ANIMATION AS A PERSUASIVE TOOL IN INTERNET ADVERTISING MESSAGES: 
A STUDY OF UNIVERSITY OF GHANA STUDENTS

BY

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INTEGRIR PROCEDAMUS

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DECLARATION

I hereby declare that this dissertation is entirely my own work carried out at the School of Communication Studies, University of Ghana, Legon. No part of this study has been published elsewhere and all references have been duly acknowledged.

.................................................
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.................................................
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DEDICATION

This work is dedicated to God Almighty for the mercies and grace bestowed on me throughout the duration of my study.
ACKNOWLEDGEMENTS

I am in the debt of all those who contributed one way or the other to making this dissertation a reality.

First of all, I wish to thank my parents for the amount of support they gave. Not only did they encourage me with words but also supported me with the needed resources to complete this study. God richly bless you.

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To Folaronke Francisca Dada, for being a good friend, encouraging and supporting me in all that I did, thank you. I am grateful to God for our strong and steady spirit.
ABSTRACT

The purpose of this research was to find out how animation affected internet advertisements. This study was conducted to see if, by incorporating animation into internet ads, these ads may become more effective at influencing audiences. In essence it sought to find out if animation enhanced the persuasive effect of internet ads.

This study was conducted within the framework of the hierarchy of effects model. This model suggests that individuals are persuaded in three main stages. The stage of cognition, the stage of affect and the stage of conation. It goes further to state that before anyone can be persuaded to do anything, they must first go through these three stages. Advertisers have continually constructed messages with this model in mind to help persuade more audiences. Researchers have however differed in their views as to how the stages of the model should be presented.

This study used an experiment to gather the necessary data. Eighty students from the University of Ghana, Legon partook in this experiment.

Findings of the study revealed that animation in internet ads does have an effect on individuals. It identified that individuals were likely to recall ads that had animation present within them. It also found that individuals were more likely to have a positive attitude to these animated ads. However, there was not enough evidence to show whether animation in internet ads can influence an individual to click on an ad to find information regarding the product or service being advertised.
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CHAPTER ONE

INTRODUCTION

1.1 Background to study

The main aim of advertising is to persuade a consumer to take action by patronising a product or a service. Advertisers use various cues to enhance their messages to persuade potential consumers to purchase a service or a product. These cues range from text, colour, music, celebrity appeal to animation. All these elements have been used in traditional media such as radio, print and television. With the advent of the internet, advertisers have sought to apply these same principles/ cues to this new medium. Also present in these internet advertisements are the same cues (colour, celebrity appeal, music and the like) that have for years been applied in the traditional media.

1.2 Advertising and the Internet

Internet advertising may be described as all forms of advertising that takes place within the online space. This encompasses the process by which companies, organisations, or individuals pay to post product information or details on the internet or online space with the intent of generating sales (Kaye and Medoff, 2011).

What sets the internet medium apart from the traditional media is the amount of interactivity that audiences have with the message and those sending the messages. Consumers are able to link up and interact with advertisers like never before.

Internet advertising has both positive and negative attributes. Coupled with its interactivity, online advertising comes with a certain level of intrusiveness. Consumers are constantly
bombarded with all kinds of unsolicited ads and messages. Individuals have been at the brunt of various spam and tracking activities by both legitimate advertisers and hackers. The interactive nature of the internet has made online advertising intrusive, aggressive and irritating (Shah, 2008). Researchers such as Strafford and Faber (2005) suggest that consumers of internet media content find internet ads intrusive in comparison to other media. Others like Lai et al. (2007) suggest that the irritation shown by consumers is only dependent on the type of internet ad.

Various types of advertising formats are used on the internet. These types are used by advertisers depending on the audience they may be addressing. These ads include pop-ups, banner ads, websites and interstitials (Zeff and Aronson, 1997).

1.3 Animation in advertising

Animation is the process of creating and displaying the illusion of movement by manipulating, successively and at a certain rate, minutely different individual states of continuing action Magnenat-Thalmann and Thalmann, (1996), cited in Diaor and Sundar (2004). It is a technique that has been used in the film and television media to help tell stories and convey messages. Types of animation include 2dimensional animation (2D), 3dimensional animation (3D), flash, as well as computer generated imagery (CGI).

With the onset of the internet, advertisers have responded by bombarding online users with various kinds of visual and auditory cues, such as larger sized texts and images, brighter colors, recorded voices, music and animation, in an attempt to capture and sustain viewers’ attention to their particular banner advertisements (Diaor and Sundar, 2004). Animation, just like the other
cues, often enhances the visual appeal of a web site, and may help attract viewers’ attention to sections of the site.

Originally, internet ads only used static texts and images. However, over time, animation has been incorporated to attract the attention of audiences as well as persuade them more effectively. Animation present in web ads may include pop-ups, moving texts as well as moving cartoon characters.

1.4 Purpose of research

This research sought to find out how effective animation is in internet ad messages. It also sought to look at the extent to which animation acts as a persuasive cue in online ads.

This research is a replication of a research by Lai et al. (2007) that was performed on the subject of animation in internet ads. The idea was to ascertain whether the findings would corroborate the study by Lai et al. (2007) given the time lapse.

Also, since most of the previous research on animation in internet advertising was conducted in North America, it would be insightful to find out if the same results and findings would be obtained in a Ghanaian setting. By investigating into the true effect of animation in internet advertising, the results would be of benefit to advertisers.

