

SMOKING BEHAVIOR STUDY ON TEENAGERS'

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Abstract

This study aims to determine the role of peers' influence, attitude towards cigarette advertising, and attitude towards smoking behavior on teenagers' smoking intention.

The respondents in this study were 150 students of high schools in Yogyakarta city. Quantitative data analysis methods used to test three hypotheses in this study is a Multiple Regression Analysis. Findings found that there are only two variables that have positive relation towards teenagers' smoking intention, i.e. peers' influences and attitude towards smoking behavior. Attitude towards cigarette advertising do not positively contribute for teenagers to have an intention to smoke.

Keywords *Peers' Influence, Attitude towards Cigarette Advertising, Attitude towards Smoking Behavior, Teenagers' Smoking Intention*

INTRODUCTION

Smoking is a major health-risk behavior and is highly prevalent among adolescents. A study in Taiwan, it was found that 13.8% of Taipei's senior high school students were smokers. The average smoking prevalence rate for girls and boys was 3.07% and 24.87%, respectively (Huang, 1988). Unfortunately, Indonesia, smoking behaviors become a phenomenal activity in people's daily activity. Although people already know that smoking is hazardous to health, the number of smokers increase and the age range of smokers get younger every year (Smet, 1998; and Theodorus, 1994). Many young people understand the risks of using tobacco but ignore these risks because they weigh other values more heavily (Jessor, 1993; Jessor, Donovan & Costa, 1991).

Several studies indicated that advertising is not the only factor affecting the

smoking behavior. For example, Unger, Johnson, and Rohrbach (1995) noted that "advertising probably plays a role in smoking onset in youth, but it is one of many social, psychological, economic, and cultural factors contributing to the continued high rate of smoking among youth". Smet, Maes, De Clercq, Haryanti & Winarno (1998) conducted study among 11-year-old boys; they found only their best friends' smoking had a significant effect on their own smoking behavior. Young people whose best friend smoked were almost four times more likely to smoke by themselves than those whose best friend did not smoke. Smet *et. al.* (1998) also noted that peers obviously were the most dominant mediators in the onset and maintenance of smoking behavior. They concluded that peer influence seemed almost universal, for 11 year olds, best friends'

smoking behavior was the only significant effect.

In the case of Indonesia, the government introduced another regulation in 1991 that regulated every single cigarette advertisement in television, print ads or spatial ads has to attach the warning of the danger of smoking for people health, that it may cause pregnancy complications, cancer and sterility. Nobody can deny the negative impacts of smoking behavior. Smoking behavior becomes a phenomenal activity.

In contrast, based on the WHO data on the internet in June 2004 reported that during the years 1990 to 2001, cigarette consumption rates in Indonesia have become one of the highest rates in the world. Indonesia sat on the fourth highest position after Pakistan, Turkey, and Bulgaria. Between 1990 and 2001, Pakistan had increased cigarette consumption by up to 65%, Turkey by 58%, Bulgaria by 56% and Indonesia by 54% (www.gatra.com, June 14, 2004), cited on January 12, 2006). From the information above, tobacco has become one of the most popular commodities in Indonesia.

The ban of cigarette advertising in Thailand had been going on since 30 years ago. It causes the growth up slowly. However, the banned of smoking activity in Indonesia just became the discourse of the government. We can see this phenomenon in a reality of Indonesia's today. However, the newest regulation will be established approximately by the end of 2010. Based on *Kompas* (2009), the government states that approximately November 2010 the cigarette advertising will be banned totally even the smoking activity itself. This was conveyed by member of daily official Indonesian Consumers Foundation (YLKI), Tulus Abadi. According to the law commands, a year after the Act (Act) number 36 of 2009 on Health adopted, government regulation (PP) which regulates the implementation of the Act is to be done. In Article 113 paragraph two of

this Act mentioned tobacco or cigarettes into addictive product category or addictive substances. Therefore, it should not be advertised as well as liquor or alcohol. Sales cannot be done haphazardly as now. Cigarette companies are also prohibited to sponsor a sporting event as usual. Based on PP No. 19/2003, cigarette advertising only can see in the television during 09.30 pm until 05.00 o'clock in the morning.

