

**THE EFFECTIVE USE OF DIGITAL IMAGE IN  
ADVERTISING DESIGN PROCESS**

**Master Thesis**

**OSMAN ALFAHIM OSMAN HAMED**

**Eskişehir, 2018**

**THE EFFECTIVE USE OF DIGITAL IMAGE IN  
ADVERTISING DESIGN PROCESS**

**OSMAN ALFAHIM OSMAN HAMED**

**MASTER THESIS**

**Department of Communication Design and Management  
Supervisor: Associate Professor: Suzan Duygu Bedir ERİŐTİ**

**Eskiőehir**

**Anadolu University**

**Institute of Social Sciences**

**January, 2018**

## FINAL APPROVAL FOR THESIS

This thesis, titled “**The Effective Use of Digital Image in Advertising Design Process**” has been prepared and submitted by **Osman Alfahim Osman HAMED** in partial fulfillment of the requirements in “**Anadolu University Directive on Post Graduate Education and Examination**” for the Master’s degree in **Department of Communication Design and Management** has been examined and approved on **17/01/2018**.

### Committee Members

### Signature

Member (Supervisor) : Assoc.Prof.Dr.Suzan Duygu ERİŐTİ

Member : Assoc.Prof.Dr.Gölbin Ö. AKARÇAY

Member : Assist.Prof.Dr.Ö.Özgür DURSUN

17/01/2018

Date

Assist.Prof.Dr. Nüfer BORAN GÜNEYSU



## **ABSTRACT**

### **The Effective Use of Digital Image in Advertising Design Process**

**OSMAN ALFAHIM OSMAN HAMED**

**Department of Communication Design and Management**

**Anadolu University, Institute of Social Sciences, January, 2018**

**Supervisor: Associate Professor: Suzan Duygu Bedir ERİŞTİ**

The objective of this research is to study the effective use of the digital image in advertising design process and to find out the role played by the digital image in the development of advertising especially in outdoor advertising. The rapid progress in digital technology has caused the advertising professionals to transform to the digitization of the advertising industry in order to keep pace with the technological development. Within this framework, the study was conducted by doing in-depth interviews with 7 experts from the advertising industry. The interviews were analyzed by descriptive analysis method. Participants explained how digital image impacts advertising production and what the best practices and uses of the digital image in advertising production. As a result, it can be stated that the integration of digital image with advertising production has reshaped the infrastructure of advertising dramatically through its positive reflection in the advertising design process. Also, making effective use of the digital image in advertising design process can help agencies to create high-quality advertisements easily, with least cost and in a short time.

**Keywords:** Digital image, Advertising design process, Advertising, Advertisement, Digital technology.

## ÖZET

**Yüksek Lisans Tez Özü**

### **REKLAM TASARIM SÜRECİNDE DİJİTAL GÖRÜNTÜNÜN**

### **ETKİN KULLANIMI**

**OSMAN ALFAHİM OSMAN HAMED**

**İletişim Tasarımı ve Yönetimi Anabilim Dalı**

**Anadolu Üniversitesi Sosyal Bilimler Enstitüsü, Ocak, 2018**

**Danışman: Doç. Dr. Suzan Duygu Bedir ERİŞTİ**

Bu araştırmanın amacı, dijital görüntünün reklam tasarım sürecindeki etkin kullanımını incelemek ve reklamcılığın gelişiminde özellikle açık hava reklamcılığında dijital görüntünün oynadığı rolü incelemektir. Dijital teknolojiye hızlı ilerleme, reklamcılık profesyonellerinin teknolojik gelişime ayak uydurmak için reklam endüstrisinin dijitalleştirilmesine dönüşmesine neden oldu. Bu çerçevede, çalışma reklamcılık sektöründeki 7 uzmanla derinlemesine görüşmeler yaparak yürütülmüştür. Görüşmeler betimsel analiz yöntemi ile analiz edilmiştir. Katılımcılar, dijital görüntünün reklam üretimini nasıl etkilediğini ve reklamcılık üretimindeki en iyi uygulamalarını ve kullanımlarını açıkladı. Sonuç olarak, dijital imajın reklam üretimiyle entegrasyonunun reklam altyapısını dramatik bir şekilde yeniden şekillendirdiği söylenebilir. Ayrıca, dijital görüntülerin reklam tasarım sürecinde etkin bir şekilde kullanılması ajansların yüksek kalitede reklamlar, en az maliyetle ve kısa sürede kolayca oluşturmalarına yardımcı olabilir.

**Anahtar Kelimeler:** Dijital görüntü, Reklam tasarımı süreci, Reklamcılık, Reklam, Dijital teknoloji.

16/02/2018

## STATEMENT OF COMPLIANCE WITH ETHICAL PRINCIPLES AND RULES

I hereby truthfully declare that this thesis is an original work prepared by me; that I have behaved in accordance with the scientific ethical principles and rules throughout the stages of preparation, data collection, analysis and presentation of my work; that I have cited the sources of all the data and information that could be obtained within the scope of this study, and included these sources in the references section; and that this study has been scanned for plagiarism with “scientific plagiarism detection program” used by Anadolu University, and that “it does not have any plagiarism” whatsoever. I also declare that, if a case contrary to my declaration is detected in my work at any time, I hereby express my consent to all the ethical and legal consequences that are involved.

.....

(Signature)

Osman ALFahim Osman HAMED

(Name and Surname of the Student)

## TABLE OF CONTENTS

TITLE PAGE.....	i
FINAL APPROVAL FOR THESIS.....	ii
ABSTRACT.....	iii
ÖZET .....	iv
STATEMENT OF COMPLIANCE WITH ETHICAL PRINCIPLES AND RULES ...	v
TABLE OF CONTENTS .....	vi
TABLES LIST .....	viii
FIGURES INDEX.....	ix
IMAGES INDEX .....	x
1. INTRODUCTION .....	1
1.1. Statement of the Problem .....	3
1.2. Background of the Study .....	3
1.3. Importance of the Study .....	4
1.4. Purposes of the Study.....	4
1.5. Research Questions .....	4
1.6. Limitations .....	5
1.7. Definition of Terms .....	5
2. LITERATURE REVIEW .....	7
2.1. Digital Image.....	7
2.1.1. Definitions and basics terminology of digital image .....	8
2.1.2. Types of digital images .....	14
2.1.3. Digital image file formats .....	15
2.1.4. Common image file formats.....	16
2.1.5. Plug-in.....	18
2.1.6. Digital images production .....	18
2.1.7. Digital image processing.....	21
2.1.8. Why transforming to digital imaging.....	22
2.2. Stock Photography .....	23
2.2.1. The uses of stock photography .....	23

2.3.	Post -Photography.....	24
2.4.	Advertising.....	25
2.4.1.	Advertising definition.....	25
2.4.2.	Advertising design .....	26
2.4.3.	Outdoor advertising.....	26
2.5.	New Media .....	27
2.5.1.	Principles of new media.....	28
2.6.	Technological Progression and Advertising .....	29
2.7.	Digital Media and Advertising.....	34
2.8.	Digital and Traditional Advertising Methods .....	36
2.9.	Digital Media and Advertising Design .....	41
2.10.	Utilizing of Digital Image.....	43
3.	METHODOLOGY.....	47
3.1.	Research Methodology and Design.....	47
3.2.	Data Sources and Participants.....	47
3.3.	Interview Design.....	48
3.4.	Data Collection .....	49
3.5.	Data Presentation (Data Collection Techniques) .....	49
3.6.	Limitations.....	50
3.7.	Delimitations.....	50
3.8.	Data Analysis .....	50
4.	FINDINGS .....	52
4.1.	The Findings of the In-Depth Interviews.....	52
4.1.1.	Characteristics of the participants .....	52
4.1.2.	The role of digital image.....	53
4.1.3.	Importance of digital image .....	57
4.1.4.	The impact of digital image on advertising content.....	60
4.1.5.	The reflection of the integration of digital technology .....	63
4.1.6.	The effect of digital image on the decision-making of target audience....	66
4.1.7.	Digital image and the misinterpreting by target audience.....	69



4.1.8. The best practices and effective uses of digital image .....	71
4.2. Observation Period and Interviews Notes .....	76
<b>5. DISCUSSION AND RECOMMENDATIONS .....</b>	<b>79</b>
5.1. Summary .....	79
5.2. Discussion.....	79
5.2.1. The role of digital image and its importance in advertising.....	79
5.2.2. The impact of digital image on advertising content .....	81
5.2.3. The reflection of the integration of digital technology .....	82
5.2.4. The effect of digital image on the decision-making process .....	82
5.2.5. Digital image and the misinterpreting of target audience .....	83
5.2.6. The best practices and effective uses of digital image.....	84
5.3. Recommendations for Research .....	86
5.4. Recommendations for Graphic Designers and Advertising Professionals .....	87
5.5. Conclusion.....	87
<b>REFERENCES .....</b>	<b>89</b>
<b>APPENDIXES</b>	
<b>CV</b>	

## TABLES LIST

	<b><u>Page</u></b>
<b>Table 4.1.</b> Characteristics of the participants.....	53
<b>Table 4.2.</b> The role of digital image .....	54
<b>Table.4.3.</b> The importance of digital image .....	57
<b>Table 4.4.</b> The impact of the digital image on advertising content .....	60
<b>Table 4.5.</b> The reflection of the integration of digital technology .....	63
<b>Table 4.6.</b> The effect of digital image on the decision-making .....	67
<b>Table 4.7.</b> Probabilities of digital image effect on the decision-making .....	69
<b>Table 4.8.</b> Digital image and the misinterpreting of target audience .....	70
<b>Table 4.9.</b> The best practices and effective uses of digital image.....	72,73

## FIGURES INDEX

	<b><u>Page</u></b>
<b>Figure 2.1.</b> Target Audience Preference of Digital and Traditional Media.....	37
<b>Figure 2.2.</b> Comparison of Digital and Traditional Media.....	41
<b>Figure 2.3.</b> Digital Media Advertising .....	42
<b>Figure 4.1.</b> The role of digital images in design process.....	56
<b>Figure 4.2.</b> The importance of digital image in design process.....	59
<b>Figure 4.3.</b> The impact of digital image on advertising content .....	62
<b>Figure 4.4.</b> The integration of digital technology in advertising.....	66
<b>Figure 4.5.</b> The effective use of digital image.....	75

## IMAGES INDEX

	<u>Page</u>
<b>Image 2.1.</b> Bitmap image made of pixels ( <a href="https://vector-conversions.com/vectorizing/raster_vs_vector.html">https://vector-conversions.com/vectorizing/raster_vs_vector.html</a> ).....	9
<b>Image 2.2.</b> Pixels based on row and column ( <a href="http://www.uihome.uidaho.edu/">http://www.uihome.uidaho.edu/</a> )....	10
<b>Image 2.3.</b> Image sharpness based on pixels per inch ( <a href="http://oerworkshop.pbworks.com/w/page/34361035/Understanding%20digital%20images%20and%20resolution">http://oerworkshop.pbworks.com/w/page/34361035/Understanding%20digital%20images%20and%20resolution</a> ) .....	10
<b>Image 2.4.</b> Different number of pixels per inch ( <a href="http://www.fmedda.com/de/article/dpippi">http://www.fmedda.com/de/article/dpippi</a> ).....	11
<b>Image 2.5.</b> Different dots per inch ( <a href="http://www.pndesign.co.uk/design_blogs/low_resolution_problems.html">http://www.pndesign.co.uk/design_blogs/low_resolution_problems.html</a> ).....	11
<b>Image 2.6.</b> Differences between low bit depth and high bit depth.....	12
<b>Image 2.7.</b> RGB and CMYK Color mode of digital images.....	12
<b>Image 2.8.</b> Alternate filters on image processing ( <a href="https://www.filterforge.com/">https://www.filterforge.com/</a> )...	13
<b>Image 2.9.</b> High and standard definition of a digital video ( <a href="http://www.dvdyourmemories.com/blog/difference-high-definition-standard-definition-definition-video/">http://www.dvdyourmemories.com/blog/difference-high-definition-standard-definition-definition-video/</a> ) .....	14
<b>Image 2.10.</b> Binary images ( <a href="http://www.ransen.com/repligator/Asci-Image-Effect.htm">http://www.ransen.com/repligator/Asci-Image-Effect.htm</a> ).....	15
<b>Image 2.11.</b> Difference between vector and raster graphics ( <a href="https://library.udel.edu/multimedia/2016/02/15/battle-of-the-programs/">https://library.udel.edu/multimedia/2016/02/15/battle-of-the-programs/</a> ).....	16
<b>Image 2.12.</b> Common image file formats.....	17

## **1. INTRODUCTION**

Since the first existence of human beings in this universe, people had found themselves in need to communicate with each other in order to sustain their life wellbeing. They had been trying to express their feelings, desires, and necessities by using traditional ways of communication such as writing and drawing on caves and temples. So, if we take a look at the process of communication through the long history of human beings, we will find that communication commenced with simple ways such as a verbal or spoken tradition which was mainly face-to-face. Historically, the way of sending and receiving messages progressed from spoken tradition to script and from script to print. After that, it is developed from print to wired electronics. And as a result of the discovery of new technology, communication was taken to another advanced level of wireless from wired electronics, and then it was transformed to digital communication.

Definitely, the great revolution in the field of digital technology has contributed to the creation of radical change in the world around us. It has created a noticeable improvement in all fields of our lives, especially in the area of communication where this revolution has affected the way of how people communicate with each other. Where, it has made the communication process more easily and reachable in different ways. However, we cannot ignore the massive paradigm shift which has brought about the accelerating and enormous technological developments in the field of advertising.

In this regard also Cofield (2005) pointed out that, digital imaging had become more than just a popular entertainment in modern culture. Personal computers, in addition to a plenty of hand-held electronic devices, have become the preferred mode of communication for increasingly large part of the people. Additionally, to make information reach the desired destinations, people invented the use of images and pictures to explain and to elaborate the message to be understandable even to the less educated or illiterate people. In the process, digital cameras were discovered for taking, processing, and sharing photos in a simple and easy way to easy communication.

As a result, advertisers and advertising agencies started to use the technological media as the way to reach their target audience. Digital images of different products were started to be used in advertising to explain the quality of products though sometimes are

followed by words when explaining the functions, uses and how to use some products. Today, the digital image has become a common component of high-tech advertising communications, and customers as the target audience can easily understand the quality and the use of products by the demonstration of images.

Wells et al. (2011) stated that the revolution of shifting from analogue to digital technology has brought about two essential changes facilitated partially by the innovation of the personal computer. Firstly, it made the operation of production and copying information quite simple. Secondly, they also stated that it made the process of moving information between media easier than in the past, as well as, it simplified the accessing and distribution the information remotely. These characteristics of digital technologies have transformed the way of how people communicate and how they do their everyday businesses. It also means that those who are afraid of keeping up with this revolution, they do not want to join the change in media environment, and are in danger of being outdated and getting left behind.

Due to the importance of the digital image at the present era, there was a need to conduct studies about digital image extensively such that to understand its effects in the field of advertising. Therefore, this study generally aimed to contribute to the discussion of the effective use of digital image and new technology in advertising design process. Though, it also aimed at studying the best practices of using the digital image in the advertising industry, specifically the outdoor advertisements, and the role played by a digital image in the development of advertising.

This study is divided into five main parts. The first part involved statement of the problem, background of the study, importance of the study, purpose of the study, research questions, limitations, and definition of terms. In the second part, the study focused at the literature regarding the digital image, advertising, and digital technology by reviewing the current literature on the topic. The third part presented the methodology of the study. Additionally, the fourth part provided the findings as were analyzed, presented and organized according to the research questions. Then the analyzed data was compared to the current literature on the topic. Finally, the fifth part talked about summary, discussion of the study and recommendations for professionals in the graphic design, and advertising industry to the best use of the digital image in advertising design process.

## **1.1. Statement of the Problem**

A digital image is a key element in the process of informing and persuading customers and other targeted audiences in the advertising industry. Because by using of the digital image, advertisers can attract the attention of the target audience, and deliver their intended meaning of advertisement. Therefore, there is a need to stand at the digital image and studying it exceptionally for analyzing and understanding its impact. Consequently, the importance of research will stand out in studying digital image profoundly and to focus on digital image and advertising, especially outdoor advertisements. As well as, studying how the use of the digital image can impact advertising design process. At a recent time with the progressing of technology, the appearance of digital cameras and digital editing programs, most advertising agencies tend to integrate digital technologies into advertising production. Consequently, digital images have become increasingly widespread with great impact on the advertising industry. Therefore, advertising agencies should realize the importance of using digital images and digital editing programs in advertising production process.

## **1.2. Background of the Study**

The existing literature regarding using the digital image in advertising design process is minimal and few. Most of existing literature mainly focused on the effects of advertising on consumer behavior and how advertising can change the purchasing behavior of the consumer, such as Kiremitçioğlu (2012), who has conducted a study on the impact of technological advertising on consumer behavior. However, there is a technical side of the advertising production which is significantly important because it is what makes advertising attractive, persuasive and informative to the targeted audience. Additionally, because most of the existing literature focused on how advertising can change the purchasing behavior of the consumer, rather than focusing on other sides of advertising production such as the effective use of the digital image in the advertising design process, so there is a need to conduct a study on the effective use of the digital image in advertising design process.

### **1.3. Importance of the Study**

Since this research dealt with important aspects of advertising production, it importantly focused on the effective use of the digital image in advertising design process to widen out the few and the scarcity already made research in this area to add more shedding light on digital image effects, on the advertising in general and on outdoor advertising specifically. The importance of this study appeared through discussing the effective use of the digital image to fill part of the gap in the development of advertising as technology continues to grow and as people keep on discovering new things in the field of communication and advertising as well. So, the importance of the study comes from its deal with one of the important aspects of the advertising production, which is the digital image. Also, the importance of this study appears through filling a part of the gap in this regard. Moreover, to generate new discussions regarding the effective use of the digital image in advertising design process.

### **1.4. Purposes of the Study**

Although most of the agencies have tried to keep pace with technological evolutions that have occurred in the world of advertising by integrating technology and digital image into advertising production, there are some that do not recognize the importance of digital image in advertising. Therefore, this study intends to present the current best practices of using the digital image in advertising, especially in the outdoor advertisement, as well as to discover the role played by the digital image in the development of advertising.

In this study, the researcher tried to examine the effective use of the digital image in advertising design process deeply, by doing in-depth interviews with experts in the field of digital advertising by asking them some questions regarding digital image and advertising, in order to get a profound insight into the use of the digital image in advertising design process.

### **1.5. Research Questions**

The research will be conducted according to the following research questions which were prepared and developed to answer gaps, in addition, to create connections using the existent literature on the topic of digital image and advertising. Every question of this



study was prepared after information searching process on the specified topic in order to obtain data and information from experts in the fields of digital image and advertising.

This study aims to answer the following questions:

1. What is the role played by a digital image in advertising development?
2. Why is the digital image important in advertising design process?
3. Does the digital image affect the reach of the content of the advertising effectively?
4. How did the integration of digital technology reflect in the advertising production?
5. Does the digital image have any effect on the decision-making of the target audience of advertising?
6. Can a digital image be misinterpreted by the target audience?
7. What are the best practices and effective uses of the digital image in advertising?

#### **1.6. Limitations**

There are many limitations to this study such as time, location and access to respondents. This study was conducted between May and December, 2017, in Eskisehir - Turkey. The researcher tried to access some experts in the fields of graphic design and advertising.

#### **1.7. Definition of Terms**

The following terms are defined to clarify and explain the terms throughout research, also to help the reader to understand the content of the study, in addition, to facilitate the process of context understanding of the remainder of the study.

**Advertising and advertisement:** According to Fletcher, (2010) there is a difference between advertising and advertisement: advertising is a process, but the advertisement is the end result of this process. Within the industry, advertising is just one type of marketing communication and it often used to increase the sales of things. An advertisement is also a paid-for communication meant to inform and/or persuade one or more people.

**Digital Image:** a digital image is composed of pixels (short for picture elements). And each pixel represents the color (or gray level for black and white photos) at a single

point in the image, so a pixel is like a tiny dot of a particular color. By measuring the color of an image at a large number of points, we can create a digital approximation of the image from which a copy of the original can be reconstructed (Sachs, 1996).

### **Digitization Process**

According to Sitts, (2000) digitization is the process of converting an analog signal into a digital signal, known as an A/D (analog to digital) conversion.

### **Outdoor Advertising**

According to Nelson and Sykes, (2013) outdoor advertising contains all forms of advertising that provide exposure out-of-doors, such as pictured, written or spoken.

## **2. LITERATURE REVIEW**

The literature related to digital images and digital advertising issues has been considered from a more general perspective. The few and the scarcity of studies in the effective use of the digital image in advertising design process already made research in this area necessary in order to add more shedding light on the effective use of the digital image in advertising. The purpose of this study is to increase the amount of knowledge regarding the effective use of the digital image in advertising design process. And, how it relates to the improvement of advertising production in order to help ultimately to explain the best practices and utilizations of the digital image in advertising design process. Furthermore, raise the awareness about the importance of digital image through the advertising design process.

Therefore, under this section the study is going to include extensive research into the digital image and its effective use in the advertising design process. The study also examined the best practices and techniques of using the digital image in advertising design process. So, in this section, the study outlined the technological progress of the advertising and the digital image to provide context through a review of the relevant academic literature.

### **2.1. Digital Image**

The technological development and prevalence of digital cameras and digital programs has given rise to enormous prevalence of digital image and digital photography in all fields of life. In parallel with the development in the quality of digital image production and the speedy progress of digital cameras, most of the advertising professionals started transforming to the digitization of the advertising industry in order to keep pace with the technological development around them. That in turn led to the prevalence of digital image and digital editing applications.

## **2.1.1. Definitions and basics terminology of digital image**

### **2.1.1.1. *Digital***

The word "digital" implies the measure and recording of continually varying values such as, sound and light by frequently sampling that values and representing them with separated numerical values generally expressed as binary numbers (White, and Downs, 2007).

### **2.1.1.2. *Image***

An image can be defined as a two-dimensional function,  $f(x, y)$ , where  $x$  and  $y$  are spatial or plane coordinates, and the amplitude of  $f$  at any pair of coordinates  $(x, y)$  is called the intensity or gray level of the image at that point. And, we call the image a digital image when  $x$ ,  $y$ , and the intensity values of  $f$  are all limited and discrete quantities (Gonzalez and Woods, 2002).

An image is also defined as an artifact, which has a similar appearance to some subject such as a physical object or a person. An image may be two-dimensional such as a photograph, screen display, and it may also be three-dimensional such as a statue or hologram. Also, the word image is used in the broad meaning to indicate to any two-dimensional figure such as a map, a pie chart, a graph, or an abstract painting. On the other hand, a moving image usually refers to a movie (film) or video, including digital video. A moving image could also refer to an animated display.

An image is a wide term involving many types of representational, abstract, or nonobjective depictions photographs, drawings, illustrations, paintings, graphic elements, prints and marks, and elemental images such as signs, pictograms, or symbols; the image is also called visual (Landa, R. (2016).

### **2.1.1.3. *Definition of digital image***

If we want to understand what a digital image is, firstly we have to recognize what we see when we look at a digital image. Actually, it is a physical image is reconstructed from a digital image. The digital image is a data structure within the computer, including a number or code for each pixel (picture element) in the image. This code determines the

color of that pixel. And, each pixel can be considered as a separated sample of a continued real image (Sachs, 1996).

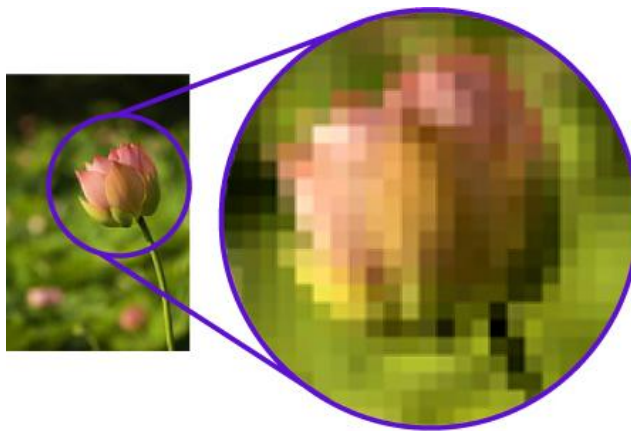
A digital image is also determined as a numeric representation (generally binary) of a two-dimensional image. Relying on whether the resolution of the image is fixed and it may be of raster or vector type. A digital image is also defined as an electronic file that comprises of square picture elements (pixels) when displayed on a displaying or viewing device (for example a computer monitor). The displayed image is a two-dimensional matrix of millions of pixels and each one of it has its own size and color representation.

According to Sitts (2000) a digital image is defined as an electronic file that made up of square picture elements (pixels), when showed on a viewing device, for example, a computer monitor). The displayed image is a two-dimensional matrix of thousands or millions of pixels, and each of these pixels has its own size, address, and color representation.

A digital image is also defined by Gonzalez and Woods, (2002) as an image formed of a finite number of elements, each one of this elements has a specific value and location, and these elements are pointed out as image elements, picture elements, and pixels.