1.5 Problem statement

Many of the studies done on animation and its role in internet advertisements have been conducted either in countries in North America or Europe. Very little research has been conducted into internet advertising in Ghana let alone the role animation plays in these online
ads. Ghana is a different country in a different geographical region. In addition to this, the country’s demographics differ vastly from those of countries in North America or Europe. It would therefore be insightful to find out if the studies conducted into animation and internet advertising in North America and Europe would produce the same results if conducted in Ghana.

1.6 Scope of study

Internet ads have different formats. Animation can be incorporated into any of these formats. These include pop-ups, animated websites, banner ads and interstitials. This research however focused only on animated internet banner ads.

This research was conducted within the hierarchy of effects model. This model suggests that individuals go through 3 stages to be persuaded. This research focused on the role animation plays in persuading individuals on each of these stages.

This research used students from the University of Ghana, Legon as its population. The students included both undergraduate as well as postgraduate students. These students were chosen because it is these individuals that are most likely to use the internet and thus be familiar with internet advertisements.

1.7 Significance of the study

The findings of this study give insight into how effective animation is in the whole internet advertising process particularly within the Ghanaian setting. This was achieved by looking at how animation helps in all stages of the hierarchy of effects model. This study aimed to look at
how animation persuades individuals on the levels of cognition, affect and conation as suggested by the hierarchy of effects model.

The findings provide empirical evidence regarding the extent to which animation acts as a persuasive cue in advertising messages.

This research could further help advertisers properly incorporate animation into their web ads to achieve greater persuasive effect. They would be better informed as to the best kind of animated ads to use, when to use them and how to use them.

1.8 Research objectives

The main objective of this research was:

- To determine whether animation in an ad generates better recall of a message
- To ascertain how effective animation in an ad is in getting the attention of audiences
- To establish whether animation in ads affect consumer attitudes towards the message advertised
- To determine whether or not animation in ads influences a person enough to patronise a product or service advertised
1.9 Research questions

Questions that this research addresses are:

- Is audience recall of an ad affected by the incorporation of animation?
- Is animation in an ad effective in attracting the attention of audiences?
- Does the use of animation in ads affect the attitude of a consumer towards the message advertised?
- Does animation in ads influence a person enough to patronise a product or service that has been advertised?

1.10 Definition of Terms

In conducting this research, there are number of key terms that are used. While these terms may have general meanings, they have been operationalised for the purpose of this study.

Ad: For purposes of this research all ads consist solely of internet banner ads. This refers to all banner advertisements displayed within the online space. TV and radio ads are not included.

Cognition: All aspects of mental processing may be regarded as cognition. Recall, attention and thinking for this research are all categorised under cognition.

Affect: All elements of feeling are defined as affect. This includes attitudes of individuals regarding an ad. It also includes liking for or irritation towards an ad.
Conation: This relates to all action demonstrated by individuals. For this research, action in internet ads also relates to intent to click. Intent to click has to do with a consumer's desire to click on an ad to get more information about the message.

1.11 Summary

This chapter focused on the general background to this research. It looked at the general concept of advertising as well as internet advertising and how advertisers use various cues to persuade consumers. These cues include colour, text, celebrity appeal, music as well as animation.

Advertisers have taken advantage of the invention of the internet and its unique interactivity to bombard consumers with a wide range of online advertisements. Advertisers have also incorporated animation within these online ads to enhance the persuasive effect of their messages and move their target audience to patronize whichever products or services are being advertised.

The purpose of the research was therefore to look at how effective the use of animation in online ads is. This research focuses on whether or not animation in internet ads generate better recall of a message in audience, are able to attract the attention of an audience effectively, affect the attitude of these audiences and finally influence an audience to patronize the service or product being advertised.

Definitions of key terms that apply to the study were also discussed in this chapter. For the purpose of this study, all ads refer to internet banner advertisements. Also, the concept of cognition for this study refers to recall and attention of an ad by an audience. Affect refers all
emotional elements which includes feeling by the audience and includes the attitude of the audience to an ad. Conation also refers to all action demonstrated by the audience with regard to an ad and it includes intent to click (a consumers desire to click on ad to get more information).
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter focuses on the theoretical perspective that guided this research and also reviews some selected scholarly articles. The basic principles of the theoretical perspective are examined, its development over the years as well as the criticisms levelled against it are discussed. The scholarly works that are reviewed include selected literature which pertains to research into the use of animation in internet ad messages and their effectiveness.

2.1 Theoretical framework

The theoretical framework introduces and describes the theory which explains why the research under study exists. It is the structure that can hold or support a theory of a research topic. The theory used as a guide for this research is the hierarchy of effects model.

2.1.1 Hierarchy of Effects Model

This model suggests that before any person can be persuaded to take any kind of action, he or she must go through certain stages. This model, formulated by Lavidge and Steiner (1961) cited in Barry and Howard (1990) stresses that there are three distinct stages that individuals move through before being persuaded to take any action: these are the cognitive stage, affect stage and the conation stage (Barry and Howard, 1990). Individuals begin from the cognitive level, move to the stage of affect and then to conation. Lavidge and Steiner (1961) cited in Barry and Howard (1990) defined the cognitive as "thinking", affect as "feeling" and conation as "action".
Therefore individuals, in processing any information and before being persuaded, start at the stage of cognition. At this stage they first become aware of the message or ad and then begin to think through or mentally process the information. The individual then moves to the stage of affect (feeling). At this level the person begins to develop positive or negative attitudes towards the product being advertised.

