.50
Working for government	2	1.00
working for private company	60	30.00
Private business	21	10.50

Education

	Observation	percentage
Below Bachelor degree	20	10.00
Bachelor degree	159	79.50
Master degree	20	10.00
PHD	1	0.50

Respondents that have eaten clean food before

	Observation	percentage
Yes	161	80.50
No	39	19.50

Respondents who understand the meaning of clean food

	Observation	percentage
Yes	184	92.00
No	16	8.00

Respondents who believe that clean food will make they loose weight.

	Observation	percentage
Yes	148	74.00
No	47	23.50
Depend	5	2.50

From the table above, it is clear that the majority of respondents are Female age between 20-24 years old with income ranging from 9,000-15,000 baht and they are still students. It is clear that the sample group do not match the chosen population which is Bangkok citizens aged between 15-60. Thus, the data is more applicable for “Undergraduate university students age between 20-24.

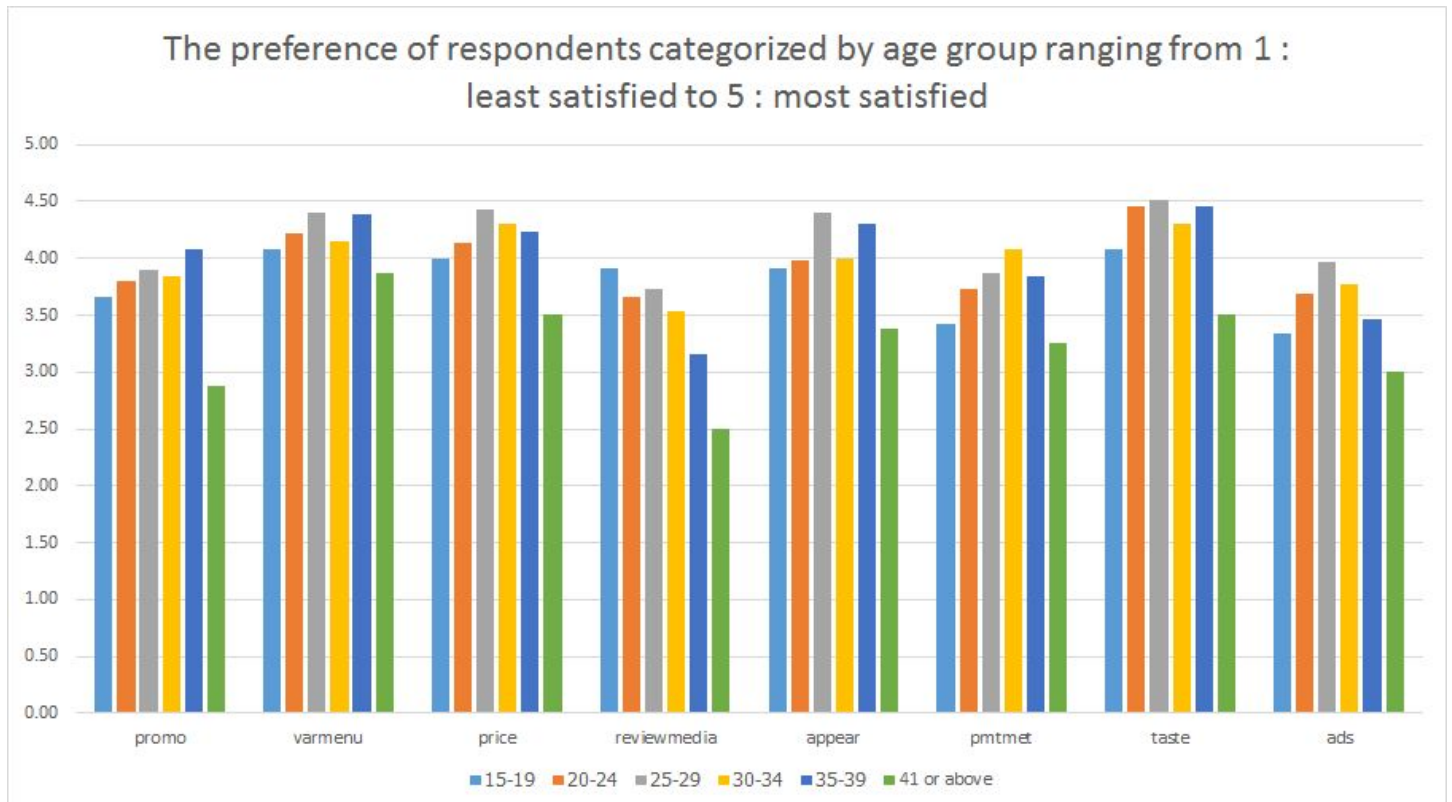
The evidence has shown that 161 respondents have eaten clean food before which account for 80.50 percent and over 92 percent of them claim that they understand the meaning of clean food. This proves that some people believes that they truly know what clean food is without having to try them. However, 74 percent of respondents answered that clean food will make them lose weight. In reality, the definition of clean food may differ depending on the association or parties that define it. Health care magazine has defined clean food to be the food that hasn't gone through lots of chemical process or in other word, the food is fresh and healthy to eat. Eating clean food doesn't mean that your meal based on vegetables and fruits but it is the meal that contain the 5 food groups in right proportion. This could imply that some of the respondents may misunderstand the concept of clean food or partially understand it. Despite the fact, the characteristic of clean food that are sold in the market is not that similar to the condition.

