



Dipartimento di Economia e Finanza

Cattedra di Economics and Business major in Business Management

A STUDY OF ANTI-SMOKING ADVERTISEMENTS BASED ON
REALISTIC FEAR

RELATORE:

Prof. Alberto Marcati

CANDIDATO:

Viktorija Carpigo

MATRICOLA: 164551

ANNO ACADEMICO: 2012/2013

TABLE OF CONTENTS

Introduction.....	5
1. Anti-Smoking Advertising.....	9
A. Background on Tobacco.....	9
B. Background on anti-smoking literature.....	10
C. Types of anti-smoking strategies.....	13
2. Fear Appeal	17
A. Background on fear appeal literature.....	17
B. Theories of fear appeals.....	19
3. Studies on Fear Based Anti-Smoking Advertising.....	23
A. Rationale.....	23
B. Methods.....	23
C. Results.....	24
D. Theoretical Implications.....	25
E. A more specific study on the variables.....	27
4. Conclusion and Issues for Further Research.....	31
5. Bibliography.....	33
6. Appendixes.....	37

INTRODUCTION

Tobacco consumption is one of the biggest public health threats the world has confronted. Studies performed in 2006 recorded that each year tobacco consumption causes in the region of 3.5 million deaths worldwide¹. In 2013, however, the World Health Organization states that tobacco kills nearly 6 million people each year, “of whom more than 5 million are from direct tobacco use and more than 600,000 are nonsmokers exposed to second-hand smoke.”². The number of annual deaths could climb to more than eight million by 2030 unless urgent action is taken³. Tobacco is the main cause of mortality in most industrialized countries. Estimations predict that there are approximately 1 billion smokers across the globe, and that this number will continue to increase, rising to 1.6 billion smokers by 2025. In Italy, 90,000 deaths per year (representing 15% of overall deaths) are caused by smoking. Life expectancy has fallen approximately 7.5 years and 25% of deaths appear within the age group of 35 to 65 years⁴. Given these facts, it is a priority for society to take action to solve this significant health problem.

Current strategies to tackle the issue vary, in Italy for example, the thinking behind tobacco control is to find ways to promote non-smoker tobacco related health effected by second hand smoke, to promote smoking cessation and to reduce the prevalence of new smokers⁵. Advertising bans, warning labels, misleading information on labels, taxation, indoor-air policies, smuggling and

¹ VERSINO E., GINANINO M.M., RENGÀ G., *Tobacco smoke in Piedmont: attributable morbidity and impact on hospital costs*, in *Italian Journal of Public Health*, 2006.

² WORLD HEALTH ORGANIZATION MEDIA CENTRE, *Tobacco Fact sheet N°339*, in *World Health Organization*, 2013.

³ See note 2.

⁴ See note 1.

⁵ AMEGLIO M., FRANCESCHINI F., PARRI A., *Tobacco Control in Italy*, in *Info Fumo Centro di Documentazione sul Tabagismo*, 2012.

other strategies were agreed upon in the World Health Organization Framework Convention on Tobacco Control⁶ in 2005.

This paper focuses on the strategy of anti-smoking advertisements, more particularly on anti-smoking advertisements based on fear, as fear appeal is one of the most popular ways to attract, inform and manipulate people in ads. The paper examines how fear is used in advertisements to influence individuals to stop smoking and to prevent those who don't from starting to smoke, and whether fear appeal is an effective strategy in decreasing the number of smokers by not generating negative consequences. The objective of the study is to understand whether the future of anti-smoking advertising will continue to be based on fear appeal or not.

Chapter One elaborates the background of anti-smoking advertising and how many health costs it has saved. Different types of anti-smoking ads are presented, an explanation is made of how different types of adverts can be effective in targeting various focus groups. Distinct types of fear affect separate target audiences, thus it is important for advertisers to thoroughly understand their target, in order to use fear in the right way. This is essential so that the advertisement can positively affect consumers in motivating them to change their attitudes and behaviors towards smoking.

Chapter Two gives an overview on what fear appeal is. It is first defined, several models on fear appeal are explained and the conclusion states that according to previous meta-analysis studies fear-appeal is considered being an efficient strategy for influencing consumers, however only under certain conditions and not all effects of fear have been agreed upon.

Chapter Three summarizes and compares results of studies on the subject of advertising based on fear. Methods are similar, researchers have the same objective to identify what kind of advertisements affect consumers most. There is

⁶ See note 2.

an unclear definition of fear though, so it is difficult to compare specifically the levels of fear generated in each study as different types of advertisements are used. The method used is by analyzing studies of the subjects, extract what are the most relevant and common results.

Chapter Four (Conclusion) After this analysis of the general literature, a conclusion is made that fear based advertising is an effective way to influence consumers to stop smoking and to prevent people from starting, provided that fear appeal is appropriately targeted to a specific audience.

The organizations that are promoting these advertisements use several fear based theories in order to implement effective strategies. It must not be ignored though, that however effective fear arousal might be on consumers, negative consequences can still arise and not all effects are well understood or agreed upon in literature. Hence, it is advisable for researchers to continue seeking new ways to implement anti-smoking strategies and to find alternatives to fear appeal.

