REBRAE
Revista Brasileira de Estratégia

doi: 10.7213/rebrae.10.003.AO03 ISSN 1983-8484

Determinant Factors Leading to Tobacco Consumption: Implications for Social Marketing

Jailson Santana Carneiro[a], Roberto Rodrigues Ramos[b], Jayne Brazil Xenofonte Carreiro[c], Marcus Vinicius de Oliveira Brasil[d]

[a] Master student in Business – Universidade Federal da Paraíba (UFPB), João Pessoa, PB, Brazil. (CNPq scholarship). E-mail: jailson192@gmail.com

[b] Master in Business - Universidade Estadual do Ceará (UECE), Fortaleza, CE, Brazil. Undergraduate Professor in Business - Universidade Federal do Cariri (UFCA), Juazeiro do Norte, CE, Brazil. E-mail: roberto.ramos@ufca.edu.br

[c] Undergraduate student in Business - Universidade Federal do Cariri (UFCA), Juazeiro do Norte, CE, Brazil. E-mail: jayneadm26@gmail.com

[d] Phd in Business - Universidade de Fortaleza (UNIFOR), Fortaleza, CE, Brazil. Postdoc in Business and Comptrollership - Universidade Federal do Ceará (UFC), Fortaleza, CE, Brazil. Undergraduate Professor in Business - Universidade Federal do Cariri (UFCA), Juazeiro do Norte, CE, Brazil E-mail: marcus.brasil@ufca.edu.br

Abstract

Although marketing is related to a management perspective, this field of study have suffered changes in order to provide a better balance to the exchange system. The social marketing appears in this context as an important tool capable to correct these socials imbalances, in some cases, caused by the existence of harmful products and services to the consumer, as the alcohol and tobacco. The aim of this study was to evaluate behavioral and social conditions that lead people to smoke. By doing so, it was developed a literature review about Social Marketing and about tobacco consumption, which revealed the main factors influencing people to smoke. At the empirical work, it was used the Reasons for Smoking Scale, developed by Sousa et al. (2010) at the University of São Paulo (USP). The results were achieved through quantitative approaches, with SPSS 21 support. The field research to collect data was held in three cities of the state of Ceará – Brazil (Juazeiro do Norte, Crato e Barbalha), totalizing 103 valid responses, which demonstrated a great reliability of the scale (α=0.91)

Keywords: Social Marketing; Smoking; Motivational Factors for Smoking.

Introduction

Historically marketing is related to the managerial perspective. However, marketing is also a social activity regarding the dimensions of this field of study that have undergone changes in order to promote a better balance to the exchange system (BARBOZA, 2012). Whereas at commercial marketing the main beneficiary is the shareholders, at the so-called social marketing the main beneficiary is society (CARVALHO, 2010). Another point of differentiation is found in the product exchanged; while in commercial marketing prevails the sale of products and services, in social marketing predominates the sale of a desired behavior (KOTLER; LEE, 2011).

Therefore, social marketing appears as an important tool capable of correcting social imbalances. In this sense, this paper analysis the existence of products and services harmful to the consumer, such as alcohol and tobacco. The consumption of the so-called harmful products, which include beverages, tobacco, pornography, weapons and fast-foods, prejudice both the individual and society. Tobacco is regarded as the main prompter of damages, leading it to be a problem of social order, since it is easily accessible and legal (COSTA, 2014).

Attempting to identify the factors that lead people to use tobacco, Tomkins (1966 apud Souza et al., 2009) cited the existence of four factors to explain the behavior of smokers, namely: the search for positive feelings; the relief of negative feelings; the existence of dependence and habit. Subsequent studies are mostly based on the Tomkis' model, once they address the influences or motivations for smoking. Another point to emphasize is that most of the studies on smoking are from the medical field, especially regarding the effects caused by the consumption of this product (KOVACS; FARIA; OLIVEIRA, 2004).

Cigarette smoking has consequences for the individual, especially diseases such as cancer. The World Health Organization (WHO, 2014a) considers tobacco an epidemic, killing almost 5 million people per year, from which 600,000 are passive smokers. The consumption is the main avoidable cause of death. By consuming, inhaling, aspirating or chewing this type of product, more than 4700 toxic substances, including many carcinogens, are introduced into the body (MINISTRY OF HEALTH, 2014a). The risks to health, therefore, are the most diverse. According to Vieira (2014) the death of smokers is 3 times higher than in nonsmokers, causing about 10 years decrease in life expectancy. It leads to more public health and economic expenses, since the smoker misses work more often, producing less in this way. According to Pinto and Ugá (2010) in 2005, at the Sistema Único de Saúde (SUS), the direct costs of hospitalizations for tobacco-related diseases, such as cancer, circulatory and respiratory systems were R$ 338.692.516.02, representing 27.6% of the total costs of the procedures.

Accordingly, knowing and mapping consumer behavior and using Social Marketing techniques must be an important tool in the fight against tobacco consumption. However, for social marketing to be effective in combating smoking, it is necessary to understand the factors that lead people to consume the product, as well as those that exert a negative influence on this behavior.

Therefore, this paper aims to analyze the factors that negatively influence people to smoke, contributing for implications of this perspective to Social Marketing, which can act as one of the factors to change consumption habits in relation to this type of product. This article hopes to contribute at the academic context, arguing to the deep-

ening of the knowledge about smoking and social marketing within the national and regional context, since there is a lack of studies involving these two themes. In the social sphere, this work will be useful for people who wish to delve deeper into the topic of smoking, as well as to enable government agencies to formulate policies to combat tobacco use and its economic and social consequences.

This paper is divided into five parts. The introduction is the first section, proposing to present and contextualize the subject, and exposing relevance of the work and its objective. The second section discusses theoretical aspects about Social Marketing, explaining concepts and differentiating it from the conventional marketing, as well as linking it to consumer behavior and smoking literature. The third section deals with the methodological design, which presents information about the research instrument, the sampling used, and the process of data treatment. The fourth section presents the results and discussion of the work and, finally, in the fifth section the final considerations appears, with the synthesis of the results, theoretical and practical implications, and the limitations.

Theoretical Reference

This section explains the different approaches in the area of Social Marketing, by analyzing the consumer behavior, the factors that lead to smoking, and the studies developed on this topic.