The advertisement expenditures are increasing substantially every year while the government has put many tight restrictions on cigarette advertising. This phenomenon is very interesting to investigate to know what is actually has a positive relation with teenagers' smoking intention. Is the attitude towards cigarette advertising will become the single factor which has a positive relation with smoking intention or because of something else? As already explained, peer pressure has been claimed to be the main factor influencing teenagers' smoking intention. Teenager attitudes toward cigarette advertising and smoking behavior, that link smoking with a dynamic life-style have also been claimed to the main factors influencing teenager smoking intention. Therefore, the researcher aims to investigate "*The Role of Peers' Influence, Attitude towards Cigarette Advertising, and Attitude towards Smoking Behavior, on Teenagers' Smoking Intention*"

The study proposed the following three specific objectives: (1) To investigate the positive relation of peers influence on teenagers' smoking intentions; (2) To investigate the positive relation of attitude towards cigarette advertising on teenagers' smoking intentions; and (3) To investigate the positive relation of attitude towards smoking behavior influences their smoking intention or not. This study is expected to make some useful contributions for both theoretical and practical aspects. Practically, the results of this study could provide evidence for the role of cigarette advertising on

teenagers' smoking intention and give some insights into marketing practitioners especially those who are concerned in the making of the effective advertising strategy. Moreover, the result may give the government valid and comprehensive information about smoking intention among the youth; and theoretically, the results of this research may contribute to the existing literature working to expand the study about the role of cigarette advertising on teenager smoking intention. It also may be used as a reference to conduct further research.

LITERATURE REVIEW AND HYPOTHESES FORMULATION

Analyses of cigarette demand and cigarette advertising conducted by Hamilton, 1972; Johnston, 1985; and Davis, 1987 tended to be contradictory. In the case of cigarette product, many countries restrict the cigarette advertising and promotion, but levels of restriction varied. While some countries have few restrictions, others have banned both advertising and promotion completely. This condition happens because several health journals accuse cigarette advertising of being the dominant factor of teenagers smoking intention. In contrast, it sounds ironic for the cigarette industry; because there is no space for them to promote and market their products, even though they deny advertising their products for targeted young people (Lemin, 1996). Furthermore, they argue that cigarette advertising affects only the brand choice and not the decision to make everybody smoke.

Peers' Influence

Several researches have been done to investigate how peer influences the behavior of youth people. Peers' influence is among the most significant social contexts in adolescence (Magnusson & Stattin, 1998; and Rubin, Bukowski, & Parker, 1998). The previous research has shown that adoles-

cents and their peers' influence are similar with respect to many characteristics and behaviors, such as internalizing and externalizing problem behavior (Cairns & Cairns, 1994; Hogue & Steinberg, 1995). During their adolescent years, individuals begin to spend more time in peer groups (Brown 1990; Rubin, Bukowski & Parker, 1998). Through interactions with their peers, adolescents acquire a wide range of skills, attitudes, and experiences (Brown, 1990; Bukowski, Newcomb, & Hartup, 1996; Rubin *et. al.*, 1998). Previous research carried out on adolescents' peer groups suggests that peer interactions take place at multiple levels (Brown, 1990; Hinde, 1987; Rubin *et. al.*, 1998).

Brown (1989), for example, described peer interactions as operating on three levels: dyads, cliques, and crowds. A dyad refers to a reciprocal relationship between two individuals. A clique consists of a small number of adolescents who hang around together and develop close relationships. Crowds, in turn, are reputation-based peer groups and larger collectives of similarly stereotyped individuals. Gender differences have also been found in peer group composition. For example, girls' peer groups are typically more intimate and tightly connected than those of boys (Benenson, 1990; Urberg, Degirmencioglu, Tolson, & Halliday-Scher, 1995).

Some previous studies suggest that social interactions may be important determinants of many youth behavioral outcomes based on the notion that the utility that an individual receives from pursuing a given activity depends on the actions of the other individuals in the person's reference or peer group (Manski, 1993, 1995; Becker, 1996; Brock & Durlauf, 2001; Glaeser & Scheinkman, 2001). That is, the net benefit of consuming a given good increases with other individuals' consumption of the same good. Therefore, the question at hand be-

comes whether the average behavior in a group affects the behavior of the individuals in that particular group. Manski (1993, 1995), Becker (1996), Brock & Durlauf (2001), Glaeser & Scheinkman (2001) hypothesized that an increase in the prevalence of a given behavior at the peer level may lead to an increased probability of such behavior (such as crime, educational outcomes, teen pregnancy, substance use, etc.) at the individual youth level.