1. ANTI-SMOKING ADVERTISING

A. Background on Tobacco

Tobacco kills up to half of its users.⁷ Being a leading cause of death, illness and impoverishment, about 6 million people a year die from tobacco of whom more than 5 million are from direct tobacco use and more than 600,000 are nonsmokers subject to second-hand smoke⁸. Every six seconds approximately one person dies due to tobacco and this amounts for one in 10 adult deaths. Up to half of current consumers will eventually die of a tobacco-related disease. Close to 80% of the more than one billion smokers worldwide live in low- and middle-income countries. Smokers who die prematurely impoverish their families of income, increase the cost of health care and impede economic development.⁹

Tobacco being a gradual killer, it takes several years after one starts consuming tobacco before their health is subject to negative consequences. In the 20th century 100 million deaths were tobacco-related and may rise up to 1 billion deaths in the 21st century if trends continue.¹⁰

Monitoring is key to understand what are the best ways to tailor policies. At least once every five years youth and adults surveys are conducted in only fifty-nine countries (under half of the world's population).

Not only are smokers in danger, but also the people surrounding them. Second-hand smoke kills. In fact, there are more than 4000 chemicals in tobacco smoke, of which at least 250 are known to be toxic and over 50 are known to cause cancer.

⁷ WORLD HEALTH ORGANIZATION MEDIA CENTRE, *Tobacco Fact sheet N°339*, in *World Health Organization*, 2013.

⁸ See note 7.

⁹ See note 7.

¹⁰ See note 7.

Smokers need help to quit. Evidence shows that only a small percentage of people understand the particular health risks related to tobacco use. For instance, only 38% of smokers knew that smoking causes coronary heart disease and only 27% knew that it causes stroke in a 2009 survey in China.¹¹

Studies have proven that fearful anti-smoking messages and Picture warnings work in reducing the number of people who start smoking and in increasing the number of those who want to quit. These warnings increase the awareness, inform and persuade smokers of secondhand-smoke dangers. Tobacco consumption decreases also with mass media campaigns by influencing people to protect non-smokers and convincing youths to stop using tobacco, 28% of the world's population live in countries that have enforced at least one strong anti-tobacco mass media campaign within the last two years.¹²

Ad bans on tobacco advertising can lower consumption and so can taxes. The latter are most effective on young and poor people. More precisely, a tax that rises tobacco prices by 10% decreases tobacco consumption by about 4% in high-income countries and by up to 8% in low- and middle-income countries.

B. Background on anti-smoking advertising literature

It has been the role of advertisers to try to decrease these costs by saving lives, and preventing further deaths that could easily be avoided. Anti-smoking campaigns have been increasingly emerging with the hope to encourage changes in attitudes and behavior of people. Understanding what factors actually affect smoking behavior is a debatable issue among researchers. Anti-smoking advertising has changed in the past years as researches on the subject have become more popular and different outcomes of efficient types of advertising have been published. The most popular authors on the topic are Witte (2000), Keller (1999), Pechmann *et*

¹¹ WORLD HEALTH ORGANIZATION MEDIA CENTRE, *Tobacco Fact sheet N°339*, in *World Health Organization*, 2013.

¹² See note 11.

al. (2003), Hovland (1953), Rogers (1983), Smith and Stutts (2003), FARRELLY M.C., DUKE J.C., DAVIS K.C. (2012) and others whose views will be further discussed.

Researchers are constantly trying to understand what kinds of advertisements work best. Ms Emery, a health economist who has studied the impact of media campaigns at the state level, mentioned to Ad Age that media markets which have an overall campaign dominated by one single message, for instance health effects or a secondhand-smoke ad, are less effective than media markets which have a diverse portfolio of messages.

Efficient anti-smoking messages can be of different types. Some anti-smoking advertisements put forth shocking self-oriented health consequences, others focus on health consequences affecting others, or accuse the tobacco industry as being manipulative and not telling the truth to its “foolish” consumers. Ads can display positive images of nonsmokers in showing how extremely healthy and happy they are, and making smokers feel guilt and motivation to stop their life addiction that keeps them in a sort of prison. Anti-smoking images can also portray hurting family, social and beauty concerns. The main target group tends to be youth rather than adults as it is easier for advertisers to prevent an attitude towards smoking rather than stop a behavior, a habit, that has been nurtured since years.

One of the most common methods of preventing youth or motivating teenagers or adults to stop smoking is through the use of fear appeal. The term of fear appeal will be more clearly defined in the next chapter. Without anti-smoking ads, evidence shows that smoking rates don't go down as quickly. Adult smoking rates have fallen by 13% between 1998 and 2005, but changes have then been minimal since 2005. Between 1997 and 2003 youth smoking rates declined by 40%¹³ but slowed by 21% for the following six years. The Centers for Disease

¹³ CREAMER M., *Anti-Smoking Campaigns Work, So Don't Quit Now*, in *Ad Age*, 2012.

Control CDC Director Tom Frieden monitored a successful program that diminished smoking rates by 20% in its first five years¹⁴. A large part of the ads consisted in the exposure of series of graphic ads starring sick and dying smokers. Therefore it is necessary for advertisers to not give up on anti-smoking campaigns, to keep on finding new ways to attract the different target groups. Especially since with the evolution of communications technology, marketing is becoming more and more specialized and specific to individual consumers.

In addition to the understanding what are the most effective types of anti-smoking to different segment groups, one must not forget to consider other factors that affect the efficiency of an anti-smoking advertisements, such as public policies and regulations, packaging of cigarette brands, graphic written labels, online promotions, different types of media, television, newspapers, presence on social networks, and short-term or long-term mass-media campaigns.