Social Marketing

The concept of social marketing was introduced in 1971, in an article by Kotler and Zaltman, in which marketing tools were adapted and used for marketing strategies at the social sphere (CARVALHO, 2010; BASTOS, 2013). Despite this, social marketing campaigns date back to the 1970s. In 1950, India launched campaigns for family planning, in order to achieve birth control. In the 1970s, a number of countries had already created campaigns for social causes: Australia launched seat-belt campaigns; Sweden launched campaigns to transform the country into a non-smoking and abstemious place; and in the late 1970s Canadian government launched anti-drug, anti-smoking and health campaigns (KOTLER & KELLER, 2006). However, it is from the 21st century that social marketing, through the consensus of scholars and the improvement of conventional marketing tools, applied for social purposes, having a greater effectiveness in its actions (BARBOZA, 2012; BASTOS, 2013).

Although the concept has existed for over 40 years, the term social marketing keeps a mystery and most people misunderstand it, often by associating it with sales promotion (KOTLER; LEE, 2011). In part, this is due to the similarity with other fields of social marketing studies, such as non-profit marketing, formed by non-profit organizations with the objective of attracting members and raising funds (KOTLER, ARMSTRONG, 2007); and also marketing of social causes, which is carried out by companies with the aim of improving their image before society (KOTLER & KELLER, 2006). Social Marketing differs from these two since it has a greater effectiveness, provoking significant changes in society due to a more complete management model (BASTOS, 2013).

Therefore, social marketing has its behavioral focus, influencing target markets to accept a new behavior, rejecting unwanted behavior, modifying current behavior or abandoning an unwanted habit. However, regardless of the four modifications men-

tioned above, as well as a campaign - for instance, the commercialization of products (eg cigarettes, alcoholic beverages, drugs, diets) that are harmful to health – the change provoked by social marketing is voluntary (KOTLER & LEE, 2011).

Kotler and Lee (2011) argue that to achieve an effective social marketing result, a project must follow ten steps: description of the history (purpose and focus of the plan); the conduction of a situational analysis; the choice of the target audience; the definition of goals; the identification of competitors, barriers, and motivators of the target audience; the projection of desired positioning; the development of the social marketing mix; the projection of monitoring and evaluating processes; the definition of the budget and sources of funding; the completeness of a deployment plan. Through these steps it is highlighted the need to understand, in particular, the target audience and how strategies should be traced in order to achieve the desired result, which is the adoption of the behavior by the target group.

In this perspective, social marketing researchers focus most of their studies on the consumption of products that cause harm to health, illegal products or restricted consumption (BASTOS, 2013). According to Costa (2014), the tobacco industry is the main enemy of agents and researchers who try to generate a healthier life in society. According to the author, this is due to the consumption of this product reaches families, governments and media agents (who can only advertise anti-consumption), among others.

Based on the assumption that tobacco consumption is a social issue, since it generates impacts in various realms, social marketing has the challenge of formulating strategies for coping with the consumption of this type of product. Meanwhile, some factors called upstream, within Social Marketing, can make the desired behavior be adopted more quickly. For instance, the Laws that restrict the consumption of the product is an upstream factor.

Smoking and Barriers to Consumption

Evidence that marketing has a causal relationship with the tobacco epidemic in the world has led several countries to adopt regulatory measures in this area (HENRIKSEN, 2012). The most effective measure to combat tobacco consumption is the increase in taxes on products, with a 10% increase in the price of tobacco, reducing consumption by 4% in high-income countries and 5% in middle-income ones (WHO, 2014b). According to WHO (2014b), the increase in taxes reflects on the economies of countries that adhere to this measure, since it requires fewer resources for implementation and it is the most effective. In addition to the increase in taxes and the correction of prices, when necessary, other measures to combat cigarette smoking must be taken.

In Brazil, according to the National Cancer Institute (INCA), legislative actions involve bills, legislation monitoring, as well as information to the National Congress and society about the harmful effects of tobacco. Among the existing laws, two are worth mentioning, namely: Law 10,167 of December 27, 2000, which prohibited the advertising of tobacco products in newspapers, magazines, television, billboards, radio and internet (BRASIL, 2000), and Law 12,546 of 2011, regulated in 2014, which prohibits the use of cigarettes, cigarillos, cigars, pipes or any other fumigant products, whether or not derived from tobacco, in a closed collective, private or public enclosure (BRAZIL, 2011). As a result, the so-called "fumódromos" cease to exist in commercial

establishments. Actions like these are useful in curbing tobacco use. The number of smokers in Brazil dropped from 15.7% in 2006 to 11.3% in 2013, as well as the prevalence of smokers with more than 20 cigarettes per day, falling from 4.6% in 2006 to 3.4 % in 2013 (MINISTRY OF HEALTH, 2014b).

However, the tobacco industry has developed tactics to circumvent this type of barriers, especially those that hamper the marketing of this type of activity. (HENRIKSEN, 2012). The exploitation of the young public in order to guarantee gains in the long term is one of the methods that this industry has used (KOVACS; FARIAS; OLIVEIRA, 2004).

Consumer Behavior and Smoking

The factors that can lead a person to consume tobacco can be the most diverse, ranging from psychological and biological factors to situational factors. Within these possibilities, it is possible to analyze some of the factors that influence the behavior of the consumer and how these are related to smoking. Kotler and Armstrong (2007) argue that consumer behavior is influenced by cultural, social, personal, and psychological factors.

Among the social factors are the reference groups. For Solomon (2008) these groups can exert on the individual both positive and negative influences, depending on their habit. According to Peter and Olson (2009) the positive and negative reference groups are called associative and dissociative, respectively. According to the authors, this last group serves as a reference parameter with unfavorable meanings or behaviors that people wish to avoid. Because smoking is a behavior that should be avoided, it falls within this group.

Following the social factors, the smoker may also belong to a positive or associative reference group. Mowen and Minor (2003) argue that the social environment can exert pressures of conformity on a consumer, and Solomon (2008) adds that the number of people in determined environment can increase the level of consumer excitement, so the lived experience tends to be more intense.

People acquire much of their attitudes through social interactions, in which family and reference groups are the main ones (Peter and Olson, 2009). This type of influence is most noticeable in young people. For Moreno, Ventura and Bretas (2010) adolescence is a phase of changes in both biological and social spheres, where the young seeks their identity, so it begins to absorb attitudes and actions of their environment. Abreu and Caiaffa (2011) report that peers (friends/boyfriends) and smokers among family members (father/mother and siblings) are associated with smoking. This shows that the ease of relating to others appears as a variable in this context.

