

AN IMPACT OF E-ADVERTISEMENT ON CONSUMER PURCHASING BEHAVIOR – A CASE ON MULUNGUSHI UNIVERSITY, ZAMBIA

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ABSTRACT

It is assumed that promoters are expected to shift and spend millions in e-advertising in the coming years than TV, print ads and other traditional advertising media (Kotler, P., 2004). With the rapid growth in technology, the internet is becoming an important one stop point for consumers in finding most of their needs. Be it communication, entertainment, shopping, information search, internet serves as a panacea for all their requirements. The study investigated the effectiveness of e-advertising on consumer purchasing behavior by conducting a case study of Mulungushi University students. Stratified sampling technique was used to select 400 study respondents and the primary data was collected using schedules. The study found that e-advertising was effective on creation of awareness due to diverse usage, and respondents spent more time on the internet compared to other Medias. The study had done the various statistical tests to find the associations among variables. Further recommends that companies should conduct a market research on the different markets or institutions in various countries or Sectors to ensure that the e-advertising initiatives being implemented suits the targeted markets to improve product purchases.

KEYWORDS: *Advertising, Consumers, Internet, Purchasing Behavior.*

INTRODUCTION

There is no doubt that the usage of internet by people in the world has grown phenomenally within the last 10 years. Nowadays, most households have at least one computer or device that has an internet connection, whether it is built in or wireless [Kotler, P., (2004), Kuyuncu, C. and Lien, D., (2003)]. Today, 36% of the worlds' population is using the Internet and this figure day by day is rising (Yoon S. J., 2003). As technology progresses and evolves, so does the number of internet users.

Most companies now realize that the best way to attract customers is to advertise on the internet, and this is because most people turn to the internet to find what they are looking for as mentioned above. Advertising on the internet is now the most effective way to bring in target customers and increase sales (Edwards, J., 2005). There are many ways in which a business or company can advertise on the internet. Every business, whether it is small or large, has set up a website to go with their company or product and this is one of the most important aspects a company needs to take into consideration if they wish to advertise on the internet. However, it is not compulsory to have one, as long as you provide your contact details, location, email address, etc.

The common measures of how e-advertising impacts consumer purchasing behavior include ad recall, clicks or click through rate, and attitude towards the purchasing decision [Danaher, P.J. and Mullarkey, G.W., (2003)]. Of these common measures, attitudes toward the ad and ability to recall ad are the focus of this study. The effect of these two measures were assessed by their ability to predict internet purchasing behavior.

People nowadays look online for products and services, even if they require something local to them like plumbers or mechanics. It is important for a business in the present day to advertise online in order to gain more customers, because this is where the customers are. There are many benefits for marketing online, and there are also a number of ways in which a business can promote their services. It is on this basis that the study will investigate the effectiveness of e-advertising based on a consumer sample from Mulungushi University.

LITERATURE REVIEW

Through the Pew Internet and American Life Project, a significant research was conducted on the impact of the internet on families, communities, the work place, children, teenagers, students, schools, health care and the political environment. According to Baltas G. (2003), the first Pew internet project was conducted in 2000 and it found that 64% of the students who participated in the study used the internet as an essential aid outside the classroom to browse the WWW. The second Pew Internet Project, which was conducted in 2002, showed that 78% of the students who participated in the study did online searches for their research and homework (Ducoffe, 1996).

Badu (2009) studied the awareness and use of the internet at the University of Ghana. This study revealed that the awareness of internet services among the respondents was universal, with 99.2% of the respondents indicating that they were well aware of the internet. The results of the study also showed that e-mail was the most well-known service among the staff and students, followed by the WWW, discussion groups, UseNet News and FTP in descending order. Telnet, Gopher and WAIS were not well known among the respondents.

Mohammad (2015) carried out a similar study, the impact of advertising and consumer perception on consumer buying behavior. He states that advertisement plays an important role in modern era as it shapes the attitudes and perceptions of individuals and society which strikingly influences the customer buying behavior along with advertisement. The results revealed that advertisement and consumer perception both have a significant positive relationship with consumer buying behavior.

Dinu (2012) aimed at highlighting the importance of advertising on consumer behavior. The study showed that advertising on the behavior of buying and consume plays an important role in selling products. Also most of consumers are interested in brand products. It is found that temporary price discounts occupy an important place in buying decision, and sponsorship has a negative effect on buyers. Many consumers go at fairs and exhibitions attracted by the new products, by the producer's prices or the diversified supply. Very important to mention is the fact that the online advertising influences the buying decision.

Fazal (2014) examined the effects of advertising and some factors of rural areas on consumers buying behavior. The study used correlation statistics and simple regression for data analysis. Results indicated that advertising has a positive and statistically significant effects, while, the factors of rural areas have negative but statistically significant effects on consumers buying behavior. Further, advertising is positively but factors of rural areas are negatively correlated with consumers buying behavior.

Sadia (2015) highlighted the impact of online and conventional advertisement on consumer buying behavior of branded garments. Advertising had recognized itself as an important selling media and without advertisement any market cannot continue to exist. To investigate the direct and indirect relationship of independent variables online and conventional advertisement with dependent variable consumer buying behavior he used a structural equation modeling (SEM). This study helped companies to know not only about today's consumer mindset that what they actually want to see in advertisement but also which advertising medium is better for the promotion of their product.