It is difficult to isolate the effects of advertising with all the activity around smoking prevention. Apart from media spending, other factors include taxes, smoke-free-air laws affecting bans in workplaces and other public places.

One of the most successful anti-smoking campaigns mentioned by many researchers on the topic is the “Truth” campaign launched in 2000 in different states in the U.S.. It is one of the most important ad efforts. In fact, a study in the American Journal of Public Health announced that about 22% of the decline in youth smoking between 1999 and 2002 was linked to the Legacy foundation ads.

Not only do smoking rates decrease with effective anti-smoking advertisements, but they also generate a high return on investment. The American Journal of Preventive Medicine published a cost-utility analysis of the Truth campaign between 2000 and 2002, stating that campaign efforts costing \$324 million saved

¹⁴ CREAMER M., *Anti-Smoking Campaigns Work, So Don't Quit Now*, in *Ad Age*, 2012.

about \$1.9 billion in medical costs, meaning a return of about 6 to 1.¹⁵ In California between 1989 and 2011, the smoking rate dropped from 23.7% to 11.9%, representing more than \$86 billion in smoking-related health-care costs.

C. Types of anti-smoking strategies

Not all anti-smoking advertising adopts the same strategies. Researches experimenting the types of anti-smoking advertising that best suit with youth are evolving in number (Balch & Rudman, 1998; Goldman & Glanz, 1998; Harrison Health Research, 1998; Hill, Chapman, & Donovan, 1999; Pechman & Goldberg, 1998; Perrachio & Luna, 1998; Teenage Research Unlimited, 1999; Wakefield, Miller, & Roberts, 1999; Worden *et al.*, 1998). Mixed findings come up most probably to the different types of methodologies, but similarities still arise. Some studies involve focus group methods where youth discuss opinions after viewing advertisements (Teenage Research Unlimited, 1999), Goldman and Glanz gathered information from focus group reports. Harrison Health Research (1998) and Wakefield *et al.* have used questionnaires to observe outcomes from youth on ratings of different advertisements they remember, or immediately after they have viewed the ads (Pechman *et al.*).

Advertisements that generate strong emotional arousal, graphics that exhibit the negative consequences of smoking are related with increased intention not to smoke and rate highly among teens (Harrison Health Research, 1998; Hill *et al.*, 1999; Teenage Research Unlimited, 1999; Wakefield *et al.*, 1999).

Goldman and Glanz elaborated a study in 1998 identifying eight popular anti-smoking strategies. An analysis was conducted to assess which strategies were

¹⁵ CREAMER M., *Anti-Smoking Campaigns Work, So Don't Quit Now*, in *Ad Age*, 2012.

most effective in prevention or cessation of smoking among youth. Here below are the brief descriptions of the types of strategies.

Industry manipulation. This strategy's goal is tobacco companies are portrayed as "the bad guys", that they manipulate consumers into their trap of smoking forever.

Cessation. Targeting adults with cessation is a common anti-smoking strategy. Strategies promoting prevention pairing with cessation work better on youth as most smokers become addicted as teenagers. (Beaudoin, 2002).

Second hand-smoke. From Goldman & Glanz study in 1998, it has been observed that secondhand smoke advertisements have been effective both to youth and adults, since innocent children have been exposed as being touched by others' smoking behavior.

Addiction. By exposing advertisements demonstrating the addictive characteristic of cigarettes was effective in targeting youth as it helped them be aware of how addiction would make them to give up control of their lives. The naturally rebellious youth were less attracted to cigarettes as they were considered as a "trap" attracting the young and naïve smokers hooking them for life.

Short-term effects. Short-term effects included health and social consequences that would reach youth through "a credible appeal to their vanity" (Wooster, 2000), such as yellow teeth, unpleasant body odor, bad breath, and stained fingers. These images diverged the view of the cigarette industry as being glamorous and socially successful which could motivate youth to start smoking in order to attain these characteristics.

Long-term health effects. They involve information to induce threat or fear concerning tobacco-related diseases such as cancer and others, as well as death. Targeting youth with focusing on the long-term effects of anti-smoking

advertising is ineffective as they appear to view themselves to be invulnerable to such diseases, youth believe these consequences to be linked to adults and to old age, unless they know someone in their surroundings that has been affected by them.

Romantic rejection. Youth are the target group that are most conscious of their appearance to peers. Beaudoin (2002) states that youth are attracted to being socially desirable by all and may be willing to start smoking in order to adapt to others behaviors.

2. FEAR APPEAL

A. Background on fear appeal literature

In this section a review and analysis of fear appeal theories and literature is elaborated. Fear has been a subject of research over the past few decades on whether it can influence consumers to change their health behavior, since when individuals feel fearful, they are motivated to eliminate or to decrease that fear. Researcher Rogers defined the term: “A fear appeal is a persuasive message that attempts to arouse fear in order to divert behavior through the threat of impending danger or harm.”¹⁶ Fear appeals are developed upon fear, meaning they identify the results of being involved in unsafe behavior. They are popular in health campaigns and in advertising by charity organizations as they are most of the time effective in rising interest, involvement and influence by causing anxiety to the target population. The more frightened an individual is by a fear appeal, the higher the likelihood he or she is to take preventive action. In general, if the fear is too low it may not be taken into consideration, and if it is too high the individual might simply avoid it. This means there is a curvilinear relationship between the level of fear and the target audience. In the case fear causes too high stress or tension, leading the person then to having a negative mood, fear appeals appear to be less effective, especially if the person feels powerless to change the behavior.