People that usually go to fitness or actively exercise is the majority of clean food consumers. The diagram 1 show that top two reasons for consuming clean food is to maintain their health and to control their weight. Therefore, in order to serve that demand, famous clean food shops and restaurants will make clean food that is fat free instead of one with generous nutrition. The characteristic of clean food that are sold in the market has the concept

of minimizing calories. According to that, these food are made by avoiding high calories ingredients like egg yolk, palm oil, vegetable oil, animals' skin etc.

If we characterize clean food by what are sold in the market, then the consumers might not be wrong about their beliefs about the definition of clean food.

Table 5 : Preference of respondents by age group



The table two shows preference of respondents categorized by age group. It is clear that respondents who are 41 years old or above are less affected by each and every factors. It shows that they are not intense at working out and eating clean. On the other hand, the respondents who age between 25-29 are more influenced by these factors more than other age group. In addition, the social media aspect tends to influence younger generation as they are more familiar with technologies nowadays.

Diagram 1 : Reasons for eating clean of respondents

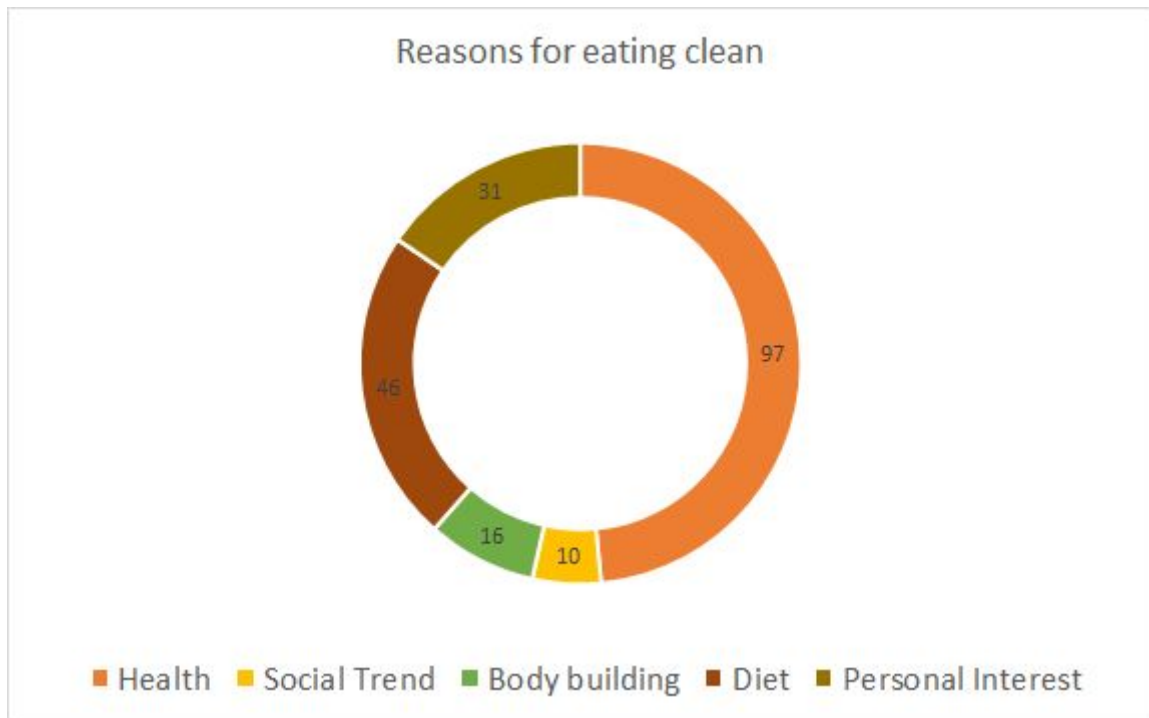


Diagram 1 represents the number of respondents' pick for each reasons to be number one criteria for consuming clean food. The results shows that to remains healthy is number one criteria for eating clean. There are 97 respondents who picked "Health" which acquire 60.25 percent and 46 respondents picked Diet which acquire 28.57 percent. In the same way, the responses from other question indicates that people believe that clean food will make their lose weight as well as maintain their health condition. Personal interest and Bodybuilding acquire 19.25 percent and 9.94 percent respectively.

Clean eating is an obvious choice for Body builders as they said that six pack is made in the kitchen, Bodybuilding is going to require predominately factor of eating right. Controlling calories intake is equally if not more important than weight lifting and cardio so eating clean does satisfy this requirement. On the other hand, the reason I put personal