STATEMENT OF THE RESEARCH PROBLEM

It is believed that advertisers are expected to shift and spend millions in e-advertising in the coming years than TV, print ads and other traditional advertising media (Kotler P., 2004). With the rapid

growth in technology, the internet is becoming an important one stop point for consumers in finding most of their needs. The problem is that, volumes of consumers are online every day for their personal work, but do they notice the ads, banners etc. displayed on that webpage, most important what is their recall/remembrance value.

While a lot of research has been done on advertising, the impact of e-advertising on consumer purchasing behavior in Zambia is a segment that has been missing from these studies. Research done by Yoon S.J., (2003) mainly focused on consumer attitudes towards online advertising in Lusaka, and showed that consumers were aware of the online adverts though with no preference to the advertising forms. It however, failed to quantify and explain the effectiveness of e-advertising on such consumers.

In addition, more studies are needed to cover various samples in different countries to increase external validity of the research findings Calisir F., (2003). To fill these gaps, the study determined the effectiveness of e-advertising on consumer purchasing behavior, Zambia.

RESEARCH QUESTIONS

The research questions of the study were:

- i. Can internet purchasing behavior by demographic factors (i.e. gender, age, year of study, residence) be determined?
- ii. Is e-advertising effective on creation of awareness?
- iii. What is the effect of e-advertising on consumer purchasing behavior?

OBJECTIVES OF THE STUDY

The Main Objectives of the Study:

- Determine the effectiveness of e-advertising on consumer purchasing behavior.

The Specific Objectives of the Study:

- i. To determine internet purchasing behavior by demographic factors (i.e. gender, age, year of study, residence) of students.
- ii. To establish the effectiveness of e-advertising on creation of awareness.
- iii. To determine the effect of e-advertising and consumer purchasing behavior.

SIGNIFICANCE OF THE STUDY

Findings generated from this study provided necessary information to marketers, businesses and academicians. This study notified marketers on the consumer preference of the advertising media and whether using e-advertising would be effective or not in increasing awareness of the target audience.

Before adapting marketing practices to the Internet, it is imperative to understand the characteristics of the online customers towards e-advertising as would be revealed by this study. The Internet has grown in popularity as an advertising medium because, among other things, it allows 24-hour interactivity between the advertiser and customer. It is important for local businesses to look into e-advertising as more consumers turn to the internet for their purchasing. A small business that can offer online purchasing may be able to tap into this customer base.

For scholars and academic researchers, the study formed a basis upon which future research on e-advertising may be established. The findings were resourceful in providing viable information to academicians, researchers and consumers on various concepts related to e-advertising.

CONCEPTUAL FRAMEWORK

Introduction

A conceptual framework is the researcher's idea on how the research problem will have to be explored Danaher, P.J. and Mullarkey, G.W., (2003). Based on the review of the research studies mentioned above, it is clear that E-advertising is gaining much attention and should be an essential part of a marketer's advertising media mix. The measures of advertising effectiveness can be formulated as either the independent or dependent variables depending on the focus of the study. They are independent variables if they are used to predict outcome variables such as purchase intention and actual purchasing decision. Hence, the conceptual framework attempt to show and answer the question: "How significant are the measures of advertising effectiveness in terms of (1) attitude towards the ad, (2) ad recall in explaining online purchasing behavior, the ultimate consumers' response desired by marketers?" These measures of advertising effectiveness are postulated as the independent variables to examine whether they are significant predictors of online purchasing behavior. Online purchasing behavior is a dependent variable while ability to recall ads and attitude towards online ads are independent variables.

The diagram below shows the conceptual framework:

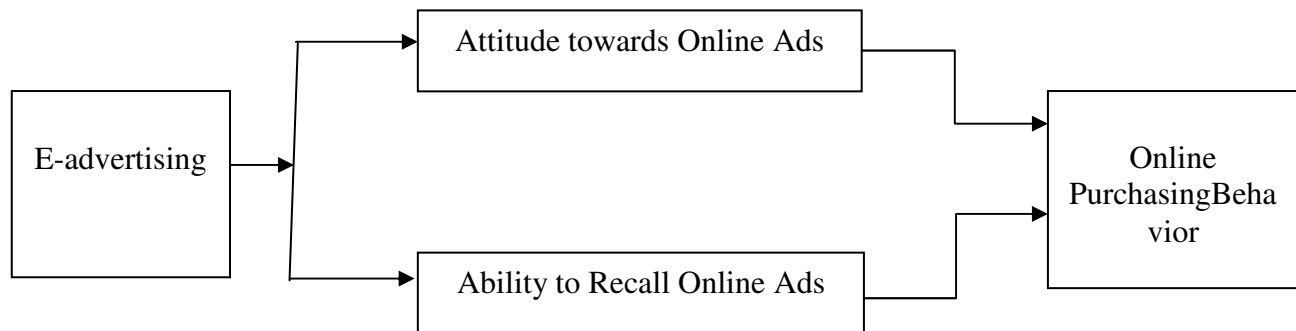


Fig. 1: Conceptual Framework

RESEARCH HYPOTHESIS

The research hypothesis (statement created by researchers when they speculate upon the outcome of a research or experiment) will be answered by using the two selected measures of e-advertising. The major question to be answered is: "How significant are the measures of advertising effectiveness in terms of (1) attitude towards the ad and (2) ad recall in explaining online purchasing behavior, the ultimate consumers' response desired by marketers?" These measures of advertising effectiveness are postulated as the independent variables to examine whether they are significant predictors of online purchasing decision. The research hypotheses of this study are:

H₀: There is no significant relationship between demographic factors (i.e. student gender, residence, age, year of study) and consumer purchasing behavior.