Mixed conclusions arise in researches, on whether fear appeal affects positively or negatively individuals' behaviors for several reasons. First, most studies have taken place in artificial environments; second, definitions of fear are not always clear and the measures of the effects are limited; third, the sample sizes are

¹⁶ MADDUX J.E., ROGERS R.W., *Protection motivation and self-efficacy: A revised theory of fear appeals and attitude change*, in *J. Exp. Soc. Psy.*, 1983.

sufficient enough; and fourth, few studies have analyzed real advertising campaigns that use fear appeals.

An unexplored research question is whether advertisements based on nonfear appeals (such as campaigns exposing happy and healthy non-smokers) trigger the same negative reactions about the source and provoke accusations of hypocrisy. Belch & Belch (2001) for instance, suggested in his research that a link between enjoyment of an ad and a favorable attitude towards the brand and that an ad causing unease can develop into an unfavorable attitude toward the brand.

Hardly any study has evidence on the long-term effects of fear campaigns on the brand's strategy. If the advertising proposition is inconsistent with the brand image, it can harm the reputation and perceptions of the brand.

Ethical issues arise with fear appeal messages¹⁷. Too fearful advertisements were adverted by the Department of Health because it could frighten or distress young children by suggesting their parents might die. One particular advertisement was banned from being shown before 7:30pm.¹⁸

Too strong fear appeals can have an opposite effect on consumers and can have health-damaging consequences if the individuals don't have a high enough self-esteem or protection reactions towards the advertisement.

Alternatives to fear appeals are a subject that few studies have taken on. In the 1990s HEBS in a mass-media advertising campaign, "Think about it"¹⁹, targeted youth and used humorous messages to encourage informed decision-making related to smoking, drinking, drug use, and sexual health. Research prior to the

¹⁷ RACELA O.C., THOUMRUNGROJE A., The perceived ethicality and efficacy of fear appeals: the use of graphic warning labels in Thailand, in *J. Int. Bus. And Eco.*, 2012.

HASTINGS G., STEAD M., WEBB J., Fear Appeals in Social Marketing: Strategic and Ethical Reasons for Concern, in *Psychology & Marketing*, 2004.

¹⁸ *Anti-smoking ads can't be shown before 7:30pm*, in *The Telegraph*, 2009.

¹⁹ HASTINGS G., STEAD M., WEBB J., *Fear Appeals in Social Marketing: Strategic and Ethical Reasons for Concern*, in *Psychology & marketing*, 2004.

campaign indicated that young people had a favorable view towards HEBS , this gave the company the confidence to take on the campaign, which then proved to be successful. This means researchers should further develop theories on how humor could be an alternative to fear appeal.

Effectiveness of fear appeal also depends on demographics, for example education, age, sex and cultural background²⁰. There is a need for more sophisticated segmentation strategies of target audiences, as communication technology is now evolving to tailor messages to each individual. It has been proved also that individuals with high self-esteem react in a more positive way to high levels of fear rather than individuals with lower self-esteem.

One question that remains as to whether the use of fear appeals is ethical and to understand how to make a fear appeal more ethical.

B. Theories of fear appeals

Diverse models have been developed to define the cognitive and emotional steps involved in fear appeal. In the research paper of K.C. Williams (2012), fourteen theories of fear appeals exist coming from numerous findings from fear appeal literature. Witte's meta-analysis²¹ suggests that according to Dillard, fear appeal theories can be classified into three main groups: drive theories, parallel response models and subjective expected utility (SEU) models. Each group of theories will be briefly described. Witte's extended parallel process model (EPPM) combines these three groups into one theory.

²⁰ LEE M.J., FERGUSON M.A., Effects of Anti-Tobacco Advertisements Based on Risk-Taking Tendencies: Realistic Fear vs. Vulgar Humor, in J&MCQ, 2002.

PECHMAN C., GOLDBERG M., Evaluation of ad strategies for preventing youth tobacco use, in Tobacco-Related Disease Research Program, 1998.

WAKEFIELD M.W., FLAY B., NICHTER M., GIOVINO G., Effects of Anti-Smoking Advertising on Youth Smoking: A Review, in J. Health Communication, 2003.

²¹

1. Drive-reduction model (Hovland, Janis and Kelley, 1953; Keller,1999; Janis and Fesbach, 1953; Janis, 1957; Smitt and Blass, 2008). This is the earliest fear appeal model researched. The concept is that fear is a drive state that motivates people to adopt recommendations expected to change the unpleasant state. The model is based on two assumptions: (a) that when fear is intense enough, it motivates response, and (b) that any cognitive or behavioral response that reduces or eliminates a negative state such as fear is reinforcing. The first assumption is based on the fact that when the fear level is not intense enough, it will not generate an efficient response. The second assumption relates health consequences and the message recommendations. It suggests that a message containing recommendations on the appropriate cognitive or behavioral response will be positively viewed.

2. Parallel Response Model or Parallel Process Model (PPM) (Leventhal, 1970) **and Extended Parallel Process Model (EPPM)** (Witte, 1992, 1994).

