



Original Research Paper

Social problems of tobacco marketing in southwestern Nigeria: A behavioral study

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Oluwole Iyiola

Department of Business
Management, College of Business
and Social Studies,
Covenant University, Ota, Ogun
State, Nigeria.

Author Email: oluiyiola@gmail.com
Tel: +2348138344425

Tobacco industries has always shown much interest in marketing their line of products and have been very successful in portraying smoking as a socially acceptable behavior to billions of people throughout the world. Studies have shown in developed nations that tobacco marketing leads to the onset of smoking among adolescents; in Nigeria no such study has been done. The purpose of this research is to assess the potential influence of tobacco marketing on tobacco consumption and its effects on the society and among residents in the southwestern region of Nigeria. The survey was designed in which thirty-six items, self-administered questionnaire was administered to six hundred people in southwestern Nigeria using a cross-sectional design. The study involved 436 males (72.7%) and 164 females (27.3%). Of these, 336 came from rural areas and 264 came from urban areas respectively. Some 337 respondents (56.2%), indicated that they were influenced by tobacco marketing to smoke, while 263 (43.8%) indicated that they were not influenced. Chi square statistic was used to test the null hypotheses. The result shows a positive significant relationship that supports the notion that tobacco marketing has a positive influence on tobacco consumption in the study areas. This study also revealed that more males in the urban area are being influenced by tobacco marketing to smoke.

Key words: Tobacco products, advertising, consumer behavior, addiction.

INTRODUCTION

In the early twentieth century, companies had relied on marketing activities to inform international audiences about their products and services, just as they do today. Despite several warnings from medical professionals that smoking is hazardous to human health (Rustemeier, Stabbert, Haussmann, Roemer, and Carmines, 2002; Baker, 2007); many consumers are smoking more than ever. Smoking tobacco has been found to be the worldwide chief cause of preventable death, per the World Health Organization (WHO) (WHO, 2004). This same organization reports-in 2013, that a daily total of approximately 13,500 deaths stemming from tobacco-related illness and an annual 4.9 million people dying from deaths related to the use of tobacco products. It is projected that an estimate of around ten million people will die from tobacco-related

disease by 2030; this will include several different types of illness, such as lung disease, cancer, and cardio-vascular disease (Ash, 2009). Without any intervention, it is anticipated that the increase in deaths from smoking and tobacco-related illnesses will continue its path and it is projected that by the end of the twenty-first century, there could be as many as one billion people dying from tobacco-related illnesses globally (Peto and Lopez, 2000).

About 2.43 million deaths related to the use of tobacco occurred in developed countries in 2000 and in the same year, there were 2.41 million tobacco-related deaths in countries classified as "developing" (Ezzati and Lopez, 2003). The WHO reported that the impact on developing countries of smoking could be particularly devastating when compared to developed countries (WHO, 2004). The

same organization also indicated that the proportion of people dying of tobacco-related illnesses would increase in developing countries as opposed to developed countries; with 70% of tobacco-related deaths occurring in developing countries by the year 2030 (WHO, 2004). In spite of the seriousness and lethality of the global epidemic of tobacco use and the consequences to global health, especially in developing nations, the majority of research regarding tobacco products has been limited to developed countries (WHO, 2004).

Nevertheless, "the toxic properties of numerous tobacco and tobacco smoke constituents are well known, yet systematic monitoring of tobacco products has historically been limited to tar, nicotine, and CO in mainstream cigarette smoke using a machine-smoking protocol that does not reflect human smoking behavior" (Stellman and Djordjevic, 2008). More than ever before, many people are picking up smoking habits. Ironically, this dangerous trend is linked to marketing activities of tobacco companies; which theoretically promote tobacco use. In developed nations the onset of tobacco usage/smoking has been linked to marketing activities (Ash, 2009).

Due to globalization, commercial tobacco companies are expanding their empires while denying the health evidence on the effects of smoking; promoting and advertising their products in every corner of the world and at the same time obstructing government action; overpowering national monopolies; and selling more and more cigarettes. Their grip on the big markets in developing countries will become stronger in years to come (Ash, 2009).

LITERATURE REVIEW:

The influence of social context at the time of advertising message affects human memory. Memory is embedded in complex representations, such as thoughts, emotions, judgments, intentions, and choices. In the above context, cigarette advertisements stick to human memory, and thus a behavior is exhibited. Consumers often experience advertising messages in the presence of others. For example, when they are exposed to outdoor advertisements, to advertisements in movie theaters, to advertisements on airplanes, to advertisements in bars, or to online advertisements in an internet café (Puntoni and Travassoli, 2007).

According to DiRocco and Shadel (2007), adolescent smoking risk is greatly increased by exposure to tobacco product advertising. The same researchers also found that gender may play an important role in moderating how cigarette advertisements are viewed and processed. Colamussi, Bovbjerg, and Erlich (2007), concluded in their study that individuals with multiple smokers among first-degree relatives (FH+) are significantly more likely to be persistent smokers themselves possibly due to the effect of second hand smoking. Many epidemiologic studies have

attributed environmental tobacco smoke (ETS) exposure with several lung diseases (Pechacek and Babb, 2004; Otsuka, et al., 2001). As smoking rates increase in developing countries, such risks are likely to increase, while indoor airborne radon levels have been associated with increased lung cancer risk (Quarcoo, 2003).

Tobacco has been used as a stimulant. Stimulants are drugs that man uses to speed up the central nervous system (CNS). From time immemorial, man has battled with curiosity, desire, or need, in order to find and use substances that will induce in him/her pleasant sensations as antidotes to physical or mental pain. Alan (2003) indicated that the major reasons for non-medical stimulant use could be categorized under three major headings: sociological factors (such as the presence of peer pressure or status-seeking behaviors); the news media and life in a substance-oriented society; psychological factors (such as the use of the drug to either enhance sensations of euphoria or to escape from pain or an unpleasant reality); and finally, family background.

