

**THE MODERATING EFFECT OF SUBJECTIVE NORMS, PERCEIVED BEHAVIOURAL CONTROL AND GENDER ON THE RELATIONSHIP BETWEEN ATTITUDE TOWARDS INTERNET ADVERTISING AND PURCHASE INTENTION OF UNIVERSITY STUDENTS IN KENYA**

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### **ABSTRACT**

*Advertising through the internet is now an important source of consumer information as the number of internet users continues to increase. Internet usage trends and advertising in Kenya has been growing faster than any other media. However, despite this unprecedented growth, minimal empirical research has been undertaken to explore the effect of attitude towards internet advertising on purchase intention in Kenya with many studies having been conducted in other contexts other than Kenya's. This study therefore sought to determine the effect of attitude towards internet advertising on purchase intention in Kenya with subjective norms, perceived behavioural control and gender as moderators. A cross sectional survey research design was adopted with university students as the target population. A pre – test on the survey instrument was conducted to check on the format and suitability of questions with Cronbach's alpha statistic used as the measure of reliability. A multiple linear regression analysis was used to test for causal relationships among the variables. The study findings showed that internet advertising has an effect on purchase intention. Attitude toward internet advertising did have a significant and positive effect on purchase intention. There was no evidence of PBC, SN and gender moderating the relationship between attitude towards internet advertising and purchase intention. However, the main effect variable of subjective norms had a significant and positive effect on purchase intention.*

**Keywords:** *Subjective norms, Perceived behavioural control, gender Attitude towards internet advertising and Purchase intention.*

### **BACKGROUND INFORMATION**

Traditional advertising is evolving today to digital advertising as a result of recent technological developments creating expansion in the use and penetration of the internet as a marketing medium (Whiteside, 2008). Advertising through the internet is now an important source of

consumer information as the number of internet users continues to increase (Cheung, 2006). In their endeavour to promote products and services, many businesses now clearly recognize that by advertising online they reach their target market in a fast and efficient way (Rahul, 2008). This online atmosphere now represents a new endeavor for most companies and the low cost of this market is encouraging more businesses to be generated (Daniel, 2007). This therefore would explain the enormous worldwide investment in digital advertising given these trends in penetration and usage creating a huge internet market. Indications so far show an exponential growth in penetration and internet usage from 1993 to date. Table 1 below presents worldwide data on the growth of internet users and penetration rates.

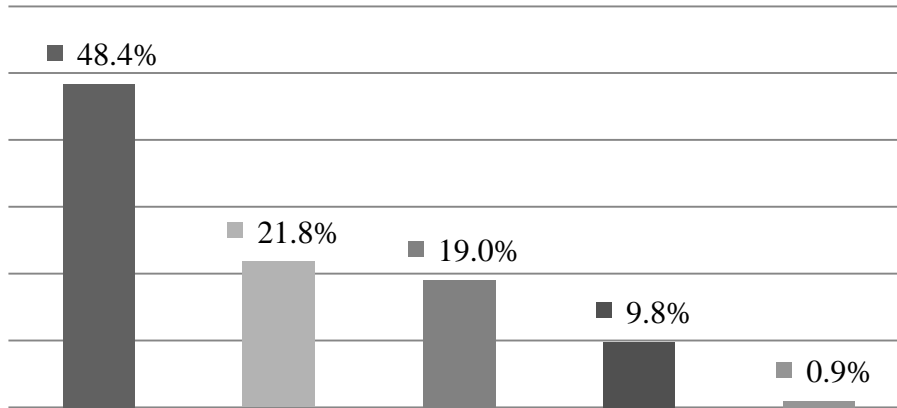
Table 1: Growth of internet users in the world

Year	Internet Users	World Population	Penetration (% of Pop. with Internet)
2014*	2,925,249,355	7,243,784,121	40.4%
2013	2,712,239,573	7,162,119,430	37.9%
2012	2,511,615,523	7,080,072,420	35.5%
2011	2,272,463,038	6,997,998,760	32.5%
2010	2,034,259,368	6,916,183,480	29.4%
2009	1,752,333,178	6,834,721,930	25.6%
2008	1,562,067,594	6,753,649,230	23.1%
2007	1,373,040,542	6,673,105,940	20.6%
2006	1,157,500,065	6,593,227,980	17.6%
2005	1,029,717,906	6,514,094,610	15.8%
2004	910,060,180	6,435,705,600	14.1%
2003	778,555,680	6,357,991,750	12.2%
2002	662,663,600	6,280,853,820	10.6%
2001	500,609,240	6,204,147,030	8.1%
2000	413,425,190	6,127,700,430	6.7%
1999	280,866,670	6,051,478,010	4.6%
1998	188,023,930	5,975,303,660	3.1%
1997	120,758,310	5,898,688,340	2.0%
1996	77,433,860	5,821,016,750	1.3%
1995	44,838,900	5,741,822,410	0.8%
1994	25,454,590	5,661,086,350	0.4%
1993	14,161,570	5,578,865,110	0.3%

\* Estimate for July 1, 2014

Source: ITU, (2014)

Figure2: Internet usage in the world by region



Source: ITU, (2014)

In Africa electronic communication is a recent phenomenon with all indications showing usage and access on the rise (Hafkin et al., 1995). According to (Karsten, 2014) internet advertising is seeing a significant increase in Africa, driven by rising mobile and internet penetration and falling data communication tariffs. This trend he says will likely result in the decline of traditional media while allowing many firms and other organizations with limited advertising budgets to take advantage of the internet market, given the wide reaching, innovative, and cost effective advertising options it offers. This position is supported by (Adedeji, 2013) who opines that Africa's share of the global advertising spending is around 5% and is expected to grow significantly into double digits.

According to research agency (TNS RMS, 2012), there has been tremendous growth in Kenya as far as internet usage is concerned. The rise in internet usage and penetration in Kenya has been quite sharp, making the country the fourth in Africa behind Nigeria, Egypt and South Africa and position 33 in the world (ITU, 2014). According to CCK (2014) second quarter statistical report for the period 2013/2014, the number of internet users in Kenya stood at 21.2m by December 2013 more than 50% of the country's total population with penetration rate at 52.3 % of the population. During the same period the estimated number of internet subscribers in Kenya grew by 13 percent to stand at 13.1 million subscribers up from 11.9 million in the previous quarter. The report attributed the rapid growth to increased use of mobile data services mainly by young people on social networking sites and intensified promotions by marketers.

The level of internet advertising expenditure in Kenya has too been on the rise with many firms scrambling to gain a share of this budding sector (Kinyanjui, 2010). This is demonstrated by the fact that of the 3.2 billion adverts served across Africa by the end of the third quarter of 2011 seven countries drew traffic in excess of 100 million adverts and three countries South Africa, Nigeria and Kenya saw more than half a billion adverts served by the third quarter of 2011 (BizCommunity, 2011). Indeed, data from PWC (2014) shows that the total entertainment

and media expenditure growth rates in Kenya are one of the fastest in the world and likely to exceed US\$3 billion in 2017. They further note that one of the key trends for the industry is the growth of mobile internet access and how it will impact advertising and consumer spending given that Kenya is one of the most vibrant markets in the sub – Saharan Africa.

In Kenya today young people are by far the most averse with digital hardware and media channels than any other groups (ICT Board of Kenya, 2007). Research by Synovate group on internet usage trends in Kenya for the second quarter of 2010 showed that the amount of time being spent online on average is growing compared to the previous quarter by around 6% (Synovate, 2010). The findings also showed internet usage to be higher in the 18 – 24 year old demographic. Kemibaro (2013) concurs with this position by stating that for the Kenyan youth, internet usage increases from pre – teens, through the teens and is most popular with post – teens. He further notes that youth in Kenya typically access the internet around 4 times a week on average and this increases with teens and post – teens with 2 out of 3 youth in Kenya now either owning a mobile device or having access to one. This therefore makes the internet a key platform for businesses seeking to engage young people.

