A STUDY OF STUDENT SMOKERS ATTITUDE AND OPINION TOWARD THE IMAGE OF THE CIGARETTE PACKS COVER

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Bunyakiet, Supattra. Master of Communication Arts, January 2011, Graduate School, Bangkok University

A Study Of Student Smokers Attitude And Opinion Toward The Image Of The Cigarette Packs Cover (36pp.)

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#### Abstract

The main objective of this research study is to examine the relationship between a study of student smokers attitude and opinion toward the image of the cigarette packs cover 1) Gender has effects on attitude and opinion about the image of the cigarette packs cover male and female smokers have no different attitude toward images on cigarette packs; 2) Age has effects on attitude and opinion of smoker on the images, young age and old age smokers have different attitude toward images on cigarette packs; 3) Smoking habit has effects on attitude and opinion of smoker on the images, Smoker who has less experience and smoker who addicted have different attitude toward images on cigarette packs; 4) Attitude of smoker on the images has effects on smoking opinion of cigarette smoker. Attitude change theory was applied to establish the research questions. There are two dependent variables and four independent variables in this study. The first dependent variable is attitude of smoker on the images and the second is smoker opinion. The independent variables are gender of smoker, age of smoker, smoking habit and attitude of smoker. This study based on samples of 200 subjects were accidentally selected from both male and female student smokers of all programs at the Bangkok University, Kluaynamthai campus. The data was analyzed by using T-Test. There results indicated that all hypotheses are supported.


## ACKNOWLEDGEMENT

This study could not be accomplished without the moral support from many people. First of all, I would like to extend my deep appreciation to my advisor, Dr. Tunyaluk Anekjumnongporn for her valuable advice, guidance and contribution to this study. She always supports my work and helps me to go through many difficult times. Also I would to thank Asst.Prof.Dr.Pong Wisessang for his supervision and guidance.

In addition, I would like to express my foremost gratitude to Mr. Warrick Coe who generously shares his knowledge, academic resources and always shows me a warm support every time I need. Also, I thank all my friends who provided me encouragement, emotional support, advice for my education, and friendship, especially for Weeraya Sudsri, and my deepest gratitude to my parents in supporting me.

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## Chapter 1

## Rationale

This research is conducted to study the student smokers' attitude and opinion toward the image of the cigarette packs cover and the impact of the images on their smoking behavior. The images on the cigarette packs are designed to warn smokers of danger from smoking since smoking has been the causes of several damages physically, mentally, socially and economically. The negatives aspects of smoking are such that it can make yellow strain on fingers, make the stench of your breath bad, diseases such as Bronchitis, Emphysema, Lung Cancer, Mouth diseases, Heart disease, Cervical Cancer, and Halitosis. Smoking tobacco can also lead to respiratory and upper digestive tract cancers, particularly mouth cancer, throat (pharynx), voice box (larynx) and esophagus. Female smokers are at greater risk for developing cervical cancer (Tinkelman, 2006).

The government has billed the laws assigning warning student smokers toward the image of the cigarette packs cover to warn the smokers of dangers from smoking (The Thai Information and Public Relations Office Ministry of Public Health, 2009). Hopefully, the images can convince smokers to reduce or restrain from smoking, or at least, just to disturb them. Presently, Thai government has legislated against smoking in pubs, restaurants and public areas (Thai Ministry of Public Health, 2008)

The government realizes the smoking problem and need to find solutions since number of smokers are not decreasing, especially among female smokers. There studies that confirmed the increasing rate of female smokers. According to the International Network of Women Against Tobacco, the rate of female smokers increasing about 12 percent of women worldwide smoke, and that figure is expected to rise to 20 percent by 2025. Moreover graphic health warnings need to cover almost the entire surface of cigarette packages if they are to become more effective in convincing smokers to kick the deadly habit (Health Canada, 2006).

In Thailand, there're 9 images to be legally published to display the diseases caused by smoking tobacco, especially cigarettes (Office of the Alcohol Beverage and Tobacco Control Committee, 2006). Those images contain Bronchitis, Emphysema, Impotence, Lung Cancer, Mouth diseases, Heart disease, Cervical Cancer, Halitosis. Research shows that smoking tobacco can lead to respiratory and upper digestive tract cancers, particularly cancer of the mouth, throat (pharynx), voice box (larynx) and esophagus. Research also indicates that smoking tobacco is a contributing cause of leukemia and cancers of the bladder, stomach, kidney and pancreas. Female smokers are at greater risk for developing cervical cancer (Health Canada, 2008).