H₁: There is no significant relationship between e-advertising and creation of awareness.

H₂: There is no significant relationship between e-advertising and internet purchasing behavior.

H₃: There is no significant relationship between attitude toward online ads and internet purchasing behavior.

H₄: There is no significant relationship between ability to recall online ads and internet purchasing behavior.

METHODOLOGY

INTRODUCTION

Chapter Four focused on research methodology that was used in this study. A detailed description of the research approach adopted in this study is provided. The research approach in this study consisted of a research design, target population, research instruments, data collection and analysis methods that were used.

RESEARCH DESIGN

A descriptive type of research was used in this study. This involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection methods. It often uses visual aids such as graphs and charts to aid the reader in understanding the data distribution and therefore offered a better clarification on e-advertising, and ultimately gives a clear picture on the impact of e-advertising and its relationship to consumer purchasing behavior. Chi-square tests and regression analysis was applied in this study to reveal relationships among variables in the findings from the data.

POPULATION OF THE STUDY

The researcher in this study used Mulungushi University students as a population of study. Mulungushi University has approximately 4, 000 registered students both undergraduate and postgraduate (Varsity Focus Newsletter, 2015). The study targeted undergraduate students of the university because of their background diversity and exposure to advertising with a larger percentage using the internet.

Students at Mulungushi University are provided with the Internet access through cable and wireless connection, and therefore, the chances for them accessing e-advertising via social media are very high. On the same basis of their diverse background, only undergraduate full time students from the Main campus were chosen for the study.

SAMPLE DESIGN

In this study stratified sampling technique was used to select the units for the sample. Undergraduate full time students of Mulungushi University main campus were used as a study sample to represent the population of consumers. This sample will be stratified into 4 (Year I, II, III, IV) and 100 respondents will be randomly selected from each stratum to come up with the representative sample of 400 for the entire population. This was a viable sampling technique since it gives advantages of focusing on important subpopulations and allowed the use of different sampling technique for different subpopulations in improving the accuracy of estimation. The study targeted 400 respondents out of which all the 400 respondents responded and returned their questionnaires contributing to a response rate of 100%. This response rate was sufficient and representative and conforms to Mugenda O. and Mugenda A. Mugenda, O. M. & Mugenda, A. G. (2003), stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good while a response rate of 70% and over is excellent. This commendable response rate was due to extra efforts that were made follow-up calls made to remind the respondents to fill-in and return the questionnaires.

METHODS OF DATA COLLECTION

The research used primary data, which was collected using structured questionnaires distributed to the 400 respondents sampled from Mulungushi University main campus, found outside the library, from classes, within the university square and within the hostels. The questionnaires administered were collected after completion by the respondents on the same day and their responses were used for analysis. The questionnaire had both open ended and closed ended questions to enable guide the respondent through filling of the questionnaire as well as probe them for more information.

VALIDITY AND RELIABILITY

Content validity refers to the extent to which an instrument represents the factors under study. To achieve content validity, questionnaires included a variety of questions on the knowledge of students on e-advertising and consumer behavior. All the subjects complete their questionnaires in the presence of the researcher. This was done to prevent subjects from giving questionnaires to other people to complete on their behalf.

Reliability can be ensured by minimizing sources of measurement error like data collector bias. Data collector bias was minimized by the researcher's being the only one to administer the questionnaires, and standardizing conditions such as exhibiting similar personal attributes to all respondents, e.g., friendliness and support. A pilot study was carried out by the researcher to identify any flaws on the questionnaire to reduce errors of measurement and test for consistency.

DATA ANALYSIS

The study applied both nominal and ordinal scale to measure a range of factors establishing the effectiveness of e-advertising on consumer purchasing behavior and an interval scale in determining the relationship between e-advertising and consumer behavior. Descriptive statistics was used to analyze this data. The mean responses, standard deviation and other relevant statistics were computed to better understand the data. The data collected were compiled and edited to check for logical inconsistencies. The data was then coded according to the responses. Relationships between responses or variables were assessed using tables and analysis was done using SPSS. Chi-square tests and Regression analysis were applied in this study to reveal relationships among variables in the findings from the data.

DATA ANALYSIS, RESULTS AND DISCUSSION

INTRODUCTION

This chapter presents analysis and findings of the study as set out in the research methodology. The results were presented on the effectiveness of e-advertising on consumer purchasing behavior: the case of Mulungushi University in Zambia. The study objectives were; to determine the linear association between demographic factors (i.e. gender, age, year of study, residence) and internet purchasing behavior; to determine the effectiveness of e-advertising on creation of awareness; to determine the relationship between e-advertising and consumer purchasing behavior.

The study targeted 400 respondents out of which all the 400 respondents responded and returned their questionnaires contributing to a response rate of 100%. This response rate was sufficient and representative and conforms to Mugenda and Mugenda (2003) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good while a response rate of 70% and over is excellent.

This commendable response rate was due to extra efforts that were made via courtesy calls made to remind the respondents to fill-in and return the questionnaires. The chapter covers the demographic information, and the findings based on the objectives.