After the level of affect, is the conation (action) level. At this stage, the individual acts and chooses to patronise the product advertised. If the person generated a favourable attitude towards the advertised service or product, he or she was most likely going to patronise the product. If the person developed a negative attitude, he or she was not likely to patronise the product.

According to Barry and Howard (1990), before Lavidge and Steiner (1961) came out with their suggestion of how the model should look like, there had been some attempts by previous researchers to help give an explanation of how advertising worked. It is believed the first such proposition was by Lewis (1898). He suggested the Awareness-Interest-Desire-Action (AIDA) model. Here individuals moved from a state of unawareness to the first stage of awareness (A). They then moved to the stage of interest (I) then to desire (D) and finally action (A). Other scholars like Sheldon (1911) cited in Barry and Howard (1990) included another stage to the AIDA model, which was permanent satisfaction “(S) making it the AIDAS model.

Hall (1915) cited in Barry and Howard (1990) however said the model should be Awareness-Interest-Comprehension-Conviction-Action (AICCA); where there is a movement from Awareness (A), to interest (I), to comprehension (C), to conviction (C) to action (A). He suggested that his AICCA model was a prerequisite for forming a good persuasive advertisement. Despite these many variations it was the AIDA model from Lewis (1898) that
majority of the advertisers adhered to before the model proposed by Lavidge and Steiner (1961) became popular.

The model proposed by Lavidge and Steiner (1961), however, also underwent some modifications. Scholars such as Bem (1972) and Kelly (1973) cited in Ray et al. (1973) have suggested that the hierarchy of effects model where an individual moves from the cognitive stage to the affective stage and finally to the level of conation may not necessarily be true. They suggested that a person could rather go from the stage of conation to the affective stage and finally settle at the cognitive stage. In other words a consumer may first try a product, develop an attitude from using the product and eventually this may influence the thought or thinking process regarding the product (Barry and Howard 1990).

Zajonc and Markus (1982) cited in Barry and Howard (1990) also suggested that the levels should rather be arranged as affect to conation to cognition. They suggest that consumers may like a product for its aesthetic qualities and hence go forth to purchase it. By purchasing and trying the product, a consumer may rethink the choice made and see if trying the product was a good choice or not. Krugman (1965,1966), on the other hand believed that an individual first started at the cognition stage, moved to the conation stage and finally settled at the level of affect (Barry and Howard 1990).

2.1.2 Criticisms

Criticisms have, however, been levelled against the hierarchy of effects model. One criticism is the fact that among researchers, there is no consensus on what actually distinguishes cognition and affect. Lazarus (1984) suggests that there is a discrepancy as to what to consider as cognitive
and what to consider as affect. He further stated that “feeling” for a product may be as a result of cognitive processes or a process of thinking through and coming to the conclusion that one may or may not like a product. In other words a person’s attitude may simply be an intellectual choice (cognition) and not based on feeling (Barry and Howard 1990).

Another criticism raised about the model was that there was no real evidence to tell why or when a person moved from one stage to the next. Though most ad messages were structured with the model as a framework, no one really had an idea of when or why a person may move between stages. Therefore the factors that influence a consumer’s mobility from the stage of cognition to the stage of affect and finally to the stage of conation are unknown (Barry and Howard, 1990).

2.2 Review of related works

Animation in advertising has become a thoughtful and interesting way to approach an idea. It allows companies to create the environment in which they want to display their products. Companies could create their own medium to reach their targets (Vincent, 2013).

The most ardent users of the internet medium have been advertisers. Though not total, there has been a mass shift in funding into producing ads for the internet. Coupled with this use of the internet has been the incorporation of animation into advertising particular goods and services (Chan Yun Yoo, Kihan Kim, and Patricia A. Stout 2004).

According to Bayles (2002), animation has been employed as a technique, not only to entertain but also to help convey crucial and necessary messages. There has been the assumption that animation in itself has the capacity of attracting the attention of viewers faster than other visual methods. Advertisers have employed this same tactic of animation in online ads. Though it has
been suggested that animation has helped convey better and more easily advertising messages, others have had differing views.

2.2.1 Bayles (2002) and the single page experiment

A study conducted by Bayles (2002) focused on the ability of animation to help in recall as well as helping make ads more noticeable. This study was based on an earlier research by Bayles and Chapporo (2000) cited in Bayles (2002) which looked at animation and its effect on recall and recognition of internet banner ads, specifically Amazon and eBay banner advertisements. What Bayles (2002) aimed to do in her research was to find out, by conducting an experiment, if by employing animation techniques in banner ads, a viewer or surfer of the website might better recall the ad message being delivered and even recognize the ad at all.

Bayles (2002) used 66 undergraduate students comprising 32 males and 34 females. The age range of the participants was 17 to 48 years. The experiment consisted of three phases. In the first phase, participants were shown a single webpage and instructed to complete four search tasks one at a time. Internet banner ads were present on the webpage upon completion of the search task.

The second phase of the experiment included a recall task. The participants were asked to reconstruct the layout and graphics of the webpage they initially viewed in the first phase. They were then asked questions relating to color, text and motion of elements on the webpage.

In the final phase, participants performed a recognition task and were instructed to fill a questionnaire. They were shown a webpage with 12 banner ads consisting of six company ads in two versions; static and animated. Participants were then asked questions in which they needed
to state which ads they remembered, were exposed to and whether or not the ads were animated or static.