Thai government wants to bring down the number of smokers since the number of teenage smoker is going up very fast. Teenagers now are thinking that smoking cigarettes is nothing bad. They think that it is a normal thing to do in a group of friends. Some teenagers start their smoking habit because they want to be part of a group (Gor, 2002). Teenage or children who smoke often become regular adult smokers. They also suffer immediate health consequences from smoking. Teenage and children smokers are more susceptible to coughs, increased phlegm, and shortness of breath, and take more time off school (Cancer Research UK, 2009). For teenagers who believe that smoking make them more grow up, trying new things and making mistake. The danger with trying smoking is that nicotine is very addictive (Cancer Research UK, 2009).

In year 2000, Canada was the first country to specify that a cigarette pack must have such images on it in 2000. This regulation is also being used in Singapore, Venezuela, Uruguay, Australia, Philippines and Brazil. According to the research by Department of Public Health in Canada, it is more than 70 percent of adult smokers and 90 percent of youth smokers agree that the caution phrases and warning images are working effectively to encourage their awareness of the disadvantages of smoking (Chapman, 2000).

Canada was successful to use that tactic but the application of the tactic is not quite successful in Thailand since the number of Thai smokers is still increasing (Thai Public Health, 2009). Now there are altogether about 25 percent of Thai people who
are smoking cigarettes. The statistics show that out of 10 males, there will be 4 that are smoking cigarettes(Thai Public Health, 2009). From the research smoking control survey of Mahidol University, found the social smoking behavior of Thai smoker in year 1991-2006 was increasing. The number of smoker in 1991 was increase from 590,000 smokers become $1,500,000$ smokers in 2006. Male was increase from 705,000 become $1,300,000$ in 2006, and female was increase every year from 67,000 smoker become 207,000 smoker in 2006 ( Dr.Saranya BenChaKul; Smoking Control Survey Mahidol, 2006)

The number of both female and male social smoker was increasing, especially in female was highly increase $128.6 \%$.

Table1: The changing percentage of male and female smokers in year 1991-2006.

| Year | Total |  | Male |  | Female |  |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Number <br> of smoker | Percentage | Number of <br> smoker | Percentage | Number of <br> smoker | Percentage |
| $\mathbf{1 9 9 1}$ | 590,528 | 1.54 | 705,438 | 3.70 | 67,444 | 0.35 |
| $\mathbf{1 9 9 6}$ | $1,498,651$ | 3.45 | $1,134,393$ | 5.25 | 116,901 | 0.53 |
| $\mathbf{2 0 0 1}$ | $1,414,090$ | 3.01 | $1,288,321$ | 5.23 | 125,769 | 0.53 |
| $\mathbf{2 0 0 4}$ | $1,726,597$ | 3.49 | $1,598,029$ | 6.52 | 128,568 | 0.52 |
| $\mathbf{2 0 0 6}$ | $1,497,548$ | 2.97 | $1,290,922$ | 5.28 | 206,625 | 0.80 |
| Changing |  |  |  |  |  |  |
| percentage in |  |  |  |  |  |  |
| year 1991-2006 |  |  |  |  |  |  |$\quad$

Source: Smoking control survey of Mahidol University

More smoking is more health effects, the effects of smoking are similar for male and female. While more male than female are dying currently dying from
smoking related disease (Australian Institute of Health and Welfare, 2005). For example, lung cancer deaths in men are less, due to reductions in male smoking prevalence over the last 30+ years, while they are increasing in women. This sort of change will be evident for most smoking related disease in the future. This includes heart disease and stroke and Chronic Obstructive Pulmonary Disease(Australian Institute of Health and Welfare, 2005). Smoking causes nine in ten cases of lung cancer. Lung cancer has one of the lowest survival rates of all cancers (Cancer Research UK Organization, 2010)

The result of Chiang Mai University research show that, there is a higher incidence rate of lung cancer in northern Thailand than other areas, because of smoking behavior. Cancer is defined as one of the major health problems in Thailand and has been the most common cause of death since 1999 (Deesomchok, 2005).