Smoking: Concepts and typology

Tobacco has many derivatives, such as cigarette, cigar, pipe, tobacco smoke and snuff. The consumption of any of these types of tobacco, whose drug or active principle is nicotine, can be understood as smoking (MEIRELLES, 2009). When referring to smokers, according to Moraes (2006) they can be active and/or passive. The first are those who consume tobacco or its derivatives regularly and continuously. The second type is those that only inhale tobacco smoke or its derivatives. Regardless of the type of smoker, the effects of smoking are practically the same.

Another way to classify smokers is by using the Fagerström Nicotine Dependence Test (FTDN), created by Fagerström in 1978 and used to assess the severity of nicotine dependence (FERREIRA et al., 2009). The test consists of a questionnaire of six simple questions and for each alternative of the test questions, there is a score that will define the degree of dependence (0 - 2 points = very low; 3 - 4 points = low; 5 points = average; 6 - 7 points = high and 8 - 10 points = very high). This test is used worldwide due to, among other factors, rapid application and low cost, allowing to identify more than half of patients in nicotine dependence, predicting possible discomfort when quitting smoking and the need for treatment to control the syndrome of abstinence (PIETROBON, BARBISAN, MANFROI, 2007).

Analysis of the other antecedents of tobacco consumption

Despite the negative aspects that tobacco consumption provides, smoking dependence is linked to several factors, besides pharmacological dependence, involving other aspects and motivations (SOUZA et al., 2009).

In 1966, Tomkins (apud Souza et al., 2009) cited the existence of four motivational factors to explain the behavior of smokers, namely: the search for positive feelings; the relief from negative feelings; the existence of dependence; and habit. Based on this model, Horn and Waingrow (1969, apud BERLIN et al., 2003) created the Reasons for Smoking Scale (ERPF), originally formed by 23 items - but recently with abbreviated versions of 18 items - and found six motivational factors: pleasure/relaxation; sensory-motor manipulation; habit; dependence; and reduction of negative emotions. According to the authors, if the first three factors were considered the search for positive feelings, the scale would measure exactly the four types of smoking originally proposed by Tomkins. In 2003 Berlin et al. proposed a change in the ERPF, including a new area called social smoking. Social smoking and its influences was explained in topic 2.2 of this work that dealt with consumer behavior for a better understanding of the construct. The new scale, consisting of 21 items was named Modified Reasons for Smoking (ERPFM). In Brazil, it was translated and adapted by Souza et al. (2009).

However, in Brazil the most complete study aiming to understand the motivational factors for tobacco use is the Rationale for Smoking Scale from the University of São Paulo (ERF - USP), adapted and validated to the Brazilian context by Souza et al. (2010). It consists of 21 items divided into nine factors: dependence, smoking pleasure, stress reduction, stimulation, automatism, handling, social smoking, weight control, and close association. ERF-USP is a union of the ERPFM with issues of the 68-item Wisconsin Inventory of Smoking Dependence Motives (WISDM-68, Wisconsin Inventory of Smoking Dependency Reasons), developed by Piper et al. (2004).

Although there are other scales, many address similar constructs such as the ERPFM and WISDM-68. Only 04 of the 13 WISDM-68 motifs are not represented by ERPFM, including close association and weight control. The close association refers to the fact that the smoker treats the cigarette as a friend, having a strong emotional bond with it, this construct along with the automatism - the act of smoking without intending to do so - are the two reasons with higher influence on cigarette addiction (SOUZA et al., 2010). Weight control would be another positive effect of cigarette smoking. This construct is addressed in the paper by Rash and Copeland (2008), and explains the fact that people use their cigarettes to lose weight or not to gain weight.

Another factor that influences tobacco consumption is pleasure. In their study, Kovacs, Farias and Oliveira (2004) noted that smokers perceive less the risks of cigarette smoking because of the pleasure they provide. Very close to the pleasure dimension is the tension/relaxation reduction factor. According to Vieira (2014) smoking produces positive effects such as pleasure and relaxation. Rondina, Gorayeb and Botelho (2007) affirm that there is a strong association between smoking and the need to search for sensations.

Dependence according to Chatkin (2006) is one of the most difficult reasons for smoking cessation, being cited by more than 70% of smokers who want to quit smoking but cannot. However, there is a difference between nicotine dependence and tobacco dependence, according to Souza et al. (2009, p 684), "the first would be just one dimension within a larger context. The so-called 'tobacco dependence' would reflect the pharmacological dependence on nicotine, as well as other psychosocial aspects of that condition". The stimulation, a characteristic evidenced in ERPFM and WISDM-68, is linked to the fact that smokers use cigarettes to stay alert, to increase their concentration and to cheer up. Since the handling would be the pleasure to handle and light the cigarette, the smoker does not see pleasure only in the consumption of the cigarette, but also in the steps until lighting it (VIEIRA, 2014). Given the above, it is perceived that the consumption of tobacco is a behavior influenced by several contextual factors, being these social and behavioral.

Methodological Design

After presenting the research problem and the objectives of the work, it will be shown the steps that will be followed in order to answer the problem, and to achieve the objectives. The target audience for this research was defined as people using the cigarette regardless of quantity and frequency. Ex-smokers were not included in this study. The sample was of a non-probabilistic nature and for convenience. To collect empirical data, the questionnaire was used, using the survey strategy. The instrument contained sociodemographic issues, in addition to the constructs of the Reason for Smoking Scale of the University of São Paulo (ERF-USP) by Souza et al. (2010). The dimensions of Tension Reduction, Stimulation and Automatism contained 3 items each and the others, Close Association, Social Smoking, Pleasure, Handling, Dependence and Weight Control, 2 items each. The form of evaluation of the scale in this research was the use of a 10-points Likert scale, ranging from 1 (Totally Disagree) to 10 (Totally Agree).

After defining the constructs and variables to be analyzed, the questionnaire was assembled under the supervision of two marketing professionals. Subsequently, the questionnaire was submitted to a pre-test, in which seven people corrected eventual errors of agreement and understanding of the items. Data collection was done by the researchers directly in universities and squares of the cities targeted by the research and through links made available on social networks (Facebook and WhatsApp). After the data collection, the data were tabulated and analyzed using SPSS software version 21, in which, firstly, an exploratory analysis of the questionnaires was carried out in order to find outliers and missing values. Afterwards, the descriptive analyzes (mean and standard deviation) of the items of the constructs and the sociodemographic questions were carried out. The scales passed through the internal consistency measure

(via Cronbach's alpha), by the factorial analysis, to verify if the items of the constructs are measuring only a certain construct.