The findings were then presented in tables appropriate with explanations being given in prose thereafter.

BACKGROUND INFORMATION

The study initially sought to ascertain the general information on the respondents involved in the study with regards to their gender, age, and year of study. The demographic information points at the respondents’ suitability in answering the questions on the effectiveness of e-advertising on consumer purchasing behavior: the case of Mulungushi University Students.

To determine internet purchasing behavior of students by demographic factors (i.e. gender, age, year of study, residence).

The first objective of the study was to determine internet purchasing behavior by demographic factors (i.e. gender, age, year of study, residence).

The study sought to establish the relationship between gender of the respondents and the number of times they have bought online. Findings of the cross tabulation are as shown in Table 4.1.

Table 4.1 Gender*Internet purchasing behavior

	Internet purchasing behavior				Total
	Once	Twice	Thrice	Other	
Male	70	60	16	84	230
Female	82	24	20	44	170
Total	152	84	36	128	400

Source: Field data, (2021).

From Table 4.1, the study recorded a higher response rate from males of 230 than 170 females of those who bought a product online at least once.

Table 4.2 shows Chi-square tests between gender and the internet purchasing behavior of students at Mulungushi University main campus.

Table 4.2 Chi-square test between gender and internet purchasing behavior of respondents

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	20.788 ^a	3	.000
Likelihood Ratio	21.011	3	.000
Linear-by-Linear Association	7.037	1	.008

N of Valid Cases	400		
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Source: Field data, (2021).

A chi-square test was also used to check for the linear association of the gender and internet purchasing behavior of respondents. After the cross tabulations, the chi-square value for the tabulation was 20.788 and the Pearson value was 0.000, implying a statistically significance relationship of the variables at the level of significance of 5%.

The respondents were also asked to indicate their age bracket. The study findings are illustrated in Table 4.3 in relation with the number of times they have bought online.

Table 4.3 Age group (Years)*Internet purchasing behavior

	Internet purchasing behavior				Total
	Once	Twice	Thrice	Other	
Below 20	22	20	0	10	52
20 – 25	92	44	22	104	262
26 – 30	38	18	10	14	80
Above 30	0	2	4	0	6
Total	152	84	36	128	400

Source: Field data, (2021).

The findings indicate that majority of the students at Mulungushi University who were aged 20-25 years had bought a product online at least once.

Table 4.4 shows Chi-square tests between age and internet purchasing behavior of students at Mulungushi University main campus.

Table 4.4 Chi-square test between age and the Internet purchasing behavior of respondents

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	58.003 ^a	9	.000
Likelihood Ratio	53.296	9	.000
Linear-by-Linear Association	.065	1	.799
N of Valid Cases	400		

Source: Field data, (2021).

A chi-square test was also used to check for the linear association of the age and Internet purchasing behavior of respondents. After the cross tabulations, the chi-square value for the tabulation was 58.003

and the Pearson value was 0.000, implying a statistically significance relationship of the variables at the level of significance of 5%.

The respondents were asked to indicate their year of study. The study findings are illustrated in Table 4.5 in relation with the number of times they have bought online.

Table 4.5 Year of Study* Internet purchasing behavior

	Internet purchasing behavior				Total
	Once	Twice	Thrice	Other	
Year I	54	24	6	16	100
Year II	20	36	16	28	100
Year II	36	16	4	44	100
Year IV	42	8	10	40	100
Total	152	84	36	128	400

Source: Field data, (2021).

As shown in Table 4.5, the study sample was representative of all the years of study with 100 randomly selected students from each year forming 400 students of the total population. More first year students had bought a product online at least once.

Table 4.6 shows Chi-square tests between year of study and internet purchasing behavior of students at Mulungushi University main campus.

Table 4.6 shows Chi-square test between year of study and online purchasing behavior of respondents

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	60.504 ^a	9	.000
Likelihood Ratio	63.248	9	.000
Linear-by-Linear Association	11.773	1	.001
N of Valid Cases	400		

Source: Field data.

A chi-square test was also used to check for the linear association of the age and internet purchasing behavior of respondents. After the cross tabulations, the chi-square value for the tabulation was 60.504 and the Pearson value was 0.000, implying a statistically significance relationship of the variables at the level of significance of 5%.

Table 4.7 shows a place of residence for respondents in relation with the number of times they have bought online.

Table 4.7 Residence* Internet purchasing behavior

	Internet purchasing behavior				Total
	Once	Twice	Thrice	Other	
University Hostels	142	70	32	118	362
Other	10	14	4	10	38
Total	152	84	36	128	400

Source: Field data.

Table 4.7 above indicates that the highest number of respondents who resides in the University Hostels had bought a product online at least once.

Table 4.8 shows Chi-square tests between residence and internet purchasing behavior of students at Mulungushi University main campus.

Table 4.8 Chi-square test between residence and internet purchasing behavior of respondents

Chi-Square Tests			
	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.059 ^a	3	.070
Likelihood Ratio	6.415	3	.093
Linear-by-Linear Association	.009	1	.926
N of Valid Cases	400		

Source: Field data.

A chi-square test was also used to check for the linear association of the age and internet purchasing behavior of respondents. After the cross tabulations, the chi-square value for the tabulation was 7.059 and the Pearson value was 0.000, implying a statistically insignificance relationship of the variables at the level of significance of 5%.