## Statement of problem

In Thailand, the number of smoker has been increasing continuously still increase although Thailand have many campaigns and government have the rule to use the scary picture on the cover cigarette but it seem smoker did not care about that and they still smoke. The problem is why people still smoke? The warning picture of the cover of cigarette has started since 2005 until now. But the increasing number of smoker is mostly found in teenager and also increasing in women. According from Dusit Poll, $41.93 \%$ of smokers said the cause of smoking is stressful, $9.68 \%$ of smokers said friend invited is the cause of smoking, $8.06 \%$ of smokers said the cause of smoking is fashion, $6.45 \%$ of smokers said they smoke because they want to have more attractive, and $3.24 \%$ of smokers said the cause of smoking is nothing to do (Dusit Poll, 2009). The number of smoker in Thailand still increasing to $10,000,000$ people within survey between October 5-8, 2009 (Thai Health, 2009). It has also been estimated that one quarter of all are adolescents smoke (Everett et al., 1999).

More recent evidence confirms that between one-quarter and one-third of all deaths in America can be attributed to cigarette smoking (Helvig et al., 2006). Even nonsmokers are affected by this public health crisis (Everett et al., 1999; Glantz \& Jamieson, 2000; Norman, Ribisl, Howard-Pitney, \& Howard, 1999). Researchers have estimated that over fifty thousand nonsmokers are killed each year by secondhand
smoke (Glantz \& Parmley, 1991; Taylor, Johnson, \& Kazemi, 1992). Smoking causes more deaths than the combination of homicides, suicides, and fires (Moskal, Dziuban, \& West, 1999).

Then this research wants to study about the attitude of smoker on the images on the cover of cigarette pack. The information gives an advantage for the people or organizations who want to study about smoking problem, this information is focus on the right target group and how to apply the images on a cigarette pack on smoker's thought and subconscious with the right strategies. Hopefully, it would help new generation to keep themselves away from smoking and would remind other frequent smokers to quit someday.

## Research Questions

1. What are smokers' attitudes toward warning images on a cigarette pact?
2. Do warning images have any impact on smokers' smoking habit?

## Objectives of study

1. To investigate attitudes of cigarette smokers on warning images published on the packs
2. To investigate smoking behaviors of cigarette smokers after experiencing warning images on the cigarette packs

## Scope of study

The study of the attitude of smokers on the warning images on the cigarette packs is conducted at the Bangkok University Kluaynamthai Campus during the school hours of the current semester. Bangkok University quite a large university, and have more population. The attitude of smokers on disturbing image on the cover cigarette pack will study at Bangkok University, Kluaynamthai Campus. The target group is Bangkok University student who are smoking cigarette. The area for research is at the smoking zone in Bangkok University. The time will be in the afternoon about 1.00 pm . to 5.00 pm . because most of smoker smoking after lunch.

## Significance of study

The significance of study is made to have been made to inform the relevant organization of how smoker attitude is like. This research can be apply to ministry of public health for future adjustment due to consumer feedback e.g. What do smoker response to the image?, How smoker's behavior has changed after seeing the images? And will be some extent replicate the previous study. Also it can provide a data basis for future study which might design more effective antismoking campaigns.

## Definition of terms

For the purpose of this study, the following definitions are operationally defined as follow:

Smoker: refers to a student who is smoking regularly, regardless of the number of cigarettes smoked per week.

Images: refers to graphic warning or scary picture on the cover of cigarette pack.
Smoker Attitude: refers to an attitude created in smoker on the image on the cover of cigarette pack,
Smoking campaign: refers to the campaign to make people stop smoking support by Thai Public Health Ministry.
Addicted smoker: refers to a person has formed an uncontrollable dependence on cigarettes to the point where stopping smoking would cause severe emotional, mental, or physical reactions.

Social smoker: refers to someone who only smokes in public places like bars or clubs for the purpose of fitting in because everyone else is doing it.

## Chapter 2

## Literature review

Nowadays, cigarette smoking problems are a major issue in society. Laws have been enacted which reflect the concern people have for issues related to smoking. Related to the laws are major campaigns to raise awareness of the health concerns related to cigarette smoking. Law also has more respect to the social manners for smoking. From the declared of Thai Public Health Ministry Organization said that in restaurants, pub, bar and every place those provided air condition, cigarette smoking it is prohibited because it annoys other customers (Thai Public Health Ministry Organization, 2008).

Figure 1: The percentage of the cause of smoking


Source: Survey from Dusit Poll
For the smokers first start experimenting with cigarettes in their teens. There are many things that motivate them to start smoking. They can be strong influences from parents, group leaders, peers, actors and pop stars. According to Dusit Poll, the high percent cause of smoking came from stress made them to smoker 41.93\%, want to try $30.64 \%$, friend asks to smoking $9.68 \%$, fashion $8.06 \%$, want to be look smart $6.45 \%$ and nothing to do just want to smoke $3.24 \%$. This is because while most people start smoking in their teens for social reasons, smoking quickly becomes
connected with specific feelings and situations. It is this emotional attachment to cigarettes that can be the most difficult to break.