interest to be one of the choices is because many people buy clean food just to maximize their utility with no reason behind. I predicted that it will be the least choice that has been picked but surprisingly, it turned out to be third most picked.

Lastly, eating clean according to the social trend is the last pick. Celebrities posting pictures at the fitness seems to be a very common things to do recently. There is no question that ordinary people will imitate this action. Even though the survey findings might show a contradict result but it doesn't mean that the statement is not true. Following the trend might be the main reasons why people start eating clean then the purpose may differ after that. Nevertheless, following the trend may be the answers that people are not comfortable in answering and that may be the cause of this survey result.

In addition, the question from the survey that asked "frequency of purchase" reported that not all of them are active or regular clean food buyers. The respondents who consumes clean food regularly are mostly the one who picked Bodybuilding or Diet as their first priority which would imply that most of clean food are sold to people who work out frequently.

4.3 Regression result

Table 6 : regression result

VARIABLES	(1) freqpur	(2) freqpur	(3) freqpur
freqgym	0.502*** (0.0631)	0.482*** (0.0643)	0.440*** (0.0650)
atthealth	1.226 (1.866)	1.599 (1.871)	1.357 (1.898)
attweight	0.769 (0.895)	0.440 (0.910)	0.426 (0.912)
traineradv	-0.438 (0.294)	-0.349 (0.292)	0.138 (0.336)
BMI	0.147 (0.0965)	0.210* (0.119)	0.184 (0.119)
health	-0.0375 (0.397)	-0.182 (0.397)	-0.103 (0.446)
knowledge	1.131 (1.396)	0.491 (1.425)	0.153 (1.436)
age		0.257 (0.528)	0.0263 (0.537)
income		-0.381 (0.246)	-0.387 (0.244)
sex		-1.572 (0.957)	-1.768* (0.943)
educ		1.527 (0.926)	0.562 (0.957)
status		-1.066 (1.556)	-0.754 (1.545)
job		0.647 (0.512)	0.999* (0.519)
ingre			0.919* (0.544)
promo			-0.0834 (0.424)
varmenu			-0.549 (0.491)
price			0.175 (0.588)
reviewmedia			-1.037** (0.432)
appear			-0.754 (0.540)
pmtmet			0.318 (0.452)
taste			0.870 (0.705)
ads			-0.301 (0.506)
Constant	-2.561 (3.477)	-3.301 (4.115)	-2.186 (4.393)
Observations	200	200	200
R-squared	0.273	0.314	0.373

Standard errors in parentheses

4.3.1 Model 1 (Column 1)

The first model are consist of 7 variables which are related to health concern and factors that would affect possibilities of going to fitness. It resulted 1 significant variable which is “freqgym” or the frequency of going to gym.