According to Chassin (1985), peer influences are important to smoking intention and maintenance. Sin's findings showed the new evidence that compared with best friend as well as family members were found to be the factor that had a higher role in influencing juvenile smoking propensity. (Sin, 1997). Similarly, Pechmann & Knight (2002) found that peer group influence provides a stimulus for teenagers to have an intention to smoke because it creates a positive stereotype. Therefore, for this research the hypothesis 1 is formulated as follows:

H1: Peers' influence has positive relation with teenagers to have an intention to smoke

Attitude towards Cigarette Advertising

Cigarette smoking is the single most preventable cause of death in the United States. From 1985 to date, one of four mandatory cigarette warnings proposed by the Comprehensive Smoking Education Act of 1984 has been displayed on cigarette packages. In addition to cigarette warnings, states like California, Massachusetts, Arizona, Oregon and Maine have implemented "Tobacco Control Programs" (TCP) to reduce the overall number of smokers (Gardner, 1985). However, the decline in the rate of smoking is not occurring fast enough to meet the national health objective by 2010. The present U.S. cigarette warnings are verbal in form and provide information, which

is inadequate but appropriate to make it legally adequate (Kompas, 2009).

Advertising, at the same time, is one of the most researched and controversial factors involving the consumption of cigarette advertising. The effect of advertising restrictions has long been matter of debate. Due to this condition, the advertising becomes one of the most strategic marketing to improve the product. The tobacco industries are strained to improve and maintain their product in the market competition which persistently gets tougher. However, the government will completely ban cigarette advertising in various media, both print media and electronic, in order to stop the increasing number of smoker.

Lutz defines attitude towards the advertisements as a predisposition to respond in a favorable or unfavorable manner to a particular advertising stimulus during a particular exposure occasion. According to his conceptual definition, attitude towards the advertisement consists only of effective responses to advertisements and does not refer to cognitive or behavioral responses. He continued that attitude towards advertisements is interpreted as a situation bound emotional reaction to the advertisement generated at the time of exposure to that particular advertisement and does not include consumer attitudes toward advertising in general or even consumers' attitudes toward the advertisement after repeated exposure to it (Lutz, 1985).

Marketers maintain that one of the most vital roles of advertising is to reward existing customers to reinforce behavior (Schiffman, Bednall, Kanuk & Watson, 1997). For example, advertisement reminds people of how fashionable they are for buying bvlgari perfume. Pierce, Lee & Gilpin (1998) stated that good reinforcement of advertising would create greater awareness and appreciation among product users. This shows that their responses refer to no ge-

neric promotion, but the key benefits promoted by the brands are reaching and being understood by the adolescents. They further gave an example, the teenagers' believed that Virginia Slims as to make them to be thin, feminine and glamorous. None of those attributes were associated with Marlboro, thus it is perceived the Marlboro users look tough, macho and get free stuff.

Goldstein, Fisher, Richrads & Creten (1987) found a positive relationship between cigarette advertising and smoking intention in a study among 306 ninth through twelfth graders in the United States. Similar with a longitudinal study conducted by Alexander, Callcott, Dobson, Harges, Llyod, O'Connell & Leeder (1983), they found youths who had favorable attitudes towards cigarette advertising were more likely to adopt and maintain their smoking behavior. Equally, O'Connell, Lloyd, Alexander, Harges, Dobson & Springthorpe (1981) found a positive correlation between exposure to advertising and likelihood of smoking among Australian 10-12 year-olds. Also Pechmann & Knight (2002) stated that cigarette advertisement becomes the reason for teenagers to have an intention to smoke. Therefore, for this research the hypothesis 2 is formulated as follows:

H2: Attitude towards Cigarette Advertising has positive relation with teenagers to have an intention to smoke

