ISM UNIVERSITY OF MANAGEMENT AND ECONOMICS

Mindaugas Sinkevičius

ALCOHOL CONSUMPTION IN THE CONTEXT OF CONFLICTING SOCIETAL AND PERSONAL FACTORS

Doctoral Dissertation
Social Sciences, Management and Administration (03S)

VILNIUS, 2015

The dissertation was prepared in 2010–2015 at ISM University of Management and Economics.

Supervisor: Prof. Dr. Sigitas Urbonavičius (Vilnius University, Social Sciences, Management 03 S).

ISBN 978-9955-792-47-5

ACKNOWLEDGEMENTS

This dissertation is the result of long years of hard work and commitment. I would never have been able to get this far without the full support of and constant encouragement from my supervisor Prof. Dr. Sigitas Urbonavičius. Looking back, I now realize how much faith he had in me even in the times of my constant hesitation and foolishness. I sincerely lack enough words of gratitude for this man.

I would also like to thank Dr. Justina Gineikienė for our very fruitful cooperation while processing this research data. Justina was the perfect teacher to help me discover the opportunities given by Lisrel 9.1 and understand the secrets of structural equation modeling.

I am also grateful to Prof. Dr. Ilona Bučiūnienė and the entire doctoral studies department at ISM University of Management and Economics. Thank you for your help and support, thank you for constantly reminding of the upcoming deadlines and for all the patience when those were not met.

Mindaugas Sinkevičius

April 2015

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

KEY DEFINITIONS

In alphabetical order:

Absolute alcohol – Ethanol containing not more than 1% mass of water.

Alcohol abuse – Persistent drinking behavior in the face of repeated social, interpersonal, and occupational problems due to excessive alcohol consumption (Nolen-Hoeksema and Hilt, 2006 p. 358).

BAC – Blood alcohol content.

EU – European Union.

Harmful alcohol use – Drinking that causes detrimental health and social consequences for the drinker, the people around the drinker and society at large, as well as the patterns of drinking that are associated with increased risk of adverse health outcomes.

Health consciousness – Indicator of individual overall interest in issues related to general health and health-related consumption (Bui, Kemp and Howlett, 2011, p. 186).

Religion – System of beliefs, practices, rituals and symbols designed (a) to facilitate closeness to the sacred or transcendent (God, higher power, or ultimate truth/reality), and (b) to foster an understanding of one's relationship and responsibility to others in living together in a community" (Fife et. al. 2011, p. 314).

Self-efficacy – The belief in one's capabilities to organize and execute the courses of action required to manage prospective situations (Bandura, 1995, p. 2).

WHO – World Health Organization.

INTRODUCTION

Relevance of the research

Alcohol consumption and production is a well-documented phenomenon of human behavior. For centuries alcohol played a number of important roles in religion, culture and economic trade. Since the first time alcohol was made thousands of years ago it became a part of social life. Alcohol consumption and the behavior related to it remains in the focus of academic research, being analyzed in regards to its medical, social, psychological and many other attributes.

According to Gilla (2012) much of the scientific literature focuses on the problems related to alcohol abuse, violence, criminal behavior and health risks. The World Health Organization (WHO) reports 2.5 million annual deaths caused by the harmful use of alcohol. The use of alcohol not only puts risk on the individual level, but also compromises the well being of society. Although a variety of research focuses exclusively on teenagers, student and adolescent alcohol use issues (Burns, Hampson, Severson, & Slovic, 1993; Marcoux & Shope, 1997; Varela & Pritchard, 2011; Sancho, Miguel, & Aldás, 2011; Deshpande & Rundle-Thiele, 2011), only 9 percent, or 320,000, of all WHO estimated deaths are in the age group of 15 to 29 years. Certainly, the investigation of alcohol related problems among the younger generations enables us to prevent and take actions against such harmful behavior. However, consumer behavior is prone to changes over time and therefore different motives might result with a different impact. For instance, peer and parental influence (Kropp, Lavack, & Holden, 1999; Park & Lee, 2009*;* Varela & Pritchard, 2011) or availability of alcohol (Jang, Rimal, & Cho, 2013) might have a strong effect on an adolescent's inclination to consume alcohol, however the same motivations have a questionable impact on adult consumers.

Alcohol consumers could be categorized into three broad groups: those who are frequent or addicted drinkers as "heavy drinkers"; those who consume any alcoholic product occasionally as "moderate drinkers" and those who drink rarely and only a small amount of alcohol as "light drinkers" (San Jose et al. 2000). Although a variety of research is aimed at explaining and analyzing the alcohol consumption of heavy

drinkers, those who are alcohol dependent individuals are often unable to control its consumption. This dissertation, however, does not intend to research alcohol dependent individuals. It aims to analyze moderate adult alcohol consumers. Moderate alcohol consumption is acceptable by many cultures, despite the fact that alcohol-containing beverages might result in very negative social and personal impacts if consumed irresponsibly. More than this, when the situation of alcohol purchase and consumption is considered, societal interests do not necessarily match with the needs and wants of a particular individual. This requires continuing studies of the factors that influence alcohol consumption, especially with the deeper insights into the conflicting aspects between the societal and individual standpoints. Current investigation into the adult alcohol purchase intention in relation to attitudes towards drinkers, attitudes towards alcohol advertising, susceptibility to interpersonal influence, health consciousness, importance of religion and consumer self-efficacy is scarce. Though, the major trend in modern societies outlines encouragement to reduce the use of alcohol, this is not always in-line with the various contexts and occasions where its use is both socially acceptable and personally appropriate. Both societal and individual factors may present rather non-homogeneous groups that often exert totally opposite influence on the intention to purchase and consume alcohol and its actual consumption.

This imposes a need for gathering more insights and reflections that might serve suggesting factors that could be related to adult alcohol consumption. Therefore, this research aims to examine the adult alcohol purchase intention phenomenon influenced by attitudes towards drinkers and alcohol advertising, susceptibility to interpersonal influence, health consciousness, consumer self-efficacy and the importance of religion. Groupings of these determinants may vary, but from the marketing perspective media-related (attitudes towards drinkers and alcohol towards alcohol advertising) and interpersonal (susceptibility to interpersonal influence) types of influences are of the most interest. The first is related with the informational flow from mass media that has both a direct and indirect link with alcohol consumption. The latter also includes the direct and indirect influences of smaller social groups that are related with the possible consumer, often including one's close peers, friends,

colleagues, etc. and thus serving as reference groups for purchasing and consumption.

Social variables such as marketing, TV ads and other media that sell the product and portrays alcohol to be associated with positive and happy outcomes, would allow non-drinkers to become more familiar and acquainted with it could also become models for social learning. Social marketing has also polarized binge drinking and moderate drinking through a continuum that implies harms and benefits for the individuals and society. This in turn will affect learning and perception and the development of the idea that binge drinking is bad and moderate drinking is acceptable (Previte et al., 2014). In the process, a social norm is created and will likely also influence non-drinkers to try drinking. If the experience one sees from other people is positive, there would also be a higher likelihood that that individual would try to drink alcohol. However, if the experiences he sees are more negative, he might not try it at all. Thus, experiences of other people serve as factors that would later help in the decision-making process. Although, it is only when the behavior has been imitated and modeled that the outcome can be clearer (Dunn & Goldman, 1996). It is important to note again however, that behaviors developed during younger years may actually be carried on throughout adult life, further suggesting that the principles governing social learning behavior in young people may also be the same influences on adults.

Berkowitz, A. D. (1990) put forward interpersonal influence and peer pressure as the most important factors leading to excessive alcohol consumption. It is important to notice that both media-related and interpersonal influence factors may encourage and discourage the consumption of alcohol. For instance, social media may directly reflect the intention of a society to reduce consumption of alcohol, but also may act in its favor when alcohol products are being advertised. Interpersonal influence also may be both restricting and encouraging, since one may see either negative (illnesses, social and personal degradation, etc.) or positive (joyfulness, relaxation, etc.) characteristics of alcohol consumers. Rose, Bearden, & Teel (1992) claim that there is a great amount of research focused on the individual's willingness to comply with social pressures. Peer-pressure research dominates while analyzing teenager, adolescent and young adult populations. A variety of studies have shown that peer or

society's disapproval result in compliance to the dominant norm. Certainly social or peer pressure does not stand-alone when it comes to the decision to consume alcohol, many other factors exist, however the willingness to comply might result in a higher than otherwise level of temptation.

On the other hand, personal factors rarely encourage the consumption of alcohol - aside from the medical aspect of alcohol abuse - many act as forces that actually reduce it. However, the nature of personal factors is very different; their essence may lie in a rather individualistic concern about personal health, or can be linked with rather distant, but strong personal beliefs, priorities or lifestyles (for example, one's religiosity). For instance, it was observed that young adults' health intentions are guided by a dissociation from the drunk prototype (negative) and an association with the abstainer prototype (positive). Falling in-between, or being a moderate drinker and becoming more sociable, is also a preferred intention. The moderate prototype drinker in general has been associated with positive attributes, like being spontaneous and sociable, while heavy drinkers are perceived as annoying, volatile and uncontrolled (van Lettow et al., 2014).

Most of the epidemiological research on alcohol focuses on two variables: the total volume of alcohol consumed per person, and the pattern of drinking (e.g. occasional and moderate drinking versus binge drinking). The total volume of alcohol consumed per capita is easier to track; by comparison, it is difficult to fully tease apart changing patterns in drinking without a careful survey-based or ethnographic study. The data on longitudinal drinking trends is measured in terms of per capita consumer purchasing of different types of alcohol products. Overall alcohol consumption trends have been observed to have decreased in developed countries since the 1980's, whereas it has steadily increased in developing countries (WHO, 1999). While analyzing Eastern Europe, it is noticeable that Estonians and Lithuanians have rapidly become the world's dominant drinking populations over the last few years. When measured by overall liters of alcohol consumed per person, the two countries have rapidly increased their per capita drinking from around 60 liters per person per year in 1997 to over 100 liters per person per year in 2011. According to Statistics Lithuania, the average per capita consumption of alcohol in Lithuania in 2012 rose to 13 liters of legal absolute alcohol, 0.3 liters more than in 2011. Alcohol

consumption per person aged 15 years and over in 2012 increased by 0.3 liters as well, to 15.2 liters.

Alcohol use and abuse has profound social and personal consequences. A variety of studies and research (e.g. Kinard & Webster, 2010; Engels, Wiers, Lemmers, & Overbeek, 2005; Kiuru, Burk, Laursen, Salmela-Aro, & Nurmi, 2010; etc.) have been conducted exploring the phenomenon. Much effort has been expended to reduce alcohol abuse, but it has been met with little success. Therefore this dissertation research aims to investigate personal and social motives for alcohol consumption in order to suggest a consumer behavior model that would ultimately lead to lower quantities of alcohol consumed.

Novelty of the dissertation

Despite the attention given to the subject of alcohol consumption and related topics, academic research developing a wider scope of understanding of the social and personal motives resulting in alcohol consumption is limited. It is important to bear in mind that any type of consumption, including alcohol consumption, contains social, cultural, economical, tradition bonds. It is wrong to assume that there is one single theory to comprehensively explain alcohol use and related issues.

The current scientific knowledge does not provide a clear understanding of how consumers manage their personal affairs as well as social influence concerns, which conclusively impacts their consumption behavior. Current insights into alcohol consumption behavior rely on survey findings, which serve to inform statistics organizations, and often attempt to profile consumers along socio-demographic dimensions. One more controversial and conflicting aspect occurs in the interaction between, or simultaneous influence of the personal and societal factors on alcohol consumption, when at least one from the latter group is exerting a positive influence on alcohol consumption. This is one more aspect that is addressed in the dissertation.

It is easy to predict the influence of media-related factors when they are in the same “direction” (i.e. both of them generate either positive or negative attitude towards the consumption of the product). However, in reality there is a possibility of a conflicting influence, meaning that one may be negative about alcohol advertising,

but it can also have a positive influence regarding the imagery of joyful and relaxed people who are consuming alcohol. This controversy is yet under-researched and is therefore considered in this dissertation.

All the above-mentioned influences potentially may be mediated and/or moderated by numerous factors. In addition to the moderating effects of demographic factors, the analysis should also address those that are supposed to specifically modify effects of the external (media-related and interpersonal) and internal (personal) factors. This is an additional issue tested in this dissertation.

Many factors may facilitate or impede the performance of a behavior. Some of these factors are personal to the individual while other factors are located externally (see Ajzen, 1985). The distinction between internal and external causes of a behavior can have important implications.

Research problem

Consumer behavior theorists have long argued that people use products as a form of self-expression, highlighting the relationship of one's identity to a particular behavior. Alcohol drinking, for example, is one behavior that is typically marketed as such. Alcohol companies have spent billions in the last century to make their products social icons that people use to communicate who they are or want to be. A great deal of advertising content tries to link different identities or lifestyles to different brands, so people can find one that expresses just what they want. Engels, Wiers, Lemmers and Overbeek (2005) claim that social and self-enhancement motives are the two most important factors affecting alcohol consumption.

Results of longitudinal studies on adolescents' alcohol consumption have also shown that not all interventions designed to increase self-efficacy and to change addictive behaviors have led to the expected changes in target health behaviors or cognitions.

Behavior pertinent to alcohol consumers is varied, but a prominent factor is the inclusion of personal considerations within the consumer's decision-making process as well as an external influence from society. Aertsens, J. et al. (2009) states that personal motivations are able to shape one's behavior in a characteristic-congruent

direction as far as they are activated during the pre-decisional process. Similar patterns apply to the influence of an external environment.

Alcohol is a social phenomenon. There is even a term used to reflect alcohol use and its relation to society – “social drinking”. Alcohol consumption phenomenon is of high scientific interest in a variety of fields in sociology: social control, deviant behavior, advertisement and media effect on the individual, social movements, and changes in social structures.

Conclusively, **the object of the dissertation** is to examine the influence of societal and personal factors determining intention of alcohol consumption.

The goal of this research is to reveal to what extent alcohol purchase intention is determined by personal consideration and or social influence and to further bring understanding as to how the two interact.

The research goal was accomplished with the following objectives:

1. To analyze and define the concepts of attitudes towards drinkers, attitudes towards alcohol advertising, susceptibility to interpersonal influence, health consciousness, consumer self-efficacy and importance of religion in their relation to alcohol consumption.
2. To explore the existing consumer behavior models.
3. To develop the consumer alcohol purchase intention model.
4. To study the relationship between the research model’s constructs and the outcomes of the proposed hypotheses.
5. To evaluate the influence of suggested determinants to the consumer’s alcohol purchase intentions and suggest possible policy interventions.

Research methodology

The dissertation research used descriptive and empirical analysis methods.

- The theoretical part of the research was aimed at defining the phenomenon of consumer alcohol consumption; to identify the issues that have an influence on a consumer’s consumption behavior; to analyze the nature of an individual’s self-

efficacy, attitudes towards drinkers, attitudes towards alcohol advertising, susceptibility to interpersonal influence, health consciousness and the importance of religion. Therefore, an analysis of the available scientific literature was performed. After the current level of knowledge had been systemized, a critical synthesis was conducted. While performing theoretical research a variety of scientific literature in the fields of management and economics, psychology and education were analyzed. The majority of the scientific sources used are from a variety of international sources.

- In order to achieve the goal and objectives, the inductive research method was used. Firstly, separate components of the research object were analyzed. Further, based on the theoretical inductive method and existing consumer behavior theories, an alcohol consumption model was constructed.
- In order to assess the overall impact on the personal and social motives to the consumer's alcohol consumption behavior, descriptive statistical methods were used, structural equation modeling through Lisrel 9.1 was performed and R software was used to test for moderations.
- Finally, a logical analysis was conducted in order to summarize and compare the results obtained in empirical studies and make conclusions.

Structure of the dissertation

The dissertation contains an introduction, a compendium of terms and acronyms used, three chapters, conclusions and discussion and a list of references and annexes. After introducing the relevance of the research, the current investigation level, the goal and the objectives, the dissertation continues to Chapter 1. This chapter presents the theoretical insights on the subject. It summarizes the previously conducted research, evaluates the current status of the scientific problem and suggests a new area of investigation. The chapter attempts to review previous and recent studies and theoretical backgrounds behind alcohol consumption. Furthermore, the different determinants are to be integrated and further related to human behavior theories explaining the motivation in drinking. In the second chapter, the research methodology and research design is described. Research questions and the hypothesis are presented. The model of consumer alcohol consumption intention is introduced. The third chapter contains results of empirical research.

The last section of the dissertation contains discussion and conclusions. Here, the results of the research are once again compared with the previous ones of previous researches. Finally the dissertation concludes whether the research aim and the objectives were reached and to what extent and provides possible implications for alcohol reduction policies.

Theoretical contribution

Shaw, Grehan, Shiu, Hassan and Thomson (2005) claim personal characteristics are an important area of academic interest contributing to the better understanding of consumer behavior. Many factors may facilitate or impede the performance of a consumer's behavior. Some of these factors, including skills and willpower, are internal to the individual while other factors, such as task demands and the actions of another persons, are located externally (Ajzen, 1985). The distinction between internal and external motivations can have important implications. For instance, the responsibility for success or failure is attributed to the actor when perceived as caused by internal factors (ability or effort), but less so when perceived as being due to external factors (task difficulty or luck).

Current consumer behavior theories are insufficient to explain the influence of social and personal factors determining alcohol consumption behavior. This dissertation intends to test whether a consumer's self-related characteristics may constitute the desired alcohol consumption behavior practices of a society.

Approbation of the research findings

The dissertation results were published in peer-reviewed scientific journals and presented at two international scientific conferences.

Publications and presentations of research findings

Peer-reviewed journals

1. Sinkevičius, M. (2015). Adult alcohol purchase intention: the influence of health-consciousness, attitudes toward alcohol advertising and alcohol drinkers. *Leisure time research*, ISSN 2345-0339. Accepted for printing.
2. Sinkevičius, M., Urbonavičius, S. (2015). Adult alcohol purchase intention in the country in transition: the effects of health consciousness, self-efficacy and religion importance. Organizations and Markets in emerging economies. *Organizations and Markets in Emerging Economies*, ISSN 2029-4581. Accepted for printing.
3. Sinkevičius, M., Gineikienė, J., Huettinger, M., Adomavičius, B. (2014). Standards in the Judgment of Consumer versus Business Unethical Behavior. *Tržište/Market, 26*(1), 45-57.

Conference presentations

1. Sinkevičius, M. (2014, November 27-28). *The effects of health consciousness, self-efficacy and religion importance on adult alcohol consumption intention*. 14th Ernestas Galvanauskas International Scientific Conference, Lithuania.
2. Sinkevičius, M. (2014, December 4-5). *Adult alcohol purchase intention: the influence of health consciousness, attitudes toward alcohol advertising and alcohol drinkers*. 2nd International Scientific Conference; 6th International Society for Social Sciences of Sport Conference Sports and Leisure Management: Tendencies and Challenges, Lithuania, Lithuania.

1. THEORETICAL ANALYSIS OF ALCOHOL CONSUMPTION

1.1. Theoretical background of intention to use alcohol

1.1.1. Alcohol consumption past and present

Alcohol and its consumption has been one of the most well-documented human social behaviors. Even in ancient times, alcoholic drinks were recognized to have played a number of roles in religion, traditions and even economics as a trade product. Historically, alcohol was also used in medicinal applications due to its antiseptic properties. Korhonen (2004) claims that alcohol was first made thousands of years ago. The very first alcohol was probably made accidently based on fruit juice and natural sugars. Soon after, the production of alcohol was well understood and different nations began to intentionally produce alcoholic beverages. Alcohol was made and used in almost all parts of the world, even before the colonial period of European expansion. With the introduction of the distillation column, Europe's industrial revolution also enabled an alcohol production revolution. Since the rise of alcohol as a consumer good, many new alcohol containing products were created and modern logistics made it available at all hours of the day.

Increased alcohol consumption has enhanced trading between countries and in turn has sustained and fueled the steady demand for its production. Its great market potential, as new generation markets are created each year, along with the socio-cultural factors associated with drinking and the high profitability of the product, makes it a primary staple export of some countries. Approximately 2 billion individuals consume alcohol worldwide.

In both the past and present alcohol has been used for various life occasions: celebrations; religious rituals; and for making business and all kinds of agreements. As time progresses however, the role of alcohol in societies is being transformed from a mere catalyst of socialization to one of the most sold and purchased products on the market. In the United States for instance, it is estimated that alcohol production markets earn around $90 billion annually and it has been observed that such a high level of turnover is maintained even during periods of recession (Morley, 2011). This high demand for alcohol is dependent and associated with a number of

social, cultural, economic and health factors. Aside from these potential reasons or motivations for consumption, the vast variety of alcohols produced all over the world adds to the marketability of the product, as it can be easily categorized into different varieties, such as wines, beer, spirits and distilled drinks. The unregulated market and consumption of alcohol in the past has led to negative social consequences such as the increase in cases of alcohol addiction or alcoholism. Besides the history and development of alcohol, there has also been a great deal of recorded history on its abuse. Ancient texts from all over the world contain information about the problems that have been caused by its consumption. Despite the current scientific interest, Room, Babor and Rehm (2005) state that more attention to alcohol consumption issues has been raised since the 80s. Since then, the majority of research has focused on alcohol related consequences on the one hand and alcohol treatment on the other. Despite that, this paper will not investigate any medical aspects of alcohol consumption behavior.

According to a 2014 report released by the World Health Organization (WHO), approximately 3.3 million people die yearly due to alcohol abuse. Unhealthy consumption of alcohol is the main cause of 5.9% of all annual deaths. The WHO has also stressed the widely known fact that there is a causal relationship between the harmful use of alcohol and a range of mental and behavioral disorders. In addition it has been claimed that apart from health consequences, alcohol abuse brings significant social and economic losses to individuals and society.

As noted by Korhonen (2004) alcohol related problems have long been an object of investigation. Therefore, terms like “alcohol abuse” and “harmful use” have appeared and become part of the common lexicon. Alcohol abuse is defined as “persistent drinking behavior in the face of repeated social, interpersonal, and occupational problems due to excessive alcohol consumption” (Nolen-Hoeksema and Hilt, 2006 p. 358). Alcohol dependence might contain similar psycho-social problems as alcohol abuse, but often it also involves physiological habituation. In fact, alcohol dependence serves as a synonym of alcoholism. Similarly, the WHO Global Strategy defined “harmful alcohol use” as drinking that causes detrimental health and social consequences for the drinker, the people around the drinker and

society at large, as well as the patterns of drinking that are associated with the increased risk of adverse health outcomes.

Many authors explain and analyze alcohol consumption from a disease point of view. Alcoholism is considered a disease when an individual is unable to control its consumption. This dissertation, however, does not intend to research alcohol dependent individuals (alcoholics).

1.1.2. Analysis of the theories that are used to explain alcohol consumption related behavior

1.1.2.1. Types of theories related to alcohol consumption

A number of theories are involved in explaining alcohol consumption behavior. For instance, sociological theories investigate the individual's relation with the social structures around him. Such theories usually employ extensive concepts and diverse phenomena. As a result the possible impact of one phenomenon to another is palpable. While analyzing and evaluating different research perspectives, it is important to keep in mind that any type of consumption, including alcohol consumption, contains social, cultural, economic and traditional bonds. It is wrong to assume that there is any one single cause that comprehensively explains alcohol use and its related issues.

It is important to investigate the theoretical background of alcohol consumption. However, some demonstrate a rather narrow perspective and tend to explain specific cases of alcohol consumption. It is important to keep in mind that most existing theories focus on a single or a particular amount of factors that might lead to alcohol consumption. However, it is undoubtedly true that there is no single factor that would explain why an individual has a higher versus lower temptation to consume alcohol.

The majority of existing theories do not necessarily contradict one another and newly introduced theories simply serve to complement existing ones and do not propose a new set of operational circumstances. Goode (2007) emphasizes three groups of existing theories responsible for drug use: biological, psychological, and sociological. Although, narcotics are the primary object of Goode's (2007) interest, the given classification of theories is applicable to other psychoactive substances

including alcohol. Since biological theories according to Goode (2007) acknowledge possible biological differences, they primarily focus on individuals and thus do little good for sociological understanding. Such theories might include genetics and heredity as crucial factors for individuals prone to using alcohol. According to Korhonen (2004) there is evidence that alcohol consumption disrupts some parts of the brain. For instance existing evidence proves that alcohol might help to increase the level of dopamine that is directly related to stress, meaning that alcohol might reduce stressful situations.

Psychological theories stress the importance of individual characteristics claiming that the willingness to consume or abstain are related to individual personality traits. Both biological and psychological theories stress either genetic or personality factors of an individual.

Meanwhile the distinct feature of sociological theories is the focus not on the individual, but on the existing social bonds and particular situations in relation to society. Bucholz and Robins (1989) argues that sociology alone and that neglecting research from fields of biology and psychology are inappropriate. The authors claim that in order to understand the effects of alcohol, alcohol addiction must be fully investigated: “by its nature, alcohol falls into the bailiwick of many disciplines; likewise, consequences of its use fall into medical, criminal, behavioral and social realms”.

Research in the sociology related to alcohol consumption suggests some valuable provisions in alcohol treatment processes. Firstly, exhaustive research provides the ability for a methodological approach to the determinants and motives related to the use of alcohol. Examining these factors can extend the knowledge of the risk as well as factors leading to the rejection of alcohol use.

1.1.2.2. Social Identity theory

Social identity is concerned with one’s self-concept or the individual identity derived from how one is perceived as a member of a relevant social group. Thus, social identity is shaped, influenced and honed by the external definition of one’s acceptable identity. This theory is a powerful way of explaining behavior and social

integration with other groups or society in general. It is also a useful way to understand how individuals generate and establish self-esteem and maintain it especially when faced with social threats of exclusion and illegitimacy of membership in a particular social group or class (Biernat et al., 1996). Social identity theory has three main social aspects: namely social identification, how one portrays himself towards others; social comparison, how one perceives himself compared to others; and psychological distinctiveness, how one responds to or behaves differently from others (Tasdemir, 2011). In this process, an individual will aim to gain an identity that is more acceptable and related to the in-group members that will allow himself to be differentiated from the out-group members.

Social identity theory states that social threats play a role in greater identification with one's in-group and/or greater derogation of out-group members in order to establish or maintain self-esteem (Tajfel & Turner, 1986). An individual who is constructing his own social identity has more lenience in being categorized in a positive or higher classification. The fear of ostracism, exclusion or stigmatization leads, more often than not, to the re-classification of one's identity to become more related to the in-group or relevant social group. If the in-group does not value an individual as he would expect, the tendency is for him to leave that group and look for other out-groups where he might fit in. Several studies have used social identity theory to explain classification and stigmatization of groups or individuals related to health problems such as diseases like HIV or cancer (Katz & Nevid, 2005; Quinn & Chaudoir, 2009), or chronic substance abuse such as drugs (Pachankis, 2007) and nicotine (Stuber et al., 2009) or social classification based on gender, race and age. Most social identities (e.g. addiction, smoking) are associated with the norms of peer social groups and how one's identity will fit with the rest of the members of the in-group.

Individuals who have alcohol dependence or are alcoholic are also sometimes devalued because of the negative perception associated with "addiction" in much the same way that "smokers" are viewed. This is interesting because even if people who are addicted are ostracized or stigmatized, they still tend to classify themselves as only occasional alcohol drinkers. Several studies show that the desire to conform to the norms of a social group is associated with the want to be identified with the in-

group, even if it means the consumption of beverages or substances that are mostly socially stereotyped to have negative connotations (Verjooijen et al., 2007). The ability to have common grounds such as “drinking alcohol” but not necessarily being a heavy drinker has also been found to help people become more socially acceptable as perceived in social networking sites (Ridout et al., 2012). Alcohol, as a catalyst of socialization, is seen here as a way to easily get into someone’s circle by finding common grounds or activities. This is true especially if most of the people whom an individual wants to be associated with are also social drinkers. There is a conscious effort to make oneself “cool” or “sociable” by abiding to the attitude or behavior of others. This is similar to the observations made by Reed et al. (2007) who suggested that alcohol use depends on the degree to which an individual is identified with that specific group. For example, if an individual is with a social group that is just drinking moderately, that individual will conform to the norm of those in that particular group. However, if he or she is with a group of people who drinks more, that individual may stretch his limits in order to conform to the norms of that other group. An individual’s ability to cope up with alcohol consumption therefore is directly related to how he wants to be identified with the relevant group.

Gender association may also influence the degree of drinking of an individual. Women for example have been stereotyped to drink less and thus are socially expected to consume less alcohol, although sometimes, their tolerance could be actually higher than that of some men. Masculinity has also been associated with machismo and drinking, thus men sometimes try to conform to this social stigma and apply it to their personal identity. The problem however is that individuals sometimes overlook how both drinking behaviors (descriptive norms) and the approval of drinking (injunctive norms) of their peers could meet halfway. This results to consistent self-other discrepancies which contribute to problems in building an acceptable social identity (Borsari & Carey, 2003). In males for example, new members of a social group will tend to imitate the level of drinking of the peer within the immediate environment that is drinking the heaviest and tend to be the most sociable (Borsari & Carey, 2001) which partially explains how people can become moderate or heavy drinkers. In a study done by Dickens (2013), it was observed that when an individual is threatened with ostracism, women will classify themselves to

be alcohol consumers but not heavy drinkers. In addition, moderate drinkers were seen to be of the higher status because of their developmental stage and context of population. This allows them to be perceived as sociable because they can drink, but not to be perceived negatively because they are not dependents, alcoholics or heavy drinkers, which are usually associated with negative connotations. Thus, moderate alcohol drinking is seen as a positive social identity. The study however noted that this would vary on the population being surveyed and the context in which the question is being asked.

Adult drinking behavior may actually be directly or indirectly related to drinking behavior in one's younger years. Studies have shown that as individuals pass through stages of young adulthood, they are more prone to social pressure since it is the main period of developmental exploration and when they first imitate those people surrounding them as they seek social acceptance. However, after moving on to adult life and becoming disengaged with a certain group which has drinking as a norm (e.g. college), there is also experienced a change in perception on alcohol that slowly causes one to conform to a new identity expected of that age. This phenomenon has been heavily used in helping people get over abuse or dependence on substances and is called the social identity approach. It is also a naturally occurring process as an individual becomes integrated into society (Dingle et al., 2014). Behaviors related to social identity then - especially those related to drinking - slowly change with status, age and work acquisition, as well as with family responsibilities. There is widely accepted perceptions that as people get older, alcohol consumption also decreases (at least for moderate or social drinkers) although the ability to purchase it increases. In the adult stage, the social identity of maturity associated with responsibility tends to transcend even to the attitude towards alcohol drinking. In the United States for example, surveys have shown that only 7 out of 10 adults consume alcohol at low risk levels (37%) or none at all (35%) compared to those who drink heavily or at at-risk levels (28%). Adults just see alcohol as a means of socialization, self-enjoyment and for its health benefits rather than drinking it from peer-pressure (NIH, 2010).

Social identity in this sense is more of a personal struggle to build a definition of oneself. However, towards this self-identification process, other external factors influence a person's mindset and ultimately affect behavior towards alcohol use.

1.1.2.3. Social learning theory

Another theory used to explain how people get acquainted and later on consume alcohol is the social learning theory, which involves the observation of experiences in a social environment and the imitation and modeling of the behavior of others. In the context of alcohol drinking, a social learning framework sees consumption as a behavior that lies in a continuum – from abstinence to moderate drinking and the extreme as dependence or abuse. It is then logical to assume that initiation, maintenance and development of different drinking patterns in different age groups are guided by the same learning principles as the social learning theory (Jones et al., 2001). However, the expectations prior to drinking may or may not meet ends with actual experiences.

This theory has been extensively used while analyzing adolescent aged alcohol and drug use. Only a few studies have applied it to adult groups. Social learning theory stresses the importance of behavioral imitation. There are certain people surrounding an individual – peer, parents, coworkers, etc. that may have a great effect on the individual's ability to make independent decisions. The learning process is not a formal procedure learned at home, at university or at work. Instead it usually takes place informally while observing the behavior of others. Akins, Smith and Mosher (2010) claim that individuals, particularly at a young age, who are exposed to drinking parents, learn such behavior and are more likely to consume themselves.

According to the social learning theory, people may have either an internal or an external locus of control. The level of generality or situational specificity of this construct can vary. The term "locus" refers to the location where control resides – either internal to the individual (based on one's traits or behaviors) or external to the individual (due to other forces or chance). According to implicit assumptions that form the background of many studies, a firm internal locus of control belief might promote better health or healthier behaviors.

Several studies have actually used and validated the use of the social learning framework to explain developing drinking behavior. For example, alcohol outcome expectancies or the likelihood of alcohol usage are already developed even before individuals have consumed alcohol (Miller et al., 1990). Generally, animals learn social behaviors either by experiencing it (direct) or observing it from other animals (indirect). In the case of alcohol consumption, the idea or desire for alcohol consumption could have already been developed when children or youngsters see their parents or adult peers drink or consume alcohol. During these years, however, the expectancy of alcohol consumption is still unknown. Studies have shown that social interactions that have the most influence on us are from those people who matter to us the most, such as our parents, relatives or people whom we trust (Horvath et al., n.d.). Another study suggested that social learning occurs with college students living together (as housemates) and is also an influence on drinking behavior (Ward & Gryczynski, 2009). Young adults who have seen drinking as a norm in their families could perceive drinking as a normal behavior even if many people would view it negatively. For example, if it were observed that during family occasions drinking alcohol would usually lead to laughter and socialization, there would be a higher likelihood that the same behaviors would develop given the opportunity. Learning however, depends on how one perceives and sees the experience from other people drinking alcohol and could result in either end of the alcohol drinking spectrum (abstinence to dependence). Other social variables such as marketing, TV ads and other media that sell the product and portrays alcohol to be associated with positive and happy outcomes, would allow non-drinkers to become more familiar and acquainted with it and could also become models for social learning. Social marketing has also polarized binge drinking and moderate drinking through a continuum that implies harms and benefits for the individuals and society. This in turn affects learning and perception and the development of the idea that binge drinking is bad and moderate drinking is fine (Previte et al., 2014). In the process, the social norm of moderate drinking is created and would likely also therefore influence non-drinkers to try drinking. If the experience one sees from other people is positive, there would also be a higher likelihood that that individual would try to drink alcohol. However, if the experiences seen are more negative, drinking

might not be tried at all. Thus, experiences of other people serve as factors that would later help in the decision-making process. Although, it is only when the behavior has been imitated and modeled that the outcome can be clearer (Dunn & Goldman, 1996). It is important to note again however, that behaviors developed during younger years may actually be carried on through adult life, further suggesting that the principles governing social learning behavior in younger people may also be influencing factors for adults.

Learning however does not end when one has acted on the idea, but rather, perceptions may also change depending on experiences acted upon and might also predict future behavior, which in this case is regarding alcohol consumption (Maisto et al. 1999). Wall et al. (2003) studied the effect of increased *ad lib* drinking on moderate drinkers to the change in alcohol consumption expectancies. The participants who were also bar patrons where the study was conducted were asked to consume alcohol more than they usually did and evaluated their experiences afterwards based on the differences of what they expected and what they actually experienced. Results showed that expectations (as learned from others) exceeded their actual experiences. For example, some thought that excessive drinking would lead to aggressive and violent behavior, however, none of them showed such behaviors afterwards and actually changed their perception towards drinking at the end of the study. This suggests that learning socially may or may not actually be applicable to an individual.

Several studies testing social learning in the context of alcohol consumption have been conducted with younger age groups such as university or college students and teenagers. There have not been many studies done on understanding social learning in adults with the presumption that the introduction to and possible involvement with alcohol mainly happens in the young adult stage. Surveys have also revealed that drinking behavior is negatively correlated with age – older age groups have a lower likelihood of starting drinking and are much less likely to become heavy drinkers. This relationship is moderated by a number of factors such as health limitations, maturity, personal obligations, family perceptions, etc. A survey of more than 1,400 adults however (ages 60 or higher) revealed that the principles governing social learning in younger age groups are the same influencing adults.

Adult social learning includes the norms and behavior of the primary group in which one is associated, the individual's attitude towards alcohol and the balances of reinforcement for drinking (Akers et al., 2005).

1.1.2.4. Problem-solving behavior

Problem-solving skills are a general set of skills that enables an individual to effectively respond to a vast variety of stressful situations or stressors (Goldfried & Davidson, 1976). In turn, many social cognitive variables are associated with indicators of behavioral health (Auerbach, 1989), such as coping mechanisms. Thus, understanding the problem-solving capabilities of an individual will allow a better understanding of how an individual responds behaviorally (including drinking) when faced with social problems.

Problem-solving models categorize problem-solving abilities into two major components, namely problem orientation and problem-solving skills. Studies have shown a strong correlation between weak social problem-solving skills and drinking and the level of alcohol use. The inability to cope as an effective response to a social problem due to poor problem-solving skills is avoided when alcohol is consumed since it decreases negative self-awareness (Hull, 1982). In this occasion, a person goes into the domain of problem orientation which has been characterized to serve in warding off negative emotions, facilitates positive effects and perceptions of competency, increases the chance of responding impulsively and ultimately would orient the person to problem-solving. Problem solving is more goal oriented and is the cognitive aspect of handling and ultimately solving a certain problem. McMurran et al. (2002) even further suggested that the incapacity for social problem-solving may be induced by impulsivity and is augmented by drinking (Figure 2). Impulsivity has also been implicated in persons who are seeking excitement and who are restless and would likely be drawn to social drinking venues. Social problem-solving skills were found to be related to openness which is one of the measures of intelligence.

In a study by McMurran et al. (2002), it was observed that people with low IQ tend to resort to drinking when experiencing some problems. Drinking alcohol allows

them to at least not think about their problems even for a while. In a survey conducted by Godshall & Elliott (1997), ineffective problem-solving skills were associated with consumption and sometimes high intake of alcohol over a period of 2 weeks. Drinking is also related to a sedentary lifestyle resulting in unhealthy behaviors. A self-perceived problem-solving ability has a strong influence on possible intake and pattern of consumption. A survey of 192 students demonstrated that when problem-solving capabilities are perceived as low and reported by each respondent, it is not only strongly correlated with the use of alcohol but also the amount consumed is not directly related to the perceived score for problem solving skills. Alcohol use allows the respondents to cope with negative emotions (Williamn & Kleinfelter, 1989).

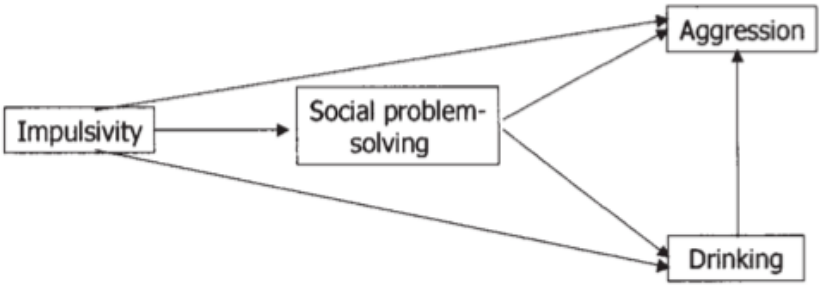


Figure 1. A schematic diagram demonstrating how impulsivity is affecting social problem-solving.

Drinking may enhance impulsivity which in turn influences social problem-solving. However, drinking may also have some negative consequences such as aggression (McMurran et al., 2002). Interestingly, persons with a high IQ or those with a high capacity to handle social problems would opt to drink moderately rather than drown their problems with alcohol. These mature persons (average of 27 years old) prefer not to drink heavily because they have other priorities such as work, studies and other domestic commitments (McMurran et al., 2002). Another study using a South African population also suggested that people with the inability to cope with stress are more likely to adopt alcohol drinking, which may range from moderate to heavy, as a coping mechanism (Sorsdahl et al., 2014). These observations

however were a bit different when the frequency and volume of consumption was investigated in relation to the presence of stressors. A survey of employed individuals showed that drinking actually increased by 24% with each additional stressor tested. Furthermore, different stressors had different effects on alcohol behavior. Job-related and legal sources of stress caused more consumption than social and health-related stress. Interestingly, men showed a stronger correlation with stressors, suggesting that men have a higher tendency to drink alcohol when they are facing problems more so when the problems are related to work or legal-issues (Dawson et al., 2005). The study noted however that these coping mechanisms do not necessarily lead to alcohol dependence or abuse, and also die down once the problems experienced by the drinkers were solved as in the case of social drinkers. A study of moderate drinkers demonstrated that a positive experience with drinking follows the incentive-motivational models of addiction and craving which also increased the intentional bias for alcohol cues for those who were drinking to cope (Field & Powell, 2007).

The recognition of poor problem-solving skills and consumption of alcohol has been widely accepted and is now being used as an intervention for alcohol or substance abuse. In a comparative study between social skills training and problem-solving training as an intervention in alcohol use in school environments, results showed that problem-solving skills training was the strongest to be associated with the decrease in use of alcohol. When students had confidence in their problem solving skills and thus in themselves (Esapada et al.,2012) they were more likely to have a healthier mindset and courage to solve their personal problems and forgo using alcohol as a primary coping mechanism.

1.1.2.5. Expectancy theory

Outcome expectancy theory has some perspectives and extensions of social learning theory that was presented earlier and has been used to explain a wide variety of psychological phenomena (Bandura, 1977; Goldman, 1999). Expectancy involves all the information or learning towards a certain action. Aside from learning from the experiences of others or social learning, there has been a widening recognition of the importance of learning and memory as frameworks in which

decisions about an action to be taken are made (Oei & Baldwin, 1993). The outcome expectancy theory uses these data stored in memory or learned before coming up with an expectation about the possible outcome of the action. It uses the if-then logic of relationships between an event and the resulting situation (DeBenedittis & Holman, n.d.). In the end, an expectation outcome would then influence the behavior. For example, “if I hit my head with a rock, then I will get hurt, so I should not do it”. In outcome expectancy theory, behavior is associated with individuals who have expectations of particular reinforcing effects as the outcome of performing the behavior in question. Furthermore, whether the expected outcomes have been validated or not is not important but they just simply need to be held. A more important aspect though is how a person's expectations affected the decision towards a certain behavior.

In the context of alcohol use, drinking or consumption is explained by individuals that have alcohol outcome expectations: that the way they consume or not consume alcohol is a reflection of how they expect the effects would be (Jones et al., 2001). These expectancies could be classified into positive and negative. The former are sets of variables that may reinforce the use of alcohol. Some of these expectancies are socialization, relaxation, altered cognition, assertion, and effective change (Young et al., 2005). For example, positive expectancies like “I will be more sociable if I have a few drinks” represent a significant component of the motivation to drink. On the other hand, negative expectancies such as “I have work tomorrow and I might not be able to get up early even if I just have a few drinks” represent a significant component of one's motivation for restraint. The person may or may not drink as a consequence of his expected outcome depending on its classification as either positive or negative. In this context, this theory integrates components and structures about alcohol motivations that were also described in other theories (Jones et al. 2001). Furthermore, the expectancy outcome theory does not only look into the factors of motivation (to drink) but also tackles both ends of the drinking continuum (from abstinence to heavy drinking) by looking at both the motivations to drink and not to drink, and not only the why-not question which is more prominent in other theoretical frameworks. For example, in a study conducted by Connor et al. (2005), they used the theory to test factors of motivation and self-efficacy on why some

students are not drinking or why they would prefer not to drink. However, aside from the usual expectancies, they also considered other important aspects that might be working with expectations of self-based motivation such as self-efficacy beliefs. In a survey of university students, they observed that positive expectancies were affecting decisions regarding not only consumption but also aspects of frequency, quantity and dependence. They further found out that negative expectancies are stronger in people with less drinking experience and have a much smaller impact on people who drink moderately or more frequently, suggesting that experience does not necessarily lead to abstinence but rather to self-control. Self-efficacy, or the conscious effort to say no to drinking, also increases via vicarious experiences when presented with anti-drinking campaigns. Self-efficacy was also found strong with people who had experience with negative outcomes and thus were more influenced to moderate or control their drinking behavior. Connor et al. (2000) stated that alcohol expectancies and self-efficacy to resist drinking could actually be developed in the early development of drinking behavior as respondents (men and women) experienced risky or heavy drinking. However, some of the respondents said that they found some positive experiences with drinking such as socialization, facilitating conversation and sexual related activities among others, and that they will continue to drink alcohol. Thus, these positive experiences then help maintain alcohol oriented behaviors. These differences in the responses suggest to be partly explained by attitude theory, in which the individual expectations of a particular outcome is moderated by the impact it might have (Jones & McMahon, 1996). For example, “alcohol drinking could give me headache, but it makes me sociable, so I will just drink a bit”. Surprisingly, although it has been found that positive expectancies induce a desire to consume alcohol, it has also been found to reduce consumption levels over time (Darker et al. 1993) and thus suggests a causal (mediating) interpretation of the expectancy operation.