When smokers stop smoking, the reduced nicotine intake will disturb and made them feel nervous. There is immediate effect on their brains with those first cigarettes, so they keep smoking to get this reward. The more cigarettes the smoker smokes in a day and the longer they have smoked will increase their risk of lung cancer. But in some other ways, smoking can make the relationship, while offering a cigarette or asking for a lighter can be ice-breakers to start conversations. They have learnt to associate smoking with other activities such as drinking coffee, going to the pub, etc.

At present the numbers of people who smoke are increasing, compared to the past. In the past smokers were mainly male, but now the rate of female smokers are increasing tremendously. This is of particular concern to governmental agencies, because it appears the antismoking campaigns have had little effect in preventing teens from taking up the habit.

There are three major types of smokers, Physical or Psychological or behavioral (Health Promotion Board Singapore, 2005). Those three types of smokers can be classified as either habitual or social smoker. The habitual smokers are addicted, and smoke anytime and anywhere. They could be called heavy smokers. This is the most at risk group from smoking related diseases. The other group, social smokers or behavioral smokers, are not considered a high risk group, however, their social activity can be a gateway to becoming habitual smokers, or even other drugs.

Social smoker can lead to be habitual smoker in the future, for male habitual smoker was 9.75 cigarettes per day. It was addicted if compare with social smoker 4.07 cigarettes per day. Female habitual smoker was 8.08 cigarettes per day which more than social smoker 4.25 cigarettes per day. (See table 2 )

Table 2: Habitual smoker and Social smoker

|  | Male | Female | Total |
| :---: | :---: | :---: | :---: |
| Habitual <br> smoker | 9.75 cigarettes <br> per day | 8.08 cigarettes <br> per day | 9.66 cigarettes per <br> day |
| Social | 4.07 cigarettes | 4.25 cigarettes | 4.10 cigarettes per |
| smoker | per day | per day | day |

Source: Thai National Survey 2006 by Thai Health Organization

## Gender and Age on smoking

The smoking behavior of male and female has become more and more familiar. On average male smoke more cigarettes per week than female. In every year, the number of smoker try to cut down or quit their smoking with difference between male and female, in year 2004 the National Drug Strategy Household Survey reported that female were more likely to cut down or quit smoking than male (National Drug Strategy Household Survey, 2004). According to 2004 National Drug Strategy Household Survey in Australia reported female were more likely to change to reduce cigarette $19.2 \%$ for male and 15.9 for female. The main motivator for both male and female was that smoking affected their health and fitness (51.1\%). The second biggest motivator was that smoking cost too much ( $43.9 \%$ ). Women were more likely to be motivated by worries of affecting the health of others, and men by wanting to get fit (National Drug Strategy Household Survey Australia, 2004).

Table 3: Average of age between male and female smokers

| Age | Male smoker | Female smoker | Total of smoker |
| :--- | :--- | :--- | :--- |
| $15-18$ | 189,850 | 12,659 | 202,509 |
| $19-24$ | 921,221 | 25,616 | 946,837 |
| $25-40$ | $3,600,977$ | 131,265 | $3,732,242$ |
| $41-59$ | $3,256,445$ | 243,557 | $3,500,002$ |
| $>60$ | $1,047,441$ | 106,453 | $1,153,894$ |
| Total | $9,015,934$ | 519,550 | $9,535,484$ |

Source: Thai National Survey 2006 by Thai Health Organization

However, the average of female smoker was highest in age 41-59 years old, the number of female smoker were 243,997 people and the second was middle age (25-40 years old), the number of female smoker were 131,265 people (Thai National Survey, 2006)(See table 3). The average of male was highest in age 25-40 years old, the number of male smoker were $3,600,977$ people which were more than female smokers if compare with the same average of age and the second was in age 41-59 years old, the number of male smoker were $3,256,445$ people which also more than female smoker if compare with the same average of age people (Thai National Survey, 2006)(See table 3).