#### **2.1.1.4. *Bitmap***

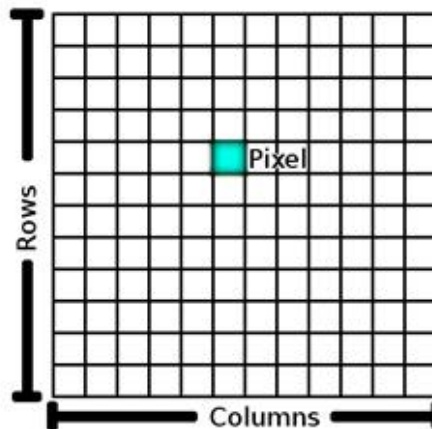
The word "Bitmap" refers to the image that represented by certain values for every dot, or pixel used to make up that image (White and Downs, 2007).



**Image 2.1.** *Bitmap image made of pixels ([https://vector-conversions.com/vectorizing/raster\\_vs\\_vector.html](https://vector-conversions.com/vectorizing/raster_vs_vector.html))*

### 2.1.1.5. *Pixel*

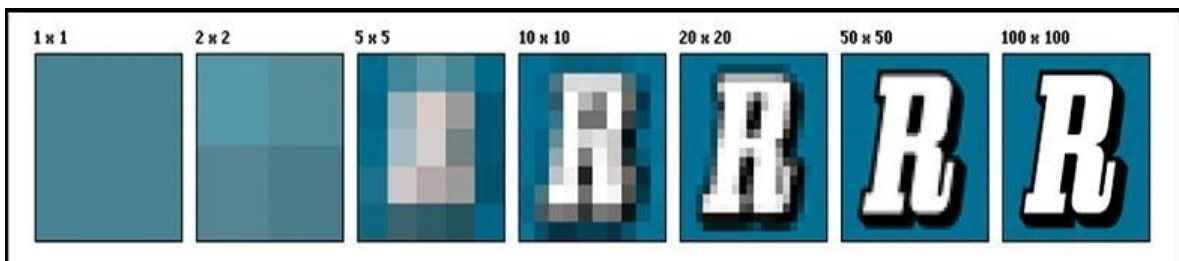
The 2D image is divided into rows (N) and columns (M) and the intersection of a row and a column is called a pixel (Young, Gerbrands and Van Vliet, 1998).



**Image 2.2.** *Pixels based on row and column* (<http://www.uihome.uidaho.edu/>)

### 2.1.1.6. *Resolution*

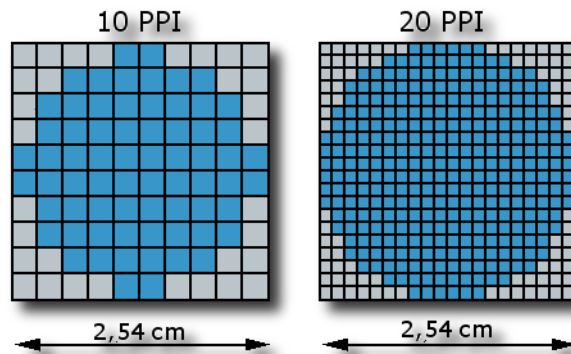
The term resolution refers to the clarity and sharpness of an image, and it is measured by PPI (pixels per inch) and DPI (dots per inch) (Cofield, M. 2005).



**Image 2.3.** *Image sharpness based on pixels per inch* (<http://oerworkshop.pbworks.com/w/page/34361035/Understanding%20digital%20images%20and%20resolution>)

### 2.1.1.7. *Pixels per inch (PPI)*

“A measurement for the resolution of an image based on the number of pixels that make up 1 inch.” (White and Downs, 2007). It is a measurement used for the image which displayed on screens.



**Image 2.4.** *Different number of pixels per inch* (<http://www.fmedda.com/de/article/dpippi>)

### 2.1.1.8. *DPI*

An abbreviation of term dots per inch, and “It is a measurement when referring to the resolution at which a computer printer produces a print.” (Sitts, 2000).



**Image 2.5.** *Different dots per inch* ([http://www.pndesign.co.uk/design\\_blogs/low\\_resolution\\_problems.html](http://www.pndesign.co.uk/design_blogs/low_resolution_problems.html))

### 2.1.1.9. *Bit depth*

Bit depth refers to the number of bits (0s and 1s in computer code) which is used to record the information about the colors or shades of gray in a single pixel and determines the number of colors from which a specific pixel value can be selected (Image 2.6), the smaller the bit depth number, the fewer color tonal values possible. For example, a 4-bit

image can include 16 tonal values, but a 24-bit image can include more than 16 million color values (White, and Downs, 2007).



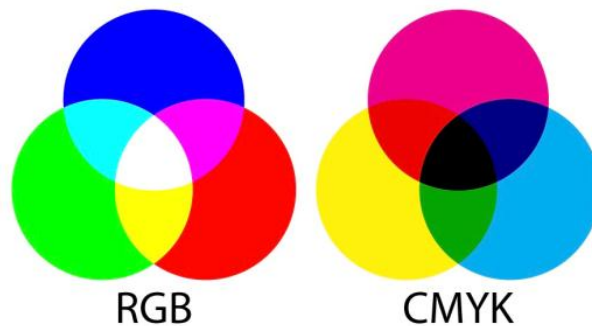
**Image 2.6.** *Differences between low bit depth and high bit depth*

#### **2.1.1.10. RGB**

The abbreviation formed from red, green, and blue, which are the primary colors of light and also the color model used for displaying on screens such as television, computer monitors, and digital cameras (Image 2.7). (Cofield, 2005).

#### **2.1.1.11. CMYK**

Abbreviation for Cyan, Magenta, Yellow, and Black, and the term is pronounced as separated letters. CMYK model is the standard color model for offset printing for a full-color document. Because this type of printing uses the inks of these four main colors, it is usually called four-color printing (Image 2.7) (Sitts, 2000).



**Image 2.7.** *RGB and CMYK Color mode of digital images*



#### **2.1.1.12. Filter**

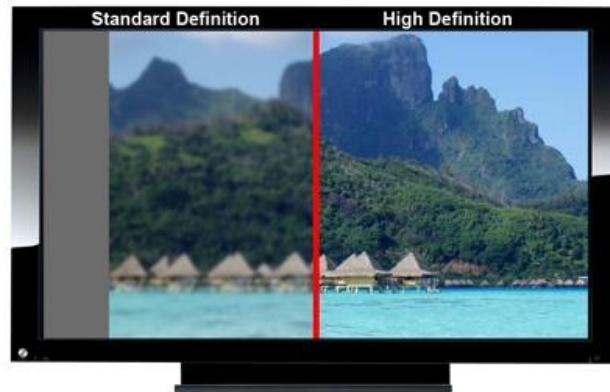
It is a mathematical formula applied to digital images. Most image editing programs offer filters to correct blemishes in sharpness, exposure, color, and other flaws (White, and Downs, 2007).



**Image 2.8.** Alternate filters on image processing (<https://www.filterforge.com/>)

#### **2.1.1.13. High-Definition (HD)**

Always, there is a relation between the qualities of the digital image on a displaying screen with the number of pixels that are shown on that screen. In other words, the quality of a digital image on a screen is related to pixels that are shown on the screen. The best image that can be produced has these dimensions (1,920 columns and 1,200 rows) of pixels. This means more than two million pixels. Show a great degree of details in the image. An image with that scale of details is called a high-definition image or known as (HD). Increasingly this deal of quality is becoming the desired standard of offering detail for most digital images and videos (Mitra, 2010).



**Image 2.9.** *High and standard definition of a digital video* (<http://www.dvdyourmemories.com/blog/difference-high-definition-standard-definition-definition-video/>)

### **2.1.2. Types of digital images**

According to Sachs, (1996) there are two main important types of digital images for the purpose of photography. Color images, black and white images. A color image is made up of colored pixels, while a black and white image is made of pixels in different shades of gray.

#### **2.1.2.1. Color images**

Color images are made up of pixels each one of which holds three numbers corresponding to the RGB (red, green, and blue) levels of the image at a specific location. RGB colors or Red, green, and blue are the prime colors for mixing a light. Any color can be composed by mixing the correct amounts of RGB (red, green, and blue) light. Supposing 256 levels for each primary color and each colored pixel can be stored in memory by three bytes (24 bits) these approximately equivalent 16.7 million different possible colors (Sachs, 1996).

#### **2.1.2.2. Binary images**

According to Young, Gerbrands and Van Vliet, (1998) “In a binary image, there are just two gray levels which can be referred to, for example, as “black” and “white” or “0” and “1”.” In other words, binary images use just one bit to represent every pixel. Since a bit can only exist in two states - on or off, in a binary image each pixel must be one of two

colors, generally it is black or white. This disability to represent intermediate shades of gray is what limits their utility and usefulness in dealing with photographic images.



**Image 2.10.** Binary images (<http://www.ransen.com/repligator/Ascii-Image-Effect.htm>)

### 2.1.3. Digital image file formats

As there are different audio file formats, also there are different image file formats. But before discussing image formats it is necessary to distinguish between two significant types of graphical representations.

#### 2.1.3.1. Vector graphics formats

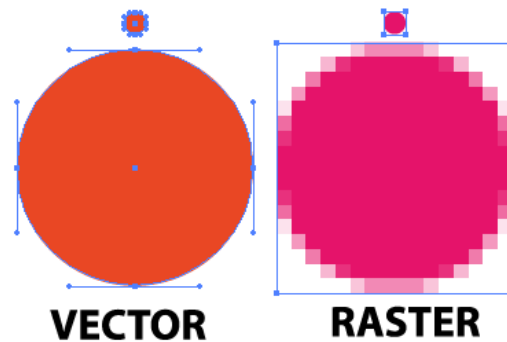
Vector image has data that describe lines and curves. This image can be enlarged and still maintains its smooth edges, namely it will not pixelated like a bitmap image. Designers and artists will often work with a vector image, and then “rasterize” the finalized version of the work for distribution and display. The famous formats of vector images are Adobe Illustrator files (.ai) CorelDraw files (.cdr), and Portable Document Format (PDF) (Cofield, 2005).

### 2.1.3.2. Raster graphics formats

In a raster image the pixels are arranged in a two-dimensional matrix called a bitmap, and if you zoom in on a raster-based digital image, you will see the image is composed of a series of rows and columns of square pixels (Sitts, 2000).

### 2.1.3.3. The difference between vector and raster graphics

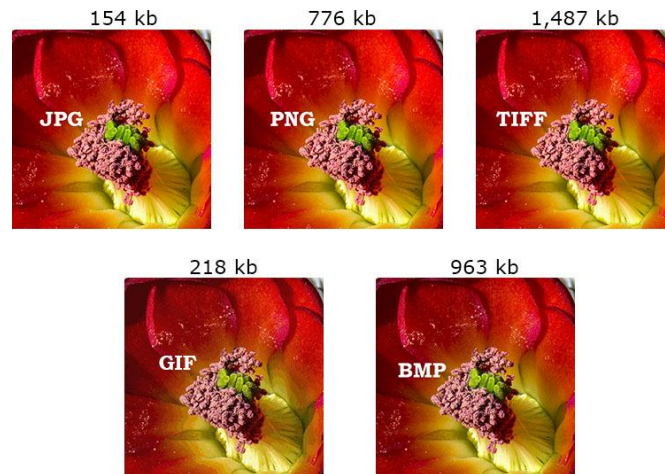
In vector graphics, a graphical images represented in terms of mathematical primitives such as lines and curves, as well as, images can be enlarged without any loss in quality. But in raster graphics, graphical images are represented as a digital image namely in terms of pixels. When the image is enlarged, the pixels become visible and the quality of the image crumbles.



**Image 2.11.** *Difference between vector and raster graphics (<https://library.udel.edu/multimedia/2016/02/15/battle-of-the-programs/>)*

### 2.1.4. Common image file formats

There are several image file formats and all of the formats include different properties of image to compress, produce, save, export, import, print or publish.



**Image 2.12.** *Common image file formats*

#### **2.1.4.1. JPEG**

JPEG stands for “Joint Photographic Experts Group” also, known as JPG. It was developed by the Joint Photographic Experts Group. JPEG was designed for a digital photography. This file format is a popular digital camera file format that uses lossy compression to reduce file size (White, and Downs, 2007). Cofield, (2005) also stated that JPG file formats are compressed automatically (there are many levels of compression to fit to your desired image quality), consequently a relatively small file size while still keeping quality. Therefore, JPGs are perfect for email and Web usage. This file format type is great because it is much smaller than others format such as TGA or TIFF files with comparable quality (Ablan, 2007).

#### **2.1.4.2. TIFF**

TIFF stands for “tagged image file format”. It is a common lossless file format that can be compressed. This format is vastly supported across operating systems. TIFF is a flexible, highly portable, and accepted widely. Therefore it is used significantly by professional designers and photographers. It is the best file format for archiving high-quality image. It is also the most popular file format for scanned images. TIFF images are not suitable for web transmission because of their large file sizes (BCR’s, 2008).

#### **2.1.4.3. PNG**

The word “PNG” is abbreviated from "Portable Network Graphics", PNG file format is an open source created to replace GIF. The difference between "GIF" and "PNG" is PNG file formats provide a higher lossless compressing rate than GIF, also PNG file format helps to reduce the differences in image display quality when viewed cross-platform (Cofield, 2005).

#### **2.1.4.4. RAW files**

Ablan, (2007), defined the RAW file format as an image format that includes untouched “raw” pixel information from the sensor of a camera directly. In other words, it is a type of image file formats that contain unprocessed data. This type is allowed by Digital Single Lens Reflex (DSLR) cameras and some types of high-end scanners to capture images in a RAW file format. Ablan, also stated that this type of file format is used usually by professional photographers only, and it uses lossless compression and has more information than JPEG and TIFF files (Ablan, 2007).

#### **2.1.4.5. GIF**

GIF is the abbreviation of the term (Graphics Interchange Format). It was the first generally used image format on the Web, but it has been replaced by JPEG format. GIF is a compressed image file format (White, and Downs, 2007). It is preferred for graphics because it keeps lines and edges sharp. GIFs file formats are not recommended for photographs and this format can be static or animated (Cofield, 2005).

#### **2.1.5. Plug-in**

A software module that adds new capabilities to image editing programs such as: Adobe Photoshop and Paint Shop Pro (White and Downs, 2007).

#### **2.1.6. Digital images production**

The process of electronic imaging has a longer history than most of the readers in this digital age would believe. Where, the process of producing the electronic image has undergone different attempts and developments throughout history. The first digital image

was produced by the British co-inventors, Harry G. Bartholomew and Maynard D. McFarlane in 1920.the Bartlane method. They used the Bartlane method to produce it (Trussell and Vrhel, 2008).

There are a number of ways to produce a digital image, however, the most common methods are via a digital camera, video recorder, image scanner, three dimensions rendering program, or via a painting or drawing. Also, it can be created by computer graphics and animation programs. And, the simplest process to understand the production of the digital image is the way used by the digital cameras.

#### **2.1.6.1. *Digital cameras***

Digital cameras and camera phones are considered the easiest and fastest way to produce and create digital images. Bear in mind that there is completely a massive range of performance differences between camera's brands, even there are different models of the same brand. Therefore, the advertiser actually needs to know how to choose their pieces of equipment before starting the production of advertising.

All of the digital cameras have adjustable settings for image quality (resolution). And some cameras have different options for the quality such as (good, better, and best) while there are other cameras use numbered pixel dimensions for image quality, such as 1600x1200 or 640x480 (Cofield, 2005).It is important to take into consideration that there is a relation between the quality of the image and the size of the image. Where, the better image quality, the bigger the size and the lower image quality, the smaller the size. So, if the file size for each image is big the number of images which can be fitted on the memory card or disk will be a little. So, the photographer has to decide, does he want fewer but higher resolution images, or is he like an amateur that needs to take a lot of shots just to get a few that look good? Taking this decision depends on the situation and the skill of the photographer.

Some of the digital cameras allow choosing which format you want to save your images. In general, all cameras offer (JPEG or JPG) format and some of them offer TIFF format (for high quality, high-resolution images). But, JPEG format is the most widespread image recording file format used by digital cameras and this format can be opened practically with any imaging software on a computer. The JPEG format contains

compression so as to decrease the file size in order to allow more images to be recorded on a memory card.

#### **2.1.6.2. Scanning**

The second way to produce a digital image is by using scanners. Although digital cameras are surely useful and suitable, scanners remain a prevalent accessory and necessary tools for every designer and photographer. That's because some of the photographers are still shooting with a film camera but they want digital images of their photos. So, they are in need of using a scanner to do so. Even those of them who have transformed to a digital camera generally they try to have a scanner in order to digitize their many negatives, color slides, and printed photos that they have captured and accumulated over past years.

A scanner is a piece of hardware which designed to convert documents, a page from a magazine or a book, a printed photo, a piece of film, a photograph, or any flat artwork into an electronic image format which can be conveyed to a computer. Some type of scanners allows scanning objects in a three-dimensional way as well (Burian, 2005). Photographers or designers can take almost any printed materials and scan it to get a digital copy of it. Currently, available scanners make the process of scanning images on paper, printed photos, negatives, and slide a quite simple process. Many of these scanners are "plug and play" that means once you plug a scanner is into a computer; you can scan away without much lateness. A scanner works by illuminating the original document and reading the light with an imaging sensor similar to those used in a digital camera. There are two main types of scanners are available for consumer use:

##### **2.1.6.2.1. Flatbed scanners**

Resembling a photocopier with a lid and a glass tray where you can place a paper or a photo. A flatbed scanner is the most widespread type and it works in a way like a photocopier - you raise the lid, put the image face down on the glass, after that close the lid, and make a scan. (Cofield, 2005). Even some types of these flatbed scanners have a feeder plate, to scan multiple pages quickly. Most flatbed scanners are available in very affordable and user-friendly, and they come with software which is very easy to be used.



Even some of them offer a scan by one touch; once you press one button you get an acceptable and good scan. Also, most of these scanners offer a manual way by providing some scan adjustment controls such as contrast, brightness, and color rendition.

#### **2.1.6.2.2. *Film scanners***

**Also, they are known as a photo print, slide, and negative scanners. These types designed exclusively to scan negative and transparency film. These scanners are designed for those who want to get high-resolution and high-quality scan from 35mm format film or from large-format negative and transparency (Burian, 2005). These scanners operate by passing a narrowly focused ray of light through the film and reading the intensity and color of that light which emerges (Sachs, 1996).**

#### **2.1.7. Digital image processing**

According to Gonzalez and Woods, (2002) a digital image processing points out to use means of a digital computer to process digital images. In other words, digital image processing implies to processing digital image by one of the digital computer means. They have defined the digital image processing as an operation in which both its input and output are images. Based on this definition they have indicated a model to determine the process of the digital image in three types of computerized processes in these sequences: low-level, mid-level, and high-level processes. Low-level processes contain primitive and simple operations such as image processing in contrast enhancement, image sharpening, and reducing noise. Low-level processes are distinguished by the fact that both of its inputs and outputs are images.

While Mid-level processing on the image includes works such as segmentation (dividing an image into objects or regions) description of those objects to decrease them to a form appropriate for computer processing and classification of individual objects. Mid-level processes are distinguished by the fact that its inputs, in general, are images, but its outputs are features extracted from those images. Mid-level processing involves tasks such as processing edges, contours, and the identification of individual images that partitioned in the mid-level image processing.

Finally, a high-level processing contains understanding a group of recognized objects, as in analyzing images, and at the end of the process of performing the cognitive tasks ordinarily associated with vision.

#### **2.1.7.1. *The Digitization Process***

According to Sitts, (2000) digitization is the process of converting an analog signal into a digital signal, known as an A/D (analog to digital) conversion. Also, the term of digitizing photos means converting or capturing the image electronically through a digital camera or scanner.

Digitization inevitably involves loss of information. In contrast to an analogue representation, a digitally encoded representation contains a fixed amount of information. A digital image consists of a finite number of pixels each having a distinct color or tonal value and this number determines the amount of detail an image can represent (Manovich, 2001).

#### **2.1.8. Why transforming to digital imaging**

The traditional (analog) image requires a lot of operations to convert it into digital format, but using the digital camera, the images and once captured are in a digital format that made the digital image very easy to be used in various ways and distributed in different shapes and formats. Both types of the digital image (still and moving) is playing a key role in the development of the advertising industry.

One of the advantages of the digital imaging system is that operations of the imaging are performed by the digital processors which have more latitude and multi-directionality than the analog imaging systems for the film. Also, computational capability and speed have increased to the degree where all the essential processing can be done within the normal time between sequential shots of the camera (Trussell and Vrhel, 2008).

The world has transformed from analog to digital imaging and people have started using and depending on digital images in the different fields of the life because digital images can be used easily in many and varied ways. Digital images can be viewed on a wide variety of screens or monitors; they can be printed in many formats and transferred electronically through an e-mail, cell phone, and other transmission systems. Digital

images also can be stored electronically on media like the computer hard drives, DVDs, CDs, or magnetic tapes.

## **2.2. Stock Photography**

Stock photography is a microcosm of the large photography world. Many of the same career possibilities which are obtainable in the wider world of photography exist also in stock photography. For a start, there are photographers who shoot particularly for stock, whereas others make the stock an auxiliary to their task careers. Today, the successful stock photographers will have to be wide awake, alert, and ready for new development in the stock photography field. The most creative will foresee and be responsive to developments and changes. Hanging on what once worked will not bring successful results. But through all these developments and changes there are specific constants such as quality, imagination, and perseverance which will win out (Heron, 2010). Heron defines a stock photo as follows:

“A stock photograph is an existing photograph that is available in the files of a photographer (or photo agency) to be loaned (licensed) for reproduction use to a wide variety of clients. Stock photographs are different from assignment photographs, which a photographer is commissioned by a client to create specifically for its needs. Stock exists, whereas assignment is potential or proposed photography. Ownership is the key issue. A photograph can't be your stock if you don't own it. You do automatically, under the law, own the rights to a photograph at the moment you click the shutter and the image is fixed on film or on a memory card, unless you have a contract that gives those rights to somebody else, such as an assignment client.”(Heron, 2010).

### **2.2.1. The uses of stock photography**

The major markets for stock photos divided into the wide categories of advertising, corporate, and editorial (Heron, 2010).

- Advertising agencies use photographs for a wide area of client services or products in many types of advertisements. The best known are national consumer advertising, which appears in publications circulated to the general public, and trade

advertising. Stock photos sold to the advertising market command the highest prices.

- Corporations use photographs for corporate annual reports for publication such as brochures, and in internal magazines. The prices paid for corporate use can be equal to advertising but are usually a bit less.
- The editorial market for stock photos, mostly magazines, textbooks, trade books, and newspapers have a high number of sales but historically the lowest fees in the stock industry.
- Auxiliary markets include a broad diversity of uses; begin from calendars and greeting cards to bank checks and T-shirts. Actually, these markets extend to every imaginable use a photograph can have.

In advertising, designer or art director can make their own images, by using some tools and media such as photography, collecting collage, software, photogram, photomontage, drawing, printmaking, painting, mixed media, ceramics, sculpture, and more. Or they can hire illustrators or photographers to create images specifically to use in advertising. Or, when the advertising budget does not enough for commissioning a photographer or illustrator, designers and art directors buy stock images (Landa, R. (2016).

### **2.3. Post -Photography**

The term post-photography appears somewhat apparent today when photography and its practices have been transformed by computing and the World Wide Web so clearly. The screen is now the standard for displaying and viewing photographs, as the digital transmission is already the predominant form of editing, processing and distributing photographs. In this new environment (the digital environment) where photographic prints have become scarce objects, and photographs can be seen worldwide right away (Oliveira, 2016).

Post-photography, as a result, can be developed from a focus on the techno-graphic aspects of photography, which can be seen as photographic practice beyond the production of photographic images (Sonesson, 1999).

Digital photos can be produced and reproduced in different forms easily. Photographic retouching and editing make it possible to adjust tones, enhance colors and synthesize or change forms. That is, the post-production enables the modification of photographs with its applicability ever increasing. Thus, anyone, as well as photographers, has a right for post-production. With the control of photographers diminishing, the power of modification has been transferred to the public. Also, such a diminishing power has empowered the right to edit instead of the essential value of photographs (Kim and Joo, (2015).

## **2.4. Advertising**

Day by day the significance of advertising increases because it has become one of the most important means used to influence people's decisions and persuade them. Today, everything about human beings is advertised in a somehow. Therefore, companies have started to give more attention to advertising due to its importance in introduction, promotion, persuasion, and pervasion the products or services to a wide audience, in addition to its major role in increasing the sales. As well as, the technological progress has impacted on the advertising field significantly. Where, the field of advertising has become stronger than it was in the past, and as a result of that more effective messages and creative advertising has begun to emerge.

Whatever the idea that will be conveyed to the audience is beautiful, this idea may not reach as it required if the designers of advertising do not master the use of digital image during advertising design process because showing this idea creatively plays a significant role in the success of advertising.

### **2.4.1. Advertising definition**

Before defining what advertising does it mean it is important to differentiate between two terms people always mix between them, there is a difference between advertising and advertisements: According to Fletcher, (2010) advertising is a process, an advertisement is the end result of that process, but the two words are often used interchangeably. Fletcher also defines an advertisement as “Is a paid-for communication intended to inform and/or persuade one or more people.” (Fletcher, 2010). According to

Thorson and Duffy, (2011) advertising is a paid, mediated way of communication from an identified source, which designed to persuade the receiver to take some action, now or in future. In its simplest sense "the word 'advertising' means 'drawing attention to something', or notifying or informing somebody of something" (Dyer, 1982).

