CHAPTER – 1
INTRODUCTION

1.1 Advertisement-An Introduction

Advertisement is the source of information to the consumers about the products available in the market. In a competitive economy, advertisements help manufacturers to persuade consumers to buy their products. Advertisers make use of rational as well as emotional appeals to induce consumers. Advertisers normally advertise their products through prominent media like television (TV), cinema, radio, bill-boards, online media, magazines, and posters. Some advertisements really work well and persuade people to purchase the products while some do not. In other words, some advertisements are effective and some are not.

Advertisement effectiveness depends on many things, and it has been pointed out that advertising effectiveness is concerned with attributes such as noticeability, comprehensibility, need creation, interest value, memorability, believability, uniqueness, sociability, and imagination stimulus [1]. An effective advertisement is one that leaves long lasting impression amidst the consumers and motivates them to purchase the product [2]. When a product attribute (like utility, durability, and packaging) is prominent in an advertisement, it is more likely to be recalled by individuals and that attribute is more likely to affect an individual’s attitude [3]. Advertisement effectiveness depends upon the truthfulness of claims regarding the product being advertised [4]. Both negative and positive feelings are the important predictors of the advertisement effectiveness [5]. Impact of an advertisement is usually a complex interaction of visuals and script [6]. An effective advertisement should possess attention strength, cognitive notice strength, affective strength, and behavioral
strength. In short, an effective advertisement needs to deliver a message to the right audience and direct them to purchase the product [7].

1.2 Advertisement Effectiveness-A Theoretical View

Today, advertising finds itself in a serious bind. Advertising will only survive and grow if it focuses on effectiveness. All advertisers are expecting specific results, based on their stated objectives. Clients expect proof, and, for the most part, that proof must lead to or actually produce sales. It is no longer acceptable to tell a client, “Our advertisements work, we just don’t know, when, and with what results” [8]. Hence advertising must be effective and it must achieve its objectives. On the other hand, advertising cannot save bad products. Explicit objectives should drive the planning, creation, and execution of each advertisement. Advertisement should work with other forms of marketing communication to reach customers. Only the advertiser and the supporting advertisement agency know whether the advertisement campaign has reached its objectives, and whether the advertisement truly was worth the money spent. Effective advertisements are advertisements that help the advertiser reach its goals [9]. Effective advertisements work on two levels. In the first level, advertisers should satisfy consumer’s objectives by engaging them and delivering a relevant message. In the second level, the advertisements must achieve the advertiser’s objectives.

Initially, a consumer may be interested in watching an advertisement for its entertainment value or to satisfy his/her curiosity. If the advertisement is sufficiently entertaining, the customer may remember it. Subsequently, the consumer may then learn that the advertisement relates to a personal need and provides relevant information on how to satisfy that need. The advertisement may also offer enough incentive for the consumer to risk change because it shows how to satisfy his/her needs in a manageable way. Further, advertisements may reinforce consumer product decisions and remind how his/her needs have been satisfied.
The advertiser’s objectives differ from the consumer’s. Ultimately, advertisers want consumers to buy and keep buying their goods and services. To move consumers in to action, they must gain their attention. They must then hold their interest long enough to convince them to change their purchasing behavior, try their product, and stick with their product.

An advertisement campaign tries to satisfy the viewer’s curiosity and need for entertainment. The consumer will probably remember the advertisement, if such campaign reinforces the good feelings or satisfaction of consumers. Strategy, creativity, and execution are the three broad dimensions that characterize effective advertising. Effective advertisements connect these three elements as shown in Figure 1.1.

![Figure 1.1: Elements of effective advertising.](image)

**Strategy:** Every effective advertisement implements a sound strategy. The advertiser develops the advertisement to meet specific objectives, carefully directs it to certain audience, creates its message to speak to that audience’s most important concerns, and runs it in media like print, T.V., or the internet, that will reach its audience most effectively.

**Creativity:** The creative concept is the advertisement’s central idea that grabs consumer attention and sticks in his/her memory. A concern for creative thinking drives the entire field of advertising. Planning the strategy calls for imaginative problem solving. The research efforts need to be creative, and buying and placing of advertisements in the media require
creative thinking. Advertising is an exciting field because of the constant demand for imaginative solutions to media and message problems.

**Execution:** Effective advertisements are well executed. The details, the photography, setting, printing, and the production values all have to be fine-tuned. Many of these techniques are standard in the industry.

These three elements must be met for an effective advertisement. In the field of marketing, researchers have attempted to study the effectiveness of advertisement and they have evolved four traditional theories, such as economic theory, responsive theory, psychological theory and social theory. Each theory is independent and speaks of a particular aspect of consumer’s purchasing behavior in relation to advertisements [10].