The same association with positive and negative expectancies were seen among adult social drinkers. The same study further suggested that positive expectancies remain to be a more important predictor of consumption, meaning that more positive outcomes are expected from social drinking (Lee et al., 1999). The lack of prevalence of negative expectancies in these surveys have suggested to be

complicated by the notion that negative expectancy is more related to problem drinking and mainly with the negative experiences which are low or not present in light or social drinkers (McMahon et al., 1994). Finn et al. (2005) even further investigated negative expectancies and their association with impulsivity. The authors proposed that the association of negative expectancy with drinking is actually moderated by poor control to resist consumption which in turn is related to impulsivity. They then concluded that while it is true that negative expectancies are actually associated with less drinking, the same sets of expectancies do not discourage or inhibit alcohol-related behavior as much as compared to people with high impulsivity, especially alcohol dependents or those with a conduct disorder.

Conventionally, it was believed that a person's introduction and knowledge of alcohol was gained during childhood through social learning, indicating that children could already have expectancies even before their first personal experiences. However, due to cultural and social stigmatism with alcohol drinking and most associating it with abuse, several studies have shown that children predominantly have negative beliefs about alcohol (Johnson & Johnson, 1995). However, as one experiences alcohol, childhood perceptions may be maintained, modified or reinforced. Both expectancies and experiences (positive and negative) accumulate through time and are stored in memory. This accumulation in experiences with alcohol will therefore cause expectancies to be different with age (Leigh & Stacy, 2004). In adults therefore, it was expected that the relationship between drinking and expectancies is strong. Particularly, the study showed that negative expectancies serve as a stronger predictive factor among respondents that are more than 35 years old. Negative expectancies were then suggested to be factors for abstinence. It is important to note however that even though experience could help a person decide on their behavior with alcohol, other factors aside from those mentioned so far could interfere and influence a person. Some of those interactions may lead to abstinence, moderate drinking or some to dependence and alcoholism.

1.1.2.6. Theory of weakness of will

The phenomenon of the weakness of will (akrasia) dates back to the ancient times of Socrates. The philosopher at the time argued that akrasia does not exist. Such claims were based on the theoretical assumption that individuals are rational beings that always follow the best possible choice. Therefore Socrates raised doubts and skepticism that there could be cases when an individual decides to act against one's self interest. The philosopher argued that individuals evaluate existing facts and decide upon their courses of action. This would ultimately attest that behaving against the best possible course of action is impossible. Aristotle later revised the claims of Socrates. The philosopher himself claimed that an individual's opinion, as a result of passion, is responsible for the existence of akrasia, since reasons for the best possible choice are overshadowed by opinion and this way become unreasonable. Aristotle, claimed that akratic deeds are, in fact, done understanding they are bad, or at least worse than some other existing option.

Sergio Tenenbaum's insights in a book by O'Connor and Sandis (2010) explain akrasia by giving an example: despite knowing that it would be better to give up smoking, many smokers continue to do so and are thus engaged in akratic behavior. Meanwhile, Davidson (1980) claims akrasia is the "failure to act in accordance with what one acknowledges (or at least thinks) to be the correct evaluative judgment" (O'Connor and Sandis 2010, p.275). Therefore, given a systemic representation it would be right to say that if an individual judges X to be a better course of action in comparison to Y, he freely and having considered all things still chooses Y. Although, akrasia could be explained as one's intentional expression of free will contrary to their better judgment, the fundamental question lies in whether one can act against a better existing option and it can also be a question of information available to make the judgments. Another issue is in claiming that "bad" decisions can be made on free will bases when in many instances those actions are provoked by external influences and are not purely voluntary.

Sebo, J. (2015) concludes that there are two types of scholars when it comes to akrasia: those that deny the existence of akrasia, like Aristotle and Hare, and those that deny the claims that every single action is based on the best possible judgment.

This concept justifies an individual's behavior that is contrary to their own judgment. One of the most well-known supporters of such claims is Davidson (2001).

Davidson (1980) proclaimed 3 characteristics of the weakness of will: firstly, intentional individual acts; secondly, when the individual knows there is an alternative action for the one that is committed; and lastly where the individual concludes that all things considered, it would be a better choice to commit an alternative action rather than that committed. Ward (2015) claims that akrasia is manifested in a lack of self-restraint. Self-restrained individuals are able to resist influences of hedonic origin – desire, passion, etc. The author suggests examples of self-restrained individuals – individuals that stop smoking and quit eating candy. Ward (2015) claims that the strength of akrasia depends upon the level and intensity of one's desire.

It is obvious that the weakness of will involves the conflict between what one intends to do and what one actually does. For instance, despite knowing that it would be best not to drink alcohol, one still decides to drink. If the decision to remain sober is thought to be better, but the decision to drink is anyway made, the decision is therefore entirely irrational.

The investigation of this phenomenon has moved further since the times of Socrates and Aristotle. The moral philosopher Richard Mervyn Hare claims that individuals, while engaging in a particular course of action, evaluate the possible alternatives and hypotheses on whether the chosen action is the best thing to do. In fact, the philosopher claims that individuals always perform in the best possible way: "everyone always does what he thinks he ought to" (1952, p. 169). Similarly to Socrates, Hare concludes akrasia impossible – there is no better path than that the one is going. Herzog (2008) suggests that "akrasia is a time-inconsistence preference" (2008, p. 113). Neo-classical economics treats individuals as objects of economic thinking - rational and keen to maximize the outputs of actions. Meanwhile behavioral economics analyzes individuals in real life situations with no implications of *ceteris paribus* or any other artificial constraints. Herzog (2008) adds that there are various imperfections of neo-classical economic theory since it is not possible to investigate a lot of existing real life phenomenon. Neo-classical economic theory claims that one's preferences are complete and stable. However, experiments and real life situations provided evidence that humans act independently from what

economic theory would suggest. The followers of behavioral economics theory take into account social influences, moral judgments, one's attitudes, desires and beliefs, etc. They are looking for an explanation as to even why a person might act against his own self-interest, rather than claim it is impossible.

Herzog (2008) discusses that it would be wonderful to create a model that would integrate all kinds of aspects: psychological, sociological, cultural, religious, political; but it is hard to be done. Such a model would doubtfully operate in reality and it would be hard enough to make any observational conclusions. Therefore, very often we see partial models including some specific factors in order to evaluate their impact.

According to Mann (2008) rationality or rational choice theories dominate existing economic as well as consumer behavior models. Despite the clear fact that the weakness of will is a straight contradiction to rationally grounded decisions, Mann (2008) distinguishes several possibilities by which akrasia is to some extent compatible with the dominant rational thinking: "allowing for time inconsistencies; parted preferences are to be resolved by additional preference; following second-order preferences" (2008, p.169).

White (2006) in his research also discusses the importance of will in economic models. The author notes that humans are too complex to fit neatly into traditional economic models. Therefore it is important to understand that there might be multiple selves of a single individual. An individual's self-control abilities might bring adjustments to the extent to which akrasia is manifest. Individuals with a stronger will and determination are more likely to resist akratic actions. White (2006) proposed a decision-making model that holds to a premise that humans are never absolutely rational and or moral: "human beings constantly feel the pull of inclination, which is why the moral law appears to us as a categorical imperative, constraining the pursuit of our desires in light of our duties" (2006, p.9). The author offered to view humans as contingent rationalists. In other words, rationality is temporary rather than a constant companion of our solutions.

White (2008) also stresses the long lasting discussions concerning incontinence. The author aptly summarized the debate whether a weak willed person can be considered free and intentional. The author notes that the decision-making model by

Kant claims that weak willed actions are the direct result of individuals amoral judgments. It is usually desire based and therefore is considered superior: while following desires we do not behave rationally. Simply because we attempt to rationalize our actions, it does not make them rational.

Philosophers and various scholars constantly consider possible models and mechanisms that would enable us to elaborate on the complexity of the decision to be made in an attempt to understand a possible mechanism that would make an evaluation based on beliefs, prejudices, desires, emotions and their weight on the final decision be possible. Akrasia is a serious problem for many behavioral models since they often misjudge external motivational factors that have an essential impact. An assumption that individuals act as "homo economicus" is hardly ever true.

Rorty (1980) perceptively notes that akrasia does not occur in a vacuum. Next to the reasoning of a particular behavior there are always various beliefs, individual emotions and prejudices. These are possible external determinants that disrupt purely rational actions and provide preconditions for irrationality. Another explanation for why akrasia exists is human error. Individuals might misinterpret facts and come to a wrong conclusion, conclusively resulting in a wrong decision.

There also exist claims that individuals that are compulsive in their behavior are often simply weak willed. Such individuals are too weak to resist their immediate desires and their self-control is low. A lot of individuals are “sinners” and from time to time lose their way from the most reasonable choices and instead follow their temporary desires. Drinking alcohol is not an exception. For instance, an individual might be fully aware that drinking another bottle of beer would produce undesirable consequences the next morning. It might be that there is an important scheduled meeting and the individual has to perform at the highest level. Therefore, instead of drinking, one should get to bed earlier and try to rest before tomorrow’s work. So if to make an evaluation based on the choices of whether to drink another beer or to abstain, one should rationally decide not to drink. But it is not difficult to imagine a situation where a person opens a bottle and continues drinking. Was it because a person was not ensured that not drinking is a better choice? Or were there some other arguments for why drinking was a better choice at the given time? But if there

are no reasons for drinking, an individual's decision might have been the result of a lack of self-control.

Although, akrasia stands for an irrational course of action there might be cases when it is not. For instance, an individual might generate intentions not to act in a certain manner. Imagine an individual decides never to eat French fries next to the main course. But when the food is served the fries are there. The individual might eat the fries and in that way demonstrate a weakness of will. It could be concluded later on that an individual was not following their initial intentions and demonstrated akratic behavior. But there could be another explanation to this particular situation. It could be the case that the individual's current body shape would not be affected by a single portion of French fries. Even though the individual is affected by a desire for weight loss, eating the fries would not do any harm. In this case akrasia is not an issue. But this example is an exception rather than a rule.

It could be applicable in dealing with alcohol as well. For instance, let's assume an individual forms inner intentions not to drink alcohol at all and this way seeks to avoid any possible inclinations to drink. Suppose an individual attends a party where alcohol beverages are being served. If an individual now decides to take a cocktail, he could be considered to be demonstrating a weakness of will. Ainslie (from O'Connor and Sandis, 2010 book, p.275) notes that akratic behavior includes hyperbolic discounting. Herzog (2008) also agrees that the weakness of will is being investigated using technical terms of "time inconsistency" or "hyperbolic discounting" (2008, p. 116). It was investigated and concluded that individuals tend to value the immediate present over a distant future. Therefore, the evaluation of a particular action depends on the time point of the decision being made. This situation could be better understood through an illustration: a man might be given an opportunity to choose from 50€ today or 55€ tomorrow and 50€ in a month or 55€ in a month and a day. Experiments prove that individuals prefer to choose 50€ right away and 55€ in a month and a day. This example illustrates consumer perception and is related to consumption choice irrationality. It could be applied to alcohol use as well: an individual is prone to purchase and drink alcohol because it might seem exciting at the time; but the same the individual would regret it the morning after.

Similarly we could take a real life case concerning alcohol. For instance, today is Thursday and an individual wants to wake up sober on the following Monday after a drinking party on Saturday. But an individual might discount the reward of being sober on Sunday and have an absolute shift in preferences as they walk into a bar Sunday evening.

1.1.2.7. Differential association theory

Differential association theory, like the other learning theories, proposes that an individual learns the values, attitudes, techniques, behavior and motives of another individual through interaction. However, what sets this theory apart from others is its focus on deviant behaviors. The theory further implies that social factors put pressures on individuals which sometimes cause problems especially for those who cannot cope. Unlike the problem-solving theory where the ultimate goal is still to solve the problem or improve the skills needed for solving problems through personal struggles, in differential association, the individual instead exhibits deviant behavior as an attempt to solve a social problem. In most cases, alcohol consumption and its abuse are seen as manifestations of these deviant behaviors. Also, although the setting for learning the values that lead to deviance is the same as those of social learning, the tenet of this theory is that the person becomes deviant because of an excess of learned definitions that are favorable to the violation of the norms (Dull, 1983). In other words, differential association would predict that an individual will choose the deviant path when the balance between deviant values exceeds those of acceptable norms.

Deviance is a learned behavior because an individual is presented with values from both ends of the spectrum. The likelihood of one internalizing a deviant behavior over the usual acceptable norm will depend on the frequency, time and influence of immersion with a particular social group. Liska (1969) for example suggested that the causal structure of differential association theory is: criminal association – criminal definitions – criminal behavior. However, association is not tantamount to behavior since an individual would still need to form the definitions of a criminal identity before internalizing and applying it to himself.

Deviant, also known as delinquent, youths are additionally known to be associated with deviant peer groups which are the main training ground for antisocial behaviors and abuse of substances such as alcohol (Patterson et al., 1989). In the same way that a dysfunctional home is a source of pressure to an individual, it is usually also associated with greater alcohol consumption. Meanwhile, a protective family may also protect individuals from associating with social groups that have antisocial behaviors. Family stressors include a number of factors such as the frequency and quality of interactions, moral and parental supports, and the ability of the families themselves to cope with social problems (Church et al. 2009). The introduction of alcohol due to social cues and information, without parental guidance, was found to be related to alcohol problems later on (Lo, 2000). In addition, the family itself can be a source of this deviant identity especially if the immersion of negative behaviors (i.e. drinking) happens early, for a long time/duration and frequently and involved intimate, close and trusted peers; these influences and effects would be long lasting (Akers & Jennings, 2009).

Differential association theory however does not work alone. As mentioned earlier, it is a social learning process that is also influenced by a number of other variables. There is clear evidence that alcohol expectancies and peers (social groups) are strong influences on alcohol behaviors. If a peer or social group exhibits deviant or delinquent behavior, it would be possible for the individual to inherit the same attitude and would affect his decisions towards alcohol consumption. The studies of Barnow et al. (2004) show that there is a strong relationship between peer relations and drinking behavior and quantity and frequency of alcohol consumed which are mediated by expectancies. In this case, the expectancy is not directed towards alcohol but the peer, as “higher acceptance into the group will be experienced if alcohol is consumed”. It could also be observed that peer pressure affects all aspects of alcohol consumption – initiation, maintenance, frequency and volume.

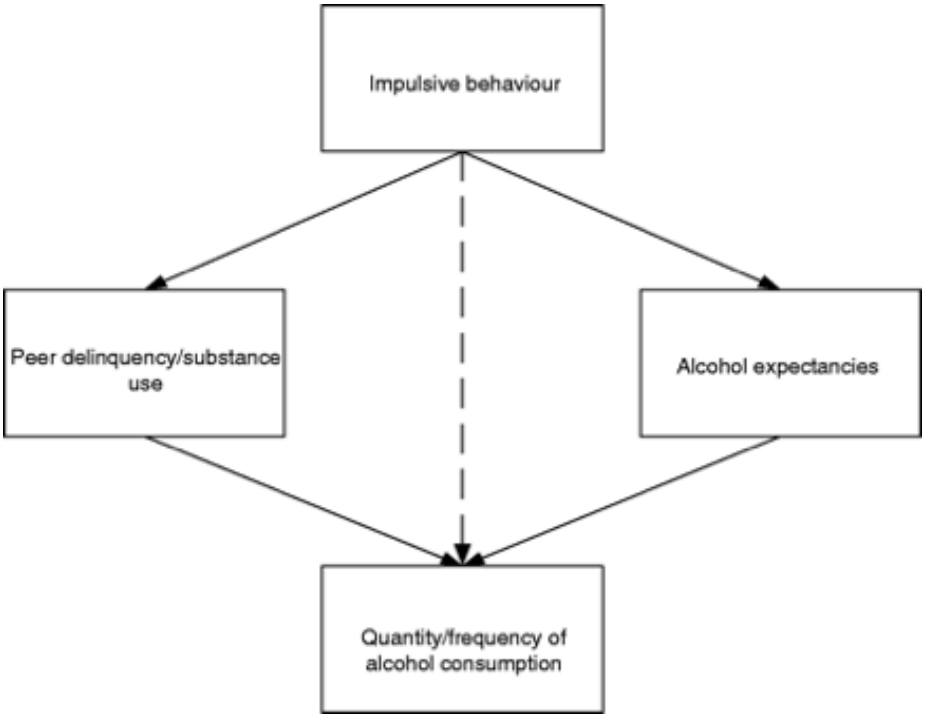


Figure 2. The model hypothesizes that the association between impulsivity (as indexed by aggressive/delinquent behavior problems) and alcohol consumption is mediated by peer delinquency/substance use and positive alcohol expectancies (Atkins & Jennings, 2009).

Culturally relevant peer influences have also been reported. Studies noted for example, that though African-Americans tend to consume less alcohol than other groups, they are more adversely affected socially, mentally and physically. It was pointed out that affiliation with negative peers increases the risk of alcohol initiation and consumption (Nasim et al., 2007). Furthermore, the authors also concluded that cultural and peer influence varied with alcohol initiation, lifetime use and current drinking behaviors.

1.1.2.8. Social control theory

While the differential association theory explores why people get involved in deviant activities such as alcohol use or consumption, social control theory on the

other hand tries to explain the factors as to why people don't engage in antisocial behaviors. The theory of social control was initially suggested by Travis Hirschi. Similar to the previous theory, behavior is also learned and absorbed from interaction and immersion with other people, however, the outcome of these relationships, commitments, values, norms and beliefs which usually occur in a family, encourage people not to be deviant or engage in antisocial activities such as alcohol use or drinking. The fundamental question of this theory is why individuals comply with societal norms. That might be explained due to an individual's attachment, existing moral obligations, and one's beliefs. Social control theory also investigates derivative cases of breaking social norms. Strong ties with the surrounding individuals or society is a foundation of the theory. The ties are strengthened through socializing. Relevant social relationships may also be considered as a source of these social pressures that keep someone from drinking alcohol.

Studies have shown that there is an inverse association between alcohol use and religion or spirituality. A survey of 4,002 females revealed the multidimensional role of religion or spirituality within the etiological network of alcoholism risks (Haber et al., 2012). A similar survey conducted on young adults in New Zealand who identified themselves to be closely associated with their places of worship showed that such students participated less in many health-risking behaviors such as drinking. The influence that religion has caters to venues that expose people to pro-social activities, caring environments, moral values, and spiritual teachings, all of which have been suggested to increase the resilience of an individual to social pressures (Kang & Romo, 2011). Another survey also concluded that a higher level of drinking is correlated with affiliation to a religious group. Furthermore, non-affiliation also results in a higher frequency and volume of drinking. Comparing these religious groups. Protestants were found to have higher perceived drinking control than Catholics, explained by the intrinsic religiosity or the level of involvement with the tenets of a religion (Patock-Peckham et al., 1998). In France, however, where drinking is a cultural and familial norm, religion was found to have limited social control (Begue & Roche, 2008).

Cultural social control also has a strong influence on alcohol use. A study of different Asian American subgroups showed that families and teachers (school) play

an important role in keeping students from drinking. Particularly, families are a more important factor for Chinese and Indian students while teachers are important in keeping Southeast Asians from antisocial behaviors. Asians, who are generally family-oriented are strongly influenced by the high standards imposed by their families and schools, are insulated from alcohol use (Nagasawa et al., 2000). Schools or sports groups also have a positive influence on social control. A study of young-age drinking groups in France showed that there is a protective effect with attachment and commitment to certain institutions or positive social groups and health promoting individuals (Begue & Roche, 2008).

Informal social control and their influence with drinking behavior has also been explored by some researchers. It was noted however that most informal social controls only arise when problems related to drinking would start to become evident, and thus could be an indicator of the extent of social problems associated with alcohol use. This however is sometimes difficult to estimate or detect. A survey conducted among the racially diverse adolescent population of Chicago described that neighborhood norms and actions against drinking are too distant when compared to other variables that directly control drinking behavior (Fulkerson et al., 2008).

This theory received a considerable amount of criticism due to the fact that it focuses on social relationships in terms of peer and parental pressure; the theory does not include geographical factors implying that the same social controls prevail evenly throughout different continents and countries. The theory implies that belonging to a certain organization or group, such as those that are religious, sport related, educational, etc. influences individual decisions. The theory implies that individuals may attempt to stop drinking under the circumstances of societal pressure.

1.1.3. The use of theory of planned behavior in explaining alcohol consumption related behavior

In the previous section several theories from different fields of research have been proposed to explain why humans consume or use alcohol. Some of these

theories are associated with biological factors such as genetic or chemical inducers, while others are disease related. However, psychosocial theories seem to have been the most studied and investigated with the goal of further understanding alcohol consumption, especially as a behavior. Although, it is also widely accepted that all of these different factors, biological, psychological and social, are closely related and intertwined in influencing alcohol use and abuse.

In the context of psychosocial frameworks, studies have shown that alcohol use is a multi-faceted behavior as a response of a number of associated stimuli. In this previous section, we provided some well-founded and evidence-based psychological models to partially explain behavior on alcohol use. These theories and models are essential in further understanding basic tenets of the human psyche and how it plays with emotion, social stimuli and personal desires that encourage an individual to consume a substance. Although there are a number of models that have been used and proposed, it is interesting to note that all of these are in one way or another connected or are an extension of one or the other. The psychosocial models described in this paper also vary with their approaches in understanding behavior. For example, most of the social learning and personal identity theories explored more on the side of why people consume alcohol. While other theories explored both ends of the behavior, such as what encourages people to drink or to avoid drinking. Furthermore, influences could be summarized into two broad categories, namely personal and social. Social identity for example tackles and attempts to integrate the process of development of self-identity and how an individual uses other people's behavior as a model in the process. In addition, impulsivity, intelligence, social problem-solving capabilities and self-efficacy, all of which are personal attributes, have also been shown to significantly affect decision-making processes that might encourage or inhibit an individual from alcohol use. These personal attributes are also influenced by external factors such as social interactions. Social learning theory explains these processes of how one could possibly mimic the behavior, attitude and thinking of others. Social interactions are one of the main key predictors of behavior. These social factors may be influenced by either direct or indirect interactions. It was strongly pinpointed in the studies that the family is the most significant model of

social learning and that the norms of the family will most likely be the norm of an individual (negative or positive social norms).

The review also presented case studies and research that tested the said psychosocial theories. Although the main goal of this section of the research was to look at the theories governing alcohol use in adults and social drinkers, it is worth noting that most studies available about drinking were based on young age groups or college/university students. This suggests a number of interesting points. First, this could presume that the theories and principles that are used to study alcohol use are universal – such that it is applicable across age and even gender, that the reasons and motives of young adults in drinking could be the same as those of adults. Furthermore, there is a strong interest to study drinking in younger age groups primarily because most adults, if not all, have been introduced to a drinking culture during their younger years, e.g. college or university. There is also a great advantage in conducting studies among organized groups or classes such that are in academia because of their number, network, ease of survey implementation and other logistical reasons.

As noted previously, many factors may facilitate or impede performance of a behavior. Some of these factors, including skills and willpower, are internal to the individual while other factors, such as task demands and the actions of another person, are located externally (Ajzen, 1985). The distinction between internal and external causes of a behavior can have important implications. In the last few decades numerous articles containing models of the decision-making process have appeared and been tested in various situations. Alcohol consumption behavior is yet another field of scientific interest that requires a theory based approach to deal with a variety of social, personal, cultural, economic, and traditional bonds. Since this research is particularly aimed at investigating social and personal factors determining alcohol consumption while being well aware of existing psychosocial theories, it was presumed that the theory of planned behavior and its further extension would best fit the needs of the research.

The theory of planned behavior is a framework based on social-cognitive abilities to explain and predict intentional behavior (Figure 3). Specifically, it predicts behaviors that an individual may perform under volitional control or not be able to

perform at will (Ajzen, 1991). This is an extension of another theory (the theory of reasoned action) that only predicts behavior under volitional controls (Fishbein & Ajzen, 1975). Intention or the conscious effort and desire to perform and realize the target behavior, is the most proximal to action. Under the planned behavior theory, the perception of control over performance of the behavior is added as a predictor and considered to influence behavior directly or indirectly via intentions. In other words, behavior is either intentional or goal-directed. This theory has been applied and tested to a number of action targeted decisions, including but not limited to health behaviors (Godin & Kok, 1996) as well as alcohol use (Conner et al., 1999) and episodic drinking (Johnston & White, 2003).

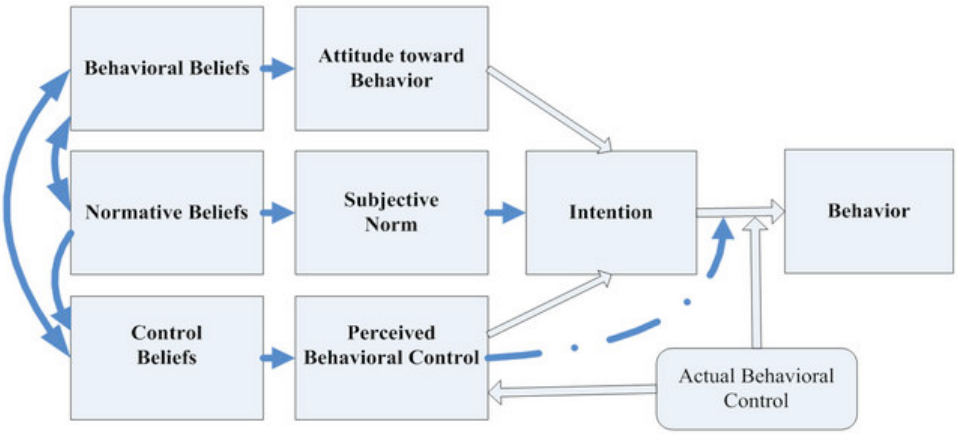


Figure 3. A figure showing how different beliefs such as attitude (behavioral), personal views (subjective) and perception (control) affect behavior towards drinking and mediates by intention (Ajzen, 1991).

In the context of drinking, the decision to engage in alcohol-related activities has been hypothesized to be predicted by attitude, self-efficacy and subjective norms and that the intention to drink will predict the actual performance of the behavior (Johnston & White, 2003). These factors - particularly that of attitude and the subjective norms of the most relevant group - were found to be strong influences in the realization of planned behavior among young adult males. Social identity and social learning, as discussed previously, interact to influence the intention and later the action towards the desire to be involved in alcohol-related activities. This is

similar to previous studies which observed that the theory of planned behavior only explained 27% and 39% of variances in behaviors and intentions (Armitage & Conner, 2001), suggesting that other variables may be involved.

Aside from social peers, gender has also been hypothesized to play a role in the decision making process. Zimmerman & Sieverding (2010) showed that the self-efficacy, prototype (social image) and other associated variables in the theory of planned behavior explains why women have more controlled reasoned-action paths compared to men, such as that they do not intend to over-drink in connection with the premeditated intention of keeping up with the typical image of women (prototype). Men's motivation for drinking, however, is affected by the intentional pursuance of the actor they wanted to portray (male prototype or social identity of masculinity) and the deliberate or intuitive rejection of the abstainer image. The study further shows that although personal views play a role whether a man would drink or not, it seems that the theory of planned behavior is exceeded by social influences. This suggests that gender and its associated stereotypical depictions actually are still important in the decision-making process regarding alcohol consumption between men and women.

The inability of the theory of planned behavior to explain the relation between behaviors and intentions were further extended and tested by adding prototypes of different drinkers as one of the variables to predict behavior. The study then suggested that the prototype perception-intention relationship was moderated by temporal stability, which in turn enhanced the prediction of intentions. More importantly, it was observed that young adults' health intentions are guided by the dissociation from the drunk prototype (negative) and association with abstainer prototype (positive). The moderate drinker prototype, which falls in the middle of the spectrum, is associated with positive attributes such as being spontaneous and sociable while heavy drinkers are often seen as annoying, volatile and uncontrolled (van Lettow et al., 2013).

Aside from prototypes, the theory of planned behavior is also affected by past experiences. A follow-up survey of drinkers after 1 week showed that past behavior was found to explain additional variance in intention and behavior and even moderated attitude-intention and intention-behavior relationships. Furthermore, past

experiences which normally lead to realizations and not entirely positive experiences were seen to lead to weakened intentions, suggesting that we also learn from past experiences which affect our future behavior (Norman & Coner, 2006).

Beliefs have also been considered significant as the ultimate psychological determinants of behavior which in turn should be targeted by interventions. In a study of French & Cooke (2012), they determined that beliefs in the use of alcohol drinking for some occasions such as celebrations, drinking patterns such as rounds and by peer factors such as sports teams which highlight still the influence of peer pressure and norm in influencing drinking (French & Cooke, 2012). A separate survey conducted also revealed that 86% of men believe that alcohol is an important component of a male's young adult's social life while only 73% felt that drinking is significant in the social activities of women. It follows then that those percentages of men and women would want to consume alcohol based on that particular belief (Presley et al., 2004). This is the same with the perception of the acceptable behavior of consuming alcohol during social occasions, family gatherings and other events. Reciprocally, dissociating drinking with the belief of alcohol as a factor to promote coherence will also lead to less drinking.

1.2. Factors of alcohol consumption

1.2.1. Societal factors

1.2.1.1. Societal approach towards the use of alcohol

Generally, modern societies recognize the harmful effects of the use of alcohol despite the possible economic advantages from its taxation and other related economic factors. In addition, the interrelated aspects of the harm for society as well as the harm for alcohol users are emphasized. This emphasis results in researching the phenomenon of drinking influences and of practical preventive/restrictive measures from the standpoint of a society.

First of all, society recognizes the harm of alcohol use for its individual members. The degree of such harm is determined by three main factors: the frequency of alcohol consumption; the amount of alcohol consumed and the quality of the substance. Mukamal et al. (2006) suggest that alcohol consumers should be

categorized according to the amount of alcoholic drinks consumed weekly. It is noticeable however, that the majority of studies concerning alcohol consumption are using student samples. Measuring the alcohol consumption of young adults, as with all groups, is doomed to have a significant methodological distortion. Alcohol-related deaths, a standard measure for assessing the level of consumption, are rare amongst younger age groups because of the cumulative effect of alcohol. Nevertheless, alcohol related mortality rates provide an overview of the saturation of alcohol in an environment and culture. The number of recorded deaths doubled between 1991 and 2004, indicating increasing societal costs and consumption (Breakwell, et al., 2007; Coghill, et al., 2009). There is also an upward trend for morbidity and hospital admissions related to alcohol. Liver cirrhosis, a strong proxy for the long-term health damage associated with alcohol, has increased in the European Union over the last few decades. As noted in the WHO report, alcohol is responsible for more than two hundred different health conditions included in disease codes. It is import to note, that alcohol usually causes multiple problems. A notable amount of research is devoted to examining alcohol and the spread of HIV or AIDS, since alcohol consumption at times leads to unsafe sexual behavior.

Mukamal et al. (2006) claim that alcohol consumption results in severe harm to the physiological state of an individual. That is particularly true in cases of frequent and high volumes of alcohol consumption. The authors once again claim the evidence of harm to the nervous system, liver, immune system and others. Alcohol consumption and the later hangover result in difficulties at work performance due to the loss of concentration. Alcohol drinking may disrupt one's relationships with parents, peers, friends, and colleagues. Individuals that constantly use alcohol might be excluded by their colleagues, friends and have relationship difficulties in their social circles.

Conversely, Nolen-Hoeksema and Hilt (2006) claim that the consumption of alcohol in small quantities lowers the risk of myocardial infarction. Although there are claims about the benefits of alcohol consumption for the heart and lower mortality rates particularly while consuming in small quantities, the WHO provides reports that indicate the opposite.

In addition to individual harm inflicted on members of society, the use of alcohol influences the well-being of the whole society. Though social harm from alcohol use is rather difficult to quantify, a number of social problems obviously arise from the use of this product. These include violent and anti-social behaviors, unplanned sexual activity and the related problems of sexually transmitted infections, etc. All this suggests that societal trends in alcohol consumption and social harm are likely to exist alongside one another. However, the primary negative consequences are related to health issues. Research investigating the cost of the negative consequences due to alcohol consumption focus on costs of treatment, including for instance, ambulatory treatment, hospitalization, and damages done while being drunk. Mukamal et al. (2006) includes the cost-of-illness approach. However, as according to authors only a little research has been done investigating the economic cost of moderate alcohol consumption.

Room, Babor and Rehm (2005) state that alcohol causes more that 60 different health disorders. Moreover, the use of alcohol is the reason for 4 percent of all annually treated diseases globally. Despite this impressive number of possible alcohol caused disorders, the primary focus according to the authors has been put on cancer, coronary heart diseases, and accidental or violence-related injury.

As alcohol is a harmful product and might result in substantial economic losses, countries introduce alcohol policies to control its use. These include action plans of various governmental institutions in order to reduce possible harm. The use of alcohol is attributed to 3 major types of socio-economic costs:

1. Direct costs due to state guaranteed health securities, which includes ambulatory and hospitalized treatment, medicaments, nursing, etc.

2. Indirect costs due to lower productivity, earlier retirement, unemployment due to alcohol consumption habits.

3. Intangible costs. Those require a separate investigation, since it is impossible to determine the cost of a poor quality of life, difficulties and suffering faced by family members and the general public.

The WHO reports that “alcohol-attributed costs have been estimated at about 125 billion euros in the EU in 2003; 21 billion pounds in 2009 in the UK and 233.5

billion dollars in 2006 in the USA" (p. 18). Although there are some evaluation difficulties concerning alcohol related costs, it is obvious that actual costs are high.

The WHO struggles in its attempts to reduce the harmful use of alcohol. Consequently, it would lead to a negative financial impact at both an individual and societal level. It is noted in the WHO report that alcohol is directly related to well-known health problems such as liver and kidney diseases, alcohol dependence and later psychosis, depression, etc. Despite the efforts made, the reduction of alcohol consumption has remained a secondary issue in national state policies.

1.2.1.2. Restrictive measures towards the use of alcohol

Historically, societal restrictive measures towards the consumption of alcohol have significantly varied from country to country and throughout different time periods. However, historically known measures attempted either to regulate alcohol production and sales, or directly influence its purchase and consumption. This means, there have been attempts to influence consumption by controlling both the supply and demand side.

The most restrictive supply-side restriction is alcohol prohibition. Though this has been tried in various countries, probably the most well-known effort was made early in the twentieth century, in the United States of America. To a large extent, this was influenced by World War I, which had affected the availability of alcohol beverages in the country. The war had called for conservation and the supply of alcohol became low. This had a major impact on the drafting of the Eighteenth Amendment, which forbade "the manufacture, sale, import, or export of intoxicating liquors" (Asbury, 1950). The lower and middle class societies, for whom prohibition was primarily intended, believed that prohibiting the sale and consumption of alcohol might help reduce poverty levels while lowering crime rates and creating an American industrial society that was more efficient overall (Levine, 1985). Many lobby groups further supported these beliefs with the development of a political organization known as the Anti-Saloon League of America. While churches and religious organizations largely backed the League, they also had support from businesses as well as members of the American wealthy elite. Since workers of the lower and middle class operated

industrial machines, many American corporations and business leaders saw a chance to profit from having sobriety forced upon their workers (Timberlake, 1970).

Due to the proposed benefits of reduced crime rates, lower poverty levels and increased profits for American corporations, many felt no reason to doubt the widespread positive effects of prohibition at the time the Eighteenth Amendment was passed. However, after it was passed, prohibition began to result in negative effects that directly opposed the expected benefits.

Firstly, the crime rate increased. American citizens soon began to disobey the regulation of prohibition and started buying alcohol illegally or even started producing it themselves. Corruption by officials that were not willing to enforce prohibition grew. Soon the wealthy elite began to protest prohibition policies. The notion that prohibition would lead to increased financial gain began to fall apart in 1930 at the beginning of the Great Depression. At that time poverty grew to an all-time high. Certainly, prohibition was not responsible for the stock market crash, but the crash brought about the realization that prohibition alone could not reduce poverty rates in the United States. Since alcohol was banned there were no alcohol taxes collected that could have made the economic situation better.

It was at the time of the Great Depression and many thought that the repeal of prohibition might better serve the American nation (Sinclair, 1964). The repeal process began in 1933, when President F. D. Roosevelt requested for the United States Congress to adjust the Volstead Act and legalize the sale of beer. This immediately resulted in tax revenue for the American government (Levine, 1985). Over the course of the year, numerous states would vote to abolish prohibition. This led to the passage of the Twenty-First Amendment, which effectively abolished the Eighteenth.

America's decision to prohibit alcohol sales failed and its initial idea and expectations to reduce crime and poverty were not met. In addition, the United States had lost incalculable tax revenues on alcohol during the period. This form of policy by the end of the twentieth century met some major transformations. The government soon began looking for a new solution that would enable better control of alcohol consumption in society.

Comparatively lighter measures of alcohol supply included the regulation of its production and trade. An alcohol production and trade monopoly was one of them. Again this measure was tried by many countries in different time periods, and often was designed for the economic benefits of a state budget rather than used as a restrictive means for alcohol consumption in a society. As claimed by Room (1993, p. 4) “the idea of government monopolization of the alcohol trade was put forward as an alternative policy”. However, more recently the focus has been changed, and the monopolization of alcohol production and trade started to serve as a factor that aimed to restrict or reduce consumption of this potentially harmful product. A good example of the evolution of societal measures regarding alcohol production and trade regulation is Europe’s Northern countries, such as Sweden, Norway, Iceland and Finland which had institutionalized their policies on alcohol control in the nineteenth century. Many of these countries experienced their own period of prohibition; however, later they monopolized alcohol on virtually all fronts including alcohol import and export, production and wholesale and retail monopolies on the sale of strong beer, wine and spirits (Ugland, 1997). For instance Sweden, adopted monopolization policies in 1917. An interesting system was introduced in which some people were prohibited from drinking alcohol while others were not. Doctor of medicine and a politician Ivan Bratt had devised a system, in which those deemed able to drink alcohol without negative social repercussions were issued a booklet called a “motbok” that enabled them to buy only a certain quantity of spirits per month (Österberg & Karlsson, 2002). This system lasted for approximately thirty-eight years, ending in 1955. Similarly, Finland also had a system until 1971 that allowed alcohol consumption only for those who were able to control themselves.

Major changes in Northern countries occurred while joining the European Union. The abolishment of state monopolies on the import and export of alcoholic beverages was a requirement in order to foster Europe’s single-market structure across the continent, with a unified market structure that would allow the free trade of goods and services (Olsen, 1997). Consequently, Europe’s Northern countries - in order to maintain control over alcohol consumption patterns for the safety, health and welfare of their citizens – moved to other forms of alcohol consumption control policies.

In many instances, countries tend to use more democratic and flexible measures than state monopolies. This is predetermined by a number of reasons, often related with the legal developments in countries and/or broader regions. For instance, since the European Union formed to ensure the principals of *laissez-faire* economics among all member states, government alcohol monopolies, which enacted direct control over the sales of alcohol, were hardly possible. Therefore, new and old members of the EU had to obey the principles of the free market in the union. Alcohol production and trade soon became more open with some exceptions regarding alcohol selling hours and age restrictions. Soon after, countries worldwide issued their nations alcohol-licensing regulations. In Denmark, for instance, licensing restrictions depend on whether the business sells alcohol for off-premises or on-premises consumption. Stores that sell alcohol for home consumption are not required to maintain any sort of license, while on-premises liquor sales may only occur with a municipal license (Österberg and Karlsson, 2002). In Belgium, as in Denmark, a company applying for an alcohol license must not have a criminal record.

In Germany, off-premises wholesalers are not required to maintain a license in order to sell alcoholic beverages. There are licenses required for those who run pubs and restaurants, but these licenses do not strictly govern alcohol sales. Interestingly enough, however, those who suffer from alcoholism may likely be denied a license on the basis of unreliability (Österberg and Karlsson, 2002). Since the lack of licensing restrictions in Germany has been in place for a long time, it is difficult to conclude whether this fact had an effect on alcohol consumption. Total alcohol consumption in the country doubled between 1955 and 1995, with large increases in the consumption of all forms of alcohol, though the consumption of wine, beer, and distilled spirits has remained in relative proportion to one another throughout the years.

In Finland, licensing restrictions for a long time existed to a certain degree under the monopoly system. In 1995, Finland abandoned monopolization entirely and handed licensing responsibilities to the National Product Control Agency for Welfare and Health. Again, no one with a criminal record was allowed to apply. Even after monopolization was abandoned, it is worth noting that almost all alcohol consumption in Finland has involved the consumption of domestically produced alcoholic drinks.

Italy puts the responsibility of managing licensing regulations in the hands of the Ministry of Finance. Municipal licenses are also required for those who wish to import alcohol or sell it wholesale. During special events, temporary licenses may be granted, though liquor must contain no more than twenty-one percent alcohol by volume. Since 1991, when licensing requirements became arguably less restrictive, the total consumption of alcohol per capita has actually gone down (Österberg and Karlsson, 2002). There has also been a shift in the type of alcohol consumed, with less of an emphasis now placed on distilled spirits while more emphasis has been placed on beer.

All businesses that intend the manufacture or sale of alcohol in Sweden are required to apply for a license. Throughout most of the twentieth century, Sweden was still operating on a state-run monopoly. Monopolization was ended in 1995, which is when other businesses were able to apply for licenses. Unlike some of the other aforementioned European countries that introduced licensing restrictions, Sweden did not experience any real changes in total consumption; however, there was a marked decrease in the consumption of strong alcohol.

The development of restrictive measures of alcohol consumption evolved in such a way that some of them attempt integrating supply and demand side regulation, or even attempt regulating the demand side directly. One of the most obvious regulations of this type includes age restrictions of alcohol purchasing and use. Along with tax policies and licensing regulations, age restrictions are among the more common types of preventive alcohol control policies utilized currently. Typically, legal regulations on drinking age differ in the range of 18 to 21 years. There are cases when a dual age is set – alcohol purchasing age and alcohol drinking age. Despite the existence of age regulations, teenagers still manage to purchase and drink illegally regardless of the law (Hawkins, Catalano & Miller, 1992). There is evidence that lowering the age limit on alcohol sales can lead to more injuries and accidents due to drunk driving (Saffer & Grossman, 1987).

Germany has much lower age limits on alcohol use. It is allowed to drink from 14 with the supervision of an adult as long as distilled spirits are not consumed and the legal age for purchasing alcohol is 18. To counteract some of the potential negative effects of adolescent drinking, Germany has imposed regulations on the advertising

of alcohol products and is constantly providing citizens with up-to-date information regarding the dangers of alcohol abuse. State officials have set the legal intoxication limit for young drivers at 0.00 BAC, for other drivers the permissible level is up to 0.3 BAC.

Italians are often exposed to the taste of wine at as young as the age of 10 or 14, but at least two thirds of them do not start drinking regularly until they are around 18 or 20 years of age (Österberg & Karlsson, 2002). Laws in Italy allow buying alcohol at the age of 18 or older. Selling and serving alcohol to younger individuals can be punishable by a fine.

The history of alcohol control policies evolved over time in the United States and Europe. The United States is well known for the Eighteenth Amendment and the prohibition of alcoholic drinks. It was initially designed to have a positive effect on the welfare of the working class, to decrease poverty and increase public safety. However, these objectives were not met and Prohibition made the situation worse in terms of the government's loss of excise taxes and the increase of criminal activity through the production and smuggling of illegal alcohol.

Northern European countries, such as those of Finland, Sweden, Norway and Iceland, created state monopolies over production and trade of alcohol. However, the European Union and single legislation in the field of trade brought changes against long-term monopolies. The majority of countries currently use licensing, taxation laws, and age restrictions as alcohol consumption regulation methods. Numerous countries have explored different forms of alcohol control policies. Alcohol excise taxes vary from nation to nation even in the EU; similarly, age restrictions for buying alcohol vary among countries. No single policy introduced for the purpose of controlling alcohol consumption has been proved to be without flaws. Many of the policies need to be adapted in accordance to cultural and historical conditions. It is not just the regulatory bodies that are responsible for "managing society" to control alcohol consumption patterns. Individuals may be prevented from harmful use of alcohol while putting a focus on other issues not directly related to drinking. All these measures may be categorized, as suggested by Goldsmith and Goldsmith (2011), into 4 strategies to influence alcohol users:

1. **Punishment strategy**. This strategy in the form of rules and regulations results in possible negative consequences – legal sanctions.

2. **Rewarding strategy**. This strategy is opposite to the punishment strategy and involves rewards for adopting a particular form of behavior.

3. **Persuasion strategy**. Persuasion strategy relies on the information aimed to change consumers views and behavior patterns.

4. **Social influence**. This type of strategy is believed to be the most effective. It is believed that social influence is able to affect a variety of situations. Moreover, this strategy impacts individuals discretely with little or no notice.