This rapid growth of internet usage and penetration in Kenya coupled with a growing level of technological savviness (Bankelele, 2010) calls for businesses to focus more on marketing themselves online in order to exploit the new opportunities brought about by this evolution. There is therefore need to tailor digital marketing to the local market in order to enhance the delivery of advertising messages and marketing communications to consumers. According to (TNS RMS, 2012), already two thirds of social network users in Kenya use these sites to research on products and brands and around half desire to undertake purchases via social networks. Companies can therefore utilize the different social networking platforms including other internet advertising platforms to engage consumers given that power has already gone to consumers as a consequence of the evolving digital environment and moving forward consumers' online interaction will inevitably influence companies.

Previous research suggests that marketers have long been interested in the effects of advertising. Of particular interest has been the relationship between consumers' attitude toward advertisement and how it affects subsequent behavior given consumers from different backgrounds, culture or even location are bound to exhibit different behavior intention when exposed to internet advertising (Haque, Tarofder, Mahmud S& Ismail, 2007). Since the benefits to be drawn from exploiting internet advertising in marketing are enormous as a result of the available platform to create innovative and interactive marketing campaigns that had previously not been viable, a clear and insightful understanding of online consumer behavior is critical in shaping a marketing strategy. Relevant stakeholders in internet marketing need to make decisions about their internet marketing strategies backed by sound knowledge of the dynamics in the internet market. With an increasingly digital world and the emerging internet environment

in Kenya this study therefore seeks to determine the moderating effect of subjective norms, perceived behavioural control and gender on attitude towards internet advertising in Kenya.

### Statement of the Problem

Internet usage trends and advertising in Kenya has been growing faster than any other media (Synovate, 2010). The high penetration rate, improved infrastructure, faster internet speeds along with a drop in prices for internet services has raised the volume of internet users thereby prompting interest in the growing amount of businesses in the e-commerce sector (Kenya ICT Board, 2010; Synovate, 2010, CCK, 2012) with indications of increased spending on internet advertising (Kinyanjui, 2010). Indeed the rise in usage and penetration has been quite sharp, making the country the 4<sup>th</sup> in Africa behind Nigeria, Egypt and South Africa and 33<sup>rd</sup> in the world (ITU, 2014).

Despite this unprecedented growth, little empirical research has been undertaken to explore the moderating effect of subjective norms, perceived behavioural control and gender on attitude towards internet advertising in Kenya.- Most studies undertaken in this area have been in other contexts (Haque, et al., 2007; Kwek, et. al., 2010; Narges, et. al., 2011; Cheng et. al., 2010&Wei, et al., 2010)making it difficult to draw inferences on the Kenyan consumer. This study therefore sought to address this gap by establishing the moderating effect of subjective norms, perceived behavioural control and gender on attitude towards internet advertising of university students in Kenya.

### Research Objectives

The main objective of the study is to establish the moderating effect of subjective norms, perceived behavioural control and gender on the relationship attitude towards internet advertising and purchase intention.

Specifically, the study will seek to:

- (i) Subjective norms moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- (ii) Perceived behavioural control moderates the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- (iii) Gender moderates the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- (iv) Subjective norms and perceived behavioural control moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.

- (v) Subjective norms and gender moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- (vi) Perceived behavioural control and gender moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- (vii) Subjective norms, perceived behavioural control and gender moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.

### Research Hypotheses

- H1: Subjective norms moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- H2: Perceived behavioural control moderates the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- H3: Gender moderates the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- H4: Subjective norms and perceived behavioural control moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- H5: Subjective norms and gender moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- H6: Perceived behavioural control and gender moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- H7: Subjective norms, perceived behavioural control and gender moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.

### Significance and Justification of the Study

The Internet is developing a new marketplace, and establishing new channels of delivery for electronic commerce. Besides, the internet potentially offers marketers a number of benefits that may enhance the value of advertising. There is also an important opportunity to understand how advertising emerging in this new medium can best serve the needs of both marketers and consumers. Background knowledge therefore about consumer needs, characteristics, perceptions, preferences and behaviours will enable marketers develop effective strategies to promote products and services through taking advantage of the underpinning drivers explored in this study thereby increasing consumer satisfaction.

The market place has become very dynamic with consumers today being more informed and sophisticated than before. Consumers too use the internet for a variety of tasks thus creating

opportunities for web inclined businesses to place relevant and targeted advertising messages. With the dynamism of the market place, there is need for marketers to keep abreast with the ever changing environment. Therefore with a good understanding of consumers' online purchase behaviour specific insights can be used to inform marketing tactics directed at specific consumer groupings in line with the changes. Results of this research therefore will help online advertising designers to develop targeted and effective adverts thus drawing in more business.

A scarcity of information exists on online attitudinal formation and the resulting behavior intention in Kenya. Studies undertaken so far have been in other contexts making it difficult to draw inferences on the Kenyan consumer (Haque, et al., 2007; Wu et al., 2006; Wang, et. al., 2009; Kwek, et. al., 2010; Narges, et. al., 2011; Cheng,et. al., 2010; Shelly et. al., 2000; and Wei, et al., 2010). This study therefore seeks to address this gap by establishing the effect of internet advertising on purchase intention in Kenya. Findings of this research will contribute to the body of knowledge both theoretically and practically regarding online shopping in terms of attitude formation and subsequent behavior intention.

With indications showing increased usage and accessibility levels among consumers in Kenya, more businesses are expected to take advantage and ensure a digital presence in order to reach consumers since unlike the traditional marketing, the internet will ensure that information about products is accessible throughout besides providing the leverage of being able to reach a wider clientele in the shortest time possible. This realization is expected to stir competition as marketers scramble for a pie of this emerging market. The likelihood therefore of competing parties using crude marketing techniques is real. Policy makers and regulators therefore can utilize findings of this research to promote online businesses by coming up with appropriate legislation regarding internet advertising since the internet is likely to continue to play a major role in individuals' lives in the foreseeable future.

## **Literature Review**

### **Attitude towards Internet advertising**

Attitude is defined as a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given subject (Robideaux, 2002; Fishbein, 1967). Its formation could be through experiences, observations or environmental influences (Cherry, 2011). Understanding consumer attitudes has been at the forefront of debate (Tsang et al., 2004; Rettie et al., 2005). In general prior literature shows overall consumer attitude towards internet advertising to be positive (Korgaonkar et al., 2002). Wang et al. (2002) posit that consumer behaviour towards advertising can be indicated through consumers' favourable or unfavourable response towards it. According to Mehta (2000), consumers' attitude towards advertising is one of the influential indicators of advertising effectiveness because consumer's cognitive ability

towards the advertising are reflected in their thoughts and feelings and subsequently influence their attitude towards advertising.

The popularity of the internet and the rise of internet advertising spending have led to an increase in study of attitude towards internet advertising. A review of literature reveals a number of studies that measure attitudes toward online advertising (Wang et al. 2009; Brackett et al., 2001; Wang et al. 2002). Advertising on the internet arouses great interest of researchers as well as marketers due to its tremendous growth and its distinctive characteristics. Shavitt et al. (1998) carried out an academic assessment of public attitudes toward advertising and found more people to hold favorable attitude towards advertising than unfavorable one. Whereas a majority of respondents felt that advertising is essential others found it misleading. Ying, et al., (2010) on a study that examined the role of beliefs and attitudes in online advertising: A comparison between the USA and Romania found both the Americans and Romanians to have positive attitudes towards online advertising though as compared to Americans, Romanians tended to hold a more positive attitudes towards online advertising and were more likely to click advertisements, whereas Americans are more likely to buy online than do Romanians. Ayesha (2013) on black generation Y students' attitudes towards web advertising value found that in South Africa, black generation Y students had a positive attitude towards the value of Web advertising. Kelli, et al., (2008) on a study that investigated attitudes and the perceptual antecedents of attitudes toward six online advertising formats and tested the ability of perceptions to predict attitude toward the advert format and click through behaviour on adults found attitude to be significantly related to user behaviour toward that format.

