



LEGAL MEASURES IN RELATION TO THE OBESITY
EPIDEMIC IN THAILAND

BY

MISS RUNGRUCH KOSAKARIKA

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF LAWS
IN BUSINESS LAWS (ENGLISH PROGRAM)
FACULTY OF LAW
THAMMASAT UNIVERSITY
ACADEMIC YEAR 2017
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THESIS

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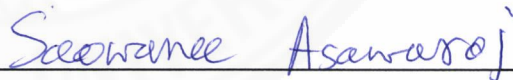
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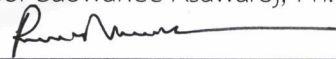
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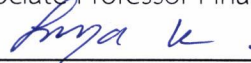
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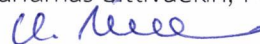
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ABSTRACT

In Thailand, an obesity epidemic is a main factor in increasing the number of non-communicable diseases (NCDs). This places a burden on public health management. In the ASEAN region, Thailand has the second most obese citizens. To fight this growing concern, the Thai government has added an excise tax on sugary beverages and introduced compulsory regulation of nutritional labelling for some products. Yet obesity and NCDs still rise. The question remains of how well taxation, typically used to generate state revenue, is adapted to resolving this problem. By attempting to discourage consumption of goods and services causing the public health issue, the tax on sugary beverages is designed to interfere with consumer choice through pricing. Even if it leads to reduced consumption, the tax may still not be enough to eliminate obesity growth rate.

Even-handed enforcement of every food and beverage producer, distributor, and seller in the disorganized Thai system would be unrealistic, so taxing all high saturated fat, sugar, and caloric intake is impossible. A first step might be to tax all products containing nutritional labelling, providing exact information about content, such as snack products. The most suitable fiscal measure is the excise tax undoubtedly due to its objectives and tax bases. Required content labelling, food advertising alerts, and mass media informational campaigns should also help inform

the public. With these efforts, obesity intervention should be more effective in decreasing growth rate of obesity and NCDs in Thailand. With effective fiscal measures and non-fiscal measures adapted to Thai cultures and society patterns, the obesity growth rates may decrease, more or less, which will bring the benefits to our society.

Keywords: Obesity, Unhealthy diet, Legal measures, Fiscal measures, Non-fiscal measures, Excise tax, Food labeling, Food advertising regulation.



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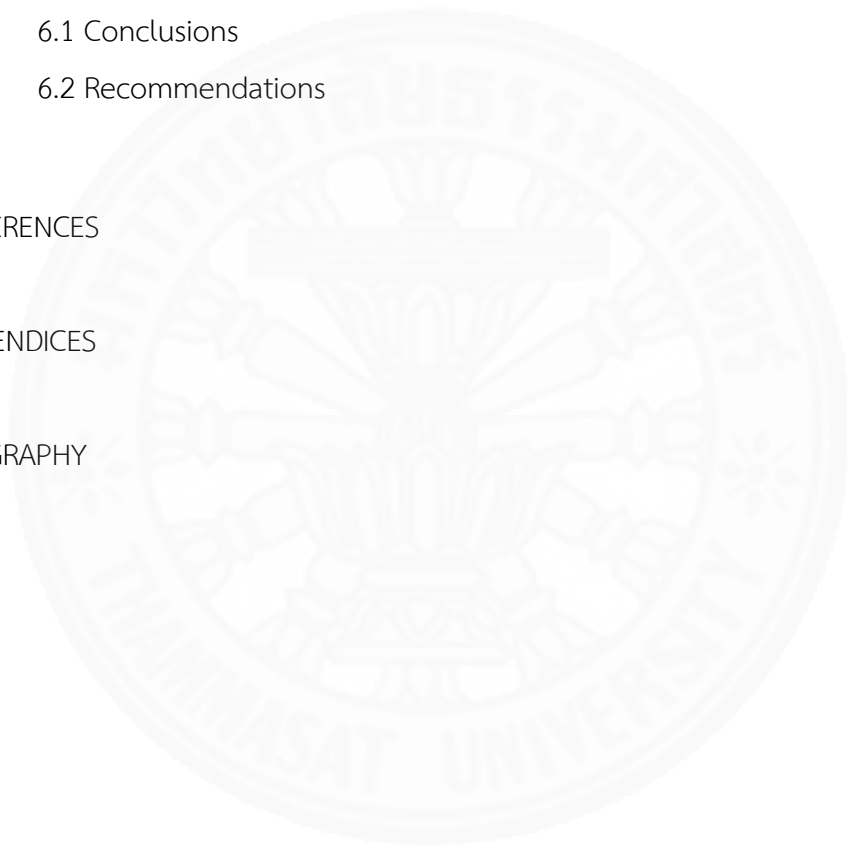
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CHAPTER 1

INTRODUCTION

1.1 Background

Nowadays, people tend to live longer because of the medical advances. However, some of the people still suffer continuously from the non-communicable diseases or NCDs which are the chronic diseases such as obesity, diabetes, heart diseases, cardiovascular diseases, cancer, chronic kidney disease, and so on. NCDs are diseases which take long duration to develop with slow progression. There is only little chance to recover from such diseases. They are leading cause of death globally and are responsible for 70% of worldwide deaths in 2017.¹ Due to the nature of NCDs, people mostly suffer in the long period, before the diseases tear their lives slowly. They are leading to the constant cost of health care both to the government and patient. Therefore, the government should prevent NCDs at the early stage. There are many factors causing NCDs such as individual health, personal behaviour, social conditions and circumstances, but being overweight or obese bear the highest risk of NCDs than others.²

Being overweight or obese does not only affect the health problem but also reduces the capability of people. According to the study, obese children tend to learn and think slower compared to children with healthy weight.³ Similar to adults, overweight adults tend to work less effectively than normal weight people.⁴ Moreover,

¹ World Health Organization. Noncommunicable Diseases Progress Monitor, 2017. Geneva: World Health Organization; 2017. Licence: CC BY-NC-SA 3.0 IGO. Accessed on July 16, 2017.

² World Health Organization. Obesity: preventing and managing the global epidemic. Report of a WHO Consultation. WHO Technical Report Series No. 894. Geneva: World Health Organisation, 2000. Accessed on July 16, 2017.

³ "Are Obese Children Slower Thinkers?" The Institute for Food, Brain and Behaviour. Accessed on April 18, 2017. www.ifbb.org.uk/the-learning-brain/are-obese-children-slower-thinkers/.

⁴ Gray, Barbara Bronson. "Obesity Might Slow You Down at Work." Consumer HealthDay, 1 Aug. 2014. Accessed on July 1st, 2017. <http://www.consumer.healthday.com/vitamins-and-nutrition-information-27/>

they get sick easier than usual.⁵ If most people are overweight and obese, they could affect not only the economic status in human development but also labour performance of such country. Consequently, the quality and efficacy of labour, which is the driving force of the economic system in the country, will decrease unfortunately.

The World Health Organization (WHO) defines people who have condition with abnormal or excessive fat accumulation affecting the health as overweight or obesity. There is no certain measure for indicating the overweight and obesity, however, Body Mass Index (BMI) is commonly used to classify overweight and obesity in adults. It is a simple measurement for both sexes and for adults at all ages. The mass index are calculated by the weight in kg divided by the square of the height in meters(kg/m²). For an adult, having a BMI equal to or greater than 25 and a BMI equal to or greater than 30 is considered overweight and obese respectively.⁶

According to various health statistics, enormous number of growth of obesity prevalence is rising up significantly all around the world because of Globalization. In Western countries, the rate of obesity is enormous, with more than 60% in Australia,⁷ 32% in New Zealand,⁹ 24.9% in the United Kingdom¹⁰ and 35 % in the United States.¹¹ Meanwhile, in Asian countries, the rate of obesity just started rising and it seems to increase more and more after Western food has been introduced. The

⁵ InBody. "How Body Fat Sabotages Your Immune System." InBody, 5 May 2016. Accessed on August 16, 2017. inbodyusa.com/blogs/inbodyblog/101219009-how-body-fat-sabotages-your-immune-system.

⁶ World Health Organisation. Overweight and Obesity: Fact Sheet, 2011. Accessed on July 16, 2017. http://www.searo.who.int/entity/noncommunicable_diseases/media/non_communicable_diseases_obesity_fs.pdf.

⁷ "Australia's Obesity Statistics in 2017." National Eating Disorders and Obesity, National Eating Disorders and Obesity, 2 Aug.

⁸ . Accessed on December 15. eatingdisordersaustralia.org.au/australias-obesity-statistics-2017/. Accessed on April 1, 2017.

⁹ Ministry of Health NZ, "Obesity Statistics.", 14 Dec. 2017. Accessed on July 16, 2017. www.health.govt.nz/nz-healthstatistics/health-statistics-and-data-sets/obesity-statistics.

¹⁰ Supplier. "UK OBESITY STATISTICS IN 2017." Driven By Health With Care, 23 Aug. 2017, Accessed on July 23, 2017. www.drivenbyhealth.co.uk/other-news/7738/.

¹¹ "Adult Obesity in the United States." Adult Obesity in the United States - The State of Obesity. Accessed on April 1, 2017. stateofobesity.org/adult-obesity/.

rate of overweight people is 22.8%, 32% and 38.5% in India,¹² Thailand¹³ and Malaysia respectively.¹⁴

The intention to eliminate obesity epidemic has become one of the main concerns in both developing and developed countries, on account of higher medicare and medical cost which the government is responsible for. The budget of public welfare is enormous every single year. The fiscal measures are used to prevent this issue. Many countries focused on using consumption tax to curb the consumption of all of the unhealthy diet. For instance, Denmark,¹⁵ UK,¹⁶ Japan,¹⁷ France¹⁸ or India¹⁹ applied either sales tax or excise tax on unhealthy diet which is collected from either beverage or diet like snacks, but only in Japan where tax are derived from obese people. Such law is called “Metabo law”. The main certain goal is to reduce the growth of obesity while on the other hand, the government can also generate additional revenue back to society for not only the health care purposes but for other fields of state management, for example, in the field of public utilization or education budget.

¹² Renew Bariatrics. “World Rankings: Obesity Rates by Country (July 2017).”. Accessed on April 12, 2017. renewbariatrics.com/obesity-rank-by-countries/.

¹³ Nation, The. “Thailand and the Obesity Epidemic.” *The Nation*, 11 July 2016. Accessed on April 12, 2017. www.nationmultimedia.com/Life/Thailand-and-the-obesity-epidemic-30290296.html.

¹⁴ Rashid, Farezza Hanum. “Malaysians Most Obese in Region.” *NST Online*, 7 June 2017. Accessed on Oct 12, 2017. www.nst.com.my/news/nation/2017/06/246538/malaysians-most-obese-region

¹⁵ Taxing Junk Food to Counter Obesity by *Am J Public Health*. 2013 November; 103(11): 1949–1953, published online 2013 November. doi: 10.2105/AJPH.2013.301279 Accessed on July 23, 2017.

¹⁶ Andrew Leicester and Frank Windmeijer. “The 'Fat Tax': Economic incentives to reduce obesity”.

¹⁷ Robin Hanson. “Japan’s Fat Tax ” · November 26, 2011 8:00 am. Accessed on July 23, 2017. <http://www.overcomingbias.com/2011/11/japans-fat-tax.html>

¹⁸ Abigail C. Saguy Kjerstin Gruys Shanna Gong. Social Problem Construction and National Context: News Reporting on “Overweight” and “Obesity” in the United States and France, *Social Problems*, Volume 57, Issue 4, 1 November 2010, Pages 586–610, published: 30 July 2014, source; <https://doi.org/10.1525/sp.2010.57.4.586> Accessed on July 23, 2017.

¹⁹ Basu S, Vellakkal S, Agrawal S, Stuckler D, Popkin B, et al. (2014) Averting Obesity and Type 2 Diabetes in India through Sugar-Sweetened Beverage Taxation: An Economic-Epidemiologic Modeling Study. *PLoS medicine* 11: e1001582. Accessed on July 23, 2017.

Furthermore, the non-fiscal measures, such as food labelling or food advertising regulation, are often adopted in order to support the fiscal measures. In the belief of the most effective way to achieve the goal, the fiscal measures represent as the main tool to influence consumer's decision by price of the product. Whereas the non-fiscal measures have duty to raise people's awareness as the second step, after the cost of goods, by sending the messages to people. The obvious example is food label attached on the product that can make people rethink whether or not to buy such product.

As one factor which has influence in obesity, food is part of the culture which reflects the lifestyle and geography of each country. For instance, agriculture in cold-weather countries mostly has short period or none. Keeping food for winter season is necessary, thus the transformation of the diet is remarkable feature in those particular countries, such as making sausage, ham, cheese and wine. Although there are variety of food in the market, people tend to consume more high-energy food enriched with carbohydrates, sodium and fats, in contrast with their exercise and work-out regimen due to busy life. Fast food or so-called Junk food has become popular in this era due to its cost and convenience which is suitable for busy life in present time. Low-income people can only afford diet that is deemed to worth for their money and in some countries, healthy food is too expensive compared to junk food. It is not only meals but snacks should be considered to be one of obesity issues as well because most people are not aware of it. Although one serve is little, people tend to eat certainly more than one serve during the day. Some snack contain high cholesterols, salts and saturated fats, which are highly unhealthy. With their remarkable flavours, they are favourite snacks for most people, especially children, e.g. french fries, cheese puff, nachos, potato chips, corn dog, instant noodles, popcorn, ice cream, cookie, et cetera.

In Thailand, both growth of obesity prevalence and the diabetes rate keep continuously increasing. Recently, Thailand became the second rank for the country having the most obese people among the Association of Southeast Asian Nations

(ASEAN) countries.²⁰ The growth tends to climb up wildly to the higher rate assumed by OECD report, 2017. Fiscal measures and non-fiscal measures were implemented to enhance the healthy lifestyle in Thai society, however, it turns out that the existing measures are still inappropriate shown by the growth rate both in obesity and NCDs rising up.

In general, VAT is the main consumption tax applied in all sales of goods at purchase point. However, some sugar-sweetened-beverages (SSBs). Another tax burden implemented by the government is an excise tax which taxed on SSBs. Recently, there are the amendment of the tax rate and tax base calculated by the amount of sugar in a container in progressive rate. However, SSBs products, which contain certain amount of vegetable, are exempted from excise tax. As a result of the proportion is improper since the prescribed percentage of vegetable in such drinks are still very low which contradicts to the objective of tax incentive for healthy diet, this exemption actually benefit to manufactures and producers. Due to the improper proportion, the objective to discourage the unhealthy diet are not success. Apart from SSBs, other unhealthy diets are still not subjected to the excise tax and in this era, only taxing on beverage is absolutely not enough.

For the non-fiscal measures in Thailand, firstly, the food labelling is compulsory in certain products such as snacks, chocolate, beery product and so on. The problem is people are not interested in the message and it is also hard to understand for children and some adults who are not familiar with the ingredient name and type. It must be easy if the food label can be recognized easier, for example, using the symbols or signpost. Secondly, for the food control law, its objective is to prohibit the hazardous food products and substances. The unhealthy diet cannot make people who consume it once die or get sick immediately, thus the unhealthy diet control is not fit for this Act. Lastly, Thai food advertising regulation is to protect consumer from only unfair statement such as a false or exaggerative statement. Banning unhealthy diet advertisement, shown in TV for children as the main audience, is implemented in many countries but not in Thailand as of now.

²⁰ Obesity Update 2017. OECD. Accessed on July 23, 2017. www.oecd.org/els/health-systems/Obesity-Update-2017.pdf.

Some argue that it is too much intervention for business sector, while others think that it should be introduced. This topic is still controversial.

Although, in Thailand, there are several measures to tackle the consumption of the unhealthy diet which are the main factor causing the obesity, the growth rate of obese people still elevate consistently by the time. It means that the applied laws cannot solve problems and need to be amended. If the government continues to ignore this issue, the more people will be at risk of being overweight, obese and also NCDs which will be a huge burden both the government and obese people.

1.2 Hypothesis

If other unhealthy diets, starting with food products which require food label and subject to the excise tax, such as snacks, are treated at the same concern as Alcohol, Tobacco or Sugar-Sweetened-Beverages (SSBs) in the terms of product causing the public health issue, together with new practical amendment of the nonfiscal measures, the preventive measures for the obesity epidemic must be more effective compared to the present which will lead to the decrease of the obesity and NCDs rate consequently.

1.3 Objective of Study

The present study is undertaken with the following objectives

- 1) To study the obesity epidemic which became concerned issue in both international level and domestic level.
- 2) To study and analyze Thai fiscal measures especially on excise tax and VAT on unhealthy diet.
- 3) To study and analyze Thai non-fiscal measures especially on Food Act and Consumer protection law on unhealthy diets.

1.4 Scope of Study

The present study focuses on the fiscal and non-fiscal measures in relation to unhealthy diet causing the obesity, especially on the current consumption taxes in Thailand which are the excise tax and VAT, including Food Act. And its regulation. In addition, this study includes the legal measures and perspectives of the international organizations such as WTO, WHO, and OECD and many foreign countries such as Mexico, Denmark, The United States and Japan.

1.5 Methodology

The author has studied by documentary research of both domestic and non-domestic materials, articles, journals, statutory laws, government publications, newspapers, reports, including the article from scholars and electronic databases. The materials used to study are derived from the textbooks, including the law of other countries. All the materials and data have been compared to find the proper solution for Thailand.

1.6 Expected Results

- 1) To understand the causes and effects of obesity epidemic.
- 2) To understand the fiscal and the non-fiscal measures implemented by the government on order to combat the obesity epidemic. To acknowledge various perspectives of obesity epidemic both in international and domestic level.
- 3) To understand the general principles and theories of consumption tax, especially on an excise tax.
- 4) To understand the problem of Thai fiscal and non-fiscal measures as the obesity preventive tools

- 5) To be able to make recommendations on how Thai law may apply the excise tax on unhealthy diet, especially on the food products which require food label, according to the laws, such as snacks.



CHAPTER 2

FUNDAMENTAL CONCEPTS OF THE OBESITY AND RELEVANT MEASURES TO PREVENT THE OBESITY EPIDEMIC

Before governments applied the legal measures in order to intervene with the people, the fundamental concepts of the obesity should basically be focused on. For example, the definition of obesity and how it became the health concerns. Due to becoming the epidemic of being obese, the government implements many measures which can influence the reduction of the obesity growth rates. For legal measures, both fiscal and non-fiscal measures are the main tools of government which are often used. Meanwhile, the other measures will be introduced as voluntary guidelines to citizens.