In order to understand the applicability of these strategies, much deeper analysis of the interrelated factors of alcohol consumption must be performed.

1.2.1.3. Factors and trends that influence use of alcohol in societies

Alcohol consumption is an integral part of a society's cultural settings by which people get introduced or reasons why they regularly consume alcohol. Alcohol can be classified as a food, as it is consumed like and produced from food. In this context, it undoubtedly could be rooted and connected with local eating traditions. Taking only a cultural factor alone would require years of studies comparing the difference of alcohol use patterns in different cultures, sub-groups and races. Although advertising and media sources would like to treat alcohol users as a single homogeneous group of individuals, the reality is far from that. Alcohol consumption motives are often quite individual and not necessarily applicable to others. A country's traditions, history and particular customs has an influence on an individual's drinking habits. Sorocco and Ferrell (2006) claim that Caucasian countries tend to use more alcohol, however the frequency of alcohol abuse is even more common among Hispanic states. Also, in some countries, there is no strongly established drinking culture, as religious dogmas or specific laws prohibit its formation.

History has shown that although in modern times alcohol drinking has been regulated and underage drinking (18 or 21 years old depending on the country) is inhibited, it was legal for all ages in the past primarily just because it is part of the culture. For example, in European countries where wine and its production are

deeply rooted in history, the beverage is a staple part of the daily meal and social gatherings. Children seeing their parents consume wine even at non-special occasions would also be likely to develop a taste for wine later on, and then it would become part of their habit. The same is true for Belgium, also known as one of the beer capitals of the world due to the long tradition of brewing in the country. Latin America on the other hand is known for its distilled drinks such as tequila. In fact, the WHO blamed drinking on a culture confounded by advertising and relaxed alcohol policies as reasons for the observed increase in demand and consumption in some of the countries in South America (Scruby, 2014). In a study by Caetano et al. (1998) about preferences for different alcohols, it was discovered that preference is influenced by race and ethnic origin. This suggests that alcohol and the type of alcohol is strongly linked to culture and underpins that that culture may dictate behavior towards drinking alcohol.

Most religions condemn or inhibit alcohol consumption in their doctrines. Several studies actually have shown the negative correlation between religiosity and attitude towards drinking (Assanangkornchai et al., 2002; Francis et al., 2005). Some religions on the other hand, tolerate moderate drinking and also use it in some practices. In Judaism for example, wine is used and partaken during certain occasions such as the sanctification of the Sabbath. In the Catholic Church, it is used to represent the blood of Christ during consecration and shared to the faithful during communion (Lowenthal, 2014). These influences may not directly promote drinking, but they encourage and promote the idea that alcohol is actually not bad if consumed and used moderately.

Interestingly, historically alcohol has been associated with perceived adulthood in the same way as milk with nativity. Since the regulation of alcohol and the imposition of a legal drinking age, reaching the age of legal consumption has been perceived as a rite of passage in most societies, especially for boys and young men. Since alcohol is consumed more by older men – fathers, brothers or older friends – many young people have associated it with adulthood, masculinity and responsibility. Many studies have shown - especially in colleges - that most undergraduate students view alcohol drinking as integral to the student role (Pavis et al., 1997).

It is interesting to assess the importance of social influence that guides us through the daily routine. It might be to a large extent responsible for the behavior performed. According to Cialdini and Mortensen (2008) there are 3 types of behaviors arising from social influences:

1. Obedience. It is an authority's power based behavioral change. Obedience was very common in the times of ancient empires, when a single leader or a group of people made others obey their will and power. One of the classical examples of obedience behavior is Milgram's experiment performed in 1961. The experiment involved a volunteer in a role of a "teacher" and a "learner", who was a hired actor. The learner had to perform some task and in case a mistake was made a teacher was to punish the learner with an electric shock. The strength of the shock increased with every mistake made. In case a teacher and or a learner refused to continue, the supervisor of the experiment insisted on continuing, although before the start of the experiment both were informed that the termination of the experiment would not result in any liability or penalties and the payment received for attendance was theirs to keep. The absolute majority of experiment participants kept on giving shocks, despite the fact that the learner, who was actually an actor, was begging to stop.

2. Conformity. It is a type of behavior change that is affected by the influence of others around. Well-known experiments by Asch in 1951 and later years with a group of participants involved evaluating the length of lines on two separate cards. Although the answer to which of the lines from two different cards were equal was obvious, wrong answers appeared due to the fact that hired actors provided wrong answers in the presence of random experiment participants. Thus participants were being influenced to provide an incorrect answer to not stand out from the group. Asch's and other experiments proved that more than 70 percent of participants were to conform to the group's opinion. Certainly, it is very difficult to contradict the dominant answer even though it is incorrect. Therefore, in case one doubts or does not know how to behave in a certain situation, one tends to follow others.

3. Compliance. In this case behavior changes in reaction to a concrete request. At first sight it might look that it is very close to the obedience behavior. However, the core difference is obedience is an authority-based command for behaving in a particular manner, while compliance is a plain or hidden request delivered by an

individual. It might have a variety of forms, for instance, being in friendship might lead to higher levels of compliance due to the fact that individuals tend to fulfill the requests of their friends; there is also a tendency to trust and behave accordingly with the opinions of some experts, such as a PhD or professor and follow their advice.

Touching upon all of these types helps to understand how social influence is made manifest. As it can be acknowledged there are a few types of behavior related to different sources of social pressure. Social influence may encourage positive as well as negative behaviors. For instance, peer influence or the need to be accepted into a circle of friends or social groups with the same level of responsibility has motivated more young men to introduce themselves to alcohol (Pavis et al., 1997; Crawford & Novak, 2006). However, more often than not and unless guided accordingly, these rites of passage lead to abuse in alcohol consumption (Butler, 1998). In case one is not willing to drink, words with negative affectivity could eventually motivate the person to drink alcohol. The study of Zack et al. (2006) has demonstrated that such negative words significantly prime beer consumption in young drinkers and thus is a form of peer pressure (Pavis et al., 1997). Interestingly, peer influence was observed to play a bigger role in beer and wine drinking compared to liquor drinking (Atkin et al., 1984). Although rare studies have been done, reports suggest that the same social variables also influence young women (Labri et al. 2007).

Kiuru, Burk, Laursen, Salmela-Aro and Nurmi (2010) claim that friends and members of peer groups tend to share similar socio-demographic, behavioral, and interpersonal characteristics. At the group level, the tendency of peer group members to resemble each other is known as homogeneity. As Gilla (2012) concluded after research conducted amongst college students in the US, peer and parental factors show an important influence on the drinking behavior and consequences of late adolescence just prior to entering college. Furthermore in particular parental permissiveness of alcohol use and parental monitoring may qualify as peer influences on one's involvement in alcohol use (Wood et al, 2004). Young people frequently overestimate the level of alcohol use among peers and the approval of their friends around drinking alcohol. This perception is seen to play a

role in determining the individuals own attitude and behavior around alcohol. Misperceptions of alcohol use among college students do exist and that they are partially correlated with increased personal consumption.

A report from an experimental research amongst undergraduate college students in the Netherlands showed a significant correlation between peer drinking and observed drinking. Participants in heavy drinking were more likely to socialize with heavy drinking peer groups. Different personalities were examined in this research and it was found that a personality perceived as agreeable (defined as making the self not noticeable) is one that adapts their drinking significantly in order to have easier relations with others and the amount of adaptation is dependent on the level of drinking of the peer group. These results indicated that agreeable individuals were more susceptible to levels of peer influence than individuals scoring low on agreeableness measures (Schor, Bot & Engels, 2008).

There are claims that social influence as a phenomenon of scientific interest has been researched for about a century. The first attempts to conceptualize the influence of others around suggested a concept of social norms. Later research in the field has suggested the concepts of compliance and conformity. So social influence as a concept has a number of closely related branches.

The general definition of social influence is that health-related behavior is influenced by a person's social context. The behavioral social context can be represented by the behaviors of individual peers or family members (e.g. smoking) with whom the person interacts regularly, or by behaviors observed in a larger social environment such as the neighborhood in which a person lives. The normative social context is represented in an individual's perceptions about the acceptability of a behavior (e.g. alcohol use) derived from communications via network members, or by portrayals of behaviors in mass media such as TV or movies that the person watches. The concept of social influence is included in a number of theoretical models that have been used to predict health-related behaviors and to guide preventive interventions. However, the way in which social influence has been conceptualized and measured varies considerably across theoretical models. This ranges from concepts of more overt forms of influence where some individuals actively exert pressure on others, to more indirect forms where normative

perceptions (e.g. perceiving smoking as frequent in the population) or social perceptions (e.g. perceiving typical smokers as cool or popular) act as a form of "silent" influence. Each conceptualization of social influence has some empirical support, but researchers should consider what aspect of social influence is most relevant to the question being studied.

In this dissertation, the concept of social influence is presented in the health behavior theory context.

1.2.1.4. Media-generated influences that encourage or discourage consumption of alcohol

A very special type of interpersonal influence in modern societies is directly linked with the highly increased role of mass communications. Various types of media allow integration between the individual members of societies, as well as between the organizations and their audiences. One instance of such a relationship is media-supported linkage between the producers and consumers of alcohol products. Media can transmit societal influences that aim to restrict the use of harmful products. This controversial role of media influences deserves deeper elaboration.

One of the visible and apparent reasons how and why people get to know and later drink alcohol are the marketing or advertising strategies used by companies to sell their products. Two prominent approaches for marketing have been identified to heavily influence motivations towards alcohol consumption. One is commercial marketing, where the product is being sold or marketed like a regular product focusing on the economics and quality (e.g. cost, palatability, etc.). The other one is social marketing, which has a more psycho-social impact. Although it has its roots in commercial marketing, social marketing focuses on consumer-oriented market research, targeting and segmentation. This tactic involves understanding the target groups and its values and motivations in order to affect and influence change towards the product (ICAP, 2013). In such cases, alcohol is personified, glamorized and then marketed like a personalized beverage to encourage consumers. Marketing is a very long and strategic process, a long-term investment that does not only target

legal aged drinkers, but in a way already instills and encourages the mindset of the "to-be-drinkers". It is also an invasive strategy since advertising takes all forms and types – from online, to television, print ads, posters, establishment signage and many more.

Since the 1980s, the impact and influence on alcohol drinking behavior of the younger population in the United States has already been observed. In a survey conducted by Atkin et al. (1984) of the general American population in the 1980's when the main media of advertising were print, radio and television, they reported a strong positive correlation between exposure to ads and liquor drinking. In a study of Collins et al. (2007), they also observed that 12 year old children were at a higher risk of adopting drinking behaviors when highly exposed to alcohol advertisements. Furthermore, they suggested that 50% of these children would likely start drinking a year after exposure compared to those who were just slightly exposed. Snyder et al. (2006) also observed the same trend where the teenagers who were heavily exposed to alcohol marketing in their younger years would drink more in their twenties, while those who were exposed lightly would have a stable level of alcohol consumption when they became young adults. Product placements in sports related activities and social events have also been observed to have had an influence. Drinking, especially hazardous drinking, was found to occur in higher frequency with adults who received alcohol-related sponsorships that those who did not (O'Brien et al. 2011).

The more alarming trend however in recent studies, as summarized by de Brudin (n.d., Table 1) is that the most influenced market group are the to-be-drinkers and youngsters as they are also the most vulnerable to social and peer influences.

Table 1. Summary of evidence on the impact of alcohol marketing published since 2006 (adapted from de Brudin, n.d.)

Effects	Key studies	Key findings
Long-term effect of alcohol advertising in mass media	Anderson et. al. (2009); Babor et. al (2010); Smith & Foxcroft (2009); WHO (2009).	Although studies of the impact of televised alcohol advertising on adolescents' drinking behavior show mixed results, longitudinal studies show a general impact of alcohol advertising in the mass media on adolescents' drinking behavior.
Long-term effect of non-media alcohol marketing	McClure et. al. (2006); McClure et. al. (2009); Gordon, MacKintosh & Moodie (2011); Hanewinkel & Sargent (2009); Morgenstern et. al. (2011); Sargent et. al. (2006).	The impact of sponsorship, viral marketing and marketing in digital media is an understudied area. Longitudinal studies of non-media alcohol marketing show an impact of alcohol marketing on drinking behavior.
Immediate effect of alcohol advertising	Engels et. al. (2009); Koordeman, Anschutz & Engels (2009); Koordeman et. al. (2011a); Koordeman et. al. (2011b).	First experimental studies suggest a direct effect of exposure to alcohol marketing cues (in films and/or television commercials) on the drinking behavior of adolescents. More research is needed to give insight on differences in effects in sub-groups (for example, gender, or light versus heavy drinkers).

Brudin further concluded that both mass-media (e.g. TV, radio, print) and non-media types (e.g. sponsorships, etc.) could have long-term effects and influence on attitude towards alcohol consumption. Even if the advertisements are only marketing and merely introducing the product, the ability of these strategies to attract people to

try and get introduced to the product is already a big step toward alluring people to consume alcohol.

1.2.2. Personal factors

1.2.2.1. Personality and religiousness

There are series of reasons and occasions that are identified as personal motivators for the use of alcohol. Rather typically, alcohol has been seen as a means of forgetting problems and dealing with pressures of life and stress. Surveys done with young drinkers in Scotland revealed that drinking helps them cope or deal with specific stresses (Pavis et al., 1997). Young women interviewed also reported that alcohol was a good way to relax, be with friends and deal with various pressures (Labri et al., 2007). Drinking was also seen by some as a way to compliment hard work, thus the saying, “work hard and play hard”, suggesting that alcohol is not only seen as a coping strategy but also as a reward (Gilbert, 2014) and is applicable to both students and adults in general. In adults, there is a strong positive relationship between financial strains and causation for drinking alcohol - the higher the financial problem, the higher the likelihood of drinking (Gavis & Mantler, 2004).

Some people even see alcohol as an emotional prop or something to turn to in difficult situations (Pavis et al., 1997). For example, low academic or work performance leading to low self-esteem and self-confidence may also become a source of stress and pressure among students and employees. The alcohol use in such cases had been hypothesized to help in externalizing the causation of poor performance and then internalizing the causation of good performance (Jones & Berglas, 1978). Atkins et al. (1984) also noted that dissatisfaction to life in a way might also indirectly be influential to drinking.

However, motivations to use alcohol are heavily dependent on personalities that are often linked with alcohol-related behaviors. Also, many researchers have also reported an unexplained percentage of variation in surveys and tests made with certain factors, and even with the robustness of some of the tests used, many aspects and other potential influences remain to be explained. Personality and sub-

racial characteristics (i.e. traits, religiosity) have been suggested to intricately intervene and influence such behaviors (Benda, 1997).

Studies have shown that personality can be categorized into the Big Five Factors in which 40 different other broad criteria can be assessed. These are commonly labeled as extraversion (sociability, positive feelings, activity and self-confidence), agreeableness (interpersonal tendencies), conscientiousness (forward planning, organization and task carrying out), neuroticism (general tendency to experience negative feelings) and openness to experience (imagination, intellectual curiosity, aesthetic sensitivity, attention paid to one's own feelings and no dogmatic behavior; Pauhomen & Ashton, 2001; Coeffec, 2010). These traits have been extensively used in other studies to explain and demonstrate how they could influence health-risk related behaviors. As we have shown earlier, drinking behavior is socially influenced, which in turn is moderated by personality (Peterson et al., 2005). However, although personality may not directly dictate behavior towards alcohol, it may on the other hand influence other stronger factors that are directly link to alcohol use. Different studies showed the different extent of influence of the different personalities, depending on the context and the extent of alcohol use. For example, Eysenck (1992) has regarded agreeableness and conscientiousness to associate with sensation-seeking. These extraverted sensation seeking individuals were later suggested to be more vulnerable to heavy alcohol use (Schall et al., 1992). Another study on adolescents showed that extraversion is positively correlated to alcohol use and conscientiousness to be negatively related to self-reported alcohol consumption (Paunomen, 2001). These results are also consistent with the observations of Peterson et al. (2005). In their study, they observed that although personality did not directly predict alcohol consumption, some personality types are more prone to being influenced by social factors or peer pressure which later leads to alcohol consumption. Specifically, people who are extraverted, agreeable and open individuals were socially influenced.

Interestingly, analysis of literature has associated religiosity with being highly agreeable and conscientious and could possibly be related to extraversion. The same observation was seen among Islamic students, with the addition of openness as a positively related personality trait with religiosity (Khoynezad et al., 2012).

Studies have shown that religious affinity and values formation played a major role in determining the willingness and risk to take alcohol in early adolescence and adulthood. For example, a survey of deeply religious and devout African Americans (e.g. those whose religious values dictate day-to-day living) also are less likely to try alcohol and thus prevent addiction (Heath et al., 1999). Extent and form of religious influence however may also differ according to ethnic affiliation. A 3-year longitudinal study revealed that for blacks, attendance to service is the strongest predictor of alcohol use while it is religious fundamentalism that was more important for white adolescents (Brown et al., 2001). These factors also predict behavior towards alcohol (Saroglou, 2000). Low Psychoticism and the high correlation between religiousness and the four major traits are often seen to result in a positive relationship with good characteristics and thus inhibition towards behavior involving use of alcohol and other substances (Khoynezad et al., 2012). It has been widely discussed and demonstrated in literature that alcohol use and religiosity are negatively associated (e.g. Kendler et al., 1997 and references therein). Religious teachings generally promote a healthier lifestyle with respect to known risk factors and also classify alcohol or drug use as sins since they could possibly harm the body, believed to be the temple of the Holy Ghost (Idler et al., 2003). The definition of being sociable, agreeable, open and positive differs depending on the context and the perspective. Individuals who are more religious will see people who follow the teachings of their church to be agreeable but on the other hand, on the side of the drinkers, that same individual may be seen as non-sociable. This scenario leads to the concept and principle of social learning and peer pressure - to what “peer” or “social circle” one will be swayed or homogenized and what group has stronger influence. This latter perspective was actually observed in a meta-analysis conducted by Malouff et al. (2007). They concluded that alcohol involvement is actually related to low conscientiousness, low agreeableness and high neuroticism especially for people who have high participation in their churches. They further added that such traits fit a person who has low self-control, and as discussed earlier, self-control or efficacy is a strong predictor of drinking behavior.

Another important aspect of religion are the values that it teaches to its followers. Values or human values in particular are defined as “…cognitive constructs

that explain individual difference in regard to aims in life and behavior principles and priorities" (Renner, 2003). Allport and Vernon (1931) even specifically categorized values into six groups: political, social, economic, theoretical, esthetic and religious. Religious values, which could be defined differently with different church groups, is imparted to their followers as morals. Morals are part of a system of beliefs that are taught for deciding good or bad. Although values are commonly personal, morality or the teaching of the church, most often then becomes the basis for personal morality. In most churches and religious organizations, alcohol is seen as immoral and unacceptable. For example, Islam totally prohibits alcohol consumption, while Protestants discourage it. Catholics on the other hand are less strict with it as well as the Jews. These differences in the affiliations of churches have actually been explored and the demographic pattern of alcohol users in the States was strongly correlated with church affiliation. In their survey, they found out that male, white, under 21 years of age, Catholics and those who believe that religion was not important tend to make up the population that exhibited heavier drinking or incidences of drinking-related problems (Engs et al. 1997). These morals or values imparted by these churches will eventually shape and affect the personality of individuals and would also have repercussions to social behaviors such as alcohol drinking. It is important to note however that non-religiousness or non-belief of God does not mean that the individual would likely be a drinker. In a survey conducted among patients who sought help from Alcoholics Anonymous for example, no significant difference was found between those who have religion and those who are agnostics and atheists (Tonigan et al., 2002). To note, religious affiliation is not tantamount to religiosity and thus, protective effects of the different dimensions of religion might have been missed out.

The study of association between religiosity/spirituality and health attitude was once challenging due to the inherent limitations of the methods used to assess religiousness (Idler et al., 2003). Previous studies also characterized the association between religion and medicine to be weak and inconsistent (Sloan et al., 1999). These inconsistencies have also been related to the protective factor of the different domains of religiosity itself, including personality traits. Nevertheless, recent studies all agree that religion (depending on church, extent of affinity/status) has a positive

effect to health which in turn is negatively correlated to alcohol use. However, values (an important element of religion) also dictate health-consciousness as it is influenced by personal values and the prevailing value environment (Sagiv & Schwartz, 2000).

It has been shown earlier that health-consciousness could be negatively associated with alcohol use, although some health benefits of alcohol, particularly of wine, have been promoted. Health consciousness, as shown to be negative predictor of alcohol use, is also moderated by some of the big five factors namely openness and conscientiousness. In a cross-sectional study to understand intake of healthy diets across race and culture, it showed that openness has a positive association with consumption of healthier foods (e.g. fruits, vegetables) and the avoidance of unhealthy foods such as alcohol. Also, conscientiousness was seen to positively affect healthy eating (Lunn et al., 2014). Interestingly, conscientiousness was found to be more significant with age, meaning people try to conform to a healthier lifestyle and become more aware of their health condition as they age. The same trait was also implicated with a range of mental and physical disorders among adults in the general population, that is, the lower the conscientiousness, the higher the likelihood of onset of illness (Goodwin & Friedman, 2006). In a study of the personality traits and age of death of the American presidents, the investigators concluded that openness, extraversion, neuroticism and agreeableness were not actually correlated with death age. On the other hand, unhealthy activities related to low conscientiousness are all correlated to expected fashion with death age (McCann, 2005). This adherence to the social norm of healthy living will have an implication on an individual's attitude and behavior regarding alcohol use. More importantly, conscientiousness was shown to be more related to the likelihood of engaging in healthy behaviors. Specifically, studies suggested that higher levels of conscientiousness were associated with a smaller likelihood of alcohol use (Walton & Roberts, 2004).

Conscientiousness however may also be affected by different mechanisms that allow it to be enhanced or melted down in the process of maturity of a person. It is not a simple construct, and has been suggested to be partly mediated by a number of factors such as attitudes, beliefs, intentions, perceived behavioral control,

expectancy and experience (Hagger-Johnson et al., 2012). In the case of alcohol use for example, positive experiences (e.g. socialization, stress release among others) may change attitude towards alcohol and therefore may also affect conscientiousness brought about by social pressure or personal openness. In this situation, situation being a trait is influenced by experiences which in turn are more affected by other traits such as extraversion or openness. However, negative experiences may also be a learning opportunity for an individual (e.g. drinking led to hangover and incapability to perform tasks the day after). This type of experience may enhance conscientiousness and self-control allowing an individual to pre-determine consequences and decide on these possibilities the next he is faced with the dilemma of alcohol pressure. In the study of Martens et al. (2009), they concluded that the use of protective behavioral strategies have mediated the relationship between conscientiousness and alcohol use. In the context of alcohol drinking, conscientious individuals are characterized to be those who plan ahead and who do not engage in impulsive behaviors, normally they are more responsible and proactive (Pervin & John, 1999). Martens et al. (2009) further suggested that these people with responsible traits tend to determine in advance to not exceed a certain number of drinks, or avoid drinking because of driving or work/studies the following day, or limiting oneself until a certain time to drink. These predetermined plans eventually lead to either more responsible or totally non-drinking associated with less alcohol use or fewer alcohol related problems. This is the case of the social drinkers we have seen in this study. Most of them are employed and have other responsibilities such as work, family and others, which could inhibit or influence their decisions to drink alcohol even if it is just social drinking. We also have seen that most of the respondents are not susceptible anymore to interpersonal influences, suggesting that possibly, trait-wise although not quantified in this study, that they possess a higher level of conscientiousness which allows them to have higher self-control over alcohol use.

Conscientiousness is also intimately linked to self-control or self-efficacy, that conscious effort to say no or inhibit oneself from engaging in adverse health behaviors. However, again, conscientiousness itself as a temperament is not self-mediating, but rather it is a trait developed mostly by social nurturing such as good

parenting (Vazsonyi & Huang, 2010). Discipline allows the child to learn self-regulation and responsibility. Conscientiousness has also been suggested in growing significantly in school and educational institutions, although it might change during adolescence. In the United Kingdom for example, pupils that had higher self-reported conscientiousness predicted lower initial alcohol drinking (Hagger-Johnson et al. 2012). Peer pressure, self-control and relevant social influences may help change levels of conscientiousness and thus could lead to use or inhibition of alcohol use among the youth. Religiousness, as discussed earlier, also posits morals and values that allow the individual to behave and engage in activities that support self-control (McCullough & Willoughby, 2009).

Although it has been demonstrated in this section that other influences such as religiosity and health consciousness are linked to certain personality traits, such as the big five factors, the direction of the causality to drinking behavior is still unclear. For example, although association has been established, it not yet known if 1.) the personality traits lead to alcohol involvement; 2.) that alcohol involvement leads to traits or 3.) some other unknown or understudied variable like genetic predisposition influences both the personality and alcohol involvement. It is also possible that all factors mentioned are intricately interacting with each other resulting to the observed patterns of behavior on alcohol consumption (Malouff et al., 2007).

1.2.2.2. Health-related motivation to avoid alcohol consumption

Even in ancient times, drinking alcohol was recognized as being beneficial. Wine has been a staple drink in meals and at dinner tables. In the modern era, moderate and occasional drinking are supported by hard scientific data that moderate alcohol drinking contributes to a person's total well-being (both physical and mental). Most wines, beers and spirits are made from plant materials such as fruits, flowers, seeds, leaves, tubers and others, which are high in antioxidants and polyphenols. Studies have shown that long-term consumption of plant polyphenols could provide protection against the development of severe conditions such as cancer, diabetes, osteoporosis, neurodegenerative and cardiovascular diseases (Pandey and Rizvi 2009).

Wine for example, an alcoholic drink made from fruits - usually grapes - in most parts of the world, has been characterized as containing a number of compounds and molecules that do more good than harm. Epidemiological studies have shown that individuals who have the habit of daily moderate wine consumption have a lower cardiovascular mortality when compared to cases of those who abstain or abuse it (German and Walzen, 2000). Some studies even pointed out that compared to other alcohols, red wine was found to be the most beneficial giving credence to the old “French paradox”, suggesting why France actually has a relatively low number of cases of coronary atherosclerosis. A cup or glass of red wine is estimated to contain 100mg of polyphenols and it has been suggested that this limits the initiation and progression of atherosclerosis (Szmitko et al. 2005). In addition, the consumption of alcohol in general causes an increase in the concentration of high-density lipoprotein (HDLs) or the "good cholesterols", keeping the low-density lipoproteins (LDLs), which are associated with heart attacks and high blood pressures, low (Szimitko et al. 2005).

Although wine is the most studied in terms of health benefits, several studies have also shown that moderate drinking of other alcohols such as beer and spirits are linked to lower risks of developing or suffering from coronary illnesses (Rimm et al. 1996). In fact, compared to wine, beer which is mostly made from barley, malt and hop seeds, contains more protein, B vitamins and antioxidants such as flavonoids (Denke et al. 2000). Flavonoids are strong antioxidative agents, heavy scavengers of free radicals, which could prevent coronary heart disease and have anti-cancer and potential anti-HIV properties (Yao et al. 2004).

The health benefits related to drinking, particularly that of wine, has partially influenced the increase in demand for the product in the world market. Interestingly, a world shortage in wine has been predicted in the coming years. This high demand is not only due to the increase in the volume consumed but even in the number of consumers and their geographical origins such as its increasing popularity in China (BBC, 2013). It is not only those who are health conscious or think drinking is possibly beneficial who get attracted to drinking, but medical practitioners are also now being encouraged to promote moderate and “healthy” drinking to their patients

(Denke et al. 2000). Hard data on the percentage of the population who actually consume alcohol for the sake of its health benefits are still unavailable.

1.2.2.3. Demographic influences

A number of studies on the consumption of alcohol concentrate on the analysis of the behaviors of various demographic groups. However, not all of them receive equal attention from the researchers: there is considerably less emphasis given to the drinking patterns of adults, females and individuals with a high social status. Akins, Smith and Mosher (2010) agree that research related to alcohol consumption in adult populations is rare. The authors claim that the determinants of alcohol use may vary depending on age.

As previously noted, a majority of initiated studies investigate alcohol consumption among adolescents, students and young adults. Young people have too little drinking experience and therefore alcohol abuse and binge drinking are common scenes among youths. Although most studies focus on the younger generations of drinkers, there are a few studies examining the alcohol consumption patterns of elderly people. Sorocco and Ferrell (2006) claim that approximately half of respondents in their sixties drink alcohol. Unfortunately, heavy drinking at such an age only accelerates the aging process. There can also be fatal results in mixing alcohol use with certain pharmaceutical products. Due to age and slower metabolism it becomes difficult for older people to manage the amounts used and conclusively this results in various traumas.

An appropriate age is the main criteria for purchase of alcohol. There are some variations among countries, but the usual age to buy alcohol in Europe starts at 18. Bucholz and Robins (1989) state that the drinking age decreased from 21 to 18 years during the 70s. The authors also note that at the time there were some several contradicting studies made claiming changes in the total amounts of alcohol consumed.

According to Sorocco and Ferrell (2006) the overall ageing population increases the need to explore it. The authors suggest three types of adult alcohol consumption

behavior: “a) low-risk or abstinent; b) problem drinking; and c) heavy drinking” (p. 455).

From a historical perspective, alcohol consumption is seen as a male habit and as such has attracted significantly more scientific interest. Men tend to drink more and conclusively they encounter more alcohol related situations. Nolen-Hoeksema and Hilt (2006) bring about factors responsible for higher volumes of alcohol consumed in male populations. According to the authors this is closely related to genetic differences between genders. For instance, women suffer negative physiological consequences of alcohol consumption faster than men do. This genetic difference serves as an inner deterrence to drink. Men and women are different in terms of body weight and therefore an equal amount of alcohol consumed results in different alcohol concentrations in the blood and therefore women are more likely to get drunk faster. Additionally, alcohol causes irreversible damage to the brain of women faster compared to a similar effect on the male population. However, anger and aggression are common characteristics of men under the influence of alcohol.

According to Nolen-Hoeksema and Hilt (2006) women tend to declare health problems caused by alcohol more often. Those might be of a different kind, but there is evidence that women having alcohol consumption problems apart from heart disease might face various sexual dysfunctions and early menopauses. Alcohol is responsible for the increased risk of not having children. The authors claim that according to some research women believe that there are more social boundaries against them drinking. Society tends to tolerate drunk men more than drunk women. There is discussion that this might be the result that alcohol use is a masculine attribute. What is interesting that in couples or while being married the amount of alcohol consumed tends to change in parallel to one another’s use.

Nolen-Hoeksema and Hilt (2006) state that stress and depression are motivating factors that are more relevant to men drinking rather than women. According to their research, women tend to avoid alcohol in situations with stress involved. Men and women differ in the amount of alcohol consumed. However, women are considered more vulnerable to the effect of alcohol since they tend to drink less often, their body weight is lower, they metabolize alcohol differently than men and consequently are at a higher risk of various diseases.

Although there is scientific evidence that there are gender differences related to alcohol consumption problems, there are inconsistencies in the results of different studies.

1.3. Context for the empirical study

1.3.1. Lithuania, as the field of the study

Alcoholism, or the dependence on alcohol, is one of the most recognized human disorders linked to a number of negative consequences (social, mental and physical). As pointed out earlier, alcohol consumption does not necessarily mean heavy drinking or an inevitable route to alcoholism. However, all heavy drinkers started with tasting and then moving on to developing a moderate drinking habit that in some leads to alcoholism. Thus, it is important to understand what the factors are and the motivations for drinking and how people are introduced to alcohol. We also know at this point that drinking alcohol may bring some benefits when consumed moderately and responsibly.

In the previous sections, it was observed that there are a lot of interplaying factors that may affect one's decision to consume alcohol. The reasons that were presented could be further divided into 2 broad categories. The first is external, those reasons primarily motivated by social, cultural and economic, which include the influences of advertising and marketing; those imparted by familial, cultural, religious or traditional forces; and social influences or sometimes peer pressure. The second category includes those more internal that are determined by the individual's mood, character and disposition. This includes the need to cope with stress, emotional circumstances, the promotion of a healthy lifestyle and financial problems. Very often alcohol problems start in youth – how they are influenced, introduced and later on become part of their drinking culture. In order to come up with possible resolutions to combat the problems related to alcohol in our societies, there is a need to tackle the problem from different domains, i.e. social, cultural, economic, psychological and personal.

The empirical research was performed in Lithuania. The choice of the research scene had numerous justifications. Bahmani-Oskooee and Kutan (2008) claim that

Eastern European, like the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and Slovakia, are examples of emerging European economies. Moskalewicz (2000) also agrees that eastern Germany, Poland, Lithuania, Latvia and Estonia are good examples of countries that have gone through a period of transition. Although, there are a few explanations for a full post-Soviet transition, Moskalewicz (2000) emphasizes two main features: the collapse of the planned economy model; and shifts in a political system eliminating the domination of a single party or leader which led to democracy. The transition is followed by changes in the legal system and a significant transformation of existing institutions. Under such circumstances citizens of countries in transition often face unstable living conditions, an uncertain future, increased rates of unemployment and poverty. Increased alcohol consumption is yet another indicator and a result of drastic changes.

Lithuania and other states mentioned above are former countries in transition that have long belonged to the Soviet Union. During the very first transition years these states gradually moved from a planned economy to a market economy. Government interference and various restrictions were lowered in order to increase economic competitiveness. The privatization process began rapidly. According to Amdam, Lunnan and Ramanauskas (2007) approximately 9,000 Lithuanian companies changed ownership from public to private at the time of economic transition.

The collapse of the previous political and economic systems brought new challenges and social issues in those countries in transition. Since Lithuania restored its independence in 1990, health problems - particularly those related to alcohol, tobacco and drug use - have became of increased importance. Of primary interest is the result of alcohol production liberalization and the privatization of the alcohol production sector. Moskalewicz (2000) notes that the process of immediate privatization played a significant effect on the production, supply, distribution and overall marketing of goods and services. Issues of availability, high price and other limitations were no longer relevant. This was primarily due to the lack of legal regulations (Popova, Rehm, Patra, and Zatonski, 2007). The liberalization of the alcohol business enabled the introduction of new domestic as well as foreign alcohol brands to the market, consequently boosting alcohol sales. Alcohol drinks became

available 24/7. Therefore, alcohol consumption increased rapidly over the first year of Lithuania's independence.

There are constant attempts to reduce alcohol consumption in Lithuania by setting alcohol selling time regulations, banning and restricting alcohol advertisements, and changing taxation by increasing excise taxes. However, despite all efforts, no essential changes in alcohol consumption statistics have been reported after a variety of measures have been introduced. Currently, the legal amount of alcohol consumption per capita in Lithuania outweighs the average in the European Union. Reitan (2000) claims that such a drastic increase in the amount of alcohol consumed in former Soviet countries was due to the collapse of the union and the later economic transition period. Moskalewicz (2000) states that estimated alcohol consumption in the early 90s in countries such as Lithuania, Moldova, Poland and Ukraine was approximately 10 liters per capita. Certainly, the transition period was followed by the increased amount of alcohol use and a severe decrease of life expectancy in the Baltic States and Russia. While analyzing alcohol consumption patterns in the Baltic States, Brunovskis and Ugland (2002) conclude that harmful alcohol consumption was perceived as one of the top social health problems already back in 1994. Alcohol-drinking behaviors, with all the possible negative consequences at the time, were the consumer's rather than the state's responsibility. Moskalewicz (2000) claims that government interference in controlling alcohol use during the transition period was diminished to the absolute minimum. There is no coincidence that during the period 1990 to 2010 the amount of alcohol consumed in Lithuania per capita had doubled (Klumbiene, Kalasauskas, Petkeviciene, Veryga, and Sakyte, 2012).

It should also be noted that alcohol abuse mortality is considerably higher in Eastern European countries, those of Lithuania, Latvia, Poland, etc. in comparison to the Western European region. While analyzing alcohol poisoning prevalence in former Soviet Union countries, Stickley et. al. (2007) concluded that cases of death due to harmful alcohol consumption at the time was quite high. The overall drinking trends, according to Statistics Lithuania, worsened during the last seven years from 11.1 liters in 2006 to 12.9 liters per capita in 2013 (Figure 1).

In terms of overall Baltic region consumer trends, Estonians and Lithuanians have rapidly become the world's dominant drinking populations over the last few years. When measured by overall liters of alcohol consumed per person, the two countries have rapidly increased their per capita drinking from around 60 liters per person per year in 1997 to over 100 liters per person per year in 2011. According to Statistics Lithuania, the average per capita consumption of alcohol in Lithuanian in 2012 rose to 13 liters of legal absolute alcohol, 0.3 liters more than in 2011. Alcohol consumption per person aged 15 years and over in 2012 increased by 0.3 liters as well, to 15.2 liters. What is also unusual during the period of observation is the fact that drinking became more popular among women and adolescents.

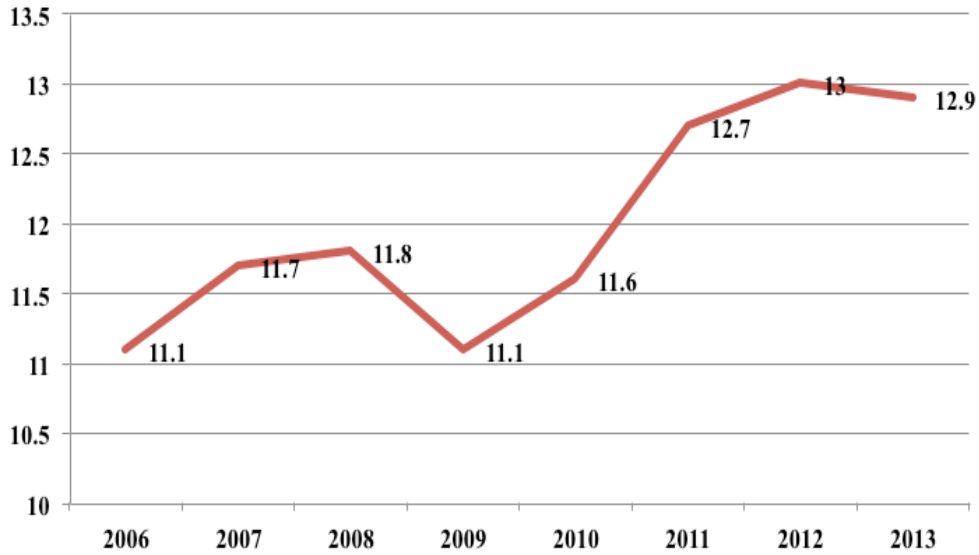


Figure 4. Alcohol consumption per capita in Lithuania 2006-2013 (liters of absolute alcohol)

To explain what this means, we can convert the yearly amount of 12.9 liters of absolute alcohol[1] per capita to 4.96 liters of beer (5% alcohol by volume) and 0.62 liters of vodka (40 % alcohol by volume) consumed per week per capita. Certainly,

[1] Absolute alcohol – Ethanol containing not more than 1% mass of water (World Health Organization 2005).

Statistics Lithuania provides only the statistics of legally sold alcohol in the state and the provided numbers do not account for illegally produced and smuggled alcohol that is consumed within the country.

The main law in Lithuania that is dedicated to the control of alcohol production, consumption, availability, selling conditions and other related issues is the Law on Alcohol Control. It was first passed in 1995 and since then constantly revised. The overall aim of this law is to reduce alcohol consumption and negative consequences that are related to drinking. Only very recently in 2011 state authorities have established the Drug, Tobacco and Alcohol Control Department. This institution next to some legislative and monitoring functions is responsible for the prevention and control of harmful alcohol use.

Lithuania's Drug, Tobacco and Alcohol Control Department in 2012 and 2013 performed a continuous representative sample survey of Lithuanian adults trying to discover the percentage of individuals that had consumed alcohol over the past 12 months. The research data showed that both in 2012 and in 2013 the amount of alcohol consumed by individuals remained stable at 86% of the total population.

The Institute of Hygiene reports that in 2013 there were 905 registered death cases caused by deviant alcohol consumption. Mainly, those were due to liver cirrhosis. Respectively there were 930 deaths registered in 2012. Further more, according to the Information Technology and Communications Department under the Ministry of the Interior, out of all investigated crimes in 2013, there were 11,600 crimes, or 25.1%, that were committed under the influence of alcohol. The police department in 2013 recorded 546 traffic accidents in Lithuania that happened due to individuals under the influence of alcohol. This comprises 1/6 of the total number of accidents. In the alcohol related accidents there were 96 people killed and 929 injured. So it could be acknowledged that Lithuania inherited many problems from its transition period.

Certainly, alcohol related problems are relevant not only to the countries in transition, but worldwide. The WHO reports 2.5 million annual deaths caused by the harmful use of alcohol. The use of alcohol puts risk not just on the individual level, but it also compromises the well being of the society. Therefore the WHO urges national governments to reduce alcohol consumption and implement up-to-date

measures that enable the control of this phenomenon. The state constantly takes action to decrease alcohol consumption.

Time and efforts are used for a variety of studies and research. The phenomenon of alcohol consumption receives scientific interest in a variety of fields, such as in psychology, consumer behavior, marketing, medical sciences, etc. A variety of research focuses exclusively on teenagers, student and adolescent alcohol use issues (Burns, Hampson, Severson and Slovic,1993; Marcoux & Shope, 1997; Varela & Pritchard, 2011; Sancho, Miguel and Aldás, 2011; Deshpande & Rundle-Thiele, 2011). In spite of that, only 9%, or 320,000, of all WHO estimated deaths are in the age group of 15 to 29 years.

Consumer behavior is prone to changes over time and adults demonstrate different personal and social motives that cause a stronger versus weaker intention to use alcohol. Alcohol consumption phenomenon is of a multifaceted nature and the decision to purchase alcohol may vary. According to Lee, Roux, Cherrier and Cova (2011) alcohol consumption is described in terms of "the consistent process of acquisition, use and disposal." This research, however, focuses only on the pre-phase of acquisition. This research attempts to investigate the decision of the consumer to resist as a phenomenon not related to cases of addiction to alcohol, chronic habit or alcoholism as a disease.

1.3.2. Adaptation of the theory of planned behavior in relation with alcohol consumption

The theory of planned behavior (TPB) is one of the most commonly applied models used to understand and explore factors that could explain various consumer behaviors. As noted in the previous section, TPB is assumed to be an appropriate tool to explain consumer behavior towards alcohol consumption. This theory proposes that intention is the most significant deterministic factor for a behavior and can also to some degree be determined by attitude, subjective norm and perceived behavioral control (PBC). The utility of this model has actually received a vast amount of empirical support. Ajzen (2010) even acknowledged in his webpage that

the study had been cited in more than 818 empirical studies as well as in critical reviews (Armitage & Conner, 2001).

In the previous research sections, we have seen most factors affecting the decision to engage in or avoid drinking-related activities could be mostly classified into two categories, namely social (external) and personal (internal). Furthermore, it was acknowledged that the influence of these variables might be positive (to drink) or negative (to inhibit). TPB has been expanded and a number of internal and external determinants were added to predict the effect of intent to the realization of the behavior. Some of these studies are summarized in Table 2.

It could be observed that some of the most studied predictors of behavior and intent are personal factors (PBC) like self-efficacy in refusing alcohol use, personal attitude towards drinking, subjective norms and social identity. Interestingly, PBC has been continually used to assess its impact on intention and consumption although it has been widely reported to be a poor predictor of alcohol consumption. This however has been suggested to be more related to limitations and variance associated with the different methods used to measure PBC, for example, either as a personal control (Glassman et al. 2010) or self-efficacy (Johnston & White, 2003). Although there are some inconsistencies in the results of the studies conducted, a majority generally suggest that these personal influences have a negative effect on the outcome – meaning that they help build a resistance to alcohol consumption. Self-efficacy has been found to be prominent in women and young female students and is in turn related to social identity – the social stigmatization of women drinking less than men. For men, self-efficacy is superseded by peer pressure which is still related to social identity, i.e. that drinking makes a man more masculine. Perceived gender differences have been repeatedly demonstrated to be variables in the social pressure to drink. Furthermore, while men associate drinking with masculinity and more often than not to aggressive behaviors as outcomes, women on the other hand focus on the positive behavioral effects of alcohol use (Guise & Gill, 2007).