Melody et al. (2004) in a research about consumer attitude toward mobile advertising in Taiwan investigated consumer attitudes about receiving SMS-based mobile advertisements and the relationships among attitude, intention, and behavior. They conclude that Attitude is positively related to the intention to receive mobile ads. Korgaonkar et al., (2002) found that a positive attitude toward online advertising is more likely to result in frequent online purchasing and high online spending. Daulatram et al. (2002) found favourable attitude towards online advertising significantly influenced web advertising behavior such as clicking online advertisements. Wolin et al., (2003) state that user's level of internet advertising interest and level of interest in clicking on the site are significantly correlated with attitude toward internet advertising. Mehta et al., (1995) found newsgroup users to hold negative attitudes toward internet advertising. Cho (2003) on factors influencing clicking of banner advertisements on the internet found consumers to hold favourable attitude towards online advertisements. Acilar, (2013), on a study on positive attitudes of undergraduate students toward online shopping, found undergraduate students to have positive attitudes toward online shopping.

Few studies have however established negative relationships between internet advertising and attitude towards internet advertising. Cardoso et al., (2011), on a study on adolescents in



Portugal, found adolescents to generally exhibited rather neutral or even negative perceptions toward internet advertising. These studies demonstrate attitude toward internet advertising as a significant predictor of consumers' behavior intention. Most researchers have demonstrated that consumers hold positive attitudes towards internet advertising. We therefore posit that consumers will have a positive attitude towards internet advertising.

### Subjective Norms

Subjective norm is the perceived social pressure to engage or not to engage in a behavior (Ajzen, 1991). Lueg et al. (2006) indicate that referents (parents, peers, and friends) do influence young people's decision making processes. They usually form their judgments and make decisions based on not only their own evaluation but also others' perceptions. This argument reflects the important role of subjective norms in people's behavior. When people engage referents, their perception of social pressure will affect whether they perform a certain behavior (Bosnjak et al., 2006). Hansen et al., (2004) argued that due to the uncertainty and risk inherent in online shopping, shoppers may resort to communicate with relevant referent groups or individuals to obtain normative guidance to help them accomplish shopping duties. In this way opinions from reference groups can confirm their decision since shoppers conceive the referents decisions as necessary and correct.

Consumers can be influenced by many social factors among them family, friends in their online marketing decisions (Lim et al., 2005). Generally, the stronger the subjective norms, the stronger the behavioural intention (Lim et al., 2005). Many researchers have demonstrated subjective norms to be a significant determinant of behavior intention. Hansen et al., (2004) found the positive impact of subjective norms on consumers' intention for online grocery shopping. McCarthy, et al., (2013) on factors influencing intention to purchase beef in the Irish market found both attitude and the subjective norm influenced intention to consume beef, but it was attitude that was of greater importance. Khaled et al., (2014) on the impact of students' attitude and subjective norm on the behavioural intention to use services of banking system in demonstrated that there are significant and positive relationships between students' attitude, subjective norm as predictor variables on the criterion variable of behavioural intention to use banking services in the context of Yemen.

Parnnarat (2006) observed that predicting adolescent healthy eating behavior using attitude, subjective nor, intention and self – schema revealed that subjective norm was the only significant predictor of intention. Toby (2013) on subjective norms as a driver of mass communication students' intentions to adopt new media production technologies found that subjective norms play an instrumental role in explaining behavioral intentions to adopt new media technologies. Gopi and Ramayah(2007) also supported positive influences of subjective norm on intention to use internet stock trading. On the influence of subjective norms on attitudes several researchers have reported this relationship. Taylor et al., (1995) noted a strong influence of subjective norms

on consumer attitude towards adoption of a new product. Still Lim et al., (2005) found that when consumers believe important referent others or groups think they should shop online, they are more likely to develop a positive attitude towards online shopping. Silje et al., (2013) on latent interaction effects in the theory of planned behaviour applied to quitting smoking found evidence for an interaction effect for attitude and subjective norm on intention.

Several studies have been carried to determine the moderating effect of subjective norms. Rachel et al., (2000) applying the TPB on eating habits and examining additive and moderating effects of social influence found perceived social support to act as a moderator variable on the relationship between attitude and intention. Based on this extant literature, it is therefore predicted that consumers perceived social pressure to engage internet advertising will have a positive and significant effect on the relationship between attitudes towards internet advertising and purchase intention.

### Perceived Behavioural Control

Perceived behavioral control refers to people's perceptions of their ability to perform a given behavior (Ajzen, 1991). It is an individual's perception on the availability of skills, resources and opportunities that may either inhibit or facilitate behavior (Barnett et al, 2004). It addresses both the internal control which is an individual's skills and abilities or self-efficacy and external constraints which are opportunities and facilities needed to perform a behavior. PBC relates to behavior in that individuals will engage in a given behavior when they perceive that they have control over the given it and they will be shy away from performing it if they have no control. In other words a high level of PBC should intensify an individual's intention to perform the behavior, and the low level PBC ought to be less motivating to perform the behavior. The control factor include internal factors such as information, personal deficiencies, skills, abilities and emotions; and external factors such as opportunities, dependence on others and barriers (Conner, et al., 2005).

PBC's direct influence on intention to purchase has been acknowledged to have two distinct dimensions of self-efficacy and controllability (Pavlou, et al., 2006; Bhattacharjee, et al., 2008; Trafimow et al., 2002). Self-efficacy has been conceptualized as the ease or difficulty of performing a behavior, which in essence is a consumers' judgement of their own capabilities to engage in a given behavior (Ajzen, 2002; Pavlou, et al., 2006) with controllability being the extent to which behavior is up to the individual (Ajzen, 2002).

There is strong theoretical and empirical support for the role of behavioral control on intentions (Kim, et al., 2009, Gopi and Ramayah 2007, Ajzen, 1991). Several studies have shown PBC to account for a considerable variance in intentions and actions (Ajzen, 2002). They have shown PBC to not only positively influence intention, but also to positively determine the final behavior intention (Ajzen, 1991; Taylor, et al., 1995; Pavlou, 2003). Bosnjak, et al, (2005) found PBC to

positively relate to intention to participate in a web survey. Perceived behavioural control influence on the intention to shop online has been widely considered too in the area of internet marketing. Hsu et al, (2006) also found PBC was positively associated with the intention to use mobile coupons. Many studies suggest PBC to be a statistically significant influence on intentions to shop online.

Several studies too have been carried to determine the moderating effect of PBC. Several scholars have investigated the relationship between attitude and PBC (Ajzen et al., 1992, Doll et al., 1992). Silje et al., (2013) on latent interaction effects in the theory of planned behaviour applied to quitting smoking found evidence for an interaction effect for attitude and perceived behavioural control on intention. Bansal et al., (2002) too found that when consumers had enough control over switching service providers, a positive attitude towards switching was formed which in turn led to a stronger intention to switch. Still, Lee et al., (2011) while determining the influence of mobile self – efficacy on attitude towards mobile advertising found self-efficacy to have a significant influence on attitude towards mobile advertising. We therefore posit that PBC will have a positive and moderating effect on the relationship between attitudes towards internet advertising and purchase intention.