2.1 Definition of obesity

According to the World Health Organization (WHO), an obesity is a condition with abnormal or excessive fat accumulation likely causing health problem to human. WHO classifies people by calculating the weight in kilograms divided by the square of the height in meters(kg/m^2). This formula is called Body Mass Index (BMI) used globally because it is the easiest measurement identify people with obesity. Generally, If the results are equal to $30 \text{ kg}/\text{m}^2$ or greater, it is defined as obesity (World Health Organization, 2017). However, only $27.5 \text{ kg}/\text{m}^2$ is enough to be defined as obesity in Asian population.²¹

There are many risk factors such as diet, lifestyle, social change and genetic. Diet is necessary for living. Due to the various choice nowadays in the market, we can choose what we want to eat and how much we want to eat depending on how much money we have. The food in every single region represent the tradition and

²¹ WHO/IASO/IOTF. The Asia-Pacific perspective: redefining obesity and its treatment. Health Communications Australia: Melbourne. ISBN 0-9577082-1-1. 2000. Accessed on April 1, 2017.

culture itself. The technique advances make diet more interesting and complex to attract consumer by its tastes and shapes. The flavour of food is the key factor to make consumer choose the food. Food shaped their flavours with sugar added, fat and salt. Junk food, defined as unhealthy food, is a category of food containing high fat, sugar and salt. Its definition covers all products which human can consume. Only one serve cannot harm one's body, hence, you cannot control your appetite on flavour of foods. Lifestyle revolution influence eating behaviour, people tend to have a meal while watching television. The time for physical activity, reduces gradually due to busy life. Due to the impact of technology advance making people work on network which makes them spending time on computer or smartphone more than ever. This lifestyle is called Sedentary lifestyle. Furthermore, genetic transferred through generations has less risk among other risk factors. However, diet contributes the most risk to people according to OECD obesity updates.

The diet in high saturated fat, sugar and calories, called unhealthy diet, is the target in which the consumption of such types of food must be limited. They are the direct cause of overweight and obesity issue and indirect cause of NCDs. The actual definition of the unhealthy diet is still not officially identified. However, according to the scientific studies and journals,²² they can be found in both primary ingredients (saturated fat, sugar and calorie) and final products (fast food and snacks) which will be discussed by the following:

(1) Saturated fat

Saturated fat is found in animal products such as butter, cream, cheese, milk, meat, salmon, and egg yolks, and some plant products such as chocolate and cocoa butter, coconut, and palm kernel oils. The saturated fat itself contains 9 calories per gram. The function of saturated fat is stimulating the liver to produce even more cholesterol in the bloodstream leading to obesity. Therefore, products that contain saturated fat are defined as unhealthy and harmful products. The United States

²² C.F. van Kreijl, A.G.A.C. Knaap, J.M.A. van Raaij (Editors-in-Chief) "Our food, our health" National Institute for Public Health and the Environment. Accessed on July 23, 2017. <https://www.efsa.europa.eu/sites/default/files/assets/af060519-ax10.pdf>

Department of Agriculture (the “USDA”) and mainstream health organizations all over the world recommend the reduction of saturated fat and cholesterol consumption.²³

(2) Sugar

Sugar is ingredients almost found in every edible product such as fruits, vegetables, dairy foods, candy, cake, cookie and others. People get used to adding sugar in cooking since sugar makes the food more palatable by sweetening. The sweetening of sugar can promote the consumption of foods that look unflavoured. For example, oatmeal topped with sugar looks more appetizing to people than plain oatmeal. According to the World Health Organization (WHO), sugar intake impacts on weight gain. Therefore, reducing consumption of sugary diet such as snack and beverage would also reduce the risk of overweight and obesity. The need for sugar consumption for adults is 7 teaspoons/cubes or 30g per day while children aged from 5-11 is 24g and children aged from 4-6 is 19g.^{24,25}

(3) Calories

Calories are the amount of energy from food intake. People with different age, size, height, gender, lifestyle, and personal health also need different amounts of energy intake to survive. According to the 2015-2020 Dietary Guidelines for Americans, women need 1600 to 2400 calories per day while men need 2,000 to 3,000 calories. Generally, humans can reduce their calorie intake themselves depending on their metabolic system. The metabolic rate will decrease by the time passed by, which means in every single age range, people will need different energy intake. For instance, women whose age is over 51 years need only 1,600 calories a day. The overtaken of calories intake will be transformed as fat in the body which is why people become overweight and obese.

²³ Taubes, Gary. “The Soft Science of Dietary Fat.” *Science*, American Association for the Advancement of Science, 3 Accessed on July 23, 2017. [science.sciencemag.org/content/291/5513/2536.full?ijkey=0630e653971c8363beef8372fdce6f101cdc8abd&keytype2=tf_ipsecsha](https://www.sciencemag.org/content/291/5513/2536.full?ijkey=0630e653971c8363beef8372fdce6f101cdc8abd&keytype2=tf_ipsecsha)

²⁴ National Diet and Nutrition Survey Results from Years 1, 2, 3 and 4 (combined) of the Rolling Programme. 2008/2009 –

²⁵ /2012. Accessed on July 23, 2017. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/310995/NDNS_Y1_to_4_UK_report.pdf.

The nutritionist recommend that calories need for women and men should not exceed 1500 calories and 2500 calories respectively per day.²⁶

(4) Fast food

Fast food is one type of other food which is very popular now. Although they are convenient for consumer to consume without wait service²⁷ and their flavour are satisfying because of rich containing of fat and sugar, they likely lack nutrition with high energy dense, high in glycemic load, low in fibre, and excessive in portion size.²⁸ They are classified as unhealthy diet or junk food. The increase of fast food consumption are related to the obesity, for example, in U.S., Mexico, and others.²⁹

(5) Snacks

Snacks are defined as a diet served with small portion during the day between the regular meals. Snacks can be both food and caloric beverages.³⁰ The main components of snacks are high in sodium, sugar, and/or fat which makes them tasty.³¹ There are many popular snack products nowadays which are chips, cereal, doughnut, pizza, bubblegum, candy, chocolate, cookie, cake, coffee, energy drink, flavoured milk, juice, ice cream, popcorn, french fries, instant noodle, cheese and others.³²

For kids, snacks become a treat to compliment the kids when they stop crying or do something good. You can find snacks sold everywhere such as at cinema, convenient store, school or cafeteria. The excessive consumption can lead to obesity

²⁶ Dobbs, R., Sawers, C., Thompson, F., Manyika, J., Woetzel, J., Child, P., McKenna, S. & Spatharou, A. 2014. "How the world could better fight obesity." Mckinsey&Company. Accessed on July 23, 2017. <http://www.mckinsey.com/insights/>

²⁷ Pereira MA, Kartashov AI, Ebbeling CB, Van Horn L, Slattery ML, Jacobs DR Jr, Ludwig DS. Fast-Food Habits, Weight Gain, and Insulin Resistance (the CARDIA Study): 15-year prospective analysis. *The Lancet* 2005; **365**: 36–42

²⁸ Isganaitis E, Lustig RH. Fast food, central nervous system insulin resistance, and obesity. *Arterioscler Thromb Vasc Biol*, 2005; **25**: 2451–2462 Accessed on July 23, 2017.

²⁹ Jeffery, R. W., & French, S. A. (1998). Epidemic obesity in the United States: are fast foods and television viewing contributing?. *American journal of public health*, 88(2), 277-280.

³⁰ Hartmann C, Siegrist M, van der Horst K. Snack frequency: associations with healthy and unhealthy food choices. *Public Health Nutr* 2013;16:1487–96.

³¹ Bellisle F. Meals and snacking, diet quality and energy balance. *Physiol Behav* 2014;134:38–43 Accessed on July 23, 2017.

³² Booth, R. Gordon (editor) (1990). *Snack Food*. Springer. ISBN 0442237456 Accessed on July 23, 2017.

easily without knowing. According to the statement of a nutritionist, Hess J and Slavin J, if snacks are produced in the healthier ways it may help the obesity prevention measures.³³

2.2 Obesity epidemic becoming a severe public health crisis

Obesity itself is not a disease, however, it creates higher risk of noncommunicable diseases (hereinafter, NCDs). For example, diabetes type II, cardiovascular disease, high blood pressure, respiratory diseases and certain cancers. The salient characteristics of NCDs are, firstly, a chronic which causes the patient to suffer in long term. Secondly, the progression of NCDs is slow movement and development. Because of slow progression, people are not aware of NCDs until they get affected with NCDs. For instance, type II diabetes patients need to inject insulin depending on how severe the symptoms are. They also need to see doctor at least once a month. In addition, the worst case is patient can suffer shock and die if the insulin in one's blood are too high or too low. They need to look after themselves everyday. The health care expenses are too high as well, despite being provided with the support from government service.

Obesity prevalence has been a tough public health challenge for decades. It looks simply like personal health problem. The obese people have to take extra care of themselves in my circumstances, such as expense of oversize costume or double seats ticket for travelling especially on the airplane which requires people who cannot fit in one seat yo buy double seats. However, being obese does not only affect to the health problem (NCDs), it also affects all health services provided by the government since spending huge budget must be spent on health care per year.

Being obese does not only cause the public health problem (NCDs) but also reduces the capability of people who are the main human resource of country.

³³ Hess J, Slavin J. Snacking for a cause: nutritional insufficiencies and excesses of U.S. children, a critical review of food consumption patterns and macronutrient and micronutrient intake of U.S. children. *Nutrients* 2014;6:4750–9. Accessed on July 23, 2017.

The quality and efficiency of human resource represent the status of country's economy. According to the scientific study, obese children tend to learn and think slower compared to other children with healthy weight, similar to adults, which tend to work less effectively than people weigh less. Non obese people are more productive at work because obese people tend to get sick easier than usual. In 2014, the Organisation for Economic Co-operation and Development or OECD claimed that the ratio of job recruitment between normal weight people and obese people are difficult to balance. The demand of labour market favours normal-weight people , which causes obese people to undergo unemployment. Apart from the public health, efficiency of labour and economic issue, the obesity also consider as one of the barriers to development. Due to huge budget contributed to public health services especially NCDs, other people may lost the chance of development in other fields such as education, transportation and public utility.

2.3 State measures

Any legal measure which affects to people's rights and liberties is prohibited unless it does not violate the constitution law of its country. Although, governments is authorized to enact any law, the power is limited. There are many legal measures to discourage the obesity growth rate for government which are fiscal and non-fiscal measures, such as taxation, food labelling, mass media campaign, food advertising regulation and education support. Only single measure cannot accomplish the targeted goal, they should be applied together

2.3.1 Fiscal measures

Fiscal measure represents the significant intervention tools which are used by the government. We can see the overall economic plan of each government in fiscal measures. The main point is to reach the economic goals in the terms of monetary issues such as receipt, revenue and expenditure, including public debt. In general, taxation is main source of the government revenue. Moreover, it is used as

the tool to control the citizen's behaviour because it is compulsory and people need to follow otherwise they will get penalty. Because of this, tax are well-known as the most effective tool among other legal measures.

Before enacting any tax law, governments must consider the fundamental rules which are the lawful authority to enact such laws. It is usually written in constitutional law, the impartiality, the lawful objective that related to public interest, and how revenues are used which must be in accordance with its objective. There are many principles for the government to consider, before implementing any regulation. First, Principle of Proportionality, any measure imposed by governments must not go beyond what suppose to attain a legitimate aim and the claimed benefits must not be excessive than the further costs. For example, the objective is to reduce consumptions of some products, then governments should balance between public interests and private interests by not putting too much burden to private sectors. The measures must only discourage consumption, if such measures seem to be prohibition of consumption, hence, that measures are not in consistent of Principle of Proportionality.

Secondly, Principle of Equality is written in every law. It is primary rule that everybody needs in order to live happily in society. Hence, people are treated under the same laws if they are in the same condition written by laws. Discrimination is forbidden unless it is written in the constitutional law which are mostly for the public interest reasons.

Besides, only applying the fundamental principles on taxation does not mean that tax are good tax. According to Adam Smith's theory, he defined about four principles or cannons of taxation in his famous book "Wealth of Nations".³⁴ Because of this publication, he was praised as the father of modern political economy nowadays.

First, he argued that the equality of tax must be consistent with the people's payment ability. He stated that "The subject of every state ought to contribute towards the support of the government as early as possible in proportion

³⁴ Smith, Adam, et al. *The Wealth of Nations*: Adam Smith. Bantam Classic, 2003.

to their respective abilities that is in proportion to the revenue which they respectively enjoy under the protection of the State” With his point of view, he supported that the progressive rate was the justice of taxation.

Second, he argued that the certainty is needed in order to let people adjust their income and expenditure before the financial year comes. It will be convenient for government as well, in the terms of budget calculation for the next year because they will know roughly in advance the total amount that is going to be obtained.

Third, taxation needs to be convenient for taxpayers who will contribute the cost of being citizen. He also stated that “Every tax ought to be levied at the time or in the manner in which it is most likely to be convenient for the contributor to pay it” Due to his statement, it can refer to the present that the way of payment should be convenient to taxpayer, in which they can now pay online, by cash, or cheques.

Lastly, the expenses of taxes’ collection should not be too excessive. The amount of tax should be levied as little as possible. The tax rate should be consistent to the necessity of its object. When the people feel that the tax is not fair for them, the possibility that people, at best avoiding tax, and at worst moving to other countries, will occur and that should not happen. Finally, the government will lose the revenue. To support his thought, he stated that “Every tax is to be so contrived as both to take out and keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state”

Moreover, apart from Adam Smith’s theory, there are many theories that should be applied in taxation.³⁵ For example, the simple tax system, it is the most characteristic theory which government should consider applying. The complex tax system can cause the tax evasion and avoidance more easily. The confusion will arise not only among taxpayers but also the competent officers as well. Besides, the

³⁵ Sperling, Gene B., et al. “Stimulating the Economy Through Tax Policy: Principles and Applications.” Brookings, Brookings, Accessed on July 23, 2017. www.brookings.edu/research/stimulating-the-economy-through-tax-policy-principles-andapplications/.

flexibility of tax should also be taken into consideration. The government can produce income profit-fully if the tax does not interrupt the taxpayers in excessive way.

Apart from theories, in practical, each government will have its own way to implement tax law. However, the fundamental rules adopted from theories are still important. The governments need to comply at least the primary principle such as the Principle of Proportionality and Principle of Equality.

The Justification of taxing are firstly to curb unhealthy diet intake causing the obesity. Price is a factor for consumer to decide whether to buy food or not. Price increasing of product influence the demand in the market. When the price rises up, people will find the reason why and that is the way that government can communicate to the population. While addressing tax also generate income to the government, which can contribute to medical care and public health service. If the obesity rate decrease, the government can spend on health public budget less and will be able to other fields to develop the country such as in education and transportation.

How can government use tax to control behaviours? Tax can be used in two ways, first, as a sanction or, second, to be advantageous. For example, the government implement tax on unhealthy diets in order to discourage the obesity, or the government give tax incentives to people who produce or consume healthy diet in order to encourage healthy consumption in society. Tax measures do not only affect to consumers but also affect the producers and importers as well. For instance, producers will adapt their products to fit the conditions which would help them pay less tax or none, or importers will decide to import products that will subject to tax less than other products having higher tax rate. For this issue, consumption tax are the most suitable to solve the problem.

2.3.1.1 Consumption tax

Consumption tax is an indirect tax which is levied on people's consumption mostly in every single sale of goods and services. The consumption tax is called in different name such as sales tax, goods and services tax (GST), value-added tax (VAT), or excise tax. The taxable persons, according to the law, are producers,

sellers, and importers. However, the law allows those persons to collect tax from consumer or people who purchase goods or services. Tax will be included in the total price of all goods and services, which will make people more comfortable than paying tax directly like income tax.

Additional, types of consumption taxes can classify into two types. First, spending tax is levying from expenditure of citizens like the characteristics of income tax. All expenses and incomes will be calculated at the tax year. Due to its cumbersome process, it makes taxable person feel reluctant to pay tax and that is why this type is not commonly used.

Generally, tax bases usually count on consumptions or expenditures in which tax are charged at the place of consumption. It is not only the sales of goods or services which are produced in the states but also in every product that are used in the state despite being produced in such country or not. Commodity tax³⁶ is typically collected from producers, sellers, exporters, and importers. For exporters and importers, the commodity tax called “custom duty” is deemed as the international indirect tax because it is collected when goods are imported in or exported out of state. here are two principles, namely: Destination principle and Original principle. These principles are totally different. For the destination principle, wherever the consumption happens, consumption tax always needs to be paid in the country that the consumption happens.³⁷ In contrast with the original principle whereby all products produced in the country, including export products are subject to their home state tax. In case that importer bring product in the state for sale, even though he or she pay the custom duty, he or she still subject to pay tax when such product are bought in the state. Furthermore, for goods sold in the state, the tax can

³⁶ Taitz, Allan, and W. Jack. Millar. GST & Commodity Tax. R. DeBoo, 1989.

³⁷ “Destination Principle of Taxation - Oxford Reference.” Social Class and Sport - Oxford Reference, Oxford University Press, Accessed on July 23, 2017. www.oxfordreference.com/view/10.1093/oi/authority.20110810104737666.

collected either single or multiple stage, for example, a retail sales tax or VAT respectively.³⁸

Likewise, tax can impose on the certain products, called “selective sales tax”. It usually comes up with the special purpose such as unnecessary goods like luxury products, or products causing the health problem to people or so called “sin tax” like alcohol and cigarette.

Moreover, the consumption tax can be earmarked which the government can set the direction of tax. Earmarked tax will not include with the annual budget. However, it will go through the extra-budgetary fund directly.

2.3.1.2 Excise tax

Excise was first introduced in the mid 17th century³⁹ and it was used as a way for governments to levy further and unnecessary taxation on their people. In some country, such as the UK,⁴⁰ Thailand, and India,⁴¹ the excise has been typically implemented on goods which are unnecessary for living, luxuries, or goods that cause risks for health problem or morals. In developing countries, addressing the excise tax on medicines, pharmaceuticals and medical equipment is still controversial because this can result in the higher medicine price which not everyone in the country can afford it.

Bruno Frey, an economist, stated that the fiscal intervention of human externality and immorality is only excise tax which is commonly used as a tool to send a message to people.⁴² By this statement, the incentive can be given by the government for other alternative products. The government reduce the motivation

³⁸ Bloomfield, Daniel. *Sales Taxes, General and Retail*. H.W. Wilson, 1934.

³⁹ J. V. BECKETT “Land Tax or Excise: the levying of taxation in seventeenth- and eighteenth-century England” *The English Historical Review*, Volume C, Issue CCCXCV, 1 April 1985, Pages 285–308, <https://doi.org/10.1093/ehr/C.CCCXCV.285>
RICARDO, DAVID. *ON THE PRINCIPLES OF POLITICAL ECONOMY: and Taxation* (Classic Reprint). FORGOTTEN BOOKS, 2015.

⁴⁰ Tiley, John, et al. *Studies in the History of Tax Law*. Hart, 2004.

⁴¹ *Central Excise Tariff: Corrected up to the 12th May 1961*. Manager of Publications, 1962.