Results and Discussions

Data analysis will be approached in four steps. In the first stage, the data related to the description of the sample will be presented. Then, the exploratory factorial analysis of the constructs is carried out, followed by the descriptive analyzes of the research. As the results are presented, some discussions will be made regarding the data achieved.

Sample description

The final sample of this study totaled 109 questionnaires. After the preliminary analysis, six questionnaires were excluded because the respondents were not part of the target cities (Juazeiro do Norte, Crato and Barbalha). At the end, there were 103 valid entries left.

The majority of respondents are male (63.1%), single (68%), live in Juazeiro do Norte (58.3%), have completed High School (47.6%) and family income raging from R$ 1000,01 up to R$ 3000,00 (31.1%). The mean age of respondents was 30.2 years.
However, other data were also significant. Married men correspond to 24.3% of the total, the city of Crato were represented by 29.1%, people with Higher Education and family income from R$ 5000.01 up to R$ 7000.00 reached 31.1% each. The complete data are shown in Table 1, below:

Table 1 – Sociodemographic data

GENDER			
Male	63,1%	Female	36,9%
MARITAL STATUS		CITY	
Single	68,0%	Juazeiro do Norte	58,3%
Married	24,3%	Crato	29,1%
Divorced	6,7%	Barbalha	12,6%
Widower	1,0%		
EDUCATION		FAMILY INCOME	
Elementary School Uncompleted	3,9%	Up to R$ 1000,00	13,6%
Elementary School Completed	6,7%	from R$ 1000,01 up to R$ 3000,00	35,9%
High School Completed	47,6%	from R$ 3000,01 up to R$ 5000,00	31,1%
Undergraduation Completed	31,1%	from R$ 5000,01 up to R$ 7000,00	7,8%
Graduation Completed	10,7%	from R$ 7000,01 up to R$ 9000,00	3,8%
		Above R$ 9000,01	7,8%
AGE			
Minimum	17	Mean	30,2
Maximum	59	Standard deviation	11,7

Regarding the questions of the FTDN, most participants posits they smoke <10 cigarettes per day (58.3%), take more than 60 minutes to light the first cigarette (40.8%), any other cigarette would be more difficult to quit (62.1%), smoked the rest of the day (83.5%), did not experience difficulty in quitting smoking in public places (68.9%), but smoked, even sick (51.5%).

Table 2 – FTDN - Percentages of the 6 variables

How many cigarettes do you smoke per day?			How long after waking up do you take to smoke your first cigarette?		
Option	Score	Percentage	Option	Score	Percentage
< 10 cigarettes	0	58,3	Up to 5 min.	3	22,3
11-20 cigarettes	1	21,4	From 6 up to 30 min.	2	25,2
21-30 cigarettes	2	16,4	From 31 up to 60 min.	1	11,7
31 or more cigaretter	3	3,9	Above 60 min.	0	40,8
Which cigarette would be the most difficult for you to quit?			Do you smoke more in the first hours after waking up or in the rest of the day?		
Option	Score	Percentage	Option	Score	Percentage
The first of the morning	1	37,9	At the first hours...	1	16,5
Any other	0	62,1	Rest of the day	0	83,5
Do you think it is difficult to quit smoking in places where it is forbidden?			Do you smoke, even sick, when you have to stay in bed most of the time?		
Option	Score	Percentage	Option	Score	Percentage
Yes	1	31,1	Yes	1	51,5
No	0	68,9	No	0	48,5

Source: Research Data (2016)

These data reinforced the low rate of Nicotine Dependence as measured by the FTDN. The mean was 3.32, considered low. However, almost 50% of the respondents were classified with very low FTDN. Table 3 shows the FTDN classification of this study sample.

Table 3 - Fagerstrom Nicotinic Dependence Test

CLASSIFICATION	SCORE	PERCENTAGE
Very low	0-2	49,5
Low	3-4	12,6
Medium	5	15,5
High	6-7	10,7
Very high	8-10	11,7

Source: Research Data (2016)

Exploratory Factorial Analysis

This research uses the scale of the study of Souza et al. (2010). In order to verify the factorial structure and consistency of the scale, we performed the Exploratory Factor Analysis (AFE).

The following procedures were performed: (1) analysis of the factor matrix using the principal components method, accessed through the correlation matrix with varimax rotation, (2) bivariate correlation by Pearson's coefficient and (3) reliability analysis by means of Cronbach's Alpha.

From the meeting of adopted variables, it was decided to carry out the analysis in nine moments (each one of the variables addressed in this study), in order to make an exploratory evaluation of the structure of the variables.

Three items measured the Stimulation construct (Table 4). Through the analysis, it was possible to verify that the correlation between the items is good (minimum of 0.514) and a variance of 73, 98%. Cronbach's Alpha would rise to 0.859 if the EST01 item was deleted. However, we chose to keep it, since its exclusion would not generate large changes in the reliability of the scale, which is considered good. Regarding reliability, Cronbach's Alpha was lower in the studies of Souza et al. (2009) and Souza et al. (2010), with a value of 0.77 in both studies.

Table 4 – Stimulation

Stimulation			
EST01	I smoke cigarettes to keep me alert.		
EST02	I smoke to stimulate me, to cheer me up.		
EST03	I smoke cigarettes to get me "up".		
Lower Factorial Score	Extracted Variance	Minimum Correlation	Cronbach's Alpha
0,783	73,98%	0,514	0,823

Source: Research Data (2016).

In the Handling factor (Table 5), the items were satisfactory in relation to the variance (74.98%) and the correlation between the two items (0.500). However, the reliability measured by Cronbach's Alpha was low (0.664). The ideal value is above 0.800, but from 0.700 is acceptable. The Cronbach's Alpha value for the study of Souza et al. (2009) was 0.61 and Souza et al. (2010) it was 0.76.