Table 2. A short summary of sample studies those extensively explored and tested different determinants that could potentially influence intent and behavior towards alcohol use or drinking

Study	Determinants Tested	Remarks
Colins & Carey, 2007	Previous experience	Self-efficacy and attitude are significant predictors of outcome, not subjective norm; previous experiences may also be significant depending on outcome
	Drinking attitude	
	Subjective norms	
	Self-efficacy (refusal)	
Norman & Conner, 2006	Self-efficacy (refusal)	Both self-efficacy and perceived control are negatively correlated to drinking
	Perceived control	
Study	**Determinants Tested**	**Remarks**
French & Cook, 2012	Personal beliefs	Both personal beliefs and social pressure play a role in engaging in alcohol-related activities; lack of money would make it difficult
	Perceived peer norms	
	Financial situation	
	Attitude	
	Perceived control	
Norman, 2011	Attitude	All of the factors were found significant, in addition, habitual drinking was added to variance
	Subjective norms	
	Self-efficacy (refusal)	
	Perceived control	
	Intention	
	Habit strength	
Johnston & White, 2003	Social identity	Peer influence supersedes social identity
	Peer influence	
Marcoux & Shope, 1997	Attitude	The determinants were found predictive of drinking behavior
	Subjective norms	
	Perceived behavioral control	
Glassman et al., 2006	Attitude	Attitude and subjective norms predictive of behavior and intent; PBC is not predictive of alcohol consumption
	Subjective norms	
	Perceived behavioral control	

Another general category of variables tested as predictors of behavior in the framework of TBP are social influences such as peer influence and the perception of others towards a social identity. Unlike personal factors, which are more related to resistance, social pressures on the other hand are more often geared towards a

positive attitude in regards to alcohol consumption, especially in the case of social identity. Although indirectly, the perception of other people towards a person's identity has been shown to be a strong influence in the decision-making process and further behavior. Mostly unwillingly, personal beliefs and attitude towards alcohol use are changed depending on how an individual is influenced by a certain social group (also partly related to social learning theory).

These studies, however, use a variety of measures. Some have used only intent as the outcome, while others have used alcohol consumption or drinking. Nevertheless, both measures still provide useful insights in understanding alcohol behavior directly or indirectly. Ajzen (2010) however also acknowledges the limitations of the model. Although the model considers some normative influences, it does not take into account environmental or economic factors. Interestingly, some studies have extended TBP to study behavioral responses and have suggested the significant variance contributed by an individual's financial capacity to explain decisions to participate in drinking related activities, particularly in binge drinking (French & Cooke, 2002). Most of the studies conducted so far to test TBP have only used self-reported consumption or assessments. In addition, most of the studies have been done through surveys and only a few have actually conducted physical tests. This includes Glindemann et al. (1996) who used breathalyzers at actual parties to measure and determine alcohol consumption.

Some of the determinants previously studied had either a negative or positive perceived influence towards intention. For instance, social identities and peer influence, especially among men, are strong positive influences while self-efficacy and personal beliefs are strong negative ones. These personal and social variables, however, sometimes interact to either further encourage or inhibit intention towards drinking behavior. However, studies investigating such interactions and inhibitive influences among and in between determinants have not yet been largely explored. Although studied separately and sometimes interactively, several variables and their interacting or inhibiting effects on each other have not been investigated.

Therefore, this research will focus on six specific determinants broadly classified as personal and societal. Personal factors include *self-efficacy* (a conscious effort to say no to alcohol consumption), *health consciousness* and *importance of religion*, on

which depending on the context, could be considered as a personal belief. The other set of variables are social ones which include the *attitude towards alcohol advertising* (ATAA) as perceived from various marketing based sources, *attitude towards drinkers* (ATD) and *susceptibility to interpersonal influence* (SPI). ATD and ATA fall under the attitude attributes originally proposed by Ajzen (1991), while SPI and health consciousness could be considered as subjective norms and lastly, religion and self-efficacy as personal behavioral controls. These specific determinants have also been known to have a perceived outcome on intention.

The role of media and advertising literacy on attitude towards alcohol (ATAA) as summarized in Table 44 (Annex 3) has been shown to positively induce behavior or intention. Many studies have shown the impact of marketing and advertising to create intent and desire to try to make use of the product being advertised. Kilbourne (2004) argues that rather than offering concrete information about the product, it creates an image for a product to which a consumer becomes attached. In the current state of alcohol advertising, alcohol is humanized and romanticized to such a degree that it is sold as a source of happiness, satisfaction, maturity, athletic ability, success, creativity, friendship, sexual satisfaction and others – all of which are positive and might encourage individuals to consume the product (Peter et al. 2013). Furthermore, advertising is silent about the negative consequences of drinking alcohol. This process of the mythification of alcohol may influence the personal beliefs, attitude, norms and perception of a person in a positive way and may induce intent and later, behavior.

The development of positive expectancies towards alcohol has been studied in both children and adolescents (Austin & Knaus, 2000). In adolescents, marketing has been found to affect their perception by considering drinking as a form of recreation with a deliberate intention of becoming intoxicated (Shand et al., 2003). However, it is important to note that the marketing of alcohol does not only entail commercial advertisements, but the mere portrayal or use of alcohol in TV programming could also constitute a form of marketing. Russell & Russell (2010) conducted a study which thoroughly monitored and analyzed alcohol depictions in TV for eight weeks in the primetime block. The results showed that positive and negative depictions often exist side by side. Positive images are usually associated with subtle depictions and

portrayals while negative images are embedded with a plot and verbally communicated. In this study, attitude towards alcohol advertising (ATAA) will be measured using the scale described by Goldberg et al. (2006). The scale will be introduced in the research methodology section.

Social and personal factors have three variables each. The variables are classified further based on the attributes described by Ajzen (1991). Under the original model item *attitudes* are attitude towards alcohol advertising (ATAA) and attitude towards drinkers (ATD). In *subjective norms* are susceptibility to interpersonal influence (SPI) and health consciousness, while *personal behavioral control* (PBC) includes importance of religion and self-efficacy (SE). These determinants are also categorized according to their expected influence as indicated by the colored boxes, positive or if the determinant will likely influence drinking (blue), negative or if it will probably inhibit drinking (red) or there could be a combination of the two (green). It is also possible that the personal and social determinants interact with each other as represented by the two-way arrow (orange), a relationship that has also been suggested in other theories such as social learning and social identity.

Aside from the impact of advertising on the image of alcohol itself, studies have shown that it also influences perceptions and attitudes toward the drinker or the character portraying the behavior of drinking. Drinkers have commonly been portrayed as drunkards and aggressive, resulting in negative imagery. However, marketing not only portrays alcohol as "cool", but also the drinker, especially prominent in sports or music related scenes and personalities. In a study of Russell et al. (2010) on the impact of alcohol use in a youth-oriented show demonstrated that highly connected viewers tend to be more receptive to the underlying positive alcohol message and in greater agreement with the character of the drinker. This change in perception towards drinkers through media could also translate to change in attitude towards drinking. Product placement or the subtle use and portrayal of alcohol in movies was also observed to significantly affect behavior towards drinking and the character. Strategies include the embedding of advertisements in the context of appealing actors which studies suggest to be even more powerful than general advertising strategies since it is not seen as advertising (Anschutz et al., 2014). The positive perception towards the actor could also translate to positive attitudes

towards drinking and could result in the imitation of that behavior. This is also the reason why ATD was placed as a determinant that would likely have a positive outcome towards intention in the expanded model (Figure 4). For this study, attitude towards drinkers will be measured using the scale described by Russell et al. (2009). The scale is introduced in the following section.

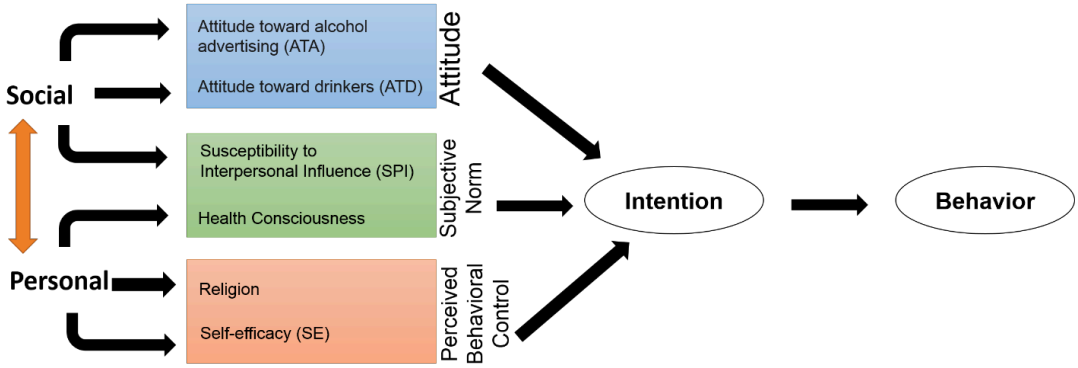


Figure 5. The expanded model of the theory of planned behavior which takes into account the perceived influence of the determinants of the intent to drink alcohol.

It has already been established in the previous sections that peer influence and social interactions are powerful determinants of an individual's behavior. The same interpersonal influence shaped by social interactions have been used in marketing to also affect consumer behavior, particularly in social marketing where the market is segmented and the approach is personal. The susceptibility of the influence that peers have over other individuals, however, may be affected by other factors such as one's personal beliefs, attitudes and normative behaviors. For example, depending on the social group and most influential peers closest to an individual, the perception of alcohol may vary. Studies have shown for example that parenting is a strong and critical factor that inhibits and mediates a youth's susceptibility to negative peer influence resulting in high self-esteem and avoidance of alcohol use in adolescents (Yang & Laroche, 2009). Peer pressure on the other hand has been more associated with a positive attitude towards alcohol. Borsari & Carey (2001) deconstructed peer pressure into three distinct influences: first, it is overt and includes offers of alcohol which may entail drinking as polite gestures or could be intense goading and demands to drink; second, modeling which is concurrent with the norms of the group

as discussed in detail by social learning and social identity theories; and finally, the perceived social norms or social influence which may lead to the abuse and perception of alcohol drinking as a normal behavior. Susceptibility to interpersonal influences (SPI) then may vary with age, gender, status and other personal correlations. For this study, the measure of SPI will follow the suggestions of Bearden et al. (1989).

Another determinant that may have a positive or negative influence on alcohol drinking is health consciousness. Although alcohol has been shown mostly to be physically harmful, social drinking has been mostly perceived to be positive. Wine drinking, for example, has been widely recommended both by medical professionals and health enthusiasts for its health benefits, especially regarding its effects on the heart. Gluten-free beers have also been produced to cater to people who have health limitations but enjoy alcohol (Ruiz, 2015). In fact, the coined term “healthy drinking” has been increasingly becoming a social norm (Einhorn, 2015). This just shows that alcohol itself is not seen to be negative, but rather its abuse. Social drinking is also acknowledged to facilitate social interaction and thus enhances self-esteem, mood and outlook on life. Drinking also is implicated in deconstructing negative emotions when an individual is experiencing personal problems, allowing one to re-focus and build up self-esteem to solve the problem. Health-related issues, however, may also inhibit a person from drinking alcohol. Many cases of illnesses and death have been associated with drinking, especially it’s abuse, such as cancer, cirrhosis and substance dependence (Thun et al., 1997). Although this typically only becomes evident in the cases of abusive and excessive drinking, drinking is more often than not generalized to be a health hazard. In addition, the perception towards alcohol use may also affect health perceptions, i.e. the idea that alcohol is not healthy, which in turn would affect the intention to consume alcohol. Thus, unlike before, alcohol consciousness has already changed from having a strict negative attitude towards alcohol to holding a dual view of the behavior.

Perceived behavioral controls (PBC) to be tackled in this study are the influences of religion and self-efficacy. Religion, although considered to be an indirect social control, transpires through personal perceptions and could lead to behavioral control as it is always linked to morality (Cornwall, 1998). In a survey of

middle-aged men in the United States, a strong correlation was found between not only religion and abstention but also with the religion in which an individual is affiliated with (Michalak et al., 2007). The differences were related to the permissive attitudes of the religions themselves towards alcohol. For example, Islam completely prohibits drinking, Jews and Protestants on the other hand only encourage abstinence, while Catholics allow it but not its abuse. Such religious attitudes are consistent with surveys which observed that most self-reported drinking problem behaviors were manifested by Catholics, followed by Jews and Protestants (Carlucci et al., 1993). The influence of religious beliefs, however, has been observed to differ between men and women. Religious women, or those who are closely associated with their church, tend to drink less while it was not significantly correlated in men. This difference was suggested to be related with role playing or social identity being portrayed by men as influenced by peer pressure, while women have more self-efficacy to say no to alcohol drinking, which in turn is also related to their social identity (Poulson et al., 2010). Self-efficacy - or the individual's conscious belief in their capacity to refuse or unsuccessfully regulate drinking behavior - perhaps has been one of the most well-studied determinants in the original model of TBP (Table 1, Jones et al., 2001). Bandura (2006) identifies self-efficacy as a foundation of human agency and probably of a higher cognitive mechanism associated with behavioral choice (Bandura, 2006).

The determinants presented here belong to different sources of influence (social vs. personal), in different categories (as attitude, subjective norm or perceived behavioral control) with different expected outcome or influence towards intent (positive, negative or both). Along these lines, it will be interesting to investigate the extent and level of interaction in between and among the determinants, as well as know if and which determinants tend to be stronger than the others when multiple are present. Following this logic, it would be expected that some stronger determinants could also affect the outcome of the weaker determinants. For example, if ATD/ATAA were stronger than SPI, the SPI would likely result in a positive intention towards alcohol. Additionally, if religious beliefs were stronger than those of social influence, SPI would likely have a low additive variance to predict alcohol behavior.

2. RESEARCH METHODOLOGY

2.1. Research design

Research design is the backbone of research. A good design allows the research to be effectively structured and demonstrates how different parts of the research – theoretical, methodological and the collected data sampling – intertwine and complement each other and how they work together to address the aim of the research and goals set. According to Graziano and Raulin (1993) research design determines the type of the research: descriptive, correlational, experimental or review. In addition it includes research questions, suggested hypotheses, variables of the research, data collection methods used while performing the study, and a plan for statistical analysis. The research design is usually chosen in accordance to the research question and the knowledge already existing in the field of interest. A fundamental issue for research is to find a balance between precision and constraints. For instance, a low constraint research that includes observation might result in a low representation.

This research uses both the descriptive and empirical analysis methods. As research constructs were addressed in the previous sections, structural equation modeling was deployed to address the research question. The research process can be described in two steps:

Firstly, a conceptual framework and a research model were introduced and defined, based on an in-depth review of existing theories and current state of knowledge. The research process began with a review of the research already done in the field of alcohol consumption, as well as the theoretical background that could essentially explain the factors behind this sort of consumption. The completion of this step allowed for the identification of theoretical constructs and the proposal of a research model with possible linkages between them (see Section 1).

Secondly, the measurement scales applicable for the theoretical model were introduced and the respondents' survey questionnaire was developed. The proposed model is proved to be an extension of the theory of planned behavior. An additional quantitative survey was carried out among a group of adult respondents for testing

the research hypotheses. The data was collected on 2-16 December 2013 based on a contract with the international market research, analysis and consulting company TNS. The research results were then analyzed using statistical analysis software SPSS 21.0 and Lisrel 9.1 structural equation modeling software. The collected data analysis results enabled testing the proposed hypotheses and allowing the aim of the research to be addressed: to investigate the effect of suggested determinants (health consciousness, self-efficacy and importance of religion) on adult alcohol consumption intention: to investigate alcohol consumption in the context of conflicting societal and personal factors. With the results of the above analysis, recommendations on future research as well as practical recommendations for the governments were then proposed.

The above two steps enabled addressing the overall research problem and research objectives of the dissertation.

2.2. Research model and hypotheses

The main research question of this dissertation is: *to what extent alcohol purchase intention is determined by personal consideration or social influence and how do the two interact?* The research addresses six specific determinants broadly classified into two groups of personal and societal factors. Personal factors include *self-efficacy, health consciousness and importance of religion*, which could be considered as a personal belief. Societal factors include *attitude towards alcohol advertising, attitude towards drinkers and interpersonal susceptibilities*.

The empirical research aims to address the following objectives to meet the aim of the dissertation:

1. To empirically test the relationship between the research model's constructs and the outcomes of proposed hypotheses;
2. To evaluate the influence of suggested determinants to the consumer's alcohol purchase intentions.

In order to address these objectives, the author proposes the following research model (Figure 6).

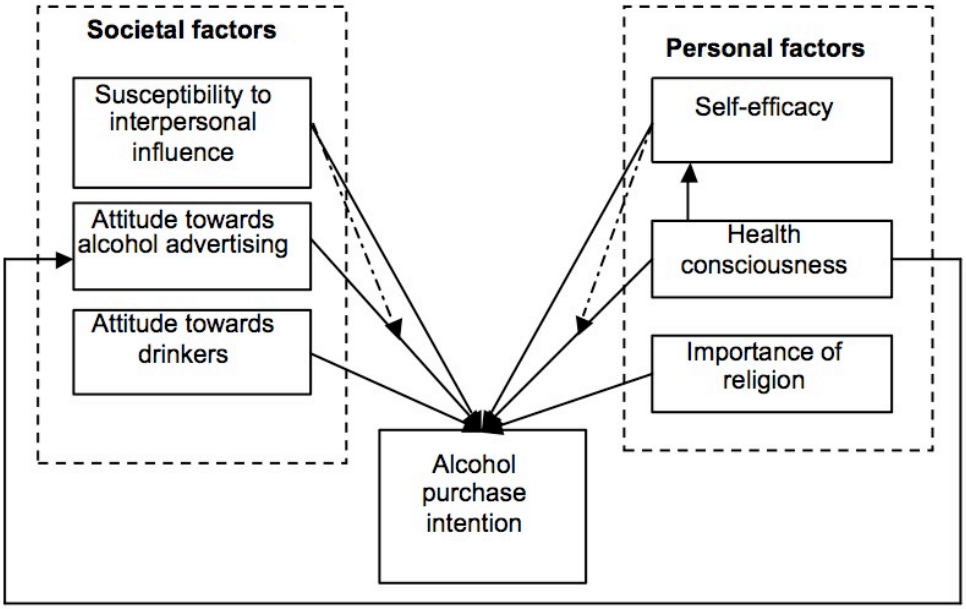


Figure 6. The proposed model with all moderating variables and their potential relationships

The model allows formulating the main hypotheses:

Hypothesis 1*: Attitude towards drinkers has a positive impact on Alcohol consumption (purchase) intention.* As noted in the theoretical part of the dissertation, outcome expectancies are predicted to occur while engaged in a particular behavior (Jones et al., 2001). It was also discussed that consumer's expectancies towards a certain type of behavior might be shaped through the personal attitudes towards a drinker. Very often these attitudes derive from communications among social network members or by portrayals of behaviors in mass media that the individual is exposed to. A positive image of the alcohol drinker serves as a ground for the social learning of non-drinkers. Later in the process moderate drinking is transformed into a social norm.

The changes in perceptions towards alcohol drinkers and how they further translate to the actual behavior is an issue that has been already touched upon by several authors (Young et al., 2005; Norma, 2011; Lettow et al., 2013). However

further investigation is needed in how attitude towards drinkers is affected by adult alcohol purchase intent.

Hypothesis 2*: Attitude towards alcohol advertising has a positive impact on Alcohol consumption (purchase) intention.* In the previous section of the dissertation it was acknowledged that alcohol advertising and positive attitudes towards advertising induces alcohol consumption. As concluded by authors current forms of alcohol advertising are aimed to romanticize alcohol making it a source of maturity, happiness, sexuality, etc. (Kilbourne, 2004; Peter et al., 2013). The relationship between the attitude towards alcohol advertising and alcohol consumption was extensively investigated by a variety of authors (Sobell et al., 1986; Lapin, 1998; Collins et al., 2007; Gordon, Hansen & Touri, 2010). Although, the majority of studies conclude that exposure to alcohol advertising and positive attitudes towards advertising is to increase the one's intent towards drinking. However further investigation is needed to bring new insights and disclose how advertising effects translate to the adult population.

Hypothesis 3: *Susceptibility to interpersonal influence has a positive impact on Alcohol consumption (purchase) intention;*

- ***Hypothesis 3a:*** *Susceptibility to interpersonal influence has a moderating effect on the relationship between the attitude towards drinkers and alcohol consumption (purchase) intention so that the relationship is positive;*
- ***Hypothesis 3b:*** *Susceptibility to interpersonal influence has a moderating effect on the relationship between the attitude towards alcohol advertising and alcohol consumption (purchase) intention so that the relationship is positive;*

A variety of research in the field has indicated that peer pressure has an effect on an individual's beliefs, attitudes and even behavior (Borsari & Carey, 2001; Yang & Laroche, 2009). It was demonstrated that peer pressure dominates over the decisions of pupils, adolescents and college and university students. In addition to that there has been some research claiming evidence that susceptibility to interpersonal influence is a strong predictor when it comes to one's decision of using alcohol (Simons-Morton et al., 2005). Therefore, it is suggested that the susceptibility to interpersonal influence is an important determinant affecting a consumer's intention. Despite the already existing knowledge in the field, primarily, that among

young consumers, it is important to investigate if this relationship is consistent with older generations, since the susceptibility to interpersonal influences is prone to change with age and social status.

Hypothesis 4: *Consumer self-efficacy has a negative impact on Alcohol consumption (purchase) intention;*

- ***Hypothesis 4a:*** *Consumer self-efficacy has a moderating affect on the relationship between health consciousness and alcohol consumption (purchase) intention so that the relationship is more negative.*

Self-efficacy is a complex phenomenon reflecting one's capability to self-judge on how efficacious one is (Bandura, 1995). There is evidence that shows that individuals with high levels of self-efficacy tend to be more resistant to various temptations, including the consumption of alcohol (Kinard & Webster, 2010; Bui, Kemp & Howlett, 2011). This personal characteristic has demonstrated strong ties with healthy lifestyle behaviors (Jang, Rimal & Cho, 2013). Therefore it is hypothesized that self-efficacy is a significant predictor of alcohol consumption intention.

Hypothesis 5: *Health consciousness has a negative impact on alcohol consumption (purchase) intention;*

Hypothesis 6: *Health consciousness has a negative impact on the attitude towards drinkers;*

Hypothesis 7: *Health consciousness has a positive impact on consumer self-efficacy.*

A theoretical analysis of the relationship between health-consciousness and alcohol consumption has provided some valuable insights claiming that individuals concerned about their health and life quality tend to use less alcohol (Lee et al., 1997; Dong, 2010; Nichols et al., 2012). It has also been proven that health-conscious individuals tend to choose healthier, organic, green products (Yoon, Lalwani & Vargas, 2008; Chen, 2009; Mai & Hoffmann, 2012). Therefore, it is hypothesized that health-consciousness is one of the most important personal variables when it comes to the decision to consume alcohol. Furthermore, it is expected that health-consciousness prevails over the phenomenon of attitudes towards drinkers; meaning that health-conscious individuals will not consider alcohol

drinkers to be more social, smart and sexual and in this way will reject the media formed images. It is also predicted that health-consciousness may support and strengthen one's self-efficacy abilities.

Hypothesis 8: *The importance religion has has a negative impact on alcohol consumption (purchase) intention.* The theoretical part of the research indicated some existing studies that have indicated that spirituality, religiousness and church attendance may affect one's harmful habits of smoking and drinking (Fam, Waller & Erdogan, 2002; Martin, Kirkcaldy & Siefen, 2003; Desmond, Ulmer & Bader, 2013; Desmond, Soper & Kraus, 2011). In addition there has been some research claiming evidence that religion influences one's mental and physical health condition (Martin, Kirkcaldy & Siefen, 2003). Therefore, it is hypothesized that individuals who are more serious about religion will demonstrate a low level of alcohol consumption intention.

2.3. Research instrument

2.3.1. Self-efficacy measurement scale

According to Bandura (1995, p. 2) self-efficacy is the "belief in one's capabilities to organize and execute the courses of action required to manage prospective situations". Bandura (2006) claims that self-efficacy is a phenomenon converged with an individual's belief in their capabilities to achieve certain goals or execute particular performances. The scholar believes that self-efficacy may vary from person to person.

All individuals seek to be the architects of their own life. Therefore it is natural to influence and take control over the events happening around us. The ability to control provides security over undesired outcomes and enables the search for valuable, desired ones. Self-efficacy theory is aimed at providing explanations and instructions on how to develop and increase an individual's personal capacity.

Schwarzer and Luszczynska (2005) claim that according to social cognitive theory (Bandura, 1997), the personal sense of control facilitates a change of health behavior. Self-efficacy pertains to a sense of control over one's environment and actions. Self-efficacy beliefs are cognitions that determine whether a change in healthy behavior will be initiated, how much effort will be expended, and how long it

will be sustained in the face of obstacles and failures. Self-efficacy influences the effort one puts forth to change risky behavior and the persistence to continue striving despite barriers and setbacks that may undermine motivation. Self-efficacy is directly related to health behavior, but it also affects health behaviors indirectly through its impact on goals. Self-efficacy influences the challenges that people take on as well as how high they set their goals (e.g. “I intend to reduce my smoking” or “I intend to quit smoking altogether”). Individuals with strong self-efficacy select more challenging and ambitious goals, they focus on opportunities, not on obstacles.

Self-efficacy may be indirectly be related to changing a behavior. It could be used to perform advocacy against alcohol use through its effect on one’s knowledge about anti-drinking alcohol campaigns. Awareness of anti-drinking alcohol policies in schools and in the mass media, as well as support for an anti-alcohol policy, is higher among self-efficacious adolescents. In addition to higher awareness, self-efficacious adolescents have more favorable attitudes toward these campaigns (Unger et al., 1999).

Results of longitudinal studies on adolescents’ alcohol consumption have also shown that not all interventions designed to increase self-efficacy and to change addictive behaviors lead to the expected changes in target health behaviors or cognitions.

According to Bandura (1995), perceived self-efficacy is considered “beliefs in one’s capabilities to organize and execute the courses of action required to manage prospective situations”.

It is argued that there are three sources of efficacy beliefs:

- **Mastery experiences**. It is about acquiring certain behavioral tools needed to perform proper actions in dynamic life circumstances.
- **Vicarious experiences**. This experience comes from various social models. While examining the behavior of others around oneself, one can master similar issues.
- **Social persuasion**. Individuals that are persuaded that they have the needed skills and knowledge to master some particular situations usually mobilize their efforts, increase confidence and, as a result, achieve greater efficacy.

Certainly, the phenomenon of self-efficacy is complicated and complex. According to Bandura (2006) self-efficacy is a phenomenon converged with an individual's belief in their capabilities to achieve certain goals or execute particular performances. Self-efficacy may vary from person to person. For instance, a chief executive officer might demonstrate a high efficacy in management and leadership and at the same time a low parenting efficacy. Therefore, self-efficacy in a phenomenon contains specific self-beliefs.

It is important to note the distinction between self-efficacy and constructs of self-esteem, locus of control or outcome expectancies. Bandura (2006) notes that the initial difference is that self-efficacy is a judgment of one's capabilities whereas self-esteem is a judgment about self-worth. In comparison, the locus of control focuses on the outcome indeterminacy – if the outcomes are determined by one's actions or if the outcomes are determined by actions beyond one's control. Finally, outcome expectancies are judgments about possible outcomes that are likely to occur while engaged in a particular performance. The scholar concludes that outcome expectancies manifest in three forms and with positive or negative qualities: physical, social, and self-evaluative outcomes.

Self-efficacy is an essential construct in any study of human behavior, since the phenomenon is closely related to the individual's goals, the efforts being made and the actual behavior. Self-efficacy reflects on the amount of challenges an individual can overcome, though the challenges may vary widely.

Self-efficacy is a phenomenon that refers to the individuals' beliefs regarding control over various situations happening in their lives. Kinard, B. R., Webster, C. (2010) believe that high self-efficacy individuals are able to resist engaging in behavior that might be considered harmful to their health. There is a clear link acknowledged between self-efficacy and consumer risk behavior, particularly of alcohol consumption. Kinard and Webster (2010) claim that there is evidence between low self-efficacy and excessive alcohol consumption among teenager, student and adult respondent groups. Bandura (1995) is certain that the higher the self-efficacy, the higher the goals the individual sets and is able to challenge. Individuals set their personal goals and plan the steps to attain them.

Based on previous findings it is predicted that self-efficacy is a significant predictor of alcohol consumption levels. It is also believed that individuals of high self-efficacy could resist the impact of external influences, particularly those of peer pressure. While healthy behavior can be reached by promoting a healthy lifestyle, it can also be attained by preventing, reducing or eliminating unhealthy behavior. According to Hevey, Smith and McGee (1998) self-efficacy is an indicative determinant of healthy behavior.

Luszczynska, Scholz and Schwarzer (2005) believe that general self-efficacy is one's belief in the ability to cope with a wide range of challenges. General self-efficacy (GSE) is a more general construct that reflects one's capability to self-judge on how efficacious one is. GSE enables us to explain a broad range of individual behaviors with no specific context. Specifically, self-efficacy is an individual's belief in their capabilities to perform a specific task which requires gaining a desired outcome. The scholars claim that individuals that demonstrate stronger self-efficacy are more likely to exhibit healthy behaviors. Self-efficacious individuals better cope with negative emotions, mood fluctuations, depression, etc. Kinard and Webster (2010) believe that while examining alcohol abuse, a context specific self-efficacy scale should be used rather than the general one.

Bui, Kemp and Howlett (2011) believe that individuals with high levels of self-efficacy are capable of resisting the temptation to use many harmful products. In addition, promotion and various marketing efforts of the seller are believed to have less impact on those of high self-efficacy. Bui, Kemp and Howlett (2011) in their research have concluded that self-efficacy has a significant impact on greater health consciousness and both determinants play a important role in fighting obesity.

In the self-efficacy scale (See Table 3), consumers judge using their capability to engage in a particular activity. That way using a Likert scale enables us to measure one's strength of beliefs in regards to performing a certain behavior.

Table 3. Self-efficacy measurement scales

	Self-efficacy measurement scales		
	Schwarzer and Jerusalem (1995) **General self-efficacy scale**	Griffin, M. A. (2008) **Drunkenness Avoidance Self-Efficacy**	Griffin, M. A. (2008) **Protection Self-efficacy**
Questionnaire	1. I can always manage to solve difficult problems if I try hard enough. 2. If someone opposes me, I can find the means and ways to get what I want. 3. It is easy for me to stick to my aims and accomplish my goals. 4. I am confident that I could deal efficiently with unexpected events. 5. Thanks to my resourcefulness, I know how to handle unforeseen situations. 6. I can solve most problems if I invest the necessary effort. 7. I can remain calm when facing difficulties because I can rely on my coping abilities. 8. When I am confronted with a problem, I can usually find several solutions. 9. If I am in trouble, I can usually think of a solution. 10. I can usually handle whatever comes my way.	How confident are you that you could do the following? 1. Alternate non-alcoholic beverages and alcoholic beverages. 2. Determine, in advance, not to exceed a set number of drinks. 3. Pace your drinks to 1 or fewer per hour. 4. Keep track of how many drinks you were having.	How confident are you that you could do the following with your wing-mates? 1. Avoid drinking too much 2. Resist pressure from a wing-mate to drink too much. 3. Avoid being in situations where you would be encouraged to drink too much. 4. Avoid drinking games. 5. Drink an alcohol look-alike. 6. Carry around a cup but not drink any alcohol. 7. Socialize with my wing-mates in a manner that does not include alcohol. 8. Avoid driving after you had been drinking. 9. Avoid riding with a driver who has been drinking.
Tested with	Adults and adolescence	Students	Students
Reported Cronbach's alpha	Unidimensional from 0.76 to 0.90	Single factor 0.8	Single factor 0.84

	Self-efficacy measurement scales		
	Schwarzer and Jerusalem (1995) **General self-efficacy scale**	Griffin, M. A. (2008) **Drunkenness Avoidance Self-Efficacy**	Griffin, M. A. (2008) **Protection Self-efficacy**
Scale	4 point Likert scale	1=unconfident, 2=somewhat unconfident, 3=somewhat confident, and 4=confident	1=unconfident, 2=somewhat unconfident, 3=somewhat confident, and 4=confident

Kinard and Webster (2010) conclude that previous studies in the field have disclosed a variety of internal, external, situational, social and environmental determinants that are related to alcohol and tobacco consumption. The authors claim: “low self-efficacy individuals are unlikely to resist engaging in behavior detrimental to their health, whereas high self-efficacy individuals are more likely to resist such behavior”.

Jang, Rimal and Cho (2013) add that self-efficacy is one of the essential variables for sustaining a healthy lifestyle. The scholars examined the relation between drinking refusal self-efficacy and alcohol consumption. Furthermore, the authors analyzed the effect of self-efficacy on normative beliefs. The result of the research was twofold: it was found that drinking refusal self-efficacy significantly influences alcohol consumption and normative beliefs set by the society have a stronger impact on alcohol consumption the lower the level of self-efficacy. Therefore Jang, Rimal and Cho (2013) stress the importance of increasing self-efficacy. For this purpose social cognitive theory points out 4 options: “performance accomplishments (reinforcing efficacy through appraisals of prior behaviors in which the individual refused consumption appeals), vicarious reinforcement (observation of others, particularly those similar to oneself, refusing to consume alcohol), affective arousal (associating refusals with positive emotions), and verbal persuasion (important referents asserting that the individual has the ability to refuse consumption appeals).”

Based on previous findings it is predicted that self-efficacy is a significant predictor of alcohol consumption levels. It is also believed that individuals of high

self-efficacy are able to resist alcohol consumption intention.

Self-efficacy emerged as a mediator between social influence variables (such as perceived norms), substance offer, and past behavior on the one hand, and drinking alcohol on the other. In the example set, some adolescents who were already involved in addictive behaviors were trying to overcome them. When asked to provide reasons for quitting drinking alcohol, young people spontaneously listed athletic performance, health, and costs, as well as their self-efficacy. Although there are gender differences in the reasons that adolescents give for not drinking alcohol – such as health and athletic performance – self-efficacy leads to intention formation in both sexes.

The question remains, however, what is crucial for the health behavior change process? Do changes in self-efficacy facilitate behavior change and promote stage transition, or do behavior changes themselves (e.g. attempts to quit drinking alcohol) have side-effects, namely an increase of self-efficacy. Grembowski et al. (1993) state that self-efficacy explains individual health related behavior patterns. It also serves as a good explanation as to the prevention of a variety of illnesses. Authors support existing claims that individuals with high self-efficacy are the ones that consider their health status an important daily issue. What is more important is that self-efficacy, or more particularly, the level of self-efficacy, is an individual character feature of any single individual. Certainly, self-efficacy varies in strength according to the situation and context.

2.3.2. Social influence measurement scale

There is no doubt that individuals gain knowledge about behavior patterns through social norms. This is especially true in cases of uncertainty. Social norms seem to influence a range of behaviors, including contribution to non-profit organizations (Page, 2007), amounts of food consumption (McFerran, B., Dahl, D. W., Fitzsimons, G. J., Morales, A. C. 2009), making a job choice decision (Kulkarni & Nithyanand, 2013), making political judgments (Fein, Goethals, & Kugler, 2007), risk-taking at work (Westaby & Lowe, 2005) and using smartphones (Suki, 2013) (see Table 46 in the 5ix 3). Besides the constructs of peer, parental and social pressure,

there is the phenomenon of conformity. Conformity refers to an individual's efforts to adapt their behavior to others and thus fit in with the chosen group.

Page (2007) supports the notion that consumers often rely on social information while making their personal judgments. The scholar found evidence that information about charity contribution level effects one's personal contribution amounts.

Suki (2013) supports the idea claiming that social influence may effect an individual to change attitudes, feeling and forming intentional or unintentional behavior. The scholars back the claim that friends, parents and relatives have a strong influence on encouraging a person to act (buy or consume). Consumers are concerned whether a particular product purchase will receive support.

Dagher and Itani (2012) support the claim that social influence is a wide field of scientific interest. Social influence can manifest as a form of peer pressure, conformity compliance, etc. Scholars support the claims that consumption affects the need to belong to a particular reference group. Moreover, current social networking and media channels, such as Twitter and Facebook, enable social influence to have even an even stronger effect.

Qin, Kim, Hsu and Tan (2011) also support the claims that social influence appears when individuals are affected by others around them. There a few theories such as:

1. **Social learning theory**. This theory states that individuals learn from each other while communicating.
2. **Conflict elaboration theory of social influence**. This theory claims that while making decisions, individuals refer to the social group they belong. In the end, this means conformity with the majority.

Table 4. Social influence measurement scales

	Social influence measurement scales	
	Bearden, W. O., Netemeyer, R. G., Teel, J. E. (1989) **Interpersonal influence: consumer susceptibility to interpersonal influence**	Mehrabian, A., Stefl, C. A. (1995) **Conformity Scale**
Questionnaire	1. I often consult other people to help choose the best alternative available from a product class.	1. I often rely on, and act upon, the advice of others.

	Social influence measurement scales	
	Bearden, W. O., Netemeyer, R. G., Teel, J. E. (1989) **Interpersonal influence: consumer susceptibility to interpersonal influence**	Mehrabian, A., Stefl, C. A. (1995) **Conformity Scale**
Questionnaire	2. If I want to be like someone, I often try to buy the same brands that they buy. 3. It is important that others like the products and brands I buy. 4. To make sure I buy the right product or brand, I often observe what others are buying and using. 5. I rarely purchase the latest fashion styles until I am sure my friends approve of them. 6. I often identify with other people by purchasing the same products and brands they purchase. 7. If I have little experience with a product, I often ask my friends about the product. 8. When buying products, I generally purchase those brands that I think others will approve of. 9. I like to know what brands and products make good impressions on others. 10. I frequently gather information from friends or family about a product before I buy it. 11. If other people can see me using a product, I often purchase the brand they expect me to buy. 12. I achieve a sense of belonging by purchasing the same products and brands that others purchase. Normative factor items: 2,3,5,6,8,9,11,12. Informational factor items: 1,4,7,10.	2. I would be the last one to change my opinion in a heated argument on a controversial topic. 3. Generally, I'd rather give in and go along for the sake of peace than struggle to have my way. 4. I tend to follow family tradition in making political decisions. 5. Basically, my friends are the ones who decide what we do together. 6. A charismatic and eloquent speaker can easily influence and change my ideas. 7. I am more independent than conforming. 8. If someone is very persuasive, I tend to change my opinion and go along with them. 9. I don't give in to others easily. 10. I tend to rely on others when I have to make an important decision quickly. 11. I prefer to make my own way in life rather than find a group I can follow.
Tested with	Adults	Students
Reported Cronbach's alpha	0.82 Informational 0.88 Normative	0.77
Scale	7 point Likert scale	9 point scale

Starr, M. A. (2009) in her research has discovered evidence that consumers are more willing to consume in a socially conscious manner when other members of

society act accordingly. The results of the research support the previous claim that socially acceptable consumption behavior stands in line with existing social norms.

Consumption as a form of an individual's action is never independent. No doubt relatives, friends and colleagues might and often do influence consumption choices.

2.3.3. Health consciousness measurement scale

Kim and Chung (2011) claim that individuals that are well aware of their health and seek to sustain it are considered "health conscious". Bui, Kemp and Howlett (2011, p. 186) state that “health consciousness is an indicator of individual overall interest in issues related to general health and health-related consumption.” The authors believe that health consciousness is stimulated by the intent to protect oneself from harmful products and a wish for social acceptance. Health-conscious individuals make healthier consumption choices. Michaelidou and Hassan (2008) believe health-conscious individuals are well aware of their health status and are seeking to maintain or improve it. This particular group of consumers frequently engages in healthy lifestyle decisions and sports activities.

Chen (2009) researched an individuals' health consciousness in relation to attitudes towards organic food and found a positive relation. In contrast the article Michaelidou and Hassan (2008) examined the effect of health consciousness, food safety and ethical self-identity in shaping consumer’s attitudes and forming a purchase intention. The co-authors, despite some relevant research in the field, had discovered ethical self-identity has the strongest influence on both consumer’s attitudes and purchase intention, while health consciousness was revealed to have little impact. Scientific literature provides other factors and motivations for organic food consumption, but nevertheless there remain many alternative explanations. The scholars formulated two mains sets of reasons: egoistic (individual, health related) and altruistic (environmental, animal welfare related). Since health consciousness proved to be of little importance to consumers in their research, the co-authors concluded that this indicates a shift from egoistic to altruistic motivations only while consuming organic food.

Mai and Hoffmann (2012) have discovered that health consciousness determines individual priorities over the choice characteristics. Authors conclude that health-conscious individuals take their health into serious consideration when performing certain actions, for instance, while searching for information that causes obesity. According to Hong (2009), health-conscious consumers are concerned about their health issues and seek to maintain or improve their health by undertaking particular actions (e.g. engaging in healthy life activities, consuming organic food, maintaining physical health through sports).

Fam, Waller and Erdogan (2002) refer to alcohol as a controversial product, while other studies describe it as a "socially sensitive" product. In this research, alcohol is referred to as a health-harmful product and it is presumed that consumers are well aware of the harms alcohol might cause. Since alcohol is a harmful product, it is believed that consumer's health consciousness might significantly affect alcohol consumption resistance.

Dong (2010) investigated healthy regular drinkers and found that individuals that were health-conscious consumed less alcoholic beverages. In addition, a significant relation was reported between one's education level and higher levels of health consciousness and lower levels of alcohol consumption. Gould (1988) hypothesized that health related information was more available to health-conscious individuals and that health consciousness serves as a preventive mechanism. Gould's research found support for the hypothesis concluding that health consciousness has an effect on consumers' attitudes towards health-related issues. Controversially, Yoon, Lalwani and Vargas (2008) claim evidence that, although many consumers are more health conscious, they do not necessarily demonstrate healthier lifestyles and better overall health.

Health-conscious consumers are concerned about their health issues and they are seek to maintain or improve their health by undertaking particular actions (e.g. engaging in healthy life activities, consuming organic food, maintaining physical health through sports). Hong (2009) introduced and validated a health consciousness measurement scale (Table 5) that used the 7-point Likert scale for all items. This scale is used in this dissertation research.

Table 5. Health consciousness measurement scale by Hong (2009)

	Health consciousness measurement scales	
	Gould (1988) **Health consciousness scale**	Hong (2009) **Health consciousness scale**
Questionnaire	1. I reflect about my health a lot. 2. I'm very self-conscious about my health. 3. I'm generally attentive to my inner feelings about my health. 4. I'm constantly examining my health. 5. I'm alert to changes in my health. 6. I'm usually aware of my health. 7. I'm aware of the state of my health as I go through the day. 8. I notice how I feel physically as I go through the day. 9. I'm very involved with my health.	1. I'm very self-conscious about my health. 2. I'm generally attentive to my inner feelings about my health. 3. I reflect about my health a lot. 4. I'm concerned about my health all the time. 5. I notice how I feel physically as I go through the day. 6. I take responsibility for the state of my health. 7. Good health takes active participation on my part. 8. I only worry about my health when I get sick 9. Living life without disease and illness is very important to me. 10. My health depends on how well I take care of myself. 11. Living life in the best possible health is very important to me.
Tested with	Adult consumers	Students
Reported Cronbach's alpha	0.93	0.851
Scale	7 point Likert scale	7 point Likert scale

Based on previous findings it is predicted that health consciousness might be a significant predictor of alcohol consumption resistance intention.

2.3.4. Importance of religion measurement scale

Fife et al. (2011) also claim that religiosity is not just related to one's sexual behavior, nutrition habits and physical activities but also to alcohol consumption and other health-related issues. The authors provide a very easily understandable distinction between religiosity and spirituality: "religion is a system of beliefs, practices, rituals and symbols designed (a) to facilitate closeness to the sacred or

transcendent (God, higher power, or ultimate truth/reality), and (b) to foster an understanding of one's relationship and responsibility to others in living together in a community" while spirituality is "a person's quest for understanding answers to ultimate questions about life, about meaning, and about a relationship to the sacred or transcendent" (p. 314).

The dominant religion in Lithuania is Christianity. According to Statistics Lithuania "2,350,000 (77.2% of the population) residents indicated being Roman Catholics, 125,200 (4.1%) – Orthodox, 23,300 (0.8%) – Old Believers, 18,400 (0.6%) – Evangelical Lutherans, 6,700 (0.2%) – Evangelical Reformists; 24,900 thousand (0.8%) residents attributed themselves to other faiths. 186,700 people, or 6.1% of the population, did not attribute themselves to any religious community"[2]. Although wine is consumed in ritual ceremonies remembering the Last Supper, alcohol use leading to drunkenness is considered sinful and is inappropriate for religious individuals. Therefore, alcohol consumption and abuse is unacceptable behavior for Christians. In this dissertation research, religiosity is included in the theoretical research model. Religiosity is predicted to have an effect on alcohol purchase intention.

Lorencova (2011, p. 181) suggests an explanation that "religiosity is participation in collective ceremonies, beliefs and activities of organized traditional religions". The scholar emphasizes that spirituality and religiosity are different phenomena claiming that religion is an integral part of certain doctrines: Buddhism, Christianity, Islam, etc. while spirituality is an individually based "subjective experience". Bjarnason, Thorlindsson, Sigfusdottir and Welch (2005) state that religion is a communal ritual that promotes a common understanding of the surrounding world. The scholars support the notion that belonging to a certain religious group (Catholic, Protestant, Muslim, etc.) to some extent impedes the actions and behavior of the individual belonging to that group. Religion attributes to certain ceremonies, beliefs, an understanding of the surrounding world and therefore it contains both integrating as well governing elements. Religions form particular moral constraints that guide an individual's behavior.