⁴² Cnossen, Sijbren. *Theory and Practice of Excise Taxation: Smoking, Drinking, Gambling, Pollution, and Driving*. Oxford University Press, 2005.

of people on certain products and services by the increasing price. The freedom of choice are distracted from the government for mortal and public interest reason. In practice, the group of poor people is the major group for this impact, and they become one of the factors for the government to weigh the reason and necessity of excise tax before implementing. In contrast, Richard Bird thought differently from Frey. He argued that the fiscal measures did not provide the actual contribution to society. The excise tax is too simple for government instrument without relation to the complex social and economic theory. Frey argued that there must be other measures to support the excise tax to reach the goal, by using the psychological, political and economic consideration.

Excise tax is an indirect tax levied from producer, wholesaler, importer or distributor on certain products related to health issue including the luxury and unnecessary products such as alcohol or tobacco. The burden of tax practically are pushed to the consumer at the price of product. The objectives of excise tax are, firstly, to reduce consumption to the product. Then, the price increasing impact to the consumer especially on children, for example, alcohol, tobacco and gambling. Second objective is to generate revenue to the government. Excise tax is selective tax on products and services. Due to discrimination to other product, the reasons beside taxation mostly are for special purpose such as the health issue. It always links to physical control for consumption. The excise tax is used as a measures of the government to deliver the message to people. The objectives can be classified in many purposes by the following.

(1) To discourage consumption of products and services

The public health is generally used as the main reason to obstruct certain products and services. The characteristics of the taxed product typically involve the public health problem or morality. The excessive consumption of the certain product caused increasing growth of health issues such as NCDs and obesity. People who want to consume certain products need to contribute more tax to society. The price can affect the consumer greatly, especially among children with limited purchasing power. The consumer will find the other alternative products and

services which are cheaper. According to the economic theory, when the demand in the market reduces, the supply also reduces consequently.⁴³ Although the collection of excise tax is only able to decrease the consumption rate of such products or services at a small percentage, it is better than the prohibition of the certain products because the government can at least return the money to the public cost.

(2) To generate revenue for general purpose

Excise tax is a potential source of revenue due to the certain products and simple process, in which it is collected at one stop from the producer, wholesaler, importer or distributor. This tax has usually generated the enormous revenue to the countries.

(3) To reflect external cost in society

Additionally, the external cost in society are in consideration for addressing an excise tax. People whose weigh the society cost need to contribute or compensate their action to the public. This is a state intervention to make society more equal. For example, Pigouvian tax is imposed on the activity causing damage to other equal, to the marginal cost such as the environmental issue.⁴⁴ The public 's benefit for implementing excise tax is the better environment in country. The revenue will be generated to the remedy the damage in the market. People will benefit from that. For instance, the factory flee the waste to the water which make people living close to factory unable to utilise the resource, then the government will spend that revenue to repair that damages.

(4) To improve the public service

The revenues of excise tax is usually transferred to the specific fund. For example, the Motor fuel excise tax levied from the fuel like petrol. In case of damages on the road, the fuel itself does not cause the damage to the road directly. However, it is the intermediate product making the damage, so the government spends

⁴³ Richardson, G. B. Economic Theory. Routledge, 2013.

⁴⁴ Eskeland, Gunnar S. A Presumptive Pigouvian Tax on Gasoline. Country Economics Dept., World Bank, 1993.

the revenue for reconstruction of the road in return. The people who are part of damages are responsible for their action.

The Per Volume tax rate, Per Value tax rate and Mixed tax rate are tax based on excise tax. Firstly, per volume tax rate refers to fixed amounts per quantity, per value tax rate refers to fixed percentages of trade price and mixed tax rate is combination of Per Volume and Per Value tax rate. Damages from tobacco, alcohol, waste product and unhealthy diet causing the health problem are suitable for per value which can set a progressive rate to the products and services.

2.3.1.3 Value-added tax (VAT)

Value-added tax (hereinafter, VAT) is consumption tax levied on all products and services in every purchase known in some countries as a goods and services tax (GST). In 1960, Germany⁴⁵ and France were the first countries to implement VAT called *taxe sur la valeur ajoutée* (TVA),⁴⁶ while the modern variation of VAT was first implemented by France in the 1950s.⁴⁷ VAT becomes general taxation over the world. VAT raises about a fifth of total tax revenues both worldwide and among the members of the Organisation for Economic Co-operation and Development (OECD).⁴⁸ Because it is indirect tax and charged at all stage of production, leading to satisfaction of government.

VAT is levied on products and services in every stage of production at least the manufacturing stage, therefore, the tax rate is based on the location of the consumer. The taxpayer is people who purchase the product or service. The core of VAT is a charge of tax both input and output. For the purchase, the seller

⁴⁵ Botman, Dennis, and Stephan Danninger. *Tax Reform and Debt Sustainability in Germany: an Assessment Using the Global Fiscal Model*. International Monetary Fund, 2007.

⁴⁶ Ministry of the Economy, Industrial and Employment (France). *Le budget et les comptes de l'État* (in French). 30 October 2009.

⁴⁷ Helgason, Agnar Freyr. "Unleashing the 'money machine': the domestic political foundations of VAT adoption". *SocioEconomic Review*. doi:10.1093/ser/mwx004 Accessed on April 1, 2017.

⁴⁸ *Consumption Tax Trends 2018: VAT/GST and excise rates, trends and policy issues*. Secretary-General of the OECD. 2016. doi:10.1787/ctt-2018-en. ISBN 978-92-64-22394-3. Accessed on 24 September 2017.

should issue invoice to buyer for recording the output of the products or the services that seller had purchased for making an output. The invoice is the evidence for the seller to get tax credit back.

The main objective of VAT is to generate the revenue to the government for public welfare expenses because this tax is neutral although the product is purchased many time, VAT is considered only input and output price. The process of calculation is simple and easy to understand that people can calculate themselves, and it is transparency tax system because the formula are designed to avoid double taxation.

In general, VAT is applied only one rate on all goods and services. However, some countries, such as France, have various VAT rates.⁴⁹ The standard rate, 20%, is applied all other taxable goods and services which are not subject to the certain tax rate. 10% VAT is applied to restaurants, transport, renovation/improvement works and certain medical drugs. Some foodstuffs, water supplies, school canteens, some entertainment events and some domestic personal services, medical equipment for disabled persons, non alcoholic beverages, and books are subject to 5.5% VAT. Lastly, the special rate, 2.1%, applies only to some pharmaceutical products, TV licences, the sale of live animals, press publications and entertainment events. Besides, the zero tax rate is applied to Intra-community and international transport, excluding road and inland waterways.⁵⁰ Due to the variety of VAT rate, other taxes, such as the excise tax, are unnecessary to be implemented because the VAT can cover every type of goods and service there is to be taxed.

2.3.2 Non-fiscal measures

2.3.2.1 Food labelling

Food labelling, a front of package (FOP), is a measures to inform a primary component on product, including serving portion, number of calories,

⁴⁹ "HOW TO GUIDES." SmartExpat. Accessed on April 1, 2017. smartexpat.com/france/how-to-guides/financial-legal/valueadded-tax

⁵⁰ "French VAT Rates and VAT Compliance." Avalara VATLiv .Accessed on April 1, 2017. www.vatlive.com/country-guides/europe/france/french-vat-rates/

grams of fat and sugar, nutrients and a list of ingredients. This information can help consumer acknowledging the amount of fat, sodium, sugar or other ingredients in such product.⁵¹ (Figure2.1)

Figure2.1 An example of FOB



Source: Popeo, Dan. “Attacks on Food Companies' Front-of-Package Labels a Small Taste from a Supersized Agenda.” *The WLF Legal Pulse*, wlflegalpulse.com/2011/02/14/attacking-front-of-packagefood-labels/ Accessed on Jan 1, 2018

The label should be easy to read and understand. In the United Kingdom, the traffic light label is used to help people choose the healthier food choice quickly and easily. The green, amber and red colours represent the amount of fat, saturated fat, sugars and salt in low, medium and high level respectively. (Figure2.2)

Figure2.2 An example of traffic light label



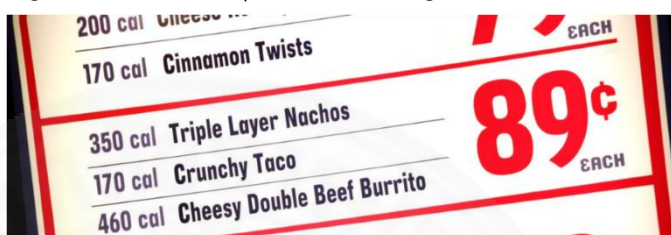
Source: “Perspectives on the Traffic Light Label System.” *Childhood Obesity News*, 31 July 2014, childhoodobesitynews.com/2014/08/01/-the-traffic-light-label-system/ Accessed on Jan 1, 2018

Recently in 2016, the restaurants and similar retail food establishments are required to inform amount of calories on the menu called menu

⁵¹ BusinessDictionary. “What Is Food Label? Definition and Meaning.” Accessed on April 1, 2017. www.businessdictionary.com/definition/food-label.html.

labelling,⁵² on the standard menus such as a meal, a sandwich, a side dish, and a drink. (Figure2.3) The side dish such as fries, salad, or onion rings of a meal are required to include the amount of calories in the menu as well according to 21 CFR 101.11(a)(U.S. Department of Health and Human Services Food and Drug Administration Center for Food Safety and Applied Nutrition, 2016).

Figure2.3 An example of levelling on menu



Source: Galarza, Daniela. “Get Ready for Calorie Counts on Every Chain Menu in America.” Eater, Eater. Accessed on Jan 1, 2018. www.eater.com/2017/3/30/15121834/menu-labeling-law-calorie-counts

2.3.2.2 Food advertising regulations

There are many countries at least seven OECD countries addressing food advertising regulations during the children time. The government promotes the advertising of healthier food and ban the unhealthy diet advertising. Assessments of the regulation of nutrition-related advertising among children suggest positive effects on calorie intake. In Norway, the advertising of unhealthy food and beverages to children at the age of younger than 13 years old are voluntarily banned through TV, radio, movies in theatres starting before 6.30pm, competitions and interactive games for children.

2.3.3 Other measures

2.3.3.1 Mass media campaign

In globalisation reign, mass media is efficient instrument for the government to deliver the message to public such as newspapers and other

⁵² In this document, we refer to those entities covered under section 403(q)(5)(H) of the FD&C Act as “covered establishments.” We refer to restaurants and other establishments that are not covered by under section 403(q)(5)(H) of the FD&C Act as “non-covered establishments.” Foods may also be exempt from the provisions of section 403(q)(5)(H) of the FD&C Act. We refer to those foods as “exempt foods.” This includes exempt foods sold in covered establishments. These conventions will be used unless there is some reason to distinguish these entities differently.

printed material, radio, television and billboards. The government addresses mass media campaigns to make awareness to the public and to encourage healthier food consumption. The message should be clear and simple.

In Western countries such as the United States, the United Kingdom, France, and Germany, “Five a day” mass media campaign was introduced to encourage the consumption of at least five portions of fruit and vegetable each day.⁵³ In Australia, “2 & 5” campaign which suggests that adults need to eat at least two serves of fruit and five serves of vegetables each day. In 2012, the LiveLighter campaign succeed increasing awareness by encouraging healthy food consumption and physical activity with the help of free resources such as healthy recipes.⁵⁴ “Fruits and Veggies Mix it up” campaign was applied in Canada to fight obesity prevalence by making easy ways for people to eat healthier food in a meal, supported by the Canadian Produce Marketing Association (CPMA).⁵⁵ The France government implemented “Eat Move” campaign to deliver the messages about the effect of obesity and how to eat properly via mass media, informational videos, home advertising and a dedicated website.⁵⁶ Nowadays, health promotion campaigns are implemented via website, facebook or twitter, or applications in smart phone. The Nutrition Centre of Netherlands provide recipes and tips for healthier food in website and mobile applications. In 2013, Chilean Government provide an online website for calculating daily calorie intake.

2.3.3.2 Education

Information on Nutrition is a common knowledge, however knowledge on the effect of being overweight and obese are not well promoted in

⁵³ World Health Organization. “Promoting Fruit and Vegetable Consumption around the World.”. Accessed on April 1, 2017. www.who.int/dietphysicalactivity/fruit/en/. Accessed on April 1, 2017.

⁵⁴ Go for 2 & 5. Government of Western Australia.

⁵⁵ Pamela Riemenschneider (17 May 2011), “Mix it Up! takes over from 5 to 10 A Day”, The Packer, “Fruits and Veggies – Mix it Up! says many different things to different people. The Canadian Produce Marketing Association introduced the revamped program to replace its 5 to 10 a Day campaign on March 1.

⁵⁶ Malvezin, Christophe. “French Ad Campaigns for Better Eating Habits.” RSS, Accessed on April 1, 2017. frenchfoodintheus.org/1112.

general. The education should not limit only at school for kids but should include to adults as well. For example, the program recommend knowledge about diet, physical activity and prevention of obesity and OECD.

There are many risk factors causing various health issues in which the obesity is one of the major factors. Controlling the consumption of unhealthy diet is the easiest way to curb the obesity growth. Being obese affect individuals but also the public interests. Hence, the governments cannot ignore this epidemic anymore by implementing the preventive measures to reduce the consumption As discussed, consumption taxes are applied as the fiscal measures by influencing the consumer's decision. The price is the key factors that affect buyer's decision more or less. Additionally, food labelling enforced to be displayed on the products in order to inform consumer the nutrition details. Due to the globalisation and technologies advances, sending message to people seems to be easier by mass media campaigns, as a modern way, or the educating children at school, as a classic way.

CHAPTER 3

INTERNATIONAL PERSPECTIVES ON LEGAL MEASURES IN RELATION TO THE OBESITY EPIDEMIC

Nowadays, the obesity epidemic is an inevitable health problem which is the price to pay for technology advances and globalization, leading to the enormous negative results to global economic that should be controlled. Many international organizations, such as the World Health Organization, the Organisation for Economic Co-operation and Development, the World Trade Organization, and so on, provide the guideline and plan for state members and others to handle the obesity. With their supports, any government can adopt and adapt the measures into their own countries. State interventions of eating behaviours are normally applied to people, such as fiscal measures and non-fiscal measures.

3.1 International organization perspectives

3.1.1 The World Health Organisation (WHO)

The World Health Organization (WHO) is the specialized international organization concerning about international public health. The objective is to lift up the better health for people at the highest possibility, on the international level. WHO works as an assistant of governments to reach the highest level.⁵⁷

WHO launched Global Strategy on Diet to eliminate the burden of noncommunicable disease such as obesity, diabetes type 2, high blood pressure and cardiovascular disease. Such diseases become global public health problem due to increasing of the number of patients paralleling with the obesity rates which lead the state to bear higher cost of public health services. There are two key risk factors for NCDs which are diet and physical activity (The World Health Report 2002). The statement is supported by many strong scientific evidences proving that the most

⁵⁷ Richard, Katherine Schulz. "World Health Organization." ThoughtCo, ThoughtCo. Accessed on Oct 18, 2017. www.thoughtco.com/world-health-organization-1434518.

powerful impacts are change of diet. In May 2000, WHO addressed the global strategy for prevention and control of non-communicable diseases (WHA53.17) focusing on prevention of unhealthful diet consumption. To reach the goal, WHO contributes a process involving a broad and inclusive consultation leading to the Global Strategy on Diet, Physical Activity and Health including finalizing the expert consultation report, drafting the global strategy, providing appropriate technical support and models and methods. In 2004, WHO supported fat taxes as an effective fiscal intervention. It ought to make people change consumption.⁵⁸ Almost a decade, WHO implemented the comprehensive global monitoring framework which is the national strategies for NCDs prevention (Political Declaration, supra note 5).

3.1.2 The Organisation for Economic Co-operation and Development (OECD)

The Organisation for Economic Co-operation and Development (OECD) is an intergovernmental economic organization to arouse economic progress and world trade, providing a space for debate about policy experiences of each member states on international level.⁵⁹ OECD consists of 35 country members such as the United Kingdom, the United States, Italy, Japan, Korea, the People's Republic of China, India, et cetera.⁶⁰ OECD can hold the meeting to get the consensus leading to the binding treaties. The OECD recommends the policies designed to the highest sustainable economic growth, better living quality and to endorse the contribution of capital in the highest utility by improving the quality of people life.⁶¹

⁵⁸ World Health Organization, *Global Strategy on Diet, Physical Activity and Health* (Geneva: WHO, 2004), at para. 41(2); World Health Organization, *2008-2013 Action Plan for the Global Strategy for the Prevention and Control of NonCommunicable Diseases* (Geneva: WHO, 2008). Accessed on Jan 18, 2018

⁵⁹ "About the OECD." *Students, Computers and Learning - Making the Connection* - En - OECD. Accessed on Oct 18, 2017. www.oecd.org/about/

⁶⁰ "Members and Partners." *Students, Computers and Learning - Making the Connection* - En - OECD. Accessed on Oct 18, 2017. www.oecd.org/about/membersandpartners/.

⁶¹ "Innovation Policy Platform." *Innovation Policy Platform*. Accessed on Oct 18, 2017. www.innovationpolicyplatform.org/.

The obesity epidemic spread over the world, especially to OECD members, leading to economic failure. OECD takes the obesity of population as a severe issue and has provided the Obesity Update to eradicate this issue annually. To reduce the waste in health systems, OECD offers analysing policies that improve access, efficiency, impact and quality of health care. In 2015, OECD launched the Sustainable Development Goals applied at domestic level to build up a strong sustainable health systems. Moreover, OECD promotes levying taxes on unhealthy food to curb unhealthy diet consumption in the same meaning, it can limit the fatty foods intake(Paris: OECD, 2010).

3.1.2.1 Obesity Update

There are many strategic policies designed to fight obesity rates.⁶² The communication policies are capable to influence the people's eating choice.⁶³ OECD countries have used a social media and new technologies for communication policies to people such as food labelling or regulations of marketing and advertising.

3.1.2.2 Food labelling

Food labelling is a mere paper attached on product showing the the ingredients component. It is the way to make people aware of unhealthy diet. Food labelling can create effect on food choices so the detail and the pattern need to be easy to understand(Cecchini and Warin, 2016).