Attitude towards Smoking Behavior

"The role of smoking is as in relation to an adolescent's self-image, self-empowerment and self-affirmation (Denscombe, 2001). He also concluded, "For many young people, smoking has certain benefits in terms of coping with the uncertain identities of modern life". Distefan, Pierce & Gilpin (2004) noted that approximately the teenagers have watched three movies per week also the increasing frequency of smokers along with this actor

have increased over the past decade. They conduct three studies to investigate how the favorite movie stars can influence attitude towards smoking behavior to teenagers smoking intention. The first study shows that smoking intention is influenced on-screen smoking status of favorite stars, while the second study explores that smoking intention is influenced by receptivity to tobacco advertising and promotions. They compared receptivity to tobacco industry advertising and promotions with smoking on screen on the part of adolescents' favorite actors since the product placed in movie as the tobacco marketing strategy. In the third study, the teenagers' smoking intention have influenced by the predicting smoking at follow-up based on the logistic regression analysis. It was designed to identify the predictors of smoking by the time of the follow-up interview among adolescents who never smokes before. Similarly, smoking in which exposure to movies is associated with toughness, sexiness and rebelliousness influence the smoking behavior of these youth (Dalton, Tickle, Sargent, Beach, Ahrens & Heatherton, 1997).

Smoking behavior proved to be the best predictor of smoking behavior based on the study in Japan among second grade students of a senior high school. (Kawabata, Orlandi & Takahashi, 1992). Another study among school children aged 11 years in Hong Kong shows that their parents will not interfere about their smoking, living with family members who do smoke, and having a positive attitude towards smoking were all factors predictive of smoking. (Peters, Hedley & Lam, 1995).

Kawabata *et. al.* (1992) states that attitude towards smoking behavior proved to be the best predictor of smoking intention based on the study in Japan among second grade students of a senior high school. Therefore, for this research the hypothesis 3 is formulated as follows:

H3: Attitude towards smoking behavior has positive relation with teenagers to have an intention to smoke

Theoretical Framework

The theory of planned behavior is a theory about the link between attitudes and behavior. It was proposed by Ajzen as an extension of the theory of reasoned action. It is one of the most predictive persuasion theories. It has been applied to studies of the relations among beliefs, attitudes, behavioral intentions and behaviors in various fields such as advertising, public relations, advertising campaigns, healthcare, etc.

In addition to attitudes and subjective norms (which make the Theory of Reasoned Action), the Theory of Planned Behavior adds the concept of perceived behavioral control, which originates from Self Efficacy Theory (SET). Self-efficacy was proposed by Bandura in 1977, which came from Social Cognitive theory. Bandura (1986) separated expectations into two distinct types: self-efficacy and outcome expectancy. He defined *self-efficacy* as the conviction that one can successfully execute the behavior required to produce the outcomes. The *outcome expectancy* refers to a person's estimation that a given behavior will lead to certain outcomes. He states that self-efficacy is the most important precondition for behavioral change, since it determines the initiation of coping behavior.

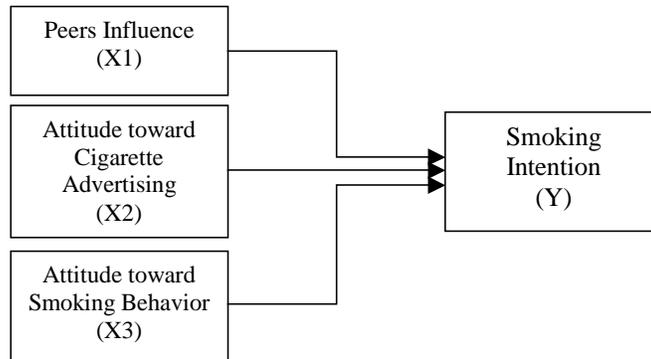
Clearly, theory of planned behavior can cover people's volitional behavior which cannot be explained by Theory of Reasoned Action. An individual's behavioral intention cannot be the exclusive determinant of behavior where an individual's control over

the behavior is incomplete. By adding "perceived behavioral control," theory of planned behavior can explain relationship between behavioral intention and actual behavior. In addition, theory of planned behavior as well as theory of reasoned action can explain the individual' social behavior by considering "social norm" as an important variable (Hidayat, 2008).

The theory of planned behavior will provide the necessary theoretical framework. In this case, an intention represents teenager's smoking intention. Meaning to say, the researcher is just concerned and focus on the intention not to cover until the behavior. An attitude toward behavior represents the attitude toward smoking behavior; a subjective norm represents a peer's influence; and perceived behavioral control represents attitude toward cigarette advertising. From the understanding of some related theories and the findings from previous researchers, the writer tries to visualize the conceptual model for the effect of peers influence (X1), attitude towards cigarette advertising (X2), attitude towards smoking behavior (X3), and teenagers' smoking intention (Y).