Leventhal suggests in his model that the relationship between the emotional response of fear and persuasion is positive and linear. However, fear appeals that are too weak or too strong may be ignored. Witte (1992) tested the EPPM and found support of the model in that: “(1) the emotion fear is associated with fear control responses and is not directly related to danger control responses, (2) perceptions (or cognitions) about the recommended response are associated with danger control responses and unrelated to fear control responses, and (3) when efficacy beliefs are strong, perceived threat mediates the relationship between the emotion fear and behavior.” (Witte, 194,113). Perceptions seem to lead to changes in attitude, intention, and behavior by way of the danger control processes. At the same time, the emotion fear generates defensive reaction by the means of the fear control processes. Witte and Morrison (2000) further extend the EPPM and observed that a person’s level of anxiety affects

how one perceives both the threat and the efficacy of the recommended responses.

3. SEU Models such as Protection Motivation Theory (PMT) (Rogers, 1975, 1983; Latour and Tanner, 2003).

This model has been borrowed from psychology and has been adapted to predict people's behavioral intentions. The PMT focuses on the cognitive/rational reactions or coping responses to fear appeals and states that "fear may be considered a relational construct, aroused in response to a situation that is judged as dangerous and toward which protective action is taken" (Rogers, 1983, 93). The model affirms that response to threat is based on two cognitive processes: (1) threat appraisal: the assessment of the person's personal risk of harm and severity of harm and (2) coping appraisal: a person's perception of the efficacy of the message and assessment of his or her ability to carry out the response. Four stimulus variables are valued in these two types of appraisals: (1) severity of the threat, (2) the likeliness that the event will happen if no adaptive behavior is taken into action, (3) availability and effectiveness of a coping response that might reduce the threat, and (4) self-efficacy of the individual to take on the coping behavior. The most important dimension may be the one of self-efficacy (Leventhal, Watts, and Pagano, 1967). Bandura (1977) introduced the concept of self-efficacy through his Social Cognitive Theory and defines it as people's perceptions about their own abilities to control what has an effect on their lives. The author has suggested that three factors encourage one's feeling of self-efficacy: actual experience, vicarious experience, and verbal persuasion. Bandura states that self-efficacy can be developed by thinking positively and by interpreting physical reactions positively.

To summarize, the PMT theorizes that fear appeal makes an individual assess the severity of an event, the probability of its occurrence and the

belief of the efficacy of the message's recommendations. "Protect motivation" is developed by these three factors which then pushes the incentives to change.

3. STUDIES ON FEAR BASED ANTI-SMOKING ADVERTISING

A. Rationale of the study

This paper is a gathering of many studies on the topic of fear based advertising in order to make a synthesis of the overall picture. The synthesis identifies which variables are most present in the literature, what are the interactions between the variables, which ones are not relevant enough and therefore can be eliminated from the analysis. Once the overall results are found, a summary is made on what are the agreements and disagreements among the studies, and whether they apply to models of fear appeal or not. Explanations as to why some messages are more effective than others are searched and so are unclear areas of the topic subject to further research determined.

B. Methods

The samples of most researches are mostly targeted to a specific youth group, such as in a high school, university, in a certain country. Most studies took place in the United States, however there is also a study focusing on youth coming from different parts of the world in order to observe the diversity in socio-economic and cultural measures; nations spread across the individualism/collectivism continuum score on Hofstede's (2001). Examples of criterion were for instance the availability of reliable research assistants in the countries chosen.

Studies mostly involved questionnaires taken by the individuals once they had been exposed to different types of anti-smoking advertisements. Researchers are most interested to understand individuals' attitudes towards ads and their messages, their attitudes about smoking, intent to smoke and demographics. Attitude towards the advertisement has a direct effect on attitude towards

smoking (DeBono & Omoto, 1993), which in turn affects intent to smoke (Theory of reasoned action, Ajzen and Fishbein, 1980). Andrews *et al.*, (2004) observes that the attitude towards advertisement plays an important role in the effectiveness of an ad.

In addition to these elements, a study followed the impact of group membership of consumers that discussed the anti-smoking messages. Friends influenced more the consumer's opinion on the recommended message of the ad than strangers.

The structural equation modeling (SEM) and MANOVA are used to estimate the relationships between the variables. The advantage of the SEM model is that the procedure tests the main and interactive effects, and properly models the endogenous paths.

C. Results

Witte's meta-analysis on fear appeal identifies three key independent variables across the history of literature on fear appeals: fear, perceived threat and perceived efficacy. Fear is defined "a negatively valenced emotion, accompanied by a high level of arousal."²² The level of fear appeal in each message leads to the main effects deriving from that message. The results from Witte's study demonstrate that "the stronger the fear appeal, the greater the fear aroused, the greater the severity of the threat perceived, and the greater the susceptibility to the threat perceived."²³ In addition, the stronger the efficacy message, the stronger the perceptions of response efficacy and self-efficacy. Tests proved also that newer studies obtained larger manipulation effects than did older studies, meaning that there is a possibility that more recent researches more attentively and specifically constructed their messages, with the result being stronger

²² WITTE K., *A meta-analysis of fear appeals: implications for effective public health campaigns*, in *Health Education and Behavior*, 2000.