Table 5 – Handling

Handling			
MAN01	Handling a cigarette is part of the pleasure of smoking it.		
MAN02	Part of the pleasure of smoking a cigarette comes from the steps I take to light it.		
Lower Factorial Score	Extracted Variance	Minimum Correlation	Cronbach's Alpha
0,866	74,98%	0,500	0,664

Source: Research Data (2016)

The construct Pleasure was the one that had the best measures. Despite being formed by two items, the correlation (0.848) between them was excellent, as well as the 92.42% variance. Reliability was also high, with Cronbach's Alpha of 0.917. Statistics confirmed by Souza et al. (2009) and Souza et al. (2010) revealed a Cronbach's Alpha of 0.82 in both studies. Below, Table 6 presents the statistics for this study:

Table 6 – Pleasure of smoking

Pleasure of Smoking			
PRA01	Smoking prompts pleasure and is relaxing.		
PRA02	I think cigarettes pleasurable.		
Lower Factorial Score	Extracted Variance	Minimum Correlation	Cronbach's Alpha
0,961	92,42%	0,848	0,917

Source: Research Data (2016).

The Tension Reduction dimension (Table 7) also presented satisfactory values, with a variance of 77.77% and a minimum correlation between items of 0.583. The Cronbach Alpha at 0.856 indicates the reliability of the dimension. It is worth noting that this value would not increase if any item were excluded. In comparison to the studies of Souza et al. (2009) and Souza et al. (2010), Cronbach's Alpha values were 0.75 in both studies.

Table 7 – Tension Reduction

Tension Reduction			
REDTE01	I light a cigarette when I'm mad at something.		
REDTE02	When I feel uncomfortable or upset about something, I light a cigarette.		
REDTE03	I smoke cigarettes when I feel sad or when I want to forget my obligations or concerns.		
Lower Factorial Score 0,859	Extracted Variance 77,77%	Minimum Correlation 0,583	Cronbach's Alpha 0,856

Source: Research Data (2016).

As in the previous dimension, the Dependence items were also satisfactory, regarding its reliability, with a Cronbach's Alpha value of 0.838, a variance of 86.06%, and a correlation between items calculated as 0.721, as shown in Table 8. In the studies by Souza et al. (2009) and Souza et al. (2010) Cronbach's Alpha values were 0.62 and 0.65, respectively.

Table 8 – Dependence

Dependence			
DEP01	When my cigarettes run out, I think it is almost unbearable until I get another one.		
DEP02	I feel a huge urge to get a cigarette if I do not smoke for a while.		
Lower Factorial Score 0,928	Extracted Variance 86,06%	Minimum Correlation 0,721	Cronbach's Alpha 0,838

Source: Research Data (2016).

Differently from the previous variable, the Close Association (Table 9) presented a low value for reliability, with Cronbach's Alpha of 0.646. Because it was a dimension with two items, it could not improve its reliability through exclusion. The correlation between items was reasonable (0.483), but the variance was good (74.13%). The work of Souza et al. (2010) obtained a Cronbach Alpha of 0.88.

Table 9 – Close Association

Close Association			
ASSEST01	Cigarettes are my company, like an intimate friend.		
ASSEST02	Sometimes I feel like cigarettes are my best friends.		
Lower Factorial Score 0,861	Extracted Variance 74,13%	Minimum Correlation 0,483	Cronbach's Alpha 0,646

Source: Research Data (2016).

In the variable Automatism (Table 10) in order to improve the reliability of the scale it was decided to exclude the item AUT01 "I smoke cigarettes automatically without even realizing it", causing Cronbach's Alpha to go from 0.592 to 0.672, but even so

the value is below 0.700, which is considered low. The variance in turn, after the exclusion of the item, grown up from 57.17% to 76.13%. In the studies of Souza et al. (2009) and Souza et al. (2010) Cronbach's Alpha values were 0.52 and 0.47, respectively.

Table 10 – Automatism

Automatism			
AUT02	I light a cigarette without realizing that I still have another lit in the ashtray.		
AUT03	I already caught myself with a cigarette in my mouth without remembering to have put it there.		
Lower Factorial Score	Extracted Variance	Minimum Correlation	Cronbach's Alpha
0,873	76,13%	0,523	0,672

Source: Research Data (2016).

Analyzes of the Social Tobacco dimension (table 11) show a good correlation between items (0.570) and variance (78.52%). The reliability of the scale is satisfactory with Cronbach's Alpha of 0.726. The studies of Souza et al. (2009) and Souza et al. (2010) obtained Cronbach's Alpha of 0.58 and 0.72, respectively.

Table 11 – Social Smoking

Social Smoking			
TABSOC01	It's easier to talk and relate to other people when I'm smoking.		
TABSOC02	While I'm smoking I feel safer with other people.		
Lower Factorial Score	Extracted Variance	Minimum Correlation	Cronbach's Alpha
0,866	78,52%	0,570	0,726

Source: Research Data (2016).

The Weight Control dimension was the one that obtained the lowest reliability with Cronbach's Alpha of 0.559. The correlation between items was also low (0.394), but the variance (69.68%) was reasonable. In the study by Souza et al. (2010) Cronbach's Alpha was 0.64.

Table 12 – Weight Control

Weight Control			
CONPES01	Controlling my weight is a very important reason why I smoke.		
CONPES02	I worry about getting fat if I quit smoking.		
Lower Factorial Score	Extracted Variance	Minimum Correlation	Cronbach's Alpha
0,835	69,68%	0,394	0,559

Source: Research Data (2016).

The reliability of the general scale measured by Cronbach's Alpha was 0.917 in this study, showing that the instrument has a high degree of confidence. The value was superior to the original work of Souza et al. (2010) whose measure was 0.83.

Descriptive Analysis

In order to investigate the degree of agreement with each of the items on the scale, the research instrument suggested that respondents assign scores (on a scale ranging from 1 to 10). From the results, the means and standard deviations were extracted for each item.

In order to standardize the analysis referring to the descriptive statistics, the analysis criteria adapted from the work of Mazza (2009) will be used, as shown in table 13:

Table 13 – Criteria for mean and standard deviation (0 to 10 score)

Measure	Level	Number of scores
Mean criteria	Very Low	From 1 up to 3
	Low	4 and 5
	Intermediate	6 and 7
	High	From 8 up to 10
Standard deviation criteria	Low	Up to 1,00
	Intermediate	Between 1,00 and 2,00
	High	Above 3

Source: Research Data (2016).

Based on the criteria defined in Table 13, each dimension of the proposed scale was analyzed and submitted to data collection. Below, means and standard deviations of each dimension are presented, as well as comments are made about the indexes found. The scale of the original study (SOUZA et al., 2010) was evaluated with a variation of 1 to 5.