Front of Pack (FOP) labelling is a type of compulsory rule to the food. It is easy to understand and help making people aware of the fat, sugar and salt component leading the consumers to find the alternative choice.⁶⁴ This makes

⁶² OECD. "OECD Obesity Update 2017." Issuu. Accessed on Oct 18, 2017. issuu.com/oecd/publishing/docs/obesity-updatemay-2017-final

⁶³ "Health Risks - Overweight or Obese Population - OECD Data." TheOECD. Accessed on Oct 18, 2017. data.oecd.org/healthrisk/overweight-or-obese-population.htm

⁶⁴ "OECD Users Guide Section D - Accreditation Program." Fresh Cranberry Grades and Standards | Agricultural Marketing Service Accessed on Oct 18, 2017. www.ams.usda.gov/rules-regulations/fsa/oecd-users-guide-section-d-accreditationprogram.

manufacture change the ingredient of the product, however, there is none of evidence to show the huge impact of FOP labelling on BMI and obesity (OECD obesity 2017).⁶⁵

3.1.2.3 Advertising regulations

In 2011 over 7 OECD countries implemented the strict regulation in advertisement. In Chile, Iceland, Ireland, and Mexico, the advertisement about food and beverages on TV and radio are banned in children hour. Other countries prohibit the advertisement at school like Chile, Poland, Spain and Turkey. Nowadays, the communication tools are used to promote healthy lifestyles.⁶⁶

3.1.3 The World Trade Organization (WTO)

The World Trade Organization (WTO) is the only global international organization coordinating countries by holding a forum to negotiate and settle in their dispute of trade. The objective is to help producers, exporters, and importers doing their business smoothly. WTO is also a place where member countries try to settle the problems.⁶⁷

Due to the WTO's General Agreement on Tariffs and Trade (hereinafter, the GATT), WTO members are prohibited from unfair treat and trade especially in tax, being an obligation. For instance, members shall not tax the different rate to the same-categories product or like product from the other members. However, according to Article III of the GATT,⁶⁸ members shall respect to the internal taxes and other internal charges.

Owing to members' obligation, members shall trade without discrimination by treating other WTO members equally to both their domestic and

⁶⁵ OECD. "OECD Obesity Update 2017." Issuu. Accessed on Oct 18, 2017. issuu.com/oeed.publishing/docs/obesity-updatemay-2017-final

⁶⁶ "Advertising and Marketing." Federal Trade Commission. Accessed on Oct 18, 2017. www.ftc.gov/tips-advice/businesscenter/advertising-and-marketing.

⁶⁷ Britannica, The Editors of Encyclopaedia. "General Agreement on Tariffs and Trade." Encyclopædia Britannica, Encyclopædia Britannica, Inc. Accessed on Oct 18, 2017. www.britannica.com/topic/General-Agreement-on-Tariffs-and-Trade

⁶⁸ "National Treatment Principle - Analysis of GATT Article III." Lakshmikumaran & Sridhara. Accessed on Oct 18, 2017. cn.lakshmisri.com/News-and-Publications/Publications/Articles/Tax/National-Treatment-principle-Analysis-of-GATT-Article-III

imported products (known as most favoured nation treatment or MFN) and between foreigners and citizens (known as national treatment or NT). Addressing fat tax may be within the term of GATT violation. For example, Denmark, as WTO member, implemented the Fat Tax Act which are the regulating nutrition that create or support obesity. All products which contain saturated fat above 2.3% they shall subject to tax where the domestic product mostly contains saturated fat under 2.3%. This tax covers all products including a substitute for or imitation of product. It seems Danish government subsidise their own products containing saturated fat under 2.3% of total weight. If with tax exemption, Denmark cannot prove the harmonization to GATT rules, it leads to GATT violation thus the other WTO members can raise the anti dumping tax and countervailing duty against Denmark.

3.2 Foreign countries perspectives

Since the obesity became global epidemic health issue, many countries have attempted to curb its growth. Some implemented the special law on specific purpose, others used their consumption taxes together with nutrition label on food products, including food advertising regulation. There are two aspects about what should be concentrated, whether tax on product causing the obesity or the obese person. For taxing on food product, Denmark is the first country where the special Act on food products, which contain saturated fat, has been implemented. Meanwhile, in Mexico, food with high amount of calories is subject to excise tax. In addition, Japan is the only country that implemented tax on obese people which cause much argument about human rights and liberties.

3.2.1 Legal measures in Mexico

In 2014, Government of Mexico realizes that the obesity is a significant obstacle to the country for moving forward. Government is responsible, up to 50%, in 2012 for obesity cost like Public health, Medicare and Medicaid(OECD Health Statistics, 2014). People mostly are overweight. Obesity rate is about 32% in adults and

28% in children (World Health Organization, 2014). The Organisation for Economic Co-operation and Development (OECD)) supports Mexico to enact fiscal measures which are able to improve the economy and social well-being of people. The government aims to fight overweight and obesity problem by taxing unhealthy diet in both food and beverage. Mexican government also implements mass media campaign, physician-dietician counselling project, food labelling and food advertising regulations to curb the unhealthy diet consumption.

Based on the 2012 National Health and Nutrition Survey (ENSANUT), the amount of non-basic foods overconsumption in sugar or fat are up to 18% of daily calorie intake.⁶⁹ The highest contribution came from cereals at 33%, followed by products high in saturated fat and/or added sugar (HSFAS) at 16% and sugar sweetened beverages (SSBs) at 9.8% in, whereas fruit and vegetables cover only 5.7% of total energy intake. The results show the need for Mexican government to utilize their legal measures to build up a food environment to a healthier diet in the Mexico.⁷⁰

In the first year after Mexican government implemented tax on SSBs and nonessential foods, amount of household purchases of nonessential energy-dense foods decreased.⁷¹ Due to local geography, culture and tradition, Junk Food are easier to access than other healthy diets such as vegetable and fruit, because of the price and convenience. According to a decrease of consumption approximately 12% of SSBs,⁷² it leads manufactures change or reformulate their product in order to pull back their market share and avoid the higher tax. However, it seems the IEPS tax on SSBs and nonessential foods are cruel punishment to lowincome people, nevertheless,

⁶⁹ Pedraza L, Aburto T, Sánchez T, Rivera J. Contribution of food groups to the total dietary energy intake of Mexican children, adolescents and adults. *FASEB J.* 2014; 28:393.3 Accessed on July 13, 2017

⁷⁰ Aburto, T C, et al. "Discretionary Foods Have a High Contribution and Fruit, Vegetables, and Legumes Have a Low Contribution to the Total Energy Intake of the Mexican Population." *The Journal of Nutrition.*, U.S. National Library of Medicine, Sept. 2016, www.ncbi.nlm.nih.gov/pubmed/27511928 Accessed on July 13, 2017

⁷¹ Carolina Batis, Juan A. Rivera, Barry M. Popkin, Lindsey Smith Taillie. "RESEARCH ARTICLE First-Year Evaluation of Mexico's Tax on Nonessential Energy-Dense Foods": An Observational Study

⁷² The Mexican National Institute of Public Health

Mexican government still keeps taxing and trying to make it effective to people in every group of people since the result of this intervention can fight the obesity growth.

3.2.1.1 Fiscal measures

Fiscal intervention measures applied In Mexico are excise tax and VAT. In order to curb the rising rate of obesity, the excise tax is the main tax measure to discourage unhealthy consumption. Most food products, including nonessential foods or junk foods, are exempted from Mexican VAT.⁷³

(1) Excise tax

An excise tax called Impuesto Especial Sobre Producción y Servicios (IEPS) which levies significant federal excise rates on specific items. For unhealthy diet in Mexico, both food and beverage are classified in taxable categories. Taxpayers include the producer and the importer. Nonessential food with energy density equal or greater than 275 kcal per 100 g are taxed at 8% of IEPS tax in Mexico, for example, snacks, confectionary, chocolates, custards and flan, fruit jam, paste, peanut and hazelnut butter, ice cream, cereal based products, cookies and sweet bread. In addition, Mexican government also implement tax on primary ingredients used in bakery processing such as dried fruits, cocoa, and gelatine. Even though they are not a final product, if they fall into the high-calorie foods category due to energy content of at least 275 Kcal per 100 g, they will be taxed For sugary beverage, Mexico is applying tax of 1 Mexican peso(U\$0.08) on each litre of flavoured drinks and for every litre of product which is approximately 10% IEPS tax. In this beverage categories, they include the beverages containing added sugar in many ways like through syrups, concentrates, powders or flavours. There are a few products that are exempted and not subject to the 8% IEPS tax namely; imported chewing gum, a dairy products including drinkable yogurts, juices, and nectars that contain milk or dairy, shelled and natural peanuts, including, a diet sodas or artificially-sweetened beverages. These products are not subject to the tax contribute to obesity, however, other natural nuts are not mentioned.

⁷³ Buettner, Thiess, and Katharina Erbe. "Revenue and Welfare Effects of Financial Sector VAT Exemption." *International Tax and Public Finance*, vol. 21, no. 6, 2013, pp. 1028–1050., doi:10.1007/s10797-013-9297-5. Accessed on July 13, 2017

(2) VAT

The standard of VAT is 16% on sales of goods and services. The sale of most food products is 0%. On September 8th, 2013, Mexican government addressed 16% flat on processed foods sold in supermarkets and convenience stores such as sandwiches, pizzas, and hot dogs. Now, it is not only the food prepared and served in restaurant that subject to 16% of VAT but also food in supermarkets and convenience stores. The processed foods are excluded in 0% of VAT food categories.⁷⁴ Although, nonessential foods or junk foods are 0% of VAT, they are still subject to the Special Tax on Production and Services (IEPS) or generally known as a Mexican excise tax.

3.2.1.2 Non-fiscal measures

Mexican government implemented non-fiscal measures as the supportive tool in order to discourage consumption of unhealthy diets. Nutrition labelling and food advertising regulation are the main tools in Mexico

(1) Food labelling

Food labelling, both FOP and GDA, is a mandatory rule in Mexico.⁷⁵ All food manufacturers are required to display certain content such as amount of fat, saturated fat, sodium, carbohydrates, calories, protein, and fibre in packaged foods.⁷⁶ In 2015, a signpost was introduced as voluntary use. The logo will be applied on healthier food compared with similar products of its kind under the criteria set by the Ministry of Health. In addition, labelling of healthy content in food products is on process to become compulsory. However, as of now, the rule is still voluntary.

⁷⁴ Mike Godfrey. "Mexico Confirms VAT On Prepared Food", Tax-News.com, Washington, Accessed on July 13, 2017

⁸⁰ "Mexican Food Label." Etsy. Accessed on July 4, 2017. www.etsy.com/market/mexican_food_label.

⁷⁵ "Mexican Party Food Labels | Printable Food Labels Mexican | Instant Download Mexican Fiesta Food Labels Editable of Adobe Reader." By Lovely Letters | Catch My Party, 2016

⁷⁶ "Overview of the History of Food Labeling." Food Labeling Compliance Review, pp. 3–7., doi:10.1002/9780470277799.ch2. Accessed on July 4, 2017

(2) Food advertising regulation

Mexican health ministry restricted the advertisement of junk food during the children's programming between 2.30 and 7.30 pm. and between 7.30 am and 7.30 pm on the weekends.⁷⁷ This regulation helps parents taking care of their children in a healthier way.⁷⁸



⁷⁷ Ippolito, Pauline M. "Regulation of Food Advertising." Oxford Handbooks Online, 2011, doi:10.1093/oxfordhb/9780199736362.013.0042. Accessed on July 4, 2017

⁷⁸ OâDowd, Adrian. "Junk Food Advertising Ban Is Failing Children, MPs Hear." Bmj, 2018, doi:10.1136/bmj.k2065. Accessed on July 4, 2017

3.2.2 Legal measures in Denmark

Denmark was the first country to ever implement Fat Tax Act officially back in October, 2011. The crucial objective of this Act is to improve better health of population by addressing a special tax to limit consumption of saturated fat, and also to promote the healthy-diet population's choice. To make it more effective, food labelling and food advertising regulation were also implemented other national campaigns in order to make awareness to society.

After Fat Tax Act was introduced, the reduction in saturated fat intake is 4% and people tend to consume vegetables more. The death rate from NCDs reduced slightly.⁷⁹ The effect of this Act has a positive result which 123 lives are saved per year and that 76 lives are under 75 years old.

However, this Act was rescinded during the next Danish government in 2013⁸⁰ because the producers and importers claimed that this Act was an unfair in terms of financial treat to EU law. According to Europe Journal of Clinical Nutrition in 2016, the fat tax drives people to consume more salt which it does not improve the better life of Danish household.

3.2.2.1 Fiscal measures

Fat Tax Act is a special regulation implemented in order to curb the obesity issue and control consumption of saturated fat in Denmark. All products, whether produced in or imported to Denmark, are subject to tax if they fall under the conditions by law which indicates that one kilogram of saturated fat in diet costs DKK 16 or about EUR 2.15 in general. There are many taxable products like meat, dairy products, fats, edible oils, margarine and other products which can be assumed that they are to be used as substitutes or imitations. The base amount are determined based on a technical analysis of the specific product set in an Annex to the Act. For

⁷⁹ Smed, S., P. Scarborough, M. Rayner, and J. D. Jensen. "The Effects of the Danish Saturated Fat Tax on Food and Nutrient Intake and Modelled Health Outcomes: An Econometric and Comparative Risk Assessment Evaluation." *European Journal of Clinical Nutrition* 70.6 (2016): 681-86. EJCN. Accessed on July 4, 2017

⁸⁰ Alberto Alemanno. "For a reconstruction of the reasons leading to the withdraw of this fiscal scheme, The Future of Fat Taxes after Denmark's withdrawal of its fiscal scheme". Accessed on July 4, 2017. <http://www.albertoalemanno.eu/articles/the-future-of-fat-taxes-after-denmarks-withdrawal-of-its-fiscal-scheme>.

example, it costs DKK 0.83 or EUR 0.11 g for 5.2 g of saturated fat content, and per 100 g for meat products. In case that there are the nutrition label attached to product, the producers or importers need to declare the content of saturated fat in credible paper at the Danish Customs and Tax Administration. If it cannot be proven that the products contain certain amount of saturated fat, all fats in that products are deemed to be saturated fat and will be calculated in accordance to the tax base.

In general, VAT, replacing a traditional sales tax, is applied at one rate. All supplies of goods and services are subject to 25% VAT, except in a few exemptions. Food in a hotel, restaurant, cafeteria, bistro, grill bar, and from company canteen for business partners and staff during business meetings fall under the specific VAT deduction of 25%.⁸¹

An excise tax has been applied on certain products and collected when the products are imported, produced or sold in Denmark. Chocolate and sugar goods, ice cream, coffee, soft drinks and tea are subject to an excise tax. It is called “sugar tax”. For chocolate and sweet, It is about DKK 24.61 /kg., and it is about DKK 5.29 to 6.61 / L of ice cream. Even though about DKK 0.295-0.82/L excise duty is applied on soft drinks and juices, in the early 2014, excise duty on soft drinks and juices are dismissed.

3.2.2.2 Non-fiscal measures

For non-fiscal measures in Denmark, food labelling and food advertising regulation play the main role to support the Fat Tax Act in order to raise people’s awareness.

(1) Food labelling

FOP (front of pack) is recently mandatory rule for food labels in EU which means it will be mandatory in Denmark as well. Denmark adopted this Regulation (EU) No. 1169/2011 on the provision of food information to consumers as

⁸¹ Stafford, N. “Denmark Cancels ‘Fat Tax’ and Shelves ‘Sugar Tax’ Because of Threat of Job Losses.” *Bmj*, vol. 345, no. nov21 1, 2012, doi:10.1136/bmj.e7889. Accessed on July 8, 2017

of 13th December, 2016.⁸² This rule emphasizes on saturated fat content which every 100 g or 100 ml of saturated fat in product must be shown in label as a nutrition declaration in FOP.

“Keyhole logo”, adopted from Sweden, has been used to help consumer the food product. The qualified products which contain proper the amount of sugar, fats and salt will be attached with the logo. Fishes, vegetables, and grains are usually have this logo on their package. This signpost helps people recognize which product they should buy. Consequently, according to the survey, people decide to buy the product shown this logo on package.

(2) Food advertising regulation

Banning an unhealthy diet advertisement on TV at the time easily access for children becomes normal in the Western countries. Denmark is one of the countries who adopts this. The government lunched the Forum of Responsible Food Marketing Communication, as a self-regulation code, to tackle the advertisement of products with high content of sugar, fat and salt to children. The advertisement which children can easily access such as on TV, radio, any media, billboard and the internet must comply with this code. Although, there is no concrete evidence that this tools help to reduce consumption of unhealthy diet among children group, the government still enforce this until now.

3.2.3 Legal measures in the United States

The United States is always first on the rank of obesity population, referring to the health service costs that US government need to handle (Obesity Updates OECD 2017). An American being obese has approximately \$1,429 or more in medical expenses per year, while around \$147 billion are spent in medical expenses annually for US government. According to the national survey, the obese people will grow up to 51.1% in 2030.

⁸² Regulation (EU) No, 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers, amending Regulations (EC)No 1924/2006 and (EC)No 1925/2006 of the European Parliament and of the Council, and repealing Commission Directive 87/250/EEC, Council Directive 90/496/EEC, Commission Directive Accessed on July 1, 2017

Diet represents the tradition and culture of each states. American local foods such as hamburger, French fries, cheese, bakery, snacks and doughnut are high in saturated fat, sugar, salt and carbohydrate content, supporting being obese. Due to the diet, as a key factor that contributes to obesity, there are many states in the U.S. that implement tax measures against this epidemic apart from the federal tax regulations. Since there are 50 states and each state has their own particular characteristic. For example, New York, Texas, New Mexico put tax on snacks and sugary beverages but in different types of taxing, which are either excise tax or sales tax.

According to a report published by PWC consulting on October 16, 2010, about 93% of American consumers changed their behaviour. For snacks, some consumers are buying smaller packages due to the cheaper price. Many consumers are looking for better value options. However, the obesity and NCDs rate keeps increasing steadily.

3.2.3.1 Fiscal measures

The United States is the country which has the most complex tax system due to the big scale of the states. For consumption tax, sales tax is normally applied in most states and VAT is not used in the United States. A sales tax is levied at the retail level. Every state has its own justification to collect the local sales tax from all sales of goods and services that occur in the area. However, most states still object to the general sales tax which belongs to the federal budget, except some states such as Alaska, Delaware, Montana, New Hampshire and Oregon.

In general, sales tax rate is equal to 6% of goods and services in each purchase. The states launched a food exemption rule which all food products for human consumption sold in supermarkets or groceries are exempted from 6% general sales tax, excluding certain foods and beverages. First category excluded from the tax exemption is liquor, wine, beer, soft drinks, sodas, or beverages ordinarily dispensed at, or in connection with, bars and soda fountains. Secondly, candy and confectionery (CGS § 12-412 (13) are still taxable. The processed food and food defined as a Meal in legal recognition including snacks, donuts, cookies, single slices of cake, or other items sold for ready-to-consume food are also not exempted.

In Arkansas, grocery items are still subject to general tax. However, the local tax rate is reduced to 1.5% while candy and soft drinks are taxable at full rate.⁸³ In Illinois, grocery items are not tax exempted and all items get reduced to 1% except candy, soft drinks, alcoholic beverages, and food prepared for immediate consumption.⁸⁴ As well as in Tennessee, grocery products are not exempted from state tax but they get tax reduction by 4% from the fully charged rate of local tax.⁸⁵ Chewing gum, cold sandwiches, deli trays, candy, soft drinks and hot/cold beverages served in unsealed cups through a vending machine, are still subject to Colorado tax even if they are exempted from state tax (Revenue, Colorado Department of August 2009).