[2] http://www.osp.stat.gov.lt/en/web/guest/pranesimai-spaudai?articleId=223122

According to Martin, Kirkcaldy and Siefen (2003) there is research, particularly in the field of psychology, that claim evidence on religion influencing one's mental health condition. Several studies have concluded that an individual's religiosity and engagement in religious rituals leads to the reduction of behaviors that hold a high risk to one's health, such as smoking and consuming alcohol (Preston, 1969; Idler, 1987; Strawbridge, Shema, Cohen, & Kaplan, 1997; Benda, Pope, & Kelleher, 2006). In addition, Desmond, Soper and Kraus (2011) distinguished different dimensions of religiosity such as: church attendance and the importance of religion.

Strawbridge, Shema, Cohen and Kaplan (1997) provide evidence that individuals who regularly attend church demonstrate lower mortality rates. Strawbridge's research examined alcohol consumption and smoking habits in relation with church attendance. It was concluded that church attendees are non-smokers or tend to smoke less, consume less alcohol, enjoy an active social life and are more likely to engage in sports and various physical activities.

Benda, Pope and Kelleher (2006) have concluded that religiosity is significantly related to alcohol consumption, use of drugs and delinquency. Preston (1969) has concluded that non-drinkers tend to be more religious than drinkers. Similarly, Kolstad and Pedersen (2000) conclude that individuals that abstain from the consumption of alcohol tend to be more religious.

Fam, Waller and Erdogan (2002) aimed to investigate the relation between an individual's religiosity and attitudes towards advertising ambiguous items such as alcohol, cigarettes, contraceptives and others. The researchers concluded that religiosity affects an individual's behavior, shaping product choice patterns and lifestyles.

Wallace et al. (2007) have concluded that the strength of the relationship between alcohol consumption and religiosity may vary depending on racial and ethnic individual characteristics. Glassner and Berg (1980) support such claims concluding that Jews, as a particular ethnic group, have historically had little or no problems relating to alcohol.

In this research it is believed that individuals who are more religious tend to resist alcohol consumption intention.

The consumer's importance of religion was measured using a 6-item scale by

Burroughs and Rindfleisch (2002). Example item: *"My religion is one of the most important parts of my philosophy of life"*.

Table 6. Religion importance scale

	Intention to drink alcohol
Questionnaire	1. My religion is one of the most important parts of my philosophy of life. 2. Religion is a subject in which I am not particularly interested. (r) 3. My ideas on religion have a big influence on my views in other areas. 4. My religion forms an important basis for the kind of person I want to be. 5. Were I to think about religion differently, my whole life would be very different. 6. I often think about religious matters.
Tested with	Adolescence
Reported Cronbach's alpha	0.91
Scale	7 point Likert scale (1 = absolutely disagree; 7 = absolutely agree)

The respondents were asked to evaluate the given statements of the two phenomena using the 7-point scale, where 1 means "Absolutely disagree" and 7 means "Absolutely agree".

2.3.5. Attitude towards alcohol drinkers scale

Although the majority of studies focus on drinkers of younger generations, there are a few studies examining alcohol consumption patterns of adults. Adult consumers are well aware of the harm alcohol causes and therefore are expected to avoid alcohol. Nevertheless, adults use alcohol. This influences the outcome expectancies resulted by the use of such product.

Outcome expectancies are judgments about possible outcomes that are likely to occur while engaged in a particular activity. Consumer expectancies towards a certain type of behavior might be shaped through personal attitudes towards a drinker. Such attitudes are derived from communications among social network members or by portrayals of behaviors in mass media such as on TV or in movies. Bucholz and Robins (1989) note that advertisements of alcohol are aimed primarily towards men. There are several types of alcohol advertisements: radio, television, Internet, newspaper, flyers, among others. However, the type of existing commercials depends on a country by country basis due to different advertisement policies. Bucholz and Robins (1989) point out that marketers claim their advertisements are not intended to increase the amount of potential new buyers, but rather that they are aimed at an already drinking audience for the purposes of switching brands. However, that is not necessarily true. In addition to advertising, there are a lot of facts concerning hidden advertising, for instance, product placement in movies and sitcoms. There are authors that believe that strict alcohol advertising control policies would not have any substantial effect on consumer behavior and the stereotypes formed. MacKinnon Lapin (1998) performed experiments and concluded that a constant exposure to alcohol advertising results in a better evaluation of drinkers and lower perceived alcohol risks.

Table 7. Attitude toward drinkers scale

	Attitude Toward Drinkers
Questionnaire	I think that drunk people are: 1. Funny. 2. Smart. 3. Cool. 4. Good. 5. Attractive. 6. Appealing.
Tested with	Adolescence
Reported Cronbach's alpha	0.86
Scale	7 point Likert scale (1 = absolutely disagree; 7 = absolutely agree)

The formation of a consumer's attitude towards drinkers is explained differently across theoretical models. This ranges from concepts of more obvious forms of influence to more indirect forms where social perceptions (e.g. perceiving the typical drinker as "cool" or "popular") act as a form of silent influence.

Based on previous findings it is predicted that the attitude towards drinkers might be a significant indicator affecting a consumer's alcohol purchasing intention.

2.3.6. Attitude towards alcohol advertising

There are misaligned results about the impact of alcohol advertising on consumer behavior. Gunter, Hansen and Touri (2010) concluded that there was no significant relationship between the two. Bucholz and Robins (1989) add that alcohol advertising has a minor effect on consumption by individuals exposed to the advertising. These authors believe that strict alcohol advertising control policies would not have any substantial effect on consumer behavior.

Table 8. Attitude toward alcohol advertising scale

	Attitude toward alcohol advertising
Questionnaire	I think that drunk people are: 1. I get upset when I see some of the ads for beer. 2. A lot of what the beer companies say in their ads is really true (R). 3. The only thing beer companies are interested in is making money. 4. I think alcohol advertising should be banned. 5. It makes me mad to think of how many kids get hooked into drinking by beer companies.
Tested with	Adolescence
Reported Cronbach's alpha	0.88
Scale	7 point Likert scale (1 = absolutely disagree; 7 = absolutely agree)

Contrarily, other scholars claim evidence that exposure to alcohol advertising may result in higher alcohol consumption patterns. MacKinnon Lapin (1998), for instance, performed experiments and concluded that constant exposure to alcohol advertising results in lower perceived alcohol risks. Advertising campaigns that include famous world known actors, sport athletes and other celebrities might serve as an important determinant shaping a consumer's purchase intention. Therefore it is predicted that alcohol advertising might be a significant indicator in influencing one's purchasing intention. Exposure to advertising was measured using the alcohol advertisement attitude scale.

2.3.7. Alcohol consumption intention measurement

Consumer behavior implies keeping to some particular values or norms and that there are guidelines for one's behavior. Nowadays consumers are understood to be rational decision-makers, and that they differ from before in that they carefully evaluate what to buy and what not to buy. Shaw, Grehan, Shiu, Hassan and Thomson (2005) claim personal characteristics are an important area of academic interest contributing to a better understanding of consumer behavior. Many factors may facilitate or impede the performance of a consumer's behavior. Gould (1988) believes that an effective health care system should be developed including consumer perceptions. Factors that encourage alcohol consumption intention should be investigated and later used for the creation of alcohol reduction policies. Alcohol buyers and users are a homogeneous group of individuals and the suggested determinants might serve to segment them rather than offer better preventive results.

Schwarzer and Luszczynka (2004) claim that according to the TPB, intentions are the main predictors of one's behavior. The TPB includes attitudes, subjective norms and perceived behavioral control. Self-efficacy is closely related to perceived behavioral control and indicates similar things. Ajzen (2002) agrees that "it can be seen that perceived behavioral control and self-efficacy are quite similar: both are concerned with the perceived ability to perform a behavior".

Table 9. Alcohol consumption intention measurement scale by Spijkerman, R. et al. (2004)

	Intention to drink alcohol
Questionnaire	1. To what extent do you think you will drink weekly in the future. 2. To what extent do you think you will drink weekly in 6 months from now. 3. To what extent do you think you will drink weekly in 2 years from now.
Tested with	Adolescence
Reported Cronbach's alpha	0.86
Scale	5 point Likert scale (1 = not likely at all; 5 = very likely)

Dissertation research used the scale developed by Spijkerman, R. et al. (2004) in order to measure intention to purchase alcohol.

The finalized questionnaire contains 67 items (Table 10) and includes the items discussed above. The Lithuanian version is presented in Annex 1.

The items are measured on either the five-point or seven-point Likert scales (from strongly disagree to strongly agree) matching their formats from the original sources. Both 5 and 7 point scales ensured construct variance and possible measurement error variance.

Table 10. Structure of the research questionnaire

Construct	**Item (empirical indicator)**	**Item code**
Alcohol consumption intention	To what extent do you think you will drink weekly in the future?	T2_1
	To what extent do you think you will drink weekly in 6 months from now?	T2_2
	To what extent do you think you will drink weekly in 2 years from now?	T2_3
Attitude toward drinkers	I think drunk people are: Fun	T3_1
	Smart	T3_2
	Cool	T3_3

Construct	Item (empirical indicator)	Item code
Attitude toward drinkers	Good	T3_4
	Attractive	T3_5
	Appealing	T3_6
Attitudes toward alcohol advertising/ advertisers	I get upset when I see some of the ads for beer.	T3_7
	A lot of what the beer companies say in their ads is really true (reverse scored).	T3_8
	The only thing beer companies are interested in is making money.	T3_9
	I think alcohol advertising should be banned.	T3_10
	It makes me mad to think of how many kids get hooked into drinking by beer companies.	T3_11
Self-efficacy	I can always manage to solve difficult problems if I try hard enough.	T4_1
	If someone opposes me, I can find the means and ways to get what I want.	T4_2
	It is easy for me to stick to my aims and accomplish my goals.	T4_3
	I am confident that I could deal efficiently with unexpected events.	T4_4
	Thanks to my resourcefulness, I know how to handle unforeseen situations.	T4_5
	I can solve most problems if I invest the necessary effort.	T4_6
	I can remain calm when facing difficulties because I can rely on my coping abilities.	T4_7
	When I am confronted with a problem, I can usually find several solutions.	T4_8
	If I am in trouble, I can usually think of a solution.	T4_9
	I can usually handle whatever comes my way.	T4_10
Susceptibility to interpersonal influence	I often consult other people to help choose the best alternative available from a product class.	T5_1
	If I want to be like someone, I often try to buy the same brands that they buy.	T5_2
	It is important that others like the products and brands I buy.	T5_3
	To make sure I buy the right product or brand, I often observe what others are buying and using.	T5_4
	I rarely purchase the latest fashion styles until I am sure my friends approve of them.	T5_5

Construct	Item (empirical indicator)	Item code
Susceptibility to interpersonal influence	I often identify with other people by purchasing the same products and brands they purchase.	T5_6
	If I have little experience with a product, I often ask my friends about the product.	T5_7
	When buying products, I generally purchase those brands that I think others will approve of.	T5_8
	I like to know what brands and products make good impressions on others.	T5_9
	I frequently gather information from friends or family about a product before I buy.	T5_10
	If other people can see me using a product, I often purchase the brand they expect me to buy.	T5_11
	I achieve a sense of belonging by purchasing the same products and brands that others purchase.	T5_12
Health consciousness	I reflect about my health a lot.	T5_13
	I'm very self-conscious about my health.	T5_14
	I'm generally attentive to my inner feelings about my health.	T5_15
	I'm constantly examining my health.	T5_16
Religion importance	My religion is one of the most important parts of my philosophy of life.	T5_28
	Religion is a subject in which I am not particularly interested (reverse scored)	T5_29
	My ideas on religion have a big influence on my views in other areas.	T5_30
	My religion forms an important basis for the kind of person I want to be.	T5_31
	Were I to think about religion differently, my whole life would be very different.	T5_32
	I often think about religious matters.	T5_33
CAGE assessment for alcohol abuse	Have you felt the need to cut down on your drinking	CAGE_1
	Do you feel annoyed by people complaining about your drinking?	CAGE_2
	Do you ever feel guilty about your drinking?	CAGE_3
	Do you ever drink an eye-opener in the morning to relieve shakes?	CAGE_4
Control variables	Age	Age
	Gender	Gender
	Income per household member (LT)	Income
	Education	Education
	Residence	Residence

Construct	Item (empirical indicator)	Item code
Additional alcohol consumption information	Alcohol consumption patterns: Daily	1
	2-3 times a week	2
	Once a week	3
	2-3 times a month	4
	Several times a year	5
	I never drink	6
Alcohol beverage preferences	Types of alcohol beverages used Beer	1
	Cider	2
	Wine	3
	Strong alcohol drinks (vodka, brandy, whiskey, atc.)	4
	Other alcohol drinks	5
	I do not drink	6

The questionnaire items were translated from English to Lithuanian by the author of the dissertation. A pre-test of the survey was executed with a group of 12 colleagues to ensure that all statements were understandable. Further, a professional English-Lithuanian language translator was used to perform back translation to be able to compare those with the original. After those procedures were finished, the questionnaire was approved and forwarded to the analysis and consulting company TNS.

2.4. Limitations of the research

The dissertation research has several deficiencies. Firstly, survey data collection could have been made multiple times in a set period of time. This would have allowed the strengthening of the results and conclusions obtained and for the assessment of any possible inconsistencies.

Furthermore, the age of the respondents is of a wide range, from 18 to 72 years. Separating respondents into 2 to 3 age groups probably would result in slightly different results between the groups. The research performed is based on Lithuanian consumers, possibly limiting the findings of this dissertation. Given that only a limited amount of research exists in the field of adult alcohol consumption, this dissertation provides an important insight and contribution to the scientific literature concerning

the explanation of alcohol consumption with respect to health. This is one of the few studies that have explored a number of socio-personal variables in the framework of the theory of planned behavior in an employed adult population. Furthermore, it further explored the strengths, weaknesses and interactions between these variables such as their expected outcome and influence. A relatively large data source which was pre-screened to filter out alcohol dependents with almost equal representation of men and women also allowed for a less or altogether unbiased survey. However, despite efforts to lessen biases, this study still has a number of caveats and limitations that need to be recognized. Here, these limitations are categorized as technical (i.e. those related to logistical problems and design limitations of the study) and theoretical (i.e. some limitations related to the model or inherent characteristics of the determinants being studied).

One technical limitation is that the sample population only consists of employed adult respondents from Lithuania. This sample though could give an insight into the dynamics of the alcohol related behavior of adults, which however is not representative of the total national population, thus limiting the generalizability of the study. In addition, the study is only limited to the employed population with non-dependence or alcohol-related problems. However, since the survey was of the self-reported omnibus type, there are no means to detect possible personal biases (i.e. the conscious effort to lessen or even exaggerate answers as related to social stigmas), which could have implications on the interpretation of results and conclusions of the study. Since, however, there was no requirement regarding the types or brands of alcohol used, a more honest response of the respondents' true intentions could have been posted.

Another technical limitation of the study was its use of and reliance on self-reported data. The use of self-reporting itself has been heavily criticized in the past and has been associated with a number of inaccuracies despite recognitions that such self-assessments are the core of survey studies. Although one advantage of self-reporting is anonymity and less pressure compared to face-to-face interviews, respondents are still prone to self-enhancement and self-presentation (Paulhus & Vazire, n.d.). For example, if respondents are aware of the target of the study and the process of classifying the respondents, the respondent may deliberately change

some of the answers so that he or she would have an enhanced image even if the survey is anonymous. This pressure leads sometimes to an overly positive self-description. These effects however can be prevented by a number of techniques. First is by employing question forms that prevent participants from answering in an unduly desirable fashion (rational techniques). Also, contamination can be prevented by maximizing the anonymity and confidentiality of the process (demand reduction), at this point, trust should be built on a strong foundation between the researcher and the respondents (Paulhus & Vazire, n.d.). In such studies, assumption on the credibility of the information lies on the honesty of the respondent. Honest inaccuracies, such as gaps in memory may also contribute to possible variances in the survey. These types of uncertainties however may be easier to detect by including options such as “uncertain” or estimates instead of definite values or answers. In the end, knowing such uncertainties would help have a handle on how the data should be interpreted. A large sampling population coupled with sound analytical approaches may however lessen these biases. In this study, 487 respondents may not certainly represent a larger part of the population but the insights gained could guarantee foundations for future research.

Like other studies which have used the theory of planned behavior to investigate and understand the effects of determinants on intention and alcohol behavior, several limitations and caveats need to be considered. First are the limitations of the theory itself. Depending on how constructs were operationalized in the model, results done on the same constructs could possibly show different results or predictive values resulting in inconsistency in the literature. For example, some studies have suggested the central and significant role played by PBC in decision making (Connor et al., 2000) while other studies have found that PBC is a poor predictor of alcohol consumption (Norman, 2011). This inherent variation in reported results is associated with how studies measured the constructs differently which in turn resulted in difficulties in comparing with other studies because of the differences in the approaches used. In this study, PBC predictors include religion, self-efficacy and health consciousness.

Another important caveat in this study is the use of some social determinants that belong to a broad area of social cognition which has been shown to possibly

suggest different explanations for certain constructs. In looking at these social determinants, careful consideration should be given if the one being measured is a misperception of behavior or other social constructs like intergroup biases, as detailed out by John & Alwyn (2010). For example, although the survey was conducted individually, the possible effects of social influence or intergroup biases may have been underestimated or undetected (Ling et al., 2012). For this study, no data was collected on whether these individuals (respondents) are related to each other or affiliated with a common company or group that have certain social norms especially on drinking. It could also be noticed that while the sample population surveyed in this study was also of a certain economic group (i.e. employed), this variable was not explored nor included as one of the possible determinants. This is related to the inherent limitation of the model itself, which Ajzen (1991) also acknowledged, quoting that TPB is still "limited in its ability to consider environmental and economic influences". The best possible way to determine whether the respondents answer the questions honestly is through the use of validation measures external to the interviewing situation. However, this was not done in this research.

3. RESULTS OF THE EMPIRICAL RESEARCH

3.1. Sample data justification

Since alcoholics and individuals who have alcohol problems are not the object of this dissertation, 47 such individuals were excluded in accordance to the CAGE survey results. There are certain scales that help with the preliminary identification for individuals having problems with the consumption of alcohol. Sorocco and Ferrell (2006) state that the CAGE four item questionnaire is the basic alcohol problem indication tool. CAGE is a symbolic name and an acronym for each of the four determining factors that it uses. The four factors are:

1. Have you ever felt you should cut down on your drinking?
2. Have people annoyed you by criticizing your drinking?
3. Have you ever felt bad or guilty about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover (an eye opener)?

Individuals are instructed to answer yes or no to each of the questions. A positive answer scores 1, while a negative answer scores 0. If the total amount of scored points equals 2 or more, it is an indication that a respondent might have potential alcohol problems.

The data (Table 11) for this research was collected on 2-16 December 2013 based on a contract with the international market research, analysis and consulting company, TNS. A total of 487 individuals responded for the study. The research included the following socio-demographic determinants (data is presented in Annex 2): gender, age, level of education and the level of monthly income. The sample includes almost an equal number of male and female respondents. Only 3.5% of the sample respondents were 18-19 years of age, the 20-29 year age group accounted for 18.1%, 30-39 – 13.8%, 40-49 – 15.4%, more than 50 - 49.3% of the sample. According to the monthly income per household member, the respondents fell into four groups. The majority indicated earning from 700 litas and less to up to 1400 litas. In regard to education, the majority of 88.4% of the respondents indicated holding a secondary, higher or university degree. The respondents' demographic

Table 11. Sample profile

Gender	Amount	Percent	Monthly income per household member in litas	Amount	Percent
Male	242	49.7	Less than 700	146	30
Female	245	50.3	701-1400	223	45.8
Age	**Amount**	**Percent**	1401-2100	62	12.7
18-19	17	3.5	More than 2101	0	0
20-29	88	18.1	Unspecified	56	11.5
30-39	67	13.8	**Education**	**Amount**	**Percent**
40-49	75	15.4	Primary	11	2.3
50-59	141	29	Major	45	9.2
60-69	64	13.1	Secondary	188	38.6
70-74	35	7.2	Higher	140	28.7
			University graduate	103	21.1

Many authors claim that respondents tend to underreport their drinking amounts and drinking patterns. However this research survey did not request any specific amount, brands or types of alcohol beverages used, therefore it is believed that respondents indicated their true intentions to purchase alcohol in the near future.

After the data was collected the initial investigation in to construct validity and reliability was conducted. For that Exploratory (EFA) and Confirmatory (CFA) factor analyses were done. As noted previously the structural equation modeling software Lisrel version 9.1 was used to evaluate relationship and mediation effects. In order to test for possible moderation effects a moderated regression analysis was executed using the SPSS and R statistical packages.

Hair et al. (2010) indicate a requirement to have at least one hundred observation cases in order to perform a factor analysis. This research employed 487 respondents and exceeds the minimum requirements. The investigation started with the measuring of Cronbach's alpha values (Table 12) for the employed scales of: *attitude towards alcohol advertising, attitude towards drinkers; interpersonal susceptibilities; self-efficacy; health consciousness and importance of religion*.

Table 12. Reliability of the scales

Model construct	Cronbach's Alpha value
Alcohol consumption intention	.968
Attitude toward alcohol advertising	.710
Attitude toward drinkers	.889
Susceptibility to interpersonal influence	.866
Consumer self-efficacy	.893
Health consciousness	.841
Importance of religion	.910

Cronbach's alpha values enable the assessment of the reliability of the measurement tools. Since Cronbach's alphas range from .710 to .968 and are greater than the .60 recommended limit, all scales meet the consistency criteria (Hair et al., 2010).

Personal factors include *self-efficacy (SE); health consciousness (HC) and importance of religion (R)*. Societal factors include *attitude toward drinkers (ATD); attitude toward alcohol advertising (ATAA); susceptibility to interpersonal influence (SPI)*. Each of the determinant's reliability was evaluated first.

3.2. Exploratory factor analysis of the model constructs

3.2.1. EFA self-efficacy

Self-efficacy reported a high reliability at .893. None of the scale items (Table 13) need to be deleted to increase it.

Table 13. Cronbach's alpha for self-efficacy factor

Item	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T4_1	I can always manage to solve difficult problems if I try hard enough.	32.29	48.594	.634	.447	.898

Item	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T4_2	If someone opposes me, I can find the means and ways to get what I want.	32.70	48.774	.576	.390	.902
T4_3	It is easy for me to stick to my aims and accomplish my goals.	32.84	49.077	.587	.368	.901
T4_4	I am confident that I could deal efficiently with unexpected events.	32.67	47.565	.738	.575	.891
T4_5	Thanks to my resourcefulness, I know how to handle unforeseen situations.	32.70	47.840	.729	.584	.892
T4_6	I can solve most problems if I invest the necessary effort.	32.32	48.338	.709	.534	.893
T4_7	I can remain calm when facing difficulties because I can rely on my coping abilities.	32.83	46.974	.666	.471	.896
T4_8	When I am confronted with a problem, I can usually find several solutions.	32.48	48.896	.648	.504	.897
T4_9	If I am in trouble, I can usually think of a solution.	32.44	48.387	.704	.553	.894
T4_10	I can usually handle whatever comes my way.	32.85	48.132	.660	.454	.896

Based on Cohen et al. (2003), the inter-item correlation (Table 15) exceeds .30 and ranges from weak to moderate. Similar results appear investigating item-total correlation results.

Table 14. Interpretation of correlation results

Correlation coefficient	Interpretation	
0.00-0.30	Very weak correlation	Very weak link
0.20-0.39	Weak correlation	Weak link
0.40-0.69	Moderate correlation	Moderate link
0.70-0.89	High correlation	Strong link
0.90-1.00	Very high correlation	Very strong link

Source: Cohen et al. (2003)

Hair et al. (2010) claim that in order to claim scale reliability two correlation measures should be reached and the item-total correlation should be higher than .30 and inter item correlation should exceed .50.

Table 15. Inter-Item correlation matrix of self-efficacy factor

Item	Statement	T4_1	T4_2	T4_3	T4_4	T4_5	T4_6	T4_7	T4_8	T4_9	T4_10
T4_1	I can always manage to solve difficult problems if I try hard enough.	1.000	.529	.391	.514	.490	.553	.437	.458	.451	.427
T4_2	If someone opposes me, I can find the means and ways to get what I want.	.529	1.000	.453	.464	.417	.447	.410	.331	.401	.432
T4_3	It is easy for me to stick to my aims and accomplish my goals.	.391	.453	1.000	.513	.469	.461	.435	.364	.411	.452
T4_4	I am confident that I can deal efficiently with unexpected events.	.514	.464	.513	1.000	.675	.594	.533	.491	.559	.538

Item	Statement	T4_1	T4_2	T4_3	T4_4	T4_5	T4_6	T4_7	T4_8	T4_9	T4_10
T4_5	Thanks to my resourcefulness, I know how to handle unforeseen situations.	.490	.417	.469	.675	1.000	.629	.567	.488	.553	.537
T4_6	I can solve most problems if I invest the necessary effort.	.553	.447	.461	.594	.629	1.000	.483	.525	.534	.488
T4_7	I can remain calm when facing difficulties because I can rely on my coping abilities.	.437	.410	.435	.533	.567	.483	1.000	.551	.559	.474
T4_8	When I am confronted with a problem, I can usually find several solutions.	.458	.331	.364	.491	.488	.525	.551	1.000	.639	.495
T4_9	If I am in trouble, I can usually think of a solution.	.451	.401	.411	.559	.553	.534	.559	.639	1.000	.572
T4_10	I can usually handle whatever comes my way.	.427	.432	.452	.538	.537	.488	.474	.495	.572	1.000

The self-efficacy construct was further investigated by performing the exploratory factor analysis (EFA). Factor analyses indicate the structure of the observed phenomenon and existing relationships. Later a confirmatory factor analysis (CFA) enables the test to show if the measures of a construct are consistent

with a researcher's understanding of the nature of that construct. The aim of a CFA is to test whether the data fit a hypothesized measurement model.

Both EFA and CFA were employed to elaborate on the construct. SPSS 21.0 was used while performing EFA while CFA was later performed using Lisrel 9.1. As noted in the scale description the self-efficacy constructs should be indicated by a single factor. The performed EFA indicates consistency and a well defined one factor structure of SE (Table 16).

Table 16. Factor matrix of self-efficacy scale

		Factor 1
T4_4	I am confident that I can deal efficiently with unexpected events.	.786
T4_5	Thanks to my resourcefulness, I know how to handle unforeseen situations.	.783
T4_6	I can solve most problems if I invest the necessary effort.	.753
T4_9	If I am in trouble, I can usually think of a solution.	.744
T4_7	I can remain calm when facing difficulties because I can rely on my coping abilities.	.704
T4_10	I can usually handle whatever comes my way.	.695
T4_8	When I am confronted with a problem, I can usually find several solutions.	.689
T4_1	I can always manage to solve difficult problems if I try hard enough.	.660
T4_3	It is easy for me to stick to my aims and accomplish my goals.	.612
T4_2	If someone opposes me, I can find the means and ways to get what I want.	.592
Extraction Method: Maximum Likelihood. a. 1 factor extracted. 5 iterations required.		

The exploratory factor analysis showed the measure of self-efficacy loading on a single factor with an eigenvalue of greater than 1 representing 49.68 percent of variance in the sample (Table 17).

Table 17. Total variance explained by the self-efficacy factor

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.461	54.612	54.612	4.968	49.680	49.680
2	.838	8.382	62.994			

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
3	.657	6.570	69.565			
4	.603	6.034	75.599			
5	.529	5.294	80.893			
6	.491	4.908	85.801			
7	.405	4.054	89.854			
8	.382	3.821	93.675			
9	.333	3.331	97.006			
10	.299	2.994	100.000			
Extraction Method: Maximum Likelihood.						

3.2.2. EFA health consciousness

Health consciousness reported high reliability that of .841. None of the scale (Table 18) items need to be deleted.

Table 18. Cronbach's alpha for items of health consciousness factor

Item	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T5_13	I reflect about my health a lot.	14.76	21.201	.650	.439	.809
T5_14	I'm very self-conscious about my health.	15.32	19.584	.743	.566	.768
T5_15	I'm generally attentive to my inner feelings about my health.	15.17	21.053	.626	.392	.819
T5_16	I'm constantly examining my health.	15.48	19.839	.681	.491	.796

Table 19 indicates that inter-item correlation exceeds .50 and ranges from moderate to high. Similar results appear investigating item-total correlation results. Both of Hair's et al. (2010) criteria were met while analyzing the health consciousness scale results.

Table 19. Inter-item correlation matrix of the health consciousness factor

Item	Statement	T5_13	T5_14	T5_15	T5_16
T5_13	I reflect about my health a lot.	1.000	.622	.520	.518
T5_14	I'm very self-conscious about my health.	.622	1.000	.553	.666
T5_15	I'm generally attentive to my inner feelings about my health.	.520	.553	1.000	.537
T5_16	I'm constantly examining my health.	.518	.666	.537	1.000

The factor analysis indicates the structure of a single factor health consciousness related phenomenon (Table 20). The results are consistent with the original description of the scale by its authors.

Table 20. Factor matrix of health consciousness scale

		Factor
		1
T5_14	I'm very self-conscious about my health.	.853
T5_16	I'm constantly examining my health.	.768
T5_13	I reflect about my health a lot.	.720
T5_15	I'm generally attentive to my inner feelings about my health.	.678
Extraction Method: Maximum Likelihood. a. 1 factor extracted. 5 iterations required.		

Further EFA showed the measure of health consciousness loading on a single factor with eigenvalue greater than 1 representing 57.38 percent of variance in a sample (Table 21).

Table 21. Total variance explained of health consciousness factor

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.711	67.779	67.779	2.296	57.389	57.389
2	.495	12.381	80.160			

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
3	.485	12.134	92.295			
4	.308	7.705	100.000			
Extraction Method: Maximum Likelihood.						

3.2.3. EFA religion importance

Importance of religion reported a high reliability of .910. None of the scale (Table 22) items need to be deleted.

Table 22. Cronbach's alpha for items of the importance of religion factor

Item	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T5_28	My religion is one of the most important parts of my philosophy of life.	16.86	67.468	.798	.641	.886
T5_29	Religion is a subject in which I am not particularly interested (Reverse scored)	16.42	73.664	.554	.348	.922
T5_30	My ideas on religion have a big influence on my views in other areas.	16.86	69.903	.752	.641	.893
T5_31	My religion forms an important basis for the kind of person I want to be.	17.00	67.128	.840	.742	.880

Item	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T5_32	Were I to think about religion differently, my whole life would be very different.	17.26	70.183	.757	.633	.892
T5_33	I often think about religious matters.	17.12	69.241	.812	.669	.885

Table 23 shows that inter-item correlation does not exceed .50. However, while investigating item-to-total correlation results it is obvious that those are higher than .30. Conclusively, only a single criteria of Hair's et al. (2010) requirements was met while analyzing the importance of religion scale results.

Table 23. Inter-item correlation matrix of the importance of religion factor

Item	Statement	T5_28	T5_29	T5_30	T5_31	T5_32	T5_33
T5_28	My religion is one of the most important parts of my philosophy of life.	1.000	.532	.688	.731	.676	.694
T5_29	Religion is a subject in which I am not particularly interested (reverse scored)	.532	1.000	.418	.495	.433	.545
T5_30	My ideas on religion have a big influence on my views in other areas.	.688	.418	1.000	.772	.611	.673
T5_31	My religion forms an important basis for the kind of person I want to be.	.731	.495	.772	1.000	.739	.735
T5_32	Were I to think about religion differently, my whole life would be very different.	.676	.433	.611	.739	1.000	.725
T5_33	I often think about religious matters.	.694	.545	.673	.735	.725	1.000

Factor analysis indicates the structure of single factor R phenomenon (Table 24). The results are consistent with the original description.

Table 24. Factor matrix of religion importance scale

		Factor 1
T5_31	My religion forms an important basis for the kind of person I want to be.	.898
T5_33	I often think about religious matters.	.842
T5_28	My religion is one of the most important parts of my philosophy of life.	.830
T5_30	My ideas on religion have a big influence on my views in other areas.	.816
T5_32	Were I to think about religion differently, my whole life would be very different.	.813
T5_29	Religion is a subject in which I am not particularly interested (reverse scored)	.576
Extraction Method: Maximum Likelihood. a. 1 factor extracted. 5 iterations required.		

Finally, EFA showed the measure of the importance of religion loading on a single factor with eigenvalue greater than 1 representing 64.38 percent of variance in a sample (Table 25).

Table 25. Total variance explained by the importance of religion factor

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.189	69.811	69.811	3.863	64.386	64.386
2	.659	10.981	80.792			
3	.404	6.728	87.520			
4	.302	5.038	92.558			
5	.258	4.298	96.856			
6	.189	3.144	100.000			
Extraction Method: Maximum Likelihood.						

3.2.4. EFA attitude toward drinkers

Attitude toward drinkers reported a high reliability of .889. A single scale (Table 26) item T3_1 was deleted in order to increase scale reliability.

Table 26. Cronbach's alpha for items of attitude toward drinkers factor

Item	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T3_2	Smart	9.24	27.226	.691	.532	.874
T3_3	Cool	9.08	25.646	.779	.629	.853
T3_4	Good	8.49	27.477	.620	.398	.892
T3_5	Attractive	9.37	26.656	.806	.774	.848
T3_6	Appealing	9.48	27.793	.778	.754	.856

Table 27 shows that the inter-item correlation with a single exception reached .50. Additionally, item-to-total correlation results are higher than .60. That means that both of Hair's et al. (2010) requirements were met while analyzing ATD scale results.

Table 27. Inter-item correlation matrix of the attitude toward drinkers factor

Item	Statement	T3_2	T3_3	T3_4	T3_5	T3_6
T3_2	Smart	1.000	.709	.479	.595	.577
T3_3	Cool	.709	1.000	.570	.671	.658
T3_4	Good	.479	.570	1.000	.579	.529
T3_5	Attractive	.595	.671	.579	1.000	.861
T3_6	Appealing	.577	.658	.529	.861	1.000

The factor analysis indicates the structure of the single factor of the attitude toward drinkers phenomenon (Table 28). The results are consistent with the original description.

Table 28. Factor matrix of the attitude toward drinkers scale

		Factor
		1
T3_5	Attractive	.929
T3_6	Appealing	.906
T3_3	Cool	.756
T3_2	Smart	.676
T3_4	Good	.629
Extraction Method: Maximum Likelihood. a. 1 factors extracted. 5 iterations required.		

The exploratory factor analysis revealed that the measure of the attitude toward drinkers loads on a single factor with eigenvalue greater than 1 representing 62.13 percent of variance in a sample (Table 29).

Table 29. Total variance explained of attitude toward drinkers factor

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.505	70.098	70.098	3.107	62.132	62.132
2	.547	10.945	81.043			
3	.539	10.783	91.826			
4	.273	5.451	97.277			
5	.136	2.723	100.000			
Extraction Method: Maximum Likelihood.						

3.2.5. EFA attitude toward alcohol advertising

Attitude toward alcohol advertising reported a satisfactory reliability of .710. A single scale (Table 30) item T3_9 was deleted in order to increase scale reliability.

Table 30. Cronbach's alpha for items of the attitude toward alcohol advertising factor

Item	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T3_7	I get upset when I see some of the ads for beer.	15.31	69.000	.564	.358	.730
T3_8	A lot of what the beer companies say in their ads is really true (Reverse scored).	13.46	63.323	.672	.545	.641
T3_10	Think alcohol advertising should be banned.	14.05	66.539	.757	.769	.620

Item	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T3_11	It makes me mad to think of how many kids get hooked into drinking by beer companies.	13.36	69.201	.760	.738	.761

Table 31 indicates that inter-item correlation does not reach .50. Also item-total correlation results are, with one exception, higher than .60. That means that just a single of Hair's et al. (2010) requirements were met while analyzing ATAA scale results.

Table 31. Inter-item correlation matrix of attitude toward alcohol advertising factor

Item	Statement	T3_7	T3_8	T3_10	T3_11
T3_7	I get upset when I see some of the ads for beer.	1.000	.420	.461	.311
T3_8	A lot of what the beer companies say in their ads is really true (Reverse scored).	.420	1.000	.385	.473
T3_10	Think alcohol advertising should be banned.	.461	.385	1.000	.453
T3_11	It makes me mad to think of how many kids get hooked into drinking by beer companies.	.311	.473	.453	1.000

A factor analysis indicates the structure of the single factor ATAA phenomenon (Table 32). The results are consistent with the original scale's description.

Table 32. Factor matrix of attitude toward alcohol advertising scale

		Factor 1
T3_7	I get upset when I see some of the ads for beer.	.726
T3_8	A lot of what the beer companies say in their ads is really true (reverse scored).	.629
T3_10	Think alcohol advertising should be banned.	.613
T3_11	It makes me mad to think of how many kids get hooked into drinking by beer companies.	.598
Extraction Method: Maximum Likelihood. a. 1 factor extracted. 5 iterations required.		

Finally, an exploratory factor analysis revealed that the measure of ATAA loading on a single factor with eigenvalue greater than 1 represented 60.38 percent of variance in a sample (Table 33).

Table 33. Total variance explained of attitude toward alcohol advertising factor

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.711	69.779	69.779	3.196	60.389	60.389
2	.595	11.381	80.160			
3	.585	11.134	92.295			
4	.308	7.705	100.000			
Extraction Method: Maximum Likelihood.						

3.2.6. EFA susceptibility to interpersonal influence

Susceptibility to interpersonal influence reported a high reliability of .866. None of the scale (Table 34) items were deleted.

Table 34. Cronbach's alpha for items of the susceptibility to interpersonal influence factor

Item	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T5_1	I often consult other people to help choose the best alternative available from a product class.	30.17	163.937	.349	.284	.870
T5_2	If I want to be like someone, I often try to buy the same brands that they buy.	32.42	164.421	.527	.448	.858

Item	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T5_3	It is important that others like the products and brands I buy.	31.62	152.291	.615	.428	.851
T5_4	To make sure I buy the right product or brand, I often observe what others are buying and using.	31.72	154.390	.653	.494	.849
T5_5	I rarely purchase the latest fashion styles until I am sure my friends approve of them.	31.81	161.509	.447	.299	.862
T5_6	I often identify with other people by purchasing the same products and brands they purchase.	32.30	160.952	.566	.467	.855
T5_7	If I have little experience with a product, I often ask my friends about the product.	30.48	156.423	.479	.332	.861
T5_8	When buying products, I generally purchase those brands that I think others will approve of.	30.99	153.008	.605	.431	.852

Item	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T5_9	I like to know what brands and products make good impressions on others.	31.96	155.931	.641	.458	.850
T5_10	I frequently gather information from friends or family about a product before I buy.	30.74	156.952	.522	.402	.858
T5_11	If other people can see me using a product, I often purchase the brand they expect me to buy.	31.84	155.380	.673	.522	.848
T5_12	I achieve a sense of belonging by purchasing the same products and brands that others purchase.	31.96	158.227	.589	.499	.853

Table 35 (Annex 3) indicates that inter-item correlation does not reach .50. Also item-total correlation results are, with a few exceptions, higher than .60.

A factor analysis indicate the structure of two factor SPI phenomenon (Table 36). The results are consistent with the original scale's description indicating two scale dimensions: normative dimension (8 items) and informational dimension (4 items).

Table 36. Factor matrix of the susceptibility to interpersonal influence scale

		Factor	
		1	2
T5_2	If I want to be like someone, I often try to buy the same brands that they buy.	.810	
T5_6	I often identify with other people by purchasing the same products and brands they purchase.	.794	
T5_12	I achieve a sense of belonging by purchasing the same products and brands that others purchase.	.693	
T5_4	To make sure I buy the right product or brand, I often observe what others are buying and using.	.643	
T5_9	I like to know what brands and products make good impressions on others.	.613	
T5_11	If other people can see me using a product, I often purchase the brand they expect me to buy.	.594	
T5_3	It is important that others like the products and brands I buy.	.580	
T5_5	I rarely purchase the latest fashion styles until I am sure my friends approve of them.	.568	
T5_10	I frequently gather information from friends or family about a product before I buy.		.748
T5_1	I often consult other people to help choose the best alternative available from a product class.		.663
T5_7	If I have little experience with a product, I often ask my friends about the product		.648
T5_8	When buying products, I generally purchase those brands that I think others will approve of.		.604
Extraction Method: Maximum Likelihood. a. 1 factor extracted. 5 iterations required.			

Finally, an exploratory factor analysis revealed that the measure of SPI loading on a single factor with eigenvalue greater than 1 represented 46.602 percent of variance in a sample (Table 37).

Table 37. Total variance explained of susceptibility to interpersonal influence factor

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.063	42.196	42.196	4.545	37.878	37.878
2	1.598	13.314	55.509	1.047	8.724	46.602
3	.809	6.742	62.251			
4	.789	6.575	68.826			
5	.614	5.115	73.941			

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
6	.568	4.736	78.677			
7	.506	4.220	82.896			
8	.490	4.084	86.980			
9	.460	3.834	90.813			
10	.389	3.244	94.057			
11	.373	3.111	97.168			
12	.340	2.832	100.000			
Extraction Method: Maximum Likelihood.						

3.2.7. EFA alcohol consumption intention

Alcohol consumption intention reported a high reliability of .968. None of the scale (Table 38) items were deleted.

Table 38. Cronbach's alpha for items of alcohol consumption intention

Item	Statement	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
T2_1	To what extent do you think you will drink weekly in the future.	8.49	27.477	.620	.398	.892
T2_2	To what extent do you think you will drink weekly 6 months from now.	9.37	26.656	.806	.774	.848
T2_3	To what extent do you think you will drink weekly 2 years from now.	9.48	27.793	.778	.754	.856

Table 39 indicates that inter-item correlation exceeded .50 and this indicates a very high correlation. Similar results appear investigating item-total correlation

results. Both of Hair's et al. (2010) criteria were met while analyzing ACI scale results.

Table 39. Inter-item correlation matrix of alcohol consumption intention

Item	Statement	T2_1	T2_2	T2_3
T2_1	To what extent do you think you will drink weekly in the future.	1.000	.912	.874
T2_2	To what extent do you think you will drink weekly in 6 months from now.	.912	1.000	.942
T2_3	To what extent do you think you will drink weekly in 2 years from now.	.874	.942	1.000

A factor analysis indicates the structure of single factor ACI phenomenon (Table 40). The results are consistent with the original scale's description.

Table 40. Factor matrix of alcohol consumption intention scale

		Factor
		1
T2_2	To what extent do you think you will drink weekly in 6 months from now.	.982
T2_3	To what extent do you think you will drink weekly in 2 years from now.	.969
T2_1	To what extent do you think you will drink weekly in the future.	.958
Extraction Method: Maximum Likelihood. a. 1 factors extracted. 5 iterations required.		

Lastly, an exploratory factor analysis revealed that the measure of ACI loading on a single factor with eigenvalue greater than 1 representing 93.986 percent of variance in a sample (Table 41).

Table 41. Total variance explained of alcohol consumption intention

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.820	93.986	93.986	2.820	93.986	93.986
2	.129	4.313	98.299			
3	.051	1.701	100.000			
Extraction Method: Maximum Likelihood.						

3.3. Confirmatory factor analysis of the model constructs

3.3.1. CFA of self-efficacy

Both personal and societal constructs were tested employing confirmatory factor analysis using Lisrel 9.1 software. To evaluate on the parameters of the constructs' phenomenon used in the hypothesized model, estimates of unstandardized parameter, standard error, t-value and R^2 were used. CFA should be done with every separate model construct; further the total model fit should be estimated.

The measurement model for self-efficacy (Figure 7) demonstrated a Chi-Square of 167.12 with 35 degrees of freedom, RMSEA of 0.088 NNFI of 0.968, CFI of 0.975 and GFI of 0.934. T-values vary from 13.86 to 20.20.