The impact of stimulants on the CNS therefore, can actually have some apparently positive effects for those people who have the symptoms of 'Attention Deficit Hyperactivity Disorder' (ADHD) by helping to decrease their state of restlessness, increase their attention, and improve co-ordination. Stimulants used to help delay the onset of either physical or mental fatigue include: caffeine, alcohol, cocaine, amphetamines, coffee, and tobacco (Egbochuku and Akerele, 2007). Use of stimulants over time, especially when used in excess can lead to symptoms of psychological and/or physical dependence. The more these are used, the greater the likelihood that the user will experience withdrawal symptoms (including restlessness, anxiety, impatience, hostility, irritability, anxiety, and concentration difficulties) and that such symptoms could also lead to abusive behaviors (Ebie, 1988).

Glen (2003) indicated that amphetamines are powerful stimulants that have the ability to excite activity in the central nervous system. Amphetamines are also known as "uppers," "speed," "wake ups," or "pep pills," and can be injected, smoked, snorted, or orally ingested. Caffeine is described by Barbara (2001) as a stimulant that is found in cola drinks, tea, and coffee and is ingested orally. Cocaine is described as a powerful white substance that is derived from leaves that come from the cocoa plant and can be taken through smoking, chewing, snorting, inhalation, or intravenously. Cola nut is described by Quarcoo (2003) as being a seed that comes from an evergreen cultivated in the American tropics and native to West Africa. This natural substance is chewed in Africa as a stimulant to stay awake.

Abusive behaviors and stimulant use are problem-inducing. A loss of self-control is a common feature that leads to abusive behavior, thereby allowing the individual's behaviors to be taken control of by the substance. This type of addiction or abuse, however, can be not only self-destructive but also can be destructive to others

(Egbochuku, 2002). Stimulants are often used by college students to help them stay awake for long hours, increase their feelings of confidence, and lift their moods. Alan's (2003) study showed that Nigerian undergraduates continue to use these types of substances for these reasons.

The number of college students using stimulants continues to increase as more powerful, newer stimulants present themselves with more ease in Nigeria. This is found to be troubling by many important stakeholders, including parents, teachers, counselors, administrators, as well as the government and society itself. Stimulant addiction is found to be a "multifaceted social problem" and a variety of theories are used to try to explain it, given the increased awareness of the problem in recent years. This increase in awareness has led to a growth in the use of stimulants as well as in the impact of this use (Adelekan, Ndom, and Makanjuola, 2000).

According to the National Drug Law Enforcement Agency (2000), stimulant use in Nigeria has greatly increased, with adolescents and youth aged 15 to 30 years old constituting the highest risk groups. One of the groups experiencing the largest increase is that of females, especially amongst college students. Stimulant dependence can be very durable, and a high failure rate is noted amongst those who attempt to quit their habit (Egbochuku and Akerele, 2007). While over 80 percent of all smokers had expressed the desire to quit their habit, fewer than five percent of the smokers who attempt to quit are found to be successful in quitting on their own (Egbochuku, 2002; Isiavwe, 2004).

Only small quantities of nicotine are needed to maintain an addiction to cigarette consumption. It was found in one study (Isiavwe, 2004), that quantities as small as only one pack per day would actually reinforce the habit of the smoker up to 200 times per day. Egbochuku and Akerele (2007) underlined the importance of a loss of self-control in the nature of addiction to and abuse of stimulants.

Why People Smoke:

Understanding why people start smoking is a complex consumer behavior issue; that has led researchers into risk factors associated with initiating this behavior. In spite of well-established negative health consequences as a result of smoking, one would expect that consumption rate will be low; nevertheless, initiation rates in young people remain high. During the greater part of the twentieth century, cigarette consumption was viewed as a personal choice as well as a "socially learned habit" (Jarvis, 2004). Wang, Fitzhugh, Cowdery and Trucks (1995), concluded that smokers considered smoking to bring them some type of perceived material gain and pleasure. Adolescent smokers were found to have beliefs that contribute to the risky behavior, such as the thought that smoking would be able to help them relax, reduce their boredom, or even help to take the edge off of their stress level. Other reasons why people smoke could be linked to influences from many

different realms, and factors such as political, personal, social, and economic influences all seem to factor into the habit. Thus, understanding these factors is crucial in understanding how to determine patterns of smoking use and cessation.

According to Jarvis (2004), nicotine's effects on brain neurochemistry can often be pervasive, activating nicotinic acetylcholine receptors (nAchRs) throughout the brain and thus inducing dopamine to be released in the nucleus accumbens. Due to this process, the commonly held belief that the stimulant nicotine can be "calming," might actually come from the perception of relief from the symptoms of nicotine withdrawal.

The Theory of Planned Behavior (TPB) is considered as an extension of the Theory of Reasoned Action (TRA) according to Higgins and Conner (2003); these theories identify perceived behavioral control over the targeted behavior and intentions to participate in the targeted behaviors as significant factors and that intentions represent conscious plans or a decision to exert effort to perform the behavior. Perceived behavioral control (PBC) is the perception that performance of the behavior is within one's control. Furthermore, intentions are determined by attitudes, subjective norm, and PBC. In order to evaluate one's behavior, the person's overall attitudes must be understood. Subjective norms are therefore, beliefs about whether significant others think the individual should engage in the behavior. As a result, PBC could be used to predict both intention and behavior.