Bayles (2002) observed that 40% of the participants in the study were able to recall the ad regardless of whether or not the ads were animated; this suggested that less than half of the participants remembered seeing any banner ads at all. Other findings revealed that participants might have recalled the ads but could not remember the actual message or even which part of the screen the ads were located at the time.

Most of the subjects, however, remembered that there was an ad on the page but they could not recognise what the ad said or what the product or service being advertised was about. These findings led Bayles (2002), eventually to conclude that even though most advertisers and web designers advocated for using more and more animation in online ads, there would be no effect on the viewer or web surfer. Bayles (2002) concluded that there was no evidence to think that animation increased the awareness of web ad messages.

2.2.2 Yoo et al. (2004) and the two-group experiment

Another study conducted by Yoo, C.Y., Kihan, K., and Stout, P. (2004) refined the study by Bayles (2002). Yoo et al. (2004) first of all acknowledged that there was the general perception that employing animation in web banner ads was far more effective than static ones. What Yoo et al. (2004) aimed to do in their study was to corroborate this claim. They therefore, looked at how the use of animated ads affected target audiences within the framework of the hierarchy of effects model. They sought to look at how animation incorporated into an ad affected the viewer on all the levels proposed by the hierarchy of effects theory.
The principles of advertising operate around this hierarchy and Yoo et al. (2004) sought to see whether a banner ad, when animated would have a higher chance of affecting a consumer at the different levels. Yoo et al. (2004) also decided to look at how these ads might affect the attitude of viewers toward a product. They did all this by looking to see if there were any differences between what viewers experienced when they viewed a static banner ad and when they viewed one which was animated.

In the Yoo et al. (2004) study, college students were used for the laboratory experiment. 55 students (21 males and 34 females) were initially used for pretesting purposes. The results of the pre-test was used to create two product categories for the main experiment.

For the main experiment, 50 subjects (also college students) were used. They consisted of 29 males and 21 females. Each of the subjects was randomly placed into 2 groups in which each group was under separate experimental conditions. One group viewed static ads while the other viewed animated ads.

Participants were given online instructions which centered on a fictitious study objective. At the bottom of the page, the participants clicked “next” to move on to the next task. Upon clicking next, the participants were exposed to three different website ads. These sites stayed on the page for 45 seconds.

After exposure to these sites, the participants were directed to a questionnaire site. Here they were asked a series of questions related to the websites they were exposed to. These questions addressed recall of, attitude towards and recognition of the ads they saw earlier.
Generally, results from the Yoo et al. (2004) experiment suggested that, on the whole, animated banner ads prove to be more effective than static banner ads, in all stages of the hierarchy of effects model. At the awareness (cognition) level, it was found that animated banner ads had a higher chance of attracting the attention of individuals. While these individuals who participated in the experiment had their attention grabbed to a certain extent by the static ads, those who viewed the animated ads had their attention grabbed faster. Yoo et al. (2004) also found that there was a higher recall of animated ads as compared to static banner ads. Subjects were able to remember quicker and faster banner ads which had incorporated some form of animation than those which did not.

Another significant finding from the research of Yoo et al. (2004) was the effect of animated banner ads on attitudes of people towards a product. People had more favourable attitudes towards banner ads which had some form of animation in them. In other words, people are more likely to like an animated internet banner ad. More important was the finding that even though animated banner ads aided in recall, attitudes towards ad messages and even click through rates, too much animation would lead to a reverse effect in people. Therefore, the more the animation in a banner ad, the more it became a nuisance to the viewer leading to him or her rather having an unfavorable attitude towards the ad and the product depicted within the ad message.

Yoo et al. (2004) research, however, had certain limitations. First of all because it was an experiment conducted within a controlled environment, it would be extremely difficult to extrapolate the findings into a real world setting where so many external factors mediate the process. Factors such as the type of animated banner ads, the size of the banner, the font style used as well as the colours incorporated may or may not engender an individual towards a particular ad and the product being sold.
Also, despite the fact that Yoo *et al.* (2004) tried to study animated ads within the framework of the hierarchy of effects model, the traditional concept of the hierarchy of effects model suggests a long term effect process. In other words, the stages through which a person goes through from awareness to interest to desire and then action is not a one-time event. It happens over a lengthy period of time and thrives on repeated advertising of the same message. The Yoo *et al.* (2004) experiment would then need to be extended over a longer period of time to ascertain whether the same results would be obtained.

**2.2.3 Lai *et al.* (2006) and the animated website**

In 2006, Yee Lin Lai, Kai Lung Hui and Na Lui took research in animation on online advertisements to a higher level. Instead of studying banner ads, they chose to focus on an animated websites. Lai *et al.* (2006) chose to look at websites that were animated and compared them with those that had no animation. A key feature of the Lai *et al.* (2006) study was that, they incorporated another factor aside from animation. This factor was the product or service being advertised. Though they focused on how animated web ads might affect recall and attitudes, Lai *et al.* (2006) also suggested that whether a website ad is animated or not, a lot depended on the kind of the product or service being advertised.

Lai *et al.* (2006) made the distinction between products or services with hedonic values and those with utilitarian values. Products with hedonic values were those which consumers perceived would give them sensory pleasure. In other words, those products that would give them a good “feel” experience. Here all the necessary senses of taste, smell, hearing, sight could be incorporated. For utilitarian products, consumers perceived them to be those that were most
efficient for completing a particular task. Thus a consumer purchased products based on these two perceived values; hedonism and utilitarianism.

