Evaluating the influence of alcohol advertising on alcohol consumption among the youth in the Vaal Region

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REMARKS

The reader is reminded of the following:

The editorial style as well as the references referred to in this dissertation follow the format prescribed by the NWU Referencing Guide (2012). This practice is in line with the policy of the Programme in the Potchefstroom Business School to use the **Harvard Style** in all scientific documents.

ABSTRACT

Title: Evaluating the influence of alcohol advertising on alcohol consumption among the youth in the Vaal Region

The aim of this study was to evaluate the relationship between alcohol advertising and alcohol consumption among the youth in the Vaal triangle, south of Gauteng. The study was conducted in four high schools under Sedibeng West District of the Gauteng Department of Education. A quantitative approach in the form of a questionnaire was used to conduct the research.

Results obtained indicated that there is no significant correlation between alcohol advertising and alcohol consumption among the respondents. Drawing on the findings and literature review, recommendations were made to government, the liquor industry and schools that participated in the study. Limitations of the study were identified and recommendations were made for the benefit of future research.

The primary and secondary objectives of the study were successfully realised in this study.

Key terms: Alcohol advertising, advertising bans, alcohol consumption, alcohol abuse, tobacco advertising, Vaal Triangle, consumer behaviour and Control of Marketing of Alcoholic Beverages Bill

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LIST OF ABBREVIATIONS

ADARU	Alcohol and Drug Abuse Research Unit
ARA	Industry Association for Responsible Alcohol use
DALY	Disability-adjusted life years
FCTC	Framework Convention on Tobacco Control
GATS	Global Adult Tobacco survey
GDP	Gross Domestic Product
GSHS	Global School-Based Student Health Survey
MRC	Medical Research Council
OECD	Organisation for Economic Cooperation and Development
RIA	Regulatory Impact Assessment
SABC	South African Broadcasting Corporation
SACCI	South African Chamber of Commerce and Industry
SAWIS	SA Wine Industry Information and Systems
WHA	World Health Assembly
WHO	World Health Organisation

CHAPTER 1: NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

In April 2012 the proposed Control of Marketing of Alcoholic Beverages draft Bill was leaked to the media (Parry, Burnhams & London, 2012: 602). The bill highlighted government's plans to consider total banning of alcohol advertising and permitting only notices limited to description of the price, brand name, type, strength and product composition. These notices must be accompanied by a health warning and the display of names and logos of alcohol beverages on delivery vehicles will also be prohibited. The proposal goes as far as prohibiting the linking of sports sponsorship to alcohol brand names (Parry *et al*., 2012: 602). In May 2012 government warned the interested stakeholders to refrain from reacting prematurely to the leaked bill, but however confirmed that the bill is still being considered by the inter-ministerial committee before being tabled in cabinet (Vollgraaff, 2013). This proposed bill obviously sparked a massive outcry from the liquor industry, sporting bodies and the advertising sectors.

The alcohol industry has since intensified its advertising of alcohol products and commissioned a study through Econometrix on the projected economic impact caused by total ban on alcohol advertising (Myers & Parry, 2013: 402). The commissioned report suggested that almost 12000 jobs and R7.4 billion from South Africa's GDP will be lost (Moorad, 2013). However, Parry *et al.* (2012: 603) suggest that the same argument was made when the total ban on tobacco advertising was proposed twenty three years ago whereas evidence suggests that a total ban on tobacco advertising decreased smoking rates in some groups and was not detrimental to the economy.

Issues of Alcohol policy were brought into the spotlight in 2005 when the World Health Assembly called upon the World Health Organisation to collaborate with member states to implement the effective policies and programmes in order to reduce harmful alcohol consumption (Parry, 2010: 1340). South Africa is among the countries with the highest consumption of absolute alcohol per drinker per year, the second highest category of harmful patterns of drinking and the highest category for

heavy episodic drinking (Parry *et al*., 2012: 602 cited from World Health Organisation). South Africa's annual adult per capita alcohol consumption was 9.5% litres of pure alcohol in 1995, as compared to the world average of 6.13 litres (Vollgraaff, 2013). Parry *et al*. (2012: 602) opines that about 130 people die daily from alcohol related causes, 46% from injuries, 35% from Tuberculosis and HIV/AIDS and 15% from non communicable diseases such as cardiovascular diseases; Alcohol abuse placed a heavy economic burden on the Health department to the tune of R6.1 billion in 2009. In 2012 about R2 billion was spent on alcohol marketing in South Africa with sports sponsorships accounting for 30%.

In September 2008, at a meeting attended by health ministers, the WHO Regional Director for Africa suggested a 10 point action plan aiming to mitigate harmful consumption of alcohol in Africa (Parry, 2010: 1340). The proposed strategies were: regulating availability, regulating marketing, restricting sales, increasing taxes, enforcing drinking and driving laws, strengthening alcohol information and surveillance systems, strengthening health sector response, increasing community action, raising political commitment and building partnerships.

This study seeks to investigate the inference as to whether a total ban on liquor advertising can be an effective instrument of social policy. In a United Kingdom study by Broadbent (2008: 746) that investigated whether advertising grow markets, the author suggested that the thesis that advertising creates desire remains unproven; therefore according to the study, banning or restricting advertising may be an ineffective instrument to alter consumer behaviour. This notion is supported by a previous study by Dorset and Dickerson (2004: 149). The study was investigating the relationship between advertising and alcohol consumption in the UK. The same study concluded that there is no statistical relationship between alcohol advertising and consumption for 18 – 24 and over 25 age groups.

Another study employing a dataset of a time series of cross sections for 17 Organisation for Economic Cooperation and Development (OECD) countries for the years 1977 to 1995 was conducted. The study found that advertising bans in those countries have not decreased alcohol consumption or alcohol abuse (Nelson and Young, 2001: 273). Overall, the empirical evidence in OECD countries indicated a very weak link between advertising bans and alcohol consumption. Despite this trail

of evidence, the influence of alcohol marketing on young people remains a highly contested topic. A study by Gordon, Hastings and Moodie (2010: 88) presented compelling evidence that alcohol marketing is directly impacting upon young people's drinking behaviour. A systematic review of cohort studies of over 13000 participants arrived at the same findings. Their study proved an association between prior alcohol advertising and marketing exposure and subsequent alcohol drinking behaviour in young participants.

1.2 PROBLEM STATEMENT AND SUBSTANTIATION

The research explores the relationship between alcohol advertising and consumer behaviour amongst the youth. Consumer behaviour can be defined as the behaviour displayed by consumers in searching for, purchasing, using, evaluating and disposing of products and services that are expected to fulfill their needs. Consumer behaviour focuses on how individuals make decisions to spend their resources such as time money and effort in a dynamic and changing marketplace (Wiese 2008: 125). Consumer behaviour research therefore, attempts to understand the buyer decision making process, both individually and collectively (Furaiji, Latuszynska & Wawrzyniak, 2012: 77).

The proposed Control of Marketing of Alcoholic Beverages draft Bill has sparked conflicting views from role players. The bill proposes plans by government to consider total banning of alcohol advertising and allowing only limited description of the price, brand name, type, strength and product composition. The proposal goes as far as prohibiting the linking of sports sponsorship to alcohol brand names (Parry *et al*., 2012: 602).

The liquor industry suggests that the proposed policy will be ineffective and put an unnecessary burden on the economy; on the other hand Alcohol and Drug Abuse Research Unit (ADARU) at the Medical Research Council (MRC) support the proposed legislation citing empirical evidence.

Studies in the UK have shown that the level of youth drinking between 2000 and 2006 has risen by 43.4% for 11 – 13 year-old boys and 82.6% for 11 – 13 year-old girls. Concomitant with this increase was a 20% rise in hospital admissions among the youth due to excessive alcohol abuse (Gordon *et al*., 2010: 89). The same study

presented compelling evidence that alcohol marketing is directly impacting upon young people's drinking behaviour (Gordon *et al*., 2010: 97).

Therefore this study seeks to investigate whether a relationship exists between alcohol advertising and consumption amongst the youth in the Vaal region. The objectives of the study are outlined below.

1.3 RESEARCH OBJECTIVES

Research objectives are divided into primary and secondary objectives

1.3.1 Primary objective

To determine the relationship between alcohol advertising and consumer behaviour among the youth in the Vaal Region

1.3.2 Secondary Objectives

- To explore factors that influence alcohol consumption among the youth;
- To measure the level of alcohol consumption among the youth; and to
- compare different advertising methods and their impact on alcohol consumption among the youth.

1.4 SCOPE OF THE STUDY

The study is within the scope of Marketing Management with specific attention on principles of advertising and consumer behaviour. The study took place in high schools of the Vaal region of Gauteng province, South Africa.

1.5 RESEARCH METHODOLOGY

1.5.1 Literature review

A complete review regarding advertising and related consumer behaviour was done. The sources that were consulted included:

- Library catalogue (NWU);

- Science direct;
- Sabinet online;
- SACat: National catalogue of books and journals in South Africa;
- Nexus: Databases compiled by the NRF of current and completed research in South Africa;
- SAePublications: South African journals;
- EbscoHost: International journals on Academic Search Premier, Business Source;
- Premier, Communication and Mass Media Complete and EconLit;
- Emerald: International journals;
- ProQuest: International dissertations in full text;
- Internet: Google Scholar;
- SAMEDIA: Newspaper articles; and
- Research in Marketing and Public Health.

The following keywords were used to search for information: *Alcohol advertising, advertising bans, alcohol consumption, alcohol abuse, tobacco advertising, Vaal Triangle, consumer behaviour and Control of Marketing of Alcoholic Beverages Bill.*

1.5.2 Empirical study

1.5.2.1 Research Approach

A quantitative research design was used in this study. This approach offered the researcher the flexibility to use structured data gathering methods necessary to capture the richness of the experiences of people who were involved in the research topic.

Considering the ontology and epistemology of the researcher, the author believes that the research approach is relevant to justify existing body of knowledge.

1.5.2.2 Research Strategy

A five scale Likert questionnaire was used as a data collection tool in this research. Data was collected from learners at schools in the Vaal Region aged between 14 and 24 years.

1.5.2.3 Research setting

The setting was at the selected high schools in the Vaal region. Questionnaires were designed in such a way that they were simple to answer and took less than 15 minutes to complete.

1.5.2.4 Sampling

A sample of 800 participants was used in this study, a total of 639 questionnaires were received back, representing a response rate of 79.88%; therefore the systematic homogeneity of the sample provided far more confidence that the conclusions adequately represented the average members of the population than does the sample of a randomly selected sample.

1.5.2.5 Data collection methods

1.5.2.5.1 Instruments

The instrument used to collect the primary data is a five scale Likert questionnaire. The tool was chosen because of its numerous advantages:

- Each respondent received the same questions.
- The process was identical for each respondent.
- Another advantage of a questionnaire is that it reduces errors made by an interviewer while recording the responses.
- A questionnaire guarantees confidentiality therefore the respondents act without any fear of embarrassment or victimisation.

The questionnaire was designed to be simple and the questions were straightforward. The questions were divided into three segments:

- Questions on demographic information.
- Questions on alcohol consumption pattern.
- Questions on perceived or real experiences relating to alcohol advertising and consumption.

1.5.3 Data analyses

The Statistical Package for Social Sciences computer program was used to analyse the data using the services of the Statistical Consulting Services of the North West University.

1.5.4 Strategies employed to ensure quality data

- *Pilot study*

  A pilot study was conducted prior to the main study in order to correct any ambiguities while presenting an opportunity to refine questions on the questionnaire.

- *Transferability*

  Through detailed description the readers will be afforded an opportunity to make decisions regarding transferability. This will enable them to transfer information to other settings and to determine whether the findings can be transferred because of shared characteristics.

- *Statistical methods*

  Statistical methods in the form of Cronbach's alpha coefficient and Factor analysis were also used to test reliability and validity of the data. Pearson's product-moment correlation coefficients of constructs related to alcohol advertising were also outlined.

1.5.5 Reporting

A scientific reporting style was used to report the findings of this research. Scientific explanations aim to be formal, logical and where possible mathematical. The report is paradigmatic and logico-scientific in mode of thought.

1.5.6 Ethical considerations

- Participation in the study was voluntary. Participants were given an option of abstaining from the study if they so wished.
- Respondents remain anonymous and cannot be identifiable.
- Individual information will be kept confidential.
- Participants were fully informed about the research objectives.
- All the possible ethical implications that could have an influence on the research were considered.
- Ethical clearance was requested from the Ethics committee since the study involves minors and may include sensitive questions.

1.6 EXPECTED CONTRIBUTION

To stakeholders

The study will attempt to clarify dissenting views that came as a result of the proposed Control of Marketing of Alcoholic Beverages draft Bill.

To literature

The study will add to the body of knowledge in the field of Marketing. Current studies and reviews are mostly based on research conducted in other countries such as the UK, USA and Canada. This study will build towards a local knowledge base. The findings will serve as a benchmark for future studies as the debate may continue into the future.

To government

The findings of the study will be useful in public participation forums if the government deems it fit to consult the public before the bill is finalised.

To schools

Results will be made available to participating schools. Should the study highlight any social problem areas, the information will help school principals in having more informed intervention strategies.

1.7 LIMITATIONS OF THE STUDY

The sample of the study only included youth between the ages of 14 and 24 years. More results could be drawn if the sample included the youth between ages of 11 and 35.

The study utilised a sample size of only 800 participants; future studies should include a much larger sample in order to increase the validity and reliability of the results. The study methodology is quantitative. A more qualitative study will be appreciated for future studies in order to capture the social impact of alcohol abuse that might not have been tapped using a structured quantitative approach.

1.8 LAYOUT OF THE STUDY

The following layout of the dissertation was used:

Chapter 1: Nature and scope of the study

This section outlined the introduction, background, problem statement, objectives, research questions, methodology, validity and reliability, significance of the study, limitations, ethical considerations and plan of the research.

Chapter 2: Literature review

A literature review that focuses on the theory of alcohol advertising, its economic impact, the liquor industry landscape and current legislation was outlined in this section.

Chapter 3: The research methodology

This section outlined the research design, population, sampling, data collection and data analysis.

Chapter 4: Research results and discussion

In this section the empirical findings were interpreted and summarised.

Chapter 5: Conclusion and recommendations

Conclusions and recommendations of the research study were outlined in this section.

1.9 SUMMARY

In this chapter an introduction of the nature and scope of the study was outlined. The theoretical background of the study as well as the problem statement, research objectives, research methodology, expected contribution and limitations were introduced. The chapter also outlined the layout of the study, with the description of each chapter.

In the next chapter the theoretical overview and literature review of the study is outlined.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

A literature review is defined as the use of ideas in the literature to justify a particular approach to the topic, the selection of methods, and demonstration that the research will offer something new to the body of knowledge. Literature review facilitates theory development, closes areas where plethora of research exists and uncovers areas where research is needed (Ellis & Levy, 2006: 181). Other reasons why a literature review is important are:

- To provide the researcher with important facts about the subject under study.
- To provide the researcher with information about aspects of the problem which have not been explored before.
- To gain insight regarding weaknesses and problems of previous studies.
- To allow the researcher to relate findings and conclusions of past studies to his own findings and conclusions (Welman, Kruger and Mitchell, 2007: 39).

The following topics will be explored in this chapter:

- **Background**, to expose the problems caused by alcohol consumption; its possible link with alcohol marketing and how the problem is tackled both locally and globally.
- **Alcohol advertising**, to define advertising as it relates to the alcohol industry and a synopsis of the costs incurred.
- **South African liquor industry**, to present a summary of the economic contribution of the liquor industry to the GDP. This will assist in understanding possible economic implications of the proposed ban of alcohol advertising.
- **South African liquor policy**, to understand legislative policy that relates to the alcohol industry.
- **Advertising bans in the tobacco industry**, to trace possible successes and/or failures from the regulation of tobacco advertising and to relate them to proposed regulation of liquor advertising.

- **The relationship between alcohol advertising and consumption**, to explore previous studies that relate to the main objective of this research.
- **Alcohol advertising and the youth**, to investigate the approach of the alcohol liquor industry to the lucrative youth market and if such a possible marketing strategy influences behaviour.