According to the TPB, Individuals are more likely to initiate smoking if they believe that the behavior will lead to particular outcomes which they value, if they believe that people whose views they value think they should carry out the behavior, and if they feel that they have the necessary resources and opportunities to smoke. The TPB and TRA have both been used to predict adolescent's intentions to smoke and their smoking behavior (Higgins and Conner, 2003, p.47)

Norman and Tedeschi (1989) found support for the TRA in their study with 420; 5th to 8th grade pupils (10 - 13 years; old), with attitude and subjective norm predicting intention and intention predicting behavior. Maher and Rickwood (1997) found TPB to be a comprehensive theoretical model in accounting for the predictors of adolescent smoking; intention was the best predictor of smoking, with PBC adding slightly after accounting for intentions; and PBC was the best predictor of intentions. Thus, both the TRA and TPB have successfully been applied to understand adolescent smoking behavior. (see also Chassin et al., 1981; 1984; Hill et al., 1997).

Marketing Tobacco:

According to Altman et al., (1996), the tobacco industry focuses billions of dollars worth of promotional strategies that are designed to directly appeal to teenagers. In recent

years, the number of television (TV) advertisements directed towards early adolescence (those aged eleven through fifteen years old) has increased tremendously. Since the early 1950s, television has become part of our culture and advertisers have been making full use of it. For the tobacco industry, early adolescents are an important segment of the market. However, this action raises several questions: Why are there so many advertisements? Are the advertisers taking advantage of the consumers' emotions? Should the government regulate this industry? Are schools to be responsible to some extent? Is peer pressure playing an important role in all of these problems? These are important questions to ask, especially when it comes to cigarette advertisements.

The most convincing findings to date that show the role of advertising in tobacco consumption are those compiled by Andrews and Franke (1991). Their meta-analysis of econometric data shows that a meaningful positive elasticity of demand with respect to advertising and income and a negative elasticity of demand with respect to existing prices. Their analysis of 48 time-series studies further shows that advertising has an influence on the primary demand for cigarettes and that its regulation can be effective in reducing that demand (Cornwell, 1997). Most importantly, the research of Andrews and Franke (1991), shows that the positive impact of advertising on sales declines as cigarette markets become mature. They conclude that potential smokers who live in nations where there are very low bases of income or who may be more naïve or less experienced with marketing and advertising strategies might be much more responsive to tobacco product advertisement and marketing efforts than are smokers in more "sophisticated" countries such as in the United Kingdom or in the United States currently (Cornwell, 1997).

Unlike other developed nations, Nigeria has no tobacco control regulation and the government actively accepts the British America Tobacco activities (Akinremi and Akinoye, 2003). For example, in the United States, a judge ruled that the tobacco product manufacturers have marketed and promoted their products with a "single-minded focus" without paying attention to the costs on society. The same judge ordered that the cigarette companies drop labels such as "light," "mild" or "low tar" to describe their products (Arias, 2006). In a developing country like Nigeria, such a verdict will never be pronounced. Yet, disappointed public health advocates were determined to appeal that verdict, thereby monetarily punishing the tobacco industry due to their alleged unfair and deceptive marketing practices. The Centers for Disease Control and Prevention (CDCP) (1994), stated that the earlier in age that people begin to acquire a smoking habit, the higher the probability that they will become very strongly addicted to nicotine, and physical addiction to nicotine can develop extremely rapidly.

The marketing of tobacco by multi-national companies without any doubt has increased tobacco usage, and, in

essence, contributed to the harms caused by tobacco (Borland, 2004). Even in spite of many marketing controls, tobacco companies continue to hire consultancies to help the industry design and market new strategies. Tobacco companies are effectively reaching out to the future by focusing on college students throughout the nation. Many smokers do not think they are addicted, and therefore, are not likely to attempt to quit smoking. This may explain why some tobacco companies are courting college students more aggressively than ever, by making tobacco-sponsored social events available on college campuses, fraternities, bars or clubs, or by focusing on campus venues that are attended by students in record numbers. Those marketing efforts are paying off.

Farrell (2005) rightly noted that even in face of the tobacco-education/prevention efforts made at the grade school and middle school levels, the number of young adult smokers are rising. The CDCP reported that in 2004 tobacco use among all age groups had decreased, with the exception being in the group of 18 to 24 year-olds. In this group, 28.5 percent of those interviewed reported that they were smokers, up from 24.5 percent in 1990. Tobacco companies currently enjoy a wayward profit incentive, notably, the more tobacco products they sell, the more profit they make, and the more death and disease that results (Borland, 2004). These successful litigations are not the result of isolated rogue elements within the tobacco industry; it is due to the phenomenon where some of the normal commercial practices of marketing tobacco to consumers are at variance with laws to protect human life and wellbeing (Lieberman and Clough, 2002). To put it in a simply, consumers are gradually realizing that without the protection of specific laws monitoring at least to some extent the tobacco industry practices, there will continue to be illegality involved in marketing harmful tobacco products for human consumption (Borland, 2004).

According to Magenta (1999), there are also other clandestine marketing strategies, including such acts as placing tobacco products in movies. Additionally, there is sponsorship of university events, donating to community programs and events, and the advertisement of other products. Such marketing is seen throughout both the developed and the developing world.

Advertising has always been viewed by economists as informative or persuasive (Stigler, 1961). The role of advertising is to provide information to consumers about the characteristics of products in a manner that will lower search costs for consumers and thereby encourages competition (Nelson, 1974). Informative advertisements are those advertisements that are in print and provide information on price and location (Kaldor, 1950). However, advertisement has been viewed as a channel that creates a false perception of product differentiation, and thereby changes consumers' preference, thereby resulting in barriers to competition and to distortions of consumer welfare (Bain, 1956).

Persuasive advertisements are those that use visual and emotional effects.