The r-squared shows that the regression in column one can explain 27.3 percent of the frequency of purchase of the respondents which is fairly adequate.

As Hypothesis number 1 states that *“Frequent clean food buyers are the one who exercise regularly. Therefore, frequency of going to gym has has a positive correlation with frequency of purchase”* , the results can ratify this statement. “Freqgym” is a significant variable with positive coefficient of 0.502 ($p < 0.01$). This implies that the more frequent a person go to the gym will result the higher frequency of clean food purchases. It is obvious that the more frequent you go to the gym, the more clean food you will required. People who work out more frequent would not want to waste their time burning calories and then replace it with meals that contain high calories.

It can be said that clean food consumers are more concerned about the kilocalories intake. Most of bodybuilders apply the sport science in exercising and working out. Thus, to calculate the calories intake with the amount of calories burnt per day is very essential in the workout routine.

The concept of calories and sport science can be found on internet and books but it would require a lot of effort. Therefore, the fitness center usually have a personal trainer of the workout process as well as providing a meal plan to customers independently and that is why “traineradv” or “trainer advice” factor has been put into this model. Surprisingly, it is not significant variable. This could imply that the frequent buyers might only require the plan from professionals in the first phrase of exercising. Most of the meal and workout plans are

repeatable so customers are not willing to keep paying the personal trainer for the knowledge that they already know. Thus, “traineradv” is not significant in this regression.

4.3.2 Model 2 (Column 2)

The second model consists of identical variables to model 1 but the variables that explain the demographic of respondents have been added. This regression resulted 2 significant variables which is same variable “freqgym” and the variable that was not significant before but become significant as more variables are added which is “BMI” or the body mass index.

The r-squared shows that the regression in column one can explain 31.4 percent of the frequency of purchase of the respondents which is more than the previous model.

Model 2 can also ratify the fourth hypothesis. (*H4 : Body mass index shows a positive correlation with frequency of purchase as majority of clean food buyers consume clean food as a diet tool*).

. The relationship between Body mass index and frequency of purchase could go both way. If the BMI shows a negative coefficient. It means that the lower the BMI, the higher frequency of purchase. This could imply that the clean food buyers are people who are already satisfy with their body shape and would like to maintain their condition or consumers who are into weightlifting because they will require minimum amount of fat in order for their muscles tissues to be seen clearly. In other words, these people is likely to buy more meals of clean food to maintain a low Body mass index.

Nevertheless, the result shows that the coefficient of BMI is 0.210 ($p < 0.1$). It indicates that the higher the body mass index of a person will lead to the more frequent of clean food purchases. This could imply that the majority of clean food buyers are people who are on diet, their BMI would be higher since they since they have more fat and tissues to lose.

Hence, the coefficient is positive since which shows that the more BMI or weight over ratio they have, the more clean food they will have to purchase. As mentioned that eating right has accounted to be more than 70 percent of weight loss so clean food is very significant for diet people.

4.3.3 Model 3 (Column 3)

Model 3 are consist of the variables from the first two models plus the variables that explain the preference of consumers like the taste, promotion, appearance of the food, etc. The last column or the model 3 was designed to ratify or reject hypothesis number 2, 3 and 5. Accordingly, model 3 is able to ratify the second and reject the fifth hypothesis but the third hypothesis is still ambiguous. (*H2 : Female are likely to consume more clean food than men. Therefore, gender should have a negative correlation with frequency of clean food purchased (female = 0, male=1). H3 : Appearance of food correlates positively with the frequency of clean food purchased. H5 : Clean food buyers are highly influenced by the trend on social media and celebrities.*)

There is 1 significant variable that already exist in first two models and 4 new significant variables. The r-squared shows that the regression in column one can explain 37.3 percent of the frequency of purchase of the respondents which is more than the previous model.