### Respondents Gender

Gender has been and continues to be one of the most common forms of segmentation used by marketers in general and advertisers in particular (Nicovich et al., 2005). Accordingly, if gender based advertising beliefs, attitudes and consumer patterns exist, it is vital for advertisers to recognize them, understand them and use them to design gender specific advertisements (Nicovich et al., 2005; Wolin et al., 2003). As shopping online becomes more common, the number of women shopping online shows a corresponding increase (Asch, 2001). Pastore (2001) concurs that there has been a recent surge in the use of the internet by women. PRC (2005) argues that in fact there has been an increase of 3% for men versus 12% of women for information search on products and services, and that 82% of men against 75% of women conducted searches on products in 2005.

Prior studies have shown gender differences toward online advertising (Okazaki, 2007; Wolin 2003). Wolin, et al., (2003) studied gender perception about internet advertisement. The results show while males found internet advertising to be more enjoyable, informative and more useful, females found advertising to be more annoying and more offensive. The study further reveals that females tend to have more negative attitudes and beliefs about internet adverts. Internet experience and skills gap between males and females has narrowed over time (Schumacher et al., 2001). Guoqing et al., (2006), found the existence of gender differences among Hong Kong respondents. Mathew et al., (2010) showed females perceive stronger irritation in mobile advertising than males. Jieun et al. (2010), found that women reported higher

levels for all dependent constructs, of informativeness and entertainment of the mobile adverts, attitude toward the adverts, and intention to click through and learn more.

Lori et al., (2003) on gender differences in beliefs, attitudes and behavior on web advertising, found males exhibit more positive beliefs about web advertising and more positive attitudes toward web advertising than females. Additionally, males were more likely than females to purchase from the web and surf the web for functional and entertainment reasons, whereas females are more likely to surf the web for shopping reasons. Richard et al., (2010) on the other hand while assessing the role of gender in the context of a pharmaceutical website found differences in the web navigation behavior of both sexes. The findings showed that men engaged in less exploratory behavior besides developing less website involvement compared to. However, across the two sexes, entertainment, challenge, and effectiveness of information content were the key drivers of website attitudes.

Bassam, (2012) on the role of gender in Syrian consumers' beliefs about and attitudes towards online advertising found males to have more positive beliefs about online advertising than female. Overall, males held more positive attitudes towards online advertising than females. Cardoso et al., (2011), in a study on adolescents in Portugal, registered gender differences between male and female with female consumers perceiving internet advertising as more informative but also more irritating than male consumers. They however were in agreement on their perception of internet advertising in terms of entertainment and trustworthiness. Acilar, (2013), on a study on positive attitudes of undergraduate students toward online shopping, found male students to have more positive attitudes toward online shopping than female counterparts. Lack of attitudinal differences too has been determined. Okazaki (2007) found no specific difference between male and female respondents in case of attitude affecting factors on his exploration of gender effects in mobile advertising. Mengli (2005) in a study on factors affecting consumers' attitude towards online shopping and online shopping intention in Bangkok, Thailand, found no difference in consumers' attitude towards online shopping based on gender, age and education level. However, an overwhelming number of studies have reported attitudinal differences between male and female regarding attitude towards internet advertising. We therefore posit that, there exist attitudinal differences between males and females.

### Purchase Intention

Intention is an indication of a person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior. Intention is based on attitude toward the behavior, subjective norm, and perceived behavioral control, with each predictor weighted for its importance in relation to the behavior and population of interest (Ajzen, 1991). A consumer's attitude and external factors construct determine consumer purchase intention, and it is a critical factor to predict consumer behavior (Fishbein et al., 1975). Consumers usually form expectations

about the value and satisfaction that various market offerings will deliver and buy accordingly (Kotler & Armstrong, 2010). Purchase intention can measure the possibility of a consumer to buy a product, and the higher it is, the higher is the consumer's willingness to buy a product (Schiffman et al., 2000). Jingjun, (2007) while investigating the influence of personalization in affecting consumer attitudes toward mobile advertising in China, found a direct relationship between consumer attitudes and consumer intentions. Salisbury et al., (2001), posits that customer online purchase intention in the web-shopping environment will determine the strength of a consumer's intention to carry out a specified purchasing behaviour via the internet.

Pavlou (2003) argues that online purchase intention is the situation when a customer is willing and intends to become involved in online transaction. In order to trigger customer online purchase intention, web retailers have to explore the effect of shopping orientations on customer online purchase intention. Ying, et al., (2010) on a study that examined the role of beliefs and attitudes in online advertising: A comparison between the USA and Romania found attitude towards online advertising to be a significant predictor of consumer responses to online advertising;

Consumers' attitude toward advertising has been found to influence advertising effectiveness (Mehta, 2000). Similarly, studies show that online advertising does have an impact on purchase intention (Becerra et al., 2010; Chan et al., 2010; Wei et al., 2010; Bergkvist, 2010). Consumers are more likely to have a higher purchase intention if online advertising is customized to their needs with regard to content and pictures (Chatterjee et al., 2010). When there is favorable attitude toward the brand, purchase intention is generated (Wei et al., 2010). Mehta (2000) found that those who have more positive attitude toward advertising are more likely to be persuaded by advertising. Consumers' positive attitude toward mobile advertising is likely to influence their willingness to accept mobile advertising.

Melody et al., (2004) in a research about consumer attitude toward mobile advertising in Taiwan investigated consumer attitudes about receiving short message service based mobile advertisements and the relationships among attitude, intention, and behavior. They conclude that Attitude is positively related to the intention to receive mobile adverts. Yu et al., (2007) showed that when consumers have a positive attitude towards internet shopping, they have greater intention to shop for products and services via the Internet. Mengli, M. (2005) on a study on factors affecting consumers' attitude towards online shopping and online shopping intention in Bangkok, Thailand, found attitude toward online shopping to have an effect on online shopping intention. Nasir, (2011) on beliefs about and attitudes towards online advertising in Turkey, found a statistically significant positive relationship between Turkish consumers' attitudes towards online advertising and their behavioral responses. We therefore conclude that positive attitude towards internet advertising will lead to positive behavior intention.

## RESEARCH METHODOLOGY

### Research Design

The study adopted a cross sectional study in determining the effect of internet advertising on attitude towards internet advertising of university students in Kenya. Cross – sectional surveys involve the study of a group within a population over a specified period of time where information on the population is gathered at a single point in time (Shaughnessy, et. al., 2011; Martyn, 2010).

### Population

In this study the target population was composed of all students in Kenyan universities estimated at 153,591 as summarized in appendix V (Commission for Higher Education, 2010). This was further broken down into male – 96,098, female – 57,493.

### Sample Design

In this survey, the sampling frame consisted of students in Kenyan universities. Krejcieet. al., (1970) approach on determination of sample size was used to determine the number of students who formed the sample size of 383 respondents.

### Data Collection Instrument

A closed ended survey questionnaire administered by research assistants was used to collect primary data on perceived behavioural control, subjective norms, purchase intention and attitude towards internet advertising. All variables were measured on a 5-point likert scale (i.e. 1=Strongly Disagree, 2=Disagree, 3=Undecided 3=Agree 5=Strongly Agree). Likert scales were employed since they offer advantages of speed, and ease of coding (Neuman, 1994). Many researchers have employed the scale in their research work on internet shopping (Haque, et al., 2007;Kwek, et. al., 2010).

### Reliability Test

In this study, Cronbach's (1951) alpha coefficient was used as a quality indicator of the scale items. This statistic has widely been used in research as a quality test indicator (Klaas, 2009). Cronbach's alpha value of 0.7 was considered as the minimum acceptable threshold of questionnaire reliability (Nunnally, 1978; Garson, 2006; Hair et al., 2006; & George et al., 2003).