However, how each advertisement is viewed depends on the particular product, the advertising medium and the nature of consumer demand (Tirole, 2000). According to Nelson (1974), the level of investment in and the effects of advertising will vary based on the product advertised. By promotion, the seller is communicating information to potential consumers, with the hope of influencing their behavior and attitudes. Primarily, promotion is intended to inform, persuade, and remind. Dewhurst (2003) indicated that information is important and essential in particular for newly developed or "introduced" products, in which communications efforts are meant to tell potential customers something about the product.

According to Cornwell (1997),

"Worldwide, the marketing and promotion practices of tobacco firms are coming under scrutiny. Although tobacco advertising in traditional media such as television has been banned in most countries for many years, the use of nontraditional media such as sponsorship has only recently come into question."

Before the ban on cigarette advertisements, tobacco companies used to advertise their products on television, radio, newspapers, and magazine; however, since the partial ban on advertising by the government, tobacco companies shifted their gear to non-restricted venues, thereby producing little to no effect on overall consumption.

The industry continues to be a dynamic one and seems to find newer, creative ways to be able to promote their products and reinforce brand name loyalty. A special focus of the brand loyalty is the cultivation of such loyalty amongst teenagers. By linking the name of the companies to sports events and teams, the companies learned to reach large numbers of multigenerational consumers. Promotional items are another way whereby tobacco companies reach the consumers. Tobacco companies have successfully created brand recognition through placing logos on many popular items that are not even related to smoking, such as hats, t-shirts, backpacks, key chains, and other items. By turning the wearers of such items into "walking billboards," the companies are able to circumvent restrictions on marketing and advertising. Some examples of these new venues include such items as Salem Power Station music stores, coffee from Benson & Hedges, and clothing from Marlboro, amongst other items. The companies often give away these types of products in areas and events in which many young people might be gathering, such as in discos, shopping malls, or rock concerts (Berman and Snyder, 2012).

Even though products are being given away by the companies, due to the addictive nature of these products, a sure and steady financial stream of new customers is almost guaranteed in the future. The industry continues to sponsor entertainment events such as discos, music

concerts, and other events popular with young people, by portraying positive images of smoking in such events and in movies. Technology is also assisting the tobacco company in promoting their products by relying on global satellite, cable, and internet advertising, as well as point of sale promotion. Tobacco companies have turned retail stores that carry their products into a circus of advertisement arenas. It is very uncommon for a consumer to visit a neighborhood store and not encounter a barrage of in-store advertisements, whether he/she is a smoker or not.

Economics of Advertising Tobacco products:

Promoting cigarettes is a big business. Over \$15 billion each day (\$5.5 billion each year) are spent by tobacco companies in promoting their products and a great percentage of this money is spent on marketing to and promoting to children (FTC, 1998). Industry documents, market research effects, and advertising executive opinions seem to reveal the goals of the companies as trying to attract and "recruit" new smokers from the younger population groups, including children. Tobacco companies seem to use glamorous measures to tout their products as fashionable and "free" to 80,000 to 99,000 adolescents and children globally (WHO, 2000).

In order for the tobacco companies to stay in business, they need to deal with issues such as the deaths of millions of consumers to tobacco-related illnesses and the fact that some consumers eventually quit. As such, the industry has begun to target young people, attempting to recruit new smokers while they are still minors (Perry, 1999). In spite of denials by the industry, the majority of the studies conducted by peer-reviewed, independent parties have documented a correlation between tobacco advertisements and consumption increases. This correlation has been found between with the onset of smoking behaviors as well, and one of the largest predictive factors of youth smoking behaviors includes the exposure to tobacco product advertising. Other research, (Pierce et al., 2002; Pollay et al., 1996) documents that the prevalence of smoking behaviors even in young people who already smoke continues to increase with the introduction of tobacco advertising. Cigarette smoking among adolescents has increased substantially between junior and senior high school students (Telch, Killen, McAlister, Perry and Maccoby, 1982).

Two significant factors influencing the onset of smoking include peer pressure and media influences (Evans, 1976). Smoking has been found to be a "gateway" substance and a strong correlation has been found between levels of consumption of alcohol and other drugs and smoking (Lavik, 1987). Amongst Hispanic adolescents, cigarette consumption has been found to lead to alcohol use (Parra-Medina, Talavera, Elder and Woodruff, 1995). One study mentioned the link between peer influences and smoking, noting, "Peer influences are among the most powerful

correlates of adolescent problem behavior" (Rose, Chassin, Presson and Sherman, 1999, p. 62).

Effects of tobacco advertising:

The market for tobacco in Nigeria grew at an annual rate of 4.7% between 2001 and 2006 (World Health Organization, n.d.). Undoubtedly, there is incriminating evidence that much of tobacco industry marketing activities are geared towards children and adolescents, in an attempt to "recruit" young people as future consumers of their products. The evidence that tobacco advertising and promotion increases tobacco use is solid and extensive. In 2002, the United States National Cancer Institute (NCI) reviewed available research and found a direct correlation between youth smoking behaviors and tobacco advertising.

The NCI also found that, there is an unquestionable causal relationship between smoking onset and tobacco marketing (NCI, 2001). According to the U. S. Surgeon General, tobacco advertising also increases consumption via "word of mouth" as young people then use peer pressure to influence their peers to begin to smoke as well. Tobacco advertising also appears to encourage those who have previously quit, resuming their former habits by showing an environment in which it is very "normal" and "accepted" to be using tobacco. Three separate studies (Andrews & Franke, 1991; Myers, 2004; & Roemer, 1993) found that tobacco sales are very much impacted by tobacco advertising.