#### **2.4.2. Advertising design**

In advertising, the designer contributes to the marketing of consumer products and services. The designer, in this case, contributes to the visual interpretation of the recommendations developed by the marketing experts. The designer must not be just a passive interpreter of the requirements provided by the marketing experts; the designer must be an active and imaginative participant in the conception of the communicational product. The task of the advertising designer does not end with the design of advertisements. From packaging to corporate identity, a large field of action contributes to commercial communication systems. Advertising can take the form of exhibitions, direct mailings, Web sites, video clips, promotional gifts, sponsorships, flyers, or posters. Advertising campaigns often cost millions of dollars to place in mainstream media. The responsibility of the designer is large. One should be conscious of the possible impact of the models of human behavior portrayed in an image that will be reproduced thousands of times. Slogans and images to sell cars very often use humor, but different people may read them in different ways. What some people find funny, others find disturbing, while others might develop antisocial behaviors (Frascara, 2004).

#### **2.4.3. Outdoor advertising**

According to Nelson and Sykes (2013) outdoor advertising contains all forms of advertising that provide exposure out-of-doors, such as pictured, written or spoken. The most common forms of outdoor advertising are billboards, street furniture, transit and alternative forms. While, Akören, (2015), believes that the outdoor advertisement is most efficient advertisement method to reach modern society of these modern days and by 24 hours of advertisement opportunity, there can be opportunities to determine target areas and focusing their services and products in such areas. Outdoor (or out-of-home) advertising is aimed at consumers when they are outside their home. Such advertising can

be found: on walls; on billboards, including digital billboards, and posters; on street furniture such as bus shelters, kiosks, and other forms of public infrastructure: in and on taxis, buses, trams, trucks and train carriages, inside public transport stations and airports, and in shopping malls and at sports grounds.

Billboards are the prevalent form of outdoor advertising and are further classified into different forms and sizes. Technology has provided outdoor advertisers with myriad options. Most recently, the integration of technology with “outdoor” has created spectacular billboards that are more like giant screen televisions, some even with sound. Street furniture also provides very interesting options for out-of-home media usage. Some of the most prominent forms of street furniture consist of bus bench/bus shelter advertising, kiosks, sidewalk posters, shopping mall displays, in-store displays and one-sheet posters. On the other hand, there are transits advertising options in outdoor media revolve around media on transit or places of transit in airports and subway stations, as well as on buses, taxicabs, trains, etc. Advertising on movable type media like taxicabs and trucks has been shown to provide high recall rates (Lichtenthal, Yadav and Donthu, 2006).

## **2.5. New Media**

The advent of the computer has had a great influence on visual communication design. On the one hand, the computer has changed the means of production. On the other, it has come up with a different way of accessing and interacting with information, through the World Wide Web and CD-ROMs. The emerging of digitalization has allowed the creation of multimedia, which focused on one a production tool the capability to handle moving visuals and sound. To some extent, this had already been accomplished by a film. But the difference is that with the computer and new media it is possible to access data sources randomly, and under certain conditions to modify the data. New fields of work have been opened to design visual communication (Frascara, 2004).

With the merge of the computer into media all data are translated and represented in numerical data accessible for the computer. As a result: graphics sound, moving image, shapes, spaces, and texts become computable, and that is merely sets of computer data. Shortly, media become new media. This merging has changed the identity of both media and the computer itself. The computer is no longer just a calculator or a communication

device. It becomes a media processor. Previously, the computer could read a row of numbers or generate a statistical result. Now it can read pixel values, blur the image, adjust its contrast, or even check whether it contains an outline of an object. Consequently, the computer no longer just an analytical device, it has become a media manipulator and synthesizer (Manovich, 2001).

### **2.5.1. Principles of new media**

According to Manovich there are three principles of new media which differentiates between old and new media; these principles are (Manovich, 2001):

*Numerical representation:* All new media objects whether created from scratch on a computer or converted from analog media sources are formed of digital code, they are numerical representations. This fact has two key consequences:

- A new media objects can be described mathematically (formally). For instance, an image or shape can be described using a mathematical function.
- A new media objects is a subject to algorithmic manipulation, for example, by applying appropriate algorithms we can automatically remove “noise” from a photograph, improve its contrast, locate the edges of the shapes, or change its proportions. Briefly, media becomes programmable.

When new media objects are created on computers, they originated on a numerical form. But many new media objects are converted from various forms of old media, analog to digital. The process of converting continuous data into a numerical presentation is called digitization. Digitization contains two steps: sampling and quantization. Firstly data is sampled, most often at regular intervals such as the grid of pixels used to represent a digital image. The frequency of sampling is referred to as resolution. The quantification of samples is the critical step achieved by digitization (Manovich, 2001).

*Modularity:* This principle can be called the “fractal structure of new media.” Just as a fractal has the same structure on different scales, a new media object has the same modular structure throughout. Media elements, be they images, sounds, shapes, or behaviors, are



represented as collection of discrete sample (pixels, polygons, voxels, characters, scripts). These elements are assembled into larger-scale objects but continue to maintain their separate identities.

*Automation:* The numerical coding of the media (principle 1) and the modular structure of a media object (principle 2) allowed for the automation of many operations involved in media creation, manipulation, and access. Thus, human intentionality can be removed from the creative process. There are many examples of what can be called the “low-level” automation of media creation in which the computer user modifies or create from scratch a media object using a template or simple algorithms. These techniques are powerful enough so that they are included in most commercial software for image editing, word processing, graphics layout, and so forth. Image editing program can automatically correct scanned images, improving contrast range and remove noise. They also come with filters that can automatically modify an image from creating simple variations of color to changing the whole image.

*Variability:* A new media object is not something fixed once and for all, but something that can exist in different, potentially, infinitive versions. This is another consequence of the media numerical coding. The principle of variability is closely related to automation and it would not be possible without modularity, stored digitally rather than in a fixed medium. Media elements preserve their separate identities and can be assembled into numerous sequences under a program control. Moreover, because the elements themselves are broken into discrete samples (for instance an image is represented as an array of pixels) (Manovich, 2001).

## **2.6. Technological Progression and Advertising**

The technological progression, innovations in media, and the changes in the technology of sending advert information through different channels such as television, magazines, and newspapers where images are published in form of adverts to reach targeted audiences had generally great effects on advertising. Mainly, it has changed the form of television advertising as seen in Kiremitçioğlu’s research study (2012) on the impact of technological advertising on consumer behavior. Two specific questions were

addressed for guiding this study. First, does the effect of technological advertisements on the behavior of participants differ according to their demographic characteristics? Second, do the participants' attitudes towards technological advertising differ according to their demographic characteristics?

The study was conducted on 390 students from different colleges of Mediterranean University and focused on whether the progress in the technology of television advertising affects their purchasing behavior or not.

The results of the study indicated that technological advertising had effects on student's purchasing behavior. The results also reported that television has been shown to be the most effective medium among the media channels, and the participants are aware of the technological advances that have taken place in television advertising in addition, through this results, it can be observed that TV is the most mean that is used extensively in influencing and changing society than other means of communication.

The constant development of television and cinema technology contributes to the development of many other sectors together. Especially in the field of advertising, where, this technological development has revealed many opportunities in transforming ideas into impressive images. The introduction of innovations in the advertising industry, and especially in the field of television advertising has led advertisers to develop more impressive, striking, stunning, creative ideas and products. This technological development also gives the advertising designers the possibility of creating and editing any kind of image easily and creatively. In a similar vein to this debate Akyol, (2004), has conducted a study on the use of television and cinema technologies and the effects of technological innovations on the construction process of television advertisements.

The study hypothesized that the development of television and cinema technologies accompanied by a parallel development in the advertising field as well. It is also predicted that the new technologies which are used in the advertising production make positive contributions to the creative process of advertising, and the development of television and cinema technologies has strengthened visual narrative in the process of making television advertisements. Furthermore, it provides effective ways and solutions for advertisers to deliver their advertising messages to the target audience.

The results of Akyol's study indicated that the use of visual techniques is one of the factors that can increase the effectiveness of television advertisements in wide and strong ways. Where, the image and shooting techniques that appropriate for idea and product also it can increase the influence and persuasive power of the advertising message on the consumers. The result also stated that the new technologies which are used in the advertising production have made positive contributions to the creative process of advertising through the influential use of visual effects, animations characters, and virtual reality in advertising design process. Besides that, from the visual perspective, the advertising has become stronger every day.

The result also demonstrated that visual narrative techniques of advertising also have reached to more impressive dimensions. This result supported the hypothesis that the development of television and cinema technologies has strengthened visual narrative in the process of making television advertisements. Also, the new technology has assisted in creating an atmosphere and environment which simulate and similar to the real life, consequently that led to attracting viewers into advertising besides enhancing conviction and persuasiveness. This result also supported the hypothesis that said the new technology provides effective ways and solutions for advertisers to deliver their advertising messages to the targeted audience. The results of Akyol's study also showed that the development of television and cinema technologies have led to the advertising development.

All of these results combined confirmed the hypothesis that the development of television and cinema technologies accompanied by a parallel development in the advertising field as well.

The progression in the new media technology has transformed the advertising process completely, as advertising experts have found intelligent and innovative solutions to create stimulating advertisements. In a related topic to this debate, Akhagba, (2014) conducted a study on the new media technologies and advertising practice; he tried to examine the application of new media technologies in advertising implementation in Nigeria. Also, this study discussed to any extent the new media technologies were applied in the process of advertising planning and implementing campaigns by advertising practitioners in Lagos.

In Akhagba's research, four specific questions were addressed for guiding the study. First, to what extent are the advertising practitioners in Lagos exposed to the new media technologies? Second, what is the attitude of advertising practitioners in Lagos towards new media technologies? Third, to what extent do advertising practitioners in Lagos adopt new media technologies in the process of advertising planning and executing campaigns? Fourth, to what extent does the adoption of new media influence message planning and execution? The study used the survey as a method of data collection, and the samples of the study consisted of one hundred (100) advertising practitioners who were selected randomly from twenty (20) registered agencies from the Association of Advertising Agencies of Nigeria in Lagos, by taking five advertising practitioners from each agency.

The results of the study showed that advertising practitioners have varied awareness and knowledge of the concept of new media. The results also revealed that the new media are new shape of digital technologies and it can be utilized in advertising. New technologies include untraditional media such as internet advertisement and SMS through mobile phones and they could be considered as social media and networks such as blogs, Facebook, Twitter, YouTube etc. The results also indicated that the participants in the survey have a positive attitude towards new media technologies. The results confirmed that a good number of advertising practitioners use all forms of new media technology. Advertising practitioners utilized new media technologies at different stages of the advertising process.

The results also demonstrated that most of the advertising practitioners adopt the new media technologies at every stage of the process, at research stage while the least number of them use it at the implementation stage. And the usage of new media technology in advertising depends in general on the age group especially the youth, type of brand, as well as, when interactivity and sufficient feedback is needed. The results of Akhagba's study also indicated that most of the participants have a strongly positive view that the use of new media technologies in advertising has improved the quality of advertisements. Though, quite a number of participants suggested that the improvement in the quality of advertisements produced is not necessarily referred to the new media technologies adoption.

One limitation of this study is it has just focused on the applications and uses of new media technologies in the advertising industry in Nigeria, and it did not examine concepts such as sales promotion, personal selling, marketing communication, public relations, and direct marketing. Another limitation of the study is the forms of traditional advertising such as television, radio, newspaper, direct mail did not examine in this study but they were addressed as a base for comparison with the new media.

Both of the two studies (Kiremitçioğlu's and Akyol's studies) are similar to each other by discussing the impact of technological innovations on television advertisements, but the difference between Kiremitçioğlu's study (2012), and Akyol's study (2004) is Kiremitçioğlu's study focused on the effect of technological advertising on consumer's purchasing behavior, On the other hand, Akyol's study focused on the use of television and cinema technologies and the effects of technological innovations in the construction process of television advertisements. In other words, Kiremitçioğlu focused on the consumers' behaviors. But, Akyol's study focused on the construction process of television advertisements. That means Akyol's study is focused mainly on the technical aspects of the advertising (the construction process of the television advertisements).

Furthermore, the results of the two studies (Kiremitçioğlu's and Akyol's studies) agreed on that the technological progression and innovations in media have a significant impact on the advertising. Also, both of the two studies agreed on that the new technologies which are used in the advertising production have made positive contributions to the advertising industry.

Akhagba's study on the new media technologies and advertising practice also is similar to Kiremitçioğlu's and Akyol's studies. Akhagba's study agreed with the previous studies (Kiremitçioğlu's and Akyol's studies) on that the progression in new media technology has transformed the advertising process completely and the application of new media technologies in advertising has a significant impact.

Akhagba's study was similarly to Akyol's study, it also focused mainly on the technical aspects of the advertising, where it discussed that to any extent the new media technologies was applied in the process of advertising planning and implementing campaigns by advertising practitioners in Lagos. The results of Akhagba's study

confirmed that the advertising practitioners utilized new media technologies at different stages of the advertising process.

But, the current study will focus on the effective use of the digital image in advertising design process by concentrating primarily on the digital image and its best practices in advertising production especially in outdoor advertisements.

## **2.7. Digital Media and Advertising**

The effects of digital media on advertising were studied by Lightcap and Peek, (2012) in their article titled "*The Effects of Digital Media on Advertising Markets*". They have studied the effects of digital media on advertising markets by focusing on the advertising through how the rise of the internet could raise the advertising claim as well as how powerful medium like the internet may change the traditional advertising trends. Lightcap and Peek, (2012) also stated that the Internet and another digital advertising media have had two major effects: Firstly, breaking down the barriers of cost and oligopolistic pricing authorities enjoyed by “traditional media” such as print, radio, and broadcast TV. Secondly, it has compelled revision at the micro level of advertising budgets that led to the migration from traditional media into both digital technologies and direct marketing.

The results of this study showed that the constant expansion of the Internet as an advertising medium influences the valuations of new and traditional media companies that depend heavily on advertising. The results also revealed that the effectiveness and low cost of digital advertising will make many companies rethink about the size and structure of their advertising budgets. Lightcap and Peek’s study to some extent was presumptive and forward-looking. In other words, it was a forward-looking study aimed to serves both to add a discussion to the existing discussion on the advertising industry, in addition, to generate a new discussion regarding the effect of digital technologies.

In the last years, the speedily technological changes that occurred in the world have participated in creating enormous change and development not only in the field of advertising but also in the different fields of our life. These technological transformations have directed the most of the advertising producers to integrate and adopt the digital technology into the advertising industry. In this regard Bugge, (2009), conducted a study

on the digital transformation of the advertising industry. His research based primarily on a case study on how the Internet impacts the advertising industry in Oslo, Norway, also on how the digitization of advertising raise understanding of the geography of innovation and regional development. The study debated that the Internet changes and challenges the advertising industry fundamentally, and that advertising integrates into market communication and product development. The interactivity of the Internet and its parallel social and commercial worlds contribute to exceed the role of a traditional medium.

Two particular questions were addressed for guiding this study. First, Bugge asked to what extent and how does the Internet influence the advertising industry? Second, Bugge also asked how do standpoints from the geography of innovation help us to understand this changing field of economic activity.

One limitation of this study is it has focused only on the Internet instead of concentrating on all digital media, such as computer games and mobile phones. Another limitation of this study is that it excluded the clients of the various service providers and the end consumers from the analysis. The results of Bugge's study found that the advertising industry strives to understand what interactive online spaces (such as social media) mean to their clients and with what consequences this may have for their own service portfolio on this digital platform. The advertising agencies struggle to adapt their creative ideas and concepts to the Internet medium. The results also indicated that the Internet causes substantial changes to advertising that go beyond the advertising industry oneself. In other words, the advertising has been changed due to the introduction and application of the Internet into market communication.

The results of the study also demonstrated that the Internet has changed the way of getting the attention of consumers. Where, in the past, the role of advertiser had been to call for the attention of consumers by broadcasting through one-way mass communication media. The Internet medium differentiates from traditional media (one-way mass communication media) by interactivity. This interactive characteristic means that the advertiser is able to engage in a two-way dialogue with the consumer, instead of producing a creative idea to be communicated through different media to targeted and passive receivers that means the receiver can interact with the advertiser.

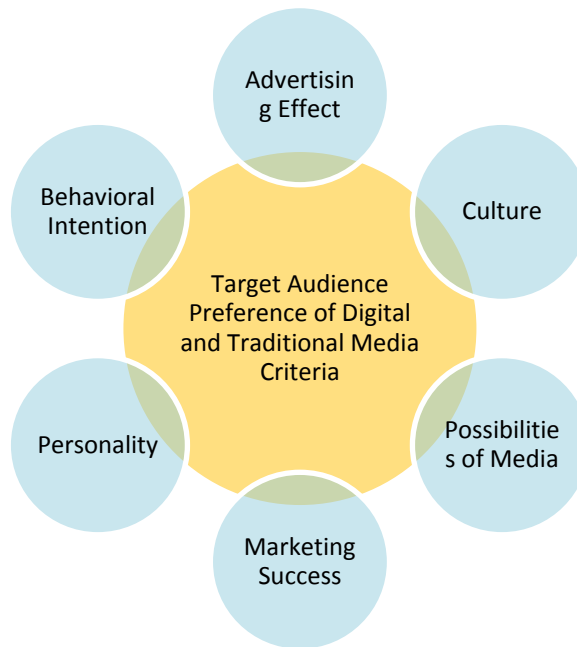
The study of Lightcap and Peek, (2012) is similar to the study of Bugge, (2009) where both of the two studies investigated the advertising industry from the digital media's point of view. Also, both of the two studies focused on the impacts of the Internet on the advertising industry. On the one hand, Lightcap and Peek, (2012) focused on how the rise of the internet could raise the advertising claim, as well as, how powerful medium like the Internet could change the traditional advertising trends. On the other hand, Bugge, (2009) focused on how the Internet impacts the advertising industry.

Both of the two studies (Lightcap and Peek, and Bugge) agreed that the Internet has led to the creating of radical changes in the advertising industry. And, the advertising industry has been changed due to the introduction and application of the Internet into advertising. Both of the two studies have compared the effects of the Internet with the effects of the traditional media; where Lightcap and Peek, (2012), demonstrated that Internet as an advertising medium influences the valuations of new and traditional media companies that depend heavily on advertising. And, it has led to the migration from traditional media into both digital technologies and direct marketing. On the other hand, whereas Bugge, (2009) demonstrated that the Internet medium differentiates from traditional media (one-way mass communication media) by interactivity. And it has changed the way of getting the attention of consumers.

## **2.8. Digital and Traditional Advertising Methods**

Digital and traditional media have similar common points on advertising but also they have great differences based on the use of technology.





**Figure 2.1.** *Target Audience Preference of Digital and Traditional Media*

Target audiences of advertising choose digital or traditional media through some criteria as below (Erişti, 2016):

*Advertising effect* is to create preferred feeling about a product by the consumer. This effect should develop by promoting important social messages, social benefits, economic benefits and affective choice conditioning.

*Behavioral intention* is mediating between the attitudes of the target audience and advertising to construct a dynamic message transmission from brand to consumer.

*Personality* is the characteristics of the personal prospects of the consumer. The personality shapes the consumer behavior through the brand.

*Marketing success* includes effective advertising to introduce and promote the brand to potential customers.

*Possibilities of media*, is the potential source of media for influencers.

*Culture*, includes to see the consumer as a member of a society that have beliefs, values, behaviors and to develop advertisement process based on the impact of culture.

There are several researches related the comparison of digital and traditional media. In this regard, in a research article by Talafuse, (2014), two specific questions were addressed for guiding the study. First, is there a significant difference in advertising preference between traditional and digital media for the mother population? Second, is there a significant difference in advertising preference between radio, television, web, email, text messages, and social media advertising for the mother population? It is hypothesized that there is no difference in preference between traditional or digital media advertising for mother consumers, and there is no difference in preference between radio, television, web, e-mail, text messages, and social media advertising for mother consumers.

Talafuse's study was a quantitative descriptive research study, and it aimed to determine mother media preference between digital and traditional media advertising by using a survey. The study was conducted on mothers in Billings, Montana with children living in the home under the age of 18 years old by asking them to complete a mail survey to determine mother media preference between traditional and digital media advertising. In other words, the focus of the study was on the traditional and digital media advertising preference.

The study stated that when we compare digital advertising methods to traditional advertising methods we will find that digital advertising methods comparatively are new. The study also suggested that the introduction and spreading of the digital devices and Internet have continuously increased digital advertising using by marketers. Talafuse also indicated that the majority of the household shopping is conducted by mother consumers in America across various products categories.

The results of this study indicated that the understanding of media channel which is preferred by mothers could increase marketing campaign reception and indicate to marketers how marketing should be budgeted for mother consumers. In other words, a better understanding of consumer preference between the digital media and traditional channels could determine the marketing success.

The collected survey information from the mother participants in Billings, Montana showed that mother consumers reported a higher preference for traditional media channels, and the preference for the traditional media channels television and radio were highest. As well as, preference for text messaging was the lowest for mothers with children living in

the home under 18 years old. This result contradicts with the hypothesis that said there is no difference in preference between traditional or digital media advertising for mother consumers. One limitation of this study is it has examined the media preference between digital and traditional media advertising but it does not examine whether traditional or digital marketing will be the dominant marketing channel in the future.

It's important to take into account the cultural appeals and backgrounds of the online consumers when designing advertising for the internet because it plays a significant role in online persuasive communication. In addition to the impact of cultural values on online persuasive communication also it has reflections in the content of the online communication. In this regard, in a research article by Gevorgyan, (2009) four specific questions were addressed for guiding the study. First, how do culturally oriented Web sites influence consumer attitudes? Second, how do culturally oriented online advertisements influence consumer attitudes and behavioral intentions? Third, how does the (contextual) interaction between culturally oriented advertisements and their hosting Web sites influence the effectiveness of communication? Fourth, how do personality variables interact with the persuasive effects of cultural appeals?

Gevorgyan, (2009) investigated the effects of cultural appeals in computer-mediated persuasive communication and the focus of the investigation was on identifying the criteria for optimal advertisement design and placement in culturally oriented online media by taking into consideration cultural, technological and variables of personality specific to the Web (Gevorgyan, 2009).

The results of the study showed that culturally oriented websites and online advertisements have an influence on individual attitudes and behavioral intentions. However, the results of the study did not support the expectation that ethnic identity and needs for cognition would interact with the effects of cultural appeals. The findings of this study also proposed that online marketers and advertisers should give a considerable importance not only to the message but also to the media when targeting ethnic consumers. Indeed, the cultural relationship between an advertisement and its hosting Web site is a precondition for the success of the advertising campaign.

One limitation of the study is that its model is restricted to ethnic identity and the need for cognition as interaction variables. And it is significant to have a more

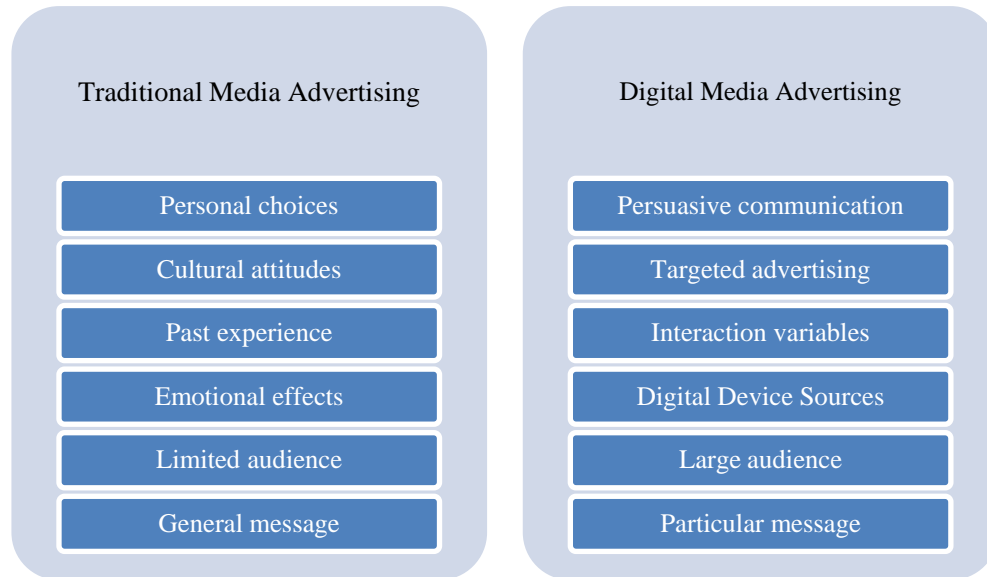
comprehensive understanding of the situations under which cultural appeals form attitudes and produce behavioral intentions. Another limitation of the study is that it has focused only on the cultural consumer attitudes; it should have focused on different types of emotional and behavioral effects of culturally oriented persuasive messages. Where studies in this area should go beyond investigating the exposure effects and focus on the real online behavior and decision-making. Studying cross-cultural marketing communication should have diversified the spectrum of methodological approaches through combining quantitative approaches with qualitative approaches, thus, it would allow reaching the intended outcomes.