2.2 BACKGROUND

Alcohol consumption is responsible for 3.8% of global deaths and 4.5% of injuries and diseases across the globe as measured using the disability-adjusted life years (DALY) lost (WHO report, 2011: 2). Alcohol use has been associated with other substance use, crime, unintentional injuries, fights, suicidal attempts and risk of contracting HIV (Swahn, Ali, Palmier, Sikazwe and Mayeya, 2011: 1; MMWR, 2013). The damages attributable to alcohol consumption are comparable to those of tobacco worldwide and alcohol consumption is the largest contributing factor of injury and disease in the world (WHO report, 2011: 2). According to a US Department of Health and Human Services report, excessive alcohol consumption was responsible for an estimated 4700 deaths of youths aged <21 years each year between 2001 and 2005 (CDC, 2012).

The Minister of Social Development of South Africa, Bathabile Dlamini commented: "The tangible cost to the country of alcohol related harm across government departments have been estimated at around R38 billion, while research indicates that the intangible costs could be as high as R240 billion." (Harrison, 2013).

Whereas 65% of the South African population have never consumed alcohol, South Africa's annual adult per-capita alcohol (APC) consumption was 9.5 litres of pure alcohol in 2005 as compared to the world average amount of 6.13 litres and the regional average for Africa being 6.2 litres APC (Vollgraaff, 2013; Fieldgate *et al*., 2013: 23). Liquor producers do profit substantially from their customers' habit of heavy drinking but this places an enormous burden on the national Department of Health fiscus (Parry *et al*., 2012: 602). In 2009, the economic costs as a result of alcohol on the provincial and national Department of Health amounted to R6.1 billion and R0.5 billion respectively (Budlender, 2009).

As a result of similar alarming statistics globally, in 2005 the WHO Member states adopted a report and a resolution at the fifty-eighth World Health Assembly (WHA) on Public Health Problems Caused by the Harmful use of Alcohol requesting Member States "to develop, implement and evaluate effective strategies and programmes for reducing the negative health and social consequences of harmful use of alcohol." (WHO report, 2011:3). According to the research reviews commissioned by WHO the ten best practices to reduce alcohol related harm are:

- Setting a minimum legal age to buy alcohol;
- Government monopoly of retail sales;
- Restrictions of hours and days of sale;
- Restrictions on the density of sales outlets;
- Taxes on alcohol;
- Sobriety checks;
- Lowered limits for blood alcohol concentration;
- Administrative suspension of licenses for driving under the influence of alcohol;
- Graduated licensing for novice drivers (i.e. issuing of licenses with limitations such as zero alcohol concentration); and
- Brief interventions for hazardous drinkers.

However the same review concluded that alcohol control policies which are highly effective and cost effective are those that require legislation to implement; they include alcohol taxation, restrictions on availability, minimum age provisions, measures against drunk-driving, and reducing exposure to alcohol marketing (WHO, 2011: 3). These conclusions by the WHO are contrary to the current alcohol industry's preference of self regulation as compared to legislation. Self regulation has been shown to be an ineffective method of intervention of reducing alcohol related harm (Jones, Hall, & Munro, 2008).

This study explores an association between alcohol advertising and consumption.

2.3 ALCOHOL ADVERTISING

According to Kotler & Armstrong (2012: 460), advertising can be defined as any paid form of non-personal presentation and promotion of ideas, goods and services by an identified sponsor. Van Rensburg (2002: 158) suggests that the message of advertising can refer to any need-satisfying products, service or idea aimed at a specific target audience with the purpose of informing, persuading or reminding the audience. In the past 50 years alcohol marketing has expanded exponentially and developed in sophistication (Caswell, 2011: 466). Kotler & Armstrong (2012: 564) opine that an average household in the US receives more than 118 television channels, and consumers have access to more than 20 000 magazines to choose from. Advertising can therefore succeed only if advertising gains attention of consumers through these forms of media. Alcohol marketing is not confined within national boundaries due to the presence of the internet that provides interactive environments between consumers and companies via websites and social media (Caswell, 2012: 107).

Marketing and advertising of alcohol enjoys a budget of billions of rands throughout the world. According to the US Centre on Alcohol Marketing and Youth (2010), the alcohol industry spent an estimated $6 billion or more on advertising and promotion alone in 2005. In South Africa alone, in 2012 about R2 billion was spent annually on alcohol marketing with 30% of this amount spent on sports sponsorships (Paton, 2012).

Broadbent (2008: 746) suggests that the thesis that advertising creates desire remains unproven. Broadbent therefore suggests that banning or restricting advertising may be an ineffective instrument of social policy.

2.4 THE SOUTH AFRICAN LIQUOR INDUSTRY

The South African liquor industry encompasses the manufacture, marketing and distribution of wine, spirits and beer. The industry has been shaped by the domestic environment in which it operated for decades and more recently, by opportunities and influences on a global platform (Naumann, 2005). The South African liquor industry is a major role player in the South African economy in the form of

employment and income to thousands of households, government tax revenue and export earnings for South Africa.

According to a 2013 report by Industry Association for responsible alcohol use (ARA), the South African liquor industry contributes 4.4% to South Africa's gross domestic product (GDP); i.e. the operations and capital expenditure of an estimated R 94.2 billion. In 2009, SAB alone contributed R66.2 billion or 3.1% to the South African GDP. During the 2009/10 financial year, SABMiller paid R10.2 billion in tax revenue to the National Treasury in the form of corporate taxes, employee's personal income tax, consumers' VAT and excise duties. This accounted for 1.7% of government's total tax revenue for the same financial year (Fieldgate *et al*., 2013).

SABMiller holds approximately 95% of the market share in the clear beer market segment in South Africa. The company's global annual sales as at 31 March 2004 amounted to US$ 12.6 billion (R75 billion), to which South Africa beer operations contributed almost US $2billion (R12 billion) (Naumann, 2005: 7). This excludes revenue from the company's equity in the soft drinks industry, Appletiser South Africa and the Distell Group.

ARA reports that the wine industry alone contributes an estimated R26.2 billion to the GDP, 54% of which remains in the Western Cape. According to SA Wine Industry Information and Systems (SAWIS), the wine industry is responsible for creating 275 000 jobs as of 2009; most of them in trade, catering, accommodation and transport sectors (Fieldgate *et al*., 2013: 2). The wine manufacturing industry directly employs around 16 000 workers. The total turnover of the wine industry was R19.2 billion in 2009 and another R4.3 billion was generated indirectly through tourism. Table 1 summarises the 2009 key statistics of the South African liquor industry.

Table 1: Key statistics of the South African liquor industry (Source: ARA)

Value of domestic liquor sales in 2008/9	R53.3 billion
Contribution of malt beer to total liquor sales	51%
Excise duties paid by the liquor industry during 2009/10 FY	R10 billion
Liquor industry's share in total excise tax collected in South Africa	47%
Taxes paid to government	R34.7 billion
Estimated number of employees in the liquor industry	21 300
Employment (direct and indirect)	522 500
Contribution to SA's balance of payment – net exports in 2008	R3.8 billion
Growth in liquor exports since 2000	253%

South Africa is a net exporter of liquor valued at almost R5 billion in 2003 with exports contributing almost R3.9 billion and imports contributing R1.1 billion. Imports grew by 51% in nominal terms between 1999 and 2004 whereas exports recorded a 156% gain. South Africa's key liquor export is wine and it accounts for almost 90% of total liquor exports; followed by 6% of beer exports, 5% of spirits and about 1% of other fermented beverages (Naumann, 2005: 9).

2.5 SOUTH AFRICAN LIQUOR POLICY

Alcohol policy issues were brought to the attention of the world in 2005 when the World Health Assembly (WHA) called upon the WHO to collaborate with member states to promote effective policy implementation and programmes to reduce harmful alcohol consumption (WHO, 2005). The report highlighted alarming extend of public health problems associated with harmful consumption of alcohol and the trends of hazardous drinking especially among the youth in many parts of the world.

In September 2008, at a meeting attended by health ministers, the WHO Regional Director for Africa suggested a 10 point action plan aiming to mitigate harmful consumption of alcohol in Africa (Parry, 2010: 1340). The proposed strategies were: regulating availability, regulating marketing, restricting sales, increasing taxes, enforcing drinking and driving laws, strengthening alcohol information and

surveillance systems, strengthening health sector response, increasing community action, raising political commitment and building partnerships.

In May 2010 the Global Strategy to Reduce the Harmful Use of Alcohol was adopted at the WHA after a thorough consultative process (WHO, 2011: 3). In light of this global strategy, many countries are developing alcohol policies and action plans supported by legislation to give effect to these policies.

A WHO guide to developing effective alcohol legislation (WHO, 2011) suggests that prevention strategies such as education and persuasion are not as effective when compared to population based policy measures such as taxation and brief interventions. Parry (2010: 1345) suggests that it is essential for South Africa to have a comprehensive national alcohol strategy that cuts across different sectors (health, social welfare, crime prevention and trade and industry) and being supported by a broad grouping of stakeholders. Parry further alludes that alcohol policy in South Africa appears to be marred by competing interests, values and ideologies.

The liquor industry in South Africa is guided mainly by the Liquor Act 59 of 2003. The Act covers predominantly manufacturing and distribution aspects. Other related legislations are the National Liquor regulation of 2004 which relate to the procedures for legislation of liquor entities and other related matters as required by the Liquor Act 59 of 2003. The National department of Agriculture Draft Liquor Amendment Bill deals with issues such as geographical indications and inspection of premises (Naumann, 2005: 26).

Parry (2010) identifies four specific policy areas that drive alcohol policy in South Africa; they are: restrictions on alcohol advertising and counter advertising (driven by the Department of Health), regulation of retail sales of alcohol (driven by Department of Trade and Industry and provincial Departments of Economic Affairs), alcohol taxation (Ministry of Finance) and controls of alcohol packaging (Department of Agriculture).

2.5.1 Restrictions of alcohol advertising and counter-advertising

From as early as 1997, the Department of Health (DOH) considered mandating warning labels on alcohol products and implementing restrictions on advertising.

In October 1997, the DOH held a consultative meeting that considered measures that went beyond warning labels to include restrictions on the time of day alcohol advertisements can be shown on television, limits on sports sponsorships and more forms of counter advertising (Parry, 2010: 1341). Counter advertising refers to advertising that counters that of another advertisement, in this case an alcohol product.

On 18 September 2013, Cabinet approved the Control of Marketing of Alcohol Beverages Bill. The bill's objective is to diminish high levels of alcohol abuse in South Africa by banning advertising, sponsorship, and promotion of alcohol beverages (Loeser, 2013). The motivation behind the bill according to the Inter-Ministerial Committee (IMC) on combating alcohol and substance abuse is because alcohol is reported to rank third on the list of risk factors leading to death and disability while other statistics point to a strong link between alcohol consumption and violent deaths, including those resulting from domestic conflict and suicide. In addition, significant number of people arrested for robbery, assault, rape and weapons-related offences are found to be under the influence of alcohol (Smith, 2013). Other factors that may have prompted drafting of the bill are reflected in a study by Gallet and Andrés (2011). The study found that the probability of alcohol advertising restrictions is higher in countries with higher life expectancy, higher per capita income, higher youth population and having a majority of the population that is Muslim. South Africa falls in a category where there is a high youth population. Stanlib reported that the average age of South African population is 24.9 which is one of the lowest in the world where an average age is 29.1 years. Countries such as Japan have an average age of 44.7 years (Stanlib, 2014).

The South African Chamber of Commerce and Industry (SACCI) is opposed to the proposed bill because they are of the opinion that the proposed bill will not only have a negative effect on the liquor industry and the economy but will also have negative effects on other related industries such as advertising, retail and hospitality (Smith, 2013). SACCI suggests that alcohol abuse is a symptom of more serious socio-economic and unemployment challenges and that the proposed bill will not produce desired results (Harrison, 2013). Communications minister, Yunus Carrim, has also expressed concern about the potential loss of revenue the South African Broadcasting Corporation (SABC) may suffer due to a ban on advertising.

The department of Sports and Recreation is also concerned about the severe consequences a ban may have on the development of sports in South Africa (Ensor, 2013). SAB is the official sponsor of national rugby (Springboks) and soccer (Bafana-Bafana) teams; it has been involved in supporting South African sport since the late 1950's and has contributed to the socio-economic development of local communities through sponsorships (Smith, 2013). Future support of the SAB will therefore depend on the implications of the legislation as and when the president signs it into law.

The alcohol and advertising industry are strongly against the proposed legislation, citing the huge economic costs that the legislation will bring and the assumption that it is not clear whether the legislation will achieve what it intends to achieve. As a result the ARA commissioned a study by Econometrix to investigate the likely economic impact of the proposed legislation (Van Walbeek & Daly, 2014: 7). The report was published in March 2013 and its findings will be discussed at a later stage of this study.

Currently the Department of health has commissioned an Independent Regulatory Impact Assessment (RIA) to look into the economic and societal impact of the bill (Loeser, 2013; Ensor, 2013). This step implies that there will be a considerable delay in the processing of the bill. The outcome of the assessment could help in settling different views between the Departments of Health and Social Development and the economic departments which are concerned about the economic impact that a ban could bring (Ensor, 2013).

2.5.2 Regulation of retail sales of alcohol

The new government of post apartheid South Africa inherited a liquor sector in which 70% of the outlets (shebeens) were unlicensed. The DTI then came with a comprehensive policy and bill to revamp the liquor trade radically (Parry, 2010: 1341). In 2003 the DTI introduced a revised National Liquor Bill which provided legislation especially for provinces that did not yet pass their own legislation. The bill contained, among other things, broad restrictions on the sale of liquor to individuals aged less than 18 years of age, and a provision for the Minister of Trade and

Industry to prescribe public health notices to be displayed at points of sale (Parry, 2010: 1341).

2.5.3 Alcohol excise taxes

Excise tax calculations are based on a percentage of the retail sales price of the product, with the percentage being higher for products having higher absolute alcohol content (Parry, 2010: 1343). A study by Econex suggested that an increase in excise taxes discriminate against moderate drinkers of alcohol. The study estimated that about 87.26% of the total excise tax collected by National Treasury is paid for by the moderate drinkers whilst at-risk drinkers pay only 12.74%. Moderate drinkers only contribute 29.7% of alcohol related problems whereas at-risk drinkers contribute 44.20% of problems (Venter, 2011: 2).

ARA is also of the view that a policy based on high taxes has limited effects in controlling the consumption of liquor due to unfavourable demand / price elasticity (Naumann, 2005: 30). ARA shares the same view as Econex that increased excise taxes as a means of moderating consumption imposes an unfair burden on responsible drinkers.

The liquor industry is also opposed to increases in excise taxes and it claimed that jobs would be lost; but National Treasury was convinced that it could raise revenue while supporting a public health agenda and bringing alcohol taxation levels in line with international benchmarks (Parry, 2010: 1343).

2.5.4 Controls of alcohol packaging

In 2007, legislation preventing the sale of alcohol in bags that were not resealable and that were not self supporting was passed. The legislation also limited the maximum capacity of alcohol containers to 5 litres (Parry, 2010: 1343). The purpose of this legislation was to address the detrimental health effects of cheap packaging of alcohol products.

2.6 ADVERTISING BANS IN THE TOBACCO INDUSTRY

Tobacco Products Control Amendment Act 12 of 1999 that outlawed tobacco advertising in 1991 became the benchmark to commentators of the proposed Control of Marketing of Alcohol Beverages Bill. Proponents of the proposed alcohol legislation therefore indicate that tobacco legislation offers a good example of how alcohol legislation could play itself out (van Walbeek & Daly, 2014: 47). The Econometrix report of March 2013 differs with this view by alluding that the industry structures of the two are too different to compare the anti-competitive effects of the two legislations. Van Walbeek and Daly (2014: 47) however, argue that there are substantial commonalities between tobacco and alcohol such as:

- Psychoactive and addictive properties of both tobacco and alcohol.
- Both are subjected to excise taxes because of the substantial negative externalities they impose on society.
- Both have a detrimental effect on health, albeit for tobacco the damage takes long to manifest whereas with alcohol the damage can be as a result of long term use or can be acute.
- There exists a substantial overlap in ownership of the large tobacco and alcohol conglomerates.

As early as 1964 the United States Surgeon general warned of the causal relationship between cigarette smoking and smoking related diseases, especially lung cancer. This became the most important event in the history of tobacco control (Blecher, 2008: 1). Tobacco smoking epidemic is responsible for 5.4 million deaths per annum on a global scale including more than 600 000 non smokers (WHO, 2008). The annual death toll due to tobacco is projected to exceed 8 million by 2030 with more than 80% of this deaths occurring in less developed nations and rapid developing economies such as China (WHO, 2008).