Table 2: Reliability Statistics

Construct	Cronbach's Alpha	N of Items
Attitudes towards internet advertising	0.727	8
Subjective norms	0.800	12
Perceived behavioral control	0.648	3
Purchase Intention	0.832	3

Source: Survey data (2013)

## Data Analysis

Inferential analysis that sort to address the hypotheses in the study was carried out. The Statistical Package for Social Scientists (SPSS) version 17.0 was used for analysis. The stages are discussed below.

## Testing Assumptions of Multivariate Analyses

Underlying the multivariate analyses and statistical tests is the assumption that all variables are normally distributed. Statistical assumptions of normality were checked to ensure that all variables were normally distributed. This was carried out using the numerical approach (Park, 2008). For a perfectly normally distributed variable, both skew and kurtosis values should be zero. However in the real world variables are rarely perfectly normally distributed.

Skewness and kurtosis critical ratios (Z scores) for each variable were computed (i.e.  $Z_{\text{Skewness}} = \text{Skewness Statistic} / \text{Standard Error}$  and  $Z_{\text{Kurtosis}} = \text{Kurtosis Statistic} / \text{Standard Error}$ ) (Ghasemi, et al., 2012; Tabachnick et al., 2007 & Kline, 2005). Absolute Z score values greater than 1.96 at  $p < 0.05$  were significant (Ghasemi, et al., 2012) and indicated substantial departure from normality and were therefore considered non normal. Non-normal variables were transformed using both square root and logarithmic functions. An inspection of the degree skewness and kurtosis of the transformed variables to determine whether there was improvement was carried out.

Multicollinearity was tested by assessing the Variance Inflation Factor (VIF) for the predictors in the regression models once the regression had been run. No formal criterion for determining the threshold of VIF exist. Various recommendations for acceptable levels of VIF have been published by various researchers. Whereas (Hair et al., 1995; Cohen et al., 2003 & Leech et al., 2008) recommend 10 as the maximum acceptable level, other researchers (Rogerson, 2001) have recommended a maximum value of 5 with (Pan et al., 2008) recommending a maximum value of 4. Since the higher the VIF index the higher the variance in the estimated parameter, this study considered a VIF value of 4 as the maximum acceptable level. VIF values greater than 4

indicated significant multicollinearity. Multicollinearity test was necessary to rid the model to be regressed of redundant information not needed for analysis (Tabachnick et al., 2007).

### Inferential Analysis

Inferential analysis which included multiple linear regression analysis and the independent sample t – test analysis was undertaken to test formulated hypotheses and thus determine the effect of internet advertising on purchase intention. Researchers in social and behavioural spheres commonly utilize these approaches in analysis (Fox, 1991). Abelson, (1995) has argued that to a certain extent, ordinal and interval data cannot be distinguished as the border line between them is very vague. Among researchers in marketing who have employed these quantitative techniques in analyzing qualitative data include; (Mao, D. 2010, Haque, et al., 2007) with t – test analysis, (Haque, et al., 2007, Ghajarzadeh, et al., 2010) with analysis of variance – ANOVA, and (Narges, et al., 2011, Kwek, et al., 2010, Faraz, et al., 2011, Mohd, et al., 2006, Guohua, 2005) with multiple linear regression analysis. The analysis approaches used are discussed below

### Regression approach employed in the study

This study employed stepwise regression analysis a form of multiple linear regression approach that has found application in educational and psychological research to evaluate the order of importance of variables and select useful subsets of variables (Thompson, 1995) to test hypotheses H1, H2, H3, H4 and H5. At each stage of the analysis entered predictors were deleted in subsequent steps if they no longer contributed appreciably unique predictive power to the regression when considered in combination with newly entered predictors (Thompson, 1989). The stages of the analysis are enumerated below.

In running the stepwise regression analysis, first, the goodness of fit was examined. The degree of explanation of the dependent variable by the predictors was represented by the magnitude of the coefficient of determination  $R^2$  at each stage of the stepwise regression. This was followed by an assessment of the overall model by examining the F-ratio in the ANOVA table. A p – value < 0.05 was statistically significant and therefore the null hypothesis that the regression model is not a good fit of the data was rejected (Haynes, 2010). The regression model was subsequently considered a good fit of the data.

This was followed by an assessment of the statistical significance of each of the predictor variables by examining their standardized beta coefficients, t – values and p – values. A predictor with a p – value < 0.05 was statistically significant and therefore the null hypothesis that the predictor coefficient was equal to 0 was rejected. The coefficient was therefore considered to be significantly different from 0. The standardized beta coefficients for the predictors were then



assessed for their contribution on the dependent variable with the sizes of the coefficients indicating the degree of contribution given a unit change in each predictor. Finally a big absolute t – value suggested the degree of impact the predictor had on the dependent variable.

The theoretical multiple regression model for the five hypotheses (H1, H2, H3, H4, H5,H6 and H7) was specified as follows:

$$PI = \beta_0 + \beta_1Att + \beta_2SN + \beta_3PBC + \beta_4Gender + \beta_5C1 + \beta_6C2 + \beta_7C3 + \beta_8C4 + \beta_9C5 + \beta_{10}C6 + \beta_{11}C7 + e \text{ -----(Eq – 1)}$$

Where; PI – Purchase intention, Att– Attitude towards internet advertising, SN – Subjective norms, PBC – Perceived behavioural control,C1 – Interaction term for Att and SN, C2 – Interaction term for Att and PBC, C3 – Interaction term for Att and Gender, , C4 – Interaction term for Att, SN and PBC, C5 – Interaction term for Att, SN and Gender, C6 – Interaction term for Att, PBC and Gender, C7 – Interaction term for Att, SN, PBC and Gender  $\beta_0$  – the intercept, ( $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10}, \beta_{11}$ ) – Estimated parameters and e – Error term.

## FINDINGS AND DATA REPRESENTATION

### Descriptive statistics results on study variables

This section presents results on descriptive statistics of all variables in the study. Included are results on attitudes towards internet advertising, subjective norms, perceived behavioural control (PBC), and purchase intention

#### Attitude level towards Internet Advertising

In measuring this factor five likert scale items were used to determine attitude towards internet advertising. Respondents were asked to rate on a 5 point likert scale their attitudetowards internet advertising by indicating the extent to which they agreed or disagreed with statements provided. The results are presented below.

Table 3: Attitude towards Internet Advertising

Attitude Scale Item	SD	D	U	A	SA	N	Mean	Std. Deviation
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Internet advertising is a convenient source of product information	8.84%	9.12%	6.90%	35.64%	39.50%	362	3.88	1.270
Internet advertising is a good source of up to date information	4.70%	9.94%	10.77%	40.03%	29.56%	362	3.85	1.097
I prefer internet advertising because it allows me to enjoy the best deal out of the competing products and services advertised	5.80%	12.71%	20.72%	37.29%	22.93%	362	3.59	1.143
I like internet advertising because it doesn't waste my time	5.52%	19.34%	21.55%	34.81%	18.78%	362	3.42	1.158
I like internet advertising because it provides a true picture of products and services advertised	10.22%	21.55%	17.96%	31.49%	18.78%	362	3.27	1.273
I like internet advertising because it plays an important part in my buying decisions	11.05%	19.89%	20.17%	30.39%	18.51%	362	3.25	1.275
I like internet advertising because it never offends me	17.96%	20.99%	22.38%	20.72%	18.00%	362	3.00	1.363
I like internet advertising because it helps me find the best products and services	8.29%	8.29%	10.50%	28.45%	44.48%	362	3.93	1.275
Grand Mean							3.52	

Source: Survey data (2013)

With the exception of one likert scale item “I like internet advertising because it never offends me” which had a mean response score = 3.00 with 38.72% of respondents in agreement, 38.95% disagreeing while 22.38% undecided, the rest of the items had a mean response score > 3.00 indicating a tendency toward positive responses. The highly rated item was “I like internet advertising because it helps me find the best products and services” with a mean response score of 3.93 with 72.93% of respondents in agreement. 16.58% of respondents did not agree while 10.50 were undecided. This was followed by “I prefer internet advertising because it allows me to enjoy the best deal out of the competing products and services advertised” with a mean response score of 3.59 with 60.22% of respondents in agreement. 18.51% did not agree while

20.72% were undecided. Generally, respondents viewed their context on attitude towards internet advertising as being positive with an overall mean response score of 3.52.