In the Lai et al. (2006) experiment, a total of 80 undergraduate students were used. They consisted of 60% males and 40% females. The average age of the participants was 21 years. The experiment took 30 minutes to conduct.

A pre-test experiment was done with 20 undergraduates (who were not part of the main experiment). These 20 undergraduates were exposed to webpages and asked a series of questions related to recall, attitudes towards ads as well as product perception. Results of the pre-test were used to construct the main experiment.

Two product types were selected based on their hedonic and utilitarian values. A game console and robotic dog toy were selected as products with hedonic values and a calculator and a printer as products with utilitarian values.

Two pages (one static and the other animated) were create for each of these products. Participants of the main experiment were then asked a series of questions related to their recall of the ads, their attitudes towards the ads and how the static or animated formats affected their perception of the products presented within the ads.

For Lai et al. (2006), depending on whether a product may have hedonic or utilitarian values, using an animated website to advertise these products may be detrimental or not as compared to using a static website. For instance it was found that with regard to attitude of individuals towards an ad, if the product was perceived to have hedonic value, the use of animation enhanced its appeal and hence created a positive attitude in the viewer. If, however, the product
is perceived to have utilitarian values, the use of animated websites to advertise the product may create a negative effect in the individual towards the product.

Lai et al. (2006) found that static websites were able to convey better the message of utilitarian products than animated websites. They however went on to suggest that in certain circumstances an animated website may affect the viewer to perceive a utilitarian product in a more hedonic light. Lai et al (2006) emphasized the need for advertising firms to consider the kind of product or service before setting out to create a web ad.

Lai et al. (2006), however, had certain limitations in their research. In their experiment, they used one type of website. Lai et al. (2006) conceded that the participant’s familiarity with some of the products advertised on the websites during the experiments could have acted as a mediating factor, thus affecting the results of the study. They suggested taking into consideration performing research into looking at a consumer’s relation with a product and whether loyalty for a particular product might affect a consumer’s attitude towards an animated web ad.

Researchers like Burke et al. (2004) dispute claims by Yoo et al. (2004) regarding animated ads and their ability to generate better recall than static ads. Burke et al. (2004) conducted a study into how banner ads hinder visual search and concluded that while incorporating animation into ads could make audience recall of an ad better, it would be counterproductive to incorporate too many animated elements into the ad. They thus advocated for a moderate use of animation in internet banner ads. They also suggested that the addition of more animation into banner ad may begin to produce negative attitudes in audiences. This is was a corroboration of suggestions by Bayles (2002) and aspects of the study by Lai et al. (2006).
A study by Steffen Zorn, S, Olaru, D, Weiheim, T. and Sam Zhao, S (2012) focused on click through intention (the desire of a person to click on an ad to gain more information). They performed an experiment to find out how animation and language affected people’s desire to click on an animated ad compared to static ones. They sought to find out if by incorporating animation into an ad, individuals would be tempted to click on ad more than if the ad was static.

After conducting their experiment, Zorn et al. (2012) found out that to a certain extent animation might induce an audience to click on an ad. They however noted that only individuals doing passive leisure browsing would be attracted by animated ads and be tempted to click on them. On the other hand, individuals who are actively involved in search tasks on the internet may not be attracted enough by these animated ads enough for them to want to click on them.

2.3 Summary

This chapter discussed the main theoretical model that is used by this research. The hierarchy of effects model was discussed including its history, development and criticism over the years. Some related works regarding animation and internet banner advertisement were also reviewed.

The hierarchy of effects model as suggested by Lavidge and Steiner (1961) asserts that before any individual can be persuaded to take any action, he or she must go through certain stages. While researchers like Lavidge and Steiner (1961) suggest that people move from a stage of cognition to a stage of affect and finally to the stage of conation, other researchers like Lewis (1898) cited in Barry and Howard (1990) proposed different stages where the individual moves from a stage of awareness to the interest stage, the stage of desire and finally to the stage of action. Some criticisms levelled against the hierarchy of effects model include the fact that there
is ambiguity as to what differentiates cognition from affect as well as the fact that there is no real evidence to tell why or when a person may move from one stage to the next.

Also discussed in this chapter were studies by Bayles (2002), Lai et al. (2004) and Yoo et al. (2006) were reviewed. The research conducted by Bayles (2002), Lai et al. (2004) and Yoo et al. (2006) all used experiments to gather their data. Whiles some of the findings of these studies were consistent with each other, others varied in comparison.
CHAPTER THREE
METHODOLOGY

3.0 Introduction

This chapter focuses on the procedure used to conduct the experiment. The methods used to gather data, sampling, experimental design and procedures are discussed. Also included are the various methodologies used by past researchers such as Bayles (2002), Yoo et al. (2004) and Lai et al. (2006). In conducting research into how animation used in web ads is effective or not, it is prudent to look out for the experimental procedures used by these researchers.


The research conducted by Bayles (2002), Yoo et al. (2004) and Lai et al. (2006) all used experiments to gather their data. There were differences however in the way each of these researchers conducted their experiments.

Bayles (2002), used 66 undergraduates ranging from 17 to 48 years. Her experiment was structured in three phases and involved the subjects performing various tasks on webpages on the computer. The subjects were then asked a series of questions related to the tasks.