H₀: There is no significant relationship between internet purchasing behavior and demographic factors (student gender, residence, age, and year of study).

Regression analysis was further used to test the first hypothesis. Table 4.9 shows the ANOVA regression between student’s internet purchasing behavior (dependent variable) and demographic factors i.e. student residence, age, gender, year of study (independent variables).

Table 4.9 ANOVA regression between students purchasing behavior and student residence, age, gender and year of study

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	33.513	4	8.378	5.360	.000 ^b
	Residual	617.487	395	1.563		
	Total	651.000	399			

Source: Field data, (2021).

Results obtained indicate that the significance value is 0.000 which is less than 0.05 thus student gender, age, year of study, residence influence student purchasing behavior positively.

Discussion

The study recorded a higher response rate from males of 230 who bought a product online at least once. After the cross tabulations, the chi-square value for the tabulation was 20.788 and the Pearson value was 0.000, implying a statistically significance relationship of the variables at the level of significance of 5%.

Also, the findings indicate that majority of the students at Mulungushi University who were aged 20-25 years had bought a product online at least once. After the cross tabulations, the chi-square value for the tabulation was 58.003 and the Pearson value was 0.000, implying a statistically significance relationship of the variables at the level of significance of 5%.

The study sample was representative of all the years of study with 100 randomly selected students from each year forming 400 students of the total population. More first year students had bought a product online at least once. After the cross tabulations, the chi-square value for the tabulation was 60.504 and the Pearson value was 0.000, implying a statistically significance relationship of the variables at the level of significance of 5%.

Results indicate that the highest number of respondents who resides in the University Hostels had bought a product online at least once. After the cross tabulations, the chi-square value for the tabulation was 7.059 and the Pearson value was 0.000, implying a statistically insignificance relationship of the variables at the level of significance of 5%.

To further determine internet purchasing behavior by demographic factors regression analysis was used to test the first hypothesis. The ANOVA regression between student’s internet purchasing behavior (dependent variable) and student residence, age, gender, year of study (independent variables), indicates that the significance value is 0.000 which is less than 0.05 thus student gender, year of study, residence influence student internet purchasing behavior positively.

Effectiveness of e-advertising on creation of awareness

The second objective of the study was to determine the effectiveness of e-advertising on creation of awareness.

Table 4.10 shows the distribution on if e-advertising gives information of products to respondents.

Table 4.10 E-advertising gives information of products to respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	62	15.5	15.5	15.5
Disagree	20	5.0	5.0	20.5
Moderate	92	23.0	23.0	43.5
Agree	166	41.5	41.5	85.0
Strongly agree	60	15.0	15.0	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

Obtained results indicate that respondents who agree that e-advertising gives information of products had the highest proportion of 41.5 percent while those who disagree had the lowest proportion of 5 percent.

Table 4.11 shows if e-advertising persuades respondents to buy products.

Table 4.11 Distribution on if e-advertising persuades respondents to buy products

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	56	14.0	14.0	14.0
Disagree	40	10.0	10.0	24.0
Moderate	98	24.5	24.5	48.5
Agree	138	34.5	34.5	83.0
Strongly agree	68	17.0	17.0	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

Results indicate that those who agree that e-advertising persuade respondents to buy products had the highest proportion of 34.5 percent while those disagree had the lowest proportion of 10 percent.

Table 4.12 shows the distribution on if e-advertising creates awareness of products.

Table 4.12 E-advertising creates awareness of products

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	38	9.5	9.5	9.5
Disagree	22	5.5	5.5	15.0
Moderate	102	25.5	25.5	40.5
Agree	182	45.5	45.5	86.0
Strongly agree	56	14.0	14.0	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

Table 4.12 shows that the highest proportion (45%) of respondents who agree that internet creates awareness of products while the lowest proportion (5.5%) of respondents disagrees.

Table 4.13 shows a cross tabulation between those who agree that e-advertising creates awareness and products bought.

Table 4.13 E-advertising creates awareness*Products bought

		Products bought						Total
		Have never bought	Books	Laptop	Cell phone	Ipad	Other	
E-advertising creates awareness	Strongly disagree	14	6	6	6	4	2	38
	Disagree	2	10	4	0	2	4	22
	Moderate	22	10	22	32	2	14	102
	Agree	38	18	34	42	14	36	182
	Strongly agree	10	6	10	12	6	12	56
Total		86	50	76	92	28	68	400

Source: Field data, (2021).

Table 4.13 shows that those who agree that e-advertising creates awareness and have bought a product online were more.

Table 4.14 shows Chi-square tests between e-advertising and creation of awareness to respondents.

Table 4.14 Chi-square test between those who agree that e-advertising creates awareness and products bought.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	47.945 ^a	20	.000
Likelihood Ratio	47.159	20	.001
Linear-by-Linear Association	9.224	1	.002
N of Valid Cases	400		

Source: Field data, (2021).

A chi-square test was also used to check for the linear association of those who agree that e-advertising creates awareness and products bought. After the cross tabulations, the chi-square value for the tabulation was 47.945 and the Pearson value was 0.000, implying a statistically significance relationship of the variables at the level of significance of 5%.

H₁: There is no significant relationship between e-advertising and creation of awareness

Regression analysis was used to test the hypothesis. Table 4.12 shows an ANOVA regression between e-advertising (independent) and creation of awareness (dependent).