According to the U.S. Institute of Medicine, the U.S. Department of Health and Human Services, and the World Health Organization, brand advertisements such as the animated character, "Joe Camel" have been deliberately created by tobacco companies to appeal to the younger market and have been found to be directly linked with an increase in consumption. From 1989 to 1993 when the Joe Camel campaign was running, tobacco sales leaped to \$43 million from \$27 million in the U.S. During the time the Joe Camel campaign was in full force, it was found that there was no change in the size of the adult market, but rather, the number of smokers amongst the youth increased by over 50 percent (CDC, 1994).

When celebrities are used in an advertisement, children will likely identify with such an individual, and therefore, want to try the product. Bill Cosby was used for many years to advertise Jell-o. Exposure to endorsement led to increased preference for the toy and belief that the celebrity was an expert about the toy (Ross, 1984). Advertisers are also using animated characters as "spokes-characters" to appeal to children and sometimes get the children 'hooked' on that particular product. The use of Joe Carmel by R. J. Reynolds Tobacco Company is a good example. This used of animated characters to appeal to young children has been largely criticized by parents, researchers, government officials, child advocates, and others and has been largely debated (Neely and Schumann,

2004). The use of animated spokes-characters in promoting products to young children ensures that the child can make a correlation between the brand and the character. Children's advertisements are sometimes loaded with a lot of bargains. Bargains like half-price off, buy-one-get-one-free (BOGOF), use of coupons, and discounts. All these are to create brand loyalty and to draw children to the stores. Understanding consumers' reactions to advertisements is the key to making sure a product is noticed and purchased (Slessareva, 2005).

Addiction:

One of the active pharmacological agents in tobacco products is nicotine. The interaction of nicotine (an alkaloid) with the nicotinic receptors present in the central nervous system is mainly responsible for the pharmacological basis why tobacco consumers get addicted to this product. Nicotine produces toxic chemical that makes tobacco users depend on this product. Such exposures lead to sicknesses and diseases, which may lead to death (Ayrton, 1996)

According to Billieux, Linden, and Ceschi (2007),

"Cigarette smoking is connected to health problem and represents the largest preventable risk factor for premature death in developed countries. A considerable body of research indicates that impulsivity is a central etiological concept in many theoretical models of tobacco addiction."

Smoking is addictive. There has been recent increased interest in utilizing motivational inter-viewing (MI) to increase adolescent campaigns to quit smoking, but attempts to impact quit rates have not been encouraging thus far. Two factors that are predictive of the readiness for adolescents to quit smoking include negative beliefs about smoking and possessing sufficient confidence to be able to quit smoking (Apodaca, Abrantes, Strong, Ramsey, and Brown, 2007).

Tobacco smoking and addiction are regarded as perhaps the best examples of a dangerous consumers' behavior habit. Therefore, preventing this behavior is the most straightforward way to avoid the damage to human health caused by smoking, including diseases such as arteriosclerosis and coronary heart disease, strokes, pulmonary diseases, and cancers of the bladder, mouth, esophagus, larynx, and lung (Bartecchi, Mackenzie, and Schrier, 1994). Therefore, preventive measures, such as educating the public by providing information on the risk of smoking or adopting public policy that prevents smoking in public places must be especially targeted to young people (Mackenzie, Bartecchi, and Schrier, 1994).

Developing the smoking habit in adolescence is of a great concern particularly given the psychological effects it will have on this age group. Adolescents are involved in developmental tasks that are unique to that stage of life, such as establishing their own identity as well as

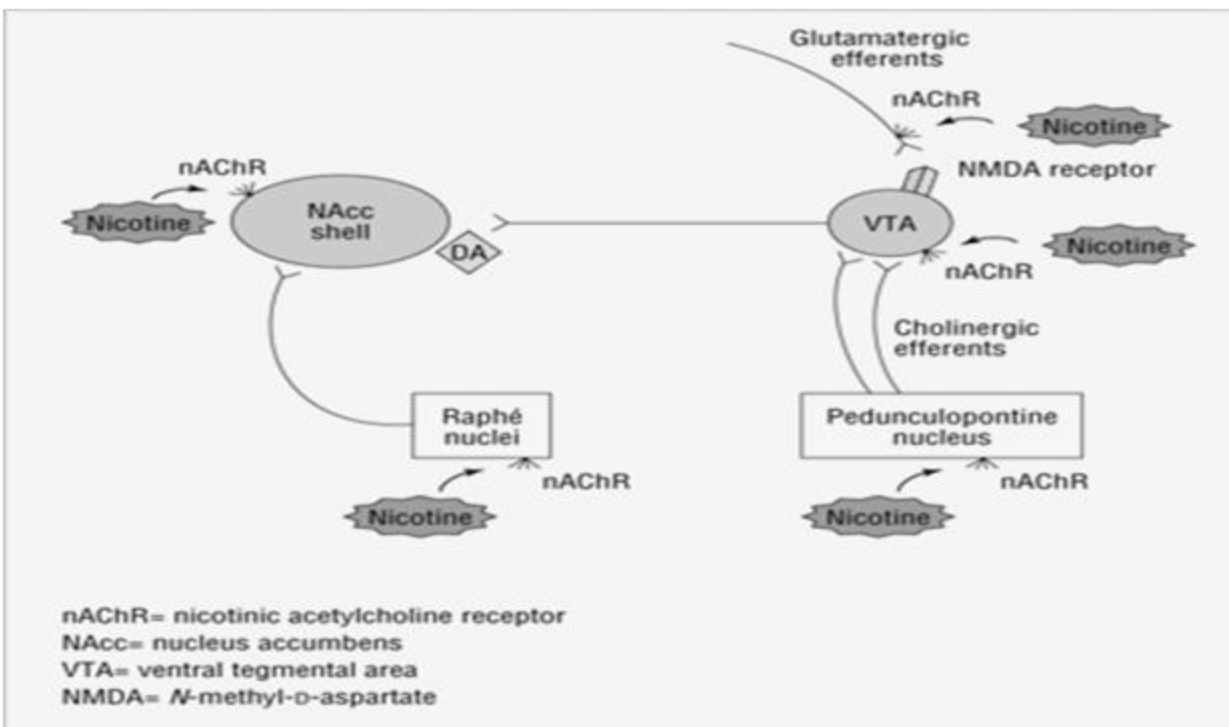


Figure 1: Pathways of nicotine reinforcement and addiction.