In Kentucky, general sales tax of food and food ingredients are exempted excluding candy, tobacco, alcoholic beverages, soft drinks, dietary supplements, prepared food or any food sold through vending machines. Among the other states which have tax exemption on grocery items, New York has outstanding exception regulation. Apart from sandwiches (whether heated or unheated), carbonated beverages, candy and confectionery, and pet foods which are subject to state tax, food sold heated or sold for consumption on the premises including food prepared by the seller which is ready to be consumed, whether for on premises or off premises consumption, are taxable (Assembly Bill 6376, Introduced in 2007).

3.2.3.2 Non-fiscal measures

(1) Food labelling

In the United States, food labelling rule, snacks control regulation, and food advertising regulation are imposed in various states depending on each state policy. However, FOP is mandatory. The requirements of FOP are

⁸³ Finance and Administration, Arkansas Department of (September 2009). "DFA".

⁸⁴ IL Tax. "Illinois Food, Drugs, Medicines and Medical Appliances". Accessed on July 4, 2017. <http://iltax.com/LegalInformation/regs/part130/130-310.pdf>

⁸⁵ ERIC FIGUEROA SAMANTHA WAXMAN. "Which States Tax the Sale of Food for Home Consumption in 2017?" Center on Budget and Measures Priorities, Accessed on July 4, 2017. www.cbpp.org/research/state-budget-and-tax/which-states-tax-the-sale-of-food-for-home-consumption-in-2017#_ftn1.

recommended portion for one serve, calories content separated from fat, and amounts of added sugars (Kick the Can, 2017).

In 2017, the food labelling regulation, specifying that calorie counts must be displayed on menu in every dish at restaurant, was enforced in New York City, Washington, Philadelphia, California and Vermont (Kersh, 2009 p. 304). In addition, in the city of New York, chain restaurants with 15 or more locations nationwide are required to display a warning symbol and statement on menu items that contain high salt which is over 2300 mg of sodium. An effect of this regulation brought the positive outcome which the amount of calories purchased has decreased in New York City and Washington State.

Sales of snacks with high amount of fat, salt, and sugar sold at schools or places such as vending machines and snack bars are limited under new federal rules from the United States Department of Agriculture (USDA). Likewise, healthier choices such as granola and baked chips will be replacing candy bar, doughnut and regular potato chips sold in school.

(2) Food advertising regulation

Due to the high competition of food manufactures, the marketing and promotion play an important role in order to make profit. The United States is one of the countries where the unhealthy food advertisement is banned during the period when children are the main audience. Children are especially vulnerable to marketing and advertisement. As a result of their immature level of development, children require a special protection, including their family instruction. The advertisement having content that could be deemed harmful or deceitful to children should be banned during children's programs.

3.2.4 Legal measures in Japan

Japan also have been affected by the obesity prevalence. In 1994, an average body mass index (BMI) of Japanese had increased from the past 40 years and it was bound to rise up. In 2008, Japan imposed the special law to tackle this obesity epidemic called "Special Health Examinations and Special Public Health Guidance, Ministry of Health, Labour, and Welfare Order 159 or Metabo law". The real

objective is to reduce the growth of metabolic syndrome such as obesity, diabetes, high blood pressure and cardiovascular disease in their ageing citizen. An average amount of birth in Japan is decreasing in the contrast with an average amount of living elderly which increased continuously. It causes Japan the lack of the workforce to maintain the health care costs. Although, the Organization for Economic Co-operation and Development (OECD) ranked Japan as one of the few countries with least obesity problems, among other developed countries, where there is only 3.6% of Japanese getting obese. Japan takes this 3.6% as a serious national issue(OBESITY Update, OECD, 2014). Thus, the legal measures are the key to halt the rates of obesity and to make Japanese live healthier. This measures work well in Japan, resulting less than 6% obesity in 2015 (Obesity Update, OECD, 2017). People tend to exercise more to maintain the waistline.

3.2.4.1 Fiscal measures

Japan is the only country using fiscal measures in different way from the other countries around the world. In general, there is a use of consumption tax on all sales of goods and services. Besides, another fiscal measure currently enforced is financial sanction to people who are or deemed under the law as obese people.

(1) Consumption tax

Consumption tax in Japan applied on the sales of goods and services has only single rate which currently is flat 8%. It is planned to be increased to 10% on 1 October 2019.^{86 87}

(2) Metabo law

Japanese government implemented the Special Health Examinations and Special Public Health Guidance, Ministry of Health, Labour, and Welfare Order 159 (known as Metabo law). Metabo law is a special regulation which Japan imposes to control the Japanese waistline as a significant obstacle of obesity

⁸⁶ News Channel Asia Aso says raising consumption tax will not aid Japan's economy Accessed on July 4, 2017

⁸⁷ Consumption tax, Tax rise Japan. "Japan 10% Consumption Tax Oct 2019." Avalara VATLive, 16 Jan. 2018, www.vatlive.com/vat-news/japan-10-consumption-tax-oct-2019/ Accessed on July 14, 2017

growth. According to the International Diabetes Federation (IDF) reports, the more the size of waistline expand, the more metabolic syndrome rate increase. Most amount of total fat are collected generally in the upper body, hence, waist lengths is suggested to be the culprit.⁸⁸ Japan requires the waistline of men and women in ages of 45 to 74 under 33.5 inches 35.4 inches respectively.

This law are compulsory to all Japanese nationalities in the age requirement. The local government, employers, companies and enterprises need to add waist measures test annually under the Specific Health Checkups (SHC).⁸⁹ Japan requires the waistline of men and women under 33.5 inches 35.4 inches respectively. For the people who have a test results of more than 33.5 inches 35.4 inches depending on gender, they are required to participate in a combination of counselling lessons monitoring by either through phone or email according to the Specific Health Guidance (SHG). The length of lessons depend on the size of the waistline and the severity. For the people who cannot reduce size of their waistline under the maximum length in 2015, they are not subject to pay fine in individuals. However, the local governments and employers are people who are responsible for the penalties starting at 10% and 25 percent over the next 7 years of current health expenses. The money will pass through the national health insurance program. Although, this does not cause the direct affects to employees or workers, it still indirectly affects to them undoubtedly because the employers might lose benefits.⁹⁰

In case of sumo wrestlers, the average of ages is not more than 40 years old, for example, the oldest wrestler in a top division of sumo championship is 37 years old. Then, the majority sumo wrestlers is not subjected to this law.

⁸⁸ Scott M. Grundy, "Obesity, Metabolic Syndrome, and Cardiovascular Disease," *J Clin Endocrinol Metab* 89, no. 6 (June 1, 2004): 2595-2600, <http://jcem.endojournals.org>. Accessed on July 4, 2017

⁸⁹ the Standards Concerning Implementation of Special Health Examinations and Special Public Health Guidance under the Ministry of Health, Welfare, and Labor Order 159, based on the revision of Act on Assurance of Medical Care for Elderly People and National Health Insurance Act. Accessed on July 8, 2017

⁹⁰ B. T Oda, "An Alternative Perspective to Battling The Bulge: The Social and Legal Fallout of Japan's Anti-Obesity Legislation," *Asian-Pacific L. & Pol'y J.* 12 (2010): 249-330. Accessed on July 8, 2017

Since the Metabo law has been implemented in Japan, there are many people arguing that this is the excessive government intervention to its citizen's right and liberty. Moreover, the question whether or not it violate the constitution law has been raised not only in Japan, but all around the world.

According to Article 12, 13, 14, and 31 of the constitution law of Japan, people, equally under the law, shall not be discriminated in political, economic or social relations because of race, creed, sex, social status or family origin and abused of these freedoms, and rights. Japanese government argued that Metabo law is necessary in order to elevate the quality of life for citizens in long term. It is not about violation of liberties or rights because it is only financial penalties and it is applied to everyone who fall under the requirements.

3.2.4.2 Non-fiscal measures

Apart from the fiscal measures, Japan also substantially emphasizes on the non-fiscal measures food products in order to improve the quality of people life.

(1) Food labelling

Food labelling, FOP, is compulsory in Japan. These component, energy, protein, fat, carbohydrate, and sodium need to be displayed in FOP. Meanwhile, labelling the amount of saturated fat, fibers, n-3 fatty acid, n-6 fatty acid, carbohydrate, sugars, and cholesterol are voluntary. There are three Acts to control particularly on food products. Firstly, Food Sanitation Act aims to prevent any harm caused by eating or drinking food products which should be sanitation. This Act sets the standard of food label by establishing the criteria for the sale purpose in marketing.⁹¹ Most products from animal which can be contaminated or rotten are subject to this Act, for example fish, meat, raw meat, milk, and so on.

Secondly, Japan Agricultural Standard Act aims to control manufacturers about the quality of food products. The food products under this Act

⁹¹ Article 19 of Food Sanitation Act

are required to have quality labelling classified in three standards⁹²; for perishable food, processed food, and GM food (genetically engineered food). Lastly, Health Promotion Act aims to improve nutrition intake for specific dietary uses such as food for diabetes people, vitamin, mineral, or etc. The objective of the Act is to encourage the people's health.⁹³

(2) Food advertising regulation

There are no laws or regulations specifically made to protect children from inappropriate advertising or marketing, except for advertising and marketing in relation to harmful products. Due to having many guidelines and strategies provided by the international organization, it can be said that the obesity should not be ignored anymore. Each state should be aware of its negative possibility that may occur. Food control was suggested to do more than others. According to foreign countries' attempt provided in this chapter, using legal measures mostly is addressing tax burden to unhealthy diets and giving tax incentive to healthy diets, while only Japan implemented tax on people. Although, the outcome of Japan's measures fulfilled its objective, shown by the reduction of obese people and health care expenses, the question is whether or not it violates the fundamental rights and liberties of people. Therefore, this proves that Thailand should amend or implement legal measures in order to cope with the obesity.

⁹² Article 19 of Japan Agricultural Standard Act

⁹³ Article 31 of Health Promotion Act

CHAPTER 4

LEGAL MEASURES IN RELATION TO THE OBESITY EPIDEMIC IN THAILAND

Due to the unpleased ranking among the countries having the most obese people in ASEAN, together with an enormous increase of public health budgets, the government amended the legal measures in accordance with Thai society and cultures to make it more effective. However, it turns out that current legal measures are not efficient enough to curb the obesity rate in Thailand. The reasons behind the failure are divided in to two sections, first, in fiscal measures, and non-fiscal measures which will be discussed in this chapter.

4.1 Fiscal Measures

The fiscal measures themselves are law enactment which restrict rights or liberties of a person because they force people to pay money to government. According to Thai constitutional law, citizen can perform any act which is not prohibited or restricted by the Constitution or other laws, and shall be protected by the Constitution⁹⁴ and restriction of rights or liberties of a person shall be in accordance with the conditions provided by the Constitution.⁹⁵ Which paying tax is one of the

⁹⁴ Section 25 of Thai constitutional law “As regards the rights and liberties of the Thai people, in addition to the rights and liberties as guaranteed specifically by the provisions of the Constitution, a person shall enjoy the rights and liberties to perform any act which is not prohibited or restricted by the Constitution or other laws, and shall be protected by the Constitution, insofar as the exercise of such rights or liberties does not affect or endanger the security of the State or public order or good morals, and does not violate the rights or liberties of other persons. ”

⁹⁵ Section 26 of Thai constitutional law “The enactment of a law resulting in the restriction of rights or liberties of a person shall be in accordance with the conditions provided by the Constitution. In the case where the Constitution does not provide the conditions thereon, such law shall not be contrary to the rule of law, shall not unreasonably impose burden on or restrict the rights or liberties of a person and shall not affect the human dignity of a person, and the justification and necessity for the restriction of the rights and liberties shall also be specified. The law under paragraph one shall be of general application, and shall not be intended to apply to any particular case or person. ”

duties of Thai citizens.⁹⁶ Paying tax is one of the duties of Thai citizens. Even though implementing tax is lawful act that government can do, taxation needs to be in accordance with the fundamental principles as well, such as Principle of Proportionality and Principle of Equality.

In the past, the Trade tax was used in order to collect tax on people's consumption. The Trade tax was applied on goods and services and dismissed after the expansion of Thai economy because the complex system and process of Thai trade tax caused the double taxation which was not suitable anymore. Because of this, it brought to the new tax reform, implementing VAT and excise tax. In Thailand, VAT is applied in general for all goods and services, while an excise tax is applied on the products or services in special purposes in economic reason.

4.1.1 Excise tax

Excise tax was introduced to Thailand in early Ayutthaya period. After WWII, in order to harmonize with the international organization (GATT/WTO) directions, tax reform emerged in Thailand due to the special characteristic of excise tax that empower government tax on specific products and services for reasonable justification. The excise tax are still being levied regardless of the fact that such products or services are also being charged with other types of tax. Alcohol, tobacco and fuel are generally in the list of excise tax in many countries including Thailand. Excise Tax Act, B.E. 2560 was promulgated on September 16, 2017. Seven products, including alcoholic beverages, playing cards, sugary drinks, and tobacco were added to higher tax rate. The revision is to encourage transparency, fairness and appropriateness. The structure of revised excise tax is for by the following.

4.1.1.1 Taxable person

Taxable person⁹⁷ is an industrial operator who is the owner of an industrial establishment including a manager or any other person who is responsible

⁹⁶ Section 50 of Thai constitutional law "A person shall have the following duties: (9) to pay taxes and duties as prescribed by law; "

⁹⁷ Section 16 of Excise tax Act , B.E. 2560 "An industrial operator, an importer, a service place operator or any other person provided by this Act to be the person who has the duty to pay tax shall have the duty to pay tax on the basis of the value

for the operation, an importer who has the ownership of imported products, including a person defined as an importer in under the law on customs, a service place operator or other people under this Act such as a transferor and transferee who get tax exemption or reduction at the time of import, an modifier of automobiles⁹⁸, and so on.

4.1.1.2 Tax base

Tax base is defined as the income or asset balance used to calculate a tax liability, and the tax liability formula is tax base multiplied by tax rate. In Thailand, an excise tax shall be calculated on the basis of the value and the quantity. According to section 16 of the Excise Tax Act B.E. 2560 states that “An industrial operator, an importer, a service place operator or any other person provided by this Act to be the person who has the duty to pay tax shall have the duty to pay tax on the basis of the value or the quantity of goods or services or on the basis of both the value and the quantity of such goods or services at the rates not exceeding those indicated in the Excise Tariff List annexed hereto as in force at the time when liability for tax payment arises.”

4.1.1.3 Tax rate

The excise tax rate was imposed in the Excise Tariff List annexed. Only SSB products are subject to excise tax while the unhealthy food products have not yet been implemented. For the sugary beverages, the tax rate had been changed three times until now shown in the following table. (table 4.1)

The government concerns on the price flexibility of the product in order to discourage consumption. With a belief, addressing tax on SSBs will reflect negatively to obesity and NCDs, more or less.

Nowadays, the new tax rate changes from the flat rate to the progressive rate depending on the amount of the sugar contained in beverage while

or the quantity of goods or services or on the basis of both the value and the quantity of such goods or services at the rates not exceeding those indicated in the Excise Tariff List annexed hereto as in force at the time when liability for tax payment arises.”

⁹⁸ Section 29 of Excise tax Act , B.E. 2560 (2017) “Liability for payment of tax on modified automobiles shall accrue when the modification ends.”

the tax rate also rise upon the time. After experienced, the high tax rate was not sustainable which unreasonably create the large tax burden to both producers and consumers. This huge tax burden is unnecessary due to the objectives which are not to prohibit the consumption but to discourage the consumption. Hence, the high tax rate might not be in consistent to the objective. To make it suitable for Thai society, the small tax rate shall be applied to cause as less as possible affects and also to give a chance to producers to reformulate their SSBs. Meanwhile, the tax rate will be elevated as time pass by which shows in detail by the following;

(1) For Mineral water and aerated water, with sugar or any other sweetener and with smell and taste flavouring, and other beverages which contain;

(1.1) sugar amount not more than 6 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the value at 14%. While tax on the basis of the quantity is none.

(1.2) sugar amount above 6 g but not more than 8 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the value at 14%. While tax on the basis of the quantity is progressively 0.10 baht to 1.00 baht during 6 years.

(1.3) sugar amount above 8 g but not more than 10 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the value at 14%. While tax on the basis of the quantity is progressively 0.30 baht to 3.00 baht per litre during 6 years.

(1.4) sugar amount above 10 g but not more than 14 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the value at 14%. While tax on the basis of the quantity is progressively 0.50 baht to 5.00 baht per litre during 6 years.

(1.5) sugar amount over 14 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the value at 14%. While tax on the basis of the quantity is progressively 1.00 baht to 5.00 baht per litre during 6 years.

(2) Fruit juice (including grape musts) and unfermented and non-alcoholic plant and vegetable juices, whether with sugar or any other sweetener or not which contain;

(2.1) sugar amount not more than 6 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the value at 10%. While tax on the basis of the quantity is none.

(2.2) sugar amount above 6 g but not more than 8 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the value at 10%. While tax on the basis of the quantity is progressively 0.10 baht to 1.00 baht during 6 years.

(2.3) sugar amount above 8 g but not more than 10 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the value at 10%. While tax on the basis of the quantity is progressively 0.30 baht to 3.00 baht per litre during 6 years.

(2.4) sugar amount above 10 g but not more than 14 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the value at 10%. While tax on the basis of the quantity is progressively 0.50 baht to 5.00 baht per litre during 6 years.

(2.5) sugar amount over 14 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the value at 10%. While tax on the basis of the quantity is progressively 1.00 baht to 5.00 baht per litre during 6 years.

(3) Concentrates for used with a maker of instant beverages for sale to consumers at a retail point which contain

(3.1) sugar amount not more than 6 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the quantity is 9.00 baht per litre.

(3.2) sugar amount above 6 g but not more than 8 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the quantity is 10.00 baht to 16.00 baht per litre during 6 years

(3.3) sugar amount above 8 g but not more than 10 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the quantity is 12.00 baht to 30.00 baht per litre during 6 years.

(3.4) sugar amount above 10 g but not more than 14 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the quantity is 13.00 baht to 44.00 baht per litre during 6 years.

(3.5) sugar amount over 14 g per 100 ml whether with other sweetener or not will be subject to tax on the basis of the quantity is 16.00 baht to 44.00 baht per litre during 6 years.