The Stimulation dimension had means ranging from very low to low (3.07 to 4.22), as seen in Table 14. However, it is noted that the measure of the standard deviation is at an intermediate to high level, from 3,126 at its maximum value, which shows divergence in the responses of this study.

Table 14 – Stimulation Descriptive Analysis

Item	**Mean**	**St. Deviation**
I smoke cigarettes to keep me alert.	3,07	2,867
I smoke to stimulate me, to cheer me up.	4,22	2,914
I smoke cigarettes to get me "up".	4,20	3,126

Source: Research Data (2016).

Regarding the Handling dimension, whose values appear in Table 15, it was verified that the means are classified as low, but practically the two items have high standard deviation, reaching 3,301. This shows, as in the previous dimension, a variation in the sample responses.

Table 15 – Handling Descriptive Analysis

Item	Mean	St. Deviation
Handling a cigarette is part of the pleasure of smoking it.	5,47	3,301
Part of the pleasure of smoking a cigarette comes from the steps I take to light it.	4,32	2,958

Source: Research Data (2016).

The items of the Pleasure of Smoking dimension achieved intermediate means (6,36 and 6,62), but high standard deviations (3,162 and 3,311). Indicating variation in sample responses, as shown in Table 16, below:

Table 16 – Pleasure of Smoking Descriptive Analysis

Item	Mean	St. Deviation
Smoking gives pleasure and it is relaxing.	6,62	3,311
I think cigarettes are pleasurable.	6,36	3,162

Source: Research Data (2016).

The Tension Reduction dimension (Table 17) also obtained items with intermediate means, being the lowest 6.07 and the highest 6.87. The standard deviation ranges from 2,875 to 3,347.

Table 17 – Tension Reduction Descriptive Analysis

Item	Mean	St. Deviation
I light a cigarette when I'm mad at something.	6,07	3,347
When I feel uncomfortable or upset about something, I light a cigarette.	6,87	2,875
I smoke cigarettes when I feel sad or when I want to forget my obligations or concerns.	6,17	3,107

Source: Research Data (2016).

The items of the Dependence dimension, shown in Table 18, obtained low (5.70) and intermediate (6.30) means, but with high deviations in both items. It shows high variation in sample responses.

Table 18 – Dependence Descriptive Analysis

Item	Mean	St. Deviation
When my cigarettes run out, I find it almost unbearable until I get another one.	5,70	3,337
I feel a huge urge to get a cigarette if I do not smoke for a while.	6,30	3,211

Source: Research Data (2016).

The Automatism dimension had items with means ranging from very low to low and standard deviation ranging from intermediate to high. By showing that the answers were not homogeneous, according to Table 19, below:

Table 19 – Automatism Descriptive Analysis

Item	Mean	St. Deviation
I smoke cigarettes automatically without even realizing it.	4,34	3,318
I light a cigarette without realizing that I still have another lit in the ashtray.	2,21	2,172
I already caught myself with a cigarette in my mouth without remembering to have put it there.	2,99	2,816

Source: Research Data (2016).

The items of the Social Smoking dimension (Table 20) obtained very low means, with the highest value of 3.76. The standard deviation was at an intermediate level indicating variation in responses.

Table 20 – Social Smoking Descriptive Analysis

Item	Mean	St. Deviation
It's easier to talk and relate to other people when I'm smoking.	3,57	2,789
While I'm smoking I feel safer with other people.	3,76	2,837

Source: Research Data (2016).

In the Close Association dimension, one item obtained a very low mean (3.49) and the other low (4.98). In the standard deviation, one item had intermediate standard deviation (2,879) and the other high (3,343), according to Table 21, below:

Table 21 – Close Association Descriptive Analysis

Item	Mean	St. Deviation
Cigarettes are my company, like an intimate friend.	4,98	3,343
Sometimes I feel like cigarettes are my best friends	3,49	2,879

Source: Research Data (2016).

The items of the Weight Control dimension obtained very low means and intermediate standard deviations. Indicating variability in sample responses, as shown in Table 22, below:

Table 22 – Weight Control Descriptive Analysis

Item	Mean	St. Deviation
Controlling my weight is a very important reason why I smoke.	2,12	1,957
I worry about getting fat if I quit smoking.	2,58	2,329

Source: Research Data (2016).

The table below shows the means and standard deviation of each dimension of the scale addressed in this study. It can be noticed that the means vary from very low, with lower value of 2.35 to intermediate, with greater value of 6.49. The standard deviation of the dimensions, for the most part, was at the intermediate level, with the exception of Smoking Pleasure and Dependence, which presented values of 3,111 and 3,047, respectively, and were considered high.

Table 23 – Mean and Standard Deviation for each Dimension

Dimension	Mean	St. Deviation
Stimulation	3,83	2,552
Handling	4,89	2,711
Pleasure of Smoking	6,49	3,111
Tension Reduction	6,37	2,745
Dependence	6,00	3,037
Automatism	3,18	2,084
Social Smoking	3,66	2,492
Close Association	4,23	2,681
Weight Control	2,35	1,791

Source: Research Data (2016).

Final considerations

In this study, several questions were asked in order to better understand the behavior of people who smoke. As a way of conducting research and gathering the necessary elements to search for answers, this article aimed to assess the behavioral and

social conditioning factors that lead people to smoke. The results of this study have several practical and theoretical implications, especially in the marketing field.

In a theoretical perspective, this study strengthens the Reason for Smoking Scale of the University of São Paulo developed by Souza et al. (2010), which addresses nine factors that lead people to smoke. In addition, this research helps in the understanding of consumer behavior specifically in the context of people who smoke, unlinking the health area and incorporating it within the science of Administration in the field of Social Marketing, incorporating it in new discussions, and providing a novel look at smoking. The results obtained here will serve to make public policies to combat tobacco, specifically in the context of the region formed by the municipalities of Crato, Juazeiro do Norte, and Barbalha, in Ceará.

Some limitations should be noted in this study: the first is the sample, which was only 103 respondents, compared to 311 in the original study. Another limitation regarding the sample is that it included only three cities in the Metropolitan Region of Cariri (MRC). Therefore, it is recommended to broaden the field of research. The amount of sample collected should be expanded as a way to present safer and more robust results, besides allowing the validation of the scale tested.

Considering the scale approached, it is noticed that six of the nine dimensions are formed by two items. It may impair analyzes, especially the Cronbach's Alpha. Thus, it is suggested that new items must be incorporated into the dimensions. Finally, it is recommended that constructs that negatively influence people to smoke must also be analyzed, in order to verify if their influences are higher or lower than the factors that influence it in a positive way.