Source: Pathways of nicotine reinforcement and addiction. Adapted from Watkins, Koob and Markou (2000).

independence from their family, which may lead them to adopting risky patterns of behavior, such as smoking. In addition, adolescents may regard smokers in a favorable way, in that individuals who smoke are more likely to be viewed of as having what might be considered as social assets, or being “tough” and “cool” (Comité Nacional para la Prevención del Tabaquismo, 1998). Thus, this specific age-related psychosocial behavior, together with the high personal and social costs associated with quitting, becomes particularly important when formulating and evaluating effective anti-smoking policies.

The psychosocial theories that explain the consumption of addictive substances have enjoyed substantial development. For example, the Risk Behavior Models (RBM), which represents a more integrated consideration of individuals in a way that combines the cognitive, affective, and social factors that have the effect of increasing the risk of drug consumption by individuals, has been widely written about (Bry and Krinsky, 1990; Newcomb and Felix-Ortiz, 1992).

According to Jarvis (2004), most smokers say that cigarettes are relaxing to them when they are under stress and allow them to be able to work more effectively and concentrate more, but there is very little known evidence that even suggests:

Smokers typically report that cigarettes calm them down when they are stressed and help them to concentrate and

work more effectively, but little evidence exists that nicotine provides effective self-medication for adverse mood states or for coping with stress.

Research indicates that smokers being to feel a decreased mood and performance level within hours after they have smoked their last cigarette and that these negative effects are almost completely disappeared by the mere act of smoking a cigarette. This “vicious cycle” is repeated thousands of time over the smoking “career” of smokers, and often times the mood that smokers think is being an effective self-medication is more likely just relief from withdrawal symptoms. This could explain why it is difficult for consumers of tobacco products to quit using the product. See Figure 1, above.

RESEARCH METHODOLOGY:

Study Population

This study took place in the southwestern part of Nigeria; mainly with the Yoruba-speaking group, with the population of 40 million people (Wikipedia, n.d.). Overall, 600 questionnaires were administered, 300 from the rural area, and 300 from the urban area. The participants in this study were Nigerian adults resident in urban and rural areas of the southwestern region of the country. To be

eligible to participate, study subjects met the following criteria: they were at least 18 years of age; they resided in either urban or rural areas and not both; they have resided in either the urban or rural setting during the 12 months preceding the study; they were able to read and write in the English language; and were either male or female.

Participants were selected using probability sampling. The sampling technique involved selecting one out of every five eligible participants contacted within the sampling frame. Participants were enrolled from workplaces, shopping centers, and market places. Participants were approached and the purpose of the study was described to them. Individuals that opted to take part in the study were given informed consent forms that were used to obtain consent.

Design

The extent to which tobacco marketing influences tobacco use or consumption has been studied in industrialized nations including the United States. There are very limited studies on the same issue in developing nations, however. There are no investigations in Nigeria that assess the influence of tobacco marketing on tobacco consumption stratified by geographic locale. The purpose of this research is to assess the potential influence of tobacco advertising on tobacco consumption among rural and urban residents in the southwestern region of Nigeria.

To answer the research questions proposed in this study, a cross-sectional or prevalence study design was utilized. This quantitative design evaluated simultaneously both the exposure (tobacco advertising) and outcome (tobacco consumption). A cross-sectional study represents a cohort examination without a follow up, meaning a snap shot of the targeted population thus limited in terms of temporal sequence. Despite its adequacy in producing a desirable result, it is difficult to use this design in determining the cause and effect in most cases. What was the study approach?

Statistical Analysis:

Chi square statistic and unconditional logistic regression were used to test for group independence among smokers and nonsmokers. After adjustment for relevant covariates associated independently with smokers in the studied area, the significant potential markers for smokers' age, income level, peer pressure, smokers in the family, and educational status were identified.

Descriptive statistics were used to examine the distribution of variables that may be associated with tobacco use. Pearson chi square statistic and Fisher's exact to compensate for small cell counts was used to test for independence or association of the independent variable with the outcome variable. A univariable logistic regression model was then used to examine the potential predictors of

tobacco use as well as the possible confounders. To simultaneously adjust for potential confounders, we used the multivariable logistic regression modeling.

Finally, to test for the fitness of the model with or without interaction, we performed the goodness-of-fit test following Hosmer and Lemeshow's criteria. All statistics were two-tailed at 0.05 significance level and were performed using SPSS Graduate Student Statistical Package, version 16.0.

RESULTS

Demographic Data

This study assessed the influence of tobacco advertisement on tobacco use among adults in southwestern Nigeria. The prevalence of tobacco use among Nigerians in this region is 75%. Table 1 presents the study characteristics by those who use and do not use tobacco products.

Those who use tobacco compared to those who do not were statistically significantly different with respect to the influence of advertisement, awareness of tobacco advertisement, religious affiliation, alcohol use, marijuana use, movie theatre and clubhouse attendance, $p < 0.001$. However those who use tobacco compared to those who did not differ statistically significantly with respect to awareness on someone with tobacco related illness, knowledge of some dying from tobacco-related cause of death, $p > 0.05$. Those who use tobacco compared with those who do not were statistically significantly different with respect to gender, family member using tobacco, occupation, educational status, income, and age group, $p < 0.05$.