Table 4.1 Thai excise tax rate on SSBs from 1984 to 2018

YEAR	TYPE	PER VALUE	PER VOLUME
2527	2.1 Artificial mineral water, soda and soft drink with no sugar or other sweeteners and flavoring agent added	25	0.77 Baht/440 c.c.
MARCH, 2560		30	20 Baht/ Liter
SEPTEMBER, 2560		14	0-5 Baht/ Liter
2527	2.2 Artificial mineral water and soft drink with added sugar,sweetener or flavouring agents and other non-alcohol drinks, excluding fruit or vegetable juices classified in 2.3	20	0.45 Baht/440 c.c.
MARCH, 2560		30	20 Baht/ Liter
SEPTEMBER, 2560		14	0.10-5 Baht/ Liter
2527	2.3 Fruit juice (including grape must) and non fermented vegetable juice and added alcohol, whether with or without sugar or sweetener added	20	0.45 Baht/440 c.c.
MARCH, 2560		30	20 Baht/ Liter
SEPTEMBER, 2560		10	9-44 Baht/ Liter

4.1.1.4 Tax calculation

There are two types of tax base, which are calculating with per value or per volume of taxable products. For calculation of per value, it is common that the tax will be depending on values of products, whereas the tax will be higher when the volume of the product is getting higher according to the per volume tax base. Therefore, products which are subject to per volume can be deemed as the products that government need to reduce the consumption in the market. The more amount of products are produced, the more tax burden for taxpayers to bear.

Implementing excise tax is the kind of tax which is most suitable for discouraging the consumption of certain products. The differences of tax rate depend on the volume of the products which can affect the manufacturers, distributors, importers and also consumers. Some products are subject both per volume and per value at the same time, which lead to the huge tax burden for taxpayers. It is obviously different from VAT, which is applied with the same tax rate to all sales of goods and services. Undoubtedly, the excise tax is the most effective tool for government intervention.

4.1.1.5 Tax liability

The excise taxable person's duty shall arise followed the Excise Tariff List annexed hereto. For goods produced in the Thailand, the liability shall accrue at the time when the goods are taken out of the industrial establishment, bonded warehouse, bonded warehouse under the law on customs, duty-free zone or free zone. For services, the liability shall accrue upon receipt of payment of the price. However, if the liability on goods or services occurs in both VAT and excise tax at the same time, the liability for payment of the entire tax shall take place concurrently with VAT liability.⁹⁹

⁹⁹ Section 21. of Excise tax Act , B.E. 2560 Subject to section 22 paragraph two, section 23 paragraph two and section 24, liability for tax payment shall be as follows. (1) in the case of goods produced in the Kingdom:

(a) If the goods are in an industrial establishment, liability for tax payment shall be deemed to accrue at the time when the goods are taken out of the industrial establishment, except the case where the goods are taken out of

For goods importation, the liability shall accrue at the same time as that applicable to Duty liability on imported items under the law on customs. Unless the liability shall take place at the time when the goods, imported for taking into a bonded warehouse under the law on customs, a duty-free zone or a free-trade zone, are taken out.¹⁰⁰

4.1.1.6 Tax incentive

According to the Notification of the Director-General of the Excise Department re Rules, Procedures and Conditions in Zero Percent for Vegetable and Fruit Beverages, any beverage containing vegetable or fruit as the ingredients, in accordance with the law requirements, shall be deemed as the vegetable beverage or juice and shall be subject to zero excise tax. (Table 4.2)(Figure 4.1)

the industrial establishment for storage thereof in a bonded warehouse, a bonded warehouse under the law on customs, a duty-free zone or a free zone, provided that if the industrial operator or any person takes such goods for use within the industrial establishment, the act shall be deemed to be the act of taking the goods out of the industrial establishment.

(b) If the goods are stored in a bonded warehouse, a bonded warehouse under the law on customs, a duty-free zone or a free zone, liability for tax payment shall be deemed to accrue at the time when the goods are taken out of such bonded warehouse, bonded warehouse under the law on customs, duty-free zone or free zone, except the case where such goods are taken back for storage in the industrial establishment or storage in another bonded warehouse, bonded warehouse under the law on customs, duty-free zone or free zone, provided that if any person takes such goods for use within a bonded warehouse, a bonded warehouse under the law on customs, a duty-free zone or a free zone, the act shall be deemed to be the act of taking the goods out of a bonded warehouse, a bonded warehouse under the law on customs, a duty-free zone or a free zone, as the case may be.

(3) in the case of services, liability for tax payment shall be deemed to accrue upon receipt of payment of the price therefor.

In the case where liability for payment of value added tax in Chapter 4, Title 2, of the Revenue Code, whether in whole or in part, accrues before receipt of the price for the service, liability for payment of the entire tax shall be deemed to accrue concurrently with liability for payment of the value added tax.

¹⁰⁰ Section 21 (2) In the case of imported goods, liability for tax payment shall be deemed to accrue at the same time as that applicable to liability for payment of duties on imported items under the law on customs, except that in the case of goods imported for taking into a bonded warehouse under the law on customs, a duty-free zone or a free-trade zone, liability for tax payment shall be deemed to accrue at the time when the goods are taken out of such bonded warehouse under the law on customs, duty-free zone or free zone, provided that if the importer or any person takes such goods for use within a bonded warehouse under the law on customs, a duty-free zone or a free zone, the act shall be deemed to be the act of taking the goods out of a bonded warehouse under the law on customs, a duty-free zone or a free-trade zone, as the case may be.

Table 4.2 the list of the beverage shall be deemed as the vegetable drink or juice and subject to zero excise tax.

No.	Type of beverage	The qualified quality of raw material	Ratio of ingredients per net capacity of the drink must not be less than the following percentage
1	Orange juice	Orange juice which has amount of soluble substance of not less than 10 ° Brix	10
2	Pineapple juice	Pineapple juice which has amount of soluble substance of not less than 10.5 ° Brix	10
3	Grape juice	Grape juice which has amount of soluble substance of not less than 10 ° Brix	10
4	Lychee juice	Lychee juice which has amount of soluble substance of not less than 10.5 ° Brix	10
46	Hairy basil seeds juice	0.5 grams of Dry hairy basil seeds, not less than 10 grams when immersed in the water	0.5
47	Roselle juice	Roselle juice which has amount of soluble	5

		substance of not less than 5 ° Brix	
48	Chrysanthemum tea	Dry chrysanthemum flower which can be distilled by hot water of not less than 40 percent of the weight	1
49	Safflower juice	Dry safflower which can be distilled by hot water of not less than 40 percent of the weight	0.3
50	Rose juice	Rose juice which has amount of soluble substance of not less than 2.5 ° Brix	2
51	Pea flower juice	Pea flower juice which has amount of soluble substance of not less than 4 ° Brix	2
52	Shiitake mushroom juice	Dry shiitake mushroom which can be distilled by hot water of not less than 35 percent of the weight	1
53	Cocoa drink	Cocoa powder which has Theobromine of not less than 2 percent of the weight	1

54	Black grass drink	Dry black grass which can be distilled by hot water of not less than 20 percent of the weight	0.2
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Figure 4.1 the list of the beverage shall be deemed as the vegetable drink or juice and subject to zero excise tax.

ลำดับที่	ประเภทเครื่องดื่ม	คุณสมบัติของวัตถุดิบที่ใช้พิจารณาจาก	อัตราส่วนผลของน้ำผลไม้และน้ำพืชผักต่อปริมาตรสุทธิของเครื่องดื่มต้องไม่น้อยกว่าร้อยละ
๑	น้ำส้ม	น้ำส้มที่มีปริมาณสารที่ละลายได้ไม่น้อยกว่า ๑๐ องศาบริกซ์ *	๑๐
๒	น้ำสับปะรด	น้ำสับปะรดที่มีปริมาณสารที่ละลายได้ไม่น้อยกว่า ๑๐.๕ องศาบริกซ์ *	๑๐
๓	น้ำองุ่น	น้ำองุ่นที่มีปริมาณสารที่ละลายได้ไม่น้อยกว่า ๑๐ องศาบริกซ์ *	๑๐
๔	น้ำลิ้นจี่	น้ำลิ้นจี่ที่มีปริมาณสารที่ละลายได้ไม่น้อยกว่า ๑๐.๕ องศาบริกซ์ *	๑๐
๔๖	น้ำเมล็ดแมงลัก	เมล็ดแมงลักแห้ง ๐.๕ กรัม เมื่อแช่น้ำแล้วมีน้ำหนักเปียกไม่น้อยกว่า ๑๐ กรัม	๐.๕
๔๗	น้ำกระเจียบ	น้ำกระเจียบสกัดที่มีปริมาณสารที่ละลายได้ไม่น้อยกว่า ๕ องศาบริกซ์ *	๕
๔๘	น้ำเก็กฮวย	ดอกเก็กฮวยแห้งที่มีสารที่สกัดได้ด้วยน้ำร้อนไม่น้อยกว่าร้อยละ ๔๐ ของน้ำหนัก	๑
๔๙	น้ำดอกคำฝอย	ดอกคำฝอยแห้งที่มีสารที่สกัดได้ด้วยน้ำร้อนไม่น้อยกว่าร้อยละ ๔๐ ของน้ำหนัก	๐.๓
๕๐	น้ำกุหลาบ	น้ำกุหลาบสกัดที่มีปริมาณสารที่ละลายได้ไม่น้อยกว่า ๒.๕ องศาบริกซ์ *	๒
๕๑	น้ำดอกอัญชัน	น้ำดอกอัญชันสกัดที่มีปริมาณสารที่ละลายได้ไม่น้อยกว่า ๔ องศาบริกซ์ *	๒
๕๒	น้ำเห็ดหอม	เห็ดหอมแห้งที่มีสารที่สกัดได้ด้วยน้ำร้อนไม่น้อยกว่าร้อยละ ๓๕ ของน้ำหนัก	๑
๕๓	น้ำโกโก้	โกโก้ผงที่มีไอโอบรมีน (Theobromine) ไม่น้อยกว่าร้อยละ ๒ ของน้ำหนัก	๑
๕๔	น้ำเจลาติน	หญ้าเจลาตินแห้งที่มีสารที่สกัดได้ด้วยน้ำร้อนไม่น้อยกว่าร้อยละ ๒๐ ของน้ำหนัก	๐.๒

Source: ประกาศกรมสรรพสามิต เรื่อง หลักเกณฑ์ วิธีการ และเงื่อนไขการเสียภาษีในอัตราตาม มูลค่าร้อยละศูนย์ สำหรับเครื่องดื่มประเภทน้ำผลไม้และน้ำพืชผัก พ.ศ. ๒๕๖๐, ๒๒ กุมภาพันธ์ ๒๕๖๑, <http://www.ratchakitcha.soc.go.th/DATA/PDF/2561/E/040/32.PDF>, Accessed on April 1, 2018

According to the table, the ratio between the vegetable or fruit and total weight of beverage may not be reasonable to be qualified as the vegetable drink or even juice when the major ingredient is not the vegetable or fruit. Only 0.2 percent of grass jelly plant containing can be the vegetable beverage. In practice, many manufactures try to add vegetable or fruit as the ingredient within their sugary beverage products to get tax benefit. Finally, the government will not get revenue from some SSBs. This tax benefits are not in accordance with the new excise tax rate applied on SSBs products.

4.1.2 Value-added tax (VAT)

Value-added tax (hereinafter, VAT) is a general consumption tax levied on all products and services in every purchase. Because it is indirect tax and charged at all stage of production leading to satisfaction of government. In Thailand, VAT was first introduced in B.E. 2535 imposed under the Revenue Code. VAT is applied at the same rate on goods and services. For special economic reasons in order to collect the tax higher than VAT rate, the excise tax will be applied in the incremental amount. Nowadays, Thailand still enforces VAT under the Revenue Code, B.E. 2481.

4.1.2.1 Taxable person

According to the Revenue Code, taxable person actually is either a business person or an importer who has an annual turnover exceeding 1.8 million. However, the law allows the taxable person to collect VAT from customers by including tax into the total prices of goods or services. Therefore, the customers are the absolute VAT payers.

A business person,¹⁰¹ under this Code, can be a natural person, a non-juristic body of persons, or a juristic person who sell¹⁰² the goods or provide services in the course of his business or profession in Thailand if he/she does not aim to make benefit or a consideration.¹⁰³

4.1.2.2 Tax base

Tax base of VAT for sale of goods and services is the gross value which is received or receivable from the supply of goods or services. The value means money, property, consideration, or service fees, including other benefits that

¹⁰¹ Section 82 of Revenue Code, B.E. 2481 (1938) "The following persons shall be a person liable for payment of tax under this Chapter: (1) a business operator; (2) an importer."

¹⁰² The definition of sale includes the disposal, distribution, and transfer of goods.

¹⁰³ Section 77/1 of Revenue Code, B.E. 2481 (1938) "(1) "person" means a natural person, a non-juristic body of persons, or a juristic person (2) "natural person" includes an estate (3) "non-juristic body of persons" means an ordinary partnership, a fund or a foundation which is not a juristic person, and shall include a non-juristic private organization or business done by two or more natural person "juristic person" means a company or juristic partnership under section 39, a government organisation under section 2, a cooperative and other entity required by law to be juristic person "

can be determinable as the money. Although, tax base does not include any discounts or allowances, the discounts or allowances shall be shown in the tax invoices.

4.1.2.3 Tax rate

In Thailand, according to this Code, VAT rate is generally 10%, however, the current rate is 7% under the Notification of the Director-General of Revenue Department No.383. On October 2nd, 2018, VAT will be 9% according to the Notification of the Director-General of Revenue Department No.646. Zero percent rate is applied on certain activities such as an export of goods, a services rendered in Thailand and utilized outside Thailand in accordance with rule, procedure and condition prescribed by the Director-General, an aircraft or sea-vessels engaging in international transportation, a supply of goods and services between bonded warehouses or between enterprises located in EPZs and so on.

4.1.2.4 Tax calculation

VAT calculation is the simplest system compared to the excise tax. The output tax will be subtracted from the input tax. Then the left of subtraction is the amount that are subject to VAT. On the. Other hand, when the result is negative the taxpayers can use that result as tax credit.

4.1.2.5 Tax liability

The taxable person's liability can be divided into three groups depending on the matters; for sale of goods, for services, and for imports.

(1) For sales of goods

According to the Ministerial Regulations, the liability for sales of general goods, hire-purchase or instalment sale, and supply of goods on consignment shall take place at the time of delivery, at the time of payment, or when the taxable person issues tax invoice. Moreover, the liability shall occur when ownership of goods is transferred in the case of sales of general goods and supply of goods on consignment.

(2) For services

In general service providing¹⁰⁴, the liability shall take place at the time that taxable person receives the payment of services, performs the service, issues tax invoice to the customers. For a contract having a payment condition that the consumer will pay upon part of services performed, the liability shall arise at the time of payment for each part of completed services or at the time such events take place. For services performed abroad, the liability shall occur at the time the payment wholly or partly.

(3) For importation of goods to Thailand¹⁰⁵

The liability of importers shall arise at the time of payment of import duty, depositing of security, or providing guarantee, unless the products are not subject to or exempt from import duty, then, the liability shall be at the time of passing the entry under the Customs law, while the liability shall occur on the date of bringing domestic goods into Customs free zone and subsequently taking them out of the zone without export purpose. Likewise, the liability shall take place at the time of sale of overtime goods under the customs law by auction or any other means by government authority. For imported goods classified in duty-exemption categories under the Customs tariffs, the liability shall arise at the same time as the liability under the law on Customs tariffs.

4.1.2.6 Tax incentives

Thailand implemented the tax exemption in order to give the tax benefit to both taxable person and consumer, not too bear tax burden. However, it turns out that giving tax exemption does not bring the highest benefit to the

¹⁰⁴ 112 Section 78/1 of Revenue Code, B.E. 2481 (1938) "Subject to section 78/3, VAT liability arising from provision of a service shall be in accordance with the following rules:

(1) All liability to pay tax on provision of a service other than that subject to (2), (3), (4) or (5) arises when receiving payment of the fee for the service; however, if there be any of the following events has occurred before receiving the fee for the service, the liability shall be deemed to arise when such event occurs:

(a) having issued a tax invoice; or
 (b) the service has been used either by the provider of the service or by another person."

¹⁰⁵ 113 Section 78/1 of Revenue Code, B.E. 2481 (1938)

taxpayers at all. Since the primary product are exempted from VAT, taxpayers will not have any tax credit. Consequently, the consumers will be bear the burden of tax pushed from the producers or importers. Although, the government insists that VAT exemption is public welfare to relief tax burden of its citizen, it seems not what the government aims to do.

There are many activities that law exempts from VAT, for example, small entrepreneur whose annual turnover is less than 1.8 million baht , sale of goods without export purposes or provision of services, sale of agricultural products whether they are trunks, branch, leaf, bark, offshoot, root, bud, bulb, pod, seed or other parts of plants and their by-products in fresh or preserved condition in order to temporarily prevent from spoiling during transportation by chilling, frozen means or by other means or preservation to prevent from spoiling for retail sale or whole sale by chilling, frozen, drying , grinding, segmentation method or by other method,¹⁰⁶ and sale of alive or dead animals, and in the case of non- alive animal whether it be flesh, parts of animal, egg, milk or by-product from animal in fresh or preserved condition to temporarily prevent from spoiling during transportation by chilling, frozen means or by other mean or preservation to prevent from spoiling for retail sale or wholesale by chilling, frozen, dried, grind, segmentation means, or by other means, but not including food product in can container or package done on manufacturing basis in accordance with terms and condition prescribed by the Director-General.¹⁰⁷

However, any SSBs product, which contains the vegetable as the ingredients of the beverage, does not get VAT exemption, according to Article 1 of the Notification of the Director-General of Revenue Department 28/2535 which stated clear that “Sale of vegetable drink, juice or extract oil from agricultural products whether they are trunks, branch, leaf, bark, offshoot, root, bud, bulb, pod, seed or other parts of plants are not exempted from VAT according to section 81(1) (a) of the

¹⁰⁶ N.DG.VAT.No.3, R.CT.No.23/2536

¹⁰⁷ N.DG.VAT.No.3

revenue code” Therefore, some SSBs may be not subject to the excise tax, however, it is still subject to VAT.

4.2 Non-fiscal Measures

4.2.1 Food safety regulations.

Food Act B.E. 2522 is applied in Thailand as the main regulation to control quality and safety in food products. This regulation authorizes the government, the Food and Drug Administration, as controller of the domestic production, imports and exports of food products for sale by licensing prior to the operation of their businesses.

The objective of this Act is to control food products sold in or imported into the Kingdom to be safe for consumer. Producing or importing food for sale are prohibited, unless the receiving license from the authority is granted. However, the food products that are or may be harmful or feasible dangerous to consumer shall be prohibited under this Act. There are certain food categories prohibited in producing, importing, and distributing which are impure food, adulterated food, substandard food, and other food which are specified by the Minister.

The definition or criteria for consideration of impure food, adulterated food, substandard food was stipulated clearly according to section 26-28 of this Act. However, the criteria for Minister to consider the food that will be prohibited are still unclear, especially for food with inappropriate value or usefulness to the consumer. The law empower the authority for the consideration extensively. Until now, there are no cases that explain about this yet.