The following is the conceptual framework that describes the role of those three independent variables on the dependent variable which in this case, smoking intention:

The following figure is the conceptual framework of peers influence, attitude towards cigarette advertising, and attitude towards smoking behavior on teenagers' smoking intention.



RESEARCH METHODOLOGY

The study would classify this study as a causal study. Causal studies are study methods that test a hypothesis to better understand cause and affect relationships. It establishes a definitive cause and analyses its effect (Sekaran, 2000). In this research, survey method by using questionnaires is used to subject of the research.

Sampling Design

The population includes all individual who become the research object (Mustafa, 1998). The population of this study is the youth / teenager within range aged about 16 to 19 years old. The people within this age range are considered to be high school students. The study was conducted in Yogyakarta, which is famous as an education city. Therefore, the target populations of this study are high school students in Yogyakarta.

Sampling is one way to collect information from the larger group or population. In this study, the researcher uses the purposive proportional random sampling because by using those purposive sampling, the sample will be more focused on certain students, and it will make easier for the sample choosing. The samples of this study are the students at SMAN 4, SMAN 6 and SMA 9 who are not as active smokers. The samples are students who are not as active

smokers because the researcher is focusing on the intention of the teenagers to smoke. According to Drs.H. Syamsuri, MM, the Head of Education-Yogyakarta City, stated that SMAN 4, SMAN 6 and SMAN 9 are randomly chosen as a representative of this study since generally, students in senior high schools are relatively heterogeneous social status background as well as recognized senior high schools in Yogyakarta. To determine the sample from the population, Slovin formula (Umar, 1997) is applied.

$$n = \frac{N}{1 + Ne^2}$$

Where: n = Sample; N= Population; and e= Percentage of error

Data found from those senior high schools are different from each other. In the year of 2010 the total number of students at SMAN 4, SMAN 6 and SMA 9 was 1957, in which the first is 658, second is 755 and third is 544 students correspondingly. Slovin formula (Umar, 1997) stated that representative number of sample taken is at least 10% from the whole population. Therefore, the number of sample in this research is as follow:

$$n = \frac{1,957}{1 + 1,957 \times (10\%)^2} = 95.14$$

Further, based on the calculation above, the minimum appropriate respondent number is 95.14, which is rounded into 95. As a result, 150 respondents were proportionally picked from these three senior high schools in Yogyakarta.

The calculation of the proportional number of samples for each selected high school appears:

$$\text{SMA N 4} = \frac{658}{1,957} \times 150 = 50 \text{ students}$$

$$\text{SMA N 6} = \frac{755}{1,957} \times 150 = 58 \text{ students}$$

$$\text{SMA N 9} = \frac{544}{1,957} \times 150 = 42 \text{ students}$$

Research Setting

The study used a structured questionnaire to collect the information from the respondent. The questionnaire is designated with an appropriate modification from instruments used in previous study conducted by Sin (1997). To collect data on the variables to be studied, the study conducted the questionnaire which consists of 18 questions and already translated into Bahasa Indonesia. The translation has been done using *epic-emic analysis* in which two bilingual persons may be involved in the back-translation process. During the translation process, words/concepts were not translated literally. Rather, the words were matched with the closest notion in Bahasa Indonesia (Hidayat, 2009). All questions in the questionnaire are similar for all samples. The questionnaire consists of five parts including questions about the peers' influence (two questions), the role of attitude towards cigarette advertising (five questions), attitude towards smoking behavior (four questions), smoking intention (one question), and the demographic characteristics (six questions). The questionnaires contained brief instructions to assist the students to fill them out.