Table 1 shows demographic and psychosocial characteristics by tobacco use among residents of Southwestern Nigeria of the respondents. Six hundred people participated in this survey. There were 436 males – 72.7% and 164 females – 27.3%. Of these, 336 came from the rural areas, and 264 came from urban areas. The mean age of the sample group was 22.79 years of age. No response was excluded from the data analysis as an extreme outlier. The table also shows the four general categories of the respondents' marital status. There were 307 (51.2%) singles, 261 (43.5%) married, 13 (2.2%) divorced, 18.0 (3.0%) widows, and 1 (0.2%) did not respond to this question. About 344 (57.3%), responded knowing someone that died as a result of cigarette related sicknesses and diseases, while 256 (42.7%) did not know anyone that died as a result of cigarette consumption related sicknesses and diseases. The ages of the participants ranged from 3 participants (or 0.05%) under 16 years of age, 34 (5.7 %) between 16 and 20 years of age, 113 (18.8 %) between 21 and 25 years of age, 185 (30.8 %) between 26 and 30 years of age, 127 (21.3 %) between 31 and 35 years of age, 40 (6.7 %) between 36 and 40 years of age, and 88 (14.7 %) were 40 years of age or older.

Table 1. Study characteristics – Demographic and psychosocial characteristics by Tobacco use among rural and urban residents of Southwestern Nigeria

Variables	Self reporting current Tobacco use		Self reporting current Tobacco Non-use		χ^2 (df)	P-value
	#	%	#	%		
Influenced by advertisement to use tobacco	Y=252 N=37	74.8 14.1	85 226	25.2 85.9	218.06 (1)	<0.000
Aware of tobacco advertisement in your area.	Y=282 N=7	50.8 15.6	273 38	49.2 84.4	20.72 (1)	<0.000
Know any one sick due to Tobacco use	Y=181 N=108	46.4 51.4	209 102	53.6 48.6	1.38 (1)	.241
Know anyone dead due to Tobacco related sickness/ diseases.					3.73 (1)	0.053
Family Member Currently use Tobacco	Y=156 N=133	64.5 37.2	86 225	35.5 62.8	43.14 (1)	0.000
Work Colleague Currently use Tobacco	Y=199 N=82	64.2 29.2	111 199	35.8 70.8	72.45 (1)	0.000
School Peers Currently use Tobacco.	Y=138 N=127	57.0 39.1	104 198	43.0 60.9	17.95 (1)	0.000
Family Member Currently use Tobacco	Y=263 N=26	86.4 13.4	140 168	13.6 86.6	148.13 (4)	0.000

N =Nigerian Currency (Naira), Y=Yes, N=No

Table 2. The Distribution of Current Tobacco Use by Geographic Locale (Urban Versus Rural) Residents of Southwestern Nigeria.

Covariates	Area		χ^2	df	p-value
	Rural n	%			
Tobacco Consumption					
No	180	57.9	131	42.1	0.9
Yes	156	54.0	133	46.0	2 1 0.34

Table 3. The Unconditional Univariable Logistic Regression Model for the Association between Current Tobacco Consumption and Geographic Local.

Covariate	POR	Wald Statistic	95% (CI)	p-value
Rural	1.0	reference	reference	reference
Urban	1.17	0.96	0.85 – 1.62	0.34

Some 337 respondents (56.2%), indicated that they were influenced by tobacco marketing to smoke, while 263 (43.8%) indicated that they were not influenced. The study's population consisted of current and former smokers in the southwestern region of Nigeria. The selection of participants was based on their motivation to participate in the study, their convenient location in the southwestern part of Nigeria.

Table 2 above demonstrates the distribution of tobacco use by geographic locale, urban versus rural.

There was no statistically significant difference in tobacco use by region, χ^2 (N=600, 1) = 0.92, p = 0.34. Though not statistically significant, the univariable or

unadjusted model indicated a 17% increase in tobacco use in urban area compared to rural, prevalence odds ratio (POR), 1.17, 95% Confidence interval (CI), 0.85-1.62.

Table 3 below illustrates study characteristics, comparing urban versus rural area. Those in urban compare with rural did differ significantly with respect to having knowledge of someone who died from tobacco related death, weight, exercise, occupation, education level, income level, religious affiliation, current alcohol use, and frequency to club house, p < 0.05.

Table 4 presents the unconditional multivariable logistic regression model for the association between geographic locale and tobacco use. After controlling for factors that

Table 4. Unconditional Multivariable Logistic Regression Model of the Association between Geographic Locale and Current Tobacco Consumption in a Sample of Adults in Southwestern Nigeria.

Covariate	Adjusted Prevalence Odds Ratio (APOR)	Wald Statistic	95% Confidence Interval	p-value
Rural	1.0 (reference)	reference	reference	reference
Urban	0.80	-0.78	0.45 – 1.40	0.44
Cur. Alco Use	N= 1.0 (reference) Y= 12.30	reference 9.04	reference 7.14 – 21.20	reference <0.01
Cur Freq Club_HS	N=1.0 (reference) Y =3.92	reference 4.97	reference 2.29 – 6.73	reference <0.01
Cur Use Marijuan	N = 1.0 (reference) Y = 2.36	reference 2.48	reference 1.20 – 4.66	reference 0.01
Family Mem. Curr. Use Tob.	Y=1.0 (reference) N = 1.32	reference 1.07	reference 0.79 – 2.20	reference 0.29

Abbreviations: Adjusted prevalence odds ratio=APOR, Cur. Alco Use=Current Alcohol use, Cur Use. Marijuana=Currently use Marijuana, Family Mem. Curr. Use Tob.=Family Member currently use Tobacco.

were either significant or biologically relevance in the uni-variable model, those in urban area were 20% less likely to use tobacco, but this difference was not statistically significant, adjusted POR, 0.80, 95% CI, 0.45-1.40.