Due to the objective of the Act which is to control safeness of food, focusing on harmful or feasible dangerous food whether to prohibit or grant licenses, the special rule in order to control the nutrition in food products are not yet implemented as it may violate the right and liberty of people. The limit of government is to intervene as it is necessary. Although, unhealthy food causes the long term health issues to human and takes high percentage of risk factors to many NCDs leading to

long term suffering, the food itself does not cause any instant health issue at the moment of consumption. Then, it is not food which may cause harm to human according to this Act. People, mostly, acknowledge the possible negative effect of unhealthy consumption that may lead to health problem in the future when they decide to purchase. Proving the clear food labelling in order to encourage healthy consumption is the best way for government to do as the obesity intervention.

4.2.2 Food labelling

Labelling on food products in Thailand is as same as the other countries around the world which have both compulsory and voluntary types. Main Act that authorizes the power to competent officers to control food labelling is the Food Act B.E. 2522. The manufacturers, importers, and sellers are bound to comply with this Act. The label must display in Thai language containing nutrition values, daily Intakes recommendation for Thais aged 6 years and up, energy demands of people and others.

In general, most food products require food label at least with the following details; name of food, name and address of manufacturer, packer or importer (for imported food, the country of manufacture shall be specified), quantity of food using metric units, and date/month/year of manufacture, or date/month/year of expiry, or date/month/year by which the food should be consumed with the statement 'best before', according to the Notification of Ministry of Public Health (No.194) enacted under the Food Act.

However, the group of food products that take low risk level of dangerousness mostly are not required food labelling such as animal products, plant products, extracts or synthetic substances, nutrients, flour and flour products, premixed food for ready-to-cook products, seasoning, sugar, and spices.

Moreover, food with nutrition claims, food using nutrition for sales promotion, food that utilize food value in sales promotions, foods that define consumer groups in sales promotions, and other food are also subject to nutrition labels prescribed by the Food and Drug Administration with the approval of the Food Board, according to Notification of Ministry of Public Health (No. 182) B.E. 2541(A.D.

1998) Re Nutrition Label, and Notification of Ministry of Public Health (No. 219) B.E. 2544 Re Nutrition Label (No. 2).

Conversely, the warnings and advisory statements are required compulsorily on the food label for the case that the ingredients may cause certain types of allergies. For example, the food product contains nuts, the producer must show the statement “information for food allergies: may contain nuts”.

Thailand was the first country to introduce mandatory GDA nutrition labelling at the front of product package, applied to five snack categories, under the Ministry of Public Health’s Notification No. 305 Re: “Labelling Requirement on Certain Processed Foods” enacted under the Food Act. The new label regulation will provide guidance on energy, sugar, fat, and sodium. It also applies to the imported product as well. Even though U.S. food exports already follow GDA labelling under U.S. guidelines, the importers still have to prepare a sticker with Thai FDA’s GDA tablets to be put on the front of the products’ package. Although, other products are voluntary and recommend, the Thai Food and Drug Administration plans to extend to all snack foods, chocolate, bakery products and other categories.

4.2.3 Food advertising regulations

For food advertising regulation in Thailand, the Food Act B.E. 2522 (A.D. 1979) and Consumer protection Act are the main regulation. According to the Food act, food advertising is required not to show false statement with the objective to deceive about quality, usefulness or indication through radio broadcasting, television, motion picture, newspaper, printed media, or by any other means for trading purposes.¹⁰⁸ In case that the advertisement of certain product violates this law the authorities are empowered to consider and give written orders to stop advertising, producing, importing, and distributing such product.¹⁰⁹ The sanction is both in

¹⁰⁸ Section 40 of Food Act “ False or deceptive advertising of the quality, usefulness or indication of a food is prohibited.”

¹⁰⁹ Section 42 of Food Act “ To protect the interests and safety of the consumer, the authority is empowered to give written orders to

(1) the producer, importer or distributor of food or food advertising person stop advertising which considered to be violated Section 41.

(2) The producer, importer or distributor of food or foods advertising person stop producing importing, distributing or advertising a food which the Commission deems as not having the usefulness, quality or indication as advertising.”

financially and criminally. Accordingly, Notice of Food and Drug Administration Re Bases on Food Advertisement B.E. 2551 and Notice of Food and Drug Administration Re Bases on Food Advertisement (No. 2) B.E. 2555, enacted under the Food Act, implements the procedures and guidelines for food advertising. For instance, words using to describe food products in the advertisements, including the words which are aimed to describe benefits, qualities or efficacies of foods, such as "superb", "exceptional", "absolute", "sacred", "extremely", or other similar meaning words. For the usage of the word "safe", manufacturers require to declare the evidence of Hazard Analysis and Critical Control Points (HACCP) certification by a certified body with the standards according to the International Organization for Standardization (ISO) or the International Electrotechnical Commission (IEC) Guide 65 or standards governing product certification. Moreover, the statements that make comparison with, or a defamation of a product of another manufacturer are also prohibited.

All agricultural products which use the words "organic agricultural product", "organic product" or "organic" in the advertisement by the manufacturer, seller or importer, must be certified by the International Federation of Organic Agriculture Movement ("IFOAM"), Codex, or other foreign organic agricultural standards, according to the Notice of Food and Drug Administration Re Bases on Food Advertisement B.E. 2551.

In addition, the Announcement of the Food and Drug Administration Re Criteria for Food Advertisement B.E.2551 provides the guidelines in both general and specific criteria for food advertising. The name of food, pictures on advertising media, advertising statements, expression of warning statement in advertisement, expression of statements fall in a scope of nutrition labelling, and prohibition of advertisement are general criteria. For example, warning statement "To read a warning statement on a label before consuming" shall be displayed by letters with clearly legible colour, type and font for printing medium or silent internet advertising, shall be expressed with each clear syllable sound when listening for radio broadcasting medium, and shall be expressed with each clear syllable sound or Super not shorter

than 5 seconds and warning statements shall be expressed with clear legible colour, type and font letters for television broadcasting medium.

Likewise, the Consumer protection Act aims to protect consumer from unfair statements which may cause adverse effect to the society, for example, statement containing false or exaggerated information.¹¹⁰

There are no laws or regulations specifically made to protect children from inappropriate advertising or marketing, except for advertising and marketing in relation to harmful products or false statements.

In conclusion, for Thai fiscal measures, consumption taxes benefit unhealthy diet in many ways. Even though the government amended excise tax rate to curb consumption of SSBs, there is still a big hole to free SSBs from tax liability which is granting Zero tax rate for vegetable drinks and juices. The objective is to relief financial suffering of local agriculture, in contrast, this tax incentives were used to get rid of tax by producers, manufacturers, and other taxable persons.

In addition, Thai non-fiscal measures are not up-to-date to the time and culture change. Although, the non-fiscal measures are only supportive tools to fiscal measure, they can raise people's awareness to live healthier lifestyle which is one of other ways to reduce the obesity growth rate. Especially, not everyone can understand the present food labelling displayed on food products with academic

¹¹⁰ Section 22 of Consumer protection Act "An advertisement may not contain a statement which is unfair to consumers or which may cause adverse effect to the society as a whole; that is, notwithstanding such statement concerns with the origin, condition, quality or description of goods or services as well as the delivery, procurement or use of goods or services. The following statements shall be regarded as those which are unfair to consumers or may cause adverse effect to the society as a whole:

- (1) Statement which is false or exaggerated;
- (2) Statement which will cause misunderstanding in the essential elements concerning goods or services, notwithstanding it is based on or refers to any technical report, statistics or anything which is false or exaggerated;
- (3) Statement which is directly or indirectly encouraging the commission of an unlawful or immoral act, or which adversely affects the national culture;
- (4) Statement which will cause disunity or adversely affects the unity among the public; (5) Other statements as prescribed in the Ministerial Regulation.

A statement used in the advertisement which an ordinary person knows that it is not possible to be true is not prohibited for use in the advertisement under (1). "

nutrition label. Adopting new types of food labelling such as signpost might be the way out because people in every gender and age can understand by the first glance.

As discussed, the government can intervene the rights and liberties of its citizen only as necessary. The objective is to control the unhealthy consumption not to prohibit; hence, implementing both fiscal and non-fiscal measures should consider the public reasons and private sectors together. Putting burdensome to business sectors can upset the economic as well.



CHAPTER 5

LIMITATION ON FISCAL MEASURES AND NON-FISCAL MEASURES

Obesity becomes a global epidemic which drives the government to enact legal strategies to obstruct the obesity growth due to significant adverse lifelong health, social consequences, economic costs, potential decrease of worker and increased transportation costs. There are many measures used as the obesity prevention such as consumption taxation, food labelling, food advertising regulation for kids and nutrition education. The widespread trend in many countries is taxing on products which are the cause of weight gain in people and giving tax incentive to promote healthy diet. The food with high sugar and/or fat, including sugary beverage are deemed as culprit on this issue. They were subject to special tax such as excise tax in the notion of sin tax like tobacco and alcohol product including higher rate of general tax in form of sales tax or VAT, while healthy food such as vegetables are exempted from tax or get tax reduction. These tax measures help reducing obesity growth reduction in some countries. Many scholars give notion about taxing on products, which are the cause of obesity, that it forces too much tax burden to other people, who are not obese, due to the price increasing. Another tax measure, used for obese people, was implemented in Japan since 2008 in effort to curb obesity. Owing to the positive effect on this tax measure, Japanese government plan to spread this idea to other health issues.

5.1 Fiscal measures analysis

In general, any law enactments shall not violate enjoying people's rights or liberties prescribed in the Constitutional law unless it was written in the Constitutional law that it is lawful. Taxation is legal measures which restrict of rights or liberties of a person because they force people to pay money to government. Paying tax is a duty for being citizens in most countries, written in the Constitutional law.

As previously discussed in Chapter 3 and Chapter 4, the fiscal measure plays the main role in order to interrupt the growth rate of obesity. The financial

intervention is used to curb people's behaviours. Unhealthy food products became the significant key that most countries aim to control because it is the easiest way to discourage the obesity problems by curbing the consumption of unhealthy diets rather than other risk factors. Some countries, such as Denmark and Japan, implemented the special regulations especially, which are taxing on saturated fat content in human food products and taxing on obese people respectively. The others use the consumption tax to control the sales of unhealthy products by either excise tax, sales tax, or VAT.

5.1.1 Taxing on an unhealthy diet

Addressing tax on unhealthy diet products becomes ubiquitous. It tends to become normal in the future like the alcohol product due to its long-term negative effect on people's health. Many Western countries implemented tax on food products that may cause the weight gain either/both on primary ingredient, such as sugar, fat, salt, and total calories, or/and final products, such as snacks, chocolate, coffee, sugary drinks, cakes and so on. Even though this can directly influence to consumption rates, there are other problems occurring at the same time according to the foreign countries' experiences.

First and foremost, there is none of the exact definition of unhealthy diet, it depends on each country. Different nations have different quantity for its population's nutrition needs. People in the Western can consume more fat because of their weather and circumstances, while people living in the tropical countries need less fat.

Although, unhealthy food can cause or lead people to NCDs or other diseases from overconsumption, the certain amount of "Over or Too much" cannot be defined yet. It depends on each person. With this argument, it brings the problem to the government whether this tax is justified or discriminating treatment. Nowadays, people are aware of sugar consumption, especially in beverages. Due to the cheap price and small amount, it is easy to purchase and consume. In some country, Pepsi, as a sugary beverage, costs less than a bottle of water. Everybody can afford and access the drink no matter what gender or age. It became serious when the

consumption of these beverages relate to the obesity in children who are the future of the country. Therefore, the sugary beverages are the only ones, out of all unhealthy diets, that are widely accepted as products that should be levied, while the other food products are recognized only in some countries. No countries applies tax on a food defined as a meal, except in Denmark. However, Denmark no longer enforces this anymore even though it brought positive results which made obesity rate reduced constantly. Due to the reluctant of taxing on a meal, the government proposed tax on snacks instead with the reason that snacks are unnecessary food products. With scientific supports and surveys, snacks are part of the cause of obesity in children. Snacks are sold everywhere, serving in small amount in accessible price. People can consume anytime unlike meal, thus they usually are not aware of the quantity which they have consume.

Secondly, when tax was applied on the food products qualified as taxable goods by the government, the first group of people who will be affected that would come to our minds would be consumers. However, the producers and importers are exactly groups who may get affected first because they have to bear the higher cost of manufacturing while planning about the new price, marketing, and promotion of their products. The intention of this tax for the food companies was to discourage unhealthy diet production. At best, the unhealthy food will be produced less in the future. While at worst, the food companies will provide more food options in the market.

However, it did not seem to be what the government desire. As a result of high pressure to make profit and the reduction of sales, there were many entrepreneurs asking for the justification of the higher tax rate which led to the political issue. The high pressure from the big companies resulted in dismissal of the tax measures in Denmark, Sweden, and so on or change of the rate to the normal rate.

Most importantly, increasing tax rate may affect differently between the low-to-middle-income earners and the high-income earners because the power of purchase is different. Where 10% of sales tax on food products can be huge amount for poorer people, conversely, it may be a small amount for rich people. In countries

where healthy food is more expensive than unhealthy food, tax measures become tax burden to their life which can be double or more sanction compared to other people who have better financial status. This problem is one of the other reasons leading the government of Denmark, Mexico, and India to rethink about the tax rate. Some rescinds the fiscal measures, some reduces the rate which is still higher than normal rate, and some turn back to general rate.

In Thailand, according to Thai constitutional law, citizen can perform any act which is not prohibited or restricted by the Constitution or other laws, and shall be protected by the Constitution¹¹¹ and restriction of rights or liberties of a person shall be in accordance with the conditions provided by the Constitution¹¹² which paying tax is one of the duties of Thai citizens.¹¹³ Implementing tax regulations do not violate the Constitution of Thailand.

Taxing on unhealthy diet in Thailand is only focusing on sugary drinks, treated as products that may cause health problem. They are subject to excise tax in which the tax rate and tax base were amended in more details, in consistent with the amount of sugar content in 2017. Amount of tax depends on the amount of the sugar contained in beverage while the tax rate also rise upon the time. With this new amendment, it can be deemed that the government uses the Excise Tax Act in order to reduce production and consumption of SSBs products. Meanwhile, the other unhealthy food products, including snacks, have not yet been implemented in excise

¹¹¹ Section 25 of Thai constitutional law “As regards the rights and liberties of the Thai people, in addition to the rights and liberties as guaranteed specifically by the provisions of the Constitution, a person shall enjoy the rights and liberties to perform any act which is not prohibited or restricted by the Constitution or other laws, and shall be protected by the Constitution, insofar as the exercise of such rights or liberties does not affect or endanger the security of the State or public order or good morals, and does not violate the rights or liberties of other persons. ”

¹¹² Section 26 of Thai constitutional law “The enactment of a law resulting in the restriction of rights or liberties of a person shall be in accordance with the conditions provided by the Constitution. In the case where the Constitution does not provide the conditions thereon, such law shall not be contrary to the rule of law, shall not unreasonably impose burden on or restrict the rights or liberties of a person and shall not affect the human dignity of a person, and the justification and necessity for the restriction of the rights and liberties shall also be specified. The law under paragraph one shall be of general application, and shall not be intended to apply to any particular case or person. ”

¹¹³ Section 50 of Thai constitutional law “A person shall have the following duties: (9) to pay taxes and duties as prescribed by law; ”

tax. Apart from experiences from the other countries, what will happen if Thai government implement tax on unhealthy food products.

Due to the geography, Thailand is the agricultural country where it is suitable for producing food, since vegetables and fruits are easy to find. Although, there are variety of food products in various prices, healthy food is actually not expensive that everybody can afford it. Hence unlike in other countries, the problem, that the increase of tax on unhealthy food may create extreme financial sanction for poor people, will not happen in Thailand. Unhealthy food products may cause high risk of health problem similar to alcohol beverages, tobacco and SSBs. Therefore, the most suitable type of tax for unhealthy food is undoubtedly the excise tax because of its effects leading to the health problem, just like alcohol beverages. The later question is what type of unhealthy food we should implement tax on. According to the experiences in other countries, primary ingredient such as saturated fats, sugars, salts and calories are taxable. It might be impossible to levy tax solely on primary ingredients in Thailand because there is no specific organisation to take care of this. However, tax on certain product is still possible in the future such as taxing on SSBs because taxing on primary ingredient may be an excessive tax burden for people and it also may be double taxation if the government still tax on the final products. Therefore, taxing on the final products which contain the excessive amount of saturated fats, sugars, salts and calories for human need in one serve will be the way out. Which final product should be taxed? According to society system, food products qualified or deemed as meal in dishes may not be suitable to be taxed because the government may not be able to control or apply to all products. It may be hard to identify which menu to be taxed when the standard recipes of Thai food are different in each restaurants and regions. Even though some menus are to be taxed, the enforcement will reach only the registered restaurant, while the local restaurants might not be taxed because they are not required to register. With this problem, it can lead to unfair treatment for entrepreneurs who follow the laws.

What can the government do? Starting with food products by fixing compulsory nutrition label requirements, such as snack products, which may be the

only way that would bring results. When the nutrition label is required, it will be easy for government to implement and calculate the tax. Firstly, what will be qualified as unhealthy snack products? According to foreign countries which imposed tax on unhealthy diets, Denmark pointed out that any food product which contains saturated fat over 2.3 % per weight or 5.2 g per 100 g are subject to Fat Tax Act or known as improper food products. Likewise, in Mexico, any non-essential food products with energy density equal or greater than 275 kcal per 100 g are subject to tax. Hence, unhealthy snack products can also be defined as products that contain saturated fat over 2.3 % per weight or 5.2 g per 100 g or/and have energy density equal or greater than 275 kcal per 100 g.

Since the control of SSBs cannot reach the goal to reduce the obesity rate, the government should find other measures to support the current intervention measures. For political issues and the definition issues, like other countries, it could happen in Thai society as well. However, being obese is not only individuals' issue, it affects everyone in the country both in public monetary management and economy. The country will lose the opportunity to move forward or develop. Consequently, the public interests obviously outweigh all those problems. If not right now, then when? Thailand should not ignore the obesity problems anymore.

Where should the tax go after collection? In Denmark, the money from levying tax from unhealthy food goes to the extra-budgetary fund according to the special purpose, earmarked tax because the Fat Tax Act was specially enacted to discourage unhealthy consumption represented in saturated fat form. The money are well spent on the public health care services and other activities related to public health issues. Meanwhile in other countries, the tax on unhealthy food products are not earmarked enough. Therefore, the money goes directly to annual budget where the government can adjust the way of money and to specific fund.

To look more closely on the problem of earmarked tax in Thailand, even though the earmarked tax is prohibited according to section 35 of Thai State Financial and Fiscal Discipline Act B.E. 2561, any revenues can be earmarked if the laws allow. Moreover, the objectives of state enterprise need to be written to be able to

accept the money, according to section 36 of Thai State Financial and Fiscal Discipline Act.