²³ See note 20.

manipulations which then lead most likely to stronger effects. The feature manipulations consisted in fear, severity, susceptibility, self-efficacy, and response efficacy. These variables result in higher positive levels of attitude, intentions and behavior change. To summarize, Witte's meta-analysis concludes that the stronger the fear appeal and the stronger the severity and susceptibility in the message, the greater the attitude, intention, and behavior changes. The author also states "the stronger the response efficacy and self-efficacy in a message, the stronger the attitudes, intentions and behaviors toward the recommended response."²⁴

D. Theoretical implications

Basing on the results of Witte's meta-analysis, strong theoretical implications can be observed and will be discussed with each theoretical approach. Firstly, the drive reduction model proved no support for any negative effects from fear appeals accordant with Witte's data. The fear drive theory is highly supported by Rossiter and Thornton (2004). However, the authors believe that the overall level of fear needs to be measured as well as the fear pattern of an ad. By basing themselves on moment-to-moment ratings of fear-to-relief taken for the ad's duration, they found that "a post-exposure overall rating of fear is in fact measuring the maximum level of fear experienced, not the average level, and thus static rating of fear cannot distinguish very different patterns, such as the pattern of rising fear with no relief, the 'shock' pattern of sudden fear with no relief (both representing positive punishment), and the classic fear-relief pattern (the drive reduction pattern)".²⁵

Secondly, Witte observed that the fear/danger control data was consistent with the parallel process model, in that the stronger the fear appeal manipulation, the

²⁴ WITTE K., *A meta-analysis of fear appeals: implications for effective public health campaigns*, in *Health Education and Behavior*, 2000.

²⁵ WILLIAMS K.C., *Fear appeal theory*, in *Research in Business and Economics J.*, 2012.

stronger the danger control and fear control responses. Stronger danger control responses lead to changes in attitude and behavior. Danger control responses react inversely to fear control responses as detected by Witte²⁶ and Leventhal²⁷. This means that “the more one is defensively resisting a recommendation, the less one is making appropriate changes in line with the messages recommendations.”²⁸ Moreover the statement that the weaker the efficacy message, the greater the fear/control defensives responses, is consistent with the EPPM forecast.

Overall, all three models (SEU, PMT and the EPPM) were consistent with Witte’s meta-analysis data, in that the high threat fear arousals, versus the low threat fear arousals, resulted in the strongest persuasive impact. However, if the target group of individuals do not believe they are capable to effectively avoid a threat, consequences of the fear appeal may backfire. Advertisers should use fear appeals cautiously, Witte suggested particular recommendations basing on the results of his meta-analysis:

1. Fear appeal messages are more effective if they include the magnitude of the harm and show the people’s likelihood of experiencing the threat. Realistic pictures and messages that describe the disastrous consequences of the threat increase the perceived severity of the threat.
2. Strong severity and susceptibility messages are the most motivating. Results proved that weak fear appeals had no effect on consumers to change their behavior or attitudes.

²⁶ WITTE K., *Putting the fear back into fear appeals: The extended parallel process model*, in *Comm Monographs*, 1992.

²⁷ LEVENTHAL H., Findings and theory in the study of fear communications, in Berkowitz L (ed.): *Advances in Experimental Social Psychology*, 1970.

²⁸ See note 24.

3. Strong efficacy messages must accompany strong fear appeals in order for them to work, to make people have strong self-efficacy perceptions, in that they are able to perform the recommended actions.
4. Danger control responses such as attitude, intention and behavior changes and fear control responses such as denial, defensive avoidance, and reactance should be taken into account in evaluations.

To summarize, it is advised for practitioners to guarantee that a high-threat fear appeal is accompanied by a high-efficacy message (given the results that low-efficacy messages produce greater fear control responses). It is also important that messages should be pretested that they are generating high-threat and high-efficacy perceptions. If the fear appeals are diffused without efficacy messages with a short recommendation, they risk of creating an opposite effect of defensive responses in people with low-efficacy perceptions.

E. A more specific study on variables

Impact of fear arousal on processing of anti-smoking messages. Consumers tend to rely on media for health-related information (Bolck and Keller, 1995) and it is possible to influence youth behaviors through exposure of certain types of anti-smoking advertisements (Pechmann and Shih, 1999). Fear based messages are often used in public health campaigns even though there are mixed opinions about its effectiveness (Block and Keller, 2005).

Researchers have analyzed the types of fear (Pechman et al, 2003), the format of fear message (Keller, 1999), the amount of fear arousal (Hovland et al., 1953) and individual characteristics such as gender (Smith and Stutts, 2003) and smoking status (Keller,1999).

The effect of fear appeals can be made in terms of health, social or interpersonal risks (Rogers, 1983), short-term or long-term, physical or cosmetic (Smith and Stutts, 2003), and the weight consumers put on them. Rogers based his researches on the protection motivation model to understand how individuals process fear-inducing communications and become motivated to protect themselves. Individuals pursue in two types of appraisals as they are shown fearful messages: threat appraisal and coping appraisal. Mass-communicated fear messages restrict applications of this model, with a few exceptions (Pechman et al, 2003).

Too fearful messages tend to be discounted by smokers (Keller, 1999) and low-to-moderate levels of fear arousal are most influencing (Hovland et al.)

Impact of gender. Females are more likely to be influenced by anti-smoking messages than males. Females value empathy, traditionally are delegated to a more submissive role while males put importance to values such as self-respect, social recognition and are assigned a dominant role. These differences can anticipate ways in processing anti-smoking advertising.