Table 4.15 ANOVA regression between e-advertising (independent) and creation of awareness (dependent)

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	3.453	1	3.453	8.123	.005 ^b
Residual	169.187	398	.425		
Total	172.640	399			

Source: Field data, (2021).

The table indicates that the significance value is 0.005 which is less than 0.05 thus the model is statistically significance in predicting creation of awareness. The F critical at 5 percent level of significance was 3.86. Since F calculated is less than the F critical (value = 8.123), this shows that the overall model is significant.

Table 4.16 shows average hours spent on various platforms of advertising by respondents.

Table 4.16 Average hours spent on various platforms of advertising

Statements	Mean	Std. Deviation
Time spent on TV, Movies	0.96	1.169
Time spent on Newspapers, Mags	0.59	0.982
Time spent on Radio	0.58	1.090
Time spent on internet	2.80	1.380

Source: Field data, (2021).

According to the findings in Table 4.16, on an average, a person spends more than 3 hours on the internet during his free time which is more than that of TV and movies, radio and print medium. Hence, on an average the exposure of internet to an individual is around 50% more than that of other mediums i.e. the reach of medium internet is much better than that of others.

Discussion

The second objective of the study was to determine the effectiveness of e-advertising on creation of awareness. The study sought to establish the time spent by respondents on each form of advertising. The researcher found that on average, a person spends more than 3 hours on the internet during his free time which is more than the time spent on TV, movies, radio, and print medium. Hence, on average the exposure of internet to an individual is around 50% more than that of other mediums i.e. the reach of medium internet is much better than that of others. The highest proportion (45%) of respondents agrees that e-advertising creates awareness of products. Results from the study implies that e-advertising is effective on creation of awareness an F-test was performed.

Obtained results indicate that respondents who agree that e-advertising gives information of products had the highest proportion of 41.5 percent while those who disagree had the lowest proportion of 5 percent.

Results indicate that those who agree that e-advertising persuade respondents to buy products had the highest proportion of 34.5 percent while those disagree had the lowest proportion of 10 percent.

The highest proportion (45%) of respondents agrees that internet creates awareness of products while the lowest proportion (5.5%) of respondents disagrees.

A cross tabulation between those who agree that e-advertising creates awareness and products bought. A chi-square test was also used to check for the linear association of those who agree that e-advertising creates awareness and products bought. After the cross tabulations, the chi-square value for the tabulation was 47.945 and the Pearson value was 0.000, implying a statistically significance relationship of the variables at the level of significance of 5%.

Regression analysis was used to test the hypothesis. ANOVA regression between e-advertising (independent) and creation of awareness (dependent), indicates that the significance value is 0.005 which is less than 0.05 thus the model is statistically significance in predicting creation of awareness. The F critical at 5 percent level of significance was 3.86. Since F calculated is less than the F critical (value = 8.123), this shows that the overall model is significant.

According to the findings, on an average a person spends more than 3 hours on the internet during his free time which is more than that of TV and movies, radio and print medium. Hence, on an average the exposure of internet to an individual is around 50% more than that of other mediums i.e. the reach of medium internet is much better than that of others. Therefore, e-advertising influences the creation of awareness to respondents.

Relationship between e-advertising and consumer purchasing behavior

The third objective of the research was to determine the relationship between e-advertising and consumer purchasing behavior.

Table 4.17 shows how affected respondents are by e-advertising.

Table 4.17 Distribution of how affected respondents are by e-advertising

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly affected	158	39.5	39.5	39.5
Moderately affected	196	49.0	49.0	88.5
Not affected	46	11.5	11.5	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

Results indicate that the highest proportion of 49.0 percent said that they were moderately affected by e-advertising while the lowest proportion of 11.5 percent was not affected.

The researcher conducted a regression analysis so as to test relationship among variable (independent) on the consumer behavior. The researcher applied the statistical package for social sciences. Table 4.17 shows how the model fits the data.

Table 4.18 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.799 ^a	0.639	0.608	0.704

Source: Field data, (2021).

The independent variable that was studied, explain only 64% of the consumer behavior as represented by the R Square. This therefore means that other factors not studied in this research contribute 36% of the consumer behavior. Therefore, further research should be conducted to investigate the other factors that affect consumer behavior.

H₂: There is no significant relationship between e-advertising and internet purchasing behavior.

Table 4.19 shows an ANOVA regression between e-advertising and consumer purchasing behavior.

Table 4.19 ANOVA of the Regression between e-advertising and consumer purchasing behavior

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	322.093	32	10.065	20.317	.000 ^b
	Residual	181.817	367	0.495		
	Total	503.91	399			

Source: Field data, (2021).

The significance value is 0.000 which is less than 0.05 thus the model is statistically significance in predicting how e-advertising affects the consumer purchasing behavior. The F critical at 5% level of significance was 1.545. Since F calculated is greater than the F critical (value = 20.317), this shows that the overall model was significant.

Therefore there is a significant relationship between e-advertising and consumer purchasing behavior.

Discussion

The third objective of the study was to determine the relationship between e-advertising and purchasing decision. Respondents were asked to indicate whether e-advertising influenced their decision to buy a product. The researcher conducted a regression analysis so as to test relationship among e-advertising variables and consumer behavior. The researcher applied the statistical package for social sciences. Table 4.18 shows how the model fits the data. The independent variable that was studied, explain only 64% of the consumer behavior as represented by the R Square. This therefore means that other factors not studied in this research contribute 36% of the consumer behavior. Therefore, further research should be conducted to investigate the other factors that affect consumer behavior.