As a result of this bleak picture, in 1999 the World Health Organisation (WHO) established the Framework Convention on Tobacco Control (FCTC). On the 21st May 2003 this framework was fully endorsed by member states of the WHO (Yang *et al*., 2011: 122).

The WHO FCTC is an evidence based treaty that reaffirms the rights of all people to have the highest standard of health. The WHO FCTC (2003) addresses issues related to:

- Price and tax measures to reduce the demand for tobacco
- Non-price measures to reduce the demand for tobacco, namely:
  - Protection from exposure to alcohol smoke
  - Regulation of the control of tobacco products
  - Regulation of tobacco control disclosures
  - Packaging and labeling of tobacco products
  - Education communication, training and public awareness
  - Tobacco advertising, promotion and sponsorship
  - Demand reduction measures concerning tobacco dependence and cessation
- Core supply reduction provisions such as:
  - Illicit trade in tobacco products
  - Sales to and by minors
  - Provision of support to economically viable alternative activities.

Casswell (2012: 482), suggest that while the goals for regulating alcohol consumption are to reduce harm and those for tobacco are to eliminate usage, there is nevertheless the need to implement similar policies as far as restriction of alcohol marketing is concerned.

When the Tobacco Product Control Amendment Act of 1999 was passed, there was strong opposition by the tobacco and advertising industries (Van Walbeek & Daly 2014: 48). The following arguments were presented by those opposed to the legislation:

- That the ban on tobacco advertising would constitute a breach of the right to speech, a right entrenched in the constitution.
- That a ban on tobacco advertising and sponsorship would move South Africa along the path of a ‘nanny state’ and ‘state paternalism’ in which government would eventually ban anything that it deems unsafe or unhealthy.

- That the advertising agencies should be allowed to regulate themselves and that government opts for educating the citizens about the detrimental effects of tobacco rather than banning tobacco advertising and promotion.
- That the relationship between advertising and tobacco consumption is not strong. The tobacco industry further argued that they advertise to gain or maintain market share as opposed to increasing the total number of smokers. Tobacco advertisements were aimed at existing smoking adults, and not non-smokers, they argued.
- That a ban on advertising would damage the performance of the new entrants and small existing firms while entrenching companies that hold a major market share such as Rembrandt which had 85% market share at the time. British American Tobacco SA had only 10% market share.
- That a ban would ultimately cause financial problems, resulting in retrenchments and putting the viability of some advertising agencies at risk.
- That a ban would have negative on major sports and culture events. The most likely events to be affected at the time were: the Peter Stuyvesant music extravaganzas, the Rothmans Durban July Handicap in horse racing, the Rothmans Cup in soccer, the Benson and Hedges Night cricket series and the Dunhill cup in golf (Van Walbeek & Daly 2014: 49).

The arguments presented above are pretty similar to those presented by those opposed to the proposed Control of Marketing of Alcohol Beverages Bill. An Econometrix report of March 2013 presented similar arguments in a report commissioned by Industry Association for Responsible Alcohol use (ARA).

Considering the effect of advertising bans on tobacco consumption over the years, literature proves that there was a decrease of tobacco consumption following tobacco advertising bans (Blecher, 2008; Saffer & Chaulopka, 2000; WHO, 2013).

A study by Saffer and Chaulopka (2000: 1134) on the effect of tobacco advertising bans on tobacco consumption in OECD countries found that comprehensive advertising bans on tobacco advertising reduces consumption whereas limited set of advertising bans have little or no effect. This implies that governments need to take a radical stance in tobacco advertising policy if a reduction in smoking patterns has to be realised. In the same study, empirical data proved that comprehensive advertising

bans reduce tobacco consumption by 6.3% and cigarette consumption by 7.9%. However the same study by Saffer & Chaulopka (2000: 1135) further suggested that a ban on outdoor advertising as proposed by the US tobacco industry settlement will have little effect on consumption. Under the proposed settlement, print advertisement, point of sale advertising and sponsorships will be excluded from banning regulations.

A study by Blecher (2008) confirmed findings of a prior study by Saffer & Chaulopka (2000). Blecher (2008: 13), in a study about the impact of advertising bans on consumption in developing countries found that comprehensive bans on tobacco advertising have a significant negative impact on tobacco consumption. The study found that an imposition of a comprehensive ban resulted in a 6.7% decline in per capita consumption. This finding is in agreement with earlier findings by Saffer & Chaulopka (2000) which estimated a reduction of 6.3% in consumption. Blecher's study also confirmed that partial bans have no significant impact on consumption.

A progress report by WHO on the global tobacco epidemic (WHO 2013) indicated that in 2007 there was a mere 2.4% of people worldwide (170 million people in 8 countries) who were protected by complete bans from tobacco advertising, promotion and sponsorship. In 2012, this number increased to 694 million (10% of world population) people protected in 24 countries. Out of all the countries of the world, Turkey was the only country that protected its 75 million people with all the five tobacco control measures at the highest level according to WHO MPOWER measures. The five measures are:

- Protecting people from the harm of tobacco use
- Offering help to quit tobacco use
- Warning about the dangers of tobacco
- Enforcing bans on alcohol advertising promotion and sponsorship
- Raising taxes on tobacco

Turkey was the first country in the world to complete data collection for the Global Adult Tobacco survey (GATS) in 2008 and it repeated the survey in 2012. Data from GATS show that smoking prevalence in Turkey decreased significantly from 31.2%

(16 million) in 2008 to 27.1% (14.8 million) in 2012; a 13.4% relative decline of 13.5% males and 13.7% females.

2.7 THE RELATIONSHIP BETWEEN ALCOHOL ADVERTISING AND CONSUMPTION

In March 2013, Econometrix released a report commissioned by Industry Association for Responsible Alcohol use (ARA) to investigate the possible economic impact of the proposed Control of Marketing of Alcohol Beverages Bill. ARA's members include SAB; South African Liquor Brand Owners Association (which includes Distell, Brandhouse, KWV, Douglas Green Bellingham and The Really Great Brand Company), Edward Snell and Co, VinPro and Wine Cellars South Africa (Vollgraaff, 2013). The findings of the report were that:

- There is no relationship between advertising expenditure and the consumption of alcohol. The report argues that efforts to reduce per capita alcohol consumption by means of regulating or banning liquor advertising may be ineffective.
- In theory the most effective approach to reduce total alcohol consumption will be to raise the price of alcohol by means of tax on condition that the illegal alcohol market is under control. The study argues that 26% of alcohol consumed in South Africa is unrecorded and therefore intervention policies such as tax increases may not be effective in South Africa.
- There is no reliable research that can effectively trace the effect of an ad from exposure to subsequent consumption behaviour. The study concluded that literature investigating the influence of advertising on alcohol consumption is mostly contradicting. Econometric, cross-sectional, regression models, longitudinal, pooled data and case studies that were used in the report contradict each other therefore inconclusive because of failure to prove a causal relationship between alcohol marketing and aggregate consumption and harmful drinking behaviour.
- There are many complex and interrelated determinants of individual behaviour that are difficult to establish. The study suggests that parental education, poverty, unemployment and peer pressure are much more influential on drinking patterns.

- Econometrix further suggested that the proposed legislation will have a negative impact on the economy. An amount of R7.4 billion will be lost on GDP; 11,954 jobs will be lost; National Treasury will lose an amount of R1.783 billion in taxes; export figures will fall by an amount of R225 million while imports fall by R304 million (Fieldgate *et al.*, 2013).

Myers and Parry (2013: 404), in a study entitled '*Re-examining the evidence for a total ban on alcohol advertising in South Africa*', opine that the Econometrix report exaggerate the economic effects of an alcohol ban on advertising. The economy will not be as affected as Econometrix project; as consumers are likely to spend their money on other products if they happen to reduce their alcohol purchases. Myers & Parry suggest that the long term public health benefits of delaying alcohol use among the youth will far outweigh the potential costs to the economy.

Econometrix report of 2013 March supports findings by Nelson and Young (2001: 293) which found that empirical studies do not support the proposition that bans of broadcast advertising of alcohol beverages will reduce consumption or alcohol abuse. Nelson and Young present an evidence gathered in 17 OECD countries that a complete ban on broadcast advertising of all alcoholic beverages has no effect on consumption as compared to countries that did not ban broadcast alcohol advertising. The study also suggest that the results gathered fail to provide evidence that advertising bans have a significant negative effects on alcohol abuse outcomes, including mortality due to liver cirrhosis and road fatalities.

However, a study by Smith and Geller (2009) on marketing and alcohol related fatalities arrived at a different conclusion compared to that of Nelson and Young. Smith and Geller (2009:362) found that the alcohol industry targeted youth in their alcohol advertising; as a result this strategy not only led to higher rates of drinking by the youth, but resulted in deadly traffic crashes. The study argues that the 26 states in the US that had legislation prohibiting alcohol advertising targeting minors experienced a 32.9% decrease in alcohol-related road fatalities for youth aged 15-20 years in single vehicle crashes as compared to states that had no similar legislation.

Grieveson and Djafarova (2013) conducted a study on alcohol advertising and young adults binge consumption. The study found that binge drinkers are not necessarily

exposed to too much television advertising as other studies suggest. Grieveson and Djafarova (2013: 42) observed in their study that advertising may influence decisions to drink alcohol but not binge drinking behaviours. What influences binge drinking may be social and hedonistic influences as opposed to alcohol advertising exposure. Therefore Grieveson and Djafarova suggest that a ban on alcohol advertising may not necessarily help in alleviating alcohol related problems or be beneficial enough.

2.8 ALCOHOL ADVERTISING AND THE YOUTH

Literature suggests that exposure of the youth to alcohol advertisements influence the age at which they start drinking and their drinking behaviour. Henriksen *et al*. (2008) found that receptivity to alcohol marketing predicted initiation of alcohol usage among the youth in grade six, seven and eight. As compared to students who reported minimal receptivity to alcohol marketing, the possibility of initiation to alcohol consumption increased by 77% to students who reported high receptivity.

Swann *et al*. (2011) conducted a study among Zambian youth that investigated the association between alcohol marketing, drunkenness and problem drinking using the 2004 Global School-Based Student Health Survey (GSHS). Their study found that exposure to alcohol marketing through billboards did not have much impact in influencing current alcohol use and drunkenness. However, a strategy used by alcohol companies by offering free drinks to the youth significantly increased reports of alcohol use, drunkenness and problem drinking. Swann *et al*. laments the fact that SABMiller, the world's second largest brewer, is exploring the relatively untapped African market to increase its market share and drive sales and profits estimated to be worth more than $ 3 billion. With the expansion of large alcohol companies into Zambia and other African countries, governments will need to address issues of alcohol marketing and policy (Swann *et al*. 2011: 6).

A study on the exposure of adolescents and young adults to alcohol advertising in Brazil (Pinsky *et al*., 2010) found that both adolescent and young adults reported high exposure to alcohol advertising and promotion. Of concern is that adolescents were more exposed to alcohol advertising and promotion than their older counterparts. The study also found a significant association between alcohol promotion and HID (High Intensity Drinkers). This finding may be interpreted in two

ways. Either alcohol promotion influences heavier alcohol consumption among the youth or those drinking more tend to visit places where alcohol promotion is done more frequently. In 2007 the Brazilian Ministry of Health launched a campaign that restricts alcohol advertising. The campaign was not a robust one and thus far it did not yield any significant results. The results by Pinsky *et al.* (2010: 56) show that self regulation has not been effective in restricting alcohol marketing strategies targeted at young people in Brazil. These findings confirm earlier studies by Saffer & Chaulopka (2000) and Blecher (2008) that proved that partial bans have no significant impact on consumption.

A similar study to that of Swahn *et al.* (2011) was conducted among students in the Philippines by Swahn, Palmier, Benegas-Segarra & Sinson (2013). The study found that exposure to alcohol marketing through seeing actors drinking alcohol on TV, alcohol advertising during TV sports, billboards, possessing paraphernalia with an alcohol brand logo, and being offered free alcohol by an alcohol company representative were associated with increased reports of current alcohol use. The study found that all forms of alcohol marketing exposure except for print media significantly increased risk for report of drunkenness. Swahn *et al*. (2013) echoes the same concern as Swahn *et al.* (2011) regarding the provision of free alcohol to the youth by alcohol companies. Marketing strategies employed by alcohol companies in the Philippines appear to be reaching a relatively large population of the youth. Swahn *et al*. indicate that alcohol marketing strategies aimed directly at children have been banned in other countries and that stricter policies to prevent underage alcohol advertisements in the Philippines are needed.

A cross sectional study conducted in the UK by Gordon, Harris, Mackintosh & Moodie (2009) is consistent with findings by Swahn *et al.* (2011), Swahn *et al.* (2013), Pinsky *et al.* (2010) and Henriksen *et al*. (2008) that there is a strong association between alcohol marketing and drinking behaviour. Gordon *et al.* (2009) found that there are different levels of awareness for different marketing channels. For the entire sample of 920 respondents, awareness was high for TV advertisements (77%), branded clothing (66%), sports sponsorship (61%) and price promotions (60%). The study found that being aware of more alcohol marketing channels and liking alcohol advertisements increased the odds of being a drinker by 12% and 31% respectively. Greater awareness of advertisements and promotions

and greater liking of alcohol adverts increased the odds of being a drinker by 137% and 28% respectively. The same study found that the more alcohol channels the respondents were aware of and the better their liking of alcohol advertisements, the more likely they would drink alcohol in the next year. A greater intention to drink was proven to be significantly associated with a greater perception that others consider it OK to try drinking. Of much interest was the finding that greater liking of school was associated with lower intention to drink in the next year (Gordon *et al.* 2011: 71).

Studies by Gordon *et al.* are corroborated by those of Lin, Caswell, You & Huckle (2011). Lin *et al*. (2011) went further to study the influence of marketing through the digital media on the youth. The fast expanding digital media have been shown in the study to have strong association with drinking status of the youth. Prior studies such as those by Gordon *et al.* (2009) concentrated more on traditional marketing channels. However Lin *et al.* (2011) found that awareness and engagement with digital media was less widespread as compared to traditional media. Even though awareness of digital media was less widespread, the study found that young people who engaged with traditional alcohol were 51% more likely to have drunk alcohol in the past 12 months whereas those who engaged with web-based alcohol marketing and social network sites were 98% more likely to have drunk alcohol in the past 12 months. Results of the study also confirmed the importance of family and friends' approval and drinking status on young people's drinking (Lin *et al*., 2011: 333).

2.9 CONCLUSION

The literature review carried out in this chapter revealed that two divergent views are held regarding the relationship between alcohol advertising and alcohol consumption. The study drew a picture of the South African liquor industry and the enormous contribution the industry injects into the fiscus. However the study also highlighted the dangers that alcohol consumption poses globally according to several WHO reports; necessitating an urgent need for policy crafting and implementation of alcohol regulation by world governments.

In response to this call by the WHO, South African lawmakers have proposed a Control of Marketing of Alcohol Beverages Bill that sparked conflicting opinions from different sectors of the citizenry. Literature further outlined that more researchers

agree that the youth is to a larger extend more exposed to alcohol advertising against the impression made by proponents of self regulation policy. Jones & Jenigan (2010: 4) in an editorial entitled *Alcohol advertising, marketing and regulation,* made the following summation: '*At the very least, policy makers need to acknowledge that the evidence from around the globe clearly demonstrates that self-regulation has failed and that there is a need for comprehensive and consistent government regulation of alcohol advertising*'. But the biggest question to be answered is this: Is there an association between advertising and behaviour?

Therefore this study investigates the association between alcohol advertising and consumption by the youth aged 14 – 24 years. In the following section empirical research in the form of research methodology and results is presented.

CHAPTER 3: EMPIRICAL RESEARCH METHODOLOGY

3.1 INTRODUCTION

The aim of this chapter is to outline the research paradigm, research approach and research method used in the study. The type of data needed in the study will be discussed as well as data collection and data analysis strategies.

3.2 THE RESEARCH PHILOSOPHY

Every research is based on relevant underlying philosophical assumptions whose aim is to define what constitutes valid research and to outline appropriate research methods relevant for development of knowledge in a given study (Thomas, 2006: 291).

Welman *et al*. (2007: 6) suggest two main approaches to research: positivist approach and anti-positivist approach. The positivist approach is based on a philosophical approach called logical positivism. This approach subscribes to the natural scientific method of human behaviour research that says that research ought to be limited to what can be observed and measured objectively, i.e. oblivious of the individual feelings and opinions. The natural scientific approach strives to formulate laws that are universally valid. The positivist approach is also known as the quantitative approach.