Figure 2: The percentage of habitual smoker


Source: Thai National Survey 2006 by Thai Health Organization

According to Thai National Survey (2006) reported the number of smoker in age $15+$ years were, habitual or addicted smoker 9.53 million people, social smoker 1.50 million people and quit smoke 2.48 million people. Habitual smoker or addicted smoker 9.53 million people ( $18.94 \%$ ) can separated to be percentage of gender; male 9.01 million people ( $39.91 \%$ ), female 0.52 million people ( $2.0 \%$ ). (See figure 2)

The average of Thai smoker highest in age 25-40 years old, there were 3,732,242 smoker (Thai National Survey (2006). The average of teenager who are
smoker in age 15-18 years old in male 189,221 (8.32\%) smoker, female were 25,616 ( $0.56 \%$ ) smoker, total of all 946,837 smoker (4.46\%).(See table4)

Table 4: The average of age to start smoking .

|  | Age |
| :--- | :--- |
| Average | 18.25 |
| Female | 19.91 |
| Male | 18.18 |

Source: Thai National Survey 2006 by Thai Health Organization
From mentioned studies above, the researchers assumed hypothesis is to explore more information to answer hypothesis 1 and hypothesis 2 .

Hypothesis 1: Gender has effects on attitude of smoker on images on the cover of cigarette pack, male and female smokers have no different attitude toward images on cigarette packs.

Hypothesis 2: Age has effects on attitude of smoker on the images, young age and old age smokers have different attitude toward images on cigarette packs

## Smoking habit and attitude of smoker

There are many smokers find it difficult to stop smoking even though they know that smoking is bad for them. Swanson, Rudman, and Greenwald (2001) used an Implicit Association Test (IAT) to measure attitudes toward smoking and found that smokers have negative implicit attitudes toward smoking (Jan De Houwer, Roel Custers, and Armand De Clercq, 2006). The attitude of smokers are negative and thus inconsistent with their behavior (Swanson et al, 2001)

According to The Collaborative Funding Program for Southeast Asia Tobacco Control Research FCAP (Framewoek Convention on Tobacco Control Alliance, Philippines) reported that 15-60 years old smokers accounted for more than half (60\%) of the general public while nearly one third said they did not see anything wrong about smoking.(See model)

Figure 3: The percentage of smoker smoking

## Positive



| $\square$ Positive About |
| :--- |
| Smoking |
| $\square$ Negative About |
| Smoking |
| $\square$ Current Smoker | 61\%

From mentioned studies above, the researchers assumed hypothesis is to explore more information to answer hypothesis 3 and hypothesis 4 .

$$
\left.\begin{array}{ll}
\text { Hypothesis 3: } & \begin{array}{l}
\text { Smoking habit has effects on attitude of smoker on the } \\
\text { images, Smoker who has less experience and smoker }
\end{array} \\
\text { who addicted have different attitude toward images on } \\
\text { cigarette packs }
\end{array}\right\} \text { Hypothesis 4: } \quad \begin{aligned}
& \text { Attitude of smoker on the images has effects on smoker } \\
& \text { opinion. }
\end{aligned}
$$

## Attitude Change

Much of attitude research emphasized the importance of affective (Breckler \& Wiggins, 1992). The emotional appeals are found in advertising, health campaigns and political message. For example include no-smoking health campaigns. Attitudes and attitude objects are functions of cognitive, affective and conative (behavioral)
components. Attitudes are part of the brain's associative networks, the spider-like structures residing in long term memory (Higgins, 1986) that consist of affective and cognitive nodes linked through associative pathways (Anderson, 1983; Fazio, 1986). These nodes contain affective, cognitive, and behavioral components (Eagly \& Chaiken, 1995). Affective forecasting, otherwise known as intuition or the prediction of emotion, also impacts attitude change. (Loewenstein, 2007).

## Concept of "Attitude"

An attitude is about an individual of like or dislike for the images on the cover of cigarette pack. The attitudes have either positive or negative views of a smoker, and people who smoke can also be conflicted toward an object or meaning that encourage to both positive and negative attitudes the images. The behavioral is the way people act on it. The attitude of smoker is the result of the direct experience from the smoking and seeing the images. And the attitude are expected to change an experience (Tesser, 1993). (See model)

## Model of Attitude Change

The processes of model are the emotion of smoker fear appeal of the scary images. These include the extended parallel process model. (see model)

## Smoker

## Scary images on the cover of cigarette

## Extended Parallel Process (Fear Appeal)

## Attitude change

## Stop smoking

## Attitudes toward smoking

The Attitude is the related concept with this research. Attitude is the way of thought of each person which evaluate reaction toward something or someone exhibited in one's beliefs, feelings, or intended behavior. The attitude can guide their behavior (Ajzen and Fishbein, 1983).