Because of the nature of advertising spread, reaching an audience has become more difficult and less successful this has led marketers to depend on detailed, targeted advertising to reach the most probable consumers of a specific brand, idea, or service. In this regard, Gaudio, (2013) has conducted a study on target advertising effects on campaign success to determine how the marketers of the company utilize targeting methods and practices to reach an audience. The study has been conducted through asking ten advertising professionals open-ended questions related to budget, direct marketing, social media, and technology.

The results of Gaudio's study indicated that while each account will use different methods to different extents, direct and targeted advertising is indispensable to a successful campaign. The results also demonstrated that budget influences the planning process and creativity needed to reach the largest audience, but it does not dictate the success of a campaign. As well as, advertisers must keep searching for new ways constantly to break through the clutter, whether through new channels or new methods of audience segmentation.

The results of Gaudio's study also reported that the behavior of human being can be predicted. Therefore, he suggested that marketers should be open to new ideas, but also they should not forget using of past experience to guide campaigns. When targeting a specific audience in advertising research, analytic, comprehensive planning, and continuous evaluation are required. Also, intelligent marketers will understand their product, recognize how it meets the needs of a specific consumer, and try to reach that consumer with particular messages. Through the related literature the comparison of

traditional and digital media advertising include several benefits through their nature (Figure 2.2)



**Figure 2.2.** *Comparison of Digital and Traditional Media*

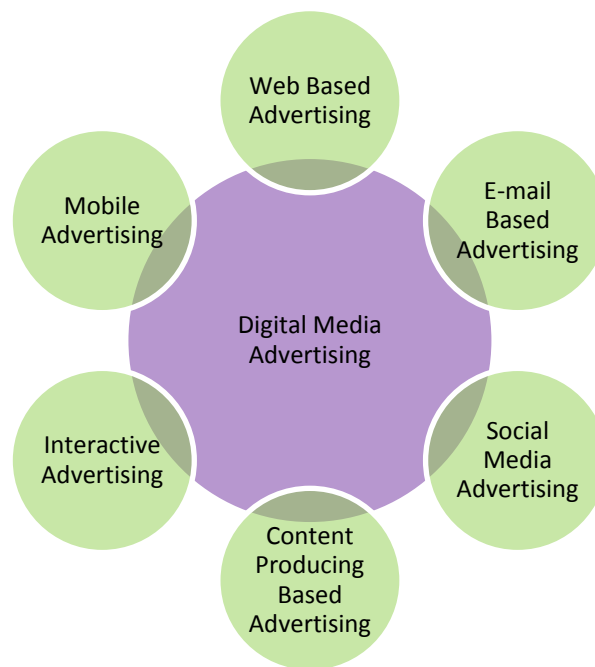
All these results combined may assist marketers in designing targeted advertisement to reach the probable consumers of a particular service by creating messages that do not only grab attention but also persuade an audience, especially with the constant progress in technology and persistent competition amongst brands, advertising professionals are facing the challenge of getting over clutter.

## **2.9. Digital Media and Advertising Design**

With the speedy changes in technology and globalization, the ability to creative, strategically and quick thinking has become crucial. Digital media significantly has changed the fields of graphics and advertising design principles. Now, employers and costumers call upon graphic designers and advertising art directors to think and implement great ideas that involve people across media platforms. Furthermore, the designers of advertising are required to create appropriate content for brands and reasons to provide additional value such as entertainment or education to online market and in social media.

To defy these challenges, they must train and enrich their thinking skills to find creative solutions for problems.

Advertising in digital media creates the effective way of developing alternate strategies to promote brands. Professional advertising sector transformed into a social media content development process nowadays. Social media advertisements represent an interactive and succeed advertising. The process consists of effective digital media use, effective marketing strategies on digital media, coordinating digital media through marketing and managing digital media for marketing. Based on these strategies on digital media it could be stated that advertising in media occurred which change traditional media based on web based advertising, e-mail based advertising, mobile advertising, interactive advertising, content producing advertising and social media advertising (Erişti, 2016).



**Figure 2.3.** *Digital Media Advertising*

From this vein Landa, (2014), conducted a study on the creative process in advertising design, Landa discussed the new ways to think in the digital age she tried to examine a new methodology for creative problem solve for advertising designers. She stated that employers and clients do not only requesting a lot of new technical digital skills

from advertising designers but also they are requesting new thinking skills. Where they want to know if the advertising idea has included many possibilities, is it a flexible idea? Is it entertaining? Is it Informational? Will it impact society positively? Does it have value? Does the idea inspire unparalleled content that people will share? And more importantly, how will the idea demonstrate and function upon media platforms?

She found that in the careers of advertising and graphic design, a problem is given to a designer to solve it. However, in order to solve a given problem well, an advertising creative professional or designer must learn to think as a scientist rather than a detective. Also, Landa's study asserted that preparation for designing or creating is a necessary matter. Therefore, the designer needs to be prepared to create content and design that promotes, serves, informs, entertains, or engages. Designers need to prepare their minds to grant their works with artistry and think imaginatively, rather than imitate what has been done or create prosaic solutions.

## **2.10. Utilizing of Digital Image**

As the result of the shifting in editing image and photography from traditional technologies to digital imaging technologies, it has become very important to discover the best practices of digital image file preparation and to examine the limitations and implications of these practices. As well as, come up with solutions for the problem of saving images in a way assuring viability in a digital. Therefore, the need for archival methods to guarantee the long-term survival of traditional film and printed materials has appeared.

With regard to this debate, Frank, (2005), conducted a study on the best practices of image file preparation. Frank's study has aimed to come up with the current best practices of four professional photographer and educators in an attempt to present solutions to the problem of the absence of universally practiced standards for archiving of the images that were created in today's digital environment which face the risk of being lost to future generations.

Frank has used a qualitative research method in his descriptive study, in other words, he interviewed the participants to collect the data through conducting interviews with experts who have a high level of experience in the field of digital imaging. The study

investigated the educated opinions about the future of digital image archiving. As well as, how some photographers archive their digital image files?

One limitation of this study is that it does not involve the issue of digital asset management, particularly the retrieving of archived image files. It also does not cover information about file security or protection technologies. Another limitation of this study is that it does not examine the physical storage of image files beyond a brief historical treatment of the subject.

The results of this study showed that the choice of file format for the image when capturing is different among the participants. One of them stated that he shoots everything in the RAW file format and converts to other formats depending on the intended use. Another participant stated that he shoots mostly JPEGs for specific situations such as a wedding, portrait, and event photography. He reserves shooting RAW for situations may require very highest quality and the ability to convert the file to multiple formats for delivery. The results of Frank's study also demonstrated that the common practices in preparing image files for archiving that to save the images in the RAW and record that into three places, and then conversions to JPEG or to TIFF could be done.

Definitely, most of the companies use advertising as a means to promote their products and to increase the sales. The label is one of the means that is used to present information about a specific product to consumers. Especially, the food label that is placed on the product is a source of instructions and information about the nutrients that are found in the product.

Finally, Nabil and Lina, (2012) conducted a study on the recruitment of the digital image in designs nutritional label. They asked two specific questions to guide their study. First, what types of the formal recruitments and arrangements that involved in the design of the label? Second, they asked what type of image files and color mode used?

The study included the nutritional labels in the Baghdad markets from the beginning of 2010 until the end of 2011. After they examined four different nutritional labels the results showed that there are two types of recruitment (employment) of the image, first, illustrated employment which calls for meditation and thinking, second, interpretative employment, which calls for the interpretation to varying degrees depending on the thinking and culture of the recipient.



The formal organization and arrangement of label design elements were divided into two types. First, the central (focal) organization in this type the design is based on itself and it is surrounded by a group of secondary elements. Second, the assemblage organization in this type of label design the shapes gather with each other in a visible form.

Also, the results of the study demonstrated that the color mode which was used in all posters samples was the RGB color mode. Furthermore, the digital image (the label) plays a significant role in assisting the consumers to acquire the information that is sent through the nutritional poster. One limitation of this study is it has just examined the recruitment of the digital image in designs of the nutritional poster, and it did not examine the advertising. It also focused on the nutritional poster without covering the design process in a comprehensive way.

Frank, (2005), and Nabil and Lina, (2012) have studied the digital image from a different point of view. Both of them has studied how the utilization and recruitment of digital image in different fields. On one hand, Frank has studied the best practices of image file preparation to use it in archiving. On the other hand, Nabil and Lina, (2012) have studied the digital image by focusing on the recruitment of the digital image in designs nutritional label.

Most results of the previous studies confirmed that the new technologies and technological changes have a major impact on the advertising industry. The utilization of the new technology in the advertising production created positive contributions to the creative process of advertising. As well as, most of these results combined confirmed that the development of technology accompanied by a parallel development in the advertising field as well. The results also revealed that the new media are new shape of digital technologies and it can be utilized in advertising. The results also demonstrated that the application of new media technologies in advertising has improved the quality of advertisements. Moreover, the progress in the new media technology has transformed the advertising process entirely, where; advertising experts have found smart and innovative solutions to create exciting advertisements.

The results also showed that the Internet has led to the creating of radical changes in the advertising industry. The advertising industry has been changed due to the introduction and application of the Internet into advertising. Moreover, the constant expansion of the

Internet as an advertising medium influences the valuations of new and traditional media companies that depend heavily on advertising. Furthermore, digital media significantly has changed the fields of graphics and advertising design principles.

All these studies and researches demonstrate the unique needs of more studies in the use of digital images, especially in the advertising field. Therefore, in this study; the researcher will try to expand the investigating on the digital image, by focusing not only on the digital image but also on its effective uses and the best practices of advertising designers. In addition, to the advertising design process will be taken into consideration and discussion in order to reach the best understanding of the effective use of digital image in advertising design process.

### **3. METHODOLOGY**

This chapter provides the methods used to collect the data for the study, containing the data sources, collection, data presentation, limitations, and delimitations.

#### **3.1. Research Methodology and Design**

This study is a descriptive qualitative research based on the multiple data sources (observation, research diary and interviews). The descriptive qualitative approach aims to get data through the research aim in nature (Denzin & Lincoln, 2000). The descriptive inquiry focuses on the events or experiences for gaining insight of the participants (Corbin & Strauss, 2008). This study aims to provide the views of participants in a comprehensive way by using descriptive qualitative research. Also it aims to find out the effective use of the digital image in the advertising design process. This research studies the techniques of digital image processing which are used by designers and producers of the advertising. As well as, understand the efficient ways of utilizing digital image in the advertising design process.

#### **3.2. Data Sources and Participants**

In this study, it was aimed to determine the approaches of the field experts who are experienced in design, digital image, and advertising. The participants of the research were determined through the criterion sampling that involves selecting cases that meet some predetermined criterion of importance (Patton, 2001, p. 238). The criterion of participating group was determined as every participant to be a professional designer on advertising for better understanding of the designers who experienced to create, to criticize and to use digital images during their professional life. The criterion sampling was a rich source for the research aim to identify and understand the importance of digital images based on designer's experiences.

Seven participants were selected for the participants of this research. The "saturation" of the sample was determined through the aim of the study, the in-depth interview and the information power of the participants (Legard, Keegan & Ward, 2003). To the lower amount of participants was needed based on the research aim for a deep understanding of gathering data of the participants. Creswell indicates that (2011) to study

a few individuals or a few cases is typical for the sample within qualitative research (pg. 209). In this research all experts interviewed were selected from fields of graphic design, and advertising industry. Five were from the graphic design field, two from the advertising industry. The interview's questions were developed to assure all of the research questions related to the digital image, technology, and advertising are answered. Focusing on using digital image of the interviewee made researcher to understand the meaning of experiences of the participants based on their professional life. After dealing from the seven interviews, the researcher recognized patterns in the interviewees' experiences. Saturation of knowledge was ended when the researcher no more surprised or learns a great data from participants.

### **3.3. Interview Design**

The objective of the qualitative in-depth interview-based research is to describe and explain people's experiential life as they lived, underwent, felt, and experienced it. Because much of an individual's life experience is unseen to other people also because experience has a vertical depth not horizontal. As well as, interviewing differentiates oneself from other research methods by engaging participants in a conversation with the researcher directly. So as to generate a profoundly context, and precise accounts of participants' worlds: both the outer and inner and how they explain and interpret their experiences (Schultze and Avital, 2011).

The in-depth interview-based qualitative research has become widespread and the qualitative research interview is the most extensively used qualitative research method. (Polkinghorne, 2005). And it has been widely used in multiple areas in life, a research interview, or (interview), is a process of exchanging of views between two people – one of them plays the role of the researcher – they are talking about a topic of mutual interest between them (Kvale, 2007). This topic of interest generally belongs to interviewee's experience of his/her life, as it is undergone, lived, and shaped in awareness (Polkinghorne, 2005).

As Advertising designers' experiences are not observable by others and are not easily accessible to individuals, this study has used interviewing as a qualitative research method because interviewing seeks to engage subjects in a dialogue with the researcher

directly in order to get detailed information about the participant's experiences regarding the research subject. Also, the interview provides a useful way for a researcher to understand and learn about the world of others.

Furthermore, the interviewing needs to help participants reach beyond the surface areas of their experience so as to produce informative, and a new narrative of the study subject or the phenomenon of interest. Also, to understand the advertising production from the advertising professionals' point of view, as well as to reveal the advertising professionals' experiences. Consequently, researchers are cooperatively engaged in the generation of data through the interview method.

Each participant was asked interview questions, inquiring about what are the most effective uses of the digital image in the advertising design process and how advertising designers integrated of the digital image in advertising production. All questions focused on how each advertising designer use digital image effectively. The questions were mostly open-ended to ensure a full explanation and reasoning for each answer given.

#### **3.4. Data Collection**

The method of data collection used in this study was of seven individual experts. The interviews were conducted during May and December 2017. During the interview, each expert was asked questions from the questionnaire which prepared to supply comprehensive answers to the research questions, and enquiring about best practice of digital image.

#### **3.5. Data Presentation (Data Collection Techniques)**

The data of this study was collected during the interview has been documented through audio recordings using a voice recorder device besides writing notes during and after the interview as well. This has been done to guarantee that all information was notarized and documented, also to affirm that any additional information which may simplify understanding the context of the responses was added. This method of data collection assures that the data is collected and presented accurately and objectively.

### **3.6. Limitations**

There are many limitations to this study such as time, location and access. This study was conducted between May and December of 2017, which lasted only 7 months. The study took place in Eskisehir, Turkey. The access to experts in the advertising field was also very hard because high profile agencies are difficult to get access to their expert workers. Even it was very difficult to get an appointment with advertising agencies because of their busy schedules.

### **3.7. Delimitations**

Also, there are delimitations to this study based on the type of the collected data and interview process. The study had been conducted to gain insight into the effective use of digital image and shed the light on the benefits of using the digital image in the advertising design process. However, the answers of the interviewees were based on the assumption that the responses are qualitative and opinion-based. Thus, they cannot be generalized.

The interviews with, Merve, Bilal, Hamza, and Metin were face-to-face interviews conducted in the office of each. However, because of location and time limitations, the interviews with Nurgül, Ismail, and Deniz were conducted via E-mail and phone. Although the audio from the interviews was recorded, there were some limitations based on visibility (not being able to watch the body language of the interviewees and their expression and movements).

### **3.8. Data Analysis**

This section presents descriptions of the participants and the data collected through recorded interviews and it is presented in two ways: direct quotations or in paraphrased answers. After that, the respondents' answers were analyzed and compared to the research questions and the literature reviews of the research on digital image and advertising which already has been reviewed in section 2. The method of the data gathered from the participants for this study was a qualitative approach of thematic analysis. Thematic analysis includes the conceptual framework before gathering data and transforming data during the data collecting process. Thematic analysis consists of identifying, analyzing, and reporting patterns within the data (Braun & Clarke, 2006). Based on the data analysis

process the research data was conducted with the conceptual framework in a deductive way and later the data was enlarged in an inductive way in-depth.

## **4. FINDINGS**

This section presents descriptions of the process based on the researchers observations and the data collected through recorded interviews and findings describe the process, characteristics of participations, set of conditions, or description of participating experiences.

### **4.1. The Findings of the In-Depth Interviews**

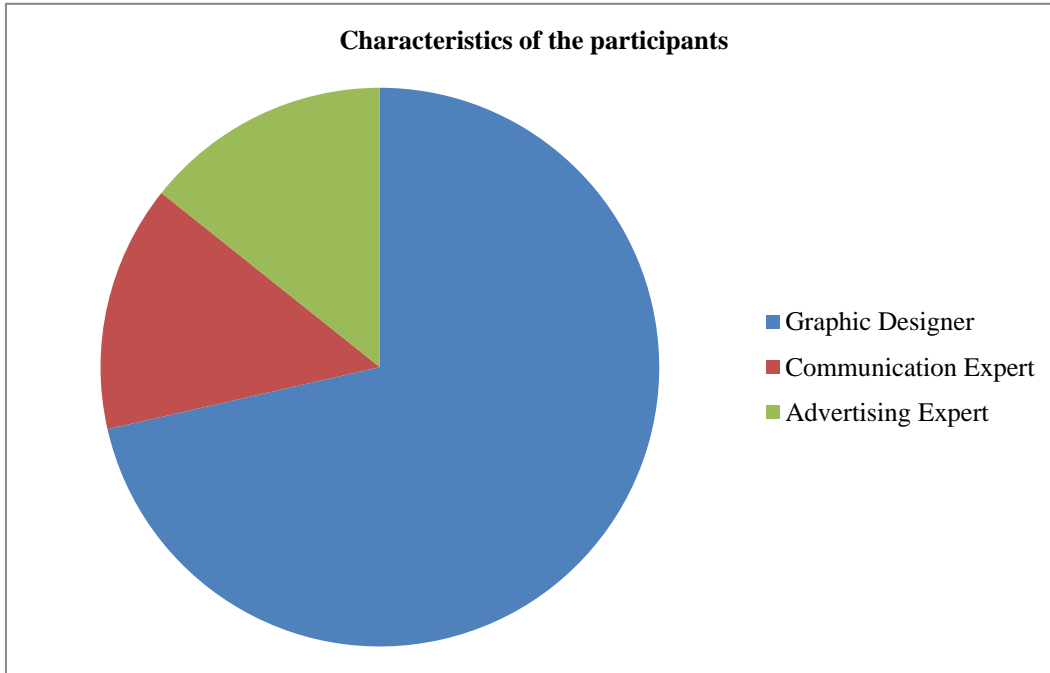
The data obtained from the seven interviews was collected under eight main themes these themes are; characteristics of the participants, the role of digital image, the importance of digital image, the impact of digital image on the advertising content, the reflection of the integration of digital technology, the effect of digital image on the decision-making, digital image and the misinterpreting by target audience, the best practices and effective uses of digital image.

#### **4.1.1. Characteristics of the participants**

For this study, it was significant to see what advertising experts and graphic design experts said, due to the little amount of information that currently available on the effective use of the digital image in advertising design process. To earn this data, five graphic designers, one communication expert, and one advertising expert were interviewed for the study. They were asked similar questions that were prepared for reflecting the research questions.



**Table 4.1.** *Characteristics of the participants*



The characteristics of participants reflect the awareness of digital technology and awareness of training on digital technologies. Participants' professional life events, technological orientation and the expertise of digital image use were observed by the researcher. It was observed that the participants distinguish, describe, analyze, explain, review, develop, synthesize based on the design of a digital image for advertising. They also experienced the responsibility, opportunity, availability, aesthetic and practical applicability, innovative implement ability and originality of a design process.

#### **4.1.2. The role of digital image**

This theme was designed in response to the current literature that exists in the topic of digital image and advertising. A considerable amount of literature supports that digital image plays a significant role in advertising development and it is important for the advertiser to use the digital image in the advertising design process. According to Bugge, the new media technology has changed the advertising industry fundamentally, and the ever-evolving technological changes that occurred in the world have participated in creating enormous change in the field of the advertising industry. (Bugge, 2009). This

theme was created to obtain insight into the role played by a digital image in advertising development. Also, find out the importance of digital image when it used in advertising design process. It is obvious from the literature that all experts agree that digital image plays a great role in advertising development so that it is important in advertising design process.

**Table 4.2.** *The role of digital image*

<b>Themes</b>	<b><i>f</i></b>
The role of digital image	6
<i>The success of advertising</i>	6
<i>Creating effective ideas</i>	2
<i>Creating professional approach</i>	1
<i>Applying right techniques</i>	1
<i>Ease of perceive</i>	1

The main themes and sub-themes of the participant views which related to the role of digital image in advertising stated as follows:

Merve expressed her views based on the theme of *'The role of digital image'* as follows:

“I can evaluate the role that a digital image plays when producing advertising as follows; with digitization, everything has become possible in the advertising industry. In other words, there's nothing we cannot do. When we question how a creative idea is passed on to life, digital is the first method that comes to mind, as an option. That means we are no longer using the old methods (analog methods).....”

In the opinion of Deniz under the sub theme of *'The success of advertising'*:

“The most significant privilege of the digital imaging; a more impressive advertisement is produced by the high-resolution feature of the digital image. For this reason, I think that digital imaging plays a very important role in advertising design and that the advertising has become more successful”.

Merve expressed her views based on the sub-theme of *'Creating effective ideas'* as follows:

"...Through the programs we use, we can create and shape many creative ideas with the contents we produce. In order to make our ideas to be accepted more effectively, it is important to use the digital image as a remarkable and striking element besides other factors. So, the first element which is used to describe an idea becomes the digital image doubtlessly."

Nurgül stated her opinions about the role played by digital image under the sub theme of *'Ease of perceive'* by saying that: "*...the digital image has a positive impact on the advertising success graph because the message to be given or the product/service being marketed is easily perceived by the customer either metaphorically or directly.*"

Bilal explained his views about the role played by the digital image in advertising development under the sub theme of *'Professional approach'* by stating that, "*the digital image is extremely important in terms of effectiveness in advertising. If the professional approach and the right techniques are applied in the design process, the catch rate of the targeted perception of the advertising will increase.*"

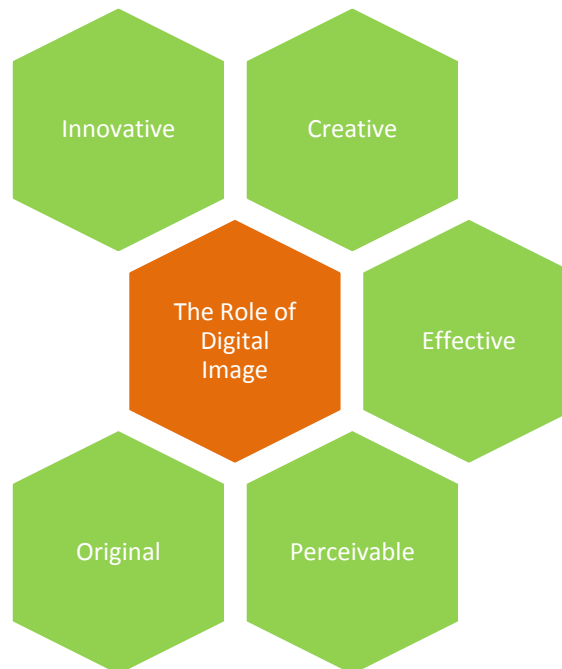
Metin specified his views on the role of digital image in advertising development under the sub-theme of *'The success of advertising'* and *'creating effective ideas'* as follows:

"I think that digital image has an impact on the success of the advertising, and when we want to reflect the advertising idea to the target audience, we try to avoid using many things in the design, such unnecessary exaggeration. We use the simplest way to send our message to the target audience. Obviously, these are the most basic things we prefer. When we design an advertising we try to make the person who sees or watches the advertisement capture and perceive the main point of the advertisement without confusion. In other words, we try to make the message of the advertisement be perceived clearly when the advertisement is seen."

According to Ismail’s view, the digital image plays a great role in advertising development by providing a clearer and understandable way to transfer what an advertisement means to the receiver. He stated his views under the sub-theme of ‘*The success of advertising*’: “...in nowadays advertisements, it cannot be said that an advertisement can succeed without a digital image. Digital images and advertising are an integral part of each other. In other words, they are an inseparable whole”. Hamza clarified his opinions on the role played by the digital image under the same theme in advertising development as follows:

“I think the digital image is indispensable when preparing advertisement. Because it gives us the possibility to show our customers how the advertising will be and how is it in the digital environment. Also, it offers the possibility of making necessary corrections and editing to the advertising before presenting or revealing a tangible product or outcome, for these reasons, I think the digital image is a very nice thing.”

The themes and the direct quotation indicate a model as shown in (Figure 4.1).



**Figure 4.1.** *The role of digital images in design process*

The role of digital images in the design process includes innovative, creative, effective, perceivable and original approaches based on the views of participating digital media designers. The most important point of these approaches is innovation. The internet, social media and the digital devices enlarged the media channels which allowed consumers to control what they prefer as a hyper-connected consumer. So the experiences of consumers provide an innovative way for the designers (Erişti, 2016). Innovative media and digital images take the attention of customer.

#### 4.1.3. Importance of digital image

Interview data were categorized under this heading '*Importance of digital image*' and analyzed according to the following subthemes: '*The possibilities to deliver the advertising*', '*The ease of editing*', '*Effective visual language*', '*Power of design*', '*Effective message design*', '*Effect of digital platform*', '*Creating multidimensional image*', '*Achieving digital image without error*'.