In measuring the variables in this study, the researcher uses the original measurement developed by Sin (1997) and a little bit modified. The first variable, peer group influence, will be assessed by asking the following two questions: (1) "Do you have any good/close friends as smokers?"; and (2) "Do you have any family members as smokers?". Responses were made on a dichotomous scale: yes or no. The second variable, attitude towards cigarette advertisements, was assessed by presenting the students with pictures of five print media advertisements (Djarum Super, Sampoerna Hijau, LA Light, Sampoerna A Mild and Marlboro). These five cigarette advertisements as the representative were randomly chosen. Those printed advertisements had been published within the weeks prior to the study and reflected the most common advertisement used by the particular brand based on google searching. Students were asked to reveal their approval of the advertisement for each of the five brands. Responses were made on a 6-point scale ranging from "very unfavorable" to "very favorable". The third variable, the role of attitude towards smoking behavior will be measured by asking the students to respond to six likert-scale-type of attitude statements. Responses were made on a 6-point scale ranging from "strongly disagree" to "strongly agree". The following six questions are: (1) Smoking makes one look more stylish; (2) Smoking makes one look mature; (3) Smoking affects one's appearance; (4) Smokers are more welcomed by friends; (5) Smoking is hazardous to health; (6) Smoking pollutes the environment. A dependent variable is the variable of primary interest to the researcher (Sekaran, 2000). In this study, the dependent variable is smoking intention. It will be measured based on the behavioral aspects, which are the respondent's perception about cigarette advertising, their peer influence, and their attitude statements of smoking behavior. The dependent variable,

smoking intention, will be assessed by following question: "According to your answers, do you have an intention to smoke?" Responses were made on a dichotomous scale: yes or no.

Tests of Validity

All questions listed were processed in SPSS version 16 of Windows Vista to find the value of cronbach's alpha. The reliability test indicates the consistency and accuracy in measurement. To test the reliability of each variable, the Alpha-Cronbach's coefficient is used. The data are considered reliable when the alpha shows the value of 0.6 or greater, in which the most reliable value is 1.0.

Validity test of attitude towards cigarette advertising

For the purpose of this research, the analysis was developed through reliability to 5 items. Based on the result of Cronbach's alpha 0.841, KMO test is higher than 0.50, and Barlett's test with chi-squares equals 222.938 ($p=0.00$). The Attitude towards Cigarette Advertising (ATCA) was factor analyzed to extract a relevant factor for further examination. This reduction was utilized because of the cultural differences of the respondent's responses being measured when compared with the respondents in the previous study. Using a varimax rotation, one dominant factor, with an eigenvalue of 3.065 and accounting for 61.296 % of variance, were kept on. Factors' loading of Attitude towards Cigarette Advertising showed five factors' loading exceeding 0.5. Each item has heavy loading deals with attitude towards cigarette ads, therefore the data are appropriate to test the hypotheses.

Factor Loading for Attitude towards Cigarette Advertising

Items	Loading Factors
Djarum Super	.773
Sampoerna Hijau	.838
LA Light	.760
Sampoerna A Mild	.800
Marlboro	.739

Source: Primary data (computed), 2010.

Validity test of attitude towards smoking behavior

For the purpose of this research, the analyses were developed through reliability to 4 items. Based on the result of Cronbach's alpha 0.671, KMO test higher than 0.50, and Barlett's test with chi-squares equals 190.846, df equals 6, and ($p=0.00$). The Attitude towards Smoking Behavior (ATSB) was also factor analyzed to extract a relevant factor for further examination. As already mentioned, this reduction was utilized because of the cultural differences of the respondent's responses being measured when compared with the respondents in the previous study conducted in Hongkong. Using a varimax rotation, one dominant factor, with an eigenvalue of 2.421 and accounting for 60.530 % of variance, were kept on. Factors' loading for Attitude towards Smoking Behavior, and showed four factors' loading exceeding 0.5. Not all items have a heavy loading, so that the one which is has under 0.5 loading was inappropriate to test for the hypotheses. Meaning to say, there are just three items that are appropriate to test to the hypothesis.

Factor Loading for Attitude towards Smoking Behavior

Items	Loading Factors
Smoking look more stylish	.898
Smoking look more mature	.913
Smoking are welcome by friends	.849
Smoking is hazardous to health	-.245

Source: Primary data (computed), 2010

RESEARCH FINDINGS AND DISCUSSIONS

The questionnaires used consist of three variable questions as research independent variables (X). Those three variables were peers influence, attitude to cigarette advertising, and attitude to smoking behavior. The questionnaire also consists of questions about the respondent’s smoking intention (Y). First, the questionnaires were tested for its validity and its reliability on 50 students of SMU 4 Yogyakarta (one of the candidates to the main respondent) in February 2010. From analyzing the validity and reliability of the questionnaires using Factor Analysis tested, two items of the questions in one of independent variable in the questionnaire are found to be invalid. After re-testing the questionnaire without using those two items, the research finds that all the items in the questionnaire valid and reliable as a tool of measure. There are three variables in this research, but there are only two variables that were tested which are attitude towards cigarette advertising and attitude towards smoking behavior. While the variable of peers influence are not considered as

the perception’s question or considered as an even question.