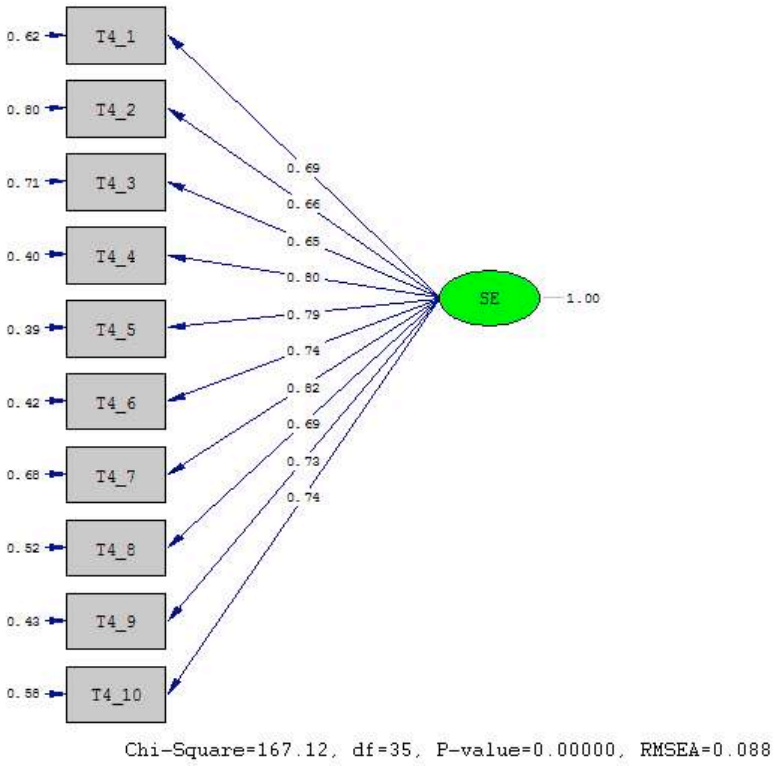


Figure 7. Measurement model for SE

3.3.2. CFA of health consciousness

The measurement model for health consciousness (Figure 8) demonstrated a Chi-Square of 8.75 with 2 degrees of freedom, RMSEA of 0.083 NNFI of 0.979, CFI of 0.993 and GFI of 0.992. T-values vary from 15.86 to 21.52.

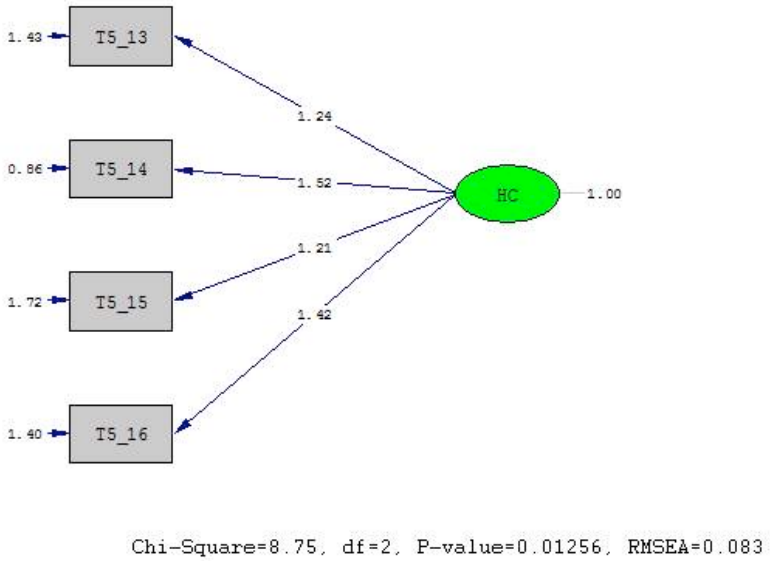


Figure 8. Measurement model for HC

3.3.3. CFA of religion importance

The measurement model for importance of religion (Figure 9) demonstrated Chi-Square of 69.53 with 9 degrees of freedom, RMSEA of 0.118 NNFI of 0.968, CFI of 0.980 and GFI of 0.957. T-values vary from 13.50 to 25.11.

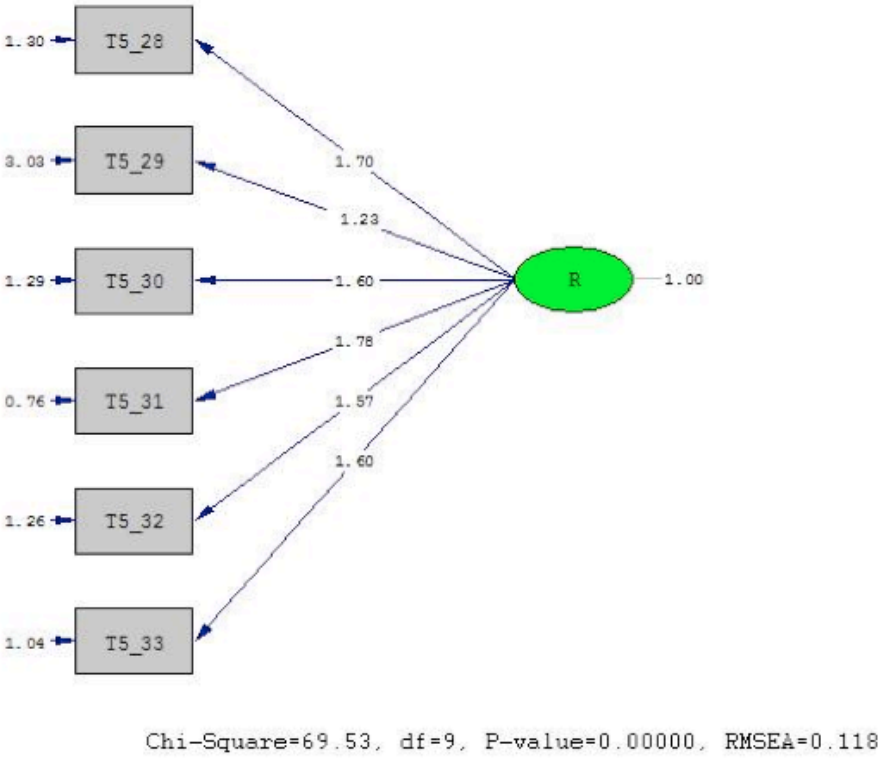


Figure 9. Measurement model for R

3.3.4. CFA of attitude towards drinkers

The measurement model for attitude towards drinkers (Figure 10) demonstrated Chi-Square of 204.62 with 9 degrees of freedom, RMSEA of 0.211 NNFI of 0.968, CFI of 0.919 and GFI of 0.856. T-values vary from 11.17 to 25.91.

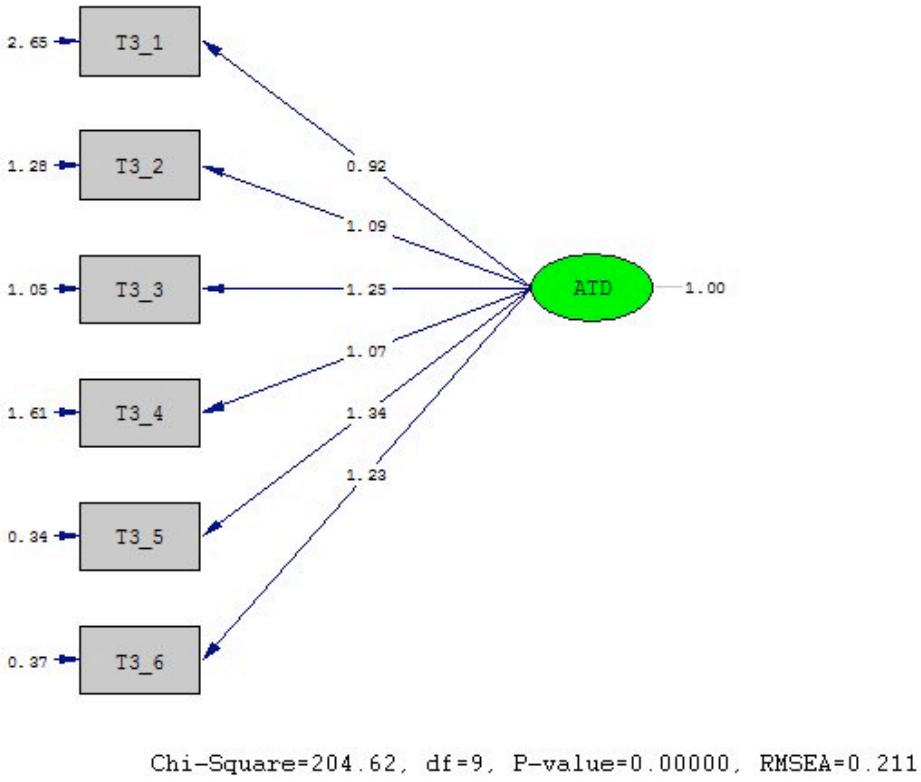


Figure 10. Measurement model for ATD

Poor performance of item T3_1 of the scale is consistent with the scale reliability assessment of SPSS 21 and therefore this item was removed from the scale.

3.3.5. CFA of attitude towards alcohol advertisement

The measurement model for attitude towards alcohol advertisement (Figure 11) demonstrated Chi-Square of 15.62 with 5 degrees of freedom, RMSEA of 0.066 NNFI of 0.968, CFI of 0.983 and GFI of 0.987. T-values vary from 4.85 to 12.95.

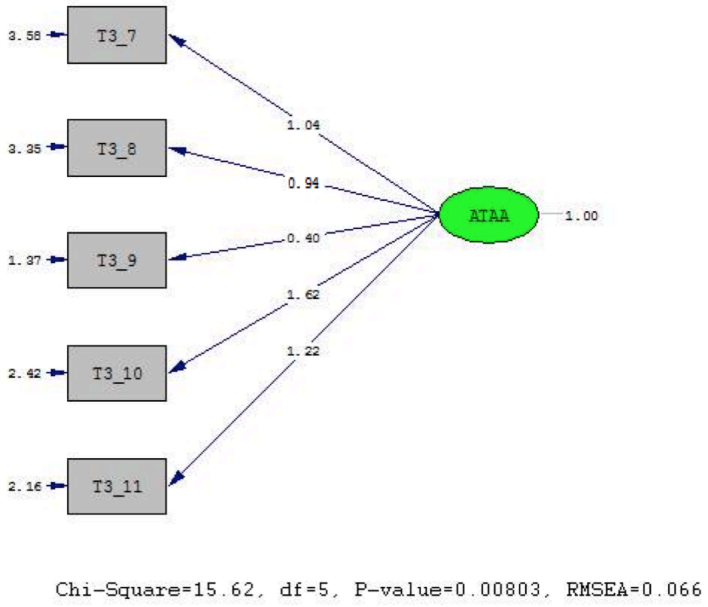


Figure 11. Measurement model for ATAA

Very poor performance of item T3_9 of the scale is consistent with the scale reliability assessment of SPSS 21 and therefore this item was removed from the scale.

3.3.6. CFA of susceptibility to interpersonal influence

The measurement model for susceptibility to interpersonal influence (Figure 12) demonstrated Chi-Square of 452.86 with 54 degrees of freedom, RMSEA of 0.123 NNFI of 0.968, CFI of 0.914 and GFI of 0.837. T-values vary from 6.88 to 18.29.

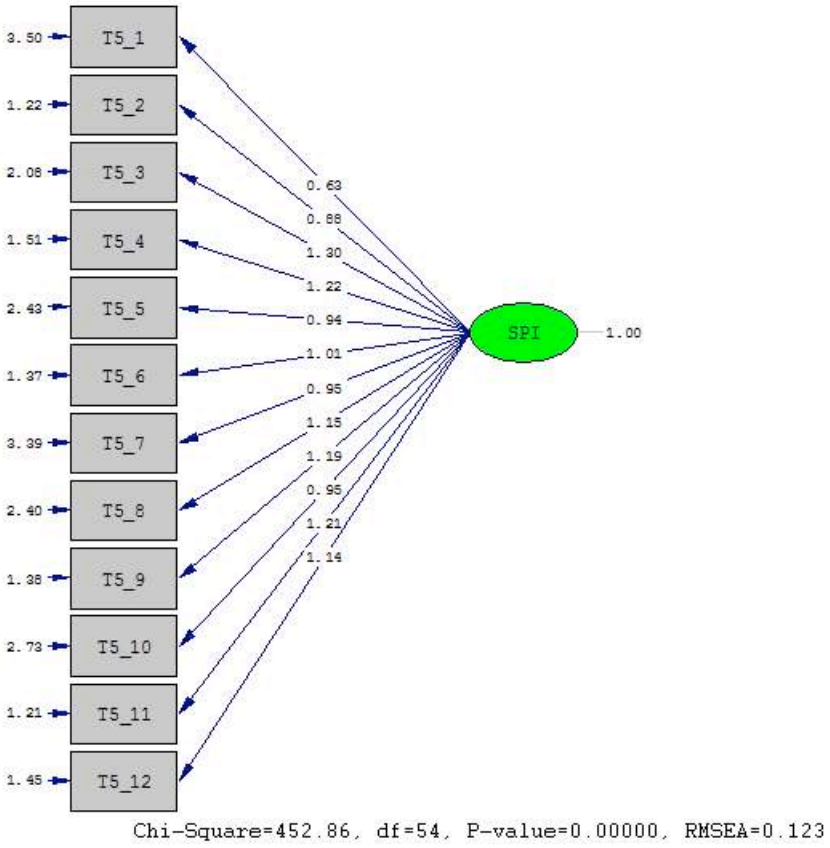


Figure 12. Measurement model for SPI

3.4. Evaluation of the model using structural equation modeling

Generally, measures with high reliability and validity results can be used for structural equation modeling. Although Cronbach's alpha is one of the reliability coefficients, according to Netemeyer (2003) a more stringent test of internal structure stability is the measures of composite reliability and average value extracted. Structural equation modeling and the particular software of this statistical instrument are aimed at 8 to 10 item scales with up to 5-6 factor indicators. The model of this research exceeds the upper requirements and therefore constant software breakdowns were in inevitable.

Based on Diamantopoulos (2009) structural equation modeling has to be executed in the following sequence:

1. Model conceptualization;
2. Path diagram construction;
3. Model specification;
4. Parameter estimation;
5. Assessment of model fit.

The procedures allowing the elaboration of each of the model constructs in the form of EFA and CFA were done in the previous sections. The very final aim of the SEM research is to reach an adequate measurement model fit (Ping Jr., 2004). Four indices are suggested for this task. These absolute fit indices (Table 42) allow for the assessment of the overall model-to-data fit for structural and measurement models together (Bollen 1989; Hair et al. 1998): ***chi-squared goodness-of-fit test (x^2), ratio of x^2 to degrees of freedom (x^2/df), root mean squared error of approximation (RMSEA), goodness-of-fit index (GFI), and adjusted goodness-of-fit index (AGFI)***.

Table 42. Descriptions and thresholds of goodness-of-fit indices used in the assessment of both measurement and structural models

Fit index	Description	Cut-offs
x^2	Indicates the discrepancy between hypothesized model and data; tests the null hypothesis that the estimated covariance-variance matrix deviates from the sample variance-covariance matrix only because of sampling error	P > 0.05
x^2/df	Because the chi-square test is sensitive to sample size and is only meaningful if the degrees of freedom are taken into account, its value must be divided by the number of degrees of freedom	2–1 or 3–1
RMSEA	Shows how well the model fits the population covariance matrix, taken the number of degrees of freedom into consideration	<0.05: good fit;
GFI	Comparison of the squared residuals from prediction with the actual data, not adjusted for degrees of freedom	>0.90
AGFI	GFI adjusted for the degrees of freedom	>0.90
NNFI	Shows how well the model fits compared to a baseline model, normally the null model, adjusted for degrees of freedom (can take values greater than one)	>0.90

Fit index	Description	Cut-offs
CFI	Shows well the model fits compared to a baseline model, normally the null model, adjusted for degrees of freedom	>0.90

Source: Based on Bagozzi and Yi (1988), Baumgartner and Homburg (1996), Cote et al. (2001), Diamantopoulos and Siguaw (2000), MacCallum et al. (1996), Ping (2004)

While analyzing the outcomes of SEM performed in Lisrel 9.1 it is important to evaluate the estimated relationships between the model constructs in order to elaborate on the directions of hypothesized relationships. The strength of the relationships can be quickly evaluated while looking at the t-values. Values higher than +/- 1.96 are significant. Diamantopoulos and Siguaw (2009) note the importance of evaluating multiple correlations for existing structural equations. Lisrel provides R^2 with no need for further additional calculations.

As it can be seen (Figure 13) there is a very strong relationship between attitude towards alcohol advertising and alcohol consumption intention and health consciousness and alcohol consumption intention (6.95 and -4.48 t-values respectively). Interestingly enough susceptibility to interpersonal influence proves to bear an insignificant relationship to alcohol consumption intention.

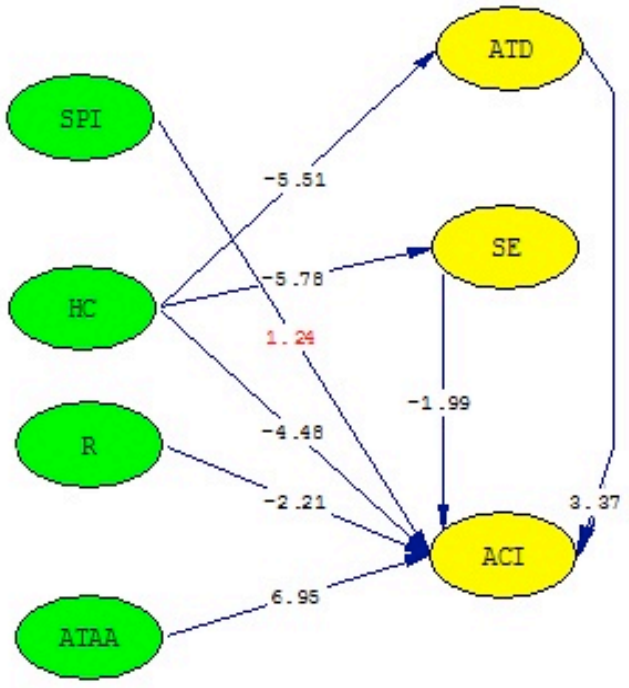


Figure 13. Path diagram of the structural model of alcohol consumption intention influenced by societal and personal factors

The structural model resulted in a Chi-Square of 2065.77 with 888 degrees of freedom, RMSEA of 0.052 showing a good fit (Diamantopoulos & Siguaw, 2009), Normed Fit Index (NFI) of 0.959, Non-Normed Fit Index (NNFI) of 0.939, Parsimony Normed Fit Index (PNFI) of 0.849, Comparative Fit Index (CFI) of 0.943, Relative Fit Index (RFI) of 0.898, Goodness of Fit Index (GFI) of 0.824, and Parsimony Goodness of Fit Index (PGFI) of 0.739.

The relationships presented in the figure can be further investigated while reviewing the presented structural equations (Figure 14).

ACI = 0.216*ATD - 0.149*SE + 0.0589*SPI - 0.210*HC - 0.0748*R + 0.325*ATAA, Errorvar.= 1.114 , R^2 = 0.290

Standerr	(0.0641)	(0.0751)	(0.0476)	(0.0469)	(0.0339)	(0.0467)	(0.0879)
Z-values	3.369	-1.987	1.236	-4.479	-2.206	6.943	12.668
P-values	0.001	0.047	0.217	0.000	0.027	0.000	0.000

Figure 14. Structural equation of the model

3.5. Testing for moderations

The research hypothesis that susceptibility to interpersonal influence moderates the relationship between the attitude towards drinkers (ATD) and alcohol consumption intention (ACI). It also hypothesized that SPI moderates the relationship between attitude towards alcohol advertising (ATAA) and alcohol consumption intention. Furthermore, it is suggested that self-efficacy (SE) moderates the relationship between health consciousness (HC) and alcohol consumption intention. So in the dataset used for moderation check variables ATD, ATAA, HC are dependent variables; SPI and SE are suspected moderators and the only independent variable is ACI

In order to determine whether or not the variables of SPI and self-efficacy work as moderators, a test in R called pcor.test() was used. Consequently 3 statistical tests were performed:

1. Statistical test

X is the total of ATD

Y is the total of ACI

Z is the total of SPI

NULL hypothesis: the variable Z significantly affects X and Y.

ALTERNATIVE hypothesis: the variable Z doesn't affect X and Y significantly.

estimate	p.value	statistic	n	gp	Method
0.1673299	**0.0002484899**	3.663811	487	19	pearson

Figure 15. Statistical test 1 results

The results produced (Figure 15) a p-value that indicates the significance of the model with Z as a moderator. Since the p.value equals 0.0002, which is well below 0.05 this allows for the rejection of the NULL hypothesis and conclusively means that SPI is not a moderator in the ATD relationship to ACI.

2. Statistical test

X is the total of ATAA

Y is the total of ACI

Z is the total of SPI

NULL hypothesis: the variable Z significantly affects X and Y.

ALTERNATIVE hypothesis: the variable Z doesn't affect X and Y significantly.

estimate	p.value	statistic	n	gp	Method
0.0421713	**0.3616945**	0.912141	487	18	pearson

Figure 16. Statistical test 2 results

While analyzing the results of the second statistical test (Figure 16), it is visible that the p.value is significant at 36 %, which is much more than the cutoff value of 5%. Therefore, the NULL hypothesis can be accepted. This means that SPI is a moderator, albeit a weak one, in ATAA relationship to ACI. The caveat being that moderators with a p-value of the NULL hypothesis of less than 0.5, or 50%, are considered weak.

3. Statistical test

X is the total of HC

Y is the total of ACI

Z is the total of SE

NULL hypothesis: the variable Z significantly affects X and Y.

ALTERNATIVE hypothesis: the variable Z doesn't affect X and Y significantly.

estimate	p.value	statistic	n	gp	Method
0.3763707	**1.284069e-18**	8.807116	487	15	pearson

Figure 17. Statistical test 3 results

Since the produced p.value is practically zero (Figure 17), the NULL Hypothesis can be rejected which to the conclusion that GSE is not a moderator in the HC relationship to ACI.

The processed statistical tests leads to the conclusion that susceptibility to interpersonal relationship acts as a moderator in the relationship of attitude towards alcohol advertising to alcohol consumption intention, however for attitude towards drinkers to alcohol consumption intention its influence is insignificant. Self-efficacy has no influence whatsoever on the relationship between health consciousness and alcohol consumption intention, hence it cannot be considered a moderator.

3.6. Hypothesis testing

In order to reach the aim of the research and its objectives, the statistical tools SPSS 21.0, Lisrel 9.1 structural equation modeling and R software was used. These techniques allowed for the evaluation of the overall model and conclusively supported the majority of the hypothesized relationships, while some of the relationships were rejected.

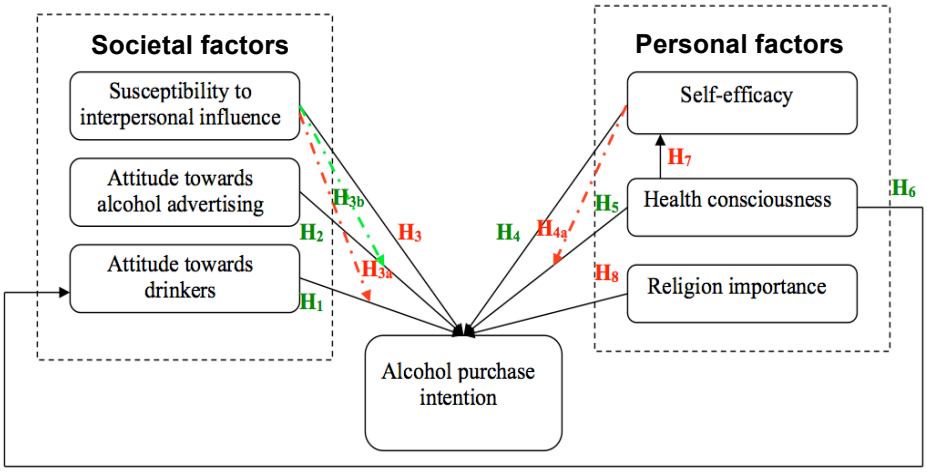


Figure 18. The overall alcohol consumption intention model influenced by societal and personal factors

Table 43. Summary of hypotheses H_1-H_8 testing

Hypothesis	Relationship	Results
H_1	Attitude towards drinkers → Alcohol consumption intention	*Supported*
H_2	Attitude towards alcohol advertising → Alcohol consumption intention	*Supported*
H_3	Susceptibility to interpersonal influence (SPI) → Alcohol consumption intention	*Rejected*
H_{3a}	SPI moderates relationship of attitude towards drinkers → Alcohol consumption intention	*Rejected*
H_{3b}	SPI moderates relationship of attitude towards alcohol advertising → Alcohol consumption intention	*Supported*
H_4	Consumer self-efficacy (SE) → Alcohol consumption intention	*Supported*
H_{4a}	SE moderates relationship Health consciousness →Alcohol consumption intention	*Rejected*
H_5	Health consciousness → Alcohol consumption intention	*Supported*
H_6	Health consciousness → Attitude towards drinkers	*Supported*
H_7	Health consciousness → Consumer self-efficacy	*Supported*
H_8	Religion importance → Alcohol consumption intention	*Supported*

Figure 18 and Table 43 summarize the findings that will be further discussed in the Discussion chapter of the dissertation.

DISCUSSION

Health consciousness has a strong negative effect on attitude towards drinkers

Although studies have shown that low-risk and moderate alcohol use may have beneficial psychological and physical effects, many serious and chronic illnesses including mental conditions (e.g. aggressiveness) have been associated with alcohol. Some of these long-term negative effects are cardiovascular diseases (e.g. stokes, myocardial events, hypertension, chronic kidney conditions; Pudley & Beilin, 2012), liver problems (Zhu et al., 2012), gastrointestinal tract problems (Terry et al., 2007), nervous system related conditions (e.g. Wernicke-Korsakoff syndrome, blackouts resulting to physical injuries) and even possible brain impairment in young people (Hermens et al., 2013; Mukherjee, 2013). In addition, according to a global health report (2007), alcohol use was responsible for 4% morbidity burden and 3.2% of global deaths in 2000. For these reasons, government and private agencies have been campaigning to reduce or limit alcohol consumption, with the often recommended limit of 21 units for men and 14 units for women. Public awareness on the use of alcohol, such as regarding health issues in the UK, has also been implicated on the decreasing trend of proportions of adults who have been drinking less or inhibiting themselves from drinking (Nichols et al., 2012). However, the drinking patterns of young adults seem to trend towards the opposite, that high-risk drinking continues to increase as alcohol also becomes more accessible, along with the effects of college/university drinking cultures and social/interpersonal influences.

In the previous sections, it has been shown that many other factors than just health reasons could have an influence in deciding whether to engage or inhibit alcohol use. Furthermore, some of these expectancies that negatively affect decisions are not only geared towards alcohol itself but also towards the drinkers. Perceptions and expectancies on alcohol for example have been demonstrated to negatively affect drinking behavior. This attitude towards the behavior (drinking) however could transfer to the drinker. The stigma towards alcohol could be associated with the person partaking in the drink as well. Thus, the negative attitude towards drinking may transfer to the drinker as the embodiment of the behavior.

Nursing students for example have been shown to have a negative attitude towards substance abusers and not just regarding alcohol (Vargas et al., 2012). This attitude, as the study suggested, stemmed from a lack of understanding and the generalized negative view on alcohol, particularly on its abuse. Most of the studies done to understand the attitude towards alcohol consumers were carried out on abusers or alcohol dependents. This strong negative attitude towards alcohol consumers however has been widely occurring for decades and has been described in a number of reports. Studies have shown for example that alcoholism is far less accepted than other diseases (Westbrook et al., 1993) and alcoholics tend to experience individual discrimination (Beck et al., 2003). Angermeyer & Matschinger (1997) even further reported that people with alcohol problems reported higher encounters of rejection and social distance as compared to other mental conditions like schizophrenia. Thus, it could be suggested that alcohol use, even if it has different levels and intensity of use, could be generally associated with the extreme and all-negative connotations.

Previous studies mentioned are consistent with the findings of this study and showed that health consciousness has a strong negative effect on attitude towards drinkers, suggesting that those who are health conscious do not see drinkers positively. This may be linked to the fact that alcohol is seen to be a health risk and thus the drinker is a social risk. Health consciousness allows an individual to assess the readiness to undertake health related actions (Becket et al., 1977). Health-conscious individuals are fully aware and very much concerned about their health and quality of life, as well as active engagement in healthy behaviors and being-self-conscious regarding health (Newsom et al., 2005). However, it is important to note that in this study, the effect of health consciousness as represented by health-conscious individuals does not only affect the attitude towards the behavior (drinking) but transferred to the person performing the behavior (drinker). Although the negative attitude may not necessarily translate to discrimination, it could be resulting in a negative perception and stigmatization. Health conscious people in general have been shown to be attentive to health warnings about the risks of alcohol consumption (Lee et al., 1997). This process of cognition could be applied in the context of the drinker as the reminder of the consequences of the behavior. This is the same with the negative attitude towards obesity and obese persons, for example. Obese people

experience discrimination and they are seen as symbols of an unhealthy lifestyle (obesity). Although obesity is the real problem, obese persons become the subject of the stigmatization as an embodiment of obesity (Puhl & Brownell, 2001). Thus, health-conscious people do not significantly separate the behavior with the actor resulting in a generalized view and attitude on both.

Another way of looking at it is through the concept of social norms and deviants. Social norms, or the prevailing accepted behaviors, depend on the context and from what view a person is observing. For example, college and university culture has been shown to be dominated by the perception that alcohol-related activities play a central role in college life. However, in adults, this might not necessarily be true. For health-conscious people, for instance, the norm could be to make a self-conscious effort to separate from unhealthy activities such as drinking. In the same way, how drinking as a norm in college culture can influence one's personal beliefs and attitudes so as to conform to the norms of social groups. In the context of the norms of health-conscious individuals, drinkers (moderate or heavy) are seen as deviants from these norms and thus they are associated with negative attitudes. In fact, socially, alcohol drinking is viewed as an anti-social behavior and drinkers as deviant. Furthermore, deviance is seen to be naturally bad or have no positive function (Dodge, 1985). So from the perspective of the health-conscious, this is what could be occurring.

Alcohol has also been shown to have positive effects such as socialization, health benefits and others. However, for health-conscious people, the negative effects always outweigh those of the positive. Seeing these effects create negative expectancies and thus enhances the self-efficacy of an individual which in turn inhibits the behavior. The increasing proportion of individuals who consider themselves health-conscious, for example, has resulted in record low sales growth for alcoholic beer in the UK (TESCO, 2012). This suggests that the people are increasingly interested in healthy lifestyles and are thus rejecting deviant behaviors such as drinking, especially in adults and employed age groups. In addition, heavy and moderate drinkers were not differentiated in this study, thus the perception of the health-conscious towards drinkers in general was negative.

The negative attitude discussed in this section does not necessarily mean negative behavior. It may only suggest that for health-conscious individuals, drinkers (heavy or moderate) deviate from what is expected and the norm they believe in. This attitude, however, should be acknowledged as possibly creating prejudice against someone which does not actually fall under that category – or could receive the same prejudice experienced by other groups such as the disabled, obese and mentally challenged.

Susceptibility to interpersonal influence has no significant impact on adult intentions to drink

It has been well established in the previous sections how peer influence strongly affects attitude towards a certain behavior and how an individual may align his norms to the norms of the social group he is mostly associated with. Furthermore, studies have also shown that peer influence through social interaction and learning could overpower personal self-efficacy in restraining actions toward a certain behavior. This has been well demonstrated especially in studies on adolescents, youth or young-age groups who are all in the stage of developing social identities and thus, vulnerable to influences and pressures around them. It has also been shown how peer influence could shape personal identity and thus beliefs towards a certain behavior such as drinking (Andrews et al., 2002).

Interestingly, in this study, results showed that this occurrence is not true in adults (age 18 and above). Results further showed that adults do not put too much significance on the influence of others on their behavior when it comes to drinking. In other words, adults see themselves to be influence-free with regards to deciding either to drink or not drink alcohol. This phenomenon could be attributed to a number of factors. The result of the study is somehow similar to what has been previously reported. For example, Bullers et al. (2001) observed that social selection effects or changes in patterns of peer group tend to have a substantially stronger influence on network drinking patterns in adults compared to peer influence and that this observation is consistent across age, race, sex and marital status. This is consistent with studies done on newlyweds which showed that peer-influence is not predictive of alcohol drinking patterns either in the husband or the wife, but rather peer-

selection plays a more significant role (Leonard & Mudar, 20003). It is important to note however that there is still a relationship between social influences and drinking in adults, however, the relationship is not statistically significant and could not further suggest causality. It could also be that other more significant influences or factors are intervening that have a stronger correlation that results to an individual abstaining or drinking, aside from peer pressure.

In general, social and peer influence have been observed to follow a U-shaped curve, increasing towards adolescence and decreasing towards adulthood (Brown et al., 1986). This type of pattern has been especially most pronounced in studies that explored antisocial behaviors such as drug use, deviance, smoking and drinking alcohol. A decrease in peer influence is suggested to be more associated with a decrease in susceptibility to peer influence rather than the loss of the influence itself. Monahan et al. (2009), for example, showed in young adults that antisocial behavior weakens with age even if these young adults continue to be affiliated with their antisocial peers or drinker friends. One possible explanation is social identity. It has been shown in previous sections that the desire-to-belong in college students and adolescents leads to the performance of actions in accordance with the norms of the social group even if it may or may not be in accordance with one's beliefs but is simply the norm of the group. However, as one transitions from college to adulthood, it is also marked by the formation of a new identity and the establishment of more mature interpersonal and intimate relationships and the transition into new adult-type roles (White & Jackson, 2004). The transition to adulthood is also sometimes characterized by a decrease in alcohol consumption or shift from heavy-binge drinking style to a more social drinking style. There is also a significant transition from less to more responsible social roles. Some of the key processes include a growing sense of self-confidence, more fixed friendship groups and a preference of higher quality leisure experiences which are often linked to a sense of personal growth and development (Seaman & Edgar, 2012). The transition to adulthood however is also significantly different between men and women. The age of maturity and freedom from social stereotypes also result in differences in the age brackets in which men and women differ in drinking. For men, drinking is still acceptable and even maintained to old age which is related to the social figure of masculinity.

However, women tend to lessen drinking in the earlier stages of adult life which is suggested in the fulfillment of roles such as that of an “ideal” woman, mother or wife (Borsari & Carey, 2003). Drinking in women has been associated with moral jeopardy and thus ostracization is feared if a woman deviates from this norm. Getting married, however, has been implicated in the decrease or inhibition in alcohol use in both men and women (Perreira & Sloan, 2001). Also, reasons for drinking in adults are not related anymore to conforming to social groups but rather becomes a personal and influence-free decision. Studies on employed males, for example, showed that drinking alcohol would depend on if they had work or family responsibilities to attend to or to fulfill after drinking or the day after. This suggests that adult-like responsibilities become the new priorities and adults are now conforming to the new image expected of his age.

Learning from experiences caused by past behaviors, especially during younger years, may also affect one’s decision regarding alcohol. If the experiences in the past such as in college years resulted in negative or unpleasant experiences, it may have an effect on one’s self-efficacy and the will to refuse an alcoholic drink (Norman & Coner, 2006). Studies also showed that a late introduction and initiation to alcohol could also lead to better or enhanced control abilities in the later years (Pitkanen et al., 2005). Ageing is also associated with weakening bodies and the onset of some serious illnesses such as cardiovascular related diseases, liver and lung-related damages among others. These physical and more personal reasons are independent of social influences. A survey of more than 7,000 individuals also showed that drinking becomes a personal choice with the onset of diseases or experiences with the hospital (Perreira & Sloan, 2001). Age also enhances awareness and consciousness with alcohol consumption and health risks. This increase awareness in turn has been found to be positively correlated with self-efficacy, suggesting that as one experiences or anticipates potential negative consequences of alcohol consumption, the more he becomes efficient in saying no to peers (Grembowski et al., 1993).

Generally, the factors presented to be possibly influential in the decrease of SPI suggests that personal factors or reasons that become more prominent and significant with age may be related to personal responsibilities with the new social

identity, physical health conditions and limitations, or personal learning from past experiences and behavior. Most adults, if not all, see alcohol drinking as a personal decision which may be related to socialization, relaxation and its health benefits rather than peer influence (NIH, 2010). It could be true, as they say, that experience is the greatest teacher since with age comes a wealth of experience and learning. Long-term studies have shown, for example, that a change in attitude towards alcohol and alcohol behavior itself is significant among adults, and that these changes are maintained for a long period of time (Pape & Hammer, 2009). The factors presented here are just some of the known strong influences that affect SPI to alcohol use, other factors that may or may have not yet been explored are also possible.

Moderation of susceptibility to interpersonal influence to alcohol consumption intention

Several studies that explored the role played by one's susceptibility to interpersonal influences have concluded that it is one of the strongest factors affecting an individual's intention to drink or participate in alcohol-related behaviors. In fact, advertising and peer-pressure have been shown to dominate many studies in being the most influential variables when it comes to involvement in antisocial behavior such as drug use, deviance and alcohol consumption (Simons-Morton et al., 2005). Although it was expected that the results of this study will be consistent with the previous research; the results showed weak or no moderation of SI in relation between attitude toward drinkers and alcohol consumption intention; attitude toward alcohol advertising and alcohol consumption intention. These research results could actually be related to a number of factors.

The majority of studies that have concluded that there is a strong moderation of SI towards alcohol behavior were carried out on younger age groups (e.g. university and college students, adolescents; Barnow et al., 2004; Nasim et al., 2007; Fulkerson et al., 2008 among others). This study, however, focused on employed and working age groups. Studies have shown that probable susceptibility to social influence may actually decrease with age or experience – meaning more experienced or older people would be less susceptible to peer pressures and social

influences which in turn are related to differences in personal values and social identity. However, studies also suggested that this trend may actually be limited to antisocial behaviors and for socially accepted norms the pattern might be different (Steinberg & Monahan, 2009). For example, drinking in general is more socially associated with negative connotations and an adult who has job would have other priorities such as family and other personal matters would place these as more important priorities over drinking. Associating oneself with drinking would then have an implication to his social identity in a negative manner. On the other hand, abstinence from drinking or moderate drinking would make an individual's social identity more positive. One study showed that middle-aged drinkers, for example, would like to think that they are "older and wiser" compared to their twenties. This change in their social identity of being matured has consequences on their behavior towards drinking. A study of people aged 35-50, for instance, has shown that individuals tend to make excuses (e.g. work, family, a need for driving after drinking) just to abstain from alcohol in social situations. Also even though they have done binge drinking in the past, this age group according to the study has identified such adolescent behavior as a social problem (Collins, 2011).

Self-efficacy is a weak determinant of intention to drink alcohol in adult population

Another interesting observation in this study is the seemingly low significance of influence that self-efficacy plays in deciding whether or not to engage in alcohol-related activities. This is interesting since many studies have shown that self-efficacy along with alcohol expectancies predicted a strong negative intention or behavior towards alcohol, though it varied between men and women. For example, self-efficacy was shown to be stronger in women as influenced by pressure on social identities of women as reserved, while for men, self-efficacy is overpowered by peer influence where social expectations set men to be tough and being involved with alcohol is more masculine.

Interestingly, studies have also shown that the construct of self-efficacy especially towards health behavior also declines with age. Since most of the motivations of an adult to consume alcohol is decided based on personal reasons

(e.g. health, work, responsibilities, socialization) rather than social pressure, it could be expected then that self-efficacy or a construct that assesses one self's ability to refuse drinking *per se* would also become insignificant. Oei et al. (2007) already suggested in the past that the general self-efficacy (the construct used in this study) is a poor predictor of alcohol use compared to the more robust and specific drinking-refusal self-efficacy (DRSE). In the DRSE, the three different sources of pressure or influence to drink were detailed out. They included pressure during social events (social/peer pressure), emotional motivations (personal) and opportunity (e.g. when someone offered). Since general self-efficacy might contribute different variances when applied to different contexts, the SE measured in this study could have been inhibited or overpowered by other variables more pronounced in the context of drinking such as health consciousness, matured social identities and attitude/expectancies towards alcohol. Specifically, general self-efficacy is seen useful in deciding to take risky behaviors. It could be that in the construct with adults, alcohol is not seen as a risk nor an antisocial behavior but rather as anti-productive activity (e.g. activities that may lessen work/family responsibilities).

Following the pattern with self-efficacy with men and women and how it is related to social identity, self-efficacy may well also be reflected with an adult's (maturity) social identity. It might also suggest that there is no conscious effort to inhibit or say no to drink but possibly rational thinking suggests that there are more important things to be done before drinking. In addition, this might suggest that adults don't feel pressure anymore as a decision to engage in alcohol related behavior is more of a personal rather than a social construct.

Furthermore, it should be noted that there were other constructs tested that seemed to show a negative influence on alcohol behavior – health consciousness and importance of religion. These variables could have stronger influences in the context of adults. For example, self-efficacy could also manifest as a risk-related behavior not to drinking *per se* but to its consequences on other aspects of the person such as health. When someone has health-risks, the decision to refuse to drink is more related to physical limitations rather than just the capability to resist alcohol. The same could go with personal responsibilities such as work. An adult who is a rational and responsible individual would think of his work and commitments first

before engaging in alcohol – it is a refusal but such ability is determined by expectancies (consequences of drinking to work) rather than the alcohol drinking itself.

Implication for future research

Efforts have been made to reduce alcohol use, but meeting with only little success. Therefore, this research was aimed to expand upon prior research by demonstrating that determinants like the attitudes towards drinkers, attitude towards alcohol advertising, susceptibility to interpersonal influence, health consciousness, consumer self-efficacy and importance of religion all interact with consumers' alcohol consumption resistance and serve as measures to discourage alcohol purchase.

Consumers are often described as rational decision-makers, however they differ in their careful evaluations of what to buy and what not to buy. Shaw, Grehan, Shiu, Hassan and Thomson (2005) conclude that personal characteristics are an important area of academic interest contributing to a better understanding of consumer behavior. Many factors may facilitate a consumer's behavior. Factors that discourage alcohol purchase should be investigated and later used for the creation of a policy aimed at alcohol consumption reduction. Certainly, consumers as potential alcohol buyers are different individuals and may have different motives for purchasing alcohol, despite the suggested determinants bringing additional light to a better understanding of factors that play a role in a country in transition. These findings may practically serve for better preventative actions.

Adult consumers often are well aware of the harm alcohol causes and therefore, as expected, health-conscious consumers demonstrate a significantly lower intention to purchase alcohol. This finding suggests that in order to prevent or discourage the use of alcohol, it is possible to put an emphasis on health education and the promotion of healthy lifestyles. It is not necessary to focus on the harm the alcohol may cause, but instead to stress behaviors that are useful for health.

There were claims that self-efficacy could advocate against alcohol consumption and it was noted that the phenomenon is directly related to health behavior. Kinard and Webster (2010) and Jang, Rimal and Cho (2013) and others have found direct evidence that self-efficacy is one of the essential variables in order to stay healthy.

However, the study resulted in a weak relationship between the variables in the alcohol purchase intention among Lithuanian adults. There may be at least two explanations for that: an error in research methodology or, what was not a mistake, specific characteristics of the researched group. Self-efficacy is a well known phenomenon that has a range of validated scales: general self-efficacy; perceived self-efficacy; and various particular purpose modified self-efficacy scales. In this research, the general self-efficacy scale was used and it was not specifically modified to investigate alcohol issues. Therefore, for scientific certainty's sake, another study could be done to find and use an alcohol specific scale or a modified self-efficacy scale. Another explanation could be that current adults demonstrate characteristics formed in the previous social and economics system at the time of the Soviet Union. And although transition economics and social life took place, personal values and behavior did not adapt that quickly and Lithuanian adults demonstrated low rates of self-efficacy.

CONCLUSIONS

This dissertation explored adult alcohol purchase intention phenomenon in relation to attitudes towards drinkers, attitudes towards alcohol advertising, susceptibility to interpersonal influence, health consciousness, consumer's self-efficacy and importance of religion in one's life. The dissertation explored the underlying theories that help to explain why individuals purchase and drink alcohol. The conducted research provided additional rich insights into how societal and personal factors influence, interact and outweigh one another. The dissertation can be summarized with these conclusions:

1. Historically, alcoholic drinks were recognized to have played a number of roles in religion, traditions and even in economics as a trade product. As time progressed, however, the role of alcohol in societies has evolved from the drink being a mere catalyst of socialization to one of the most sellable product on the market. The unregulated market and consumption of alcohol causes severe personal and societal problems. Frequent alcohol consumption can lead to health problems, violence, unplanned sexual activity etc. Constant efforts are employed to reduce alcohol use, but with little success. Likely due to this fact, alcohol consumption phenomenon attracts the attention of many researchers in the fields of marketing, psychology, social and medical sciences.

In a review of literature, as what has been done by the author of this dissertation, most studies on alcohol and alcohol use have focused mainly towards alcohol dependents, alcoholics and alcohol abuse. Also, most studies that attempted to understand the social constructs of drinking were done on younger age populations such as the youth, adolescents, university and college students and young adults. However, during the course of this research, we have been able to gather data from people of a myriad of ages, bringing additional light to the complexity of consumer behavior related to alcohol. Although the majority of the theories presented are reasonable and convincing and do not contradict one another, they focus on quite different aspects of the phenomenon. Though we agree to the claims of interdisciplinary nature, this dissertation research is aimed at the

investigation of the phenomenon in context of conflicting societal and personal factors.