The images make smokers thinking about taking up this deadly habit to have a bit of shock when they look at the package, and want smokers to think about these health messages every time they light up. If the smoker have positive attitude on this picture, this attitude will affect their change behavior, they will stop smoking because of they understand the serious health hazards. But if the smokers have some negative attitude they might be biased and do not care about those scary picture and they will not change their behavior. Some smokers have an attitude that disturb images are outdated. Then it's necessary to develop these highly effective messages and packaging. For this study, the images can motivate non-smokers' attitude to believe that link between smoking and hazard. For this research the attitude of smoker on disturbing image on the cover of cigarette pack can change the smoker's behavior.

## Chapter 3

## Methodology

The purpose of this study is to investigate attitudes of cigarette smokers on warning images published on the packs and to investigate smoking behaviors of cigarette smokers after experiencing warning images on the cigarette packs. This chapter consists of the following parts: (a) population and subjects, (b) variables, (c) instrument, (e) data collection, (d) data analysis.

## Population and subjects

Two hundred subjects were accidentally selected from both male and female student smokers of all programs at Bangkok University, Kluaynamthai campus.

## Variables

The variables are presented in tables 5
Table 5: Summary of Dependent and Independent Variables.

| Independent Variables $(\mathrm{N}=4)$ | Dependent variables $(\mathrm{N}=4)$ |
| :--- | :--- |
| Gender of smoker | Attitude of smoker on the images |
| Age of smoker | Attitude of smoker on the images |
| Smoking habit | Attitude of smoker on the images |
| Attitude of smoker | Smoker's opinion |

## Instrument

This study used a questionnaire as the instrument to gather data. The questionnaire was divided into four parts. Part one was about the demographic information. Part two is about smoking habit of smokers. Part three is about the smoker's attitude on the images on the cover of cigarette packs. Part four is the effects of the images on the cover of cigarette packs on smoker's opinion.

## Data collection

The questionnaires were distributed to the group of smokers in accidentally selected at the smoking area of Bangkok University, Kluaynamthai campus within one day on Monday November 9, 2009 between 1:00 pm. to 5:00 pm. One-hundred
questionnaires were distributed to every student smoker who smoking at building 8 smoking area in the university, fifty questionnaires were distributed to every student smoker who smoking at building 3 smoking area in the university, fifty questionnaires were distributed to every student smokers who smoking at door 3 of university on Monday November 9, 2009.

## Reliability Analysis

The reliability of all the instruments used to measure the variables in this study was tested with 200 samples using Cronbach's alpha reliability coefficient (r). The scales used to measure "gender toward attitude on the images", achieved a reliability of $.72, .75$ was achieved for the instrument, "age toward attitude of smoker on the images" scale, .71 for "smoking habit toward attitude of smoker on the images" and .73 for "attitude of smoker toward smoker's behavior" which means they were reliable instruments used in this study.

## Data Analysis

To begin the data analysis process, data of the gender, age, smoking habit and attitude of smoker on the images on the cover of cigarette pack were recorded in a spreadsheet and transferred to SPSS for statistical analysis. Data relationships were calculated. T-Test was used to reach conclusions about the attitude of smokers on the student attitude toward the images of the cigarette cover based on data collected from the sample.

The statistical hypotheses were tested as followed:
Hypothesis 1: Gender has effects on attitude of smoker on the images on the cover of cigarette pack, male and female smokers have different attitude toward images on cigarette packs. T-Test was used to prove the gender between male and female on their attitude on the images.

Hypothesis 2: Age has effects on attitude of smoker on the images, young age and old age smokers have different attitude toward images on cigarette packs. T-Test was used to prove the age on their attitude on the images.

Hypothesis 3: Smoking habit has effects on attitude of smoker on the images, smoker who smoking 1-3, >3-6 cigarette per day and smoker who smoking >6-9, >9
cigarette per day have different attitude toward images on cigarette packs. T-Test was used to prove the difference between level of smoking experience on their attitude on the images. (Level separate into 2 groups between high and low)

Hypothesis 4: Attitude of smoker on the images has effects on smokers' opinion. T-Test was used to investigate the difference between the positive and negative attitude of smoker on the images.

## Chapter 4

## The results

This chapter explains the data collected, and statistical analysis, and the results. First it discusses the demographic findings by T-Test, testing the gender, age, smoking habit and smokers' opinion has effects attitude of smoker on the images. Finally, a conclusion is provided, briefly summarizing all research results.

## Demographics

200 participants completed the questionnaires, they were student smokers both male and female of all programs from Bangkok University Kluaynamthai campus. The research was conducted at building 8 , building 3 , and the area in front of university.