Firstly, "sex" or gender of respondents has become significant with negative coefficient of -1.768. This shows that female are more likely to purchase clean food more. It is obvious that female weight trainer at the fitness are the minority. Most of of them work out in order to lose weight and use clean food as a diet tool. The explanation is the same as model 1. This has ratified the second hypothesis.

Factor “appear” was expected to have a positive correlation since I assume that the appearance of the food is very significant to clean food eaters since it is one of the obstacle of eating clean. Most clean food meals are not appealing at all. However, “appear” shows a negative correlation which is contrary to the assumption but it is not a significant variable. On the other hand, there is one factor that become significant and it can represent the opposite finding which is “ingre”. Ingre is how much the respondents influenced by the ingredients that have been put into the meal. It has a positive correlation equals to 0.919 ($p < 0.1$). This implies that customers are more concerned with what kind of ingredients has been used to prepare the meal far more than how it looks. It could be said that customers already accept the fact that clean food would not be that tasty as clean food as normal food. Therefore, the hypothesis 3 is still ambiguous but there is high possibility of rejecting it.

The significant factor “reviewmedia” shows a negative correlation of -1.037 ($p < 0.05$) which means that customers are not that influenced by the trend from social media or celebrities which clearly reject the fifth hypothesis. However, as explained in the survey results analysis that “following the social” trend is an information that people would not want to disclose and it will be discussed again in conclusion section

Additionally, there is one more finding from model 3’s result. The factor job has the highest positive coefficient of 0.999 ($p < 0.1$) . It shows that occupation has a lot of impact on how frequent people purchase clean food. It requires lots of spare time to work out frequently and eat right respectively. As the survey results suggest that most of the respondents are students so they might have more time to spend on exercising and taking care of their health than those who work for government service and private businesses which are far more competitive.

VI. Conclusion

From the survey results analysis and regression results analysis, the evidence has shown that people who consumes clean food are people who work out or exercise regularly. The factors that affect customer behavior the most is how frequent the consumers go to the fitness. In other words, clean food is the tool which make the workout and diet process to be done efficiently. Accordingly, female is the gender that consumes more clean food frequently since diet people mostly woman.

In the same way, the factor BMI is the second most significant variable. Its positive coefficient indicate that the higher weight/height ratio, the higher frequency of purchase. It signifies that it is hard to maintain the preferable weight but it is more difficult to lose it. Clean food's consumers who has high body mass index tends to work harder in order to improve their body shape. Thus, they will require a higher degree of carefulness in preparing their meals.

The other factor that I think is influential in logic but not statistically is social trend. Fitness and clean eating can be seen as fashion as numbers of celebrities are into it. For an instance, Jannie Tianposuwan's 911 fitness, Djpoom's menu (clean food restaurant and delivery), smash gym which is own by Panadda Wongphudee along with many youtubers who started their channel with objective of giving advices about working out and eating clean. It is difficult to find out how much this factor influence customers by survey or regression analysis since following the social trend is something everyone can feel but they are uncomfortable in disclosing it. Accordingly, to analyze this factor, it might require an in depth interview with clean food's buyers.

This study could indicate that fitness users are the target group of clean food suppliers in Thailand. However, banners or posters about which advertise about clean food can hardly

be seen at the fitness centre advertising in fitness area would be beneficial instead of only relying on social media advertising. However, this suggestion is based on the survey results of 200 observations and the majority of respondents are teenagers aged between 20-24 living in Bangkok. Therefore, the results might not indicate the truth about the determinants of customer behavior. From the literature review part, An author (Paul Huntington.,1991) has suggest that the most important factors are subject to the word quality. In contrast, the regression result reveals that all the factors that define quality of product are insignificant.

This contradiction could be result from the limited observations or the small scope of sample data. To improve the accuracy of this study, more observations as well as an expansion of sample data will be required.