On the other hand, the anti-positivist approach holds that it is inappropriate to follow strict natural scientific methods when interpreting data. The anti-positivists surmise that the natural scientific method is only relevant for the study of molecules or organisms and is therefore not applicable to phenomena being studied in the human behavioural sciences. The anti-positivist approach is also known as the qualitative approach. Table 2 outlines the difference between quantitative and qualitative approaches.

Table 2: Differences between quantitative and qualitative approaches (source: Thomas, 2006: 304)

Orientation	Quantitative research	Qualitative research
Assumption about the world	A single reality that can be measured by an instrument.	Multiple realities
Research purpose	Established relationships between measured variables.	Understanding a social situation from participant's perspective.
Research methods and processes	- Procedures established before study begins; - A hypothesis formulated before research begins; - Deductive in approach.	- Flexible, changing strategies; - Design emerges as data is collected; - A hypothesis is not needed to begin research - Inductive in approach
Researcher's role	The researcher is ideally an objective observer who does not participate nor influences what is being studied.	The researcher participates and becomes immersed in the research/social setting
Generalisability	Universal context free generalisations.	Detailed context-based generalisations.

Research in the 21st century was mainly quantitative. Qualitative design only evolved around 1970's. Until recently, quantitative and qualitative designs have been used independently of each other in research. There has been a continuous debate regarding quantitative and qualitative approaches (Caruth, 2013: 112). It is typically accepted that greater depth in understanding of the study is more gained by qualitative research than by quantitative research whereas quantitative research

favours better objectivity and generalisability. Mixed methods research (MMR) also referred to as the 'third methodological movement' has become increasingly acceptable approach of research. MMR has evolved in response to limitations of both quantitative and qualitative designs. Mixing both quantitative and qualitative methods complement each other, offer richer insights and yields more questions of interest for future studies; strengths of both designs are maintained while ameliorating weaknesses of individual approaches.

However this study will use a quantitative research approach. Quantitative research makes use of questionnaires, surveys and experiments making it more feasible to characterise data by means of statistical analyses (Thomas, 2006: 303). Because the study is descriptive in nature, a quantitative approach will be best suitable to meet the objectives of the study. Data collected from the samples will be tested through the following criteria: *completeness, comprehensibility, consistency,* and *reliability*.

3.3 RESEARCH DESIGN

A research design is the blueprint that outlines different steps of research to be taken starting with the formulation of hypotheses and drawing of inferences during the research process (Sahu, 2013: 25). The research design clearly lays out steps needed during a research exercise to reach specific research objectives. Steps to be followed differ according to different designs. There are many forms of research designs including survey design, experimental design, descriptive design, exploratory design, and diagnostic design. The research design ought to be framed in a manner that will utilise the available resources within a given time frame in the best possible manner that will optimally reach the objectives of the study.

This study followed a descriptive and cross sectional type of research. The variables to be measured and the method employed were clearly defined in the study. A descriptive research design is well equipped to protect bias and to maximise the reliability of the research. The objectives of this study were clearly defined in chapter one. Pretested data collection instruments are preferred in a descriptive study; therefore this study uses pretested measuring instruments with modifications. In a

cross sectional design the criterion group comprise of different age groups known as cohorts. The cohorts in this study were examined in terms of one or more variables at approximately the same time.

3.4 SAMPLING DESIGN

Selection of a sample is necessary in research when it is impracticable to collect data from the entire population (Saunders, Lewis & Thornhill, 2009: 212). Sampling theory consists of three major components: *Selection of proper sample, collection of information from the sample* and *analysis of information to draw inferences* (Sahu, 2013: 45).

There are two types of sampling techniques used in research: probability sampling and non-probability sampling. In probability sampling, the probability that any element of the population will be included in the population can be determined whereas in non-probability sampling this probability cannot be specified (Welman *et al*., 2007: 56).

This study used probability sampling technique. The targeted population for the study is the youth in the Vaal region, Gauteng Province, South Africa. As depicted in chapter two of this study, a study by Gordon *et al.* (2010: 88) presented compelling evidence that alcohol marketing is directly impacting upon young people's drinking behaviour. A systematic review of cohort studies of over 13000 participants arrived at the same findings. Their study proved an association between prior alcohol advertising and marketing exposure and subsequent alcohol drinking behaviour in young participants. Therefore this study will be stratified to youth of 14 -24 years of age.

A stratified random sampling approach was employed. The targeted sample is learners from several high schools in the Vaal region of Gauteng.

3.5 VALIDITY AND RELIABILITY

The main characteristic features of a good research design are objectivity, reliability, validity and generalisation (Sahu, 2013: 26). Reliability refers to consistency and

authenticity in responding to research questions. Validity tells us whether an item measures or describes what it is supposed to measure or describe (Weare *et al.* 2013: 14).

3.5.1 Validity

A test is considered to be valid if it measures what it claims to be measuring. Any given instrument measures three components, namely:

- *The construct intended*, the variable intended to be measured by an instrument
- *Irrelevant construct,* the variable not intended to be measured by an instrument and not relevant to the objectives of the study
- *Random measurement error,* accidental factors that may vary from one individual to the next, from one measuring occasion to the next in a completely haphazard manner.

When an item is measured with an instrument, the instrument must measure that which it is supposed to measure. This requirement is the *construct validity* of the scores obtained using an instrument (Welman *et al*., 2007: 142). According to Weare *et al.* (2013: 15), there are various forms of validity:

- *Construct validity*, the extent to which data appears to conform to its theoretical predictions.
- *External validity*, the extent to which results can be generalised beyond the used sample or setting.
- *Ecological validity*, the extent to which the results can be generalised to other similar settings.
- *Face validity*, the ability of the resultant judgment to fit the reality.

3.5.2 Reliability

Reliability is the extent to which a test would give consistent results when applied more than once to the same population under standard conditions. Weare *et al.* (2013: 113) proposes three types of reliability:

- *Stability*, where reliability is a measure of consistency over time and over samples which are similar.
- *Equivalence*, where equivalent forms of a test yield similar results.
- *Internal consistency*, where the test is administered once only and reliability demonstrated by splitting the test in half and yielding similar results on both halves (split half method).

In this study, validity and reliability was ensured through the following methods:

- *Pilot study*

  A pilot study was conducted prior to the main study in order to correct any ambiguities and it presented an opportunity to refine questions on the questionnaire.

- *Transferability*

  Through detailed description the readers were afforded an opportunity to make decisions regarding transferability. This will enable them to transfer information to other settings and to determine whether the findings can be transferred because of shared characteristics.

- *Statistical methods*

  Statistical methods will also be used to test validity and reliability of the data.

3.6 MEASURING INSTRUMENTS

The instrument used to collect the primary data is a closed ended five Likert scale questionnaire. The tool was chosen because of its numerous advantages:

- Each respondent received the same questions
- The process was identical for each respondent.
- Another advantage of a questionnaire is that it reduces errors made by an interviewer while recording the responses.
- A questionnaire guarantees confidentiality therefore the respondents act without any fear of embarrassment or victimisation.

The questionnaire was designed to be simple and straightforward. The questions were divided into three segments:

- Questions on demographic information;
- Questions on alcohol consumption pattern; and
- Questions on perceived or real experiences relating to alcohol advertising and consumption.

3.6.1 Alcohol marketing and consumption questionnaire

Adapted from Child Workers in Nepal Concerned Centre (CWIN) questionnaire (Tuladhar, 2013), Limsila, 2012, Faria *et al*., 2011 and GSHS questionnaires. The questionnaires addressed variables such as:

- Alcohol consumption;
- Alcohol drinking frequency;
- Amount of alcohol consumed per week;
- Years of usage of alcohol;
- Different attitudes towards alcohol advertising;
- Different alcohol advertising media and their influence; and
- Perceptions on alcohol advertising.

3.6.1.1 Global School based student health survey (GSHS)

The Global School-based Student Health Survey (GSHS) is a school-based survey conducted among students aged 13–17 years. Thus far GSHS has been conducted in 120 participating countries by 450 000 participants. GSHS was developed by the World Health Organization (WHO) and the Centres for Disease Control and Prevention (CDC) in collaboration with UNICEF, UNESCO, and UNAIDS.
The purpose of the GSHS is to provide data on health behaviours and protective factors among students to

- Help countries develop priorities, establish programs, and advocate for resources for school health and youth health programs and policies.

- Allow international agencies, countries, and others to make comparisons across countries regarding the prevalence of health behaviours and protective factors.
- Establish trends in the prevalence of health behaviours and protective factors by country for use in evaluating school health and youth health promotion programs.

GSHS uses 10 core questionnaire modules that address the leading causes of morbidity and mortality among children and adults worldwide are:

- Alcohol use;
- Dietary behaviours;
- Drug use;
- Hygiene;
- Mental health;
- Physical activity;
- Protective factors;
- Sexual behaviours that contribute to HIV infection, other sexually-transmitted infections, and unintended pregnancy;
- Tobacco use; and
- Violence and unintentional injury.

(Source: http://www.cdc.gov/gshs/pdf/GSHSOVerview.pdf)

This study will only use questions of the GSHS that are related to alcohol use.

3.7 PROCEDURE

3.7.1 Preliminary arrangements

Permission was granted by the Department of Education District office to conduct the study at any four high schools in the Vaal Triangle.

3.7.2 Ethical considerations

An application for ethical clearance was submitted to the NWU research ethics committee more especially because the participants in the study include minors. The following ethical considerations were ensured throughout the study:

- That participation in the study was voluntary;
- That respondents remained anonymous and cannot be identifiable;
- That individual information was kept confidential;
- That participants were fully informed about the research objectives; and
- That all possible ethical implications that could have an influence on the research were considered.

3.7.3 Administration of questionnaires

Objectives of the study were clearly outlined as a preamble to the questionnaire. Learners were not allowed to take the questionnaires home to avoid any possible influence from family members. Questionnaires were distributed to the learners and collected immediately. The researcher was available throughout administration of the questionnaire to clarify issues of procedure but abstained from commenting on the content of the study.

3.7.4 Data capturing and feedback

After questionnaires were collected, data was captured using MS Excel and SPSS was used for statistical analysis. Feedback will be provided to the Sedibeng West District, Gauteng Department of Education and national Department of Health (Currently reviewing The Marketing of Alcoholic Beverages draft Bill).

3.8 STATISTICAL ANALYSIS

SPSS and Statistica application programs were used to conduct statistical analysis. Descriptive statistics of variables were described and analysed. Constructs were tested for validity and reliability using statistical methods. Demographic variables

were subjected to t-test and analysis of variance (ANOVA) to determine if there is a significant difference in how different groups responded to questions.

3.9 CHAPTER SUMMARY

This chapter discussed the methodology, research design and instruments used in the study. The choice of the measuring instrument and methodology were justified and administration of the empirical study outlined.

The analysis and discussion of results are discussed in chapter 4.

CHAPTER 4: EMPIRICAL RESULTS AND DISCUSSION

4.1 INTRODUCTION

In the previous chapter the research methodology and techniques employed in the study were outlined. Chapter 4 discusses the analysis and findings of the empirical results. The findings of the study are compared with the theoretical findings of Chapter 2. Statistical tests will be used to test the veracity of the proposed hypotheses. Conclusions and recommendations of the study will be outlined in Chapter 5.

4.2 BIOGRAPHICAL RESULTS

Biographical results of the study are outlined in Table 3. Out of 800 questionnaires issued, a total of 639 were received back, representing a response rate of 79.88%. The biographical results reported in Table 3 only account for valid percentages and does not include missing information. The biographical information is reported for age group, gender, grade, race and family economic status of participants.

Out of 626 participants that disclosed their age, 322 (51.4%) were aged 16 - 17 years, 210 (33.5%) were aged 18 - 19 years, 46 (7.3%) were aged 20 - 21 years, 45 (7.2%) were aged 14 - 15 years and only 2 (0.3%) were 22 years and older and 1 (0.2%) was aged 12 - 13 years of age.

The majority of participants 306 (53.3%) were female and 268 (46.7%) were male. Of the participants that indicated their grade, majority of them 348 (57.4%) were in grade 11, followed by 132 (21.8%) in grade 10 and 96 (15.8%) in grade 12. Only 29 (4.8%) and 1 (0.2%) were in grade 9 and grade 8 respectively. Regarding race, the majority of participants 420 (67.6%) were Blacks, followed by Whites at 180 (29%) and Coloureds 21 (3.4%).

The majority of participants 393 (62.9%) indicated that they are from families with moderate economic status whereas 181 (29%) indicated that their families were well off economically. Only 51 (8.2%) were from families with low economic status. This

was corroborated by findings that the majority 470 (74.7%) of participants were staying in cemented brick houses as compared to 159 (25.3%) that stays in RDP, Iron sheet, mud or wooden house.

Table 3: Biographical results of the respondents

Variable	Category	Frequency	Valid Percentage
Age group (years)	12-13	1	0.2
	14-15	45	7.2
	16-17	322	51.4
	18-19	210	33.5
	20-21	46	7.3
	≥ 22	2	0.3
Gender	Male	268	46.7
	Female	306	53.3
Grade	8	1	0.2
	9	29	4.8
	10	132	21.8
	11	348	57.4
	12	96	15.8
Race	Asian	0	0
	Black	420	67.6
	Coloured	21	3.4
	Indian	0	0
	White	180	29
Family Economic Status	Well off	181	29
	Moderate	393	62.9
	Low	51	8.2

4.3 ALCOHOL CONSUMPTION PATTERN

The results outlining alcohol consumption pattern of participants are depicted in Appendix C. Majority of respondents 353 (55.5%) do drink alcohol, whereas 283 (44.5%) do not drink. Of those who drink, majority of them 206 (32.5%) drink less than once in a month as compared to 115 (18.2%) who drink 1-2 times per month, 31 (4.9%) of those who drink 1-2 times per week, 10 (1.6%) who drink 3-4 times per week and only 8 (1.3%) drink more than 4 times per week.

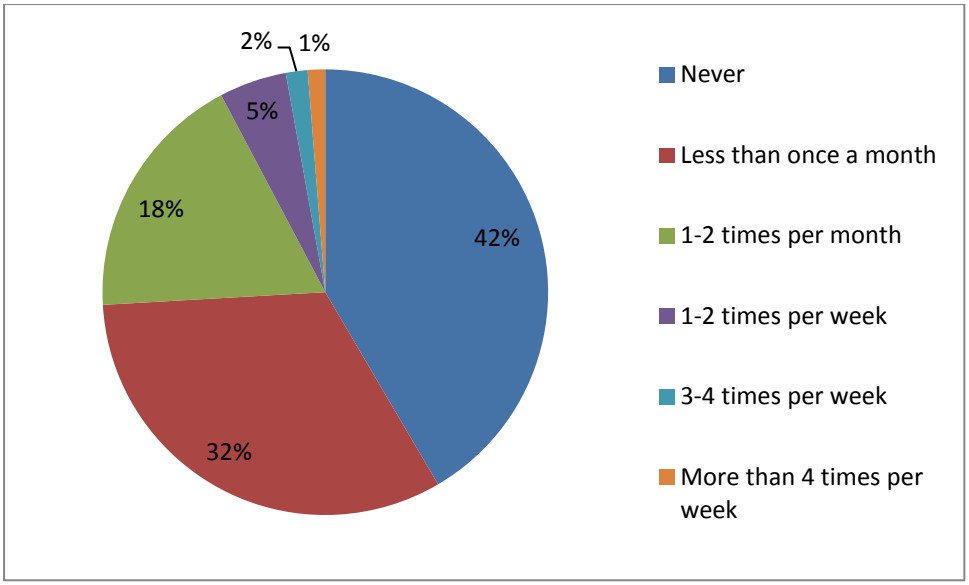

Figure 1: Frequency of alcohol consumption

The majority of respondents 342 (53.5%) of those who drink alcohol prefer to drink on Fridays and Saturdays as compared to those who drink on Sundays 33 (5.2%) and Mondays 10 (1.6%).