Table 6: T- tests test the gender, age, smoking habit and smokers' opinion has effects on attitude of smoker on the images

One-Sample Statistics

|  |  | Std. Error <br> Mean |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Gender | 200 | 1.3600 | .48120 | .03403 |
| Age | 200 | 1.9600 | .82572 | .05839 |
| Image have no impact on | 200 | 2.9800 | .73642 | .05207 |
| Feeling |  |  |  |  |
| Image made you want to quit | 200 | 1.5000 | .53987 | .03817 |

Table 5 (Continued): T- tests test the gender, age, smoking habit and smokers' opinion has effects on attitude of smoker on the images

One-Sample Test


## Hypothesis Testing

Hypothesis 1 was predicted male and female have no different attitude of smokers on the images on the cover of cigarette pack. To test the hypothesis, T-test was used to prove between the gender as the dependent variable, and the attitude of smoker on the images on the cover of cigarette packs as the independent variable.

The hypothesis states that gender has effects on attitude of smoker on the images. To test this hypothesis, the significance level must be low ( $\mathrm{p}<.05$ )

T-Test was used to analyze the first hypothesis and revealed that the gender has effects on attitude of smoker on the images are accept the hypothesis ( $\mathrm{Sig}=$ $.000<.05)(\bar{x}=1.360)($ see table 5$)$. Therefore, hypothesis 1 is supported.

Hypotheses 2 was predicted that the age of smoker have no impact on the images on the cover of cigarette pack. To test the hypothesis, T-test was used to prove
between the age of smoker as the dependent variable and the attitude of smoker on the images on the cover of cigarette packs as independent variable.

The hypothesis states that the age has effects on attitude of smoker on the images. To test this hypothesis, the significance level must be low ( $\mathrm{p}<.05$ ) and the group of subjects that scored high in "neutral", in other words, both male and female did not "disagree" or "agree" on the images on the cover of cigarette packs that have no impact.(Table3)

T-Test was used to analyze the second hypothesis and revealed that the age has effects on attitude of smoker on the images are accept the hypothesis ( $\mathrm{Sig}=$ $.000<.05$ ) ( $\overline{\mathrm{x}}=1.960$ ) (see table 5). Therefore, hypothesis 2 is supported.

Hypothesis 3 was predicted smoking habit of smoker and the attitude of smokers on the images on the cover of cigarette pack. To test the hypothesis, T-Test was used to prove between smoking habit as the dependent variable, and the attitude of smoker on the images on the cover of cigarette packs as the independent variable.

The hypothesis states that smoking habit has effects on attitude of smoker on the images. To test this hypothesis, the significance level must be low ( $\mathrm{p}<.05$ ) and the group of subjects that scored high in "neutral", in other words, both male and female did not disagree or agree on the images on the cover of cigarette packs that have no impact.(Table5)

T-Test was used to analyze the second hypothesis and revealed that the smoking habit has effects on attitude of smoker on the images are accept the hypothesis $(\operatorname{Sig}=.000<.05)(\overline{\mathrm{x}}=2.980)($ see table 5$)$. Therefore, hypothesis 3 is supported.

Table 7(Continued): Pearson correlation to test the relationship between attitude of smoker and smokers' opinion variables

## Correlations

|  |  | image have no <br> impact on feeling |
| :--- | ---: | ---: |
| Image have no impact on feeling Pearson Correlation | image made you <br> want to quit |  |
|  | Sig. (2-tailed) | 1 |
|  | N | -.076 |
|  |  | 200 |
| Image made you want to quit | Pearson Correlation | -.076 |
|  | Sig. (2-tailed) | .286 |
|  | N | 200 |

Hypothesis 4 was predicted the attitude of smoker and smoking behavior. To test the hypothesis, T-Test was used to prove the hypothesis in attitude of smoker and smokers' opinion on the images on the cover of cigarette packs.

The hypothesis states that attitude of smoker that has effects on smoking behavior. To test this hypothesis, the significance level must be low ( $\mathrm{p}<.05$ ) and the group of subjects that scored high in "agree", in other words, both male and female agree on the images on the cover of cigarette packs made them want to quit.(Table7)

Pearson Correlation was used to prove the relationship between attitude of smoker and smoker opinion. There was negative correlation between two variables, $\mathrm{r}=-.076, \mathrm{~N}=200, \mathrm{P}=.286$.

The report in table 5 T-Test was used to analyze the second hypothesis and revealed that the attitude of smoker has effects on smoking behavior on the images are accept the hypothesis $(\operatorname{Sig}=.000<.05)(\bar{x}=1.500)($ see table 5). Therefore, hypothesis 4 is supported.