Though many similarities can be observed with the studies on younger age groups, a number of points unique to the employed population have also been observed. For instance, in contrast to previous studies on social learning theories, it was observed that a susceptibility to interpersonal influence does not affect alcohol consumption intention. This presupposes that individuals who are likely financially secured, have work and family responsibilities tend to have more personal judgment and make more self-assured decisions towards alcohol consumption. And this conclusively suggests that all possible alcohol reduction aimed interventions, or just prevention of alcohol use, should be carefully studied and tailor-made to be effective and efficient for particular consumer age groups. The complex historical, economic, traditional, cultural and - of most importance - personal nature of alcohol use provides intervening agencies and institutions solid ground about where to start acting and how.

2. This research offers some evidence and expands upon prior research done by demonstrating that the stimuli of those of attitudes towards drinkers, attitudes towards alcohol advertising, susceptibility to interpersonal influence, health consciousness, consumer's self-efficacy and the importance of religion all interact with the consumer's intention to purchase alcohol. The phenomenon of alcohol purchase intention was analyzed from a consumer perspective, investigating how the above mentioned factors relate; their combinations and interactions either encouraged or discouraged intentions to consume alcohol. Some interesting new insights on the dynamics of alcohol use and intention have been revealed:

a. This research has revealed that adult consumers who are health-conscious tend to demonstrate a lower level of alcohol purchase intention. At first sight this finding could be claimed to be obvious, but not necessarily. There are scientific research based claims that moderate alcohol drinking contributes to a person's total well-being (both physical and mental). For instance, epidemiological studies have shown that individuals who have the habit of daily moderate wine consumption had lower cardiovascular mortality when compared to cases who abstain from it altogether (German and Walzen, 2000). A cup or glass of red wine is suggested to

limit the initiation and progression of atherosclerosis (Szmitko et al. 2005). There are also claims that moderate drinking of other alcohols such as beer and spirits are linked to lower risks of developing or suffering from coronary illnesses (Rimm et al. 1996). However, this research suggests that health-conscious individuals do not intend to purchase and drink alcohol to benefit their health.

b. Rose, Bearden, & Teel (1992) claim that there are quite a number of studies focused on individual's willingness to comply social influences and peer pressures. These researches dominate while analyzing teenager, adolescents and young adult populations. Many studies have shown that peer or society's disapproval result in compliance to the dominant norm. This research also hypothesized that willingness to comply will result in higher versus lower temptation to purchase alcohol. However, it was proved that susceptibility to interpersonal influence does significantly affect the intention to consume.

c. As it is supposed by the social identity theories, it was revealed that a consumer's dissatisfaction with alcohol advertising results in a lower level of alcohol purchase intention. These findings confirm similar conclusions by Atkin et al. (1984) and Snyder et al. (2006). A similarly positive attitude towards alcohol as a response to advertising may have a more positive effect in favor of alcohol consumption. Therefore, the alcohol purchase intention of those consumers who are being constantly exposed to alcohol advertising and are dissatisfied with the advertising could demonstrate lower purchase intention levels.

Similarly, consumers having a positive image of alcohol drinkers tend to demonstrate higher levels of alcohol purchase intention. A positive versus negative attitude is an important predictor of purchase intention, meaning that the more positive an attitude the more likely alcohol will be purchased. These findings correlate to similar conclusions by Lee et al. (1999).

d. Health consciousness and the importance of religion are found to be strong determinants against alcohol consumption. In addition a consumer's health consciousness plays a negative impact towards the image of alcohol drinkers.

e. Often alcohol is used in groups of people with friends, colleagues and peers. Thus alcohol consumption is a society-related phenomenon. There is even a term used to reflect alcohol and its social capacity – 'social drinker'. Alcohol consumption

phenomenon is of high scientific interest in a variety of fields in sociology: social control, deviant behavior, advertisement and media effect on the individual, social movements and changes in social structures.

3. Alcohol consumption and problems related to drinking, in particular, is a subject of governmental regulation. Specific alcohol sale and consumption strategies together with the related legislation are often developed and implemented in order to manage negative alcohol related consequences. This dissertation though reviewed only the most common existing alcohol control measures such as alcohol excise, limitation for alcohol selling age, restrictions on selling time and sale places, marketing and advertising banning. Only a composite of these measures with supplementary knowledge from the research performed in this dissertation could lead to the desired results of alcohol consumption reduction. The above mentioned research result enables us to provide the following recommendations in order to reduce alcohol consumption:

a. The main strategy used by large companies to market alcohol is by using branding, personalization and segmentation where the product is introduced to be cool, happy and more sociable. This kind of mind setting creates the “ordinaries” segment of a drinking population described by McCambridge et al. (2013). Unlikein a younger population, however, where drinking pressure is brought about by interpersonal influence or peer pressure, in the population of this study, it was more related to social identity and self-inflicted restrictions. This suggests that intervention or at least promotion of alternatives to alcohol should target personal aspects or those related to personality. For employers or companies for example, in order to promote a healthy and responsible lifestyle to their employees, they should focus on enhancing environments suitable for work and give an emphasis on what their employees are expected to deliver and contribute to the company, while avoiding stigmatizing drinking and ostracizing the drinkers. Studies have shown that stress related to work may induce desires or need to drink alcohol, which may also lead to its overuse and non-productivity at work. On the other hand, when an employee is encouraged to work hard, has their mind set on being more responsible, he or she inflicts a personal identity to adhere to the encouraging atmosphere of the company. The idea of “I have work, so I won’t get drunk” becomes the new mindset which then

prevents an individual, especially employees, from involving themselves in not-so-productive activities like alcohol use. It is however important to point out that alcohol use is a personal choice, and thus coercive action to prevent alcohol use might turn-off some of the employees and seem like an invasion of free-will and independence. An individual may or may not be involved in alcohol-related activities outside the workplace but repercussions may surely affect his or her performance at work. Thus, it should also be seen as an opportunity for helping employees avoid counterproductive behaviors and at the same allowing the company to grow with more responsible employees.

b. Social identity adhering more to a healthier lifestyle by targeting one's personal attitude towards drinking could also be exploited as an intervention, not only to the employed but also to all other segments of the population. To counter the strategy of positive identity being associated by marketing firms to alcohol, most organizations and agencies who are against alcohol use have dwelled on tarnishing it by stigmatization, i.e. alcohol is bad, counterproductive, etc. This however also creates a problem because the stigma transcends the product and may also lead to social stigmatization and could result to an identity crisis, especially for the young. The process of intervention should be inclusive, such that it helps quit drinking but at the same also helps the drinkers integrate themselves into society. The rebellious personification of alcohol might also become appealing especially for the younger age groups who are undergoing the process of identity crisis and social learning. This research highlights that social identity actually is a strong predictor of alcohol use, and by using the same strategy of targeting social identity without stigmatizing or ostracizing the drinking population, a counter strategy may be of use to promote an alternative lifestyle. For example, instead of focusing on the bad effects of alcohol and the use thereof, attention may be diverted into what someone would actually become when he or she is not drinking alcohol, i.e. more poignant at socialization, able to maintain and have quality conversations, be better at financial savings and have a more positive social identity.

c. It was shown that while the studied population does not respond to interpersonal influence, advertisements can, however, positively influence their intention towards the substance. Thus, ad campaigns targeting the same market

segment should look at the theoretical constructs of advertising and use them to advance their causes. Previous studies have focused much on understanding the effects of alcohol advertisements on young people, but this study has shown that the constructs happening to the younger population might also be the same governing adults. Alcohol in programming has been mostly portrayed to young people as being adult and has been blamed for instilling alcohol consciousness at an early age. One study has shown, for example, that 67% of adults in the US have approved of banning liquor advertisements on television for the mere ground that they strongly influence young adults (Wagenaar et al., 2000). This very reason undermines the ability of alcohol advertisements to also affect even employed people, despite the assumptions that they are more critical and responsible. Even though existing counter strategies are in place targeting adults, they are mostly centered on dependents or alcoholics. Counter-marketing strategies should be revisited to also target the social and occasional drinkers, since more exposure to alcohol marketing could still affect them (this study). The issue of counter-marketing on the side of the brewers or companies might be a bit opposing at first, but studies have shown that commercials sponsored by the companies to promote responsible drinking had set positive gains for the company as it enhances their image and name recall. State officials and legislators should then revisit this type of advertising, as counter-marketing might actually be working as a good marketing tool in favor of the advertisers.

d. It was observed that religiosity could indirectly affect or influence one's attitudes towards alcohol by promoting personality factors such as conscientiousness. While it might be true that most people surveyed do not necessarily align themselves with a strong religious faith, most of them accepted similar morals and values as their personal rules of living. Low morals or people who are perceived to be morally weak are also identified to have higher tendencies of being alcoholics. Morals and values however should be noted to also be influenced by social learning and influences and thus could be targeted as a mechanism to intervene in alcohol use or in participation with alcohol-related activities. Conscientiousness also leads to a healthier outlook in life and a stronger consideration for taking care of health. Thus, use of interventions targeting promotion

and enhancement of some of the factors (the big five factors), which directly influence alcohol intentions and behaviors, could be done. For example, low-agreeableness seems to be a predictor of drinking which in turn is related to low self-esteem, low problem-solving capabilities and social belongingness. Additionally, adolescents who received proper nurture and strict guidance tend to become "sobers" or those who do not see the need to drink alcohol later in their lives (McCambridge et al. 2013). These "sobers" are examples of how family, colleagues and the society in general can become a source of strong morals and values that guide an individual in dealing with social pressures, influence and dilemmas on certain occasions such as drinking alcohol. In the context of the employed population, a low self-esteem and a low perceived agreeableness may be a result of a low appreciation at work. This goes back again to the ability of the workplace to enhance and promote a healthier working environment for its employees. Targeting the personality of the person does not directly translate to a change in attitude on alcohol but it enhances one's abilities to combat desires and be equipped with rational thinking to handle such situations.

4. Finally, it is important to stress that negative consequences resulted by excessive alcohol consumption is a worldwide issue. Taking an aging society into account, constant changes in demographics require an increased attention to the alcohol consumption behavior of adults. Although the research was restrained to investigate only moderate alcohol consumers, it still provided interesting insights of how individuals are influenced by groups through societal and personal factors; and which of those that played an affect on a consumer's alcohol consumption intention. These results do not only provide insights on the psychology and social understanding of alcohol use but also provide opportunities for institutions and agencies and concerned individuals to focus on the right agencies to prevent, control or mitigate the use of alcohol. Although, this study acknowledges the existence of tailor-made or generally conceptualized interventions, this study also reveals possibilities of revisiting on how we look at interventions for non-dependents or social drinkers.

It is important to note that alcohol use will still be a freedom of choice and any intervention, especially of a normal and healthy person, should not be coercive and

invasive. Lastly, it should also be understood that learning how to drink, developing the intention to drink, and acting on the intent to drink are long processes that involve a myriad of interacting factors, thus, intervention or prevention of alcohol use should also be a step by step process that would allow for the reversal of such attitudes and behaviors.

LIST OF REFERENCES

Aertsens, J.,Verbeke, W., Mondelaers, K., & van Huylenbroeck, G. (2009). Personal determinants of organic food consumption: a review. *British Food Journal, 111*(10), 1140-1167.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), Action-control: From cognition to behavior (pp. 11-39). Heidelberg: Springer.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50(2),* 179–211.

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *Journal of Applied Social Psychology, 32,* 665-683.

Ajzen, I. (2010). Theory of planned behavior. Last updated January 2013, retrieved on April 11, 2015 from < http://sphweb.bumc.bu.edu/otlt/MPH-Modules/SB/SB721-Models/SB721-Models3.html>.

Akers, R. & Jennings, W. (2009). Social learning theory. In J. Miller (Ed.), 21st century criminology: A reference handbook (pp.323-332). Thousand Oaks: SAGE Publications, Inc.

Akers, R.L., La Greca, A.J., Cochran, J. & Sellers, C. (2005). Social learning theory and alcohol behavior among the elderly. *The Sociological Quarterly, 30*, 625-638.

Akins, S., Smith, C. L., & Mosher, C. (2010). Pathways to adult alcohol abuse across racial/ethnic groups: An application of general strain and social learning theories. *Journal of Drug Issues, 40*, 321-352.

Andrews, J.A., Tildesley, E., Hops, H. & Li, F. (2002). The influence of peers on young adult substance abuse. *Health Psychology, 21,* 349-357.

Angermeyer, M.C. & Matschinger, H. (1997). Social distance towards mentally ill: results of representative surveys in the Federal Republic of Germany. *Psychological Medicine, 27,* 1313-1141.

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behavior: A meta-analytic review. *British Journal of Social Psychology, 40,* 471-499.

Armitage, C. J., & Conner, M. (2001). Social cognitive determinants of blood donation. *Journal of Applied Social Psychology*, *31*, 1431-1457.

Assanangkornchai, S., Conigrave, K.M., Saunders, J.B. (2002). Religious beliefs and practice, and alcohol use in Thai Men. *Alcohol Alcohol, 37,* 193-197.

Atkin, C., Hocking, J. & Block, M. (1984). Teenage drinking: does advertising make a difference? *Journal of Communication, Spring,* 157-167.

Auerbach, S. M. (1989). Stress management and coping research in the health care setting: An overview and methodological commentary. *Journal of Consulting and Clinical Psychology, 57,* 388-395.

Austin, E.W. & Knaus, C. (2000). Predicting the potential for risky behaviour s among those too young to drink as the result of appealing advertising. *Journal of Health Communication, 5*, 13-27

Bagozzi, R. (1981). Evaluating structural equation models with unobservable variables and measurement error: a comment. *Journal of Marketing Research*, *18*(8), 375-81.

Bandura, A. (2006). Guide for constructing self-efficacy scales. *Self-Efficacy Beliefs of Adolescents*, Ch. 14, 307-337.
Bandura, A. *(2006).* Toward a psychology of human agency. *Perspectives in Psychological Science,* 1, 164-80. doi:10.1111/j.1745-6916.2006.00011.x
Bandura, A. (Ed.) (1995). Self-efficacy in changing societies. *New York: Cambridge University Press.*
Barnow, S., Schultz, G., Lucht, M., Ulrich, I., Preuss, U.W. & Freyberger, H.J. (2004). Do alcohol expectancies and peer delinquency/substance use mediate the relationship between impulsivity and drinking behavior in adolescence? *Alcohol and Alcoholism, 39,* 213-219.
Beck, M., Dietrich, S., Matschinger, H. & Angermeyer, M.C. (2003). Alcoholism: low standing with the public? Attitudes towards spending financial resources on medical case and research on alcoholism. *Alcohol and Alcoholism, 38,* 602-605.
Begue, L. & Roche, S. (2008). Multidimensional social control variables as predictors of drunkenness among French adolescents. *Journal of Adolescence, 10,* 1-21.
Benda, B. B., Pope, S. P., & Kelleher, K. J. (2006). Church Attendance or Religiousness. *Alcoholism Treatment Quarterly, 24*(1-2), 75-87.
Benda, B.B. (1997). An examination of a reciprocal relationship between religiosity and different forms of delinquency within a theoretical model. *J. Res. Crime Delinq. 34,* 163-186.
Berkowitz, A. D. (1990). Reducing alcohol and other drug use on campus: Effective strategies for prevention programs. *The Eta Sigma Gamman, 22*(1), 12-14.
Biernat, M., Vescio, T.K., & Green, M.L. (1996). Selective self-stereotyping. Journal of *Personality and Social Psychology, 71(6),* 1194-1209.
Bjarnason, T., Thorlindsson, T., Sigfusdottir, I. D., & Welch, M. R. (2005). Familial and religious influences on adolescent alcohol use: A multilevel study of students and school communities. *Social Forces, 84*(1), 375-390.
Borsari, B. & Carey, K.B. (2001). Peer influences on college drinking: a review of the research. *Journal of Substance Abuse, 13,* 391-424.
Borsari, B. & Carey, K.B. (2003). Descriptive and injunctive norms in college drinking: a meta-analytic integration. *Journal of Studies on Alcohol, 64*, 331-341.
Brown, B., Clasen, D. & Eicher, S. (1986). Perceptions of peer pressure, peer conformity dispositions, and self-reported behavior among adolescents. *Developmental Psychology, 22,* 521-530.
Brown, T.L., Sparks, G.S., Zimmerman, R.S., Phillips, C.M. (2001). The role of religion in predicting adolescent alcohol use and problem drinking. *Journal of the Study for Alcohol, 62(5)*, 696-705.
Bucholz, K. K. & Robins, L. N. (1989). Sociological research on alcohol use, problems, and policy. *Annual Review of Sociology, 15*, 163-186.
Bui, M., Kemp, E., & Howlett, E. (2011). The Fight Against Obesity: Influences of Self-Efficacy on Exercise Regularity. *Journal of Nonprofit & Public Sector Marketing, 23,* 181-208.
Burns, W. J., Hampson, S. E., Severson, H. H., & Slovic, P. (1993). Alcohol-Related Risk Taking Among Teenagers: an Investigation of Contributing Factors and a Discussion of How Marketing Principles Can Help. *Advances in Consumer Research, 20,* 183-187.
Burroughs, J. E., & Rindfleisch, A. (2002). Materialism and Well-Being: A Conflicting Values Perspective. *Journal of Consumer Research, 29,* 348-370.

Butler, E.R. (1998). Alcohol use and abuse as a rite of passage. *Reaching Today's Youth, 3,* 18-23.

Caetano, R., Clark, C.L. & Tam, T. (2000). Alcohol consumption among racial/ethnic minorities. *Theory and Research, 22*, 233-240.

Carlucci, K., Genova. J., Rubackin, F., Rubackin, R. & Kayson, W.A. (1993). Effects of sex, religion, and amount of alcohol consumption on self-reported drinking-related problem behaviors. *Psychological Reports, 72,* 983-987.

Chen, M. (2009). Attitude toward organic foods among Taiwanese as related to health consciousness, environmental attitudes, and the mediating effects of a healthy lifestyle. *British Food Journal, 111*(2), 165-178.

Church, W.T., Wharton, T. & Taylor, J.K. (2009). An examination of differential association and social control theory. *Youth Violence and Juvenile Justice, 7*, 3-15.

Cialdini, R., & Mortensen, C. (2008). Social influence. In S. Davis, & W. Buskist (Eds.), *21st century psychology: A reference handbook.* (pp. II-123-II-134). Thousand Oaks, CA: SAGE Publications, Inc. doi: http://dx.doi.org/10.4135/9781412956321.n65

Coeffec, A. (2010). Big five-factor contributions to addiction to alcohol. *E Consulte,* Doi : 10.1016/j.encep.2010.03.006.

Collins, N. (2011). Middle-aged drive to avoid peer pressure of drinking. *The Telegraph,* published online December 2011. Retrieved on April 17, 2015 from < http://www.telegraph.co.uk/news/health/news/8949241/Middle-aged-drive-to-avoid-peer-pressure-of-drinking.html>.

Collins, R.L, Ellickson, P.L & McCaffrey, D. (2007). Early adolescent exposure to alcohol advertising and its relationship to underage drinking. *Journal of Adolescent Health, 40*, 527–534.

Collins, S.E. & Carey, K.B. (2007). The theory of planned behavior as a model of heavy episodic drinking among college students. *Psychological Addictive Behavior, 21*. 498-507.

Conner, M., Warren, R., Close, S., & Sparks, P. (1999). Alcohol consumption and the theory of planned behavior: An examination of the cognitive mediation of past behavior. *Journal of Applied Social Psychology, 29,* 1676–1704.

Connor, J.P., George, S.M., Gullo, M.J., Kelly, A.B. & Young, R.M. (2011). A prospective study of alcohol expectancies and self-efficacy as predictors of young adolescent alcohol misuse. *Alcohol and Alcoholism, 46,* 161-169.

Connor, J.P., Young, R.M., Williams, R.J. & Ricciardelli, L.A. (2000). Drinking restraint versus alcohol expectancies: which is better indicator of alcohol problems? *Journal of Student Alcohol, 6,* 352-359.

Cooper, M.L., Russel, M., Skinner, J.B. & Windle, M. (1992). Development and validation of a three-dimensional measure of drinking motives. *Psychol. Assess., 4*, 123-132.

Cornwall, M. (1998). "The Determinants of Religious Behavior: A Theoretical Model and Empirical Test," in *Latter-day Saint Social Life: Social Research on the LDS Church and its Members* (Provo, UT: Religious Studies Center, Brigham Young University, 1998), 345–372.

Crawford, L.A. & Novak, K.B. (2006). Alcohol abuse as a rite of passage: the effect of beliefs about alcohol and the college experience on undergraduates' drinking behaviors. *Journal of Drug Education, 36,* 193-212.

Dagher, G. K., & Itani, O. S. (2012). The influence of environmental attitude, environmental concern and social influence on green purchasing behavior. *Review of Business Research, 12*(2), 104-109.
Darkes, J. & Goldman, M.S. (1993). Expectancy challenge and drinking reduction: experimental evidence for a mediational process. *Journal of Consultative Clinical Psychology, 61,* 344-353.
Davidson, D. (1980). Actions, reasons, and causes. *Essays on Actions and Events,* Oxford: Clarendon Press.
Davidson, D. (2001). Essays on Actions and Events: Philosophical Essays Volume 1. *Clarendon Press*.
Davidson, D. (1982). Paradoxes of Irrationality. *Problems of Rationality.* Oxford: Clarendon Press, 2004.
Davis, C.G. & Mantler, J. (2004). The consequences of financial stress for individuals, families and society. Doyle Salewski Inc. retrieved on March 17, 2015 from < http://http-server.carleton.ca/~jmantler/pdfs/financial%20distress%20DSI.pdf>.
Dawson, D.A., Grant, B.F. & Ruan, W.J. (2005). The association between stress and drinking: modifying effects of gender and vulnerability. *Alcohol and Alcoholism, 40,* 453-460.
De Brujin, A. (n.d.). The impact of alcohol marketing. World Health Organization, retrieved on March 17, 2008 from < http://www.euro.who.int/__data/assets/pdf_file/0003/191370/10-The-impact-of-alcohol-marketing.pdf>.
DeBenedittis, P. & Borjesson-Holman, W. (n.d.). Challenging alcohol expectancies in a classroom setting: a review of theory and practice. Retrieved on March 27, 2015 from < http://medialiteracy.net/pdfs/Expectancy_Theory.pdf>.
Denke, M.A. (2000). Nutritional and health benefits of beer. *American Journal of the Medical Sciences, 320*, 320-326.
Deshpande, S., & Rundle-Thiele, S. (2011). Segmenting and targeting American university students *to* promote responsible alcohol use*:* A case for applying social marketing principles. *Health Marketing Quarterly, 28*(4), 287-302.
Desmond, S. A., Soper, S. E., & Kraus, R. (2011). Peers, and Delinquency: Does Religiosity Reduce the Effect of Peers on Delinquency? *Sociological Spectrum, 31,* 665-694.
Dickens, D. (2013). The influence of social ostracism on drinking as a social identity among women in college. MS Thesis. Colorado State University.
Dingle, G.A., Stark, C., Cruwys, T. & Best, D. (2014). Breaking good: breaking ties with social groups may be good for recovery from substance misuse. *British Journal of Social Psychology,* 1-17. DOI:10.1111/bjso.12081.
Dodge, D.L. (1985). The Over-Negativized Conceptualization of Deviance: A Programmatic Exploration. *Deviant Behavior, 6*, 17-37.
Dong, Y. (2010). Semiparametric Binary Random E↵ects Models: Estimating Two Types of Drinking Behavior. *Munich Personal RePEc Archive, 25425*, 1-10.
Dufour M.C. (1999). What is moderate drinking? Defining drinks and drinking levels. *Alcohol Research and Health*, *23*, 5-10.
Dull, R. T. (1983). Friends' Use and Adult Drug and Drinking Behavior: A Further Test of Differential Association Theory. *Crim. L. & Criminology* 1608.

Dunn, M. E., & Goldman, M. S. (1996). Empirical modeling of an alcohol expectancy network in elementaryschool children as a function of grade. *Experimental and Clinical Psychopharmacology, 4,* 209-217.

Einhorn, D. (2015). Health consciousness invades the alcohol industry: will the trend last? Born2Invest, retrieved on April 7, 2015 from < http://born2invest.com/cdn/health-consciousness-invades-the-alcohol-industry-will-the-trend-last/>.

Engels, R. C. M. E., Wiers, R., Lemmers, L., & Overbeek, G. (2005). Drinking motives, alcohol expectancies, self-efficacy, and drinking patterns. *Journal Drug Education, 35*(2), 147-166.

Engs, R.C., Hanson, D.J., Diebold, B. (1994). The drinking patterns and problems of a national sample of college students: Implications for Education. *Journal of Alcohol and Drug Education*, *Spring 1997*.

Espada, J.P., Griffin, K.W., Pereira, J.R., Orgiles, M. & Garcia-Frenandez, J.M. (2012). Component analysis of school-based substance use prevention program in Spain: contribution of problem solving and social skills training content. *Preventive Science, 13,* 86-95.

European Commission: Special Eurobarometer 331. EU citizens' attitudes towards alcohol, 2010

Fam, K. S., Waller, D. S., & Erdogan, B. Z. (2002). The influence of religion on attitudes towards the advertising of controversial products. *European Journal of Marketing, 38*(5/6), 537-555.

Fein, S., Goethals, G. R., & Kugler, M. B. (2007). Social Influence on Political Judgments: The Case of Presidential Debates. *Political Psychology, 28*(2), 165-190.

Field, M. & Powell, H. (2007). Stress increases attentional bias for alcohol cues in social drinkers who drink to cope. *Alcohol and Alcoholism, 42,* 560-566.

Field, M., Mogg, K. & Bradley, B.P. (2005). Craving and cognitive biases for alcohol cues in social drinkers. *Alcohol and Alcoholism, 40,* 504-510.

Fife, J. E., Sayles, H. R., Adegoke, A. A., McCoy, J., Stovall, M., & Verdant, C. (2011). Religious typologies and health risk behaviors of african american college students. *North American Journal of Psychology, 13*(2), 313-330.

Finn, P.R., Bobova, L., Wehner, E., Fargo, S. & Rickert, M.E. (2005). Alcohol expectancies, conduct disorder and early-onset alcoholism: negative alcohol expectancies are associated with less drinking in non-impulsive versus impulsive subjects. *Addiction, 100,* 953-962.

Fishbein, M., Triandis, H. C., Kanfer, F. H., Becker, M., Middlestadt, S. E., & Eichler, A. (2001). Factors influencing behavior and behavior change. In A. Baum, T. A. Revenson, & J. E. Singer (Eds.), Handbook of health psychology (pp. 3–17). Mahwah, NJ: Erlbaum.

Francis, L. J., Fearn, M., Lewis, C. A. (2005). The Impact of Personality and Religion on Attitudes toward Alcohol among 16-18 year olds in Northern Ireland. *Journal of Religion and Health, 44*, 267–289.

French, D.P. & Cooke, R. (2012). Using the theory of planned behaviour to understand binge drinking: the importance of beliefs for developing interventions. *British Journal of Health Psychology, 17,* 1-17.

Fulkerson, J.A., Pasch, K.E., Perry, C.L. & Komro, K. (2008). Relationships between alcohol-related informal social control, parental monitoring and adolescent

problem behaviors among racially diverse urban youth. *Journal of Community Health, 33*, 425-433.
Fulkerson, J.A., Pasch, K.E., Perry, C.L. & Komro, K. (2008). Relationships between alcohol-related informal social control, parental monitoring and adolescent problem behaviors among racially diverse urban youth. *Journal of Community Health, 33*, 425-433.
German, J.B. & Walzen, R.L. (2000). The health benefits of wine. *Annual Review of Nutrition, 20*, 561-593.
Gilbert, J. (2014). The effects of drinking on university grades: does academic motivation play a role? Undergraduate Thesis. Western University.
Gilla, M. (2012). Alcohol use among college students: A study of peer influence and overestimation of social norm. *Submitted in partial fulfilment of the requirement of the Bachelors of Arts Degree (Social Science Specialisation) at DBS School of Arts, Dublin,* 1-56.
Glassman, T., Dodd, V., Sheu, J.J., Rienzo, B.A. & Wagenaar, A.C. (2006). Using the theory of planned behavior to predict alcohol consumption among college students on game day. *The Journal of Global Drug Policy and Practice,* retrieved on April 7, 2015 from < http://www.globaldrugpolicy.org/Issues/Vol%202%20Issue%203/Using%20the%20Theory%20of%20Planned%20Behavior.pdf>
Glassner, B., & Berg, B. (1980). How Jews avoid alcohol problems. *American Sociological Review, 45,* 647-664.
Godin, G., & Kok, G. (1996). The theory of planned behavior: A review of its applications to health-related behaviors. *American Journal of Health Promotion, 11*, 87-98.
Godshall, F.J. & Elliott, T.R. (1997). Behavioral correlates of self-appraised problem-solving ability: problem-solving skills and health compromising behaviors. *Journal of Applied Social Psychology, 27,* 929-944.
Goldfried, M. R., & Davidson, G. C. (1976). Clinical behavior therapy. New York: Holt, Rinehart & Winston. pp.125-130.
Goldman, M. S., Darkes, J., Del Boca, F. K., (1999). Expectancy mediation of biopsychosocial risk for alcohol use and alcoholism. In I. Kirsch (Ed.), Expectancy, experience, and behavior. Washington DC: APA Books.
Goldsmith, E. B., & Goldsmith, R. E. (2011). Social influence and sustainability in households. *International Journal of Consumer Studies, 35,* 117-121.
Goode, E. (2007). Drugs in American Society. ISBN: 9780073401492. p. 58-83
Goodwin, R.D. & Friedman, H.S. (2006). Health status and the five-factor personality traits in nationally representative sample. *Journal of Health Psychology, 11*, 643-654.
Gould, S. J. (1988). Consumer Attitudes Toward Health and Health Care: A Differential Perspective. *Journal of Consumer Affairs, 22,* 96-118.
Grembowski, D., Patrick, D., Diehr, P., Durham, M., Beresford, S., Kay, E. & Hecht, J. (1993). Self-efficacy and health behavior among older adults. *Journal of Health and Social Behavior, 34,* 89-104.
Grusser, S.M., Morsen, C.P. & Flor, H. (2006). Alcohol craving in problem and occasional alcohol drinkers. *Alcohol and Alcoholism, 41,* 421-425.

Haber, J.R., Grant, J.D., Jacob, T., Koenig, L.B. & Heath, A. (2012). Alcohol milestone, risk factors and religion/spirituality in young adult women. *Journal on Studies on Alcohols and Drugs, 73,* 34-43.

Hagger-Johnson, G., Bewick, B.M., Conner, M., O'Connor, D., Shickle, D. (2012). School-related conscientiousness, alcohol drinking, and cigarette smoking in a representative sample of English school pupils. *British Journal of Health Psychology, 17(3)*, 644-655.

Hare, Richard M. (1952). *The Language of Morals.* Oxford: Clarendon Press.

Heath, A.C., Madden, P.A., Grant, J.D., McLaughlin, T.L., Todorov, A.A., Bucholz, K.K. (1999). Resiliency factors protecting against teenage alcohol use and smoking: influences of religion, religious involvement and values, and ethnicity in the Missouri Adolescent Female Twin Study. Twin Research, 2(2): 145-155.

Hermens, D.F., Lagopoulos, J., Tobias-Webb, J. et al. (2013). Pathways to alcohol-induced brain impairment in young people: a review. *Cortex, 49,* 3-17. doi: 10.1016/j.cortex.2012.05.021.

Herzog, L. (2008). Economic Ethics for Real Humans – The Contribution of Behavioral Economics to Economic Ethics. *Journal for Business, Economics & Ethics*, 9(1), 112-128.

Hevey, D., Smith, M., & McGee, H. M. (1998). Self-efficacy and health behaviour: A review. *The Irish Journal of Psychology, 19*(2-3), 248-273.

Hong, H. (2009). Scale Development for Measuring Health Consciousness: Re-conceptualization. 12th Annual International Public Relations Research Conference, Holiday Inn University of Miami Coral Gables, Florida.

Horvath, A.T., Misra, K., Epner, A.K., Cooper, G.M., Zupanick, C.E. (n.d.). Social learning theory and addiction. CenterSite.net, last updated 2014. Retrieved on March 25, 2015 from < http://www.centersite.net/poc/view_doc.php?type=doc&id=48411&cn=1408>

Hull, J. G. (1981). A self-awareness model of the causes and effects of alcohol consumption. *Journal of Abnormal Psychology, 90,* 586-600.

Idler, E. L. (1987). Religious Involvement and the Health of the Elderly: Some Hypotheses and an Initial Test. *Social Forces, 66,* 226-238.

Idler, E.L., Musick, M.A., Ellison, C.G et al. (2013). Measuring multiple dimensions of religion and spirituality or health research. *Research on Aging, 25*(4), 327-365.

International Center for Alcohol Policies, ICAP. (2013). Policy tools and issues briefing: social marketing and alcohol. *January.* Retrieved on March 17, 2015 from < http://www.icap.org/LinkClick.aspx?fileticket=Tt%2BVveIQ0vM%3D&tabid=243>.

Jang, S. A., Rimal, R. N., & Cho, N. (2013). Normative Influences and Alcohol Consumption: The Role of Drinking Refusal Self-Efficacy. *Health Communication, 28*(5), 443-451.

John, B. & Alwyn, T. (2010). Alcohol related social norm perception in university students: effective interventions for change. Technical Report, University of Glamorgan. Retrieved on April 11, 2015 from < http://alcoholresearchuk.org/downloads/finalReports/AERC_FinalReport_0072.pdf>.

Johnston, K.L. & White, K. M. (2003) Binge-drinking: A test of the role of group norms in the Theory of Planned Behaviour. *Psychology and Health 18*, 63-77.

Jones, B. T., Corbin, W., & Fromme, K. (2001). A review of expectancy theory and alcohol consumption. *Addiction, 96,* 57-72.
Jones, B.T. & McMahon, J. (1996). A comparison of positive and negative alcohol expectancy and value and their multiplicative composite as predictors of post-treatment abstinence survivorship. *Addiction, 91*, 89-99.
Jones, E.E. & Berglas, S. (1978). Control of attributions about the self through self-handicapping strategies: the appeal of alcohol and the role of underachievement. *Personality and Social Psychology Bulletin, 4*, 200-207.
Jones, S.C. & Gregory, P. (2009). The impact of more visible standard drink labeling on youth alcohol consumption: helping young people drink (ir)responsibly? *Drug and Alcohol Review, 28*, 230-234.
Juozulynas A., Astrauskienė A., Jurgelėnas A., Šurkienė G., Butikis M. Alkoholio ir rūkymo socialinės sąsajos // Sveikatos mokslai, 2008, nr. 5, p. 1938-1941.
Kang, P.P. & Romo, L.F. (2011). 'The role of religious involvement on depression, risky behavior, and academic performance among Korean-American adolescents', *Journal of Adolescence*, *34,* 767-78.
Katz, S., & Nevid, J. S. (2005). Risk factors associated with posttraumatic stress disorder symptomatology in HIV-infected women. *AIDS Patient Care and STDs, 19*, 110-120.
Khoynezad, G., Rajaei, A.R., Sarvarazemy, A. (2012). Basic religious beliefs and personality traits. *Iranian Journal of Psychiatry, 7(2)*, 82-86.
Kilbourne, J. (2004). Deadly persuasion: Why women and girls must fight the addictive power of advertising. New York: The Free Press.
Kim, H. Y., & Chung, J. E. (2011). Consumer purchase intention for organic personal care products. *Journal of Consumer Marketing, 28*(1), 40-47.
Kinard, B. R., & Webster, C. (2010). The Effects of Advertising, Social Influences, and Self-Efficacy on Adolescent Tobacco Use and Alcohol Consumption. *The Journal of Consumer Affairs, 44*(1), 24-43.
Kiuru, N., Burk, W. J., Laursen, B., Salmela-Aro, K., & Nurmi, J. E. (2010). Pressure to drink but not to smoke: Disentangling selection and socialization in adolescent peer networks and peer groups. *Journal of Adolescence, 33,* 801-812.
Kolstad, A., & Pedersen, W. (2000). Adolescent Alcohol Abstainers: Traditional Patterns in New Groups. *Acta Sociologica, 43,* 219-233.
Kooderman, R., Asnchutz, D.J. & Engels, R.C. (2014). The effect of positive and negative movie alcohol portrayals on transportation and attitude toward movie. A*lcohol Clinical Experiments and Research, 38,* 2073-9.
Korhonen, M. (2004). Alcohol problems and approaches: Theories, evidence and North Practice. National Aboriginal Health Organization.
Kropp, F., Lavack, A. M., & Holden, S. J. S. (1999). *Smokers and beer drinkers*: *Values and consumer susceptibility to interpersonal influence*. *Journal of Consumer Marketing, 16*(6), 536-557.
Kulkarni, M., & Nithyanand, S. (2013). Social influence and job choice decisions. *Employee Relations, 35*(2), 139-153.
Labrie, J.W., Hummer, J.F. & Pedersen, E.R. (2007). Reasons for drinking in the college student context: the differential role and risk of the social motivator. *Journal of Studies on Alcohol and Drugs, 68*, 393-398.

Lee, A.K. & Thomas, K.G. (1997). The Role of Health Consciousness in Predicting Attention to Health Warning Messages. *American Journal of Health Promotion*, *11*, 186-193.
Lee, N.K., Greely, J. & Oei, T.P. (1999). The relationship of positive and negative alcohol expactancies to patterns of consumption of alcohol in social drinkers. *Addictive Behavior, 24,* 359-69.
Leigh, B.C. & Stacy, A.W. (2004). Alcohol expectancies and drinking in different age groups. *Addiction, 99*, 215-27.
Leonard, K.E. & Mudar, P. (2003). Peer and partner drinking and the transition to marriage: a longitudinal examination of selection and influence processes. *Psychology of Addictive Behaviors, 17,* 115-125.
Lettow, B., Vermunt, J. K., Vries, H., Burdorf, A., & Empelen, P. (2013). Clustering of drinker prototype characteristics: What characterizes the typical drinker? *British Journal of Psychology, 104*, 382-399.
Ling, J., Smith, K.E., Wilson, G.B., Brierly-Jone, L., Crosland, A., Kaner, E.F.S. & Haighton, C.A. (2012). The "other" in patterns of drinking: a qualitative study of attitudes towards alcohol use among professional, managerial, and clerical workers. *BMC Public Health, 12,* 892.
Liska, A. E. (1969). Interpreting the Causal Structure of Differential Association. Theory. *Social Problems 16*, 485-493
Lo, C.C. (2000). The impact of first drinking and differential association on collegiate drinking. *Sociological Focus, 33,* 56-63.
Loewenthal, K. (2014). Addiction: alcohol and substance abuse in Judaism. *Religions*, *5,* 973.
Lorencova, R. (2011). Religiosity and spirituality of alcohol and marijuana users. *Journal of psychoactive drugs, 43*(3), 180-187.
Lunn, T.E., Nowson, C.A., Worsley, A., Torres, S.J. (2014). Does personality affect dietary intake. *Nutrition, 30*, 403-409.
Luszczynska, A., Scholz, U., & Schwarzer, R. (2005). The General Self-Efficacy Scale: Multicultural Validation Studies. *The Journal of Psychology, 139*(5), 439-457.
Mai, R., & Hoffmann, S. (2012). Taste Lovers vs. Nutrition Fact Seekers: How Health Consciousness and Self-Efficacy Determine the Way Consumers Choose Food Products. *Journal of Consumer Behaviour, 11*(4), 316-328.
Maisto, S. A., Carey, K. B., & Bradizza, C. M. (1999). Social learning theory. In K. E. Leonard, & H. T. Blane (Eds.), Psychological theories of drinking and alcoholism (2nd ed., pp. 106 – 163). New York, NY: Guilford Press.
Malouff, J.M., Thorsteinsson, E.B., Rooke, S.E., Schutte, N.S. (2007). Alcohol involvement and the five-factor model of personality: a meta-analysis. *Journal of Drug Education, 37(3)*, 277-294.
Mann, S. (2008). Framing Obesity in Economic Theory and Policy. *Review of Social Economy, 66*(2), 163-179.
Marcoux, B. C., & Shope, J. T. (1997). Application of the Theory of Planned Behavior to adolescent use and misuse of alcohol. *Health Education Research, 12*(3), 323-331.
Martens, M.P., Karakashian, M.A., Fleming, K.M., Fowler, R.M., Hatchett, E.S., Cimini, M.D. (2009). Conscientious, protective behavioral strategies, and alcohol use: testing for mediated effects. *Journal of Drug Education, 39*, 273-287.

Martin, T., Kirkcaldy, B., & Siefen, G. (2003). Antecedents of adult wellbeing: Adolescent religiosity and health. *Journal of Managerial Psychology, 18,* 453-470.

McCambridge, J., Kypri, K., Bendtsen, P., & Porter, J. (2013). The Use of Deception in Public Health Behavioral Intervention Trials: A Case Study of Three Online Alcohol Trials. *The American Journal of Bioethics*, *13*(11), 39–47. doi:10.1080/15265161.2013.839751

McCann, S.J. (2005). Longevity, big five personality factors, and health behaviors: presidents from Washington to Nixon. *Journal of Psychology, 139(3),* 273-286.

McCullough, M., Willoughby, B. (2009). Religion, self-regulation, and self-control: associations, explanations, and implications. *Psychological Bulletin, 135,* 69-93.

McMahon, J., Jones, B.T. & O'Donnell, P. (1994). Comparing positive and negative alcohol expectancies in male and female social drinkers. Addiction Research, *1*, 349-365.

McMurran, M., Blair, M. & Egan, E. (2002). An investigation of the correlations between aggression, impulsiveness, social problem-solving and alcohol use. *Aggressive Behavior, 28,* 439-445.

Michaelidou, N., & Hassan, L. M. (2008). The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. *International Journal of Consumer Studies, 32,* 163-170.

Michalak, L. Trocki, K. & Bond, J. (2007). Religion and alcohol in the US national alcohol survey: how important is religion for abstention and drinking? *Drug and Alcohol Dependence, 87,* 268-280.

Miller, P. M., Smith, G. T., & Goldman, M. S. (1990). Emergence of alcohol expectancies in childhood: A possible critical period. *Journal of Studies on Alcohol, 51*, 343-349.

Monahan, K.C., Steinberg, L. & Cauffman, E. (2009). Affiliation with antisocial peers, susceptibility to peer influence, an antisocial behavior during the transition to adulthood. *Developmental Psychology, 45,* 1520-1530.

Morley, M. (2011). Revenue that comes with selling alcohol. *Small Business,* retrieved on March 17, 2015 from < http://smallbusiness.chron.com/revenue-comes-selling-alcohol-34021.html>.

Mukamal, K. J., Lumley, T., Luepker, R. V., Lapin, P., Mittleman, M. A., McBean, A. M., Siscovick, D. S. (2006). Alcohol consumption in older adults and medicare costs. *Health Care Financing Review, 27*(3), 49-61.

Mukherjee, S. (2013). Alcoholism and its effects on the central nervous system. *Current Neurovascular Research, 10*, 256-62.

Nagasawa, R., Qian, Z. & Chong, P. (2000). Social control theory as a theory of conformity: the case of Asian/Pacific drug and alcohol nonuse. *Sociological Perspectives, 43,* 581-603.

Nasim, A., Belgrave, F.Y.Z.. Jagers, R.J, Wilson, K.D. & Owens, K. (2007). The moderating effect of culture on peer deviance and alcohol use among high risk African-American adolescents. *Journal of Drug Education, 37,* 335-363.

National Institutes of Health, NIH. (2010). Rethinking drinking alcohol. NI on alcohol Abuse and alcoholism, 13-3770. Retrieved on March 26, 2015 from < http://pubs.niaaa.nih.gov/publications/RethinkingDrinking/Rethinking_Drinking.pdf>

Nichols, M., Scarborough, P., Allender, S., et al. (2012). What is the optimal level of population alcohol consumption for chronic disease prevention in England? Modelling the impact of changes in average consumption levels. *BMJ Open, 2*. pii: e000957. doi: 10.1136/bmjopen-2012-000957.

Nolen-Hoeksema, S., & Hilt, L. (2006). Possible contributors to the gender differences in alcohol use and problems. *Journal of General Psychology, 133*(4), 357-374.

Norman, P. (2011). The theory of planned behavior and binge drinking among undergraduate students: assessing the impact of habit strength. *Addictive Behaviors, 36,* 502-507.