### 1.2.1 Economic Theory

This theory affirms that consumers act on their own financial self interest. When they purchase a product they look for maximum utility at the minimum cost. This theory also confirms that consumers must have functional information about a product before they make a purchase decision. When the price decreases, consumers will be motivated to purchase more. Consumers are price-conscious when they purchase expensive products. Further, this theory postulates that individuals act rationally and maximize their utilities of the products and services they purchase.

### 1.2.2 Responsive Theory

This theory presumes that consumers are lazy and want to make any purchase with minimum effort. Consumers are mostly governed by their habits and these habits are conditioned through stimulus-response learning. The stimulus may be an advertisement message, taste of the product, attractiveness of the product, and utility of the product. When the habits are
conditioned, consumers repeatedly buy the products. Further this theory states that individuals often act less rationally (that is, emotionally) to fulfill their needs.

1.2.3 Psychological Theory

This theory considers that consumer behavior is dominated by ego involvement. Consumers who buy compulsively are influenced by unconscious motives and indirect emotions. This theory further states that the individual’s personality plays a vital role in his/her purchase behavior. That is, the individual’s implicit attitudes towards the different products affect his/her purchase behavior. Finally, the theory states that the consumer purchase behavior is complex and highly unpredictable.

1.2.4 Social Theory

This theory states that compliant consumers continually adjust purchases to satisfy cultural and group needs for conformity. Individuals watch what others buy and imitate others in their purchase decision. People purchase goods to maintain their status and prestige. In essence, each theory discusses certain aspect of the purchase behavior of consumers.

1.3 Role of Advertisements

Advertisements play an important role in the buying process. There are five stages in the buying process: (i) need arousal, (ii) information search, (iii) evaluation behavior, (iv) purchase decision, and (v) post purchase feelings [7]. A need can be activated through internal or external stimuli. As far as the information search is concerned, the consumer information sources fall into four groups. They are (i) personal sources, (ii) commercial sources, (iii) public sources, and (iv) experimental sources.

As the individual receives information he/she can use it to clarify his/her various alternatives and their relative benefits. The evaluation stage leads the consumer to form a set
of preferences among the alternative objects in his evoked set. Normally the brand that he/she likes most would become the one he/she intends to purchase. The brand purchase has an important feedback effect on subsequent brand preference.

The buyer’s behavior is influenced by a variety of information sources. The common information sources that persuade people to try a new product are advertising samples, trials and salesman’s suggestions. Advertising functions as a communication tool for effective attitude changes, response changes and behavioral changes. The intention of any advertising message is to influence the purchase behavior of consumers in a way favorable to the advertiser. The AIDA (attention, interest, desire, action) model suggests that an effective advertisement is one that commands attention, leading to develop interest in the product and hence the desire to own or use the product and finally to action (normally, purchase). The American association of advertising agencies has evaluated the role of advertising and observed that advertising is a mass media that enhances the sales and provides maximum opportunity and responsibility for finding consumers [11].

Recent studies on advertisement effectiveness found that feelings are the predictors of advertising effectiveness. Advertisements influence attitudes and there is a relationship between the attitude of people and their involvement with advertisements. Advertiser reputations interact with advertising claims. Repetition of advertisements affects consumer’s attitudes. Manipulation of product attributes has an impact on consumer’s attitudes. Advertisements should possess truthfulness, attractiveness, retrieval cues, cosmetic variation and substantive variation. Advertisements work in many ways, to influence focal brand behavior, repertoire brand behavior, occasional brand behavior, extended trial behavior and single trial behavior.

Advertising in India is keeping pace with the growth in international marketing. In the print media, the growth is likely to be more in the magazine sector than in the daily press.
The radio and TV media in India are gaining popularity. The arrival of TV has created better awareness among people by providing more information on all earthly things. Thus advertisement plays a significant role in consumer behavior.

1.4 Personality of Individuals and Advertisements

Advertisers and marketers are more concerned about the personality of individual consumers. The consumer’s perception of an advertisement message is influenced by his/her personality traits. Several research studies established the possible relationship between the personality traits and the various aspects of consumer behavior. The type of purchase decision making (routine versus non-routine) varies with different personality types of individuals [12].

Increased repetition of advertising differentially affects high and low loyalty consumers. There is a relationship between personality traits and the way by which individuals process the advertisement message [13]. Informativeness, irritativeness, entertainment, and confusion are the important perceptual factors associated with liking and effectiveness of advertisements [6].

1.5 Attitude of Individuals and Advertisements

Attitude towards advertisement can result from the content of the advertisement, the mood of the consumer, and emotions elicited by the advertisement. Formation of attitude toward the advertisement can influence attitude towards the brand and emotions, content of the advertisement, and visual and verbal components might influence the attitude towards the advertisement [14]. Positive reactions generated by pleasant stimuli will always be associated with the advertised brand and support the classical attitude towards advertisement effects [15].