References

ABREU, M. N. S; CAIAFFA, W. T. Influência do entorno familiar e do grupo social no tabagismo entre jovens brasileiros de 15 a 24 anos. **Rev Panam Salud Publica**, Washington, v. 30, n. 1, 2011.

BARBOZA, S. I. S. **Marketing social aplicado à doação de sangue**: fatores condicionantes de comportamento. 2012. 137f. Dissertação (Mestrado em Administração) - Centro de Ciências Sociais Aplicadas, Universidade Federal da Paraíba, João Pessoa, 2012.

BASTOS, A. F. V. **Consumo de bebidas alcoólicas por jovens**: implicações para o marketing social. 2013. 121 f. Dissertação (Mestrado em Administração) - Centro de Ciências Sociais Aplicadas, Universidade Federal da Paraíba, João Pessoa, 2013.

BERLIN, I; SINGLETON, E.G.; PEDARRIOSSE, A. M.; LANCRENON, S.; RAMES, A.; AUBIN, H. J.; NIAURA, R. The Modified Reasons for Smoking Scale: factorial structure, gender effects and relationship with nicotine dependence and smoking cessation in French smokers. **Addiction**, vol 98, n. 11, pp1575-1583, 2003.

BRASIL. Lei nº 10.167, de 27 de dezembro de 2000. Altera dispositivos da Lei no 9.294, de 15 de julho de 1996, que dispõe sobre as restrições ao uso e à propaganda de produtos fumígenos, bebidas alcoólicas, medicamentos, terapias e defensivos agrícolas. **Diário Oficial da república Federativa do Brasil.** Brasília, DF, 28 dez. 2000. Disponível em: http://www.planalto.gov.br/ccivil_03/Leis/L10167.htm. Acesso em: 15 jul. 2015.

BRASIL. Lei nº 12.546, de 14 de dezembro de 2011. Altera a Lei no 9.294, de 15 de julho de 1996, que dispõe sobre as restrições ao uso e à propaganda de produtos fumígenos, bebidas alcoólicas, medicamentos, terapias e defensivos agrícolas. **Diário Oficial da República Federativa do Brasil**. Brasília, DF, 15 dez. 2011. Disponível em: http://www.planalto.gov.br/ccivil_03/Leis/L10167.htm. Acesso em: 15 jul. 2015.

CARVALHO, H. C. **O governo quer que eu mude**: marketing social e comportamento do consumidor na adoção de um programa governamental. 2010. 329 f. Dissertação (Mestrado em Administração), Universidade de São Paulo, São Paulo, 2010.

CHATKIN, J. M. A influência da genética na dependência tabágica e o papel da farmacogenética no tratamento do tabagismo**. J. bras. pneumol**, vol.32, n.6, pp. 573-579, 2006.

COSTA, F. J. **Marketing e Sociedade** [Texto da disciplina do Programa de Pós-Graduação em Administração da UFPB]. João Pessoa, 2014.

FERREIRA, P. L; QUINTAL, C; LOPES, I; TAVEIRA, N. Teste de dependência à nicotina: validação linguística e psicométrica do teste de Fagerström. **Rev. Port. Sau. Pub**, vol.27, n.2, pp. 37-56, 2009.

HAIR JR, J. F; BLACK, W. C; BABIN, B. J; ANDERSON, R. E; TATHAM, R. L. **Análise Multivariada de Dados**. 6 ed. Porto Alegre: Bookman, 2009.

HENRIKSEN, L. Restricciones integrales del marketing del tabaco: promoción, paquete, precio y lugar. **Tobacco Control,** vol 21, pp147–153, 2012.

KOTLER, P; ARMSTRONG, G. **Princípios de marketing.** 12 ed. Pearson Prentice: São Paulo, 2007. 600p.

KOTLER, P; KELLER, K. L. **Administração de Marketing**. 12 ed. Pearson Prentice: São Paulo, 2006. 766p.

KOTLER, P; LEE, N. R. **Marketing Social**: influenciando o comportamento para o bem. 3ed. Bookman: Porto Alegre, 2011. 454p.

KOVACS, M. H; FARIAS, S. A; OLIVEIRA, C. R. Percepções de Risco no prazer de fumar: uma investigação sob a ótica do comportamento do consumidor. **Revista de Administração Mackenzie – RAM**, v. 5, n 2, p. 148-171, 2004.

MAZZA, I. **Experiência Do Cliente Em Serviços De Elevado Nível De Co-Produção**. 2009. 150 p. Dissertação (Mestrado em Administração) – Centro de Estudos Sociais Aplicados, Universidade Estadual do Ceará, Fortaleza, 2009.

MORAES, M. A. **Avaliação da Implantação do Programa de Controle do Tabagismo no Hospital Santa Cruz - São Paulo - Capital**. 2006. 184 f. Tese (Doutorado em Saúde Pública) - Faculdade de Saúde Pública, Universidade de São Paulo, São Paulo, 2006.

MORENO, R. S; VENTURA, R. N; BRETAS, J. R. S. O uso de álcool e tabaco por adolescentes do município de Embu, São Paulo, Brasil. **Rev. esc. enferm. USP**, vol.44, n.4, pp. 969-977, 2010.

EIRELLES, R. H. S. Tabagismo e DPOC – dependência e doença – fato consumado. **Pulmão RJ-** Atualizações Temáticas, vol. 1, n. 1, pp. 13-19, 2009.

MOWEN, J.C; MINOR, M. S. **Comportamento do Consumidor**. 1 ed. São Paulo: Pearson Prentice Hall, 2003. 403 p.

ORGANIZAÇÃO MUNDIAL DA SAÚDE. **Aspectos económicos de la lucha contra el tabaco.** 2014a. Disponível em: < http://www.who.int/tobacco/economics/background/es/> Acesso em: 19 de agosto de 2014.

ORGANIZAÇÃO MUNDIAL DA SAÚDE. **Aumentar lós impuestos sobre El tabaco**. 2014b. Disponível em: < http://apps.who.int/iris/bitstream/10665/112851/1/WHO_NMH_PND_14.2_spa.pdf?ua=1> Acesso em: 19 de agosto de 2014.

PETER, J. P; OLSON, J. C. **Comportamento do consumidor e estratégia de marketing**. 8 ed. São Paulo: McGraw-Hill, 2009. 553p.