**Influence of subjective norms on attitude towards internet advertising**

In measuring this factor twelve likert scale items were used to determine the influence of subjective norms. Respondents were asked to rate on a 5 point likert scale the influence of subjective norms on attitude towards internet advertising by indicating the extent to which they agreed or disagreed with statements provided. Eight statements of the likert scale items had a mean response score < 3.00, while four had a mean response score > 3.00. Results presented below.

Table 4: Influence of subjective norms on attitude towards internet advertising

Subjective norms scale item	SD	D	U	A	SA	N	Mean	Std. Deviation
Most people who are important to me think that I should look at internet adverts	9.39%	18.51 %	16.02 %	29.83 %	26.24 %	362	3.45	1.308
I feel under social pressure to look at internet adverts	10.77 %	29.56 %	18.51 %	28.18 %	12.98 %	362	3.03	1.237
I look at internet adverts because my friends expect me to	13.54 %	32.04 %	18.23 %	25.69 %	10.50 %	362	2.88	1.236
I look at internet adverts my friends would approve of	11.60 %	20.07 %	23.76 %	22.65 %	14.92 %	362	3.02	1.250
I look at internet adverts because my friends do the same	18.23 %	26.24 %	18.78 %	24.31 %	12.43 %	362	2.86	1.311
My friends have a great impact on the kinds of internet adverts I look at.	15.19 %	25.69 %	20.44 %	26.80 %	11.88 %	362	2.94	1.269
My family has a great impact on the kinds of internet adverts I look at.	14.36 %	28.73 %	19.34 %	23.48 %	14.09 %	362	2.94	1.289
I look at internet adverts my family would approve of	14.36 %	30.94 %	19.06 %	24.03 %	11.60 %	362	2.88	1.256
I look at internet adverts because my family do the same	16.30 %	33.70 %	21.27 %	13.54 %	15.19 %	362	2.78	1.299

I look at internet adverts because my family expect me to	17.96 %	38.12 %	13.54 %	18.23 %	12.15 %	362	2.69	1.294
My religion has a great impact on the kinds of internet adverts I look at.	14.64 %	28.45 %	13.09 %	25.59 %	18.23 %	362	3.03	1.360
I look at internet adverts my religion would approve of	16.30 %	25.41 %	16.30 %	27.07 %	14.92 %	362	2.99	1.334
Grand Mean							2.96	

Source: Survey data (2013)

For statements whose mean response score was > 3.00, the highly rated item was “Most people who are important to me think that I should look at internet adverts” with a mean response score of 3.45 with 56.07% of respondents in agreement. 27.90% of respondents did not agree while 16.02% were undecided. This was followed by two statements that both had a mean response score of 3.03; “I feel under social pressure to look at internet adverts” and “My religion has a great impact on the kinds of internet adverts I look at”. The lowly rated item “I look at internet adverts because my family expects me to” had a mean response score of 2.69 with 30.38% of respondents in agreement. 56.08% of respondents did not agree while 13.54% were undecided. Generally, respondents viewed their context on the influence of subjective norms as being negative with a mean response score of 2.96. The implication being respondents did not consider referents’ views important in influencing their behavior.

**Influence of PBC on attitude towards internet advertising**

In measuring this factor three likert scale items were used to determine the influence of Perceived behavioural control. The respondents were asked to rate on a 5 point likert scale the influence of perceived behavioural control on attitude towards internet advertising by indicating the extent to which they agreed or disagreed with statements provided.

Table 5: Influence of PBC on attitude towards internet advertising

Perceived behavioral control scale item	SD	D	U	A	SA	N	Mean	Std. Deviation
I have full control over the kind of adverts I see on the internet	10.22%	12.15%	6.35%	22.38%	48.90%	362	3.88	1.396

It is mostly up to me whether or not I look at internet adverts	4.14%	10.22%	9.67%	39.23%	36.74%	362	3.94	1.116
I have no difficulty navigating internet adverts	6.91%	14.64%	22.10%	39.78%	16.57%	362	3.44	1.135
Grand Mean							3.75	

Source: Survey data (2013)

All statements on perceived behavioural control had a mean response score > 3.00 and therefore tended towards the positive response. Respondents rated “It is mostly up to me whether or not I look at internet adverts” highly with a mean response score of 3.94 with 75.97% of respondents in agreement. 14.36% of respondents did not agree while 9.67% were undecided. “I have full control over the kind of adverts I see on the internet” was rated second with a mean response score of 3.88 with 71.28% of respondents in agreement. 22.37% of respondents did not agree while 6.35% were undecided. The lowest rated item was “I have no difficulty navigating internet adverts” with a mean response score of 3.44 with 56.35% of respondents in agreement. 21.55% of respondents did not agree while 22.10% were undecided. On the whole, respondents viewed their context on the influence of perceived behavioural control as being positive. Implication therefore being respondents considered themselves to have the necessary skills and abilities to engage internet advertising.

### Descriptive statistics on Purchase Intention

Three likert scale items were used to measure this variable. Respondents were asked to rate on a 5 point likert scale the influence of internet advertising on purchase intentions by indicating the extent to which they agreed or disagreed with statements provided. The results are presented below.

Table 6: Purchase Intention

Purchase intention scale item	SD	D	U	A	SA	N	Mean	Std. Deviation
I am likely to consider purchasing online advertised products/services	10.22%	12.98%	13.26%	32.32%	31.22%	362	3.61	1.319

I am likely to recommend online advertised products/services to my friends	5.52%	13.81%	13.26%	44.75%	22.65%	362	3.65	1.136
I have a strong urge to purchase online advertised products/services	7.18%	15.47%	20.17%	30.02%	20.17%	362	3.48	1.182
Grand Mean							3.58	

Source: Survey data (2013)

Generally, respondents held favourable purchase intentions with an overall mean response score of 3.58. All the likert scale items had a mean response score > 3.00. “I am likely to recommend online advertised products/services to my friends” was the highly rated item with a mean response score of 3.65 with 67.40% of respondents in agreement. 19.33% of respondents did not agree while 13.26% were undecided. This was followed by “I am likely to consider purchasing online advertised products/services” with a mean response score of 3.61 with 63.54% of respondents in agreement. 23.20% of respondents did not agree while 13.26 were undecided. The lowly rated item was “I have a strong urge to purchase online advertised products/services” with a mean response score of 3.48 with 50.19% in agreement. 22.65% of respondents did not agree while 20.17 were undecided.

**Summary of the descriptive statistics on the study variables**

A summary of the study variables as presented in Table 7 below show that respondents generally held positive context on all variables except on subjective norms which had a mean response score of 2.96. The highest rated variable was perceived behavioural control with a mean response score of 3.75 followed by attitude towards internet advertising which had a mean response score of 3.52. The lowly rated variable was subjective norms with a mean response score of 2.96.