Impact of gender and message appeal. Men will be more influenced by messages that arouse low levels of fear rather than high levels of fear; women will be influenced by anti-smoking messages that arouse high levels of fear rather than low levels of fear. The themes of disease and death, endangerment to others, cosmetic effects and smokers negative life circumstances take over anti-smoking ads. Males are more affected by short-term cosmetic health fear appeals (low fear arousal) and women more to long-term health fear appeals.

Impact of discussion and group membership. Individuals are more likely to be influenced by anti-smoking messages when friends rather than strangers discuss these messages. Anti-smoking messages that arouse high levels of fear will be more effective when friends rather than strangers discuss them; there will be no differences for anti-smoking messages that arouse low levels of fear.

Impact of gender and group membership. Friends discussing anti-smoking messages will have a higher impact on females than on males; there will be no gender differences when strangers discuss anti-smoking messages. to anti-smoking messages and appeals? (Wakefield et al., 2003).

Effect of self- vs other directed outcomes and ad effectiveness. Advertisement messages on anti-smoking can either show the negative consequences of the behavior as being self-directed or directed to others. For instance a research done by Elkind (1967) suggests that teenagers are more affected by advertisements demonstrating second-hand smoke effects (other directed outcomes) rather than ads referring to self-directed health consequences because young adults seem to feel “immortal” generally.

The role of individualism/collectivism. The paper written by C. Miller, B. Foubert *et al.*(2007) examines the issue of whether messages should be uniform across cultures , whether youth from different cultures react to fear based anti-smoking advertising in the same way.

Perceived ethicality of fear appeals. Stronger fear appeal is perceived as being less ethical in comparison to that of a milder fear appeal.

Attitude and Intent. A stronger fear appeal will lead to (a) a less favorable attitude toward the product package, (b) a less favorable attitude toward the cigarettes, and (c) a greater intention to quit smoking.

Propensity towards smoking. General beliefs about smoking. Smoking status and age but no significant result.

Risk tendencies. Understanding audiences' risk tendencies in the creation of an ad is important as for instance impulsive participants had more interest in the realistic fear ads rather than in the vulgar humor ads.²⁹

A careful study of how all these factors interrelate is necessary for a more comprehensive understanding of human communication.

²⁹ LEE M.J., FERGUSON M.A., Effects of Anti-Tobacco Advertisements Based on Risk-Taking Tendencies: Realistic Fear vs. Vulgar Humor, in J&MCQ, 2002.

4. CONCLUSION AND ISSUES FOR FURTHER RESEARCH

The purpose of this study was to determine whether fear appeal is an efficient use to implement anti-smoking strategies and if it should be used in the future of anti-smoking advertising.

Background on anti-smoking advertisements suggests that researchers are constantly seeking to understand factors that affect the attitudes and behaviors towards smoking. With media dominating our day-to-day lives, it is the role of advertisers to conduct efficient strategies in order to prevent youth to start and to reduce or stop the habit of smokers. Evidence shows that efficient anti-smoking ads can be of different types: fear based ads are most often used since they have a strong impact on consumers. Advertising strategies include industry-manipulation, cessation, second-hand smoke, addiction, short-term health effects, long-term health effects and romantic rejection.

Fear appeal has been the subject of many studies as to whether it influences consumers to change their health behavior, since when individuals feel fearful, they are motivated to eliminate or to decrease that fear. Five theoretical models of fear characteristics include the Drive Reduction Model, the Parallel Response Model or Parallel Process Model (PPM) and the Extended Parallel Process Model (EPPM), the Protection Motivation Theory, the Multidimensional Arousal Model or Activation Theory, and the Four-Stage Information Processing Model. Other theories of fear have not been discussed in this paper. Advertisements most often comply with these theories, however overall levels of fear have not been sufficiently studied in anti-smoking advertisements. Given the great number of theories on fear, it can be a challenge for advertisers to make the “perfect” anti-smoking advertisement that complies with all these theories. When assessing the effectiveness of an advertisement, other factors such as medium of promotion, light, image, demographics and different target groups must also be taken into

consideration, so it is difficult to determine the individual and separate effects of the fear appeal of the advertisement on the consumer.

If advertisers don't comply with theories on fear appeal, advertisements can affect consumers in the opposite way and hurt them by developing negative consequences. Self-efficacy, ethics and the level of fear aroused are elements that need to be strongly researched in order to avoid these consequences.

The future of anti-smoking advertising can continue to be fear based since it has proven to be efficient until now, however not all effects and long-term consequences have been fully understood. So it is important for researchers and advertisers to keep on finding innovative ways to attract the attention, inform, and manipulate individuals in order to prevent or stop them from smoking. Many aspects of fear appeal remain unexplored and it is therefore important for advertisers and researchers to keep on finding alternative ways to promote anti-smoking messages. Anti-smoking advertising works, and it must continue to grow in order to prevent tragic deaths and save health costs to society.