Regarding the amount of alcohol consumed per week, 214 (34.2%) drink 1-5 units of alcohol per week, whereas 63 (10.1%) drank 6-10 units per week. Only 25 (4%) drink 11-15units of alcohol per week, 13 (2.1%) drink 16-20 units per week and 9 (1.4%) drink 21-25 units per week. Participants who admitted to drinking more than 25 units of alcohol per week were only 14 (2.2%). One unit of alcohol depends on the type of alcohol being consumed. One unit of alcohol is equivalent to one glass of beer; 25 ml of gin, rum, whisky, tequila or half a glass of wine or champagne. Figure 2 outlines the results for amount of alcohol units consumed per week.

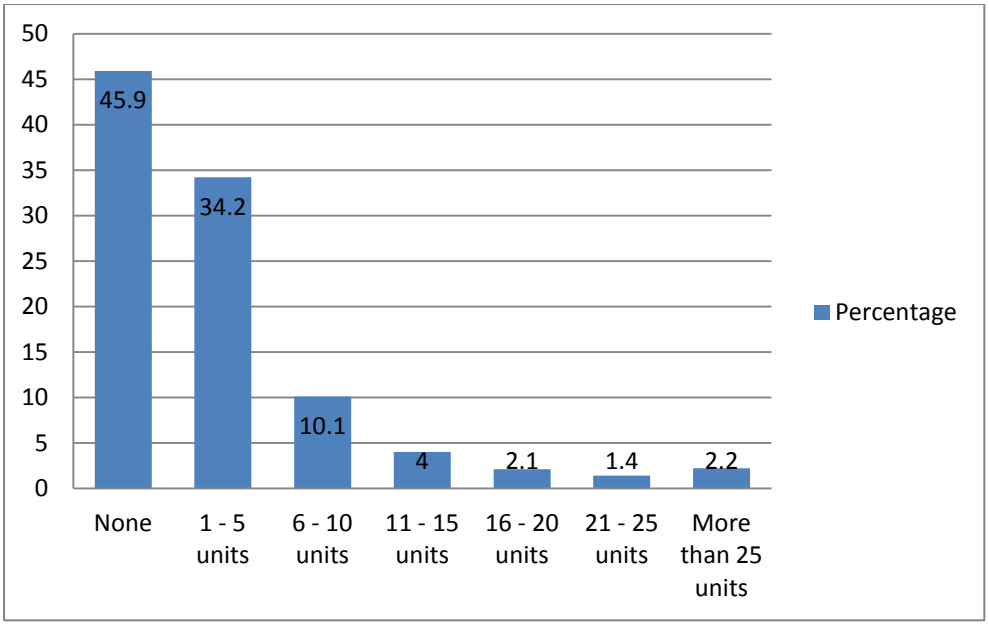

Figure 2: Amount of alcohol units consumed per week

Among respondents who drink alcohol, majority of them 175 (27.4%) prefer normal beer over wine/champagne 124 (19.4%), spirits 75 (11.7%), shooters 59 (9.2%), traditional beer 34 (5.3%) and homemade alcohol 11(1.7%).

Majority of the respondents who drink alcohol 161 (25.6%) have been drinking for less than one year, followed by 144 (22.9%) who have been drinking for a period of 1 - 3 years and 42 (6.6%) who agreed to have been drinking for a period of 3 - 7 years. Only 19 (3%) of drinking participants have been drinking for more than 7 years.

Parents or family members of the majority of respondents in this study 487 (76.8%) do drink alcohol compared to parents and family members of only 147 (23.2%) respondents who do not drink alcohol. Of the parents or family members who drink alcohol, fathers 277 (43.3%) are in the majority of those who drink compared to brothers 192 (30%), mothers 159 (24.9%), other family members 165 (25.8%) and sisters 103 (16.1%). Table 4 and Figure 3 outline the alcohol consumption frequency among family members of respondents.

Table 4: Frequency of alcohol consumption among family members

Answer	Father		Mother		Sister		Brother		Other	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Never	128	30	164	48.5	150	55.4	137	39.6	93	35.1
Less than once a month	74	17.4	65	19.2	45	16.6	48	13.9	48	18.1
1-2 times per month	98	23	60	17.8	47	17.3	66	19.1	48	18.5
1-2 times per week	71	16.7	31	9.2	20	7.4	49	14.2	49	9.8
3-4 times per week	26	6.1	11	3.3	5	1.8	24	6.9	26	7.2
More than 4 times per week	29	6.8	7	2.1	4	1.5	22	6.4	19	11.3

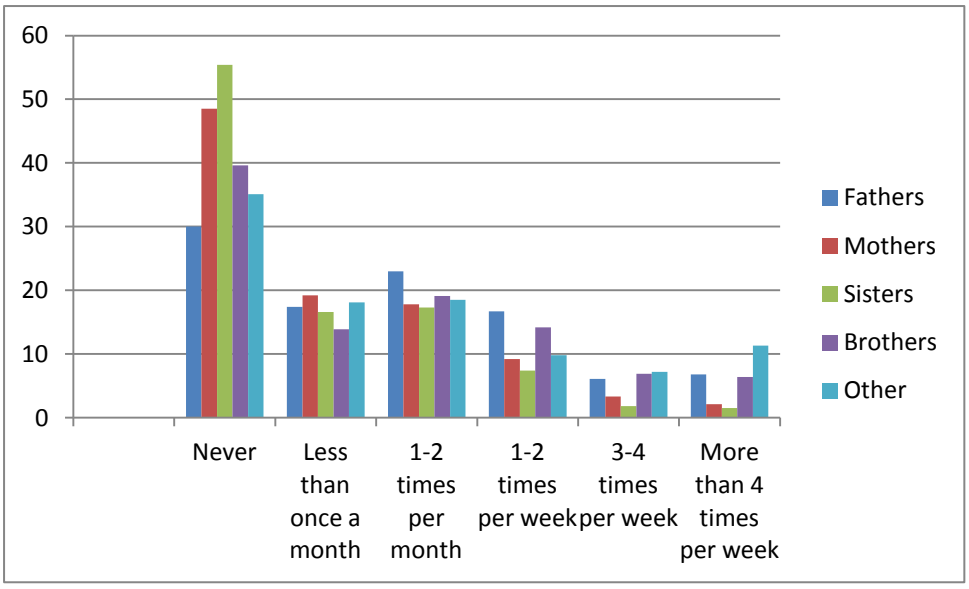

Figure 3: Frequency of alcohol consumption among family members

4.4 DESCRIPTIVE STATISTICS

4.4.1 Reliability

Reliability is concerned with how far an instrument such as a questionnaire will produce similar results in different circumstances, assuming that nothing else has changed (Roberts & Priest, 2006: 41). Cronbach's alpha coefficient, developed by Lee Cronbach in 1951, is the most widely used objective measure of reliability; it is

expressed as a number between 0 and 1 and connected to inter-relatedness of items within a test (Tavakol & Dennick, 2011: 53). The value of alpha increases as items within a test are correlated to each other.

The acceptable values of alpha differ from one author to another, but ranges of between 0.70 to 0.95 are acceptable. A low value of alpha may be due to a low number of questions or poor inter-relatedness between items High values of alpha may also suggest redundant items testing the same questions within a questionnaire. A 0.9 maximum value of alpha has been suggested (Tavakol & Dennick, 2011: 53).

Questions on a Likert scale in this study were categorised into two sections (Section B & C). The first set of seven questions was measuring reasons for alcohol consumption and the second set of twenty one questions was measuring alcohol advertising experience.

However inter-item statistical analysis as depicted in Table 5 revealed that a question on awareness of dangers of alcohol was not reliable as it lowered the value of Chronbach's alpha and is negatively correlated to other items. Therefore the item was excluded from the construct.

Table 5: Cronbach's alpha values when items are deleted

	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I drink alcohol because of peer pressure	.386	.238	.506
I drink alcohol because of boredom	.435	.251	.490
I drink alcohol because I want to escape boredom	.418	.254	.495
I drink alcohol because of my cultural practices	.261	.101	.547
I only drink at social functions	.438	.211	.470
I think it is okay for people to drink	.204	.072	.573
I am aware of the harmful effects of drinking alcohol	-.007	.019	.635

Section C of the questionnaire was based on the experience regarding alcohol advertising. A Cronbach's alpha of 0.888 was obtained and this value was sufficient for reliability. However when Factor Analysis was conducted on the questions, six

dimensions were identified and descriptive statistics and Chronbach's alpha coefficients were calculated in Table 6.

Table 6: Constructs and associated questions

Constructs	Questions	Associated question numbers	Mean	Standard deviation	Cronbach's alpha
Awareness	4	C2, C3, C4, C5	4.099	0.34	0.787
Attention	4	C6, C7, C8, C9	2.553	0.10	0.858
Attractiveness	2	C11, C12	2.091	0.08	0.851
Perception of enjoyment	3	C13, C14, C15	2.708	0.22	0.694
Influence (internal)	5	C16, C17, C18, C19, C20,	2.049	0.25	0.820
Influence (external)	2	C21, C22	3.440	0.41	0.791

4.4.2 Reasons for alcohol consumption

The results for reasons of alcohol consumption by the respondents are depicted in Table 7. The mean values for different reasons of alcohol consumption are compared in Figure 4. Drinking at social functions is the reason with the highest mean value of 3.05 when compared to drinking because of peer pressure 1.62, boredom 1.72, escaping troubles and drinking because of cultural practices 1.63.

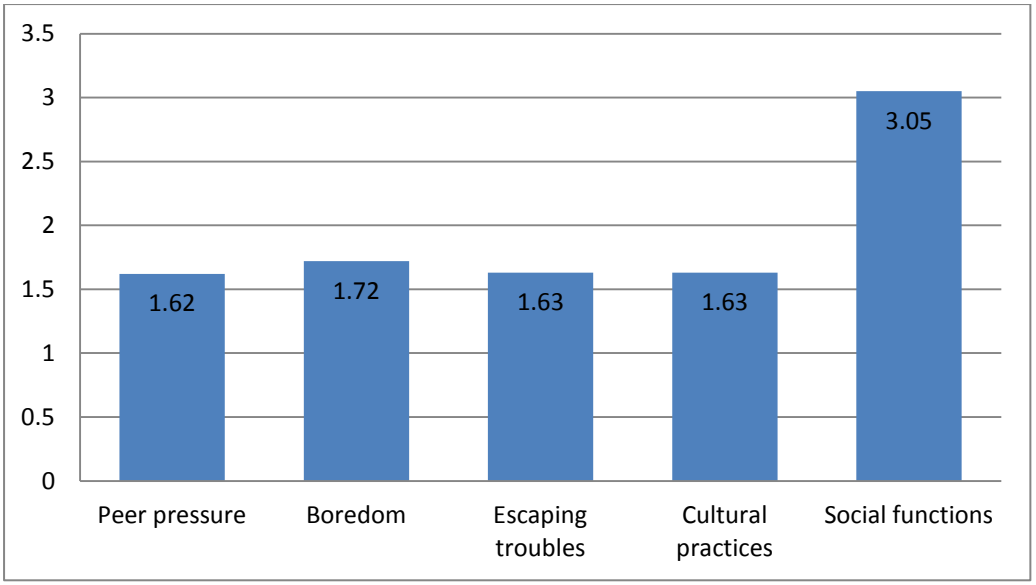

Figure 4: Mean values for reasons of alcohol consumption

The study also evaluated whether the respondents thought it is okay for them to drink. The majority of respondents 196 (33.3%) were neutral on the statement whereas 145 (24.8%) strongly disagreed with the statement that it is okay to drink. Only 83 (14.1%) strongly agreed with the statement. However the mean value to the statement was 2.81 with a standard deviation of 1.341.

4.4.3 Awareness of harmful effects of alcohol

Awareness for the harmful effects of drinking alcohol was also investigated. Majority of the respondents 401 (67.5%) were strongly aware of the harmful effects of alcohol. The mean value for the statement was 4.35 with a standard deviation of 1.166.

4.4.4 Brand loyalty

Brand loyalty of participants was also evaluated through a statement that probed whether participants had a favorite alcohol brand. A response with a mean value of 3.0 and a standard deviation of 1.622 on a five scale Likerd was received on the statement.

Table 7: Results for reasons of alcohol consumption

Which of the following statements best describe your reasons for drinking alcohol?															
B14	STATEMENT	SCALE										Missing	Total	Mean	Standard Deviation
		Strongly disagree		Disagree		Neutral		Agree		Strongly agree					
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%				
B15	I drink alcohol because of peer pressure.	392	66.2	108	18.2	39	6.6	30	5.1	23	3.9	47	639	1.62	1.067
B16	I drink alcohol because of boredom.	345	58.9	124	21.2	66	11.3	37	6.3	14	2.4	53	639	1.72	1.046
B17	I drink alcohol because I want to escape my troubles.	390	66.3	99	16.8	48	8.2	26	4.4	25	4.3	51	639	1.63	1.083
B18	I drink alcohol because of my cultural practices.	389	67.0	95	16.4	46	7.9	27	4.6	24	4.1	58	639	1.63	1.081
B19	I only drink at social functions	160	27.2	58	9.9	98	16.7	137	23.3	135	23.0	51	639	3.05	1.530
B20	I think it is okay for people to drink.	145	24.6	75	12.7	196	33.3	90	15.3	83	14.1	50	639	2.81	1.341
B21	I am aware of harmful effects of drinking alcohol.	41	6.9	19	3.2	33	5.6	100	16.8	401	67.5	45	639	4.35	1.166

4.4.5 Alcohol advertising experience

Table 8 outlines the results for the experience and perceptions of respondents regarding alcohol advertising.

Factor analysis of the questions as represented in Appendix C suggested constructs as listed in Table 6. Figure 5 depicts the mean values for constructs related to alcohol advertising.

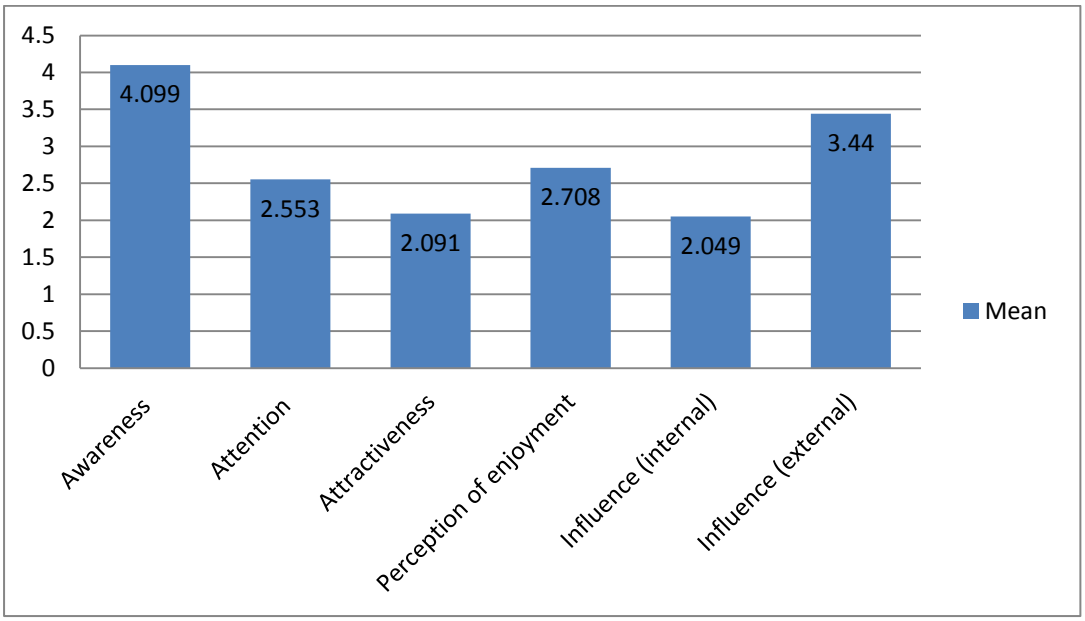

Figure 5: Mean values of constructs related to alcohol advertising

Considering *awareness* as a construct, majority of participants were aware of alcohol advertisements on T.V, magazines, billboards and buildings and scored a mean value of 4.09 on the five scale Likerd.

Participants scored a mean value of 2.56 on *attention* as a construct, 2.091 on *attractiveness*, 2.049 on *influence (internal)* and 3.44 on *influence (*external). *Influence (internal)* related to statements regarding the perception of the influence of alcohol advertisements on participants personally and participants' family members and friends whereas *influence (external)* related to the perception of the influence of alcohol advertisements on people outside a circle of family and friends. It is interesting to note that participants scored a low mean value of 2.049 on *influence (internal)* but 3.44 on *influence (external).* Participants did not think that advertising

influenced their drinking behaviour but believed that alcohol advertising was responsible for the overall consumption of alcohol consumption and an increase in the number of people who drink alcohol.