Yoo et al. (2004) on the other hand, performed a pre-test before conducting their experiment. The result of the pre-test were then used to construct the main experiment. Yoo et al. (2004) sampled fifty college students. These fifty subjects were divided into two groups; a control and an experimental group. The subjects in both groups were exposed to certain websites and subsequently asked a series of questions that addressed recall of, attitudes to and recognition of ads they may have seen.
The Lai *et al.* (2006) experiment involved twenty undergraduate students who were exposed to webpages and asked a series of questions in relation to recall, attitudes towards ads as well as product perception. Two specific products were advertised on two webpages. The respondents were then shown these webpages and later filled a questionnaire that was related to the ads and products they viewed.

### 3.2 Data collection method

Like the research conducted by Lai *et al.* (2006), Yoo *et al.* (2004) as well as Bayles (2000), this study also used an experiment to gather data. This is based on the fact that an experiment was regarded as the most appropriate method of gathering such data as shown in the previous research of Lai *et al.* (2006), Yoo *et al.* (2004) as well as Bayles (2000).

### 3.3 Sampling

The sample for this research was drawn from University of Ghana student population. It included both post-graduate and undergraduate students. The reason for choosing these students was because they are individuals most likely to use the internet. Thus it is these individuals that were more likely to be exposed to and be familiar with internet ads. The number of participants selected to take part in this experiment were eighty students. The participants were randomly assigned to two groups; an experimental group and a control group. There were forty respondents to a group. Those in the experimental group were exposed to animated ads only. Those in the control group only viewed static ads.
3.4 Pre-test

A pre-test was conducted to determine the reliability as well as efficiency of the experiment before proceeding with the main study. Based on this pre-test, necessary modifications were made for the main experiment. Ten students were drawn from the population of University of Ghana students. They consisted of 5 males and 5 females. Participants of this pre-test did not take part in the main experiment.

3.5 Experimental design

Three banner ads were used for the entire experiment. Each of these banner ads had two formats; one as static and the other as animated. These banner ads were each hosted on three different websites. One of these banner ads was the target ad (Appendix B). The other ads were filler ads. The three websites were constructed to look like three popular news websites in Ghana (Appendix C). Each of these websites contained the same information and story. They only varied with regard to the kind of banner ads placed on them.

3.6 Procedure of experiment

At the beginning of the experiment, the participants were giving instructions regarding the procedure of the test. They were first shown a webpage containing these instructions. At the bottom of this page, the participants clicked next to proceed.
The participants were shown the three websites one after the other. They were exposed to each website for 45 seconds. At the end of viewing the three websites, a questionnaire was given to the participants.

The subjects were asked questions relating to recall, attention, and attitude as well click through intention. As part of the recall task, respondents looked at four choices of different banner ads; one was the target ad and three other ads which were not present during the experiment.

3.7 Data analysis

The Statistical Package for Social Sciences (SPSS) software was used to analyse the collected data. The data was categorized and coded based on the answers given in the administered questionnaire.

3.8 Summary

This chapter looked at the procedure used to gather data for this research. The methods discussed included pre-testing, sampling, experimental design and procedure. The methodologies used to gather data by researchers such as Bayles (2002) and Yoo et al (2004) were also discussed. Also discussed was the way in which each of these researchers conducted their experiments.
CHAPTER FOUR

FINDINGS

4.0 Introduction

This chapter looks at the results of the experiment conducted. All necessary tables and figures are presented to show the findings. Each of the tables and figures shown in this chapter relates to the objectives and questions the research sought to address. The tables and figures are analysed and inferences made from them.

4.1 Analysis of study

The SPSS statistical package was used in analysing the collected data. The tables and figures directly relate to the research questions. This includes questions regarding awareness and attention, recall, attitude towards an ad as well action (characterised as intent to click on an ad).

<table>
<thead>
<tr>
<th>TABLE 1: Attention paid to ads on webpage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
</tr>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>Animated (experimental)</td>
</tr>
<tr>
<td>Static (control)</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
Table 1 shows that 42.1% of respondents of the experimental group spent between 5 to 15 seconds looking at the ads on a webpage, whilst 28.6% of respondents in the control group did so within the same time. On the other hand, 21.1% of respondents of the experimental group as against 48.6% of control group “did not pay attention at all” to the ads. This finding suggests that to a certain extent, the animated ads on the webpages for the experimental group played a significant role in being able to attract the attention of the participants in the experimental group.

Figure 1: Ads respondents noticed/remembered while browsing

Figure 1 shows that 61% (21) of respondents in the experimental group as against 44% (11) of the respondents in the control group correctly identified the ad they were exposed to. This result suggests that animation present in the ads aided the participants in noticing and correctly identifying the target ad.
TABLE 2: Attitude towards ads seen while browsing

<table>
<thead>
<tr>
<th>Group</th>
<th>Liked them</th>
<th>No feeling</th>
<th>Did not like them</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animated (experimental)</td>
<td>14</td>
<td>15</td>
<td>1</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>45.2%</td>
<td>51.6%</td>
<td>3.2%</td>
<td>100%</td>
</tr>
<tr>
<td>Static (control)</td>
<td>5</td>
<td>12</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>27.8%</td>
<td>66.7%</td>
<td>5.6%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>28</td>
<td>2</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>38.8%</td>
<td>57.1%</td>
<td>4.1%</td>
<td>100%</td>
</tr>
</tbody>
</table>

In Table 2, sixty-six percent (66.7%) of respondents of the control group as well as fifty-one point six percent (51.6%) of the experimental group did not indicate whether or not they liked the ad they saw (no feeling). It is interesting to note however that 45.2% (14) of respondents from the experimental (animated) group liked the ads as against only 27.8% (5) of those in the control group. These findings suggest that it is likely that animated ads will be more likeable as compared to static ads.
Figure 2 shows whether a respondent is likely to click on ad seen to visit the associated website.