**Table.4.3.** *The importance of digital image*

Themes	<i>f</i>
The Importance of Digital Image	9
<i>The possibilities to deliver the advertising</i>	4
<i>The ease of editing</i>	5
<i>Effective visual language</i>	3
<i>Power of design</i>	2
<i>Effective message design</i>	3
<i>Effect of digital platform</i>	1
<i>Creating multidimensional image</i>	1
<i>Achieving digital image without error</i>	1

The participants' views on the main themes and sub-themes of digital image importance are as follows:

Merve, stated her views based on the sub-theme of *'The opportunities to deliver the advertising'* as follows:

“When we say design, firstly we need a concept to reveal an idea. In line with this, the elements to be used are determined; text, image, sound, etc ... These are all complementary elements. We do not have a chance not to use the digital image right now. We cannot choose another image (analog). Other methods of creating image have become in the past. So that it seems we no longer have an alternative other than the digital image.”

Nurgül, explained her opinion on sub-theme of *'Effective visual language'* and *'Power of design'* by saying:

“The messages which the designer wants to give or the product/service he/she wants to market, the best way to deliver it is by using the digital image. The visual language of well-framed photo or photo manipulation designs is powerful”.

Bilal thought on sub-theme of *'Effect of digital platform'* and *'Ease of processing'* as below:

“The digital image is important because nowadays, the broadcasting mediums of launching and presenting works are usually digital platforms. In the design phase of such advertisements, I think that digital images are included in the design process because the environment in which the content is prepared is digital, as well as the ease of processing the digital image”.

Deniz expressed her opinion related to the sub-themes of *'Creating multidimensional image'* and *'Effective message design'* by saying:

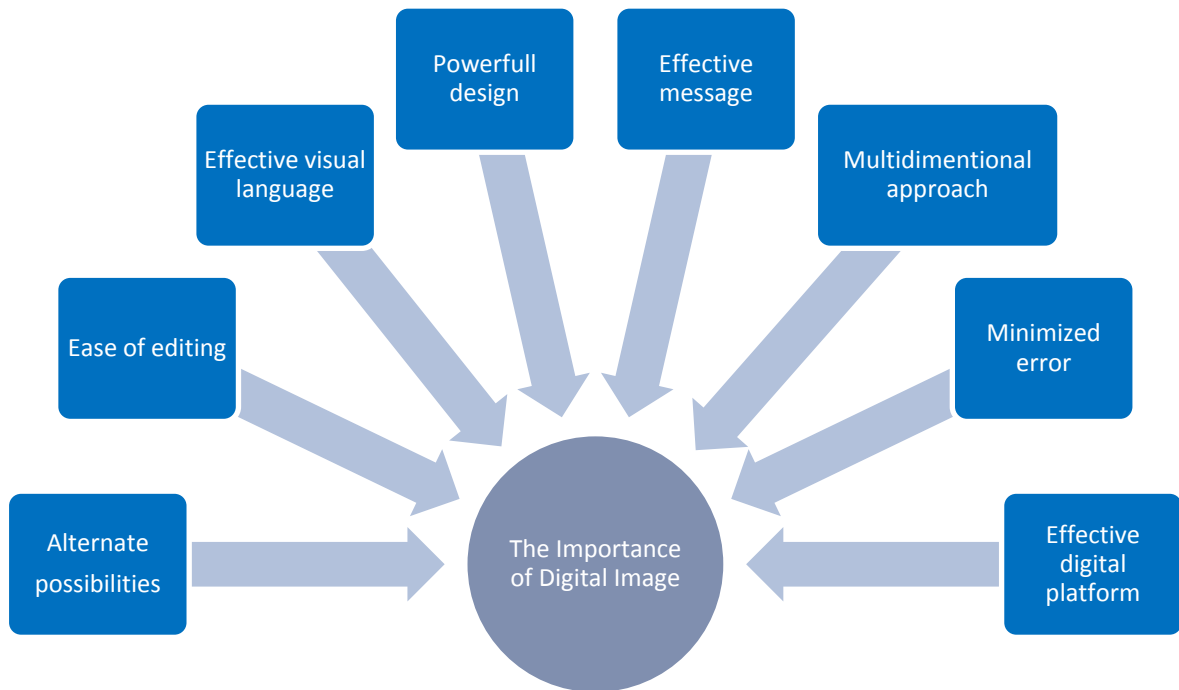
“Digital image is important because the advertising data can be easily changed and the design can be done quickly, thus, digital images provide the possibility of creating a clearer and multidimensional image to the customers. So that, the design become realistic and the desired message is delivered effectively.”

Metin explained his opinion about the sub-theme of *'Effective message design'* by stating that *“it is easy for the designer to process and use it in the artwork or design, by cropping or manipulate it according to the design”*. Ismail explained his views under the

same sub-theme that “...the designers use the digital image in the advertising design to make the promotion of the product or company more efficient”.

Hamza stated that digital image offers the possibility of achieving the work without error under the sub-theme of ‘Achieving digital image without error’ and he added the following:

“The professionals prefer digital image and digital editing and drawing programs because it provides the possibility of how to utilize the materials that are used during the configuration or construction phase of the work that required to be done, and, how to go through the process of design, and, how to measure it, as well as the ability to accomplish the work without error, before revealing it or putting it out. Above all, it enables us to detect the problems that may arise while producing the advertising and to be able to intervene accordingly.”



**Figure 4.2.** *The importance of digital image in design process*

All of the experts confirmed the importance of digital image by giving different reasons and opinions about why they believe the digital images are important in

advertising design process. Also, most of the experts agreed that the best way to deliver the advertising message to the consumer is by using the digital image. Most of the experts also agreed that the digital image is important because it is easy to be processed and the environment in which the advertising is prepared became digital completely as well.

#### 4.1.4. The impact of digital image on advertising content

This theme focused on how the digital image impacts the reach of the content of the advertising message effectively. Since the literature supports that digital image and use of new media technologies in advertising have improved the quality of advertisements. This question was prepared to find out how digital image can affect the reach of the advertising content effectively. The literature indicates that advertising practitioners utilized new media technologies at different stages of the advertising process and the application of new media technologies affects the advertising (Akhagba, 2014). The interviewed experts agreed that digital image affects the reach of the content of the advertising effectively.

**Table 4.4.** *The impact of digital image on advertising content*

<b>Themes</b>	<b><i>f</i></b>
The impact of digital image on advertising content	4
<i>Aesthetic dimensions</i>	2
<i>Removing boundaries of designing</i>	1
<i>Transforming art and design understanding</i>	1
<i>Emphasizing advertising message</i>	1
<i>Delivering alternate message design</i>	1
<i>Creating comprehensive design</i>	1

Merve stated her views related to ‘*The impact of digital image on advertising content*’ under the sub-theme of ‘*Removing boundaries of designing*’ as following:

“...it affects the reach of the advertising content message; it should be in the form that the concept requires. According to the concept, the part of the advertising that must be stood out is determined. This is often provided by visuals element (digital image). Sometimes we use texts or sounds. In fact, when we share a text it becomes an image too. We can reflect the idea we want, as the way we want, by doing manipulation on the digital image to send



our intended message. Briefly, we can say that the digital image is a something that removes boundaries.”

Nurgül confirmed her views under the sub-theme of *‘Transforming art and design understanding’* as follow: “...*the digital image impacts the reach of advertising content if it is used correctly; and also digital image has changed our ways of seeing and understanding art*”.

Bilal stated his opinion about sub-theme of *‘Emphasizing advertising message’* by saying; “...*digital images affects the reach of the advertising content especially the message which is tried to be transmitted by using a large number of words can be given through the correctly selected digital moving (animated) images.*”

Deniz also confirmed the opinion about sub-theme of *‘Aesthetic dimensions’* “...*digital image impacts the reach of the advertising content, and with the digital image, the advertising that we will get by giving aesthetic dimensions to our design will help us to deliver our message effectively*”.

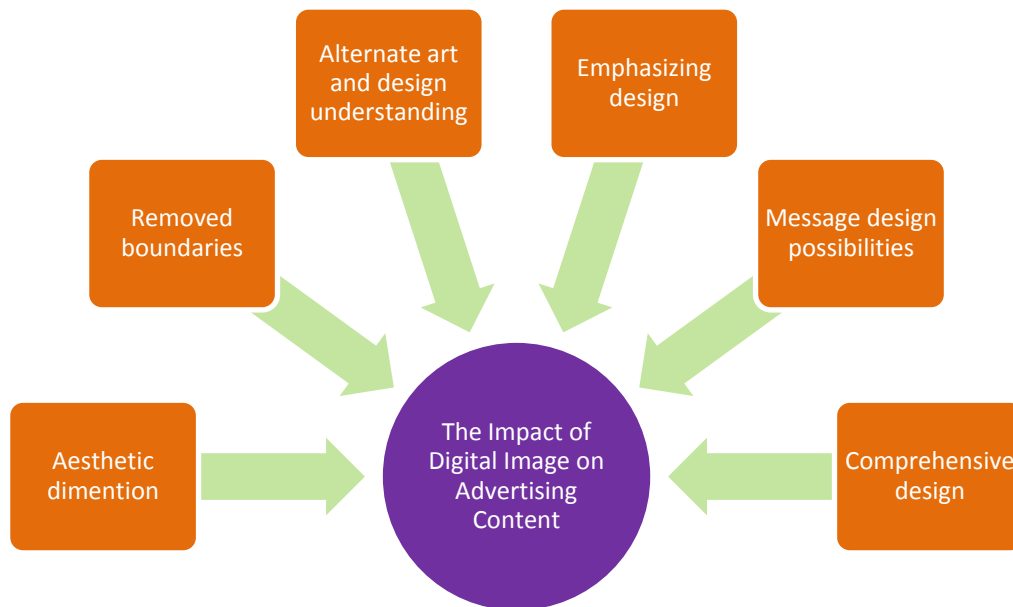
Metin stated his views about the sub-theme of *‘Delivering alternate message design’* as following:

“Of course, the digital image definitely influences the delivering of the content of the advertising message effectively. For example, think of using a slogan and image and put both of them together in a beautiful way, in addition to text which is written in a readable way with the other objects of design, all of them affect the reach of the message that is sent through advertising. So, when you arrange those objects in design space you have to make a balance between them because all objects of design are a whole. Where, the digital image can demonstrate itself in a very beautiful way if it was taken perfectly. Sometimes the content of the advertising message can be delivered through one object of the design. So you have to decide which element you would like to deliver your message through, does it by digital image, text or other object. It's a bit different depending on the design. However, that does not mean neglect the other objects while designing the advertising.”

Ismail said that “...*no advertising no design, we could not imagine design without digital images today. And, in order to introduce or promote a product more effectively and comprehensively, it must be done through a digital image*” under the sub-theme of *‘Creating comprehensive design’*.

Hamza determined his views about the impact of the digital image on the advertising content under the sub-theme of *'Emphasizing advertising message'* by saying that *"The digital image is so effective because we can do some editing and retouching on the designed advertising, in order to deliver or to emphasize the message that should be given to the target audience effectively."*

All of the respondents agreed that digital image affects the reach of the content of the advertising effectively. However, all respondents determine different views on how the digital image affects the reach of the content of the advertising.



**Figure 4.3.** *The impact of digital image on advertising content*

According to Merve, the effect of the digital image depending on the concept, and the part of the advertising that must be shown up is determined. This is often done by the digital image. Also, she stated that by doing manipulation on the digital image we can reflect the idea we want, as the way we want, and send our intended message effectively. Briefly, a digital image is a something that removes boundaries. Bilal said that the message which is tried to be transmitted by using a large number of words can be given by the correctly selected digital moving images. Deniz says that with the digital image, the advertising that we'll get by giving aesthetic dimensions to our design will help us to

deliver our message effectively. While Metin explained that the digital image can demonstrate itself in a very beautiful way if it is taken perfectly. Ismail stated that no advertising without digital images. And, to introduce or promote a product more effectively and comprehensively, it must be done through a digital image. Hamza declared that the digital image is so effective because it enabled us to do some editing and retouching on the designed advertising, in order to deliver or emphasize the message that should be given to the target audience effectively.

#### 4.1.5. The reflection of the integration of digital technology

**Table 4.5.** *The reflection of the integration of digital technology*

<b>Themes</b>	<b><i>f</i></b>
The reflection of the integration of digital technology	7
<i>Accelerating the advertising design process</i>	3
<i>Producing advertisement with low budgets</i>	3
<i>Producing high-quality designs</i>	2
<i>Effective time management on design process</i>	2
<i>Effective human resources management on design process</i>	2
<i>Development of advertising industry</i>	2
<i>Professional development of designer</i>	1
<i>Alternate business opportunity for designers</i>	1

Since the literature supports that technological progression and innovations in media have a significant impact on the advertising. This theme was generated to reveal how the integration of digital technology reflects in advertising production. The literature suggests that the new technologies which are used in the advertising industry have made positive

contributions to advertising production, (Akyol, 2004). All of the experts interviewed in this study also confirm that the digital technology reflects in advertising production positively.

Merve determined her opinion on how did the integration of digital technology reflect in the advertising production as follows indicates several sub-themes such as *'Accelerating the advertising design process'*, *'Producing advertisement with low budgets'*, *'Producing high-quality designs'*, *'Effective time management on design process'*, *'Effective human resources management on design process'* and *'Alternate business opportunity for designers'*:

“The combination of digital technologies has a great impact on advertising industry; it has accelerated the advertising design process, decreased the time of production, and it has enabled a lot of people to enter the world of the advertising industry and activate it with fewer people and less budget. In this way, it has allowed the companies with low budgets to recourse to professional agencies to meet their advertising needs. A lot of people who are offering freelance advertising services from home also started to emerge in the advertising industry. In other words, even we can say that, a person can do these services alone.”

Nurgül summarized her views about the integration of digital technology in the advertising production by saying *"Undoubtedly, there are positive and beneficial effects for user/customer and designer."*

Bilal expressed his opinions about the integration of digital technology in the advertising production under the sub-theme of *'Development of advertising industry'* by stating that:

“Almost, all of the advertising work is being prepared digitally (in a digital environment). It has been integrated with each other for a long time; I think it is not possible to separate them after that. Digital technologies contribute to the development of the advertising industry.”

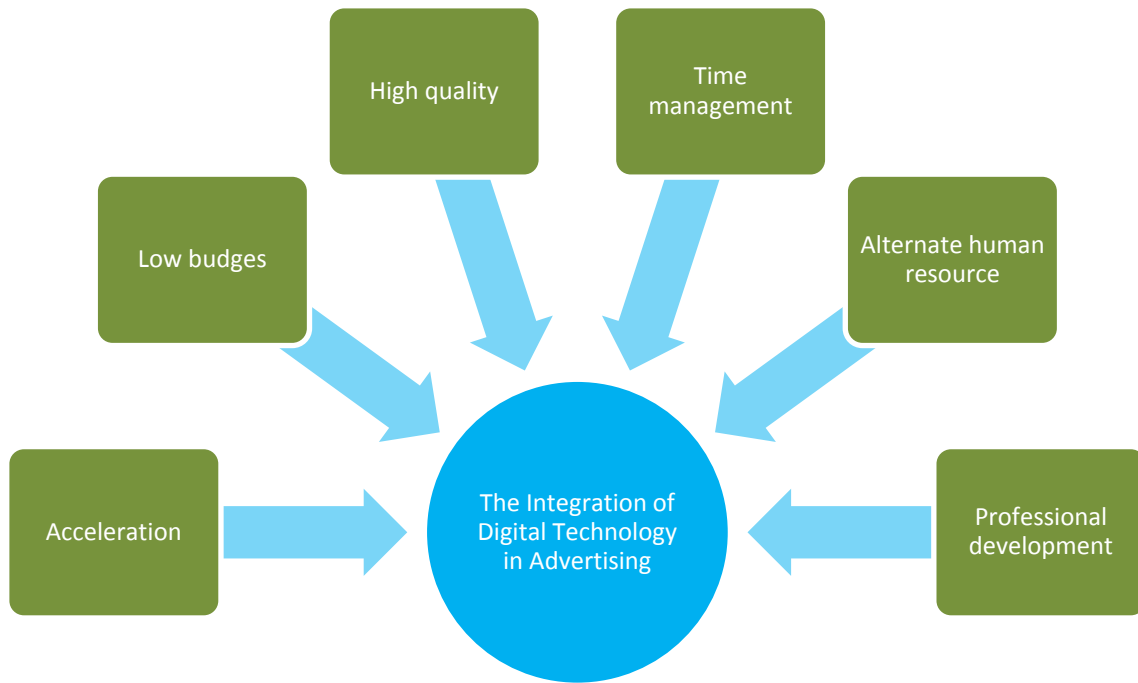
From Deniz point of view, the integration of digital technologies with advertising design process reflects positively, with extraordinary virtual reality on the advertising design process. Quality advertisements are produced by impressing the target audience.

Metin stated his opinions on the integration of digital technologies into advertising design process under the sub-theme of '*Development of advertising industry*' and '*Professional development of designer*' as follows:

“The combination of advertising design process with digital technologies reflected in the advertising industry significantly; it has speeded up the design process of advertising obviously. When we say advertising design process, we mean that process started with finding the idea of advertising, then developing that idea, and then you utilize digital technology to convert your ideas into advertisements, remember that digital technology is not an aim but it is a tool. Definitely, it is a tool that you use until the last stage of your design. And to reflect your idea you just use those programs as tools, because you are doing a creative job in this sense. And in this job, you have to develop this idea. The more these programs are developed and the more you have to improve yourself to master them as the way that enables you to take the control of the design process. In other words, if you are a designer, the more you have renewed yourself, the more you can use these programs so much better. And certainly these programs are not our goal, it just tools we use to achieve our big purpose, creating a great design that will impress the target audience by using these programs and technology because nowadays these programs are indispensable in the advertising design process.”

According to the Ismail's opinion, "*Advertising design process and technological developments are interconnected, they complement each other. And the combination of both of them in the advertising industry has led to producing high-quality designs*" under the sub-theme of '*Producing high-quality designs*'.

Hamza outlined his views on the integration of digital technology into advertising production by stating that: "*I think that the integration of digital technology into advertising production has enabled the advertising production to become faster, more organized and economic*' under the sub-themes of '*Producing advertisement with low budgets*', '*Effective time management on design process*' and '*Effective human resources management on design process*'.



**Figure 4.4.** *The integration of digital technology in advertising*

Through the views of participants advertising includes several dimensions based on the digital technologies such as acceleration of design process, creating low-budged based design, arriving high quality on design process, an effective use of time and human resource for advertising industry and the professional development of the designers to be part of the digital developments.

#### **4.1.6. The effect of digital image on the decision-making of target audience**

This theme focused on the impact of a digital image on the decision-making of the target audience. And, if it has an impact, is it positive or negative. The literature indicates that the digital image plays a significant role in assisting the consumers to acquire the information that is sent through advertisement (Nabil and Lina, 2012). Most of the interviewed experts agreed that digital image has a positive impact on the decision-making of the target audience.

**Table 4.6.** *The effect of digital image on the decision-making*

Themes	<i>f</i>
The effect of digital image on the decision-making	5
<i>Analyzing the target audience</i>	2
<i>Analyzing the user experience and reaction</i>	2
<i>Effective use of digital imaging</i>	4
<i>Understanding of target audience</i>	2

Merve stated her views about the ‘*The effect of digital image on the decision-making*’ under the sub-themes of ‘*Analyzing the target audience*’ and ‘*Analyzing the user experience and reaction*’ as following:

“Generally, I think the digital image can affect the decision-making process of the target audience positively because if the professionals who do the design, then they do it based on analyzing the target audience. In other words, before beginning the process of advertising design we should ask ourselves some questions such as: What does the target audience react to and how? How should we make a design for them so that they can look at the image (design) and get impressed and influenced by us, so they get close to us? Consequently, they come to our page or make a purchase. Because when we work, we focus on this, the possibility of negative effect is very low. Works which are done without recognizing the target audience may fail. At this point, the target audience needs to be analyzed very well. Until now, we have always received positive responses from social media. Also, social media is a very suitable platform for measuring the reaction of the target audience. In addition, social media can be very negative in terms of sabotaging some campaigns because it is an open environment for intervention.”

Nurgül thought that definitely, “...*digital image has positive sides on the decision-making of the target audience in terms of reflection to the receiver a high-quality or promised performance of a product/service. Especially in Turkey, in packaging and food sector needs more attention to the impact of the digital image in the decision-making*

*process of the target audience.” under the sub-theme of ‘Analyzing the user experience and reaction’.*

Bilal stated that “...in many advertisements the digital image affected the decision-making process of the target audience. But its positive or negative effect is variant according to the digital image which is used.” under the sub-theme of ‘Effective use of digital imaging’. Deniz believes that “...digital imaging affects the decision-making process of the target audience. The reason is, the given message in the advertisement with effective use of digital imaging in the advertising design process can influence the decisions of the target audience positively” under the same sub-theme.

Metin indicates the same sub-theme by saying that “Yes, it affects the decision-making process of the target audience. But, we can’t say it is positive or negative, because the effect depends on the digital image used in the design and the understanding of target audience.”

Ismail thought that “...the digital image affects the decision making of the target audience, because it allows the formation of an idea in the target audience. And it makes the advertising message to be delivered in a more understandable way” under the sub-theme of ‘Understanding of target audience’. Hamza summarized his views on the by saying: “I think that everything is depending on the target audience, therefore it can be positive or negative.” under the same sub-theme.

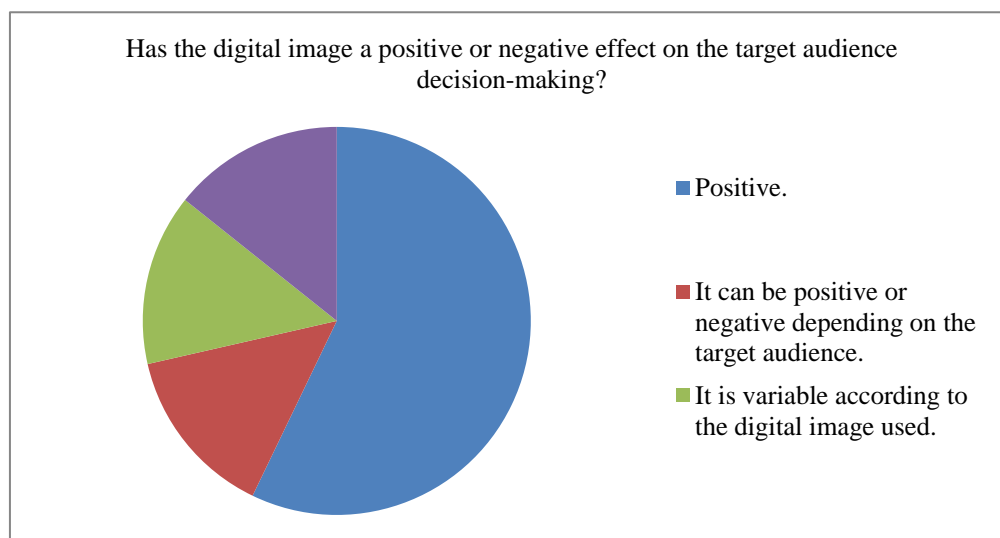
Most of the respondents agreed the digital image has an effect on the decision-making of the target audience. While most of them said it is a positive effect, some of them determine that it may be positive or negative depending on the digital image used in the design and the understanding of target audience. However, all respondents present different views on does it positive or negative. According to Merve digital image has a positive effect on the decision-making of the target audience, because if the professionals who do the design, then they do it based on analyzing the target audience. The possibility of negative effect is very low. Works which are done without recognizing the target audience may fail. At this point, the target audience needs to be analyzed very well. Nurgül said that it is positive, in terms of reflection to the receiver a high-quality or promised performance of a product/service. In Bilal’s view, it is variable according to the digital image used. Deniz says that with the effective use of digital imaging in the



advertising design process, the given message in the advertisement can influence the decisions of the target audience positively. While Metin explained that we can't say it is positive or negative because the effect depends on the digital image used in the design and the understanding of target audience. Ismail stated that it allows the formation of an idea in the target audience. It makes the advertising message to be delivered in a more understandable way. Hamza indicated that it can be positive or negative depending on the target audience.

The themes of participants' answers for the possibility of digital image effect on the decision-making of target audience tabulated as following:

**Table 4.7.** *Probabilities of digital image effect on the decision-making*



During the interviews, the participants were asked about probabilities of digital image effect on the decision-making of target audience: is it positive or negative. The pie chart above shows the probabilities of digital image effect on the decision-making of target audience.

#### **4.1.7. Digital image and the misinterpreting by target audience**

This theme was designed to discover when the digital image could be misunderstood by the target audience. In this regard, the literature suggests that the behavior of human being can be predicted. Therefore, marketers should be open to new

ideas, but also they should not forget using of past experience to guide campaigns. When targeting a specific audience in advertising research, analytic, comprehensive planning, and continuous evaluation are required. Also, intelligent marketers will understand their product, recognize how it meets the needs of a specific consumer, and try to reach that consumer with particular messages (Gaudio, 2013). Also, in another study conducted by Gevorgyan, (2009) showed that culturally oriented websites and online advertisements have an influence on individual attitudes and behavioral intentions. He pointed out that it is important to take into consideration cultural, technological and variables of personality specific to the Web (Gevorgyan, 2009). Most of the experts interviewed in this study reported that the digital image could be misunderstood by the target audience.