Table 8: Experiences and perceptions of respondents towards alcohol advertising

Which of the following statements best describes your experiences regarding alcohol advertising?												Missing	Total	Mean	Standard Deviation
C1	STATEMENT	SCALE													
		Strongly disagree		Disagree		Neutral		Agree		Strongly agree					
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%				
C2	I have watched alcohol advertisements on television before.	24	4.0	16	2.7	50	8.3	170	28.2	342	56.8	37	639	4.31	1.010
C3	I have seen alcohol advertising on newspapers and magazines before.	22	3.7	19	3.2	56	9.4	183	30.7	316	53.0	43	639	4.26	1.009
C4	I have seen alcohol advertising on billboards and buildings before.	29	4.9	26	4.4	63	10.6	173	29.0	305	51.2	43	639	4.17	1.096
C5	I see more than one alcohol ad in a day.	41	6.9	79	13.4	141	23.9	145	24.6	184	31.2	49	639	3.60	1.246
C6	I pay attention to alcohol advertising on TV	154	26.2	148	25.2	153	26.0	60	10.2	73	12.4	51	639	2.57	1.312
C7	I pay attention to alcohol advertising on Newspapers and magazines.	172	29.0	150	25.3	151	25.4	58	9.8	63	10.6	45	639	2.48	1.290
C8	I pay attention to alcohol advertising on billboards and buildings.	161	27.4	158	26.9	151	25.7	62	10.5	56	9.5	51	639	2.48	1.258
C9	I easily remember messages of alcohol advertisements.	157	26.8	126	21.5	122	20.8	97	16.6	84	14.3	53	639	2.70	1.393
C10	I have a favourite alcohol brand.	180	30.3	76	12.8	63	10.6	112	18.9	163	27.4	45	639	3.00	1.622
C11	Daily alcohol advertising broadcasts are interesting to me.	234	40.0	155	26.5	111	19.0	47	8.0	38	6.5	54	639	2.15	1.245
C12	Daily alcohol advertising broadcasts are attractive to me.	260	44.4	156	26.6	91	15.5	44	7.5	35	6.0	53	639	2.04	1.199
C13	I think alcohol advertising is related to enjoyment and fun.	159	26.8	92	15.5	113	19.1	118	19.9	111	18.7	46	639	2.88	1.471
C14	I think alcohol advertisements show the truth.	202	34.5	121	20.6	121	20.6	66	11.3	76	13.0	53	639	2.48	1.395
C15	When I drank alcohol for the first time, I hoped	188	32.0	81	13.8	97	16.5	97	16.5	124	21.1	52	639	2.81	1.548

	it would make me have more fun.														
C16	**I think alcohol advertising influence me to drink alcohol**	**278**	**47.1**	**123**	**20.8**	**89**	**15.1**	**53**	**9.0**	**47**	**8.0**	**49**	**639**	**2.10**	**1.301**
C17	**I think alcohol advertising on T.V. influenced me to imitate the characters.**	**279**	**47.4**	**155**	**26.3**	**74**	**12.6**	**51**	**8.7**	**30**	**5.1**	**50**	**639**	**1.98**	**1.186**
C18	**I think alcohol advertising influenced me to drink sooner than I should.**	**289**	**49.4**	**116**	**19.8**	**75**	**12.8**	**61**	**10.4**	**44**	**7.5**	**54**	**639**	**2.07**	**1.309**
C19	**I think alcohol advertising influenced me to drink heavier than I should.**	**353**	**60.8**	**108**	**18.6**	**58**	**10.0**	**30**	**5.2**	**32**	**5.5**	**58**	**639**	**1.76**	**1.164**
C20	**I think alcohol advertising influenced my friends or family to consume alcohol sooner or heavier than they should.**	**207**	**35.0**	**135**	**22.8**	**103**	**17.4**	**73**	**12.3**	**74**	**12.5**	**47**	**639**	**2.45**	**1.395**
C21	**I think that alcohol advertising increases overall consumption of alcohol.**	**107**	**18.2**	**88**	**14.9**	**130**	**22.1**	**137**	**23.3**	**127**	**21.6**	**50**	**639**	**3.15**	**1.397**
C22	**I think alcohol advertising has an effect in increasing the number of people who drink.**	**70**	**11.7**	**46**	**7.7**	**107**	**17.9**	**127**	**21.2**	**248**	**41.5**	**41**	**639**	**3.73**	**1.373**

4.5 PEARSON'S PRODUCT- MOMENT CORRELATION OF COMPONENTS

Pearson's product-moment correlation coefficients of constructs related to alcohol advertising are depicted in Table 9.

Table 9: Correlation coefficients between constructs

Component	Awareness	Attention	Attractiveness	Perception of Enjoyment	Influence (internal)	Influence (external)
Awareness	1.000	.134	.377	.166	-.286	.012
Attention	.134	1.000	.012	-.103	-.086	.126
Attractiveness	.377	.012	1.000	.278	-.249	.250
Perception of enjoyment	.166	-.103	.278	1.000	-.245	.046
Influence (internal)	-.286	-.086	-.249	-.245	1.000	-.029
Influence (external)	.012	.126	.250	.046	-.029	1.000

The component correlation matrix shows an insignificant negative correlation (-0.286) between awareness of alcohol advertising and its influence on alcohol consumption of respondents, friends and family members. A similar trend of negative correlation exists between *attention, attractiveness*, *perception of enjoyment* and *influence (internal).*

4.6 t-TEST STATISTICS AND ANALYSIS OF VARIANCE (ANOVA)

t –Test statistics and analysis of variance (ANOVA) are used to measure if there is a significant statistical difference between the mean and distribution of samples. These tests measure the null hypotheses and probe whether the mean and distribution of the concerned populations are identical (Welman *et al*. 2007: 231). t-Tests measure the difference between the means and distribution of two groups whereas ANOVA measures the difference for more than two groups (Welman *et al*., 2007: 237).

4.6.1 t-Test for gender

A t-test on gender was conducted to test whether there is a significant statistical difference in how male and females responded to questions. The p-values and d-values (effect sizes) of the test are displayed in Table 10. The statistical analysis has been split between four schools that participated in the study in order to find out if results vary per school.

Table 10: Results of the t-test for gender

SCHOOL			N	Mean	Std. Deviation	P- value	Effect sizes (d value)
1	Reasons for drinking	Male	93	1.9785	.81880	0.262	
		Female	70	1.8452	.64163		0.16
	Alcohol advertising experience	Male	94	2.5362	.79764	0.522	
		Female	70	2.4630	.60648		0.09
2	Reasons for drinking	Male	30	2.1244	.65729	0.537	
		Female	58	2.2362	.86730		0.13
	Alcohol advertising experience	Male	30	2.7875	.64329	0.448	
		Female	58	2.9022	.68215		0.17
3	Reasons for drinking	Male	52	2.1785	.70170	0.563	
		Female	80	2.1065	.69610		0.10
	Alcohol advertising experience	Male	52	2.8830	.59127	0.035	
		Female	77	3.1372	.71193		0.36
4	Reasons for drinking	Male	81	2.1230	.82643	0.827	
		Female	90	2.1500	.78615		0.03
	Alcohol advertising experience	Male	82	2.8757	.69436	0.153	
		Female	91	3.0315	.72917		0.21

The p-value for gender in school 3 is less than 0.05 indicating that there is a statistical difference in how male and females responded to questions on alcohol advertising experience. The p-values for gender in school 1, 2 & 4 are greater than 0.05 indicating that there is no statistical difference in how males and females responded to questions. The d values in all schools save school 3 are far less than 0.3 indicating that there is no visible difference between males and females. However, the d value for school 3 is 0.36 indicating a small visible difference in how males and females responded to questions on alcohol advertising experience.

4.6.2 t-Test for alcohol consumption

t-Test results to determine whether there is a significant statistical difference between how respondents who drink and those who don't drink alcohol answered questions are depicted in Table 11.

Table 11: t-Test results for alcohol consumption

SCHOOL			N	Mean	Std. Deviation	p values	Effect sizes (d-value)
1	Reasons for drinking	Drink	86	2.3043	.65139	0.000	
		No drink	89	1.5131	.55631		1.21
	Alcohol advertising experience	Drink	86	2.7791	.76927	0.000	
		No drink	91	2.2327	.55525		0.71
2	Reasons for drinking	Drink	54	2.4957	.53522	0.000	
		No drink	42	1.8659	.95666		0.66
	Alcohol advertising experience	Drink	54	3.0451	.61682	0.008	
		No drink	42	2.6905	.66668		0.53
3	Reasons for drinking	Drink	103	2.4286	.56523	0.000	
		No drink	44	1.6030	.68968		1.20
	Alcohol advertising experience	Drink	100	3.1790	.59993	0.000	
		No drink	44	2.6710	.66233		0.77
4	Reasons for drinking	Drink	98	2.4435	.71220	0.000	
		No drink	93	1.8297	.75560		0.81
	Alcohol advertising experience	Drink	97	3.2036	.63627	0.000	
		No drink	97	2.7754	.70693		0.61

The p values in all instances are less than 0.05 indicating that there is a significant statistical difference in how respondents who drink alcohol and those who don't drink responded to questions. All effect size values are greater than 0.5 indicating that there is a significant medium practical visible difference in how respondents answered questions.

4.6.3 ANOVA for different schools

The results for mean values and analysis of variance calculated for dimensions as a function of different schools from which data was collected are depicted in Table 12.

Table 12: ANOVA results for schools

		N	Mean	Std. Deviation	F	p value	Effect sizes		
							School 1&	School 2 &	School 3 &
Reasons for drinking	School 1	176	1.9119	.73202	5.311	0.001			
	School 2	98	2.2276	.80387			0.39		
	School 3	147	2.1815	.71220			0.37	0.06	
	School 4	191	2.1447	.79374			0.29	0.10	0.05
	Total	612	2.0999	.76695					
Alcohol advertising experience	School 1	178	2.5043	.72274	20.451	0.000			
	School 2	98	2.9208	.69193			0.58		
	School 3	144	3.0238	.66047			0.72	0.15	
	School 4	194	2.9895	.70429			0.67	0.10	0.05
	Total	614	2.8459	.73024					

P-Values of less than 0.05 indicate that there is a significant statistical difference in how the four schools responded to the questions. Effect size values between schools 1 & 2 and schools 1 & 3 of more than 0.3 shows a small practical visible difference in how these schools responded to questions on reasons for drinking alcohol. However, on the questions on alcohol advertising experience, only effect size values between schools 1 & 2, schools 1 & 3 and 1 & 4 have a value of more than 0.5 indicating a significant medium practical visible difference in how respondents answered questions.

4.6.4 ANOVA for amount of alcohol consumed per week

The results for mean values and analysis of variance calculated for dimensions as a function of amount of alcohol consumed in different schools are depicted in Table 13.

Table 13: ANOVA results for amount of alcohol consumed per week

SCHOOL			N	Mean	Std. Deviation	F	p value	Effect sizes	
								1-5 units &	6-10 units &
1	Reasons for drinking	1-5 units	93	1.5448	.54846	36.966	0.000		
		6-10 units	63	2.1931	.59055			1.10	
		> 10 units	14	2.5595	.46505			1.85	0.62
		Total	170	1.8686	.66696				
	Alcohol advertising experience	1-5 units	95	2.2723	.62930	19.227	0.000		
		6-10 units	63	2.5738	.58531			0.48	
		> 10 units	14	3.3241	.66359			1.59	1.13
		Total	172	2.4683	.67882				
2	Reasons for drinking	1-5 units	48	1.9694	.97529	4.273	0.017		
		6-10 units	28	2.4143	.42817			0.46	
		> 10 units	13	2.5385	.56990			0.58	0.22
		Total	89	2.1925	.81795				
	Alcohol advertising experience	1-5 units	48	2.7545	.75027	1.432	0.244		
		6-10 units	28	2.9083	.46709			0.20	
		> 10 units	13	3.0753	.53625			0.43	0.31
		Total	89	2.8498	.64834				
3	Reasons for drinking	1-5 units	44	1.5746	.59935	28.984	0.000		
		6-10 units	58	2.3825	.52005			1.35	
		> 10 units	16	2.3292	.51133			1.26	0.10
		Total	118	2.0740	.66870				
	Alcohol advertising experience	1-5 units	44	2.6399	.54725	17.613	0.000		
		6-10 units	56	2.9669	.48531			0.60	
		> 10 units	16	3.5380	.59062			1.52	0.97
		Total	116	2.9216	.59526				
4	Reasons for drinking	1-5 units	89	1.8240	.78650	13.487	0.000		
		6-10 units	59	2.2492	.63422			0.54	
		> 10 units	18	2.7111	.80220			1.11	0.58
		Total	166	2.0713	.79156				
	Alcohol advertising experience	1-5 units	92	2.8332	.72849	3.906	0.022		
		6-10 units	59	3.0463	.70698			0.29	
		> 10 units	18	3.2889	.53046			0.63	0.34
		Total	169	2.9562	.71518				

ANOVA results show a significant statistical difference in how respondents who drink different amounts of alcohol per week responded to questions. Results of learners in school 2 did not show any significant difference (p=0.244) in how they answered questions on alcohol advertising experience. The effect size values for the same sample show a medium practical visible difference between categories of 1-5 units & > 10 units (d=0.43), 6-10 units & > 10 units (d=0.31).

4.6.5 ANOVA for number of years of drinking alcohol

ANOVA test was performed on the sample to determine if there was a significant statistical difference in how respondents with different number of years of drinking alcohol responded to questions. The results thereof are outlined in Table 14.

Table 14: ANOVA results for number of years of drinking alcohol

SCHOOL			N	Mean	Std. Deviation	F	p value	Effect sizes	
								< 1 year &	1-3 years
1	Reasons for drinking	< 1 year	84	1.4821	.53462	48.972	0.000		
		1-3 years	65	2.1641	.45785			1.28	
		>3 years	23	2.6522	.91551			1.28	0.53
		Total	172	1.8963	.71651				
	Alcohol advertising experience	< 1 year	86	2.2105	.54960	18.231	0.000		
		1-3 years	65	2.6513	.64160			0.69	
		>3 years	23	3.0039	.84819			0.94	0.42
		Total	174	2.4801	.68979				
2	Reasons for drinking	< 1 year	41	1.8667	.96853	6.361	0.003		
		1-3 years	14	2.2976	.54764			0.44	
		>3 years	26	2.5679	.57762			0.72	0.47
		Total	81	2.1663	.85058				
	Alcohol advertising experience	< 1 year	41	2.6759	.66820	3.398	0.038		
		1-3 years	14	3.1559	.70638			0.68	
		>3 years	26	2.9807	.63268			0.46	0.25
		Total	81	2.8567	.68325				
3	Reasons for drinking	1	43	1.6364	.71377	22.230	0.000		
		2	34	2.3309	.59050			0.97	
		3	43	2.4930	.55960			1.20	0.27
		Total	120	2.1401	.73083				
	Alcohol advertising experience	< 1 year	43	2.6412	.55512	9.554	0.000		
		1-3 years	33	3.0681	.64644			0.66	
		>3 years	41	3.1531	.52250			0.92	0.13
		Total	117	2.9410	.61221				
4	Reasons for drinking	< 1 year	84	1.7889	.73977	14.314	0.000		
		1-3 years	40	2.1600	.70007			0.50	
		>3 years	47	2.4858	.72227			0.94	0.45
		Total	171	2.0673	.78073				
	Alcohol advertising experience	< 1 year	88	2.7863	.72903	7.013	0.001		
		1-3 years	40	2.9616	.58625			0.24	
		>3 years	46	3.2485	.65178			0.63	0.44
		Total	174	2.9488	.70185				

The p values in all the categories show a significant statistical difference ($p<0.05$) in how respondents answered the questions. The d values ($d>0.3$) also show a medium practical visible difference between different categories except for categories 1-3

years & > 3years (d=0.25) in school 2 on alcohol advertising experience; categories 1-3 years & > 3years (d=0.27) in school 3 on reasons for drinking; and categories 1-3 years & > 3years (d=0.13) in school 3 on alcohol advertising experience.

4.6.6 ANOVA for family economic status

Table 15 presents ANOVA test results to determine whether there is a significant statistical difference in how participants from different family economic statuses responded to questions.