DISCUSSION

This study examined the effects of marketing on tobacco consumption in the southwestern part of Nigeria. The prevalence of tobacco usage has been attributed to marketing activities; especially among young adolescence. First, tobacco marketing was a statistically significant positive predictor of young adolescence tobacco use. Secondly, knowledge of other factors such as family member that uses tobacco, peers both at school and work, income level and educational status correlated directly with high tobacco use. Thirdly, there was an inverse correlation between age and tobacco use, with younger women are now more likely to use tobacco. In this study, there is a low prevalence of tobacco use among inner-city residents. This finding is unique since the studies consistently show acceptability and prevalence of tobacco use even among women.

RECOMMENDATIONS, MANAGEMENT IMPLICATIONS LIMITATIONS AND AREAS FOR FURTHER RESEARCH

Study Recommendations

There is no doubt that a convincing body of evidence demonstrates that tobacco marketing plays an important part in encouraging smokers to smoke more and non-smokers to begin smoking. Smoking has posed an unprecedented threat to the health of tobacco consumers worldwide. The evidence is clear in terms of sicknesses,

diseases, and deaths related to cigarette usage. Cigarette smoking and other tobacco consumption behaviors have proved to be a major economic strain on developing countries like Nigeria. The health hazard associated with smoking and other negative attributes of smoking such as: loss of productivity due to poor health, and increased consumption of societal resources, especially in the health-care sector, and sometime death, affects the Nigerian society negatively. In view of these effects, the following are recommended:

The government of southwestern Nigeria must engage the help of oncologists, cardiologists, or respiratory physicians, to promote and address the health epidemic of tobacco problems.

A total ban on all tobacco promotions such as sports, sponsorship, arts festivals, TV, and radio must be adopted.

Smoking among youth must be discouraged. In developing countries, banning sales to minors is not yet effective. Banning of smoking in public areas, public transportation, places of work, especially schools and government offices should be not be encouraged.

Efforts to help adolescents to resist peer pressure from their colleagues that smoke should be adopted.

Efforts to curb smoking in schools should be put in place. Parents or family members that smoke must do it far away from young members of the family, so as not to encourage young family members picking up the habit.

The tobacco industry should look into the following recommendations:

Tobacco industry should reduce the nicotine content in cigarettes.

The industry should educate the consumer on the danger of consuming tobacco products.

The industry should contribute to the health insurance holdings of the government that will offset medical bills of tobacco related sicknesses and diseases.

Public announcements should be embarked on to educate

the public about the effect of consuming tobacco products.

Recommendation for Future Research

Various researches on tobacco marketing in Nigeria could be conducted for additional findings. Additional studies on tobacco consumption could be carried out comparing results within cities of the nation. A replica of this research may be conducted both in the northern and eastern regions of Nigeria to see if the findings will be the same or different.

Another study could be carried out to look into why there is a change in the consumption pattern by men as compared to that of women. Why southwestern Nigerian women are now smoking? Does this mean that traditional values are no longer valued? The effects and implications of cigarette consumption on pregnant women and the unborn babies could also be researched in the study area.

Conclusion

From the results of this research, it is conclusive that marketing tobacco products in southwestern Nigeria has had an impact in the behavior of tobacco consumers. This finding supports Borland, (2004). Granted that marketing will always influence consumers to use or initiate use of a product, this research also found that there are other factors that could lead to smoking; such as: if a family member smokes, peer pressure, social life in geographic location (urban or rural), frequent in movie places, alcohol use, and even in some cases, religion affiliation.

The differences in marketing rates between rural and urban areas could be attributed to the fact that the populations in the urban areas are larger than those in the rural areas. This could also be due to the development in the urban areas, where there are more social amenities such as better supply of electricity, water supply, much better roads and much larger population which exceeds that in the rural areas. It is in the urban areas that major colleges and universities, movie houses, and club houses are located. Most citizens with education live in urban areas. On the other hand, the rural area is much less developed with less or no amenities at all, thus less marketing activities in the area. Another reason could be attributed to the fact that in the rural area, the major populations are farmers – who might be growing their own tobacco for personal consumption.

This research found that males tend to smoke more than females. If this research were to be conducted about twenty years ago, it could have been possible that there will be no female smokers due to the cultural and social background of the researched area. This research; however, discovered that more females are now smoking. This last finding is a new discovery, owing to the fact that in Nigerian society, smoking by female is not acceptable, but as urban areas are

developing, the trend is changing.

One limitation of this research was in the area of transportation to the rural areas; which was a major challenge during the research. Also in the rural area, it was much easier to talk to potential respondents whereas; it was more difficult to talk to people in the urban areas. Another limitation of this study is that geographically, it was impossible to cover the whole southwestern region during this research, however; cities, towns and villages selected were to represent the whole region, but a different outcome could be obtained had it been that whole region were represented during the research.

This research has added to the body of literature in southwestern Nigeria, with a confirmation that marketing activities of tobacco companies lead to tobacco usage. It also shows an indication that the society is changing, owing to the fact that the society now has female smokers. Finally, this study's strengths depend on the longitudinal design of the research instrument that measures various variables that are very common to the society – to include (1) socio-demographic factors, (2) tobacco advertising, (3) tobacco use, and (4) factors associated with tobacco use and advertising.

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