The significance value is 0.000 which is less than 0.05 thus the model is statistically significance in predicting how e-advertising affects the consumer purchasing behavior. The F critical at 5% level of significance was 1.545. Since F calculated is greater than the F critical (value = 20.317), this shows that the overall model was significant.

Results show that the highest proportion (34.5%) of respondents agrees that e-advertising influences customers’ purchasing decision.

Table 4.20 shows a cross tabulation between attitude toward online ads and number of times they have bought online.

Table 4.20 Attitude toward online ads*Internet purchasing behavior

		Internet purchasing behavior				Total
		Once	Twice	Thrice	Other	
Do you like internet ads?	Yes	100	44	16	56	216
	No	52	40	20	72	184
Total		152	84	36	128	400

Source: Field data, (2021).

Table 4.19 shows that they were more students who like internet ads and had bought a product online at least once.

H₃: There is no significant relationship between attitude toward online ads and consumer purchasing behavior.

To test the hypothesis on whether there is a significant relationship between attitude toward online ads and consumer purchasing behavior a regression analysis was conducted. Attitude toward online ads was an independent variable while consumer purchasing behavior was a dependent variable.

Table 4.21 shows an ANOVA regression between attitude toward online ads and consumer purchasing behavior.

Table 4.21 ANOVA of the Regression between attitude toward online ads and consumer purchasing behavior

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22.804	1	22.804	14.447	.000 ^b
	Residual	628.196	398	1.578		
	Total	651.000	399			

Source: Field data, (2021).

The table indicates that the significance value is 0.000 which is less than 0.05 thus the model is statistically significance in predicting consumer behavior. The F critical at 5 percent level of significance was 3.86. Since F calculated is less than the F critical (value = 14.447), this shows that the overall model is significant. We reject the null hypothesis and conclude that there is a significant relationship between attitude toward online ads and consumer purchasing behavior.

H₄: There is no significant relationship between ability to recall online ads and internet purchasing behavior.

Table 4.22 shows respondents that recall internet ads in relation to the number of times they have bought a product online.

Table 4.22 Distribution of respondents that recall internet ads

		Internet purchasing behavior				Total
		Once	Twice	Thrice	Other	
Do you recall any internet ads?	Yes	122	72	34	102	330
	No	30	12	2	26	70
Total		152	84	36	128	400

Source: Field data, (2021).

Table 4.22 shows that the highest proportion of respondents (330) recall internet ads and have bought a product at least once online.

To test this hypothesis a regression analysis was conducted between ability to recall online ads and internet purchasing behavior. Ability to recall is an independent variable while consumer purchasing behavior is a dependent variable.

Table 4.23 shows an ANOVA regression between ability to recall online ads and internet purchasing behavior.

Table 4.23 ANOVA of the Regression between ability to recall online ads and internet purchasing behavior

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.391	1	.391	5.683	.018 ^b
	Residual	27.359	398	.069		
	Total	27.750	399			

Source: Field data, (2021).

Results obtained indicate that the significance value is 0.018 which is less than 0.05 thus the model is statistically significance in predicting creation of awareness. The F critical at 5 percent level of significance was 3.86. Since F calculated is less than the F critical (value = 5.683), this shows that the overall model is significant. We reject the null hypothesis and conclude that there is a significant relationship between ability to recall online ads and consumer purchasing behavior.

Other Findings

The other findings from the study include how often respondents use a computer, the main reason of using the internet, advantages and disadvantages of purchasing products online, if e-advertising is preferred, type of advertising that is interesting for respondents, whether e-advertising influences customers’ purchasing decision and if duration of page viewing is a strong determinant of the ability to recall banner ads. Table 4.24 shows how often respondents use a computer.

Table 4.24 Distribution of how often respondents use a computer

	Frequency	Percent	Valid Percent	Cumulative Percent
Everyday	348	87.0	87.0	87.0
Once a week	42	10.5	10.5	97.5
Once a month	8	2.0	2.0	99.5
Other	2	.5	.5	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

The data obtained from the schedule, shown in Table 4.23, reveals that the highest proportion (87.0%) of respondents used a computer everyday while the lowest proportion (0.5%) of respondents was in the other category.

Table 4.25 shows the main reason respondents use the internet for.

Table 4.25 Main reason respondents use the internet for

	Frequency	Percent	Valid Percent	Cumulative Percent
Chatting and Social Networking	144	36.0	36.0	36.0
Email	54	13.5	13.5	49.5
Information	136	34.0	34.0	83.5
Entertainment	30	7.5	7.5	91.0
E-commerce	22	5.5	5.5	96.5
Downloading	14	3.5	3.5	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

The highest proportion of respondents (36.0%) said that their main reason of using the internet was chatting and social networking, followed by those who said they used the internet to obtain information with a proportion of 34 percent and the lowest proportion (3.5%) of respondents said that their main reason of using the internet is to download documents.

How respondents access the internet is illustrated in Table 4.26.