In this research, the researcher uses multiple regression analysis to test the hypotheses. Multiple regressions is used to test the effect of peers influence, attitude towards cigarette advertising, and attitude towards smoking behavior toward smoking intention (H1, H2, and H3). First, F test will be conducted to test whether independent variables altogether can influence the dependent variable. Statistically, the result shows that the measured F is 10.198 with F significant 0.000. In this research, the writer uses $\alpha = 5\%$. Hence if the F significant value is less than 0.05, consequently the alternative hypothesis cannot be rejected or independent variables statistically altogether can influence the dependent variable. Statistically, the result shows that significance value (*p-value*) is 0.000 which is less than 0.1. This means that independent variables consisting of peers influence, attitude towards cigarette advertising, and attitude towards smoking behavior all together simultaneously influence dependent variable.

Table 3: Table of Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.457 ^a	.209	.188	.40770

Source: Primary data (computed), 2010

Table 4: Table of t-Test Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	-.302	.157		
	peers influence	.476	.103	.391	4.610
	ATCA	.005	.031	.014	.159
	ATSB	.101	.051	.172	1.983

a. Dependent Variable: smoking intention

Source: Primary data (computed), 2010

The statistic shows that the amount of adjusted R^2 is 0.188. This means that the variables Peer Influences, Attitude towards Cigarette Advertising, and Attitude towards Smoking Behavior influence the Smoking Intention by 18.8%. The remaining percentage of 81.2% is explained by other influential factors which are not discussed in depth in this study. Those things might include the influence from psychological aspect (boredom, frustration, and curiosity), self-motivation, and other marketing activities besides advertising like product sampling, personal selling, etc. Then to test the influence of independent variables toward dependent variables, the t-test is conducted. If the significance rate obtained (*p-value*) is smaller than 0.05, H_0 can be rejected by $\alpha=5\%$ for which those independent variables are statistically related toward the dependent variable. Through the calculation of regression test, we can see the probability value of T-Test in Table 4.

The statistic test shows that the *p-value* for peers influence is 0.000 or less than α (0.05), so it means that the alternative hypothesis is accepted. Through the result, it can be inferred that peers influence is positively affecting the teenagers smoking intention. The result is consistent with study conducted by Sin (1997), which stated that this study has demonstrated that smoking among children is influenced by a number of personal, social, and marketing factors. Specifically, these findings indicated that teen-

ager's smokers and non-smokers can be distinguished on the basis of demographic characteristics, peer influences, attitude towards cigarette advertising, and attitude towards smoking behavior. Furthermore, according to the previous studies conducted by Chassin (1985), peer influences are important to smoking intention and maintenance. The finding in this study gives the new evidence that compared with best friend influence and family members that were found to be the factor that had a higher role in influencing teenagers smoking propensity (Sin, 1997). Similarly, this finding is supported by Pechmann and Knight (2002) which found that peer group influence provides a stimulus for teenager's intention to smoke because it creates a positive stereotype. Hypothesis 1 is supported.

The result of this research also shows us that the *p-value* for Attitude towards Cigarette Advertising is 0.874 or greater than α (0.05). In the condition where the *p-value* is greater than α (0.05), the alternative hypothesis is rejected, so based on the statistic there is no significant relationship between Attitude towards Cigarette Advertising and Smoking Intention. In this study, the respondents seemed likely not to pay much attention toward cigarette advertising to make them intense to smoke. This result is consistent with the previous conducted by Lemm (1996) that report there is no link between cigarette advertising and teenager's smoking intention. However, the findings

are inconsistent with Goldstein, Fisher, Richrads, and Creten (1987) that found a positive relationship between cigarette advertising and smoking intention in a study among 306 ninth through twelfth graders in the United States. Similarly inconsistent with a longitudinal study conducted by Alexander *et. al.* (1983) that found youths who had favorable attitudes towards cigarette advertising were more likely to adopt and maintain their smoking behavior. Equally, O'Connell and his colleagues (1981) found a positive correlation between exposure to advertising and likelihood of smoking among Australian 10-12 year-olds. Also irrelevant with Pechmann and Knight (2002) which stated that cigarette advertisement becomes the reason for teenagers to have an intention to smoke. Hypothesis 2 is not supported.