**Table 4.8.** *Digital image and the misinterpreting of target audience*

<b>Themes</b>	<b><i>f</i></b>
Digital image and the misinterpreting of target audience	7
<i>Managing the design process</i>	3
<i>The thinking differences of the target audience</i>	1
<i>The intervention of non-specialized approaches</i>	1
<i>The mysterious use of digital image</i>	1
<i>The contrary to the rules</i>	1

Merve clarified her views on the themes ‘*Digital image and the misinterpreting of target audience*’ by saying that “...the digital image can be misunderstood by the target audience, so the important thing is to manage the process well” under the sub-theme of ‘*Managing the design process*’.

Nurgül stated that if the digital image is misunderstood, “...it means that there is a big setback or failure in the process of creating it or because of the intervention of those who are not specialized or expert in the advertising industry” under the sub-theme of ‘*The intervention of non-specialized approaches*’.

Bilal believed that “...the use of digital images doesn't in accordance with the rules it can lead to misunderstanding by the target audience” under the sub-theme of ‘*The contrary to the rules*’.

Deniz said that: *“I think it depends on what message you want to send by the design that you have produced. If the advertising is being distorted it can be misunderstood and you can see it in the design anyway.”* under the sub-theme of *‘The thinking differences of the target audience’*.

According to Metin’s view the digital image can be misinterpreted by target audience if it is used in a mysterious way.

From Ismail’s point of view, *“the thought structure of the target audience may differ in the area of interest. For this reason, the image used in an advertising design can be misunderstood by the target audience, so it may create a negative impact because it may contradict with the structure of the target audience's thought”* under the sub-theme of *‘The thinking differences of the target audience’*.

Hamza believed that the proper selection of the accompanying text with the digital image cannot cause any misunderstanding of the digital image.

Most of the respondents agreed that the digital image could be misunderstood by the target audience. There are many reasons could lead to the misunderstanding of the digital image such as, if the process of advertising design could not be managed well. Also, if there are a big setback or failure in the process of creating it. Moreover, because of the intervention of those who are not specialized or expert in the advertising industry. Furthermore, if the use of digital images is not in accordance with the rules, or if the advertising is being distorted, as well as if it is used in a mysterious way. Also, it could be misunderstood because of the thinking structure of target audience may differ in the area of interest.

#### **4.1.8. The best practices and effective uses of digital image**

Since the existing literature shows that digital image substantially has a positive impact on the advertising design process, this question was designed to obtain a deep insight into how advertising creative professionals and graphic designers can perform the best practices and effective uses of a digital image in advertising. Lightcap and Peek believes that the effectiveness and low cost of digital advertising will make many companies rethink about the size and structure of their advertising budgets (Lightcap and Peek, 2012).

According to the Landa's study (2014). On the creative process in advertising design. She found that in the careers of advertising and graphic design when a problem is given to a designer to solve it. However, in order to solve a given problem well, an advertising creative professional or designer must learn to think as a scientist rather than a detective. Also, Landa's study asserted that preparation for designing or creating is a necessary matter. Therefore, a designer needs to be prepared to create content and design that promotes, serves, informs, entertains, or engages. Designers need to prepare their minds to grant their works with artistry and think imaginatively, rather than imitate what has been done or create prosaic solutions (Landa, 2014).

**Table 4.9.** *The best practices and effective uses of digital image*

<b>Themes</b>	<b><i>f</i></b>
<b><i>Effective use of design principles</i></b>	<b><i>7</i></b>
<i>Effective use of color</i>	<i>2</i>
<i>Effective use of composition</i>	<i>2</i>
<i>Effective use of image loading</i>	<i>2</i>
<i>Effective use of typography</i>	<i>1</i>
<b><i>Effective use of photograph</i></b>	<b><i>7</i></b>
<i>Effective use of right angle</i>	<i>3</i>
<i>Effective use of right content</i>	<i>2</i>
<i>Effective use of right light</i>	<i>2</i>
<b><i>Effective target audience analysis</i></b>	<b><i>7</i></b>
<i>Target audience expectation</i>	<i>3</i>
<i>Target audience need</i>	<i>3</i>
<i>Target audience preference</i>	<i>1</i>

<b><i>Effective visual language design</i></b>	<b>7</b>
<i>Minimal visual language</i>	3
<i>Visual language including clear message</i>	3
<i>Metaphorical visual language</i>	1
<b><i>Designer experience to meet the expectations of target audience</i></b>	<b>1</b>

---

Merve thinks that the best practices and effective uses of a digital image in advertising under the sub-themes of '*Effective use of color*', '*Effective use of composition*', '*Effective use of image loading*' and '*Effective use of typography*' as follow:

“The most important elements while preparing digital images are; light, text, typographic items. Texts and images should be placed in a harmonious way. Also, it is important to use an image which is not too crowded and which explains the idea clearly. Design everything in harmony. The most important thing is to get to know the company and the target audience well. Also, it is very important to analyze the customer well. If an image is liked by the majority that means it is good. And we can create the best image by recognizing the target audience.”

According to Nurgül the best practices and effective uses of a digital image in advertising is possible by constructing '*Effective visual language design*'. There are several sub-themes based on her views as '*Minimal visual language*', '*Visual language including clear message*', '*Metaphorical visual language*':

“Firstly, it is necessary to pass through basic art education. Then dominate the programs (The ability to use them effectively). It would not be very accurate to say something like effective technique, as the information is in every area as also in this area. Otherwise, every job with aesthetic elements on the back plan is not likely to be successful. Secondly, the basic condition is that the message is clear and perceptible. Thirdly, if metaphorical approaches are to be used, a minimal visual language should be preferred.”

Bilal expressed his opinions about the best practices and effective uses of a digital image under the sub- theme of '*Effective use of color*' in advertising by stating that:

"By way of the developing technology and our awareness of it, in recent times, our success has increased due to our application of more practical and effective processes in our last advertising works. I would recommend following the ever-evolving technology. Apply and practice of techniques such as correct light, right angle, contrast and other color balance values, as well as cropping, can be sorted."

From Deniz's perspective under the sub-theme of '*Visual language including clear message*' is as below:

"An effective design can be created with the simplest depths and shades used in certain places in the prepared design. By sizing our advertising and design and animated with infographic designs, the message you will send must draw the attention obviously and clearly. So, in your advertising, your focal point must be the message you will send. If you are going to make image processing, virtual reality technique (blue and green screen) it will provide you convenience and easiness."

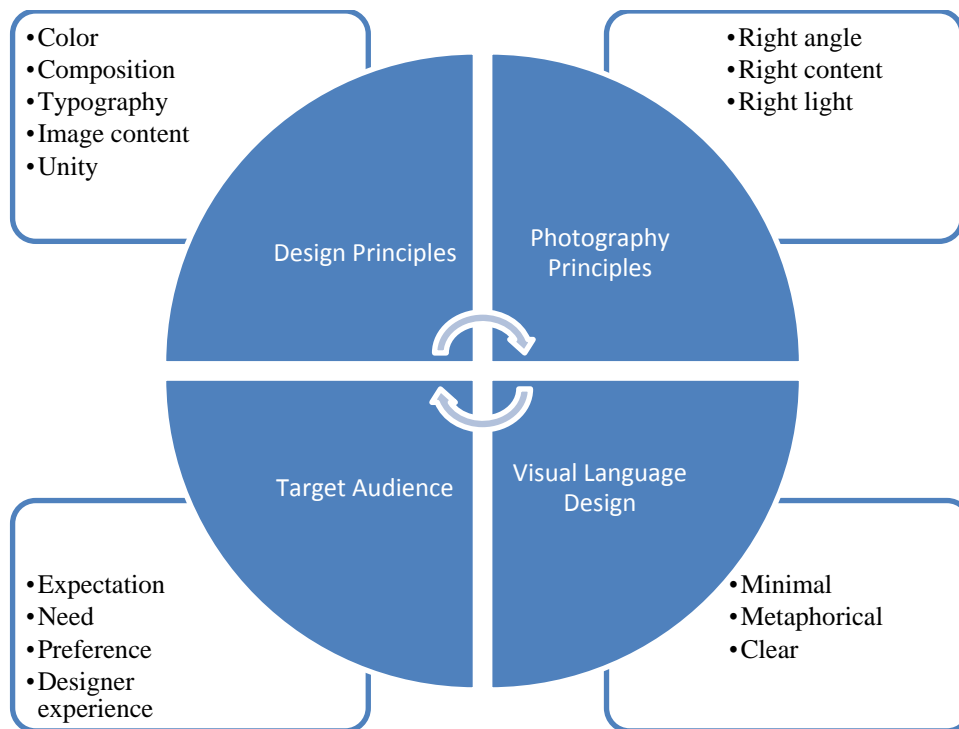
Metin stated his opinions on the best practices and effective uses of a digital image in advertising under the sub-themes of '*Effective use of image loading*' and '*Visual language including clear message*' as follows:

"When we talk about effective techniques and practices, we have to mention the importance of giving instructions to the photographer for the features of the image that will be used in the design process such as from which angle must be taken? For what purpose it will be used? Because determining the features of the photo leads the photo to be taken as it required in the design that in turn, leads to making the process of editing and designing more easily. I recommend using a simple and clear expression in the design process. Also, before beginning design process and before creating the idea of the advertising we have to research the topic of the advertising, after finding the idea we have to choose the suitable image that can be used for conveying the idea (of course if you will use image) in this regard, the choice of the most appropriate image from the perspective of text that I use beside the image. Finally, combine all of them in the most appropriate and simplest way. When we are designing we need to escape from many unnecessary things. Because if the design is crowded I will make the eyes of audience tired, also I cannot deliver the message I want to give to the audience. That's why the language of expression the advertising is important."

According to the view of Ismail, under the sub-theme of ‘Effective use of composition’ is as follow: “The effective thing is to meet the needs and express itself in a simple and clear way. I think that it is very important to use images that are suitable for the content of the advertisement. In this way, the unity and wholeness will be achieved and ensured in the design.”

Hamza articulated his opinions on the best practices and effective uses of a digital image in advertising by stating that: “Acting in line with the wishes and desires of the customer according to specific measurements, and taking into consideration knowledge, skill and experience “under the sub-theme of ‘Designer experience to meet the expectations of target audience’.

The effective digital images should be produced through the principles of design, photography, visual language and the analysis of the target audience based on the field experts on designing digital image for advertising (Figure 4.5).



**Figure 4.5.** The effective use of digital image

## **4.2. Observation Period and Interviews Notes**

Since the study is about digital image and advertising design process. In order to understand the effective use of the digital image in advertising design process, it is necessary to understand advertising environment, the advertising design process, the best advertising practices; the experiences of the advertising designers are relevant and understandable only within the practical context of the advertising industry. Therefore the researcher has done an observation period in two advertising agencies; first in Granada, Spain, The observation period lasted three months. Second, in Eskişehir, Turkey, and it lasted also for three months as well. The study used the observation method as a data source to find out the effective use of the digital image in advertising design process and to get a deeper insight into the effective use of digital image in advertising design process, also to reveal how graphic designers and advertisers use digital image effectively in advertising design process. In addition to finding out how digital images changed the advertising design process.

After the observation period, the study found that digital images provide many possibilities in advertising industry such as it has increased the possibility of producing advertising with less human power rather than using a lot of human power and equipment as in the past. Also, the ease of processing digital images enabled designers to produce digital advertisements in very short time. The possibility of editing and reshaping digital images in various ways by using digital editing programs has increased the creative ratio in advertising design. Where, it enabled advertising designers to offer advertisements in creative ways and different forms. In other words, it allowed delivering the idea of advertising in creative ways to the target audience. So, it can be claimed that digital image has contributed to the creative process of advertising design significantly.

By using the digital image and digital editing programs in advertising design process, everything has become possible in the advertising industry. Whereas, by using the digital editing programs, designers can create and form many creative ideas with the contents they produce, in order to make the advertising idea be accepted more effectively.

Digital image not only enabled advertisers to deliver the desired advertising message effectively but also, it enabled the advertisers to emphasize their advertising



messages. Also, digital image permitted the advertising designers to present the idea of advertising in many and different ways. Moreover, digital image allowed producing creative advertisements by creating and conceiving unexpected solutions to apparently unsolvable advertising problems, as a consequence, produce new and surprising advertisements. Furthermore, it allowed the advertising message to be memorized and remained for a long time in the minds of the target audience.

Using digital images in advertising design process has enabled designers to express the advertising idea obviously, that in turn led to make the advertising message be understood easily and without complication. In other words, it facilitated the processing, perceiving, and understanding of the message by the target audience. The digital image also enabled the advertiser to produce high-quality advertisements which led to transmit the advertising content to the target audience clearly, consequently, that led to increasing the reach rate of the advertising to the target audience properly, and that in turn led to increasing persuasion rate.

The study also found that digital image has enabled designers to add aesthetic aspects to their design that in turn led to affect the knowledge, attitudes, and behavior of the target audience effectively. As a result, the designers can send a specific message, to obtain the desired response from the target audience. Also, using the digital image in advertising allowed attracting the target audience attention to the advertising, thus influence them significantly.

The use of digital editing programs in advertising design process have enabled designers to manipulate digital images in different aspects in order to send a certain message effectively or to clarify a meaning or emphasize a specific sense in advertisement, such as cropping image, adding filters, adjust image's color mode, applying effects, adding light, applying textures, or merging many images together, etc. All that led to improving and progressing advertising design process that in turn led to producing impressive and effective advertisements.

One of the great contributions of the digital image to advertising design is it has enabled designers to show the client the final form of advertisement before broadcasting or printing it in its final form. In other words, it provides the possibility of displaying how the

final form of advertising will be. That allowed doing modifications on advertisement if required, and that led to reducing the error ratio in advertisements.

In order to deliver the advertising message effectively, advertising professionals and graphic designers should use the digital image as a noticeable and striking element besides other design factors. Also, they should use the image which displays the advertising idea clearly. Because the digital image became an indispensable element in the advertising design process and became the first element which is used to describe the advertising idea. Where, the good use of the digital image in advertising design process can lead to drawing attention to the advertisement significantly. There are also many elements must be given a great importance while processing and preparing digital images such as light, text, typographic items. Texts and images should be designed in a harmonious way. Also, it is important to avoid using unnecessary elements in order to not make the design too crowded, because the effective advertisement can be created with the simplest ways, such as by applying simple effects on the digital image. The matter is how to use the effect correctly.

## **5. DISCUSSION AND RECOMMENDATIONS**

### **5.1. Summary**

This study was conducted to find out the effective use of the digital image in advertising design process. Therefore, it aims at studying the best practices of using the digital image in the advertising production. As well as, the study seeks out to discover the role played by the digital image in the development of advertising. Although most of the literature suggests that technological progression and innovations in media have a significant impact on the advertising, it was still necessary to collect data from advertising industry experts regarding their opinions on the effective use of the digital image in advertising design process.

In order to find more information on the effective use of the digital image in advertising design process, graphic design and advertising professionals were interviewed. Five professionals were graphic designers while two were advertising and communication professionals, all of whom are experienced in the advertising industry. The experts were interviewed according to interview questions that designed to find model answers the research questions.

Each research question was sought to look beyond the use of the digital image in advertising. The interview questions evoked a diversity of responses which fundamentally supported the literature on digital image and advertising.

### **5.2. Discussion**

By analyzing the data collected from Chapter 4, connections made between responses of the graphic design and advertising experts which provided during the interview process and the existing literature, so it is possible to make conclusions related to the research questions.

#### **5.2.1. The role of digital image and its importance in advertising**

All seven experts agreed that digital image plays a substantial role in advertising development, and it has a positive impact on advertising production because it enabled advertisers to present their ideas effectively. Also, they agreed that it allows advertisers to

transmit advertisement content to the target audience in a clearer and understandable way. Subsequently, advertising message became perceived easily and clearly. Also, experts agreed that digital image enabled advertisers to produce impressive advertisements in high-resolution.

While each expert suggested many reasons related to why the digital image is important in advertising design process. All the experts agreed that the ease of processing digital image is the main reason. As well as, the best way to deliver the message of advertising effectively is by using the digital image. Also, they agreed that digital image is important because the environment in which the advertising content is prepared became digitally, therefore, the digital image is an indispensable element in advertising production so that it is important for the advertiser to use it in advertising design process.

The literature also presents that digital image plays a significant role in advertising development and it is important for the advertiser to use the digital image in the advertising production. According to Bugge, the new media technology has changed the advertising industry fundamentally, and the ever-evolving technological changes that occurred in the world have participated in creating enormous change in the field of the advertising industry (Bugge, 2009). This is similar to Ismail's suggestion that digital image plays a great role in advertising development by providing a clearer and understandable way to transfer the meaning of the advertisement to the receiver. "In nowadays' advertisements, it cannot be said that an advertisement can succeed without a digital image. Digital images and advertising are an integral part of each other. In other words, they are an inseparable whole." Ismail said.

Overall, it is possible to conclude that digital image plays a significant role in advertising development, and it has a positive impact on advertising production process. Additionally, it is important for advertisers to use the digital image in advertising design process because it is easy to edit and manipulate digital image also because it enabled advertisers to deliver intended advertising message effectively. Therefore, it is an indispensable element in advertising design process.

### **5.2.2. The impact of digital image on advertising content**

The question regarding if digital image affects the reach of the advertising content effectively had varied views from the experts. The literature suggests that advertising practitioners utilized new media technologies at different stages of the advertising process and the application of new media technologies affects the advertising (Akhagba, 2014).

All of the experts agreed that digital image affects the reach of the content of the advertising in many ways and effectively. However, all respondents determine different opinions on how the digital image affects the reach of the content of the advertising. In Merve's opinion, the effect of the digital image depending on the concept, and the part of the advertising that must be shown up is determined. This is often done by the digital image. Also, she stated that by doing manipulation on the digital image we can reflect the idea we want, as the way we want, and send our intended message effectively. Briefly, she said, "A digital image is a something that removes boundaries". While Bilal believes that the message which is tried to be transmitted by using a large number of words can be given by the correctly selected digital moving images. Deniz says that with the digital image, the advertising that we'll get by giving aesthetic dimensions to our design will help us to deliver our message effectively. Whereas, Metin explained that the digital image can demonstrate itself in a very beautiful way if it is taken perfectly. Ismail stated that no advertising without digital images. And, to introduce or promote a product more effectively and comprehensively, it must be done through a digital image. Hamza declared that the digital image is so effective because it enabled us to do some editing and retouching on the designed advertising, in order to deliver or emphasize the message that should be given to the target audience effectively.

Although all experts believe that digital image affects the reach of the advertising content effectively, they stated various views on how it affects the reach of the advertising content. There are multi-way to how it affects advertising content. However, it can be established that it influence the reach of the advertising content effectively.

### **5.2.3. The reflection of the integration of digital technology**

When experts were asked how did the integration of digital technology reflect in the advertising production, they all agreed that it reflected positively in the advertising production, therefore it allowed producing high-quality advertisements that led to impress the target audience. Merve, Metin, and Hamza have a similar view, where they stated that the combination of digital technologies has a great impact on advertising industry; it has accelerated the advertising design process, decreased the time of production, and it has made advertising production more economical, that led a lot of people to enter the world of the advertising industry and activate it with fewer people and less budget.

Nurgül summarized her views by saying "Undoubtedly, there are positive and beneficial effects for user/customer and designer." Bilal declared his opinions about the integration of digital technology in the advertising production by stating that "Almost, all of the advertising work is being prepared digitally (in a digital environment). It has been integrated with each other for a long time; I think it is not possible to separate them after that. Digital technologies contribute to the development of the advertising industry". From Ismail's perspective, "Advertising design process and technological developments are interconnected. They complement each other, and the combination of both of them in the advertising industry has led to producing high-quality designs."

In regard to that, the literature supports that technological progression and innovations in media have a significant impact on the advertising. According to Akyol, (2004), the new technologies which are used in the advertising industry have made positive contributions to advertising production, (Akyol, 2004).

Overall, it can be concluded that the integration of digital technology reflects in advertising production positively, therefore the advertising production speeded up significantly. Also, it has made advertising production more economical, and high-quality advertisements have produced that in turn led to impress the target audience.

### **5.2.4. The effect of digital image on the decision-making process**

All experts agreed that digital image has an effect on the decision-making of the target audience. While most of them believe that it has a positive effect, some of them

determine that it may be positive or negative depending on the digital image used in the design and the understanding of target audience. However, all respondents present different views on does it positive or negative. According to Merve, Nurgül, Deniz, and Ismail, the digital image has a positive effect on the decision-making of the target audience. From Bilal's perspective, it is variable according to the digital image used. Metin believed that we can't say it is positive or negative because the effect depends on the digital image used in the design and the understanding of target audience. Hamza indicated that it can be positive or negative depending on the target audience.

The literature indicates that digital image plays a significant role in assisting the consumers to acquire the information that is sent through advertisement (Nabil and Lina, 2012).

Overall, it can be concluded that digital image has a positive effect on the decision-making of the target audience. While the possibility of negative effect is very low, also, it may be positive or negative depending on the digital image used in the design and the perception of the target audience.

#### **5.2.5. Digital image and the misinterpreting of target audience**

Most of the experts agreed that the digital image could be misunderstood by the target audience, and they stated multi reasons that could lead to the misunderstanding. While Merve and Nurgül agree that if there are big setbacks or failure in the process of design or it was not well-managed then it could lead to the misunderstanding. Bilal thinks that if the use of digital images is not in accordance with the rules it can lead to misunderstanding by the target audience.

Metin believes that the digital image can be misinterpreted by target audience if it is used in a mysterious way. However, Ismail the thinking structure of the target audience may differ in the area of interest. For this reason, the image used in an advertising design can be misunderstood by the target audience, so it may create a negative impact because it may contradict with the structure of the target audience's thinking. That is similar to the literature suggestion "culturally oriented websites and online advertisements have an influence on individual attitudes and behavioral intentions. It is important to take into consideration cultural, technological and variables of personality specific to the Web

(Gevorgyan, 2009). Deniz thinks that it depends on what message you want to send through the produced design. If the advertising is being distorted, it can be misunderstood and you can see it in the design anyway. Whereas, Hamza has a different opinion, he stated that the proper selection of the accompanying text with the digital image cannot cause any misunderstanding of the digital image.

Generally, it can be deduced that although most of the experts agreed that the digital image could be misunderstood by the target audience, they stated multi reasons that could lead to this misunderstanding. The important reason is if there is a big distortion, setback, or failure in the process of design or it was not well-managed then it could lead to being misunderstood by the target audience.

#### **5.2.6. The best practices and effective uses of digital image**

All the experts gave various answers to this question. Each expert had his own suggestions and recommendations for the best practices and effective uses of the digital image in advertising design process.

Merve believes that the most important elements while preparing digital images are; light, text, typographic items. Texts and images should be placed in a harmonious way. In other words, design everything in harmony. Also, it is important to use an image which is not too crowded and which explains the idea clearly. The most significant thing is to get to know the company and the target audience well. Also, it is very important to analyze customers well, because the best image can be created after recognizing the target audience well. In Nurgül's opinion, the basic condition of the digital image uses in advertising is that the message must be clear and perceptible. If metaphorical approaches are to be used in the design, a minimal visual language should be preferred. Moreover, give a great importance to the aesthetic elements in the design.

Whereas, Bilal recommends following the ever-evolving technology in order to keep up aware of practical and effective uses and to increase the success probability. Also, mastering and practicing techniques such as correct light, right angle, contrast and other color balance values, as well as cropping, can be recommended. According to Deniz's, an effective design can be created with the simplest depths and shades used in certain places in design. By sizing advertising and design as well as animated with info-graphic designs,



the message you will send must draw the attention obviously and clearly. So, in advertising, your focal point must be the message you will send. If you are going to make image processing, virtual reality technique (blue and green screen) it will provide you a convenience and easiness.

Metin stated that the best practice and effective use is to give a great importance to the pre-design phase such as doing a comprehensive research on the topic of the advertising, determining the features of the image that will be used in the design process, because this can lead to making the process of editing and designing easily. Also, it is important to avoid using unnecessary things in design. Because if the design is crowded it will make the eyes of audience tired, then it cannot deliver the intended message to the audience. That's why the language of presenting the advertising is important.

The literature supports Metin's response, according to Landa's study, (2014) on the creative process in advertising design. She suggested that in the careers of advertising and graphic design when a problem is given to a designer or advertising creative professional to solve it. In order to solve it well, they must learn to think as a scientist rather than a detective. Also, Landa's study asserted that preparation for designing is a necessary matter. Therefore, a designer needs to be prepared to create content and design that promotes, serves, informs, entertains, or engages. Designers need to prepare their minds to grant their works with artistry and think imaginatively, rather than imitate what has been done or create prosaic solutions (Landa, 2014).

Hamza indicated his opinions on the best practices and effective uses of a digital image in advertising by stating that, it is important to act in line with the wishes and desires of the customer according to specific measurements. As well as, take into consideration the importance of knowledge, skill, and experience in this field. In Ismail's viewpoint, it is very important to use images that are suitable for the content of the advertisement. In this way, the unity and wholeness will be achieved and ensured in design. He thinks that the effective thing is to meet the needs and express itself in a simple and clear way.