5. BIBLIOGRAPHY

- ALLEN J.A., VALLONE D.V., VARGYAS E., HEALTON C.H., *The Truth Campaign: Using Counter-Marketing to Reduce Youth Smoking*, in *American Legacy Foundation*, 2010.
- AMEGLIO M., FRANCESCHINI F., PARRI A., *Tobacco Control in Italy*, in *Info Fumo Centro di Documentazione sul Tabagismo*, 2012.
- BALCH G., RUDMAN G., *Anti-smoking advertising campaigns for youth*, in *J. Am. Med. A.*, 1998.
- CREAMER M., *Anti-Smoking Campaigns Work, So Don't Quit Now*, in *Ad Age*, 2012.
- FARRELLY M.C., DUKE J.C., DAVIS K.C., *Promotion of Smoking Cessation with Emotional and/or Graphic Antismoking Advertising*, in *Am. J. Prev. Med.*, 2012.
- FISHBEIN M., CAPPELLA J.N., *The Role of Theory in Developing Health Communications*, in *J. of Communication*, 2006.
- HASTINGS G., STEAD M., WEBB J., *Fear Appeals in Social Marketing: Strategic and Ethical Reasons for Concern*, in *Psychology & Marketing*, 2004.
- HOEK J. et al., *A qualitative exploration of young adult smokers' responses to novel tobacco warnings*, in *BMC Public Health*, 2013.
- HUTCHENS HIVELEY M., *The effects of self-efficacy statements in Anti-Tobacco fear appeals PSAS*, in *Washington University Thesis*, 2006.
- LEE M.J., FERGUSON M.A., *Effects of Anti-Tobacco Advertisements Based on Risk-Taking Tendencies: Realistic Fear vs. Vulgar Humor*, in *J&MCQ*, 2002.
- LEVENTHAL H., *Fear appeals and persuasion: the differentiation of a motivational construct*, in *A.J.P.H.*, 1971.
- LEVENTHAL H., *Findings and theory in the study of fear communications*, in *Berkowitz L (ed.): Advances in Experimental Social Psychology*, 1970.
- MADDUX J.E., ROGERS R.W., *Protection motivation and self-efficacy: A revised theory of fear appeals and attitude change*, in *J. Exp. Soc. Psy.*, 1983.

MAHONEY J., *Strategic communication and anti-smoking campaigns*, in *Public Communication Review*, 2010.

MANYIWA S., BRENNAN R., *Fear appeals in anti-smoking advertising: How important is self-efficacy?*, in *J. Marketing Management*, 2012.

MILLER C., FOUBERT B., REARDON J., VIDA I., *Teenagers' response to self- and other-directed anti-smoking messages*, in *Int. J. Mark. Res.*, 2007.

PECHMAN C., GOLDBERG M., *Evaluation of ad strategies for preventing youth tobacco use*, in *Tobacco-Related Disease Research Program*, 1998.

PECHMAN C., RATNESHWAR S., *The effects of antismoking cigarette advertising on young adolescents' perceptions of peers who smoke*, in *J. Consumer Research*, 1994.

PECHMAN C., REIBLING E.T., *Anti-smoking advertising campaigns targeting youth: Case studies from USA and Canada*, in *Tobacco Control*, 2000.

RACELA O.C., THOUMRUNGROJE A., *The perceived ethicality and efficacy of fear appeals: the use of graphic warning labels in Thailand*, in *J. Int. Bus. And Eco.*, 2012.

SACHS K., *Up in Smoke: How Antismoking Advertisements Have Changed Youth Smoking Habits*, in *The Elon J. Undergraduate Research in Communications*, 2010.

SAMU S., BHATNAGAR N., *The efficacy of anti-smoking advertisements: the role of source message, and individual characteristics*, in *Int. J. Nonprofit Volunt. Sect. Mark.*, 2008.

SMITH K.H., STUTTS M.A., *Effects of short-term cosmetic versus long-term health fear appeals in anti-smoking advertisements on the smoking behavior of adolescents*, in *J. Consumer Behavior*, 2003.

TEENAGE RESEARCH UNLIMITED, *Counter-tobacco advertising exploratory: Summary report*, 1999.

VERSINO E., GINANINO M.M., RENGÀ G., *Tobacco smoke in Piedmont: attributable morbidity and impact on hospital costs*, in *Italian Journal of Public Health*, 2006.

WAKEFIELD M.W., FLAY B., NICHTER M., GIOVINO G., *Effects of Anti-Smoking Advertising on Youth Smoking: A Review*, in *J. Health Communication*, 2003.

WILLIAMS K.C., *Fear appeal theory*, in *Research in Business and Economics J.*, 2012.

WITTE K., ALLEN M., *A meta-analysis of fear appeals: Implications for effective public health campaigns*, in *Health Education and Behavior*, 2000.

WITTE K., *Putting the fear back into fear appeals: The extended parallel process model*, in *Comm Monographs*, 1992.

WORLD HEALTH ORGANIZATION MEDIA CENTRE, *Tobacco Fact sheet N°339*, in *World Health Organization*, 2013.

6. APPENDIXES

Here are examples of different types of fear based anti-smoking advertisements.

Figure 1: High Fear Appeal Self-Oriented



Figure 2: High Fear Appeal Other-Oriented³⁰



Figure 3: Short-Term Cosmetic Fear³¹



³⁰ <http://www.telegraph.co.uk/health/healthnews/5083868/Anti-smoking-ads-cant-be-shown-before-730pm.html>

Figure 4: Fear Appeal Ad Addiction Tobacco Industry³²



Figure 5: “The Truth” campaign advertisement³³



³² Tobacco industry, Thinkprocess.org

³³ “The Truth” Campaign, www.thetruth.com

Figure 6: “The Truth” campaign advertisements³⁴



³⁴ “The Truth” Campaign, www.thetruth.com

Figure 10: High Fear Long-Term Graphic Written Label Cigarette Package³⁵



³⁵ *Tobacco companies file a lawsuit against the FDA regarding graphic cigarette ads (Photos)*, in examiner.com, 2011.