Norman, P. & Conner, M. (2006). The theory of planned behavior and binge drinking: assessing the moderating role of past behavior within the theory of planned behavior. *British Journal of Health Psychology, 11,* 55-70.

O'Brien, C.P., Childress, A.R., McLellan, A.T. et al. (1992). A learning model of addiction. In *Addictive States,* O'Brien, C.P., Jaffe, J. (Eds.) New York: Ravens Press Ltd. pp. 157-177.

O'Brien, K.S. et al. (2011). Alcohol industry and non-alcohol industry sponsorship of sportspeople and drinking. *Alcohol and Alcoholism, 46,* 210.

O'Brien, L.A., Denny, S., Clark, T., Fleming, T., Teevale, T. & Robinson, E. (2013). The impact of religion and spirituality on the risk behaviours of young people in Aotearoa, *New Zealand. Youth Studies Australia,* 32.

O'Connor, T. & and Sandis C. (2010). A Companion to the Philosophy of Action. Oxford:Wiley-Blackwell

Oei, T.P.S. & Baldwin, A.R. (1994). Expectancy theory: a two process model of alcohol use and abuse. *Journal of Studies on Alcohol, 526, 534.*

Pachankis, J. E. (2007). The psychological implications of concealing a stigma: A cognitive affective-behavioral model. *Psychological Bulletin, 133*, 328–345.

Page, K. (2007). When Who I Am Affects Who and How Much I Help: Social Influences on Giving. *Advances in Consumer Research, 34,* 93.

Pandey, K.B. & Rizvi, S.I. (2009). Plant polyphenols as dietary antioxidants in human health and diseases. *Oxid Med Cell Longev, 2*, 270-278.

Pape, H. & Hammer, T. (2009). How does young people's alcohol consumption change during the ransition to early adulthood? A longitudinal study of changes at aggregate and individual level. *Addiction, 91,* 1345-1358.

Park, H. S., & Lee, D. L. (2009). A test of theory of planned behavior in Korea: Participation in alcohol-related social gatherings. *International Journal of Psychology, 44*(6), 418-433.

Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1989). A developmental perspective on antisocial behavior. *American Psychologist, 44,* 329-335.

Pattock-Peckham, J.A, Hutchinson, G.T., Cheong, J. & Nagoshi, C.T. (1998). Effect of religion and religiosity on alcohol use in a college student sample. *Drug and Alcohol Dependence, 49,* 81-8.

Paulhus, D.L. & Vazire, S. (n.d.). The self-report method. *In* W.R. Robins, R.C, Fraley, & R.F. Krueger (Eds.). *Handbook of research methods in personality psychology.* New York: Guildford, pp. 224-239.

Paunomen, S.V. & Ashton, M.C. (2001). Big five factors and facets and the prediction of behavior. *Journal of Personality and Social Psychology, 81(3),* 524-539.

Pavis, S., Cunnigham-Burley, S. & Amos, A. (1997). Alcohol consumption and young people: exploring meaning and social context. *Health Education Research, 12*, 311-322.
Perreira, K.M. & Sloan, F.A. (2001). Life events and alcohol consumption among mature adults: a longitudinal analysis. *Journal of Studies on Alcohol, 62,* 501-508.
Pervin, L. A., & John, O. P. (1999). Handbook of personality: Theory and research (2nd edition). New York: Guilford Press.
Peter, A.S., Sobowale, I.A. & Ekeanyanwi, N.T. (2013). Theory of planned behavior: measuring adolescent's media literacy and alcohol drinking expectancies. *Covenant Journal of Communication, 2,* 118-129.
Peterson, J.B., Morey, J. Higgins, D.M. (2005). You drink, I drink: alcohol consumption, social context and personality. *Individual Differences Research, 3,* 23-35.
Pitkanen, T., Lyyra, A-L., Pulkkinen, L. (2005). Age of onset of drinking and the use of alcohol in adulthood: a follow-up study from age 8-42 for females and males. *Addiction, 100,* 652-661.
Poulson, R.L., Eppler, M.A., Satterwhites, B.S., Wuensch, K.L. & Bass, L.A. (2010). Alcohol consumption, strength of religious beliefs, and risky sexual behavior in college students. *Journal of American College Health, 46,* 227-232.
Presley, C., Meilman, P., & Cashin, J. (2004). Alcohol and drugs on American college campuses: A report to college presidents. Carbondale, IL: Core Institute.
Preston, J. D. (1969). Religiosity and Adolescent Drinking Behavior. *The Sociological Quarterly, 10*(3), 372-383.
Previte, J., Russell-Bennett, R. & Parkinson, J. (2014). Shaping safe drinking cultures: evoking positive emotion to promote moderate-drinking behavior. *International Journal of Consumer Studies, 39,* 12-24.
Puddey, I.B. & Beilin, L.J. (2006). Alcohol is bad for blood pressure. *Clin Exp Pharmacol Physiol*, *33*, 847-52.
Puhl, R. & Brownell, K.D. (2001). Bias, discrimination, and obesity. *Obesity Research, 9,* 788-805.
Qin, L., Kim, Y., Hsu, J., & Tan, X. (2011). The Effects of Social Influence on User Acceptance of Online Social Networks. *International Journal of Human-computer interaction, 27*(9), 885-899.
Quinn, D.M. & Chaudoir, S.R. (2009). Living with a concealable stigmatized identity: The impact of anticipated stigma, centrality, salience, and cultural stigma on psychological distress and health. *Journal of Personality and Social Psychology, 97*, 634-651.
Reed, M.B, Lange, J.E, Ketchie, J.M. & Clapp, J.D. (2007). The relationship between social identity, normative information, and college student drinking. *Social Influence, 2*, 269–294.
Ridout, B., Campbell, A., & Ellis, L. (2012). Off your facebook: Alcohol in online social identity construction and its relation to problem drinking in university students. *Drug and Alcohol Review, 31,* 20-16.
Rimm, E.B., Klatsky, A., Grobbee, D. & Stampfer, M.J. (1996). Review of moderate alcohol consumption and reduced risk of coronary heart disease: is the effect due to beer, wine or spirits? *The BMJ, 312*, 731. doi: http://dx.doi.org/10.1136/bmj.312.7033.731.

Room, R., Babor, T., & Rehm, J. (2005). Alcohol and public health. *Lancet*, 365(9458), 519-530.80).

Rorty, Amelie, O. 1980. "Where Does the Akratic Break Take Place?," *Australasian Journal of Philosophy,* 58: pp. 333-347.

Rose, R. L., Bearden, W. O., & Teel, J. E. (1992). An attributional analysis of resistance to group pressure regarding illicit drug and alcohol consumption. *Journal of Consumer Research, 19*(1), 1-13.

Ruiz, R.R. (2015). From gluten-free beer to kombucha, alcohol options for health-conscious drinkers. The New York Times, Jan. 20, 2015, retrieved on April 7, 2015 from < http://www.nytimes.com/2015/01/21/business/from-gluten-free-beer-to-kombucha-alcohol-options-for-health-conscious-drinkers.html>.

Russell, C.A. & Russell, D.W. (2010). Alcohol messages in prime-time television series. *Journal of Consumer Affairs. 43,* 108-128.

Russell, C.A., Russell, D.W. & Grube, J.W. (2010). Nature and impact of alcohol messages in a youth-oriented television series. *Journal of Advertisement, 38*, 97-112.

Sagiv, L., & Schwartz, S. H. (2000). Value priorities and subjective well-being: Direct relations and congruity effect. *European Journal of Social Psychology*, 30, 177-198.

San Jose, B., Van Oers, J.A.M., van de Mheen, H., Garretsen, H.F.L. & Mackenbach, J.P. (2000). Drinking patterns and health outcomes: occasional versus regular drinking. *Addiction, 95*, 865-872.

Sancho, F. M., Miguel, M. J., & Aldás, J. (2011). Factors influencing youth alcohol consumption intention: An approach from consumer socialization theory. *Journal of Social Marketing, 1*(3), 192-210.

Saroglou, V. (2000). Religion and the five factors of personality: a meta-analytic review. *Personality and Individual Differences, 23*, 15-25.

Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, Measures in health psychology: A user's portfolio. *Causal and control beliefs*. Windsor, UK: NFER-NELSON, 35-37.

Schwarzer, R., & Luszczynska, A. (2005). Self-efficacy, adolescents' risk taking behaviors, and health. *Self-Efficacy Beliefs of Adolescents, …,* 139-159.

Scruby, C. (2014). Chile tops Latin America for alcohol consumption for the first time. *The Santiago Times*, May 13, 2014. Retrieved on March 17, 2015 from < http://santiagotimes.cl/chile-tops-latin-america-alcohol-consumption-first-time/>

Seaman, P. & Edgar, F. (2012). Creating better stories: alcohol and gender in transitions to adulthood. Glasgow Centre for Population Health. Retrieved on April 10, 2015 from < http://www.gcph.co.uk/assets/0000/3392/Alcohol_and_gender_full_report.pdf>.

Sebo, J. (2015) Multiplicity, self-narrative, and akrasia. *Philosophical Psychology*, *28*(4), 589-605.

Shaw, D., Grehan, E., Shiu, E., Hassan, L., & Thomson, J. (2005). An exploration of values in socially acceptable consumer decision making. *Journal of Consumer Behavior, 4*(3), 185-200.

Simons-Morton, B., Lemeber, N. & Singer, J. (2005). The observed effects of teenage passengers on the risky driving behavior of teenage drivers. *Accid Anal Prev. 2005, 37,* 973-82.

Snyder, L.B. et al. (2006). Effects of alcohol advertising exposure on drinking among youth. *Archives of Pediatrics and Adolescent Medicine, 160*, 18–24.
Sorocco, K. H., & Ferrell, S. W. (2006). Alcohol use among older adults. *Journal of General Psychology, 133*(4), 453-467.
Sorsdahl, K., Stein, D.J., Carrara, H. & Myers, B. (2014). Problem solving style among people who use alcohol and other drugs in South Africa. *Addictive behaviors, 39,* 122-126.
Steinberg, L. & Monahan, K.C. (2009). Age difference in resistance to peer influence. *Developmental Psychology, 43, 1531-1543.*
Strawbridge, W. J., Shema, S. J., Cohen, R. D., & Kaplan, G. A. (1997). Frequent Attendance at Religious Services and Mortality over 28 Years*. American Journal of Public Health, 87*(6), 957-961.
Stuber, J. Galea, S., & Link, B.G (2009). Stigma and smoking: The consequences of good intentions. *Social Service Review, 83,* 585-609.
Suki, N. M. (2013). Students' Demand for Smartphones: Structural Relationships of Product Features, Brand Name, Product Price and Social Influence. *Campus-Wide Information Systems, 30*(4), 236-248.
Szmitko, P.E. & Verma, S. (2005). Red wine and your heart. *Circulation*, *111*, e10-e11.
Tajfel H., & Turner, I. C. (1985). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), Psychology of intergroup relations (pp. 7-24). Chicago: Nelson-Hall.
Tasdemir, N. (2011). The relationships between motivations and intergroup differentiation as a function of different dimensions of social identity. *Review of General Psychology, 15(2),* 125-137.
Terry, M.B., Gammon, M.D., Zhang, F.F. et al. (2007). Alcohol dehydrogenase 3 and risk of esophageal and gastric adenocarcinomas. *Cancer Causes Control, 18*, 1039-46.
TESCO, PLC. (2012). Health conscious Brits create record growth low for alcohol beer. Published January 30, 2012. Retrieved on April 11, 2015 from <http://www.tescoplc.com/index.asp?pageid=17&newsid=591>.
Thun, M.J., Peto, R., Lopez, A.D. et al. (1997). Alcohol consumption and mortality among middle-aged and elderly US adults. *The New England Journal of Medicine, 337*, 1705-1714.
Tonigan, J.S., Miller, W.R., Schermer, C. (2002). Atheists, agnostics and alcoholics anonymous. *Journal of Studies on Alcohol, 63(5),* 534-41.
Van Lettow, C., de Vries, H., Burdof, A., Conner, M. & van Empelen, P. (2014). Explaining young adult's drinking behavior within an augmented Theory of Planned behavior: temporal stability of drinker prototypes. *British Journal of Health Psychology*, 1-19. DOI:10.1111/bjhp.12101.
Varela*,* A., & Pritchard, M. E. (2011). Peer Influence*:* Use of Alcohol*,* Tobacco, and Prescription Medications*. Journal of American College Health, 59*(8), 751-756.
Vargas, D. (2012). Nursing students' attitude towards alcohol, alcoholism and alcoholics: a study of a Brazilian sample. *Journal of Nursing Education and Practice, 2*, 1-8.
Vazsonyi, A., Huang, L. (2010). Where self-control comes from: on the development of self-control and its relationship to deviance over time. *Correction Developmental Psychology, 46,* 747-752.

Verkooijen, K.T., de Vries, N.K., & Nielsen, G.A. (2007). Youth crowds and substance use: The impact of perceived group norm and multiple group identification. *Psychology of Addictive Behaviors, 21*(1), 55-61.

Wagenaar, A.C., Harwood, E.H., Toomey, T.L. et al. (2000). Public opinion on alcohol policies in the United States: Results from a national survey. *Journal of Public Health Policy, 21*, 303-327.

Wall, A.M., Thrussell, C. & Lalonde, R.N. (2003). Do alcohol expectancies become intoxicated outcomes? A test of social-learning theory in a naturalistic bar setting. *Addictive behaviors, 28*, 1271-1283.

Wallace, J. M., Delva, J., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., Johnston, L. D., & Stewart, C. (2007). Race/Ethnicity, Religiosity and Adolescent Alcohol, Cigarette and Marijuana Use. *Social Work in Public Health, 23*(2-3), 193-213.

Walton, K. E., & Roberts, B. W. (2004). On the relationship between substance use and personality traits: Abstainers are not maladjusted. *Journal of Research in Personality, 38,* 515-535.

Ward, A. (2015). Theory and Akrasia in Aristotle's Ethics. *Perspectives on Political Science, 44*(1), 18-24.

Ward, B.W. & Gryczynski, J. (2009). Social learning theory and the effects of living arrangement on heavy alcohol use: results from a national study of college students. *Journal of Studies on Alcohol and Drugs, 70,* 364-72.

Westaby, J., & Lowe, J. K. (2005). Risk-Taking Orientation and Injury Among Youth Workers: Examining the Social Influence of Supervisors, Coworkers, and Parents. *Journal of Applied Psychology, 90*(5), 1027-1035.

Westbrook, M.T., Legge, V. & Pennay, M. (1993). Attitudes towards disabilities in a multicultural society. *Social Science and Medicine, 36,* 615-623.

White, H.R. & Jackson, K. (2004). Social and psychological influences on emerging adult drinking behavior. *Alcohol Research & Health, 28,* 12-190.

White, M. D. (2006). Multiple Utilities and Weakness of Will: A Kantian Perspective. *Review of Social Economy, 64*(1), 1-20.

Williams, J.G. & Kleinfelter, K.J. (1989). Perceived problem-solving skills and drinking patterns among college students. *Psychological reports, 65,* 1235-1244.

World Health Organization. (1999). Global status report on alcohol. WHO, Geneva. Retrieved on March 17, 2015 from <http://www.who.int/substance_abuse/publications/en/GlobalAlcohol_overview.pdf>

Yang, Z. & Laroche, M. (2009). Parental responsiveness and adolescent susceptibility to peer influence: a cross-cultural investigation. *Journal of Consumer Research, 15,* 473-481.

Yao, L.H., Jiang, Y.M., Barberan, F.A., Singanusong, R. & Chen, S.S. (2004). Flavonoids in food and their health benefits. *Plant Foods for Human Nutrition*, *3*, 113-112.

Yoon, S., Lalwani, A. K., & Vargas, P. (2008). Not Me or Not Them?: The Role of Culture in Discrepant Effects of Health Communication on Self and Others. *Advances in Consumer Research, 35,* 737-738.

Young, R.M., Ricciardelli, R. & Saunders, J.B. (2005). The role of alcohol expectancy and drinking refusal self-efficacy beliefs in university student drinking. *Alcohol and Alcoholism, 41,* 70-75.

Zack, M., Poulos, C.X., Fragopoulos, F., Woodford, T.M. & MacLeod, C.M. (2006). Negative affect words prime beer consumption in young drinkers. *Addictive Behaviors, 31*, 169-173.

Zhu, H., Jia, Z., Misra, H. et al. (2012). Oxidative stress and redox signaling mechanisms of alcoholic liver disease: updated experimental and clinical evidence. *J Dig Dis, 13,* 133-42. doi: 10.1111/j.1751-2980.2011.00569.x.

Zimmerman, F. & Sieverding, M. (2010). Young adult's social drinking as explained by augmented theory of planned behavior: the roles of prototypes, willingness and gender. British *Journal of Health Psychology, 15*, 561-581.

ANNEXES

Annex 1. Survey questionnaire

Gerbiamas(-a) respondente,

Esu ISM Vadybos ir Ekonomikos universiteto doktorantas, atliekantis mokslinį tyrimą apie vartojimo įpročius. Būčiau dėkingas, jei galėtumėte užpildyti šią apklausos anketą. Surinkti duomenys bus naudojami tik tyrimo tikslams ir nebus perduoti tretiesiems asmenims. Apklausa yra anoniminė.

Dėkojame už bendradarbiavimą!

Įvertinkite šiuos teiginius. Vertinimui naudokite 5 balų skalę, kur 1 reiškia „visiškai nesutinku", 5 reiškia "visiškai sutinku".		
1.	Kiek tikėtina, kad ateityje Jūs vartosite alkoholinių gėrimų kiekvieną savaitę	1 2 3 4 5
2.	Kiek tikėtina, kad Jūs vartosite alkoholinių gėrimų kiekvieną savaitę po 6 mėnesių nuo dabar	1 2 3 4 5
3.	Kiek tikėtina, kad Jūs vartosite alkoholinių gėrimų kiekvieną savaitę po 2 metų nuo dabar	1 2 3 4 5

4. Kaip dažnai vartojate alkoholinius gėrimus (pasirinkite vieną Jums labiausiai tinkantį atsakymo variantą)?

1.	Kasdien
2.	2-3 kartus per savaitę
3.	Kartą per savaitę
4.	2-3 kartus per mėnesį
5.	Kelis kartus per metus
6.	Niekada negeriu → *eiti į 6 klausimą*

5. Pažymėkite kuriuos alkoholinius gėrimus vartojote pastarąją savaitę (galimi keli atsakymo variantai).

1.	Alų
2.	Sidrą
3.	Vyną
4.	Stipriuosius alkoholinius gėrimus (degtinę, brendį, viskį ir pan.)
5.	Kitus alkoholinius gėrimus
6.	Nevartojau

Įvertinkite šiuos teiginius. Vertinimui naudokite 7 balų skalę, kur 1 reiškia „visiškai nesutinku", 7 reiškia "visiškai sutinku".		
6.	Manau, kad išgėrę žmonės yra linksmi	1 2 3 4 5 6 7
7.	Manau, kad išgėrę žmonės yra sumanūs	1 2 3 4 5 6 7
8.	Manau, kad išgėrę žmonės yra šaunūs	1 2 3 4 5 6 7
9.	Manau, kad išgėrę žmonės yra geri	1 2 3 4 5 6 7
10.	Manau, kad išgėrę žmonės yra patrauklūs	1 2 3 4 5 6 7
11.	Manau, kad išgėrę žmonės yra traukiantys	1 2 3 4 5 6 7
12.	Pamačius alkoholio reklamą viduje mane apima nusiminimas	1 2 3 4 5 6 7
13.	Alkoholio reklamose vartotojui pateikiama tiesa	1 2 3 4 5 6 7
14.	Vienintelis alkoholio gamintojų tikslas yra uždirbti pinigus	1 2 3 4 5 6 7
15.	Manau, kad alkoholio reklama turėtų būti uždrausta visiškai	1 2 3 4 5 6 7
16.	Pykstu kai matau kiek jaunimo pasidavę gamintojų įtakai pradeda vartoti alkoholį	1 2 3 4 5 6 7
Įvertinkite šiuos teiginius. Vertinimui naudokite 5 balų skalę, kur 1 reiškia „visiškai nesutinku", 5 reiškia "visiškai sutinku".		
17.	Visuomet galiu išspręsti sudėtingas problemas, jeigu pakankamai stengiuosi	1 2 3 4 5
18.	Jeigu kas nors nepritaria man, žinau priemones ir būdus, kaip pasiekti tai, ko noriu	1 2 3 4 5
19.	Man lengva laikytis ir pasiekti savo tikslus	1 2 3 4 5
20.	Esu įsitikinęs, kad sugebėčiau veiksmingai susitvarkyti su iškilusiais netikėtumais	1 2 3 4 5

21.	Dėl savo sumanumo žinau, kaip elgtis nenumatytomis aplinkybėmis	1 2 3 4 5
22.	Galiu išspręsti daugumą problemų, jeigu skiriu tam reikiamas pastangas	1 2 3 4 5
23.	Galiu išlikti ramus(-i), kai susiduriu su sunkumais, nes galiu pasikliauti savo problemų sprendimo gebėjimais	1 2 3 4 5
24.	Kai susiduriu su problema, paprastai randu jai keletą sprendimų	1 2 3 4 5
25.	Kai susiduriu su bėda, paprastai galiu jai sugalvoti sprendimą	1 2 3 4 5
26.	Paprastai galiu susidoroti su viskuo, kas pasitaiko gyvenime	1 2 3 4 5
Įvertinkite šiuos teiginius. Vertinimui naudokite 7 balų skalę, kur 1 reiškia „visiškai nesutinku", 7 reiškia "visiškai sutinku".		
27.	Aš dažnai pasitariu su kitais žmonėmis prieš rinkdamasis geriausią prekę	1 2 3 4 5 6 7
28.	Jeigu aš noriu būti panašus į kokį nors žmogų, aš stengiuosi pirkti to paties prekės ženklo produktus kaip ir jis	1 2 3 4 5 6 7
29.	Man svarbu, kad mane supantiems žmonėms patiktų, prekės ir prekių ženklai, kuriuos aš perku	1 2 3 4 5 6 7
30.	Norėdamas(-a) įsitikinti, kad perku tinkamą prekę ar prekės ženklą aš dažnai stebiu, ką perka ir naudoja kiti	1 2 3 4 5 6 7
31.	Aš retai perku labiausiai madingus drabužius kol nesu tikras(-a), kad aplinkiniams tai patiks	1 2 3 4 5 6 7
32.	Aš susitapatinu su kitais žmonėmis pirkdamas tokias pačias prekes ir prekės ženklus	1 2 3 4 5 6 7
33.	Jeigu prekė man yra mažai žinoma aš dažnai apie ją pasiteirauju aplinkinių	1 2 3 4 5 6 7
34.	Pirkdamas aš įsigyju tų prekės ženklų produktus/prekes, kuriems, manau, pritartų mano aplinkos žmonės	1 2 3 4 5 6 7
35.	Man svarbu žinoti, kurie prekių ženklai daro įspūdį aplinkiniams	1 2 3 4 5 6 7
36.	Aš dažnai susirenku informaciją iš draugų ir šeimos narių prieš pirkdamas produktą/prekę	1 2 3 4 5 6 7
37.	Jei aplinkiniai gali matyti mane naudojant produktą/prekę, aš	1 2 3 4 5 6 7

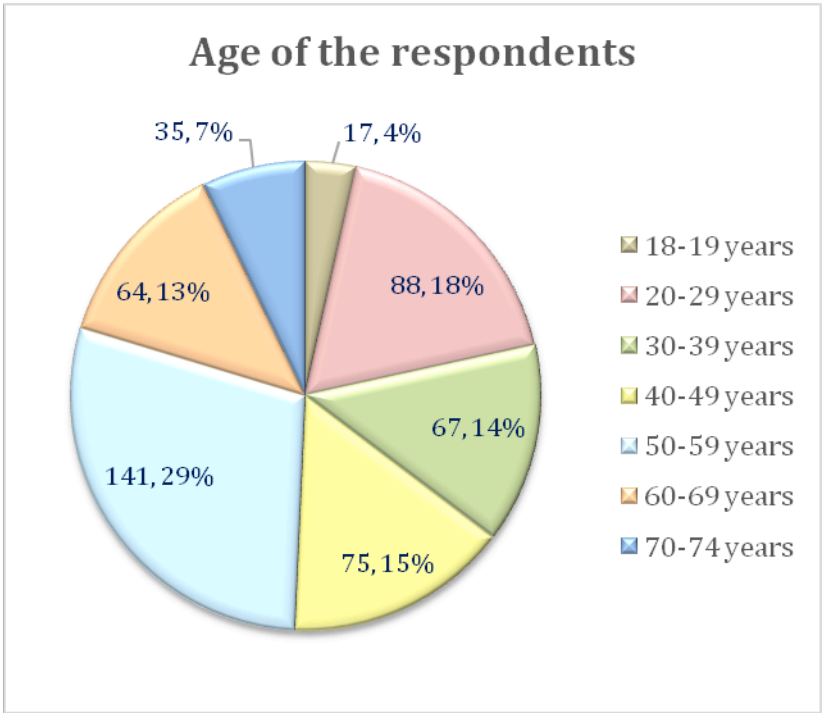
	dažnai perku prekės ženklą kurį, manau, jie tikisi, jog aš pirkčiau	
38.	Pirkdamas tuos pačius produktus/prekes ir prekės ženklus kaip ir aplinkiniai, jaučiuosi esantis šios grupės nariu	1 2 3 4 5 6 7
39.	Aš dažnai susimąstau apie savo sveikatą	1 2 3 4 5 6 7
40.	Aš labai sąmoningas savo sveikatos atžvilgiu	1 2 3 4 5 6 7
41.	Kreipiu dėmesį į susijusią su sveikata vidinę nuojautą.	1 2 3 4 5 6 7
42.	Aš nuolat rūpinuosi savo sveikatos būkle	1 2 3 4 5 6 7
43.	Mano gyvenimo filosofijoje religija vaidina vieną iš svarbiausių vaidmenų	1 2 3 4 5 6 7
44.	Religinės temos manęs nedomina	1 2 3 4 5 6 7
45.	Idėjos, kylančios iš religijos, turi įtaką mano nuomonei ir požiūriui kitose gyvenimo srityse	1 2 3 4 5 6 7
46.	Religija yra svarbus pagrindas, kuris formuoja mane kaip asmenybę	1 2 3 4 5 6 7
47.	Jeigu religija nebūtų man svarbi, mano gyvenimas būtų visai kitoks	1 2 3 4 5 6 7
48.	Aš dažnai galvoju apie su religija susijusius dalykus	1 2 3 4 5 6 7
Įvertinkite šiuos teiginius. Vertinimui naudokite 4 balų skalę, kur 1 reiškia „visiškai nesutinku", 7 reiškia "visiškai sutinku":		
49.	Esu ne kartą susimąstęs, kad reikėtų sumažinti alkoholio vartojimą	1 2 3 4 5 6 7
50.	Mane erzina kai aplinkiniai žmonės kalba apie tai kiek daug aš vartoju alkoholio	1 2 3 4 5 6 7
51.	Ne kartą esu jautęs kaltę dėl alkoholio vartojimo	1 2 3 4 5 6 7
52.	Man yra ne kartą tekę rytais gerti alkoholio, norint sumažinti pagirias	1 2 3 4 5 6 7

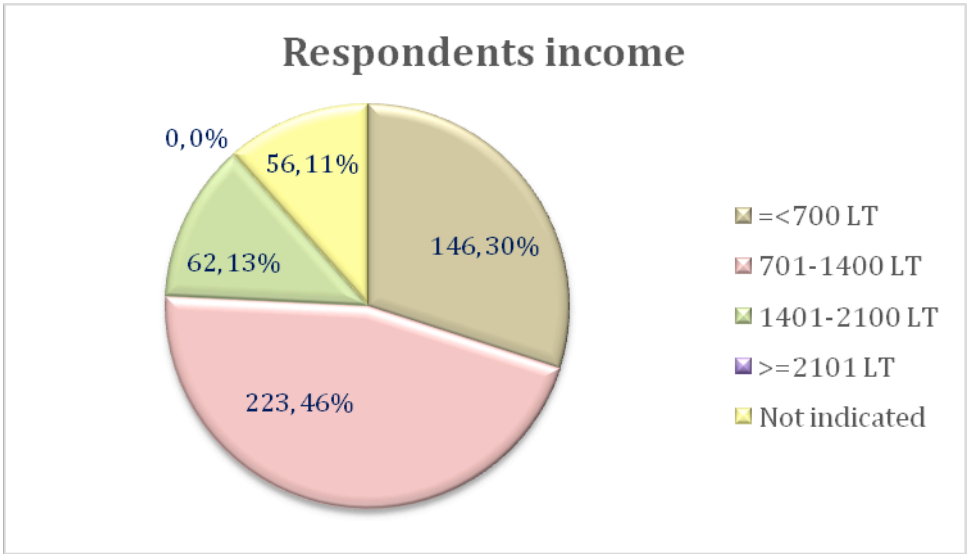
53. Jūsų amžius	**54. Lytis**
☐ ≤ 18 ☐20-29 ☐30-39 ☐40-49 ☐50-59 ☐60-69 ☐70-74	☐Vyras ☐Moteris
55. Pajamos 1 šeimos nariui ☐ ≤700 Lt ☐701-1400 Lt ☐1401-2100 Lt ☐≥2101Lt ☐ Nenurodė	**56. Išsilavinimas** ☐ Pradinis ☐ Pagrindinis ☐ Vidurinis (su profesiniu išsilavinimu arba be jo) ☐ Aukštesnysis/ spec. vidurinis ☐ Aukštasis (neuniversitetinis arba universitetinis) ☐ Daktaro laipsnis
57. Gyvenamoji vieta ☐ Vilnius ☐ Kaunas ☐ Klaipėda ☐ Šiauliai ☐ Panevėžys ☐ Kiti miestai ☐ Kaimas	

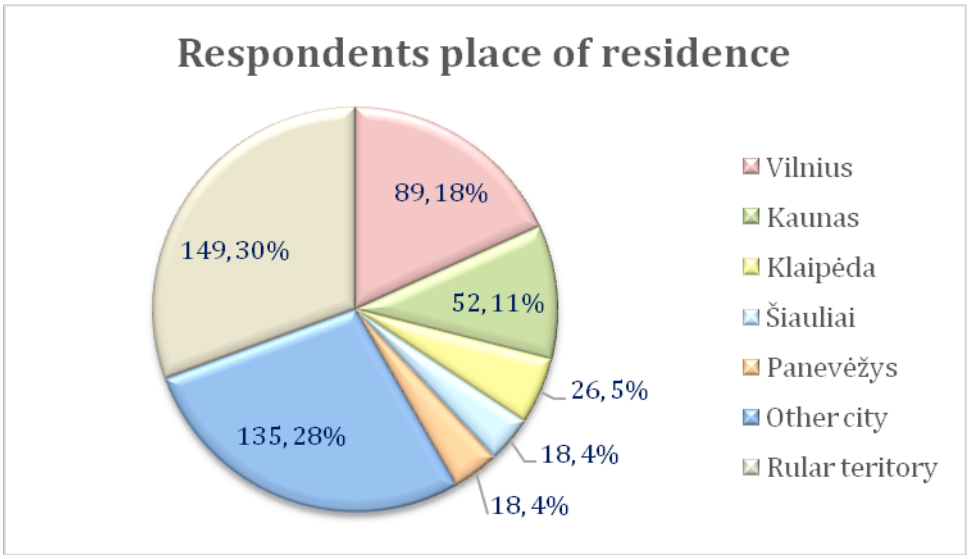
Dėkojame už bendradarbiavimą!

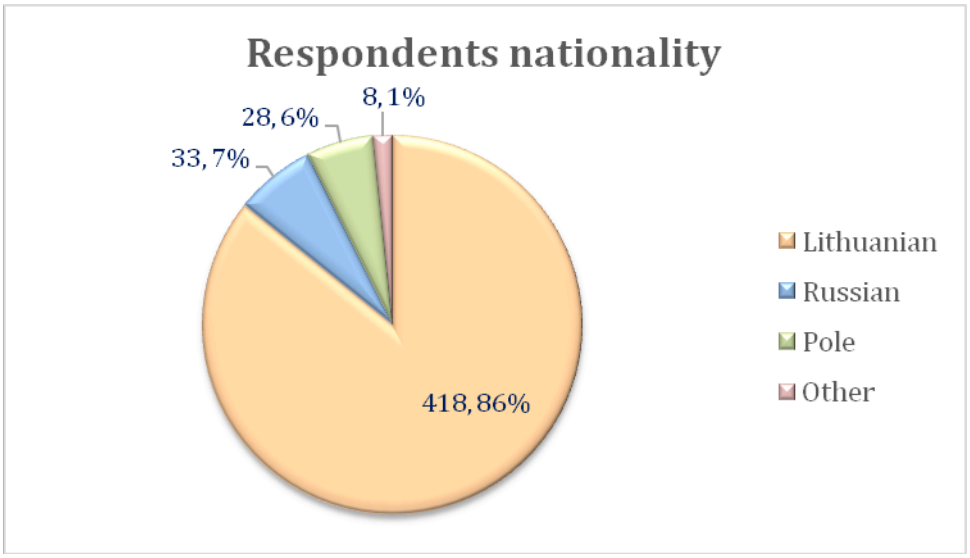
Annex 2.

Figure 19. Respondents' demographic data






Respondents place of residence
89, 18%
52, 11%
26, 5%
18, 4%
18, 4%
135, 28%
149, 30%
Vilnius
Kaunas
Klaipėda
Šiauliai
Panevėžys
Other city
Rular teritory


Respondents nationality
8, 1%
28, 6%
33, 7%
418, 86%
Lithuanian
Russian
Pole
Other

Annex 3.

Table 35. Inter-item correlation matrix of the susceptibility to interpersonal influence factor

Item	Statement	T5_1	T5_2	T5_3	T5_4	T5_5	T5_6	T5_7	T5_8	T5_9	T5_10	T5_11	T5_12
T5_1	I often consult other people to help choose the best alternative available from a product class.	1.000	.121	.244	.266	.054	.068	.378	.353	.180	.448	.221	.110
T5_2	If I want to be like someone, I often try to buy the same brands that they buy.	.121	1.000	.495	.494	.353	.488	.134	.219	.409	.164	.460	.520
T5_3	It is important that others like the products and brands I buy.	.244	.495	1.000	.539	.355	.420	.310	.399	.457	.302	.467	.402
T5_4	To make sure I buy the right product or brand, I often observe what others are buying and using.	.266	.494	.539	1.000	.374	.558	.334	.378	.493	.323	.446	.427
T5_5	I rarely purchase the latest fashion styles until I am sure my friends approve of them.	.054	.353	.355	.374	1.000	.461	.182	.310	.389	.171	.376	.280
T5_6	I often identify with other people by purchasing the same products and brands they purchase.	.068	.488	.420	.558	.461	1.000	.224	.302	.461	.201	.439	.490
T5_7	If I have little experience with a product, I often ask my friends about the product.	.378	.134	.310	.334	.182	.224	1.000	.467	.325	.455	.305	.234
T5_8	When buying products, I generally purchase those brands that I think others will approve of.	.353	.219	.399	.378	.310	.302	.467	1.000	.427	.494	.474	.369
T5_9	I like to know what brands and products make good impressions on others.	.180	.409	.457	.493	.389	.461	.325	.427	1.000	.329	.559	.526
T5_10	I frequently gather information from friends or family about a product before I buy.	.448	.164	.302	.323	.171	.201	.455	.494	.329	1.000	.413	.322
T5_11	If other people can see me using a product, I often purchase the brand they expect me to buy.	.221	.460	.467	.446	.376	.439	.305	.474	.559	.413	1.000	.599
T5_12	I achieve a sense of belonging by purchasing the same products and brands that others purchase.	.110	.520	.402	.427	.280	.490	.234	.369	.526	.322	.599	1.000

Table 44. A short summary of studies that have explored the relation between ATAA and alcohol consumption

Authors, date, country	Findings	Stimuli	Antecedents	Outcomes	Methodology (sample, type, sampling method, statistical method)
Sobell, L. C., Sobell, M. B., Riley, D. M., Klajner, F., Leo, G. I., Pavan, D., & Cancilla, A. (1986) Toronto	To find the effect of TV advertisement on normal drinkers; this study showed no support for the widely held assumption that drinking scenes in television programs or televised advertisement for alcoholic beverages precipitate increased drinking by viewers	Alcohol consumption	Alcohol advertising	Evaluate the after effects of TV advertisement on alcohol consumption	Study done on 96 male respondents with different versions of TV programs and advertisements and its impact on their alcohol consumption pattern.
Saffer, H. (2002) USA	This research paper states that there is a direct impact of advertisement on alcoholism. Banning any one of the media will allow the substituion of another media.	Alcohol consumption	Alcohol advertising	Alcohol advertising and impact on consumption of alcohol	Theoretical framework study found that the marginal effect of advertising diminishes at high level of advertising
Chen, M. J., Grube, J. W., Bersamin, M., Waiters, E., & Keefe, D. B. (2005) California, USA	This study investigates perceived attractiveness of alcohol advertisements; advertisements were rated by youth as more likeable were also showed to have greater intention to purchase the brand and products promoted.	Alcohol consumption	Alcohol advertising	Alcohol adversitising and its effect on alcohol consumption and the need to bring up interesting counter advertisements	Respondents were 253 children and adolescents in California (47% male; aged 10–17). Data were collected using self-administered questionnaires in group settings. Respondents were shown a stimulus tape containing television advertisements for beer and soft drinks; perceived attraction and intent to purchase the product was noted.
Saffer, H., & Dave, D. (2006) USA	The study shows that the data from MTF and the NLSY97 generally show that alcohol advertising has a positive effect on annual alcohol participation, monthly participation and binge participation.	Alcohol consumption	Alcohol advertising	Alcohol advertising and pricing and its impact on consumption	An empirical study based on the Monitoring the Future (MTF) and the National Longitudinal Survey of Youth 1997 (NLSY97) data sets, which include only data for adolescents. These data sets are augmented with alcohol advertising data, originating on the market level, for five media.

Authors, date, country	Findings	Stimuli	Antecedents	Outcomes	Methodology (sample, type, sampling method, statistical method)
Austin, E. W., Chen, M. J., & Grube, J. W. (2006) USA	The results show that alcohol related portrayals in media influence children's drinking through a progressive decision-making process, with its influence underestimated by typical exposure-and-effects analyses.	Alcohol consumption and adolescents	Alcohol advertising	Media alcohol portrayal and its influence on children's drinking through a progressive decision-making process	This study was done on youths aged 9 –17 years (n 652), based on latent variable structural equations model. It showed that skepticism was negatively associated with positive affect toward alcohol portrayals and positively with the desire to emulate characters portrayed in alcohol advertisements
Snyder, L. B., Milici, F. F., Slater, M., Sun, H., & Strizhakova, Y. (2006) USA	The research shows that youth who saw more alcohol advertisements on average drank more and youth in markets with more alcohol advertisements showed increases in drinking levels into their late 20s, but drinking plateaued in the early 20s for youth in markets with fewer advertisements.	Alcohol consumption	Alcohol advertising	Alcohol advertising exposure and its affect on alcohol consumption on youth	Individuals aged 15 to 26 years were randomly sampled for media exposure. Sample sizes per group were 1872, 1173, 787, and 588. Data on alcohol advertising expenditures on television, radio, billboards, and newspapers were collected.
Collins, R. L., Ellickson, P. L., McCaffrey, D., & Hambarsoomians, K. (2007) USA	The study shows joint effect of exposure to advertising from all six sources at Grade 6, was strongly predictive of Grade 7 drinking and Grade 7 intentions to drink. Youth in the 75th percentile of alcohol marketing exposure had a predicted probability of drinking that was 50% greater than that of youth in the 25th percentile.	Alcohol consumption	Alcohol advertising	Vulnerability of adolescents to alcohol advertisement	Survey done in two in-school surveys of 1,786 South Dakota youth to measure exposure to television advertisements, alcohol ads in magazines, etc. Multivariate regression equations predicted the two drinking outcomes using the advertising exposure variables and controlling for psychosocial factors and prior drinking.
Winter, M. V., Donovan, R. J., & Fielder, L. J. (2008) Australia	This study found that Australian children and teenagers under the legal drinking age are currently exposed to unacceptably high levels of alcohol advertising on television.	Alcohol consumption	Alcohol advertisement	To find the exposure of young children and teenagers to alcohol advertisement	Advertisement exposure levels were obtained from weekly TARPS. Exposure levels were obtained for four age groups: children up to 12 years; 13-17 years; 18-24 years; and 25 years and over for 156 different ads for 50 brands.

Authors, date, country	Findings	Stimuli	Antecedents	Outcomes	Methodology (sample, type, sampling method, statistical method)
Anderson, P. (2009) Spain	This systematic review was done on over 38,000 young people and found convincing evidence of an impact of media exposure and alcohol advertising on subsequent alcohol use, including initiation of drinking and heavier drinking among existing drinkers.	Alcohol consumption	Alcohol advertisement	To find the impact of advertising for alcohol on young children and the feasibility to ban alcohol consumption	The study demonstrates that it is possible to regulate commercial communications in traditional and non-traditional media which is supported by three quarters of European citizens
Gordon, R., Hastings, G., & Moodie, C. (2010) Scotland	The study showed alcohol marketing is having an effect on youth alcohol consumption.	Alcohol consumption	Alcohol advertisement	To study the impact of the evidence base and the need to have regulations in alcohol marketing	The evidence base favors the conclusion that alcohol marketing is having an effect on youth alcohol consumption.
Gunter, B., Hansen, A., Touri, M. (2010). United Kingdom	The research claims no evidence that alcohol advertising plays a significant role in shaping general alcohol consumption among young people, it does seem to play a part in driving consumption of certain types of alcoholic beverages.	Alcohol consumption	Alcohol advertising	Alcohol consumption patterns	A self-completion questionnaire survey was used with a total sample of 298 respondents (169 university students and 129 secondary school students) of whom 60% were female and 40% were male. 4 point scales were used in the survey.

Table 45. Examples of previous social pressure studies

Authors, date, country	Findings	Products/ stimuli	Antecedents	Outcomes	Methodology (sample, type, sampling method, statistical method)	Measurement
Andrews, Netemeyer, Burton, Moberg and Christiansen (2004) USA	The research proved that social influence directly affected anti-smoking beliefs and intent to smoke.	Cigarettes	Social influence	Intention to smoke	Telephone interviews were conducted with adolescents from 12 to 18 years. Sample size varied across analyses from n=924 to n=943	The social influence was measured in 3 items (no = 0, yes = 1) 1. Do you have any brothers or sisters who currently smoke cigarettes? (Sibling) 2. Is there an adult in your household who is a regular smoker? (Adult smoker) 3. How many of your four closest friends smoke cigarettes? (Friends)
Raghunathan and Corfman (2006) USA	The findings of the study provide evidence that happiness and enjoyment of a hedonistic stimulus expands in situations where other people share the same stimulus, deliver favorable opinions and it decreases in cases they provide negative feedback.	Hedonistic stimuli (movies, food, vacations)	Social influence	Enjoyment of shared stimuli	Correlation analysis and analysis of variance (ANOVA) were performed.	Likert's 7-point scale (1="not at all enjoyable", 7="very enjoyable"). NA

Authors, date, country	Findings	Products/ stimuli	Antecedents	Outcomes	Methodology (sample, type, sampling method, statistical method)	Measurement
McFerran, B., Dahl, D. W., Fitzsimons, G. J., Morales, A. C. (2009) Canada, USA	The finding of the research conclude evidence that the body type (thin versus obese) of a consumer has an affect on the portion size taken by the consumers around them. In case the confederate is thin the portions of the food taken are significantly bigger than in case the confederate is obese.	Food (candies of M&M and granola)	Social influence	Quantity taken (portion size)	An analysis of covariance (ANCOVA) was performed.	NA
Dagher and Itani (2012) Lebanon	The research concludes a positive relation between social influence and green purchasing behavior. Therefore, the impact of social norms might lead to ecological consumption practices.	Green purchasing	Social influence; Environmental concern	Intention to purchase	To test the hypotheses proposed correlation and regression analysis were performed. n=101 (58.4 % males, 41.6 % females)	Likert's 5-point scale. Social influence was measured using six items. NA

Mindaugas Sinkevičius

Alcohol Consumption in the Context of Conflicting Societal and Personal Factors
Daktaro disertacija

Išleido ISM Vadybos ir ekonomikos universitetas, Aušros Vartų g. 7A, LT- 01304 Vilnius
Spausdino leidyklos „Technologija“ spaustuvė, Studentų g. 54, LT-51424 Kaunas
27,75 leidyb. apsk. l. Tiražas 16 egz. Užsakymas 249. 2015-07-21
Nemokamai