Recently, earmarking tax on sin tax was the issue that was raised to the MLA, which is the Commission who drafted the Constitution, whether or not it is valid and lawful. Eventually, the Commission (MLA) announced that Thai Health Promotion Foundation (ThaiHealth) is able to receive the subsidies from earmarked tax objective. However, the limit amount of money shall be certainly imposed. For example, 2% from levying excise tax but not more than four billion a year is subject to ThaiHealth.

For unhealthy snack products, the government should consider about the percentage of earmarked tax in order to support the objective. When unhealthy snack products are treated as equal as tobacco and alcohol products which generate the higher risk of health issues in the future after consumption. Therefore, excise tax levying on unhealthy snack products should be earmarked directly to ThaiHealth at 2% but not more than four billion a year, as the same percentage used for sin tax. The money from earmarking will return to society on specific purposes which are to promote healthy lifestyle such as providing mass media campaigns to help people get away from obesity. It is a way to raise people's awareness and this money comes from people who may cause any further expenses. The appointed budget from government will reduce consequently which means it can reduce financial burden for government. This is the suitable approach for this problem.

According to the effects of the obesity issue which may not only cause the public health problem but also affect to other government's concerns such as development and economy, it might be unreasonable to choose the sole straight way whether or not earmark the tax. When it relates to budget distribution, the opportunity lost will also happen consequently. For example, when the government decides to spend budget on health care in current more than the previous year, the reduction from other budgets such as education or public facility budget may occur in order to balance the annual budget. However, revenue earning from the objective to curb the obesity should support its aim, more or less.

5.1.2 Tax incentives on healthy diet

Implementing tax incentives whether exemption or deduction on healthy diet are usually applied in the countries that are not suitable for cultivation. Price of healthy food products are more expensive that only small group of people can afford it. Even though the price of unhealthy food rises up, most of the population still cannot afford other food products, especially healthy food products because the price is still the same. As a result of this problem, tax incentive will always come together with taxing on unhealthy food products in order to create the power of purchase to all class of people. For example, Mexico is a country where other food products are exempted from VAT, however non-essential food product and SSBs still be subject to excise tax. Likewise, in some states of the United States, all food products sold in groceries, supermarket, and convenient store are exempted from general sales tax but the snacks and candy are still subject to tax.

In Thailand, the tax incentives for healthy food products are unnecessary since they are affordable and easily accessed. Tax incentive might create the bigger gap between the price of unhealthy food and healthy food. For example, cheeses burgers cost about 200 baht, while vegetable costs about 30 baht. Even though unhealthy consumption might be interrupted, this should base on fairness and necessity as well. The government intervention should weigh the justification strictly. Another problem is the excise tax exemption applied on the vegetable beverage and juice which was implemented to relief the financial suffer of Thai local agriculture. With its objective, the ratio of vegetable and fruit should be useful for converting such product not to be rotten. However, the condition to get tax exemption is inconsistent to its objective. Moreover, it becomes the way to escape the tax liability of manufactures and producers. If the government still want to subsidise the local agricultural products, then the ratio should be amended.

5.1.3 Taxing on an obese people

Japan is the only country that implemented tax directly on people who cause the risks of future expense to government, especially on health care cost. The particular regulation called Metabo law is applied on citizens the ages between

45 to 74 years old to have their waistlines measured annually. People who have the waistlines over the limit given by law are required to go to counselling sessions or converse with health experts about dietary options to change the eating behaviour. Furthermore, their employers are subject to pay extra tax adding to annual health insurance expenses which is a financial penalties for having obese worker in control. This measure is used in purpose of tax theory which is taxing on specific object that cause the damages. Although, this works in Japan and people are grateful for it, it might be controversial in other countries about fundamental rights and liberties.

According to the Constitution of the Kingdom of Thailand, Thai people's rights and liberties are the principle whilst the restriction and limitation are exceptions. The government shall exercise the power for protecting the public interest in the way of the best utilization. Taxing on obese people is in question whether it violates Thai constitutional law under section 27 or not. The law states that "All persons are equal before the law, and shall have rights and liberties and be protected equally under the law. Unjust discrimination against a person on the grounds of differences in origin, race, language, sex, age, disability, physical or health condition, personal status, economic and social standing, religious belief, education, or political view which is not contrary to the provisions of the Constitution, or on any other grounds shall not be permitted." Addressing tax on obese people is an unjust discrimination on the ground of physical condition. People should have right to be fat or remain fat. Although, this measure is effective and give positive result to obesity growth, the ground of that tax is prohibited in Thailand.

5.2 Non-fiscal measures analysis

Non-fiscal measures are used as the secondary tools in order to raise awareness of people by many ways. First, food labelling is to inform about the ingredients of food products. The problem is that people do not pay attention to the nutrition displayed on the products. The main reason is that it wastes time to consider the amount of ingredients that they do not know how much would be deemed

unhealthy consumption. Many countries solved this problem by using either the colours representing the level of recommendation for consumption or signpost like “Keyhole logo” that is shown on the healthy products.

Moreover, food advertising regulation is the tool that many countries use to discourage unhealthy consumption by banning the advertisement of unhealthy food during the children’s programming. Many people argue that banning does not help reducing unhealthy consumption among kids, they still love eating junk food. The problem is there is no evidence showing that it relates to the reduction of unhealthy consumption in children.

In conclusion, the most suitable legal measure for Thailand in order to curb the obesity growth is implementing the excise tax on other unhealthy food products which require food label such as snack products, according to the Food Act. Apart from VAT, when people who want to buy excised products have to pay more tax than other products, they may rethink about buying such products. The increased price does not only influence consumers, but manufacturers, producers and importers as well due to its tax base, per volume. Amount of excise tax may depend on both its value and volume at the same time which means the higher volume of production may lead to higher amount of tax.

Secondly, tax incentive on beverages and juices for local agriculture should be amended in accordance to its objective. The proper ratio between ingredients should be reasonable because the current ratios to be qualified as vegetable drinks or juices are unacceptable. Additionally, this tax incentive was used as a benefit to SSBs’ products by adding vegetable ingredient in small amount. However, for healthy food products, due to its price that everyone can afford and access easily, tax incentives are necessary. Moreover, signpost should be imposed on food products starting with food which required food label. It will be easier to understand in every age. However, banning unhealthy food advertising on children’s programming is an excessive state’s intervention to private sectors. Although those advertisements are banned in specific time, children can still see them by searching on the internet themselves or by other means. Educating children should be the duty of parents and schools.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Once the wild increase of the obese people and NCDs are out of the government's control, then it is a duty of government to do something to slow down the obesity. However, the government should also consider that the limit of intervention is only to discourage not to prohibit the unhealthy consumption. Non-Communicable Diseases or NCDs are global epidemic health issue in this decade. Recently, mortality in young people having NCDs is increasing astoundingly from time to time which could create problems of work force in the future, in both numbers and efficiency. NCDs do not only diminish the human resource of the country but also raise the health care expenses to both individuals and government, due to the nature of NCDs which have slow progression in diseases development leading to long-term expenses. Although, unhealthy food consumption is not the only factor causing NCDs, unsurprisingly, it is the main key factor that drives the growth rates of these diseases in terms of weight gain. It is the easier way to discourage consumption rather than, for example, forcing people to exercise in order to live healthily. Many countries control food consumption as the obesity preventive measures. The fiscal measures and non-fiscal measures play the significant part by increasing tax rate on unhealthy food products, granting tax reduction or tax exemption on healthy food, implementing the food labelling, and so on. Accordingly, the main goal is to raise people's awareness about the outcome of excessive consumption of unhealthy food and the possible health effects of being obese.

As discussed in Chapter 4, Thailand has just been aware to curb the rising obesity growth seriously according to the Excise tax Act , B.E. 2560 (2017) that change the tax rate of SSBs from flat rate into progressive rate with high expectation to discourage consumption in Thai population. However, other regulations about unhealthy diet especially on snack products have not been implemented yet. For

excise tax ,its objective, deemed as sin tax, is suitable to address unhealthy snack products in a list of excise tariff.

Meanwhile, the non-fiscal measures such as food labelling and food advertising regulation still do not support the objective, at best to eliminate the obesity, and at worst to reduce the obesity rates in Thailand. Nowadays, people do not take interest in nutrition label before purchasing food because food label cannot make people realize which product is in the condition of unhealthy diet. Not everybody can know the nutrition requirement for a day, if they did not study on that. To make people acknowledge easier, it is the duty of the government to take care of this by digesting the technical wording into the word or statement that everyone can understand. In addition, the signpost on package is the creative idea to make people understand and can recognize at the time when they see the products. Although, banning food advertisement during the children's programming on televisions, radio, or other mediums is now becoming the trend to discourage the obesity in children, there are no evidence showing the relation between reduction of children obesity rates and broadcast prohibition legal measures. Therefore, with no concrete evidences, this banning might be overuse of state's power.

To conclude, with effective fiscal measures and non-fiscal measures adapted to Thai cultures and society patterns, the obesity growth rates may decrease, more or less, which will bring the benefits to our society.

6.2 Recommendations

6.2.1 Addressing excise tax on unhealthy snack products

The definition of unhealthy snack products shall have the certain meaning and scope which makes them subject to excise tax, according to foreign tax measures regarding unhealthy product definition. In Mexico, the food having energy intake equal or greater 275 kcal per 100 g are subject to addition tax separately from general tax. Denmark has a special provision for taxing saturated fat on edible products which contain 5.2 g of saturated fat content per 100 g, while snack products such as

ice cream, cookies, crackers, cupcakes, candy and confectionery, caramelcoated popcorn, caramels, chewing gum and others are subject to general tax and local tax in some states in the United States.

For Thailand, the definition of excisable snack products should be provided in the list of Excise Tax Tarif to make it easier for officers and taxpayers. According to foreign countries experiences of taxing unhealthy food products, it is also suggested that the definition of unhealthy snack products should be the product containing at least one of the prescribed ingredients which are total calories over 275 kcal per 100 g or saturated fat over 5.2 g per 100 g or sugar over 6 g per 100 g , like SSBs tax. They also should be tax both in per value and per volume, as mixed tax base. With the excise tax, both consumption and production will get influenced certainly. The higher price of the products may not prohibit both consumption and production, however, it may definitely affect consumer in making decision and producer in changing the ingredients. People who decide to buy the excised snack products are responsible for the public cost. The revenues levied from excised snack products should be used according to reducing obesity growth purpose.

Therefore, 2% of revenue levying from excise tax on unhealthy snack products but not more than four billion a year should be generated to special fund, Thai Health Promotion Foundation (ThaiHealth), according to earmarked tax, according to section 36 of Thai State Financial and Fiscal Discipline Act and the judgment of the Commission (MLA) drafted the Constitution. The earmarked money, levied from people who may cause any further expenses, will be particularly spent on the obesity. In addition, the appointed public health budget from government will reduce consequently which means it can reduce financial burden for government. Moreover, the revenues after deducted for ThaiHealth will return to annual budget to deal with others government's concerns which cause by the obesity, such as development and economy. The opportunity lost of people will be compensated in this way.

6.2.2 Amending the ratio of beverages that get excise tax incentive

Thailand, the tax incentives for healthy food products are actually unnecessary since they are affordable and easily accessed. Tax incentive might create the bigger gap between the price of unhealthy food and healthy food.

However, the government concern about local agricultures that transform vegetable or fruit to beverages. Any beverages that contains vegetable or fruit get excise tax incentive with Zero tax rate, according to the Notification of Excise Department Re financial relief for agricultural beverage products. The problem is ratio of ingredients per net capacity of the drink is not reasonable. To get this incentive, only 0.2% to 10% of vegetable or fruit ingredients will be deemed as excise-exempted agricultural beverage products. Because of this incentives, many SSBs producers and manufacturers mislead this incentives to benefit their product. Hence, increasing excise tax rate on SSBs aiming to reduce consumption and production will not be effective.

To make it in consistent of obesity prevention, the government should amend the ratio of beverages that get excise tax incentive. Due to the purpose of agricultural-product subsidy, the amount of vegetable or fruit should be not less than a half of total amount of beverage.

6.2.3 Food labelling Addressing signpost on snacks products

The signpost on product like the traffic label will be useful in Thailand as well because it is easy to understand and consumer can realize instantly once they see the products. Although, the final decision depends on consumer, the signpost will definitely be the interesting distraction to consumer. The condition or qualification of products require the signpost should be enacted under Food Act.

6.2.4 Food advertising regulations

Banning an unhealthy diet food advertisement may be too cruel. It can be excessively intervention to liberty. People have their own judgement what they want to watch. If they watch the advertisement of unhealthy food and want to buy one, the government should let them decide. Although, the law prescribe the certain

rules for food advertisement, the rules cover only false or exaggerated statement, or statement cause misunderstanding in the essential elements.



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APPENDIX A

Impuesto Especial Sobre Producción y Servicios or IEPS in Mexico Special Tax on Production and Services

The Government of Mexico (GOM) intends to meet strengthen the capacity of the Mexican state to better respond to the needs of the population, and to enhance the country's macroeconomic stability by restructuring the Mexican tax system and broadening the country's tax base through deep changes to both direct taxes and consumption taxes.

CAPITULO I

Disposiciones Generales

Artículo 20 Al valor de los actos o actividades que a continuación se señalan, se aplicarán las tasas y cuotas siguientes:

J) Alimentos no básicos que se listan a continuación, con una densidad calórica de 275 kilocalorías o mayor por cada 100 g 8%

Any product that has more than 275 calories per 100 gs, whether imported or produced domestically, will be subject to an 8 percent junk food tax.

\$1.00 MX Peso per liter IEPS tax applies to flavored beverages, juice concentrates, syrups, essences, and flavor extracts. Tax for concentrated extracts will be calculated based on the liters that can be out of it (\$1.00 MX Peso per liter). This tax applies to both imports and domestic production.

Artículo 13 No se pagará el impuesto establecido en esta Ley, en las importaciones siguientes:

III. Las de aguamiel y productos derivados de su fermentación.

VII. Las de bebidas saborizadas que cuenten con registro sanitario como medicamentos emitido por la autoridad sanitaria, la leche en cualquier presentación, incluyendo la que esté mezclada con grasa vegetal y los sueros orales.

VIII. Las de plaguicidas que de conformidad con la categoría de peligro de toxicidad aguda corresponda a la categoría 5.

EXEPTION: This tax is not applicable to food products that are prepared and provided to customers in a restaurant and/or similar venues, as they don't sell or import products, as they only provide food preparation services.

Up to 9 percent IEPS tax to pesticides, according to toxicity levels (from 3 up to 9 percent).



APPENDIX B

Impuesto al Valor Agregado or IVA in 2014

CAPITULO I

Disposiciones generales

Artículo 10 Están obligadas al pago del impuesto al valor agregado establecido en esta Ley, las personas físicas y las morales que, en territorio nacional, realicen los actos o actividades siguientes:

El impuesto se calculará aplicando a los valores que señala esta Ley, la tasa del 16%. El impuesto al valor agregado en ningún caso se considerará que forma parte de dichos valores.

All products subject to the value added tax in Mexico will be taxed at 16 percent. chewing gum, foreign ground transportation, temporary imports (although companies can be reimbursed for taxes on temporary imports).

APPENDIX C**Fat Tax Act on October 1, 2011**

Article 1 Meat, certain dairy products, animal fats, edible oils and other fats, margarine, spreadable composite products, and other products which can be considered as substitutes or imitations of the above are taxable. The tax did not apply to products containing less than 2.3 % per weight of saturated fat.



APPENDIX D
Japanese Constitution Law
Restrictions on rights

The Constitution contains two separate but inter-related restrictions on the exercise of human rights, providing that they must remain aligned with "public welfare."

Article 12 The freedoms and rights guaranteed to the people by this Constitution shall be maintained by the constant endeavor of the people, who shall refrain from any abuse of these freedoms and rights and shall always be responsible for utilizing them for the public welfare.

Article 13 All of the people shall be respected as individuals. Their right to life, liberty, and the pursuit of happiness shall, to the extent that it does not interfere with the public welfare, be the supreme consideration in legislation and in other governmental affairs.

Equality

Article 14 All of the people are equal under the law and there shall be no discrimination in political, economic or social relations because of race, creed, sex, social status or family origin.

2) Peers and peerage shall not be recognized.

3) No privilege shall accompany any award of honor, decoration or any distinction, nor shall any such award be valid beyond the lifetime of the individual who now holds or hereafter may receive it.

Article 31 No person shall be deprived of life or liberty, nor shall any other criminal penalty be imposed, except according to procedure established by law.

APPENDIX E
Thai Food Act, B.E. 2522

มาตรา 40 ห้ามมิให้ผู้ใดโฆษณาคุณภาพ ประโยชน์ คุณภาพ หรือสรรพคุณของอาหารอันเป็นเท็จหรือเป็นการหลอกลวงให้เกิดความหลงเชื่อโดยไม่สมควร

มาตรา 41 ผู้ใดประสงค์จะโฆษณาคุณภาพ ประโยชน์ คุณภาพ หรือสรรพคุณของอาหารทางวิทยุกระจายเสียง วิทยุ โทรทัศน์ ทางฉายภาพภาพยนตร์ หรือทางหนังสือพิมพ์ หรือสิ่งพิมพ์อื่น หรือด้วยวิธีอื่นใดเพื่อประโยชน์ในทางการค้า ต้องนำเสียง ภาพ ภาพยนตร์ หรือข้อความที่จะโฆษณาดังกล่าวนั้นให้ผู้อนุญาตตรวจพิจารณา ก่อน เมื่อได้รับอนุญาตแล้วจึงจะโฆษณาได้

มาตรา 42 เพื่อพิทักษ์ประโยชน์และความปลอดภัยของผู้บริโภคให้ผู้อนุญาตมีอำนาจสั่งเป็นหนังสืออย่างใดอย่างหนึ่ง ดังนี้

(1) ให้ผู้ผลิต ผู้นำเข้าหรือผู้จำหน่ายอาหาร หรือผู้ทำการโฆษณาระงับการโฆษณาอาหารที่เห็นว่าเป็นการโฆษณาโดยฝ่าฝืนมาตรา 41

(2) ให้ผู้ผลิต ผู้นำเข้าหรือผู้จำหน่ายอาหาร หรือผู้ทำการโฆษณาอาหาร ระงับการผลิต การนำเข้า การจำหน่าย หรือการโฆษณาอาหารที่คณะกรรมการเห็นว่าอาหารดังกล่าวไม่มีคุณภาพ ประโยชน์ คุณภาพหรือสรรพคุณตามที่โฆษณา มาตรา 40 ห้ามมิให้ผู้ใดโฆษณาคุณภาพ ประโยชน์ คุณภาพ หรือสรรพคุณของอาหารอันเป็นเท็จหรือ เป็นการหลอกลวงให้เกิดความหลงเชื่อโดยไม่สมควร

BIOGRAPHY

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