It shows that for those in the animated group only 9.7% (3 out of 40) of respondents in the animated group were likely to click on the ad to visit the associated website. Majority of those in the experimental group (77.4%) were only likely to click on an ad to a certain extent, while 12.9% were unlikely to do so.

Similar figures are seen for respondents who were in the control group. Majority of the respondents in the control group (66.7%) were only likely to click on an ad to a certain extent while 22.2% were unlikely to do so.
4.2 Summary

This chapter looked at the findings of the research. These findings were presented in form of figures and tables. Each of the figures and tables addressed a particular research objective or research question. Analysis of the tables and figures was also made.

According to Table 1, 42.1% of subjects in the experimental group spent between 5-15 seconds looking at an ad on the webpage. On the other hand, only 28.6% of subjects in the control group spent the same amount of time looking at an ad.

Also, in Figure 1, 61% of subjects in the experimental group were able to correctly identify that they saw the Entin London University ad. However, 44% of subjects from the control group were able to correctly identify the same ad.

In Table 2, it was shown that 45.2% of the subjects in the experimental group had a positive attitude towards the ad they saw. This was in contrast to the 27.8% of the subjects in the control group who liked the same ad.

Finally, in Figure 2, similar results are seen in both the experimental and control groups with regard to likelihood to click on ad. Majority of the subjects in both groups were likely to click on an ad to an extent.
CHAPTER FIVE

DISCUSSIONS AND CONCLUSION

5.0 Introduction

This chapter summarises and discusses the findings from the previous chapter. Each finding is discussed in light of the research objectives and questions. The limitations of the study are also discussed as well as recommendations and concluding remarks. The purpose of this research was basically to find out if the use of animation in internet banner advertisements helped in persuading individuals effectively.

5.1 Discussion of findings

The first objective of the research was to find out whether animation in ads generated better recall of internet advertising messages. Findings in the previous chapter, reveal that animation in internet banner advertisements does generate better recall in audiences. In other words individuals who viewed animated ads stood a better chance of remembering the ad as compared to people who might have viewed the same ad which was not animated. This finding supports findings by Bayles (2002) and Yoo et al. (2004).

The second objective of the research was to ascertain how effective animation in an ad was in getting the attention of audiences. The results of the research showed that individuals who browsed webpages were likely to get their attention attracted better by animated ads as well as have their attention held for longer. This suggests that individuals who viewed static banner ads had their attention grabbed less and even if attracted did not have their attention for long. This finding supported research findings by Yoo et al. (2004).
The third objective of the research was to establish whether animation in ads affect consumer attitudes towards particular products or services. The results of this study showed that more people liked the animated ads though may have not found them appealing. This raises the question of what truly appeals to the audience since many of them may like the ads for other reasons as opposed to the animation.

The final objective of the research was to investigate whether or not animation in ads influences a person enough to patronise a product or service advertised. The results however did not give any evidence to support the notion that animation in an internet banner ad was a significant factor in moving people to click on the ad or to try the product or service advertised. Since most of the respondents in both groups of the research only wished to click on an ad “to a certain extent”, it showed that whether or not an ad was animated, individuals only clicked on ad if they were interested in the information advertised.

The overall results of the study show that incorporating animation into internet banner ads does help to a certain extent in the persuasive process of advertising. This ability does not extend to the point of influencing people to actually purchase or patronize a service.

This study was similar in design to that of Yoo et al. (2004). It backs the study by Yoo et al. (2004) which established that an animated banner ad will have greater attention-getting capability. It also supported Yoo et al. (2004) findings that an animated banner ad results in better memory or recall. Finally the assertion by Yoo et al. (2004) that an animated banner ad will generate more favorable attitude from an audience or viewer was also corroborated by this study.
This research however varied on the level of click-through intention as compared to Lai et al. (2006). Lai et al. (2006) suggested that an animated banner ad will have higher click-through intention than will a static banner ad while this study did not find any clear cut data to prove that an animated ad compared to a static ad has a higher click-through intention rate.

5.2 Limitations

This study had a number of limitations. The research was conducted within the framework of the hierarchy of effect model which suggests that the main aspects of persuasion especially in advertising include cognition, affect and conation. However the research did not look at the process of progression from the cognitive stage to the affective stage and finally the conation stage. It did not try to establish a link between these stages or even whether one stage led to the next. It also could not identify which factors influenced an individual to move from one stage to the other.

Another limitation of the study was regarding the sample size. There were eighty subjects who took part in the study. Such a sample size makes it impossible to extrapolate the results or generalise the findings to other situations.

This study also limited itself to look at internet banner ads. It did not take into account animated websites, interstitials or pop-ups. Thus the findings of this study on the effects of animated banner ads may be different from findings of studies into effects of pop-ups, interstitials and animated websites.
5.3 Recommendation and conclusion

It is important that further research be conducted into the effects of animation on internet advertising messages. There is a wide array of animation techniques employed in internet advertising. It would be crucial to perform more experiments with larger groups to find out the extent to which animation influences viewers in internet ads.

Findings from this research suggest that incorporating animation into banner ads may, to a certain extent be beneficial to advertisers. While animated banner ads are likely to attract audiences better it is also capable of generating a positive attitude in audiences.