PIETROBON, R. C; BARBISAN, J. N; MANFROI, W. C. Utilização do teste de dependência à nicotina de Fagerström como um instrumento de medida do grau de dependência. **Clinical & Biomedical Research**, vol 27, n. 3, pp. 31-36, 2007.

PINTO, M; UGA, M. A. D. Os custos de doenças tabaco-relacionadas para o Sistema Único de Saúde. **Cad. Saúde Pública**, vol.26, n.6, pp. 1234-1245, 2010.

RASH, C. J; COPELAND, A. L. The Brief Smoking Consequences Questionnaire–Adult (BSCQ-A): Development of a short form of the SCQ-A. **Nicotine & Tobacco Research,** vol 10, n 11, pp. 1633-1643, 2008.

RONDINA, R. C; GORAYEB, R; BOTELHI, C. Características psicológicas associadas ao comportamento de fumar tabaco. **J Bras Pneumol,** vol 33, pp. 592-60, 2007.

SOLOMON, M. R. **O comportamento do consumidor:** comprando, possuindo e sendo. 7 ed. Porto Alegre: Bookman, 2008. 680p.

SOUZA, E. S. T; SOUZA, E. S. T; CRIPPA, J. A. S; PASIAN, S. R; MARTINEZ, J. A. B. Escala Razões para Fumar Modificada: tradução e adaptação cultural para o português para uso no Brasil e avaliação da confiabilidade teste-reteste. **J. bras. pneumol**, vol.35, n.7, pp. 683-689, 2009.

VIEIRA, S. A. P. **Prevalência de tabagismo e motivações para fumar**: estudo de base populacional, em Florianópolis. 2014. 91 f. Dissertação (Mestrado) - Curso de Ciências Médicas, Universidade Federal de Santa Catarina, Florianópolis, 2014.

BARDIN, L. Análise de conteúdo. São Paulo: edições 70, 2009.

BETHLEM, A. Estratégia Empresarial: Conceito, Processos e Administração Estratégica. 2. ed. São Paulo: Atlas, 1999.

BORNHOLDT, W. Governança na empresa familiar. São Paulo: Artmed, 2005.

CAPELÃO, L. G. F.; MELO, M. C. de O. L. Relações de Poder no Processo de Sucessão em Empresa Familiar: o caso das Indústrias Filizola S.A. In: ENCONTRO DA ASSOCIAÇÃO NACIONAL DE PÓS-GRADUAÇÃO E PESQUISA EM ADMINISTRAÇÃO, 25, 2001, Campinas. Anais... Campinas: ANPAD, 2001.

CHRISTENSEN, C. R. Management succession in small and growing enterprises. Boston: Harvard University, 1953.

CHUEKE, G.V.; AMATUCCI, M. O que é bibliometria? uma introdução ao fórum. Internext, 2015, 10.2: 1-5.

DYCK, B., MAUWS, M., STARKE, F.A., & MISCHKE, G.A. Passing the baton: The importance of sequence, timing, technique and communication in executive succession. Journal of Business Venturing, 2002, 17, 143–162.

ESTOUP, J. B., Gammes sténographique, París, Institut Sténographique, 1916.

GERBER, J. Z., et al. ORGANIZAÇÃO DE REFERENCIAIS TEÓRICOS SOBRE DIAGNÓSTICO PARA A PREVISÃO DE DEMANDA-Organizing Theoretical Frameworks on Diagnosys for Demand Forecasting.GESTÃO. Org-Revista Eletrônica de Gestão Organizacional, 2013, 11.1.

GERSICK, K. E.; LANSBERG, I.; DAVIS, J. A.; HAMPTON, M. M. De geração para geração, ciclos de vida das empresas familiares. São Paulo: Negócios, 1997.

GRZESZCZESZYN, G.; MACHADO, H. V. Empreendedorismo e empresas familiares: reflexões sobre a pesquisa. In: SEMEAD – SEMINÁRIOS EM ADMINISTRAÇÃO. 9., 2006, São Paulo, Anais...São Paulo: USP, 2006.

IP, B.; JACOBS, G. Business succession planning: a review of the evidence. Journal of Small Business and Enterprise Development, v. 13, n. 3, p. 26, 2006.

LEONE, N. A. A sucessão não é tabu para os dirigentes da PME. In: Enanpad, 1991, Belo Horizonte. Anais... Belo Horizonte, p 243-247. 1991.

LEONE, N. M. de C. P. G. Sucessão na empresa familiar: preparando as mudanças para garantir sobrevivência no mercado globalizado. São Paulo: Altas, 2005.

LONG, R.G., CHRISMAN, J.J. Management succession in family business. In L. Melin, 2014. M. Nordqvist, & P. Sharma (Eds.), Sage Handbook of Family Business. Los Angeles: Sage.

OLIVEIRA, J. L.; ALBUQUERQUE, A. L; PEREIRA, R. D. Governança, Sucessão e Profissionalização em uma Empresa Familiar:(re) arranjando o lugar de família multigeracional/Governance, Succession, and Formalization of Management in Family Businesses:(re) organizing the role played by multi-generation families/Gobierno Corporativo, Sucesión y Profesionalización en una Empresa Familiar: reorganizando el lugar de la familia multigeneracional. Revista Brasileira de Gestão de Negócios, 2012, 14.43: 176.

OLIVEIRA, D. de P. R. de. Empresa familiar. São Paulo: Atlas, 1999.

OLIVEIRA, D. de P. R. Empresa familiar: como fortalecer o empreendimento e otimizar o processo sucessório. 2.ed. São Paulo: Atlas, 2006.

PWC, Pesquisa global sobre empresas Familiares. Disponível em: < http://www.pwc.com.br/pt/publicacoes/setores-atividade/pcs/2014/empresas-familiares-2014.html Acesso em: 15 mai. 2016.

SEBRAE, Empresas familiar. Disponível em: <http://www.sebrae.com.br/empresafamiliar>. Acesso em: 30 set. 2015.

SHARMA, P., CHRISMAN, J. J., PABLO A. L., & CHUA, J. H. Determinants of initial satisfaction with the succession process in family firms: A conceptual model. Entrepreneurship Theory and Practice, 25(3), 17–35. 2001.

WHATLEY, L. A new model for family owned business succession. Organization Development Journal, 29.4: 21, 2011.

Received: 12/16/2016

Approved: 06/11/2017