Table 7: Descriptive statistics on the study variables

Variable	Mean
Attitude towards internet advertising	3.52
Subjective Norms	2.96
Perceived Behavioural Control	3.75
Purchase Intention	3.58

Source: Survey data (2013)

**Normality Assumption Tests**

Following the Zscore computation for skewness, with the exception of subjective norms ( $|Z_{skewness}| = |-1.127| < 1.96$ ), all computed absolute Z score values for attitude towards internet advertising ( $|Z_{skewness}| = |-2.964| > 1.96$ ), perceived behavioural control ( $|Z_{skewness}| = |-7.495| > 1.96$ ), and purchase intention ( $|Z_{skewness}| = |-5.152| > 1.96$ ) substantially departed from normality since their  $|Zscore|$  of skewness for the variables was greater than 1.96 and therefore significant, at  $p < 0.05$ . The skew statistic, kurtosis statistic,  $Z_{skewness}$  and  $Z_{kurtosis}$  values for various variables before transformation are presented below in Table 8.

Table 8: Normality distribution for variables before transformation

Variable	Skewness			Kurtosis		
	Statistic	SE	Statistic/SE	Statistic	SE	Statistic/SE
Attitude towards internet advertising	-0.379	0.128	-2.964	0.237	0.26	0.926
Subjective Norms	-0.144	0.128	-1.127	-0.471	0.26	-1.840
Perceived Behavioural Control	-0.959	0.128	-7.495	0.529	0.26	2.068
Purchase Intention	-0.659	0.128	-5.152	-0.409	0.26	-1.596

Source: Survey data (2013)

A further investigation of the kurtosis Zscore for subjective norms revealed ( $|Z_{kurtosis}| = |-1.840| < 1.96$ ) and was therefore considered normal. All the other variables were transformed in order to minimize the skewness and kurtosis in their distributions. Logarithmic transformation was used to transform perceived behavioural control (PBC) while attitude towards internet advertising (Att) and purchase intention (PI) underwent a square root transformation. The transformations resulted in significant improvement in the distributions of attitude towards internet advertising ( $|Z_{skewness}| = |-0.600| < 1.96$ ), perceived behavioural control ( $|Z_{skewness}| = |0.658| < 1.96$ ), and purchase intention ( $|Z_{skewness}| = |-0.752| < 1.96$ ) with the resultant absolute Z score values computed for skewness being less than 1.96. The transformed skew statistic ( $Z_{skewness}$ ) and kurtosis statistic ( $Z_{kurtosis}$ ) values for the variables are presented below in Table 9.

Table 9: Normality distribution for variables after transformation

Variable	Skewness			Kurtosis		
	Statistic	SE	Statistic/SE	Statistic	SE	Statistic/SE

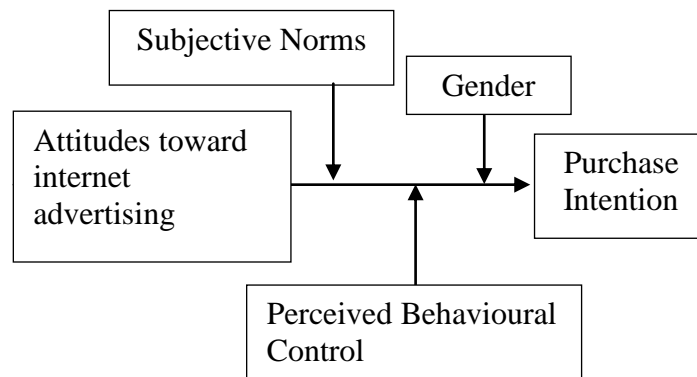
Attitude towards internet advertising	-0.077	0.128	-0.600	.050	0.26	0.195
Perceived Behavioural Control	0.084	0.128	0.658	-.455	0.26	-1.750
Purchase Intention	-0.096	0.128	-0.752	-.389	0.26	-1.496

Source: Survey data (2013)

**Hypothesis test results on the interaction effect**

In determining the interaction effect of Subjective Norm (SN), PercievedBehavioural Control (PBC\_RLog), and Gender on the relationship between the estimated value of attitude towards internet advertising ( $Att_{RSqrt}$ ) and Purchase Intention ( $PI_{RSqrt}$ ), seven hypothesis (H1, H2, H3, H4, H5, H6, & H7) were tested by running a multiple regression analysis. An estimation of variable coefficients was done and significance determined. Variables whose coefficients had p – values < 0.05 were considered significant. Figure 18 below shows the hypothesized relationship between attitude towards internet advertising and purchase intention and the moderating factors.

Figure 2: The interaction effect of subjective norms, perceived behavioural control and gender on the relationship between attitude towards internet advertising and purchase intention



Source: Researcher’s Model

The hypotheses to be tested and formulated as a result of extant literature were:

- H1: Subjective norms moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.*
- H2: Perceived behavioural control moderates the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.*



- H3: Gender moderates the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- H4: Subjective norms and perceived behavioural control moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- H5: Subjective norms and gender moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- H6: Perceived behavioural control and gender moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.
- H7: Subjective norms, perceived behavioural control and gender moderate the relationship between attitude towards internet advertising and purchase intention of university students in Kenya.

The theoretical model specified to analyze the interaction effect of subjective norms on the relationship between attitude towards internet advertising and purchase intention was:

$$PI\_RSqrt = \beta_0 + \beta_1 Att\_RSqrt + \beta_2 SN + \beta_3 PBC\_RLog + \beta_4 Gender + \beta_5 C1 + \beta_6 C2 + \beta_7 C3 + \beta_8 C4 + \beta_9 C5 + \beta_{10} C6 + \beta_{11} C7 + e \text{ ----- (Eq - 2)}$$

Where;

PI\_RSqrt – Purchase intention, Att\_RSqrt– Attitude towards internet advertising (Estimated), SN– Subjective norms, PBC\_RLog – Perceived behavioural control, C1 – Interaction term for Att\_RSqrt\* SN, C2 – Interaction term for Att\_RSqrt\* PBC\_RLog, C3 – Interaction term for Att\_RSqrt\* Gender, C4 – Interaction term for Att\_RSqrt\* SN \* PBC\_RLog, C5 – Interaction term for Att\_RSqrt\* SN \* Gender, C6 – Interaction term for Att\_RSqrt\* PBC\_RLog \* Gender, C7 – Interaction term for Att\_RSqrt\* SN \* PBC\_RLog \* Gender,  $\beta_0$  – the intercept, ( $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10}, \beta_{11}$ ) – Estimated parameters and e – Error term.

The goodness of fit test to explain the variance in purchase intention was determined by an assessment of the F – ratios. The results are presented in Table 10 below.

Table 10: Variance in interaction model for purchase intention (Model Summary)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	.909 <sup>b</sup>	.827	.826	.08230

Source: Survey data (2013)

The goodness of fit test results as presented in Table 46 above show the final model 2 accounted for 82.7% ( $R^2 = 0.827$ ) of the variance in Purchase intention(PI\_RSqrt). The model was therefore a significant fit to the data.

An assessment of the significance of the overall model as presented in Table 11 showed the final predication model 2 yielded  $F_{2,359} = 855.183, p < 0.001$ . This means at least one of the independent variables is a significant predictor of the dependent variable (PI\_RSqrt).

Table 11: Significance of the overall interaction model for purchase intention (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
2	Regression	11.586	2	5.793	855.183	.000 <sup>b</sup>
	Residual	2.432	359	.007		
	Total	14.018	361			

Source: Survey data (2013)

Significance of the coefficients as presented in Table 12 below in the final model 2 suggest that only two main effects variables were statistically significant Att\_RSqrt with ( $\beta = 0.230, p < 0.001$ ) and SN with ( $\beta = 0.158, p < 0.002$ ). The VIF ratio for the two significant main effects predictors was less than 4 suggesting absence of multicollinearity(Pan et al., 2008). The results are presented in Table 48 below.