This study was also conducted within the framework of the hierarchy of effects model. This model suggests that individuals are persuaded to do anything in a very ordered and structured way. This order is in three main stages: Cognition (recall and attention), affect (liking) and conation (intent to click). Findings from this study support the principles of the hierarchy of effect model.

While this research confirmed that individuals may be influenced on the cognitive level, it also confirmed that individuals go through an affective stage and are influenced by animation at this stage. This research however did whether or not individuals are affected by animation at the stage of conation (intent to click). This is because, results from the study suggest that the incorporation of animation into an ad is not likely to make any clear difference as to being able to influence an individual to want to click on the ad as compared to ads without any animation.
Bibliography


APPENDIX A

School of Communication Studies

University of Ghana

I am a student of the School of Communication Studies. I am conducting a research into animation and its use as a persuasive tool in internet banner advertisements.

Be assured that any information you provide is confidential. If in doubt or in need of any further information, you may contact my research supervisor, Professor Ansu-Kyeremeh on 0208158155

SECTION A

1. Select the order in which the 3 webpages you just viewed appeared to you

   a) Ghanaweb/ Myjoyonline/ Peacefmonline

   b) Peacefmonline/ Myjoyonline/ Ghanaweb

   c) Peacefmonline/ Ghanaweb/ Myjoyonline
2. Which of the three sites you just viewed was most appealing?

   a) Myjoyonline  
   b) Ghanaweb  
   c) Peacefmonline  

3. What is your assessment of the colour scheme of the website you found most appealing

   a) Bright and exciting  
   b) Dull and boring  

4. Were the picture(s) used on the webpage you chose appropriate for the general idea of the story?

   a) Yes  
   b) No  

SECTION B

5. Were you aware of any advertisements on the webpages you just browsed?

   a) Yes  □ □  b) No  □ □

6. Which of these advertisements did you notice or remember while browsing?

   a) [Image: ENTIN University of Ghana](http://ugspace.ug.edu.gh)

   b) [Image: ONE-THOUCH Samsung Galaxy](http://ugspace.ug.edu.gh)

   c) [Image: Your Online MBA Scholarship Awaits](http://ugspace.ug.edu.gh)
7. How much attention did you pay to the advertisements on a webpage?

    a) Less than 5 seconds
    b) 5-15 seconds
    c) 15 seconds and above
    d) Didn’t pay attention at all
    e) None of the above

8. In a simple sentence, could you please summarise or narrate the message of any of the banner advertisements you might have noticed?

................................................................................................................................................
........................................................................................................................................
SECTION C

9. Rate your attitude to the advertisements you might have encountered while browsing?
   a) Liked them  
   b) No feeling  
   c) Did not like them

10. Rate the appeal of the advertisements you might have seen or were aware of:
    a) Appealing  
    b) No opinion  
    c) Not appealing
SECTION D

11. What is the likelihood of you clicking on the advertisement to visit the associated website of the ad?

   a) Highly likely □  b) to a certain extent □  c) highly unlikely □

12. What is the likelihood of you trying the product or service advertised?

   a) Highly likely □  b) to a certain extent □  c) highly unlikely □

SECTION E

13. AGE

   a) 18-24 □  b) 25-30 □  c) 31 and above □
14. GENDER:

a) MALE  □  b) FEMALE  □

15. Where do you do most of your browsing?

a) At home  □  b) In café  □  c) On campus  □

16. WEB EXPERIENCE (when you started using the web):

a) Before 2005  □  b) 2005-2008  □  c) 2008-currently  □

17. RATE OF WEB-BROWSING (per day):

a) Less than an hour  □

b) 1 to 5 hours  □
c) 6 to 10 hours

   □

d) 11 to 15 hours

   □

e) 16 hours or more

   □

18. Level: ........................................

19. Department: ............................................................................................................
APPENDIX B

BANNER ADS USED FOR EXPERIMENT:

TARGET AD

FILLER ADS
APPENDIX C

The presence of excessive or unnecessary noise in the background suggests that the image may not be clearly defined or is not descriptive enough to convey the intended message. This affects the ability to read and understand the text accurately. The text appears to be a continuation of the previous discussion, possibly involving technical or scientific content. However, due to the low quality of the image, it is challenging to provide a clear and accurate transcription of the text.
Figure 3: Awareness of ad on webpages

Table 3: Appeal of ads seen

<table>
<thead>
<tr>
<th>Group</th>
<th>Appealing</th>
<th>No opinion</th>
<th>Not appealing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animated (experimental)</td>
<td>18 (58.1%)</td>
<td>9 (29.0%)</td>
<td>4 (12.9%)</td>
<td>31 (100.0%)</td>
</tr>
<tr>
<td>Static (control)</td>
<td>7 (38.9%)</td>
<td>9 (50.0%)</td>
<td>2 (11.1%)</td>
<td>18 (100.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>25 (51.0%)</td>
<td>18 (36.7%)</td>
<td>6 (12.2%)</td>
<td>49 (100.0%)</td>
</tr>
</tbody>
</table>
Figure 4: Likelihood of trying product or service advertised

<table>
<thead>
<tr>
<th></th>
<th>Animated (experimental)</th>
<th>Static (control)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly likely</td>
<td>29.00%</td>
<td>16.70%</td>
</tr>
<tr>
<td>To a certain extent</td>
<td>54.80%</td>
<td>61.10%</td>
</tr>
<tr>
<td>Highly unlikely</td>
<td>16.10%</td>
<td>22.20%</td>
</tr>
</tbody>
</table>