Overall, it can be concluded that there are a lot of effective uses and practices of a digital image that can be exercised by graphic designers and advertising professionals to create a positive utilizing of the digital image in advertising design process. One of these

effective uses and practices is using the image which presents the advertising idea clearly and meets the needs and expresses itself in a simple way. Also, to give a great importance to the pre-design phase by doing a comprehensive research on the topic of the advertising, and determining the features of the image that will be used in design process, and analyzing target audience deeply because preparation for designing is a necessary matter.

Additionally, design elements should be placed in a harmonious way. Using an image that draws attention obviously, and try not to make the design too crowded by avoiding the use of unnecessary elements, as well as, giving a significant consideration to the creative and aesthetic senses.

Also, there are many effective uses and practices of a digital image in advertising such as mastering the proper use of digital image processing techniques such as light, contrast and other color balance values, cropping, and adding effects which serve design purposes. Moreover, apply a minimal visual language if metaphorical approaches are needed in the design. Finally, follow the ever-evolving technology in order to keep up with the new digital technology used in advertising design process.

### **5.3. Recommendations for Research**

Based on research findings and literature appropriate suggestions and recommendations will be presented in the scope of the research as follow:

Firstly, because of time limitation, 7 participants were interviewed in the study. Reaching more participants and doing more detailed interviews may be more useful to achieve the goal of the subject in terms of data diversity.

While literature supports that digital image contributes to the development of the advertising, there is still very little literature and research on this topic. Also, the digital image can be studied from different perspectives such as, from a psychological perspective in term of gaining different interpretations.

A comparative study can be done in order to see how the perception of the digital image which is used in advertising may differ according to the culture of society.

#### **5.4. Recommendations for Graphic Designers and Advertising Professionals**

After completion of the study, a considerable data has been collected and analyzed related to the effective use of the digital image in advertising design process. So, it is important to shed the light on the content and present it for future graphic designers and advertising professionals.

Some recommendations for the best practicing of the digital image include using the image which displays the advertising idea clearly as well as meets the needs and expresses itself simply, also giving a great importance to the pre-design phase by doing a comprehensive research on the topic of the advertising, determining the features of the image that will be used in the design process, and analyzing target audience deeply because preparation for designing is a substantial matter.

Advertising professionals and graphic designers should use the image which draws the attention obviously. Also, try not to make the design too crowded by avoiding the use of unnecessary elements as well as, giving a significant consideration to the creative and aesthetic senses. Graphic designers should also master the proper use of digital image processing techniques such as light, contrast, and other color balance values, cropping, and try to process the digital image according to design purposes.

#### **5.5. Conclusion**

The objective of this study was to study and understand the effective use of the digital image in advertising design process. The focus of the study has been to examine the best practices of using the digital image in advertising production, specifically the outdoor advertisements as well discovering the role played by the digital image in advertising development. In addition to, study the reflection of the digital technology integration in the advertising production.

This was done by conducting in-depth interviews with 7 experts from the fields of graphic design and advertising industry. The experts were interviewed based on interview questions which were designed to find model answers to research questions.

After analyzing and discussing the experts' responses the findings showed that digital technology especially the digital image changed the advertising production

dramatically through its positive reflection in the advertising design process. Also, it enabled producing high-quality advertisements that led to transmit advertisement content to the target audience in a clear and understandable way, and that in turn led to impress the target audience significantly. It's clear that the study has helped to find out the best use and practices of the digital image in advertising design process. As the research has demonstrated, the digital image affects the reach of the advertising content in many ways and effectively. All of these findings underscore the importance of digital image in advertising design process.

With the findings gathered from this research, the study provides two main contributions: first to the field of digital image and advertising research through creating new insights and knowledge about the effective use of the digital image in advertising design process, and second by studying the best practices of using the digital image in the advertising production, the study presents to the graphic designers and advertisers the best practices and uses of the digital image in advertising design process. Therefore, the findings also can be of use by advertising professionals during the design process as well as for drawing attention to the importance of digital image.

## REFERENCES

- Ablan, D. (2007). *Digital photography for 3D imaging and animation*. John Wiley & Sons.
- Akhagba, O. M. (2014). *New Media Technologies and Advertising Practice in Nigeria*. Polish Academy of Sciences 2, Polónia.
- Akören, A. N. (2015). Interaction of outdoor advertising Improved by innovative methods with digital art. *Procedia-Social and Behavioral Sciences*, 195, 799-805.
- Akyol, Mevlüt (2004). *Gelisen televizyon ve sinema teknolojisinin televizyon reklam filmi yapım sürecinde kullanımı*.(Yayınlanmış Yüksek Lisans Tezi), Selçuk Üniversitesi Sosyal Bilimler Enstitüsü, Konya.
- BCR's, C. D. P. (2008). *Digital imaging best practices*, Working Group: BCR's CDP Digital Imaging Best Practices Version 2.0.
- Bugge, M. M. (2009). *Creative distraction: the digital transformation of the advertising industry* (Doctoral dissertation. Universitet stryckeriet).
- Burger, W., & Burge, M. J. (2016). *Digital image processing: an algorithmic introduction using Java*. Springer.
- Burian, P. K. (2005). *Mastering digital photography and imaging*. Retrieved from <https://ebookcentral.proquest.com>. (Access date: 09.02.2017).
- Cofield, M. (2005). *Digital imaging basics*, Information Technology Lab School of Information the University of Texas at Austin. Summer.
- Corbin, J., & Strauss, A. (2008). *Basics of qualitative research techniques and procedures for developing grounded theory*. Thousand Oaks, CA Sage Publications.
- Creswell, J. W. (2011). *Educational research: planning, conducting, and evaluating quantitative and qualitative research*, (Fourth. Edition), Pearson Publication.

- Denzin, N. K., & Lincoln, Y. S. (2000). The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.). *Handbook of qualitative research* (2nd ed., pp. 1–28), Thousand Oaks, CA: Sage Publications.
- Dyer, G. (1982). *Advertising as communication*. London: Methuen, 1982.
- Bedir Erişti S. D. (2016). *Yeni medya ve görsel iletişim tasarımı*. Pegem Akademi Yay.
- Fletcher, W. (2010). *Advertising: A very short introduction*, Oxford University Press.
- Frank, W. E. (2005). *Archiving the digital image: today's best practices of file preparation* (Doctoral dissertation, Bowling Green State University).
- Frascara, J. (2004). *Communication design: principles, methods, and practice*. Allworth Communications, Inc.
- Frith, K. T., & Mueller, B. (2010). *Advertising and societies: Global issues*. Peter Lang.
- Gallager, R. G. (2008). *Principles of digital communication*, Cambridge, UK: Cambridge University Press.
- Gaudio, A. (2013). *Target Advertising Effects on Campaign Success*. Senior Honors Theses. 352. Retrieved from <http://digitalcommons.liberty.edu/honors/352> (Access date: 10.11.2016).
- Gevorgyan, G. (2009). *Culture and Persuasion Online: Predicting Attitudes, Cognitions, and Behavioral Intentions in a Culturally Diverse Online Marketplace* (LSU Doctoral dissertation 2321, Kansas State University).
- Gonzalez, R. C., & Woods, R. E. (2002). *Digital image processing*. Upper Saddle River. N.J. Prentice-Hall, c2002.
- Heron, M. (2010). *Digital Stock Photography: How to Shoot and Sell*. Skyhorse Publishing, Inc.

- Kim, D., & Joo, J. (2015). Study on the Commercial Photography of the Post Photography Era. *International Journal of u-and e-Service, Science and Technology*, 8(8), 363-370.
- Kiremitçioğlu, M. (2012). *Teknolojik içerikli televizyon reklamlarının tüketici davranışı üzerine etkisi: Akdeniz Üniversitesi örneği* (Doctoral dissertation, Selçuk Üniversitesi Sosyal Bilimler Enstitüsü).
- Kvale, S. (2007). *Doing interviews*. London: SAGE, 2007. (Vol. 2).
- Landa, R. (2014). *The creative process in advertising design*. Kean University, New Jersey, U.S.A.
- Landa, R. (2016). *Advertising by design: generating and designing creative ideas across media*. John Wiley & Sons.
- Legard, R., Keegan, J., & Ward, K. (2003). In-depth interviews. In J. Ritchie & J. Lewis (Eds.), *Qualitative research practice: A guide for social science students and researchers* (pp. 138–169).
- Lichtenthal, J. D., Yadav, V., & Donthu, N. (2006). Outdoor advertising for business markets. *Industrial Marketing Management*, 35(2), 236-247.
- Lightcap, B. C., & Peek, W. A. (2012). *The effects of digital media on advertising markets*, (Unpublished doctoral dissertation), Duke University, Durham, North Carolina.
- Lu, K. Y. (2005). *Interaction design principles for interactive television* (Doctoral dissertation, Georgia Institute of Technology).
- Manovich, L. (2001). *The language of new media*. Cambridge, Mass, MIT Press, 2001.
- Mitra, A. (2010). *Digital video: Moving images and computers*, Infobase Publishing.

- Nabil A. F, Lina E. F. (2012). *The recruitment of the digital image in designs nutritional label. Al academy journal*. Baghdad University, Iraq. Pages: 139-152
- Nelson, R., & Sykes, A, (2013). *Outdoor advertising*. Routledge.
- Oliveira, A. A. D. (2016). *Post-photography, or are we past photography*. Post-screen: intermittence+ interference, 68-75.
- Polkinghorne, D. E. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counseling Psychology*, 52(2), 137–145.
- Sachs, J. (1996). *Digital image basics, Digital Light & Color, 1999*. Retrieved from <http://www.dl-c.com/Temp/downloads/Whitepapers/Basics.pdf>. (Access date: 20.02.2017).
- Schultze, U, & Avital, M. (2011). Designing interviews to generate rich data for information systems research, *Information and Organization*, 21(1), 1-16.
- Sitts, M. K. (2000). *Handbook for digital projects: a management tool for preservation and access*. Northeast Document Conservation Center Andover, Massachusetts, 2000.
- Sonesson, G. (1999). *Post-photography and beyond. From mechanical reproduction to digital production*, VISIO, 4(1), 11-36.
- Spring, D. (2011). *Advertising in the age of persuasion: Building brand America, 1941-1961*, Springer.
- Talafuse, A. (2014). *Traditional and digital media advertising preference: A descriptive evaluation of billings*, Montana Mothers, North central University.
- Thorson, E., & Duffy, M. (2011). *Advertising age: The principles of advertising and marketing communication at work*, Nelson Education.



- Trussell, H. J., & Vrhel, M. J. (2008). *Fundamentals of digital imaging*, Cambridge University Press.
- Wells, W., Spence-Stone, R., Crawford, R., Moriarty, S., & Mitchell, N. (2011). *Advertising: Principles and practices*, Pearson Higher Education AU.
- White, R., & Downs, T. E. (2007). *How digital photography works (how it works)*. Que Corp.
- Yakob, F. (2015). *Paid attention: Innovative advertising for a digital world*, Kogan Page Publishers.
- Young, I. T., Gerbrands, J. J., & Van Vliet, L. J. (1998). *Fundamentals of image processing*, Delft: Delft University of Technology.

## APPENDIXES

### Interview Questions

1. In your experience as an advertising professional/advertiser/graphic designer/art director/visual communication designer.....What are your views on the role that a digital image plays when producing advertising? Do you think the digital image has an impact on the success of the advertising? If so, could you explain it?
2. Did the start of using the digital image in the design process affect the development of the advertising industry? How?
3. Why do advertising professionals (advertiser/graphic designer/art director/visual communication designer/ ... ..) use digital imaging in the advertising design process?
4. What is the impact of new media technologies in the advertising sector? How much is it adopted in Turkey?
5. How has the interweave of advertising design process with digital technologies reflected in the advertising industry? How did it affect the advertising design process?
6. What is the importance of using the digital technology in the design process in advertising production? How can the use of digital technologies affect the success of advertising nowadays?
7. Does the digital image contribute to the creative process of advertising design? If so how?
8. Does the digital image affect the reach of the content of the advertising message effectively? Please explain?
9. Could the digital image affect the decision-making process of the target audience? If so, negative or positive?
10. Can the digital image be misinterpreted by the target audience? If so, when?
11. What programs and techniques do you use to create and edit the digital image?
12. What is the technological equipment used in the advertising design process?
13. From a graphic designer's (advertiser/art director/visual communication designer) point of view, what are the effective techniques and practices of editing digital images in advertising design process?

14. Based on your most successful advertisement, what is the most valuable advice could you offer in the processing and use of the digital image?
15. How do you see the future of advertising based on the ever-evolving technology of the digital image processing programs?

## Appendix A

### Interview Transcripts: Merve

The following interview was conducted to obtain expert opinions from the perspective of advertising professional/advertiser/graphic designer/art director/visual communication designer according to a questionnaire about digital image and advertising.

Interviewer: Osman Hamed

Respondent: Communication Expert (Merve)

Date of Interview: 25/05/2017

#### Interview Transcription:

Osman Hamed: In your experience as an advertising professional/advertiser/graphic designer/art director/visual communication designer.....What are your views on the role that a digital image plays when producing advertising? And do you think the digital image has an impact on the success of the advertising? If so, could you explain it?

Merve: "I can evaluate the role that a digital image plays when producing advertising as follows; with digitization, everything has become possible in the advertising industry. In other words, there's nothing we cannot do. When we question how a creative idea is passed on to life, digital is the first method that comes to mind, as an option. That means we are no longer using the old methods (analog methods). Through the programs we use, we can create and shape many creative ideas with the contents we produce, in order to make our ideas to be accepted more effectively. It is important to use visual element (digital image) as a remarkable and striking element besides other factors. So, the first element which is used to describe an idea becomes the digital image doubtlessly."

OH: Did the start of using the digital image in the design process affect the development of the advertising industry? How?

M: "Of course, the using of the digital image in the design process has influenced the development of the advertising industry significantly; it allowed the advertisement to be

used by much more people. In the past, advertising was something that had limited uses, but, with the use of the digital image in advertising design process, the use of advertising has grown. In other word, with digitalization, the usage area of advertising has expanded. Nowadays, the digitalization has increased the possibility of producing advertising with less human power instead of using a lot of human power and equipment as in the past. Thus, the advertising sector has spread to more areas. It is also started to be used by small businesses. Consequently, small boutique advertising agencies like ours started to appear. Also, in social media, people started to make their advertisements with small budgets. And the most important element in social media is digital images as well.”

OH: Why do advertising professionals (advertiser/graphic designer/art director/visual communication designer/ ... ..) use digital imaging in the advertising design process?

M: “When we say design, firstly we need a concept to reveal an idea. In line with this, the elements to be used are determined; text, image, sound, etc ... These are all complementary elements. We do not have a chance not to use the digital image right now. We cannot choose another image (analog). Other methods of creating image have become in the past. So that it seems we no longer have an alternative other than the digital image.”

OH: What is the impact of new media technologies in the advertising sector? How much is it adopted in Turkey?

M: “In our agency, social media management is one of the matters we are interested in. Beside other jobs, we do social media management and produce social media content. Moreover, we produce advertising designs by doing studies for the targeted audience in social media. Our target audience is not the target audience of normal life. In others words, it is not like the audience of outside. The target audience in the social media become in the virtual environment, so, based on them, we offer designs, campaigns, and contents on social media. These contents are only published in spaces such as Instagram, Facebook, Twitter, and YouTube. It is never published on traditional media. People are now paying to agencies only for social media ads. In this regard, social media has created a new trade area.”

OH: How has the interweave of digital technologies with advertising design process reflected in the advertising industry? How did it affect the advertising design process?

M: “The combination of digital technologies has a great impact on advertising industry; it has accelerated the advertising design process, decreased the time of production, and it has enabled a lot of people to enter the world of the advertising industry and activate it with fewer people and less budget. In this way, it has allowed the companies with low budgets to recourse to professional agencies to meet their advertising needs. A lot of people who are offering freelance advertising services from home also started to emerge in the advertising industry. In other words, even we can say that, a person can do these services alone.”

OH: What is the importance of using the digital technology in the design process in advertising production? How can the use of digital technologies affect the success of advertising nowadays?

M: “These days, the whole advertising industry is doing this job by using digital images. Namely, all advertisements are done by using the digital image. Subsequently, there is no border remained with digital technologies anymore. In the past, it was more difficult to convert ideas into advertisements, but now in the virtual environments, it is possible to prepare it more effectively on the computer without needs to anybody ever. We see that technology has improved much faster with the Internet. Digitalization is a very young concept, but it is also a very fast growing concept, and we have this concept in the life of all of us. Also, in social media management, we often use visuals and digital images. Now the digital image is an indispensable element in advertising design process. In other words, without the digital image, we would not be. We can do a lot of things with digital images in a few moments. We can take images then processing them in digital editing software and get a digital product in very little time. In the past we couldn't react to the TV advertisements as now we do so. We could react to the advertising by calling and telling our recommendation, comments, and complaints. But now with the emergence of new technology and social media, we can react to any advertising instantly. That enabled companies to get the reaction of people immediately and receive a lot of comments and recommendations from people that give the companies the feedback of the advertisement.”

OH: Does the digital image contribute to the creative process of advertising design? If so how?

M: “Yes, the digital image contributes to the creative process of advertising design; it made the process of advertising design more easy and different from the past, where, by using the digital image the creative process in advertising design has increased. It enabled the designers of the advertising to offer advertisements in different forms. Because the digital image can be edited and reshaped in various ways by using digital editing programs.”

OH: Does the digital image affect the reach of the content of the advertising message effectively? Please explain?

M: “Yes, of course, it affects the reach of the advertising content message; it should be in the form that the concept requires. According to the concept, the part of the advertising that must be stood out is determined. This is often provided by visuals element (digital image). Sometimes we use texts or sounds. In fact, when we share a text it becomes an image too. We can reflect the idea we want, as the way we want, by doing manipulation on the digital image to send our intended message. Briefly, we can say that the digital image is a something that removes boundaries.”

OH: Could the digital image affect the decision-making process of the target audience? If so, negative or positive?

M: “Generally, I think the digital image can affect the decision-making process of the target audience positively because if the professionals who do the design, then they do it based on analyzing the target audience. In other words, before beginning the process of advertising design we should ask ourselves some questions such as: What does the target audience react to and how? How should we make a design for them so that they can look at the image (design) and get impressed and influenced by us, so they get close to us? Consequently, they come to our page or make a purchase. Because when we work, we focus on this, the possibility of negative effect is very low. Works which are done without recognizing the target audience may fail. At this point, the target audience needs to be analyzed very well. Until now, we have always received positive responses from social

media. Also, social media is a very suitable platform for measuring the reaction of the target audience. In addition, social media can be very negative in terms of sabotaging some campaigns because it is an open environment for intervention.”

OH: Can the digital image be misinterpreted by the target audience? If so, when?

M: “It can be misunderstood by the target audience, so the important thing is to manage the process well.”

OH: What programs and techniques do you use to create and edit the digital image?

M: “To create a digital image, first, we process the prepared image in Photoshop or Illustrator. We use programs such as Adobe After effect, In Design, Adobe Premiere, Movie Maker.”

OH: What is the technological equipment used in the advertising design process?

M: “As technological equipments, we have photograph machines, products shooting tent, computers.”

OH: From a graphic designer's (advertiser/art director/visual communication designer) point of view, what are the effective techniques and practices of editing digital images in advertising design process?

M: “The most important elements while preparing digital images are; light, text, typographic items. Texts and images should be placed in a harmonious way. Also, it is important to use an image which is not too crowded and which explains the idea clearly.”

OH: Based on your most successful advertisement, what is the most valuable advice could you offer in the processing and use of the digital image?

M: “We are doing corporate identity designs. The most beautiful thing here is to be able to intervene in all the process. We can design everything, from the colors of the company to the slogan and emblem. So we are designing everything in harmony. The most important thing is to get to know the company and the target audience well. Also, it is very important



to analyze the customer well. If an image is liked by the majority that means it is good. And we can create the best image by recognizing the target audience.”

OH: How do you see the future of advertising based on the ever-evolving technology of the digital image processing programs?

M: “With the developing technologies, the printing presses and printed mediums are gradually started to getting disappear. This directs people to a digital completely. Henceforward, companies that offer advertising services must remain committed to digitalization and professional advertiser. The companies which inexperienced with digitalization their works are becoming increasingly restricted. And professional agencies have begun to come to the forefront. With digitalization, even the smallest company has begun to become institutional. Facilities provided by digitalization have also contributed to the institutionalization processes of small firms. This is increasing the need for advertising. The future of advertising and digitalization also looks very bright.”

## **Appendix B**

### Interview Transcripts: Bilal

The following interview was conducted to obtain expert opinions from the perspective of advertising professional/advertiser/graphic designer/art director/visual communication designer according to a questionnaire about digital image and advertising.

Interviewer: Osman Hamed

Respondent: Bilal: Advertising Expert

Date of Interview: 30/11/2017

Interview Transcription:

Osman Hamed: In your experience as an advertising professional/advertiser/graphic designer/art director/visual communication designer.....What are your views on the role that a digital image plays when producing advertising? And do you think the digital image has an impact on the success of the advertising? If so, could you explain it?

Bilal: "I think that the digital image is extremely important in terms of effectiveness in advertising. If the professional approach and the right techniques are applied in the design process, the catch rate of the targeted perception of the advertising will increase."

OH: Did the start of using the digital image in the design process affect the development of the advertising industry? How?

B: "The use of digital images in the design process has affected the development of the advertising industry positively."

OH: Why do advertising professionals (advertiser/graphic designer/art director/visual communication designer/ ... ..) use digital imaging in the advertising design process?

B: "Nowadays, the broadcasting mediums of launching and presenting works are usually digital platforms. In the design phase of such advertisements, I think that digital images are included in the design process because the environment in which the content is prepared is digital, as well as the ease of intervention (processing) the digital image."

OH: What is the impact of new media technologies in the advertising sector? How much is it adopted in Turkey?

B: "New media technologies with the internet and social media are increasingly being adopted as they helped to reach wider masses in a shorter time."

OH: How has the interweave of digital technologies with advertising design process reflected in the advertising industry? How did it affect the advertising design process?

B: "Almost, all of the advertising work is being prepared digitally (in the digital environment). It has been integrated (interwoven) with each other for a long time; I think it is not possible to separate them after that. Digital technologies contribute to the development of the advertising industry."

OH: What is the importance of using the digital technology in the design process in advertising production? How can the use of digital technologies affect the success of advertising nowadays?

B: "From old times there was brush advertising. Whereas the advertising practice was very troublesome and it took a long time. It can be said that the advertising demands have been solved more quickly and economically with the emerging of developing digital technologies. But, it is also true that the artisans who cannot keep pace with technology developments and they are unable to transfer their gains to their profession that have caused them to break off from the competition."

OH: Does the digital image contribute to the creative process of advertising design? If so how?

B: "Yes contribute to the creative process of advertising design. Rational selection of digital image with its involving in the advertising design process provides a positive contribution to creativity dimension significantly."

OH: Does the digital image affect the reach of the content of the advertising message effectively? Please explain?

B: "Especially the message which is tried to be transmitted by using a large number of words can be given through the correctly selected digital moving (animated) images."

OH: Could the digital image affect the decision-making process of the target audience? If so, negative or positive?

B: "Yes, in many advertisements the digital image affected the decision-making process of the target audience. But its positive or negative effect is variant according to the digital image which is used."

OH: Can the digital image be misinterpreted by the target audience? If so, when?

B: "Yes, if the use of digital images doesn't in accordance with the rules it can lead to misunderstanding by the target audience."

OH: What programs and techniques do you use to create and edit the digital image?

B: "The use of many vector and animation software may be preferred to create and edit the digital image. Nowadays, open source numerical processing solutions are also available."

OH: What is the technological equipment used in the advertising design process?

B: “As mentioned in the process, besides many vector and animation software, auxiliary technological equipment like a touchpad, 3d scanner, 3d printer are used.”

OH: From a graphic designer's (advertiser/art director/visual communication designer) point of view, what are the effective techniques and practices of editing digital images in advertising design process?

B: “Application and practice of techniques such as correct light, right angle, contrast and other color balance values, as well as cropping, can be sorted (ordered).”

OH: Based on your most successful advertisement, what is the most valuable advice could you offer in the processing and use of the digital image?

B: “By way of the developing technology and our awareness of it, In recent times, our success has increased due to our application of more practical and effective processes in our last advertising works. I would recommend following the ever-evolving technology.”

OH: How do you see the future of advertising based on the ever-evolving technology of the digital image processing programs?

B: “Not to be insensitive to the continuously developing technology and as long as you integrate it into your work model as soon as possible. As long as you take this continuity as a principle, you can look forward to the future with hope. I believe that those who succeed in adapting the right aspects of traditional methods to the future can survive and keep up with the advertising industry.”

## **Appendix C**

Interview Transcripts: Deniz

The following interview was conducted to obtain expert opinions from the perspective of advertising professional/advertiser/graphic designer/art director/visual communication designer according to a questionnaire about digital image and advertising.

Interviewer: Osman Hamed

Respondent: Graphic Designer (Deniz)

Date of Interview: 08/11/2017

Interview Transcription:

Osman Hamed: In your experience as an advertising professional/advertiser/graphic designer/art director/visual communication designer.....What are your views on the role that a digital image plays when producing an advertising?. And do you think the digital image has an impact on the success of the advertising? If so, could you explain it?