Table 15: ANOVA results for family economic status

		N	Mean	Std. Deviation	F	p value	Effect sizes	
							Well off &	Moderate &
Reasons for drinking	Well off	173	2.0020	.72225	4.652	0.010		
	Moderate	376	2.1164	.74229			0.15	
	Low	50	2.3667	.94341			0.39	0.27
	Total	599	2.1043	.75984				
Alcohol advertising experience	Well off	175	2.7359	.78679	4.680	0.010		
	Moderate	376	2.8534	.68977			0.15	
	Low	50	3.0793	.67241			0.44	0.33
	Total	601	2.8380	.72239				

The p values of 0.010 indicate that there is a significant statistical difference in how respondents from different family economic statuses responded to questions. Effect size values between well off and low economic status (d=0.39 & d = 0.44) show a medium practical visible difference between the two categories for all questions. Effect size value for categories moderate and low also show a practical visible difference (d=0.33).

4.7 DISCUSSION

The primary objective of this study was to determine the influence of alcohol advertising on alcohol consumption among the youth. To achieve this objective a combination of existing instruments that included CWIN and GSHS questionnaires was used to collect data from learners of four high schools in the Vaal region. Data was analysed for validity, reliability, and correlation between the constructs as well as for demographic differences by using t-tests and ANOVA.

Other objectives of the study were to evaluate reasons that may influence alcohol consumption among the youth, and also to measure the amount of alcohol consumed. The study also compared different media of advertising alcohol and the influence they may have on alcohol consumption by the youth. Brand loyalty of respondents and alcohol consumption pattern of family members of respondents was also determined.

4.7.1 The influence of alcohol advertising on consumption

To determine the primary objective of this study, factor analysis was performed on all variables to validate the questionnaire. Six dimensions were obtained from the analysis. *Awareness, attention, attractiveness, perception of enjoyment, influence (internal) and influence (external)* were obtained as constructs. Analysis of the component correlation matrix showed an insignificant negative correlation (-0.286) between awareness of alcohol advertising and its influence on alcohol consumption of respondents, friends and family members. A similar trend of negative correlation existed between *attention, attractiveness*, *perception of enjoyment* and *influence (internal).* A low positive correlation (0.012) existed between awareness and influence of advertising externally. A similar trend is observed between *attention, attractiveness*, *perception of enjoyment* and *influence (personal).*

This study confirms a March 2013 Econometrix (Fieldgate *et al*., 2013) that there is no relationship between advertising expenditure and the consumption of alcohol. The Econometrix report argued that efforts to reduce per capita alcohol consumption by means of regulating or banning liquor advertising may be ineffective.

The findings of this research also confirm a study by Nelson & Young (2001: 293) which found that empirical studies do not support the proposition that bans of broadcast advertising of alcohol beverages will reduce consumption. As outlined in the theoretical overview of this study, Nelson & Young presented an evidence gathered in 17 OECD countries that a complete ban on broadcast advertising of all alcoholic beverages had no effect on consumption when compared to countries that did not ban broadcast alcohol advertising. A study by Dorset & Dickerson (2004: 149) also concluded that there is no statistical relationship between alcohol advertising and consumption for 18 – 24 and over 25 age groups.

However the findings of this study differ with those of Swahn *et al.* (2011: 6) that underscored the importance of restricting alcohol marketing as a policy strategy for reducing alcohol use among the youth.

The results of this study are also not comparable to those of Caswell (2011: 479) that found that comprehensive restrictions on tobacco marketing reduced tobacco consumption by 7.4% in OECD countries.

4.7.2 Reasons for alcohol consumption among the youth

Majority of respondents in this study (55.5%) do drink alcohol, compared to 44.5% of those who do not drink. These findings are in agreement with a study by Morgenstern *et al.* (2010: 148) that investigated exposure of teens to alcohol advertising. Their study found that more than 58% of the students that participated in the German study reported having tried alcohol.

This study further probed possible reasons that may have influenced alcohol drinking behaviour among the youth. Respondents were probed for *peer pressure, boredom, escaping troubles, cultural practices* and drinking at *social functions* as possible reasons for alcohol consumption. Drinking at social functions was the reason with the highest mean of 3.05 on a scale of 5. These findings agree with findings by Grieveson & Djafarova (2013: 41) that friends have little influence on how often young people consume alcohol whereas there is a strong relationship between social influences and binge drinking.

4.7.3 Amount of alcohol consumed

This study found that 34.2% of participants drink 1-5 units of alcohol per week, 10.1% drank 6-10 units per week. Only 4% drink 11-15units of alcohol per week, 2.1% drink 16-20 units per week and 1.4% drinks 21-25 units per week. Participants who admitted to drinking more than 25 units of alcohol per week were only 2.2%. These findings are contradictory to findings by Grieveson & Djafarova (2013: 41) that proved binge drinking among the youth aged 18 – 24 years. However majority of participants in this study are aged between 16 – 19 years. A broader age representation may be beneficial for future research.

4.7.4 Evaluating different media types of alcohol advertising

A comparison of alcohol advertising awareness between television, print media and billboards was made in this study. Results indicate a high mean (4.31) for television compared to print media (4.26) and billboards and buildings (4.17).

A comparative study for attention paid on alcohol advertising on television, print media and billboards was also made. Respondents indicated a higher attention on alcohol advertising on TV (2.57) compared to print media and billboards (2.48). Figure 6 and 7 compares different media types.

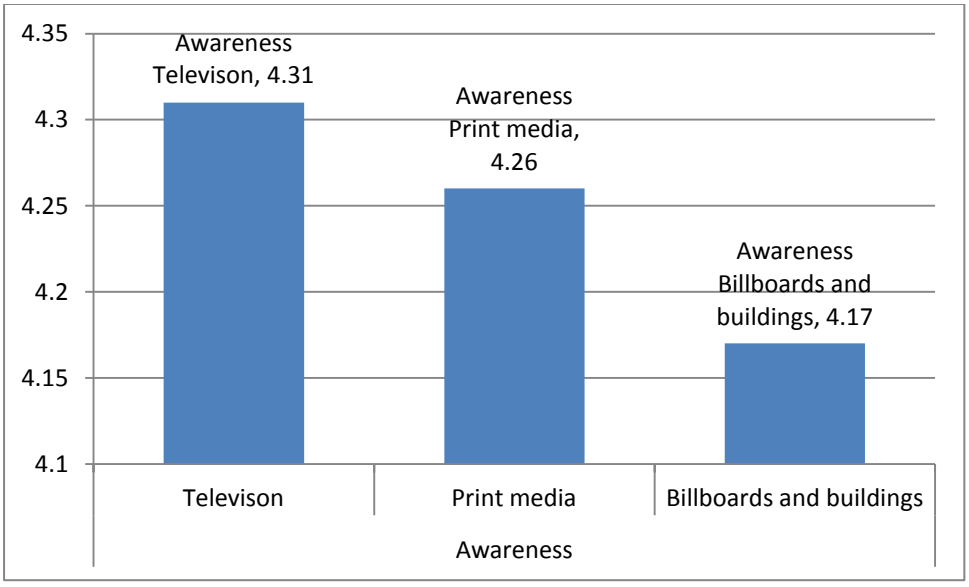

Figure 6: Awareness of alcohol advertising

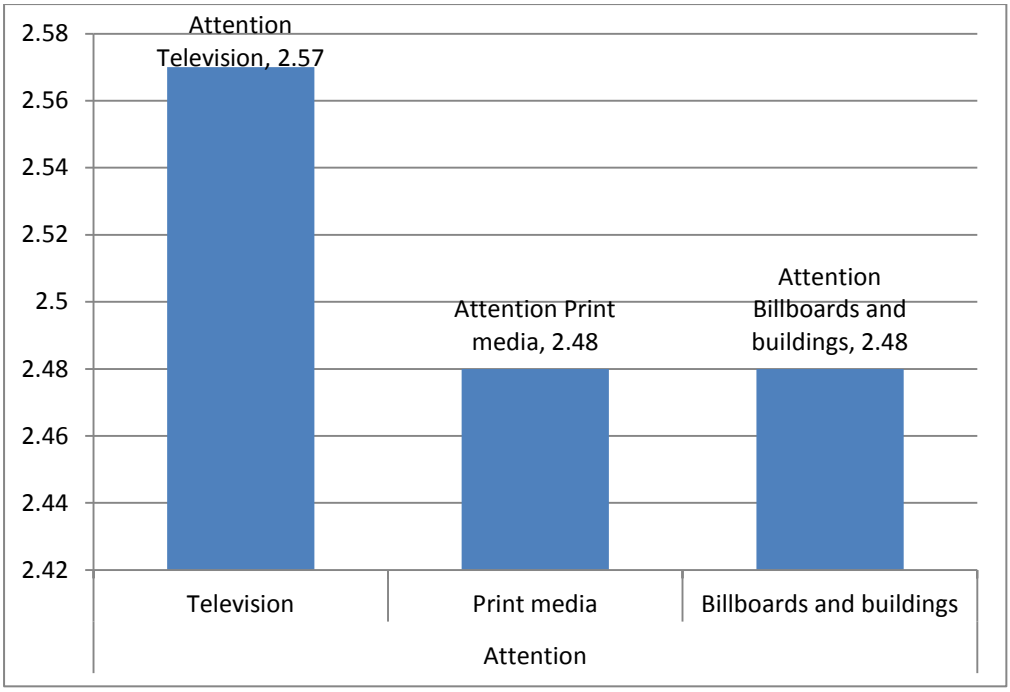

Figure 7: Attention of alcohol advertising

4.7.5 Brand loyalty

A mean value of 3.0 and a standard deviation of 1.622 was received on a statement that tested respondents' brand loyalty. Participants in this study were more loyal than participants in a similar study by Lin *et al*. (2012: 332) that found that only 28.3% of 718 participants had a favorite alcohol brand, of which 71% of participants were drinkers.

4.8 CHAPTER SUMMARY

In this chapter empirical results of the results were reported and statistically analysed. Demographic data of respondents was outlined and questions on perceived or real experiences relating to alcohol advertising and consumption were investigated.

Validity and reliability of the questions were tested using factor analysis and Cronbach's alpha coefficient. One question was dropped from the construct in order to maintain an acceptable value of reliability. An alcohol consumption pattern of participants was outlined and the results were compared with those of similar studies.

t-Tests of various variables and analysis of variance were performed in order to determine if there is a significant difference in how participants responded to questions. The results of t-tests and ANOVA are summarised as follows:

- **Gender:** In 3 out of four schools there was no significant difference in how males and females responded to questions.
- **Alcohol consumption:** There was a significant difference in how drinkers and non-drinkers responded to questions. A higher mean value for drinkers in all categories of questions indicated that they had more influence in the responds.
- **Schools:** There was a significant difference in how different schools responded to questions.
- **Amount of alcohol consumed:** There was a significant difference in how respondents who drink different amounts of alcohol per week responded to questions. Results of learners in school 2 did not show any significant difference ($p=0.244$) in how they answered questions on alcohol advertising experience.
- **Years of drinking alcohol:** There was a significant difference in how respondents with different drinking experience answered questions. In most categories respondents with more than 3 years of drinking had a higher mean and therefore influenced most of the answers.

- **Family economic status:** There was a significant difference in how participants from different family economic backgrounds responded to questions. Participants from a low family status had higher means in all the categories.

A correlation analysis of the constructs was performed on the variables and there was a negative insignificant correlation between exposure to alcohol advertising and alcohol consumption.

In the next chapter (chapter 5) conclusions, limitations and recommendations of this study are discussed.

CHAPTER 5: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

The purpose of this chapter is to highlight the conclusions derived from the empirical study of this research. Limitations of the study are identified and form a basis for recommendations for relevant stakeholders and future research.

Chapter 1 of this study presented a roadmap that was followed in an attempt to clearly articulate the problem and to define primary and secondary objectives. A theoretical overview exploring current knowledge and research was presented in chapter 2. In chapter 3 the methodology to carry out an empirical study was presented. Measuring instruments modified from existing questionnaires were used to collect data. A pilot study was conducted in order to ensure simplicity, clarity and practicality of the proposed questionnaire. Chapter 4 dealt with the analysis and discussion of derived results. In chapter 5 conclusions, limitations and recommendations are presented.

5.2 CONCLUSIONS

Conclusions with regard to primary and secondary objectives are as follows:

5.2.1 The relationship between alcohol advertising and alcohol consumption

Different studies arrived at different conclusions regarding the relationship between alcohol advertising and alcohol consumption. A study by Govender (2013: 210) concluded that the South African government and consumers that participated in a study are in support of the banning of alcohol advertising. The position of government has been thoroughly presented in chapters 1 and 2. The consideration of government to ban alcohol advertising is premised on the notion that there is a significant relationship between alcohol advertising and alcohol consumption.

The liquor industry commissioned an Econometrix study in an attempt to convince the government that advertising and consumption are not correlated (Fieldgate *et al*., 2013: 2; Myers & Parry, 2013: 402). An Econometrix report concluded that:

- There is no relationship between advertising expenditure and the consumption of alcohol. The report argued that efforts to reduce per capita alcohol consumption by means of regulating or banning liquor advertising may be ineffective.
- In theory the most effective approach to reduce total alcohol consumption will be to raise the price of alcohol by means of tax on condition that the illegal alcohol market is under control. The study argued that 26% of alcohol consumed in South Africa is unrecorded and therefore intervention policies such as tax increases may not be effective in South Africa.
- There was no reliable research that can effectively trace the effect of an ad from exposure to subsequent consumption behaviour. The study concluded that literature investigating the influence of advertising on alcohol consumption is mostly contradicting. Econometric, cross-sectional, regression models, longitudinal, pooled data and case studies that were used in the report contradict each other therefore inconclusive because of failure to prove a causal relationship between alcohol marketing and aggregate consumption and harmful drinking behaviour.
- There are many complex and interrelated determinants of individual behaviour that are difficult to establish. The study suggested that parental education, poverty, unemployment and peer pressure are much more influential on drinking patterns.
- Econometrix further suggested that the proposed legislation will have a negative impact on the economy. An amount of R7.4 billion will be lost on GDP; 11,954 jobs will be lost; National Treasury will lose an amount of R1.783 billion in taxes; export figures will fall by an amount of R225 million while imports fall by R304 million (Fieldgate *et al.*, 2013).

On the other hand Parry *et al*. (2012: 603) in an article published in the *South African Medical Journal*, compared the successes gained through the banning of tobacco advertising through the Tobacco Product Control Amendment Act of 1999 twenty five years ago with the proposed Control of Marketing of Alcohol Beverages Bill. Parry *et al*. (2012: 603) argued that similar perspectives presented by the liquor industry through Econometrix study of 2013 were made in the lead-up to the ban on alcohol advertising, yet after twenty three years, there was evidence that the severe public health burden was reduced.

In this study, no positive correlation was found between constructs of awareness, attention and attractiveness with constructs of influence and behaviour. Therefore, this study did not find any link between advertising of alcohol and alcohol consumption.

5.2.2 Factors that influence alcohol consumption among the youth

Five factors that influence alcohol advertising were explored in this study. Reasons of peer pressure, boredom, escaping troubles, cultural practices and drinking at social functions were tested through a five point Likert scale.

Drinking at social functions was the most favourable reason for drinking among the 639 respondents that participated in this study. Factors such as peer pressure and boredom were less evident.

5.2.3 The level of alcohol consumption among the youth

The level of alcohol consumption was measured in terms of units consumed per week. The measure of a unit was dependant on the type of alcohol beverage consumed.

1 unit = 1 glass of beer;

1 unit = 25 ml of gin, rum, whisky, tequila;

1 unit = $\frac{1}{2}$ glass of wine, champagne

This study found that majority (34.2%) of participants drink 1-5 units of alcohol per week. Only 4% drink 11-15units of alcohol per week, 2.1% drink 16-20 units per week and 1.4% drinks 21-25 units per week. Participants who admitted to drinking more than 25 units of alcohol per week were only 2.2%. The drinking pattern among participants is moderate when compared to that of participants in a previous study by Grieveson & Djafarova (2013: 41).

5.2.4 Comparison of different advertising media and their impact on alcohol consumption among the youth

Participants in this study were more inclined to alcohol advertisements seen on television as compared to alcohol advertisements seen on print media, billboards and on buildings.

Results indicated a high mean (4.31) for television compared to print media (4.26) and billboards and buildings (4.17). Empirical results also indicated that respondents paid more attention to alcohol advertisement on television than the two other media. Therefore if government goes ahead with the banning of alcohol advertising, more attention should be placed on alcohol advertising on television.