Statistically, the *p-value* for Attitude towards Smoking Behavior is 0.05. When the *p-value* is less equal than α , the alternative hypothesis is accepted. Through the test we can conclude that there is a significant relationship between Attitude towards Smoking Behavior and Smoking Intention. Based on the results, teenagers are likely to believe that smoking looks more stylish, looks more mature, and they feel very welcome by their friends. This result supported by Kawabata, Orlandi, Takahashi (1992) that state smoking behavior proved to be the best predictor of smoking behavior based on the study in Japan among second grade students of a senior high school. Hypothesis 3 is supported.

Implication

The findings in this research give evidence that cigarette advertising is not to be the dominant factor in influence teenagers to have an intention to smoke. However peers (family members and friends) and teenagers' attitude toward smoking behavior have a big

have a big role on influencing teenagers to have an intention to smoke.

This finding has two important implications. First, for the producer, cigarette companies should make an effective cigarette advertising that does not simply target youth, but rather make an educative advertising because advertising and promotion (Promotion Mix) are still important to build the brand image even the image of the company itself. So that, the promotions used are better if use adult man as the endorser. Second, for the government as the policy maker, the government should make a regulation to reduce the teenagers to have an intention to smoke. Furthermore, the government can also reduce the teenagers smoking intention by personal approach to their peers (family, siblings and friends) and make a publication of health that relate with the hazardous of teenagers to smoke.

This research may contribute to the literature works about role of various factors on teenagers smoking intention. The result of this research may be used as a reference to conduct further research especially about the role/way of peers (family, siblings, and friends) in influence teenagers to have an intention to smoke.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study was conducted to find the role of peer's influence, attitude towards cigarette advertising, and attitude towards smoking behavior, on teenager's smoking intention, using the Multiple Regression Analysis. Based on the research which has been explained thoroughly in the fourth chapter, the researcher can conclude that:

First, statistically, the test shows that the *p-value* for peers influence is 0.000 or less than α (0.05), so it means that peers influence is positively affecting the teenagers smoking intention. Teenagers who

perceived a positive image of their peers and their family members who smoke might be manifested in a more positive intention to smoke. According to this study, peer's influence becomes the most dominant factor among other independent variables in influencing the teenagers to have an intention to smoke. It is supported by the result of Sin (1997), Chassin (1985), and Pechmann and Knight (2002).

Second, based on the test which has been done, the *p-value* for cigarette advertising is 0.874. This means that there is no significant and positive relationship between attitude towards cigarette advertising and teenager's smoking intention. Based on the results, the respondents seemed likely not to pay much attention toward cigarette advertising to make them to have an intention to smoke. This result is in accordance with Lemin (1996).

Third, based on the test which has been done, the *p-value* of attitude towards smoking behavior is 0.05. It means that there is significant and positive relationship between attitude towards smoking behavior and teenager's smoking intention. Based on the results, teenagers are likely to believe that smoking looks more stylish, looks more mature, and they feel very welcome by their friends. This result is in accordance with Kawabata *et. al.* (1992).

Recommendation

This study may give contribution to the literature works about effects of several predictors on teenager's smoking intention. The data computation with multiple regression analysis is particularly well suited to the analysis of smoking intention. This research could be a milestone for government. As the policy maker, the government should not always think that cigarette advertising is the main agent, which initiates teenagers to smoke. However, this result of the study provides evidence that peer's influence

(friends and family members-parents and siblings) and teenager's attitude toward smoking behavior have a positive significant on teenager's smoking intention.

However, the teenagers' attitude towards cigarette advertising is not positively related with their intention to smoke. The variables in this study explain 18.8%. The remaining percentage of 81.2% is explained by other influential factors which are not discussed in depth in this study. Those things might include the influence from psychological aspect (boredom, frustration, and curiosity), self-motivation, and other marketing activities besides advertising like product sampling, personal selling, etc. Furthermore, according to this study, cigarette companies should make an effective cigarette advertising that does not simply target youth, but rather make an educative advertising to build the brand image even the image of the company itself. Finally, the result of this study may be used as a reference to conduct further research.

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