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Appendix



ปัจจัยที่มีผลต่อการตัดสินใจบริโภคหรือซื้อสินค้าอาหารประเภทคลีนฟู้ด(Clean food)

แบบสอบถามนี้จัดทำขึ้นโดยนักศึกษาระดับปริญญาตรี สาขาวิชาศิลปศาสตรบัณฑิต สาขาวิชาจิตวิทยาและการศึกษาใจของโลกหรือเชิงจิตวิทยาประยุกต์ มหาวิทยาลัยบูรพา (เพื่อวัตถุประสงค์ในการวิจัย) โดยแบบสอบถามออกฉบับภาษาอังกฤษ

แบบสอบถามนี้จัดทำขึ้นเพื่อการศึกษาและทำวิจัย รหัส EE489 เท่านั้น ไม่มีการเผยแพร่ผลการวิจัยสู่สังคม

*Required

คำถามเกี่ยวกับการบริโภคคลีนฟู้ด

เคยทานอาหารคลีนฟู้ดบ้าง (ท่านสามารถแสดงความเห็นในข้อถัดๆ ไปได้ถึงแม้ไม่เคยทานคลีนฟู้ด) *

- ใช่
- ไม่
- Other:

คุณรู้ความหมายของคลีนฟู้ดหรือไม่ *

- ใช่
- ไม่
- Other: _____

คุณคิดว่าการทานอาหารคลีนฟู้ดจะทำให้สุขภาพดีขึ้น *

- ใช่
- ไม่
- Other: _____

คุณคิดว่าการทานอาหารคลีนฟู้ดจะทำให้น้ำหนักลดลง *

- ใช่
- ไม่
- Other:

คุณซื้อคลีนฟู้ดบ่อยแค่ไหนต่อหนึ่งเดือน *

Your answer _____

คุณเสียเงินเท่าไรต่อการบริโภคสินค้าฟู้ดหนึ่งมื้อ *

- a. 50-100 บาท
- b. 101-150 บาท
- c. 151-200 บาท
- d. 201-250 บาท
- e. 251-300 บาท
- 300 หรือ มากกว่า
- Other:

คุณซื้อสินค้าฟู้ดจากช่องทางไหน *

	อันดับที่ 1	อันดับที่ 2	อันดับที่ 3
a. ออนไลน์ และ โซเชียลมีเดียต่างๆ	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. ในโซเชียลฟู้ด	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. ซื้อจากร้านโดยตรง	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

คุณเข้ายิมหรือออกกำลังกายบ่อยแค่ไหน *

- a. ทุกวัน
- b. 3-4 วันต่ออาทิตย์
- c. หนึ่งครั้งต่ออาทิตย์
- d. หนึ่งครั้งต่อเดือน
- Other:

คุณซื้อสินค้าฟู้ดจากมากกว่าหนึ่งร้าน (ไม่มีร้านประจำ) *

- ใช่
- ไม่
- Other: _____

คุณทำอาหารทานเอง *

- ใช่
- ไม่
- Other:

NEXT

อายุ *

- a.15-19
- b.20-24
- c.25-29
- d.30-34
- d.35-40
- e.41 or above
- Other:

รายได้ต่อเดือน *

- a. 9,000-15,000 บาท
- b. 15,001-21,000 บาท
- c. 21,001-27,000 บาท
- d. 27,001-32,000 บาท
- e. 32,001-38,000 บาท
- f. 38,001-44,000 บาท
- g. 44,001-50,000
- h. 50,000 หรือมากกว่า
- Other: _____

เพศ *

- ชาย
- หญิง
- Other: _____

ระดับการศึกษา *

- a.ต่ำกว่าปริญญาตรี
- b.ปริญญาตรี
- b.ปริญญาโท
- b.ปริญญาเอก
- Other:

สถานะ *

- โสด
- แต่งงาน
- หย่าร้าง
- Other: _____

ส่วนสูง *

- b.141-150 cm
- c.151-160 cm
- d.161-170 cm
- e.171-180 cm
- f.181-190 cm
- g.191-200 cm
- Other: _____

น้ำหนัก *

- a.35-40 kg
- b.41-46 kg
- c.47-52 kg
- d.53-58 kg
- e.59-64 kg
- f.65-70 kg
- g.71-76 kg
- h.77-82 kg
- i.83-88 kg
- j.89-94 kg
- k.95-100 kg
- Other:

อาชีพปัจจุบัน *

- a.นักเรียน,นักศึกษา
- b.ทำงานราชการ
- c.ทำงานบริษัทเอกชน
- d.ธุรกิจส่วนตัว