5.3 LIMITATIONS

The following limitations were identified in this study:

- The study was confined to a single district of Sedibeng municipality with the majority of respondents coming from a moderate economic profile. An article by the Centre on Alcohol Marketing and Youth (CAMY) at Georgetown University suggested that the liquor industry purposefully targeted the Hispanic youth because of their vulnerability (CAMY, 2005). Therefore a study representative of diverse economic statuses is recommended in order to expose any different patterns of alcohol consumption.

- The majority of participants in this study were aged between 16 and 19 years. While the study purposefully sampled the youth of a school-going age, literature suggested a problem of binge drinking among the youth aged 18 – 24 years (Grieveson & Djafarova, 2013: 41). Therefore the findings of this study may not be representative of the entire youth population of Gauteng.

- Questions that explored the usage of media for alcohol advertising were only confined to television, print media billboards and buildings in this study. The

emergence of the social media and the information boom should have necessitated social media and internet as possible media types to be evaluated.

- Responses in this study were limited to a closed questionnaire. A mixed method approach will be appreciated for future studies in order to capture the social impact of alcohol abuse that might not have been tapped using a structured quantitative approach.

5.4 STUDY RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

5.4.1 To government

This study did not find any causal relationship between alcohol advertising and consumption. These findings are not in agreement with the reasons of government to pass the Control of Marketing of Alcohol Beverages Bill. The economic impact of an alcohol advertising ban may not warrant the minimal benefit that the passing of the Bill may bring. Currently the Department of health has commissioned an Independent Regulatory Impact Assessment (RIA) to look into the economic and societal impact of the bill (Loeser, 2013; Ensor, 2013). Government is encouraged to make public the findings of the RIA. Different findings may emerge that may necessitate a different form of regulation.

Public participation forums regarding the adoption of the Bill should be initiated in order to assess the perspectives of the society about the proposed ban.

However, the negative impact that alcohol has on the health of society and the burden of disease alcohol brings on the nations of the world cannot be denied. Therefore government need to strike a balance between the extremes of a total ban and industry self regulation in trying to reduce detrimental alcohol consumption behaviour.

5.4.2 To the liquor industry

South Africa's annual adult per-capita alcohol (APC) consumption was 9.5 litres of pure alcohol in 2005 as compared to the world average amount of 6.13 litres and the regional average for Africa being 6.2 litres APC (Vollgraaff, 2013; Fieldgate *et al*., 2013: 23). Although the findings of this study did not find binge drinking to be a problem among the respondents, the liquor industry should show more commitment towards self-regulation in order to prove to government that a ban is not necessary.

5.4.3 For future research

Current studies and reviews are mostly based on research conducted in other countries such as the UK, USA and Canada. This study has built towards a local knowledge base. The findings initiated a benchmark for future studies as the debate may continue into the future.

Based on the limitations presented in this study, future studies should cover a much bigger sample that is representative of the South African youth population. A broader age group should be included in the sample in order to differentiate alcohol consumption behaviour among the youth of a school going age and those already at tertiary institutions.

Questions that explored the usage of media for alcohol advertising were only confined to television, print media and buildings in this study. Future studies should therefore explore the role that social media and the internet play in alcohol advertising and whether such a role influences behaviour.

5.4.4 To schools

Results will be made available to schools that participated in this study. Alcohol consumption patterns derived in the study will help school principals and Life orientation teachers to develop more informed intervention strategies.

5.5 CHAPTER SUMMARY

This chapter discussed the conclusion, limitations and recommendations of the study. Conclusions were drawn based on the primary and secondary objectives. Limitations were used to make recommendations to different stakeholders that included government, the liquor industry, schools and future research.

Overall, the study has successfully addressed the problem statement and all the primary and secondary objectives have been achieved.

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APPENDIX A

Letter of approval from Sedibeng West District – Gauteng department of Education

CONFIDENTIAL

Ledwaba LP
Tel: 016 421 3660
E mail: leshata@hotmail.com

Dear Mrs. ME Molebatsi

Re: Request for permission to conduct research using high school learners (Grade 8 – 12) of Sedibeng West District

I am a final year student at Potchefstroom Business School – University of North West studying towards an MBA degree. I am currently conducting a research as partial fulfillment of a *Master of Business Administration* (MBA) degree.

The title of my research is: **"The influence of alcohol advertising on alcohol consumption among the youth in the Vaal region."**

I hereby request permission to issue questionnaire to learners in grade 8 – 12. I have attached the questionnaire for your consideration. The questionnaire will be issued in 4 schools, 200 per school if you will allow me.

Participation in the study is voluntary. Respondents will remain anonymous and cannot be identifiable. Individual information will be kept confidential. Participants will be fully informed about the research objectives. The results will be used purely for academic purposes and a feedback will be given to you at the end of the research.

Please indicate below if permission is granted:

Permission granted	**Yes** ✓	~~**No**~~

Mrs. ME Molebatsi
SENIOR EDUCATION SPECIALIST.

Kind Regards,
Leshata Peter Ledwaba (MBA student)
18 August 2014

It all starts here

NORTH-WEST UNIVERSITY
YUNIBESITI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS

APPENDIX B

ALCOHOL ADVERTISING AND CONSUMPTION QUESTIONNAIRE

The purpose of this questionnaire is to evaluate the influence of alcohol advertising on alcohol consumption among the youth in the Vaal Region

Please answer all questions

- **Participation in this study is voluntary. Participants are free to abstain from the study if they so wish.**
- **Respondents will remain totally anonymous and cannot be identifiable.**
- **Individual information will be kept confidential.**

PLEASE PLACE A CROSS IN THE APPROPRIATE COLUMN

SECTION A (DEMOGRAPHIC DATA)

Age Group		Grade		Race	
12-13		8		Asian	
14-15		9		Black	
16-17		10		Coloured	
18-19		11		Indian	
20-21		12		White	
22 and older					
Gender					
Male					
Female					

SECTION B (ALCOHOL CONSUMPTION PATTERN)

B1. Do you drink alcohol?

Yes	
No	

B2. How often do you drink alcohol?

Never	
Less than once a month	
1-2 times per month	
1-2 times per week	
3-4 times per week	
More than 4 times per week	

B3. What day in a week do you normally drink alcohol? (Can select more than one)

Never	
Monday - Thursday	
Friday - Saturday	
Sunday	

B4. How many units of alcoholic drinks do you drink per week?

NB: 1 unit = 1 glass of beer;

1 unit = 25 ml of gin, rum, whisky, tequila;

1 unit = $\frac{1}{2}$ glass of wine, champagne

None	
1 - 5 units	
6 - 10 units	
11 - 15 units	
16 - 20 units	
21 - 25 units	
More than 25 units	

B5. What kind of alcohol do you drink?

None	
Normal beer	
Traditional beer	
Wine / champagne	
Spirits	
Home made	
Shooters	

B6. How many years have you been drinking?

None	
Less than one year	
Between 1 - 3 years	
Between 3 - 7 years	
More than 7 years	

B7. Do your parents or other members of your family drink alcohol?

Yes	
No	

B8. Which members of your family drink alcohol?

None	
Mother	
Father	
Sister/s	
Brother/s	
Other	

B9. How often do your family members drink alcohol?

	Father	**Mother**	**Sister**	**Brother**	**Other**
Never					
Less than once a month					
1-2 times per month					
1-2 times per week					
3-4 times per week					
More than 4 times per week					

B10. How many years have your family members been drinking alcohol?

	Father	**Mother**	**Sister**	**Brother**	**Other**
Less than one year					
Between 1 - 3 years					
Between 3 - 7 years					
More than 7 years					

B11. What kind of a residential area do you come from?

Village	
Township	
Informal settlement	
Suburb	
Town / City	

B12. Which of the following best describe your home?

Cemented Brick house	
RDP House	
Iron sheet house	
Mud house	
Wood house	

B13. Which of the following best describes your family economic status?

Well off	
Moderate economical status	
Low economical status	

Please rate the extent to which you agree or disagree with the following statements by making an "X" over the appropriate number on the 1 to 5 scale next to the statement Please take note that 1 = Strongly disagree and 5 = Strongly agree				
1= Strongly disagree	**2= Disagree**	**3= Neutral**	**4= Agree**	**5= Strongly agree**

Which of the following statements best describes you experience regarding alcohol consumption?						
B14	**STATEMENT**	**SCALE**				
B15	**I drink alcohol because of peer pressure.**	**1**	**2**	**3**	**4**	**5**
B16	**I drink alcohol because of boredom.**	**1**	**2**	**3**	**4**	**5**
B17	**I drink alcohol because I want to escape my troubles.**	**1**	**2**	**3**	**4**	**5**
B18	**I drink alcohol because of my cultural practices.**	**1**	**2**	**3**	**4**	**5**
B19	**I only drink at social functions**	**1**	**2**	**3**	**4**	**5**
B20	**I think it is okay for people to drink.**	**1**	**2**	**3**	**4**	**5**
B21	**I am aware of harmful effects of drinking alcohol.**	**1**	**2**	**3**	**4**	**5**

SECTION C (ALCOHOL ADVERTISING SECTION)

Please rate the extent to which you agree or disagree with the following statements by making an "X" over the appropriate number on the 1 to 5 scale next to the statement Please take note that 1 = Strongly disagree and 5 = Strongly agree

1= Strongly disagree	2= Disagree	3= Neutral	4= Agree	5= Strongly agree

Which of the following statements best describes your experiences regarding alcohol advertising?						
C1	**STATEMENT**	**SCALE**				
C2	**I have watched alcohol advertisements on television before.**	**1**	**2**	**3**	**4**	**5**
C3	**I have seen alcohol advertising on newspapers and magazines before.**	**1**	**2**	**3**	**4**	**5**
C4	**I have seen alcohol advertising on billboards and buildings before.**	**1**	**2**	**3**	**4**	**5**
C5	**I see more than one alcohol ad in a day.**	**1**	**2**	**3**	**4**	**5**
C6	**I pay attention to alcohol advertising on TV**	**1**	**2**	**3**	**4**	**5**
C7	**I pay attention to alcohol advertising on Newspapers and magazines.**	**1**	**2**	**3**	**4**	**5**
C8	**I pay attention to alcohol advertising on billboards and buildings.**	**1**	**2**	**3**	**4**	**5**
C9	**I easily remember messages of alcohol advertisements.**	**1**	**2**	**3**	**4**	**5**
C10	**I have a favourite alcohol brand.**	**1**	**2**	**3**	**4**	**5**
C11	**Daily alcohol advertising broadcasts are interesting to me.**	**1**	**2**	**3**	**4**	**5**
C12	**Daily alcohol advertising broadcasts are attractive to me.**	**1**	**2**	**3**	**4**	**5**
C13	**I think alcohol advertising is related to enjoyment and fun.**	**1**	**2**	**3**	**4**	**5**
C14	**I think alcohol advertisements show the truth.**	**1**	**2**	**3**	**4**	**5**
C15	**When I drank alcohol for the first time, I hoped it would make me have more fun.**	**1**	**2**	**3**	**4**	**5**
C16	**I think alcohol advertising influence me to drink alcohol**	**1**	**2**	**3**	**4**	**5**
C17	**I think alcohol advertising on T.V. influenced me to imitate the characters.**	**1**	**2**	**3**	**4**	**5**
C18	**I think alcohol advertising influenced me to drink sooner than I should.**	**1**	**2**	**3**	**4**	**5**
C19	**I think alcohol advertising influenced me to drink heavier than I should.**	**1**	**2**	**3**	**4**	**5**
C20	**I think alcohol advertising influenced my friends or family to consume alcohol sooner or heavier than they should.**	**1**	**2**	**3**	**4**	**5**
C21	**I think that alcohol advertising increases overall consumption of alcohol.**	**1**	**2**	**3**	**4**	**5**
C22	**I think alcohol advertising has an effect in increasing the number of people who drink.**	**1**	**2**	**3**	**4**	**5**

THANK YOU FOR YOUR TIME

APPENDIX C: RESULTS FOR ALCOHOL CONSUMPTION PATTERN

SECTION B (ALCOHOL CONSUMPTION PATTERN)

B1. Do you drink alcohol?

Answer	Frequency	Percentage
Yes	353	55.5
No	283	44.5

B2. How often do you drink alcohol?

Answer	Frequency	Percentage %
Never	263	41.5%
Less than once a month	206	32.5%
1-2 times per month	115	18.2%
1-2 times per week	31	4.9%
3-4 times per week	10	1.6%
More than 4 times per week	8	1.3%

B3. What day in a week do you normally drink alcohol? (Can select more than one)

Answer	Frequency	Percentage
Never	274	42.9
Monday - Thursday	10	1.6
Friday - Saturday	342	53.5
Sunday	33	5.2

B4. How many units of alcoholic drinks do you drink per week?

NB: 1 unit = 1 glass of beer;

1 unit = 25 ml of gin, rum, whisky, tequila;

1 unit = $\frac{1}{2}$ glass of wine, champagne

Answer	Frequency	Percentage
None	287	45.9
1 - 5 units	214	34.2
6 - 10 units	63	10.1
11 - 15 units	25	4
16 - 20 units	13	2.1
21 - 25 units	9	1.4
More than 25 units	14	2.2

B5. What kind of alcohol do you drink?

Answer	Frequency	Percentage
None	253	39.6
Normal beer	175	27.4
Traditional beer	34	5.3
Wine / champagne	124	19.4
Spirits	75	11.7
Home made	11	1.7
Shooters	59	9.2

B6. How many years have you been drinking?

Answer	Frequency	Percentage
None	264	41.9
Less than one year	161	25.6
Between 1 - 3 years	144	22.9
Between 3 - 7 years	42	6.6
More than 7 years	19	3

B7. Do your parents or other members of your family drink alcohol?

Answer	Frequency	Percentage
Yes	487	76.8
No	147	23.2

B8. Which members of your family drink alcohol?

Answer	Frequency	Percentage
None	112	17.5
Mother	159	24.9
Father	277	43.3
Sister/s	103	16.1
Brother/s	192	30
Other	165	25.8

B9. How often do your family members drink alcohol?

Answer	Father		Mother		Sister		Brother		Other	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Never	128	30	164	48.5	150	55.4	137	39.6	93	35.1
Less than once a month	74	17.4	65	19.2	45	16.6	48	13.9	48	18.1
1-2 times per month	98	23	60	17.8	47	17.3	66	19.1	48	18.5
1-2 times per week	71	16.7	31	9.2	20	7.4	49	14.2	49	9.8
3-4 times per week	26	6.1	11	3.3	5	1.8	24	6.9	26	7.2
More than 4 times per week	29	6.8%	7	2.1	4	1.5%	22	6.4%	19	11.3

B10. How many years have your family members been drinking alcohol?

	Father		Mother		Sister		Brother		Other	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Less than one year	41	12.7	44	21.6	51	33.8	52	22.7	41	22.3
Between 1 - 3 years	38	11.8	21	10.3	48	31.8	69	30.1	22	12.0
Between 3 - 7 years	42	13	22	10.8	28	18.5	59	25.8	25	13.6
More than 7 years	202	62.5	117	57.4	24	15.9	49	21.4	96	52.2

B11. What kind of a residential area do you come from?

Answer	Frequency	Percentage
Village	15	2.4
Township	335	53.3
Informal settlement	15	2.4
Suburb	70	11.1
Town / City	193	30.7

B12. Which of the following best describe your home?

Answer	Frequency	Percentage
Cemented Brick house	470	74.7
RDP House	112	17.8
Iron sheet house	28	4.5
Mud house	9	1.4
Wood house	10	1.6

B13. Which of the following best describes your family economic status?

Answer	Frequency	Percentage
Well off	181	29.0
Moderate economical status	393	62.9
Low economical status	51	8.2

APPENDIX D: FACTOR ANALYSIS OF ALL COMPONENTS

	Component					
	1	2	3	4	5	6
C6	.841					
C8	.826					
C7	.813					
C9	.608					
C12	.509					
C11	.506					
C3		.837				
C2		.830				
C4		.817				
C5		.495				
B21						
C18			.869			
C19			.815			
C16			.689			
C17			.688			
C20			.664			
B15				.802		
B17				.709		
B16				.665		
B18				.443		
C10					-.632	
B20					-.603	
C15					-.587	
B19					-.553	
C13					-.537	
C14					-.464	
C22						.873
C21						.827