Table 12: Significance of factors in the interaction model affecting purchase intention (Coefficients)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
2 (Constant)	-.497	.054		-9.246	.000		
Att_RSqrt	1.282	.033	.892	38.430	.000	.896	1.116
SN	.046	.022	.049	2.093	.037	.896	1.116

Source: Survey data (2013)

The final model 2 in the study findings as presented in Table 13 below on excluded variables show that PBC\_RLog, Gender, C1, C2, C3, C4, C5, C6, and C7 were not statistically significant with PBC\_RLog (  $p - \text{value} = 0.618 > 0.05$ ), Gender (  $p - \text{value} = 0.769 > 0.05$ ), C1 (  $p - \text{value} = 0.921 > 0.05$ ), C2 (  $p - \text{value} = 0.735 > 0.05$ ), C3 (  $p - \text{value} = 0.768 > 0.05$ ), C4 (  $p - \text{value} = 0.500 > 0.05$ ), C5 (  $p - \text{value} = 0.724 > 0.05$ ), C6 (  $p - \text{value} = 0.919 > 0.05$ ) and C7 (  $p - \text{value} = 0.772 > 0.05$ ).

Table 13: Excluded variables from the interaction model

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics			
					Tolerance	VIF	Minimum Tolerance	
2	PBC_RLog	-.009 <sup>b</sup>	-.411	.681	-.022	.911	1.098	.850
	Gender	-.006 <sup>b</sup>	-.293	.769	-.016	.994	1.006	.891
	C1	-.035 <sup>b</sup>	-.099	.921	-.005	.004	252.661	.004
	C2	-.008 <sup>b</sup>	-.339	.735	-.018	.825	1.212	.785
	C3	-.007 <sup>b</sup>	-.295	.768	-.016	.984	1.016	.885
	C4	-.017 <sup>b</sup>	-.675	.500	-.036	.721	1.386	.721
	C5	-.008 <sup>b</sup>	-.354	.724	-.019	.985	1.015	.889
	C6	-.002 <sup>b</sup>	-.102	.919	-.005	.970	1.030	.871
	C7	-.007 <sup>b</sup>	-.290	.772	-.015	.959	1.043	.877

Source: Survey data (2013)

The prediction equation as presented below based on the unstandardized coefficients was statistically significant,  $F_{2,359} = 855.183$ ,  $p < 0.001$ , and accounted for approximately 82.7% of the variance of PI\_RSqrt ( $R^2 = 0.827$ , Adjusted  $R^2 = 0.826$ ). PI\_RSqrt was primarily predicted by Att\_RSqrt, and SN.

$$PI\_RSqrt = -0.497 + 1.282 \text{ Att\_RSqrt} + 0.046 \text{ SN} \text{ ----- (Eq - 3)}$$

These findings therefore are consistent with pervious works of (Hagen, 2000) who found no moderation effect of subjective norms on behavior intention. Gender too was not a significant moderator. This could emanate from both sexes having no attitudinal differences towards internet advertising determined from H6 and supported by (Okazaki, 2007&Mengli, M. 2005). In addition internet experience and skills gap between males and females has narrowed (Schumacher et al., 2001). Perceived behavioural control and gender too were not significant moderators. This finding is however contrary to the works of (Silje et al., 2013;Bansal et al., 2002&Lee, et al., 2011) who found interaction evidence of PBC on attitude.

**Summary of findings**

The overriding purpose of this study was to determine the moderating effect of subjective norms, perceived behavioural control and gender on the relationship between attitude towards internet advertising and purchase intention of university students in Kenya. Study findings show that no variable had a moderating effect on the relationship between attitude towards internet advertising (Att\_RSqrt) and purchase intention (PI\_RSqrt). Subjective norms (SN), Perceived behavioural

control (PBC\_RLog) and gender were not significant moderators. The model however was statistically significant with  $F_{2,359} = 855.183$ ,  $p < 0.001$ , and accounted for approximately 82.7% of the variance of purchase intention (PI\_RSqrt). Attitude towards internet advertising (Att\_RSqrt) and Subjective norms (SN) were the only main effects variables that were statistically significant.

## Conclusions

The study did not reaffirm the robustness of the TPB model in predicting internet purchase behavior instead the model was reduced to TRA. Two variables; attitude towards internet advertising and subjective norms had a direct and significant effect on purchase intention (Ajzen, 1991). In the study the two variables had a positive effect on purchase intention with attitude towards internet advertising exerting the greatest influence. These findings are consistent with those of other studies that have examined the relationship between attitude formation and behavior intention (Gaston et. al, 1996; Joey, 2004). The moderating effect of PBC, subjective norms and gender on the relationship between attitude towards internet advertising and purchase intention was not supported. Marketers therefore will have to take this into account when designing promotional campaigns.

## Recommendations

Based on the findings of this study to examine the effect of internet advertising on purchase intention of university students in Kenya, several implications on theory, management practice, marketing practitioners, policy directions and directions on future research are proposed below.

These findings show that perceived behavioural control, subjective norms and gender are not significant moderators of the relationship between attitude towards internet advertising and purchase intention. This study therefore contributes significantly to the existing literature as the majority of previous empirical studies were based in other contexts other than Kenya's. It thus expands the body of knowledge in this particular field. In addition, knowledge from this study can be utilized by firms as they target consumers in Kenya including new entrants in online marketing in Kenya.

The study offered no support for the hypothesized theory in the TPB model, namely that perceived behavioural control, attitudes and subjective norms are functions of behavior intention and therefore important factors in influencing behavior intention. In this study only the main effects variables of attitude towards internet advertising and subjective norms did have a significant impact on purchase intention. The model was therefore reduced to a TRA model where only attitude and subjective norms have a direct effect on behaviour intention. This study therefore offers significant contribution to the body of knowledge regarding behavioral intention

prediction in the Kenyan context. Consumer's behavioral intention therefore regarding internet advertising can best be predicted by the TRA model.

### Implications for academicians and directions for future research

With the rise in penetration and usage of the internet in Kenya, it is important that more empirical research is done in the area of internet advertising to try and understand behavioural changes in consumers given the dynamic nature of the internet. This study provides knowledge on the effect of internet advertising on purchase intention in Kenya. Most studies on internet advertising had been in other contexts other than Kenya's. Some suggestions for future research are now described.

It is likely that different factors would impact differently on different geographic markets. Gender, SN and PBC were not significant moderators of the relationship between attitude towards internet advertising and purchase intention. It is possible that a deferent demographic could yield different results. From extant literature evidence of attitudinal gender differences towards internet advertising exists (Palanisamy, 2004). It will therefore be useful to test whether or not gender has an impact in any future study.

Finally, as the penetration and usage levels increase consumer attitudes towards internet advertising and the subsequent purchase behavior is likely to change over time as a result of technological advancements plus culture change. A longitudinal approach could be undertaken to determine whether findings from this research still hold. The same approach could be used to relate behavior intentions to actual behavior. It is also important to note that consumers in different countries may have different sources of social pressure. This study only looked at social pressure collectively without determining the influence of each referent group and PBC without separately looking at the control and self-efficacy. With the study finding subjective norm and PBC not significant moderators on the relationship between attitude towards internet advertising and purchase intention, there is need for researchers to spit up the elements of subjective norms among family, friends/peers and religion for specific geographic markets and PBC into control and self-efficacy to determine any interaction effects. Identifying the most significant referent group for each geographic market and which control aspect has an effect on the relationship will help both marketers and designers segment the market and therefore better target the different geographic markets.

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