The advertisement effects are the most important under conditions of low involvement of individuals [16]. If consumers develop positive reactions to an advertisement
itself, then this may also have a favorable impact on their attitudes towards the brand being advertised [17]. It was found that advertiser reputation interacting with advertising claim extremity in producing attitude change [18]. It was also inferred that manipulation of quality aspects had a great impact under low involvement [19]. When a product attribute is prominent in an advertisement, it is more likely to be recalled by individuals exposed to that advertisement and that attribute is more likely to affect individual’s attitude [3]. It was found that those with a more negative attitude towards advertisement are more involved in the advertisements than those with a positive attitude. People, who believe that advertising is a good way to know about the products and services, are more involved in the advertisements [20]. It was observed that individuals exposed to the conditioning trials established significantly more positive attitudes towards the test product. Thereby they also supported the classical conditioning explanation of attitude toward advertisement effect [21]. The message evaluation was favorably influenced by positive moods [22]. This observation confirmed the earlier findings [5]. It is clear from the literature that attitudes of individuals have a strong impact on processing of information contained in the advertisement. The key function of advertising is to shape or reinforce buyer’s attitudes.

1.6 Objectives of the Thesis

The scope of this research work is to realize the following four objectives: First objective is to identify the factors of television advertisement effectiveness. Second objective is to examine whether the factors, which are identified, are able to predict the effectiveness of the advertisement using the modeling techniques, such as artificial neural networks (ANNs) and support vector machines (SVMs). The third objective is to examine whether these factors are able to categorize an individual or respondent by demographic variables such as age, sex, religion, educational background of the family, and personality dimensions such as adaptability, achievement motivation, boldness, competition, enthusiasm, innovation,
leadership, and tension using ANNs and SVMs. The fourth objective is to develop a real time facial expression recognition system to recognize the facial expression of an individual while watching the advertisement. The proposed method for real time facial expression recognition addresses the following issues:

- Face tracking
- Determination of locations of the eyes
- Visual feature extraction
- Modeling of visual features

The term visual features refer to the features extracted from the mouth image of the person or subject.

1.7 Significance of the Study

Innumerable advertisements are produced day in and day out for all types of products through different media. Why an advertisement is effective and the other is not effective is a thousand dollar question. Unless one knows the minds of prospective consumers this question cannot be answered. So this study tries to delve into the minds of prospective consumers regarding advertisement effectiveness making use of certain psychological factors involving personality dimensions. Further, the influences of demographic variables and facial expressions while watching the advertisement are analyzed in this study.

This study will help manufacturers and producers of advertisements in so designing their products and advertisements as to attract the consumers. Further, this study will remain a fertile ground of knowledge to both traders and researchers to explore further in this area. Also this study will help to expand the existing knowledge of advertising and its impact. Moreover, the findings of this study may be of some interest and help to all personnel
involved in advertising and it may provide other prospective researchers with some additional information in the field of advertisement effectiveness.

1.8 Organization of the Thesis

The focus of the research work presented in this thesis is to identify the factors of advertisement effectiveness and to develop a system for measuring the advertisement effectiveness, categorizing the respondents by demographic variables and personality dimensions using these factors. The contents of the thesis are organized as follows:

Chapter II presents related literature on advertisement effectiveness and facial expression recognition. Sections 2.2 to 2.7 explain the theories related to advertisement effectiveness. In Section 2.8, a review of existing methods for advertisement effectiveness is presented. Section 2.9 discusses influence of personal and demographic variables for advertisement effectiveness. In Section 2.10, a review of existing methods for facial expression recognition is given.

Chapter III discusses the methodologies to identify the factors of advertisement effectiveness. Various factors and attributes of advertisement effectiveness are discussed in Sections 3.2.1 and 3.2.2, respectively. In Sections 3.3.1 and 3.3.2, the ANN and the SVM models of advertisement effectiveness are described, respectively.

Chapter IV describes the categorization of an individual by demographic variables such as age, sex and religion. The ANN and the SVM models used for categorizing the respondents by demographic variables are discussed in Sections 4.3 and 4.4, respectively.

Chapter V explains the modeling of factors for categorization of respondents by personality dimensions such as adaptability, achievement motivation, and boldness. The ANN and the SVM models used for categorizing the respondents by personality dimensions are given in Sections 5.3 and 5.4, respectively.
Chapter VI proposes a method for real time facial expression recognition. The face localization is described in Section 6.2. Determination of locations of the eyes, visual feature extraction and modeling of visual features for facial expression recognition are described in Sections 6.3, 6.4, and 6.5, respectively.

Chapter VII presents the summary and conclusions. Contributions of this work and scope for future research are described in Sections 7.2 and 7.3, respectively.