Table 4.26 Distribution of how respondents access the internet

	Frequency	Percent	Valid Percent	Cumulative Percent
Use of a friend's computer	54	13.5	13.5	13.5
Owning a computer	288	72.0	72.0	85.5
Internet café	38	9.5	9.5	95.0
Other	20	5.0	5.0	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

Results show that most of the respondents access the internet using their computers with a proportion of 72 percent while a few respondents are in the other category with a proportion of 5 percent.

Table 4.27 shows the main advantage of purchasing products online.

Table 4.27 Main advantage of purchasing products online

	Frequency	Percent	Valid Percent	Cumulative Percent
Convenience	110	27.5	27.5	27.5
Save time	88	22.0	22.0	49.5
Open 24 hours/ 7 days	104	26.0	26.0	75.5
Global Reach	54	13.5	13.5	89.0
Self-selection	38	9.5	9.5	98.5
Other	6	1.5	1.5	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

Most of the respondents who said convenience was the main advantage of purchasing products online had the highest proportion of 27.5 percent while the lowest proportion (1.5%) of the respondents were in the other category.

Table 4.28 shows the main disadvantage of purchasing products online.

Table 4.28 Main disadvantage of purchasing products online

	Frequency	Percent	Valid Percent	Cumulative Percent
Expensive to access the internet	106	26.5	26.5	26.5
Technical obstacles	138	34.5	34.5	61.0
Diminished instant satisfaction	46	11.5	11.5	72.5
Need access to the internet	82	20.5	20.5	93.0
Other	28	7.0	7.0	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

Results indicate that technical obstacles is the main disadvantage of purchasing products online with a proportion of 34.5 percent while the other category had the lowest proportion of 7 percent.

Table 4.29 shows if e-advertising is preferred to other types of advertising.

Table 4.29 E-advertising is preferred to other types of advertising

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	268	67.0	67.0	67.0
No	132	33.0	33.0	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

Obtained results show that e-advertising is more preferred by respondents to other types of advertising recorded 67 percent while 33 percent said e-advertising is not preferred to other types of advertising.

Table 4.30 shows the type of e-advertising is interesting for respondents.

Table 4.30 Distribution on the type of e-advertising that is interesting for respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Banner ads	128	32.0	32.0	32.0
Sponsorship	98	24.5	24.5	56.5
Pop-ups	78	19.5	19.5	76.0
Meta ads	18	4.5	4.5	80.5
E-mail ads	66	16.5	16.5	97.0
Other	12	3.0	3.0	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

Banner ads are the most interesting type of advertising for respondents with a proportion of 32 percent while a few respondents are interested in the other category.

Table 4.31 shows whether e-advertising influences customers' purchase decision.

Table 4.31 Distribution on whether e-advertising influences customers' purchasing decision

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	36	9.0	9.0	9.0
Disagree	20	5.0	5.0	14.0
Moderate	132	33.0	33.0	47.0
Agree	138	34.5	34.5	81.5

Strongly agree	74	18.5	18.5	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

The highest proportion (34.5%) of respondents agrees that e-advertising influences customers' purchasing decision while the lowest proportion (5%) of respondents disagree.

Table 4.32 shows whether duration of page viewing is a strong determinant of the ability to recall banner ads.

Table 4.32 Distribution on whether duration of page viewing is a strong determinant of the ability to recall banner ads

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly disagree	26	6.5	6.5	6.5
Disagree	30	7.5	7.5	14.0
Moderate	130	32.5	32.5	46.5
Agree	180	45.0	45.0	91.5
Strongly agree	34	8.5	8.5	100.0
Total	400	100.0	100.0	

Source: Field data, (2021).

Results indicate that the highest proportion (45%) of respondents agree that duration of page viewing is a strong determinant of the ability to recall banner ads.

CONCLUSION

The first objective of the study was to determine the linear association between demographic factors (i.e. gender, age, year of study, residence) and internet purchasing behavior of students. Results obtained indicate that the significance value is 0.000 which is less than 0.05 thus student gender, year of study, residence influence student internet purchasing behavior positively.

The study established that the effectiveness of e-advertising on creation of awareness was determined by the level of knowledge about the existing platforms of advertisements adopted by various companies in Zambia. Most of the respondents had a positive attitude towards advertising as illustrated by their various perceptions about the use of advertising. This clearly shows a positive attitude toward advertising and hence is a good indication for marketers. The findings augment the findings of Baltas, G., (2003), who indicated that marketing is perceived by the internet users as a major source of information on available product in the market as reflected by their positive attitude in the world over. According to Calisir, F., (2003), e-advertising is an effective channel for marketing as the ad is attractive and appealing which changes from time to time. The study established that most of the respondents prefer e-advertising to other types of advertising, therefore its ability to attract consumers for awareness creation is very high.

The study found that most of the respondents spent their time on e-advertising and less time on other forms of advertising. The findings are corroborated with Danaher P.J. and Mullarkey, G.W., (2003) who posited that e-advertising are much reliable than TV ads.

The study established that e-advertising influenced purchase decision of the customers moderately as only nearly half of the respondents were influenced. The study established that e-advertising is a key determinant of purchasing decision of the customers. The study also established that e-advertising has significant relationship with purchasing decision of the consumers. The findings augment earlier findings of Goldsmith, R.E. and Lafferty, B.A., (2002) that e-advertising is a key determinant of purchase decision by the customers and that e-advertising has an association with purchase decision of the consumers.

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CONFLICTS OF INTEREST

The authors declare no conflicts of interest regarding the publication of this paper.

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