## Chapter 5

## Discussion and conclusion

Our research attempts to find the student smokers' attitude and opinion toward the image of the cigarette packs cover. This research has extended our understanding of smokers' attitude and their smoking behavior by examining student smokers both male and female of all programs from Bangkok University Kluaynamthai Campus.

From the result of the data, the image on the cover of cigarette pack have impact on smoker attitude but have no impact on their feeling. Gender and age are neutral from the mean score as 1.360 and 1.960. For smoking habit and attitude of smoker on smoking behavior are neutral from the mean score as 2.980 and 1.500.

All hypotheses are supported. Hypothesis 1 predicted that gender has effects on attitude of smoker toward the image of the cigarette packs cover, male and female smokers have no different attitude toward the image of the cigarette packs cover. Hypothesis 2 predicted that age has effects toward the image of the cigarette packs cover, young age and old age smokers have different attitude the image of the cigarette packs cover. Hypothesis 3 predicted that smoking habit has effects toward the image of the cigarette packs cover, Smoker who has less experience and smoker who addicted have different attitude toward the image of the cigarette packs cover. And hypothesis 4 predicted that the attitude of smoker the image of the cigarette packs cover has effects on smoking behavior of cigarette smoker.

## Limitations of the study

The two hundred participants' amount was too small for the accuracy research.

1. The researcher has a limited time to accomplish this study. Therefore, the accuracy of the results might be affected to some extent.
2. Some questions may confuse participants to answer in the right aspect.

## Recommendation for related organization

Image on the cover of cigarette pack is one of the ways to solve smoking problem. The Thai Health Department should have more scary picture and various caution on the cigarette packs.

## Recommendation for future research

For the future research and study, the following recommendations are given.

1. As this study was done by using a quantitative method, qualitative methods should also be applied to obtain more profound information and a deeper understanding of the topic.
2. A similar study should be conducted in various areas such as restaurant, coffee shop around Bangkok, so that the results can be generalized to all smokers.

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## Appendix

This questionnaire is about the attitude of smokers on image on the cover of cigarette packs. Your information will be kept confidential and will not used outside of this study. I appreciate your time to answer the question.

Please kindly fill in the following information about yourself by marking an $\sqrt{ }$ in the box for the appropriate item.

## Part I:General Information

1. GenderMaleFemale
2. Age18-22 years old23-27 years old28-32 years oldover 32 years old

## Part II: Smoking habit

3. How many cigarette you smoke a day?1-3 cigarette per day$>3-6$ cigarette per day$>6-9$ cigarette per dayMore than 9 per day
4. How long have you been smoking?

$$
\leq 3-4 \text { years }
$$4-5 years6-7 years$>7$ years

## 5. What kind of effect the image has on your smoking behavior?

Want to quitContinue smoking
## Part III: Smoker's attitude

This part is about the smoker's attitude on the image on the cover of cigarette packs. Please indicate for
each statement that most correctly reflects the extent to which you strongly agree, agree, neutral, disagree
and strongly disagree.

|  | Strongly | Agree | Neutral | Disagree | Strongly |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 6. Images on the cover of cigarette packs are |  |  |  | disagree |  |
| ugly |  |  |  |  |  |
| 7. Imagree |  |  |  |  |  |
| disturbing on the cover of cigarette packs are |  |  |  |  |  |
| 8. Images on the cover of cigarette packs are |  |  |  |  |  |
| not overly displayed |  |  |  |  |  |
| no impact on my feeling |  |  |  |  |  |
| 10. Images on the cover of cigarette packs are |  |  |  |  |  |


| 11. Images on the cover of cigarette packs are |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| attractive |  |  |  |  |
| 12. Images on the cover of cigarette packs are |  |  |  |  |
| appropriate for warning the danger of smoking |  |  |  |  |

## Part IIII Effect of smoker opinion

This part is about the effect of behavior of smokers on image on the cover of cigarette packs. Please indicate for each statement that most correctly reflects the extent to which you strongly agree, agree, neutral, disagree and strongly disagree.

|  | Strongly | Agree | Neutral | Disagree | Strongly |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 13. Images made you want to quit. | agree |  | disagree |  |  |
| 14. Images on the cover of cigarette packs made |  |  |  |  |  |
| you smokeless |  |  |  |  |  |
| 15. Images don't have any effect on your smoking |  |  |  |  |  |
| at all |  |  |  |  |  |

Thank you very much for your participation.