Deniz: “In my opinion, the most significant privilege of the digital imaging; a more impressive advertisement is produced by the high-resolution feature of the digital image. For this reason, I think that digital imaging plays a very important role in advertising design and that the advertising has become more successful.”

OH: Did the start of using the digital image in the design process affect the development of the advertising industry? How?

D: “The ease with which the digital image can be processed by using the design programs enabled the advertisement to be produced with a great ease and dimension. For this reason, the use of digital imaging in the design process affects the advertising industry positively.”

OH: Why do advertising professionals (advertiser/graphic designer/art director/visual communication designer/ ... ..) use digital imaging in the advertising design process?

D: “I think the most important reason is; the advertising data can be easily changed and the design can be done quickly, thus, digital images offering a possibility of creating a clearer and multidimensional image to the customers. So that, the design becomes realistic and the desired message is delivered effectively.”

OH: What is the impact of new media technologies in the advertising sector? How much is it adopted in Turkey?

D: “New media technologies keep the advertising industry effective with the ability to easily transferring and receiving information through different channels interactively.”

OH: How has the interweave of digital technologies with advertising design process reflected in the advertising industry? How did it affect the advertising design process?

D: “The interweaving of digital technologies with advertising design process reflects positively, with extraordinary virtual reality on the advertising design process. Quality advertisements are produced by impressing the target audience.”

OH: What is the importance of using the digital technology in the design process in advertising production? How can the use of digital technologies affect the success of advertising nowadays?

D: “Advertisements that are produced by digital technologies have offered a great advantage for designers and target audience with the ability to make changes on it. This affects the success of the advertising positively by sustaining the interaction of advertising.”

OH: Does the digital image contribute to the creative process of advertising design? If so how?

D: “Yes, it contributes to the creative process of advertising design. For example; we can edit the digital image as we want it. In this way, the creativity of our advertising depends on our imagination power.”

OH: Does the digital image affect the reach of the content of the advertising message effectively? Please explain?

D: “Yes, with digital image, the advertising that we'll get by giving aesthetic dimensions to our design will help us to deliver our message effectively.”

OH: Could the digital image affect the decision-making process of the target audience? If so, negative or positive?

D: "I think digital imaging is affecting the decision-making process of the target audience. The reason is, the given message in the advertisement with effective use of digital imaging in the advertising design process can influence the decisions of the target audience positively."

OH: Can the digital image be misinterpreted by the target audience? if so, when?

D: "I think it depends on what message you want to send by the design that you have produced. If the advertising is being distorted, it can be misunderstood and you can see it in the design anyway."

OH: What programs and techniques do you use to create and edit the digital image?

D: "The programs and techniques I use to create and edit digital images include: Corel Draw, Adobe Fireworks, Adobe Illustrator, and Adobe Photoshop. Technically I also use drawing features of programs."

OH: What is the technological equipment used in the advertising design process?

D: "During the advertising design process; computers, telephones and printing machines are the most used technological equipments."

OH: From a graphic designer's (advertiser/art director/visual communication designer) point of view, what are the effective techniques and practices of editing digital images in advertising design process?

D: "An effective design can be created with the simplest depths and shades used in certain places in the prepared design."

OH: Based on your most successful advertisement, what is the most valuable advice could you offer in the processing and use of the digital image?

D: “By sizing our advertising and design and animated with info-graphic designs, the message you will send must draw the attention obviously and clearly. So, in your advertising, your focal point must be the message you will send. If you are going to make image processing, virtual reality technique (blue and green screen) it will provide you convenience and easiness.”

OH: How do you see the future of advertising based on the ever-evolving technology of the digital image processing programs?

NK: “I think the ever-evolving technology of the digital image processing programs which have the great impact will progress and carry the advertising industry forward.”

## **Appendix D**

### Interview Transcripts: Ismail

The following interview was conducted to obtain expert opinions from the perspective of advertising professional/advertiser/graphic designer/art director/visual communication designer according to a questionnaire about digital image and advertising.

Interviewer: Osman Hamed

Respondent: Graphic Designer (Ismail)

Date of Interview: 16/11/2017

Interview Transcription:

Osman Hamed: In your experience as an advertising professional/advertiser/graphic designer/art director/visual communication designer.....What are your views on the role that a digital image plays when producing advertising? And do you think the digital image has an impact on the success of the advertising? If so, could you explain it?

Ismail: “A digital image provides a clearer and understandable way to transfer what an advertisement means to the receiver. In nowadays' advertisements, it cannot be said that an



ad can succeed without a digital image. Digital images and advertising are an integral part of each other. In other words, they are an inseparable whole.”

OH: Did the start of using the digital image in the design process affect the development of the advertising industry? How?

IS: “The use of digital imaging has influenced the advertising design process positively. It has enabled advertisers to send their advertisements more clearly and simply.”

OH: Why do advertising professionals (advertiser/graphic designer/art director/visual communication designer/ ... ..) use digital imaging in the advertising design process?

IS: “The designer uses the digital image in the advertising design to make the promotion of the product or company more efficient.”

OH: What is the impact of new media technologies in the advertising sector? How much is it adopted in Turkey?

IS: “With the developing technology, the boundaries have been lifted in the advertising sector. With the new media items such as website, social media etc- the advertising design or advertising campaign has become very comprehensive and effective. And it is able to reach everywhere in the world.”

OH: How has the interweave of digital technologies with advertising design process reflected in the advertising industry? How did it affect the advertising design process?

IS: “Advertising design process and technological developments are interconnected. They complement each other, because the combination of both of them in the advertising industry has led to producing high-quality designs.”

OH: What is the importance of using the digital technology in the design process in advertising production? How can the use of digital technologies affect the success of advertising nowadays?

IS: “The use of digital technology in the advertising sector has led to more creative works and increased the power of influence.”

OH: Does the digital image contribute to the creative process of advertising design? if so how?

IS: "A digital image provides to the advertising designer to get an idea in the process of advertising design, so in this way, it influences the designer."

OH: Does the digital image affect the reach of the content of the advertising message effectively? Please explain?

IS: "Yes it affects, because, no advertising without digital images. And, to introduce or promote a product more effectively and comprehensively, it must be done through a digital image."

OH: Could the digital image affect the decision-making process of the target audience? If so, negative or positive?

IS: "Yes, digital image affects the decision making of the target audience, because it allows the formation of an idea in the target audience. And it makes the advertising message to be delivered in a more understandable way."

OH: Can the digital image be misinterpreted by the target audience? if so, when?

IS: "The thought structure of the target audience may differ in the area of interest. For this reason, the image used in an advertising design can be misunderstood by the target audience, so it may create a negative impact because it may contradict with the structure of the target audience's thought."

OH: What programs and techniques do you use to create and edit the digital image?

IS: "I usually use the advertising design programs such as (Corel Draw, Photoshop, Illustrator, In Design) in the design process."

OH: What is the technological equipment used in the advertising design process?

IS: "Camera, Video Camera, and computer are used as technological equipment"

OH: From a graphic designer's (advertiser/art director/visual communication designer) point of view, what are the effective techniques and practices of editing digital images in advertising design process?

IS: "The effective thing is to meet the needs and express itself in a simple and clear way."

OH: Based on your most successful advertisement, what is the most valuable advice could you offer in the processing and use of the digital image?

IS: "I think that it is very important to use images that are suitable for the content of the advertisement. In this way, the unity and wholeness will be achieved and ensured in the design."

OH: How do you see the future of advertising based on the ever-evolving technology of the digital image processing programs?

IS: "Depending on technological developments, I think the advertising industry will become more unlimited, and unbounded. Also, a person on the other side of the world will be able to access advertisement more easily. I believe that with the development of technology, highly creative advertising designs will emerge."

## **Appendix E**

### Interview Transcripts: Metin

The following interview was conducted to obtain expert opinions from the perspective of advertising professional/advertiser/graphic designer/art director/visual communication designer according to a questionnaire about digital image and advertising.

Interviewer: Osman Hamed

Respondent: Graphic Designer (Metin)

Date of Interview: 07/06/2017

Interview Transcription:

Osman Hamed: In your experience as an advertising professional/advertiser/graphic designer/art director/visual communication designer.....What are your views on the role that a digital image plays when producing advertising? And do you think the digital image has an impact on the success of the advertising? If so, could you explain it?

Metin: “Yes, I think that digital image has an impact on the success of the advertising, and when we want to reflect the advertising idea to the target audience, we try to avoid using many things in the design, such unnecessary exaggeration. We use the simplest way to send our message to the target audience. Obviously, these are the most basic things we prefer. When we design an advertising we try to make the person who sees or watches the advertisement capture and perceive the main point of the advertisement without confusion. In other words, we try to make the message of the advertisement be perceived clearly when the advertisement is seen. For example, using a white background in a normal design, with a tiny point on that background, but when placing that point in its right place, even that white element can be a meaningful element for that design. How it affects target audience, he said it depends on the person who sees the advertisement, for example, some people may like an advertisement and other people don't affected by the same advertisement.”

OH: Did the start of using the digital image in the design process affect the development of the advertising industry? How?

M: “No Doubt, the using of the digital image in the advertising design process has a great impact on the development of the advertising industry; it enabled advertising agencies to produce advertisement by using easy and simple ways.”

OH: Why do advertising professionals (advertiser/graphic designer/art director/visual communication designer/ ... ..) use digital imaging in the advertising design process?

M: “How do we process the digital image in the advertising design process? Usually, before we begin the process of design we determine all the elements of the design that we will use, since we use the digital image as design element, we direct the photographer and give him/her the features of the image we need for the design, such as, depth of the image, type of the shot, and size of the shot. As well as, if we want to create a suitable free space

on the image, we should tell the photographer to create it. Also, we should determine if the image would be used with typography or not. All these are important to be specified, because sometimes if we don't define the features of the image we can get a finite image. For example, suppose there is a product shooting and if the image of that product is taken with a wide angle, it will be easy for the designer to process and use it in the artwork or design, because it will be easy for the designer to crop it according to the design. But, if it is limited or if the photographer captured it in narrow-angle or frame some kind of troubles can happen during the design process. As I said, digital image is very important in advertising design.”

OH: What is the impact of new media technologies in the advertising sector? How much is it adopted in Turkey?

M: “There are three basic programs that we use in the design process; Photoshop Illustrator and In Design. Photoshop is a more pixel-based program, which we use it as a photo-processing program. Illustrator is more a vector-based program and we mostly design logos and drawing-oriented designs in Illustrator. While, In Design is used in multi-page works such as in magazines, books, newspapers design. When we say new technology, for example, the programs we are using now update it every year and every time it is updated, it offers a new plug-in. Of course, these updates and plug-ins give us speed in terms of design. So, we need to master these updates and how to use them effectively. And, when we do not have plug-ins in programs we used last year, in the latest version we can find them, this can speed up the design process and provides an additional benefit to the tools we use in design. This is what benefits us the most, and it is up to us to adopt it. It certainly makes the design process easier. If you work in advertising industry you must not be outdated. In other words, you need to be continuously updated and to be renewed in this field, because these technologies are updated and innovated constantly. And, if you do not keep up with these innovations, you will begin to get marginalized and rusted. Because programs are renewed every year and we have to keep pace with them absolutely, and this develops the design and also develops the user of these programs.”

OH: How has the interweave of digital technologies with advertising design process reflected in the advertising industry? How did it affect the advertising design process?

M: “The combination of digital technologies with advertising design process reflected in the advertising industry significantly; it has speeded up the design process of advertising obviously. When we say advertising design process, we mean that process which starts with finding the idea of advertising, then developing that idea, and then utilizing digital technology to convert this idea into advertisements. Taking into consideration that digital technology is not an aim but it is a tool. Definitely, it is a tool that you use until the last stage of your design. And to reflect your idea you just use those programs as tools, because you are doing a creative job in this sense. And in this job, you have to develop this idea. The more these programs are developed, the more you have to improve yourself to master them as the way that enables you to take the control of the design process. In other words, if you are a designer, the more you have renewed yourself, the more you can use these programs so much better. Certainly, these programs are not our goal, it just tools we use to achieve our big purpose; creating a great design that will impress the target audience by using these programs and technology, because these programs are indispensable now in the advertising design process.”

OH: What is the importance of using the digital technology in the design process in advertising production? How can the use of digital technologies affect the success of advertising nowadays?

M: “These days, digital technology is very important in the advertising industry, because it has a positive impact on the advertising production; it enabled advertising companies to produce advertisements in a short time and with less equipment. It offered multi-option to advertising designers to produce an advertisement. For example, a designer can use a variety of programs to produce an advertisement, when a program cannot do a specific function the designer can use another program to do so. That means, at the point where a program is inadequate, the designer can resort to another program. For instance, the function which cannot be done in Adobe Illustrator you can do it in another program such as Adobe Photoshop or In Design. When there is a program that can be used to solve the

problem of creating multi-pages work, you must use that program to do it directly. For example, In Design provides more possibilities in designing multi-page work. So, you have to resort to it.”

OH: Does the digital image contribute to the creative process of advertising design? If so how?

M: “Yes, it contributes to the creative process, but not 100% because the creative process depends mainly on the person who creates the design. Because as I said before the digital image is just a tool, and how to use this tool depends on the designer. For example, if I want to create a logo design for a specific brand, first of all, I must research about that name of the brand, Then, I have to create visualization for the logo on my head. After that, I transfer the visualization into digital design programs (for instance Illustrator) then, in this stage, the program becomes a part of design activity. This program provides me a lot of conveniences and facilities such as its strong and various tools, those tools offer me a lot of enormous possibilities in logo design, as creating creative shapes, edge softening and adding different styles of effects. The ideal use of digital editing programs plays a significant role in the creative process of advertising design. In other words, the creative process in advertising design depends on the designer who uses these programs inventively.”

OH: Does the digital image affect the reach of the content of the advertising message effectively? Please explain?

M: “Of course, the digital image definitely influences the delivering of the content of the advertising message effectively. For example, think of using a slogan and image and put both of them together in a beautiful way, in addition to text which is written in a readable way with the other objects of design, all of them affect the reach of the message that is sent through advertising. So, when you arrange those objects in design space you have to make a balance between them because all objects of design are a whole. Whereas a digital image can demonstrate itself in a very beautiful way if it is taken perfectly. Sometimes the content of the advertising message can be delivered through one object of the design. So you have to decide which element you would like to deliver your message through, does it by digital

image, text or other object. It's a bit different depending on the design. However, that does not mean neglect the other objects while designing the advertising.”

OH: Could the digital image affect the decision-making process of the target audience? If so, negative or positive?

M: “Yes, it affects the decision-making process of the target audience. But, we can't say it is positive or negative, because the effect depends on the digital image used in the design and the understanding of target audience.”

OH: Can the digital image be misinterpreted by the target audience? If so, when?

M: “Yes, the digital image can be misinterpreted by target audience if it is used in a mysterious way.”

OH: What programs and techniques do you use to create and edit the digital image?

M: “We are currently using three basic programs; Photoshop, Illustrator and In Design. As I said before we use Photoshop in pixels works; and because illustrator is a vectorial program we use it in drawing works and logos design. On the other hand, we use In Design also in multi-page works such as books, magazines, and brochure etc.”

OH: What is the technological equipment used in the advertising design process?

M: “Of course beside the digital image we use a digital camera, light, (which is used in shooting stage), computer, tablet (for drawings), and digital editing programs.

OH: From a graphic designer's (advertiser/art director/visual communication designer) point of view, what are the effective techniques and practices of editing digital images in advertising design process?

M: “When we talk about effective techniques and practices, we have to mention the importance of giving instructions to the photographer for the features of the photo that will be used in the design process such as from which angle must be taken? For what purpose it will be used? Because determining the features of the photo leads the photo to be taken as it



required in the design that in turn, leads to making the process of editing and designing more easily.”

OH: Based on your most successful advertisement, what is the most valuable advice could you offer in the processing and use of the digital image?

M: “I recommend using a simple and clear expression in the design process. Also, before beginning design process and before creating the idea of the advertising we have to research the topic of the advertising, after finding the idea we have to choose the suitable image that can be used for conveying the idea (of course if you will use image) in this regard, the choice of the most appropriate image from the perspective of text that I use beside the image. Finally, combine all of them in the most appropriate and simplest way. When we are designing we need to escape from many unnecessary things. Because if the design is crowded I will make the eyes of audience tired, then I cannot deliver the desired message to the audience. That's why the language of expression the advertising is important.”

OH: How do you see the future of advertising based on the ever-evolving technology of the digital image processing programs?

M: “The developing tools in the digital technology accelerate the process of design, and it can give me things that do not come to mind (unbelievable). We always see the future in something is constantly updated, definitely, there is a great impact of developing technology in advertising and it cannot be denied. It makes our job easier than in the past, and it offers better things. The more you stay out of date the longer you will be left behind, so you have to renew yourself and keep up with the developing technology in order to get the best result of advertising. When there is something missed in the previous version of a program, it will be in the next version of the program so it develops you to reflect your ideas faster.”

## Appendix F

### Interview Transcripts: Hamza

The following interview was conducted to obtain expert opinions from the perspective of advertising professional/advertiser/graphic designer/art director/visual communication designer according to a questionnaire about digital image and advertising.

Interviewer: Osman Hamed

Respondent: Graphic Designer (Hamza)

Date of Interview: 28/11/2017

#### Interview Transcription:

Osman Hamed: In your experience as an advertising professional/advertiser/graphic designer/art director/visual communication designer.....What are your views on the role that a digital image plays when producing an advertising?. And do you think the digital image has an impact on the success of the advertising? If so, could you explain it?

Hamza: "I think the digital image is indispensable when preparing advertising. Because it gives us the possibility to show our customers how the advertising will be and how is it in the digital environment. Also, it offers the possibility of making necessary corrections and editing to the advertising before presenting or revealing a tangible product or outcome, for these reasons, I think the digital image is a very nice thing."

OH: Did the start of using the digital image in the design process affect the development of the advertising industry? How?

H: "The drawing programs in the digital environment are a big progress for the advertising industry, at the same time, I think it has a lot of benefits for the advertising industry in terms of time and labor force."

OH: Why do advertising professionals (advertiser/graphic designer/art director/visual communication designer/ ... ..) use digital imaging in the advertising design process?

H: “The professionals prefer digital image and digital editing and drawing programs because it provides the possibility of how to utilize the materials that are used during the configuration or construction phase of the work that required to be done, and, how to go through the process of design, and, how to measure it, as well as the ability to accomplish the work without error, before revealing it or putting it out. Above all, it enables us to detect the problems that may arise while producing the advertising and to be able to intervene accordingly.”

OH: What is the impact of new media technologies in the advertising sector? How much is it adopted in Turkey?

H: “If we look at it from the outdoor advertising industry. In recent years, to keep pace with new media technology in Turkey, new media technology has been adopted by wide area. And digital programs such as Photoshop and Corel draw are used more often. Also, I think that these programs are sufficient for the outdoor advertising sector.”

OH: How has the interweave of digital technologies with advertising design process reflected in the advertising industry? How did it affect the advertising design process?

H: “I think that the integration of digital technology with advertising industry has enabled the advertising industry to become faster, more organized and economic.”

OH: What is the importance of using the digital technology in the design process in advertising production? How can the use of digital technologies affect the success of advertising nowadays?

H: “It has added to advertising sector speed and allowed to produce advertisements faster and to ensure customer satisfaction quickly.”

OH: Does the digital image contribute to the creative process of advertising design? If so how?

H: “Every designer has his/her own special imagination and he/she has the ability to adjust his/her imagination power, and by combining this power in digital technology, different and

controversial designs emerge. By combining this power of imagination with digital technology, very different and creative designs are emerging.”

OH: Does the digital image affect the reach of the content of the advertising message effectively? Please explain?

H: “The digital image is so effective because we can do some editing and retouching on the designed advertising, in order to deliver or to emphasize the message that should be given to the target audience effectively.”

OH: Could the digital image affect the decision-making process of the target audience? If so, negative or positive?

H: “I think that everything is depending on people, that is, it can be positive or negative.”

OH: Can the digital image be misinterpreted by the target audience? If so, when?

H: “The proper selection of the accompanying text with the digital image cannot cause any misunderstanding of the digital image.”

OH: What programs and techniques do you use to create and edit the digital image?

H: “Usually, we use CorelDraw, Photoshop and illustrator etc. programs to create digital images.”

OH: What is the technological equipment used in the advertising design process?

H: “Camera and computer are used as technological equipment.”

OH: From a graphic designer's (advertiser/art director/visual communication designer) point of view, what are the effective techniques and practices of editing digital images in advertising design process?

H: “Acting in line with the wishes and desires of the customer according to specific measurements.”

OH: Based on your most successful advertisement, what is the most valuable advice could you offer in the processing and use of the digital image?

H: “Knowledge, skill, and experience.”

OH: How do you see the future of advertising based on the ever-evolving technology of the digital image processing programs?

H: “The future of advertising industry will be accelerated by decreasing use of labor force and increasing use of technological tools.”

## **Appendix G**

### Interview Transcripts: Nurgül

The following interview was conducted to obtain expert opinions from the perspective of advertising professional/advertiser/graphic designer/art director/visual communication designer according to a questionnaire about digital image and advertising.

Interviewer: Osman Hamed

Respondent: Graphic and Web Designer (Nurgül )

Date of Interview: 27/11/2017

Interview Transcription:

Osman Hamed: In your experience as an advertising professional/advertiser/graphic designer/art director/visual communication designer.....What are your views on the role that a digital image plays when producing advertising? And do you think the digital image has an impact on the success of the advertising? If so, could you explain it?

Nurgül: “Yes, it has a positive impact on the advertising success graph because the message to be given or the product/service being marketed is easily perceived by the customer either metaphorically or directly.”

OH: Did the start of using the digital image in the design process affect the development of the advertising industry? How?

N: “Yes, It has a bidirectional impact on the development of advertising industry. In other words, it affected on two-way; more work (Design) in less time with more earnings and it saved time for the designer in terms of work time.”

OH: Why do advertising professionals (advertiser/graphic designer/art director/visual communication designer/ ... ..) use digital imaging in the advertising design process?

N: “Because the message which the designer wants to give or the product/service he/she wants to market, the best way to deliver it to the consumer by this way (by using the digital image). The visual language of well-framed photo or photo manipulation designs is powerful.”

OH: What is the impact of new media technologies in the advertising sector? How much is it adopted in Turkey?

N: “When we use new media technologies as a base in Turkey it has attracted a lot of investors to advertising sector in the last five years. And it has shown development. The user/customer is still trying to solve and keep up.”

OH: How has the interweave of digital technologies with advertising design process reflected in the advertising industry? How did it affect the advertising design process?

N: “Undoubtedly there are positive and beneficial effects on user/customer and designer.”

OH: What is the importance of using the digital technology in the design process in advertising production? How can the use of digital technologies affect the success of advertising nowadays?

N: “In fact, it would be a correct approach to distinguish between digital advertising and desktop advertising and to evaluate the two separately. If the purpose is an aggressive sales policy with high profits in a short time, then digital advertising is the right tool for this

purpose. On the other hand, all the arguments used in desktop advertising and everything else carry the purpose of information and reinforcement for brand/user.”

OH: Does the digital image contribute to the creative process of advertising design? If so how?

N: “Yes, it contributes to the creative process of advertising design. This contribution to the creation process of advertising leads to the appearance of quality results (production) from a perspective of original and aesthetic value.”

OH: Does the digital image affect the reach of the content of the advertising message effectively? Please explain?

N: “Yes, if used correctly. If we think the looking and seeing are the light to us since we are babies, then, we are in a lifelong perception. There is also a lot of information about this topic in the John Berger's book (Ways of seeing). That book changed our ways of seeing and understanding art and visual image.”

OH: Could the digital image affect the decision-making process of the target audience? If so, negative or positive?

N: “Definitely, it has positive sides in terms of reflection to the receiver a high-quality or promised performance of a product/service. Especially in Turkey, in packaging and food sector needs more attention to the impact of the digital image in the decision-making process of the target audience.”

OH: Can the digital image be misinterpreted by the target audience? if so, when?

N: “If it is misunderstood, it means that there is a big setback or failure in the process of creating it or because of the intervention of those who are not specialized or expert in the advertising industry.”

OH: What programs and techniques do you use to create and edit the digital image?

N: “Adobe Illustrator, Adobe Photoshop, Adobe In design, Adobe Dreamweaver, Adobe After Effects, Light-room.”

OH: What is the technological equipment used in the advertising design process?

N: "Nikon and Canon DSLR photographic machines, professional light equipment, various special lenses."

OH: From a graphic designer's (advertiser/art director/visual communication designer) point of view, what are the effective techniques and practices of editing digital images in advertising design process?

N: "Firstly, it is necessary to pass through basic art education. Then dominate the programs (The ability to use them effectively). It would not be very accurate to say something like effective technique, as the information is in every area as also in this area. Otherwise, every job with aesthetic elements on the back plan is not likely to be successful."

OH: Based on your most successful advertisement, what is the most valuable advice could you offer in the processing and use of the digital image?

N: "For me, the basic condition is that the message is clear and perceptible. If metaphorical approaches are to be used, a minimal visual language should be preferred."

OH: How do you see the future of advertising based on the ever-evolving technology of the digital image processing programs?

N: "This transformation will be continued until the advertising sector becomes digital fully. I do not think the creative process and the need for it will ever end."