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Katri Hautala

The development of visual advertising in the era of data analytics

Metropolia University of Applied Sciences

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<p>The purpose of this study is to explore and investigate the evolution of visual advertising and how data analytics has impacted these changes. This thesis aims to describe the evolution of visual advertising, what is its role in business, what are the communication theories used in advertising, digital marketing and the development of technology and how it has impacted the creation process of visual advertising. Lastly, the emergence of data analytics will be considered and how it has been used in visual online advertising.</p> <p>The research method chosen for this study was qualitative research. The empirical study is based on four interviews. More specifically, a combination of two structured interviews and two semi-structured interviews were conducted. The interviewees are each marketing professionals with a lengthy background in the field of advertising. Secondary data was collected and used to support the empirical data.</p> <p>The findings indicate the role of marketing and advertising in business has shifted to be an integral part and a strategic tool of an organization. Visual advertising or the visual elements in advertising, on the other hand, have not faced significant changes due to the development of technology or data analytics. The only notable changes in pictures are related to colour, presenting people in images, composition and effective usage of text. In addition, the need for personalized, informative content and targeted advertising seems to be most significant changes in advertising. In terms of the research into data analytics use in combination with visual advertising, the results indicate that A/B testing testing, which refers to comparing two versions of a page or an element on a page to see what performs the best, has potential as a tool to measure visual elements in advertising.</p>	
Keywords	Visual advertising, digital marketing, data analytics

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Glossary

CPM	Cost Per Impressions
SEO	Search Engine Marketing
CVR	Conversion Rate
CTA	Call to Action
UX	User Experience
CTR	Click Trough Rate

1 Introduction

Visual advertising is, without a doubt, an important part of the whole marketing strategy. Visuals have been proven to be a powerful tool in catching the consumers' attention. According to studies, "people remember pictures better than words, especially over longer periods of time. This phenomenon, as we know it today, is called 'Picture Superiority Effect'. It refers to the notion that concepts that are learned by viewing pictures are more easily and frequently recalled, than are concepts that are learned by reading their written word form counterparts" (Krum, R. Jan 21, 2015). However, today consumers are exposed to a lot of advertising through multiple different channels almost constantly, and for marketers, this means an ever-increasing competition. Due to the development of technology, advertising has evolved and marketers are trying to find more effective ways to create compelling visuals that would work better in engaging consumers (Nichols, W., 2013). Many research has already been focusing on finding out what elements in visuals are more effective, but how technology and data analytics has impacted visual advertising is not a widely researched topic. While visual advertising has been studied quite a lot from the perspective of human behavior, the evolution of technology and data analytics has been included in the studies only at a minimal level and it is relatively new topic area to discover. For this reason, this study will be undertaken from this perspective.

The research carried out in the field of visual advertising focuses mostly on three perspectives, those being vision science, cognitive psychology, and social psychology. (Wedel, M., Pieters, R., 2008). Most of the research investigates the effectiveness of different visual element and their effectiveness on consumer behavior. Already according to one of the earliest research in the field of visual advertising, "it was shown that visual content in advertising is just as capable of increasing the consumers' product attitude as is verbal content" (Rossiter, J. R., Percy L., 1980). Pictures have been proven to be an essential part of the advertisements for a long time already.

Measuring the effectiveness of their advertising has a long history. Today, the shift has been towards using the latest technology in finding out which element in advertising

work out the best. The importance of measuring campaign performance and creating the content correctly has been at the center of the interest as the competition has risen tremendously. The latest addition to measure advertising is data analytics. Through data, marketers have an increasing amount of information about how consumers are behaving online. "Data allows these companies to create an ultra-high-definition picture of their marketing performance, run scenarios, and change ad strategies on the fly" (Nichols, W., 2013). But how can visual advertising be measured by using data analytics and have technology and data analytics impacted the development of visual advertising. This is the essence of this study. The theme of this study has emerged from the authors interest in visual advertising and the author believe that a more comprehensive study could bring additional information about how technology has impacted visual advertising and what kind of role data analytics have in this as well.

1.1 Research Question(s) and objectives of the study

Visual advertising has been studied a lot already and different methods for making even more seductive images and advertising have been found. However, in today's changing landscape of online advertising and visual communication and during these times when technology has radically altered human behaviour and communication, new information is needed to improve the creative process of producing advertising specifically used online. Different data collection methods have been created, but how can these be implemented in visual advertising and digital marketing strategies. Additionally, how in general data analytics have impacted visual advertising. To the best of my knowledge, there is a clear gap in the existing research in the areas of implementing data analytics to visual advertising techniques. This is why this research focuses on finding out:

How has visual advertising changed over time and have data analytics impacted these changes?

The purpose of the question and this study is to widen our understanding of this important topic and the aim is also to bring up new perspectives to the already existing studies.

2 Theoretical background (Definitions)

Consumers are exposed to hundreds of images every single day. People are surrounded by advertising through multiple different ways, including newspapers, billboards, television and the Internet, to name a few. Images have been used as a way for communication and persuasion for a long time already, but today visual advertising has exploded to a whole another level (Schroeder, J., 2002). New, more effective ways to communicate through images are needed to better impact the consumers and persuade them to buy. Before the research can be done, the most important terms and definitions need to be clarified so that the research conducted could be fully understood. The definitions of marketing and advertising, visual advertising, digital marketing and digital metrics and analytics used to support this study will be introduced.

2.1 Marketing defined

What is marketing and advertising? Marketing is an extensive topic and is much more than just selling and advertising. Advertising is part of marketing but only a small piece of it, so it is essential to first understand the concept of marketing before diving more in-depth to the topic of advertising and visual advertising. Marketing is about "satisfying consumer needs" and it can be defined as "the process by which companies create value for customers and build strong customer relationships to capture value from customers in return" (Kotler, P. et al., 2013: 5). As marketers want to create value for consumers, the first steps are to understand the consumers and the market where the company operates, meaning a group of potential customers. Understanding human needs, wants and demands are essential for successful marketing. Marketers need to be able to separate the needs (that are essential for physical survival like food and clothing), wants (that are shaped usually by society like traditional foods linked to different cultures) and demands (that are specific products that consumers are willing to buy and that bring more value and satisfaction to customers) from each other. The needs and wants of consumers are fulfilled with market offerings that are a mix of products, services, information and experiences. Simply defined, the idea of marketing is to identify the above-mentioned specifics about what consumers need and want, satisfying these needs

and an attempt to create profitable relationships with customers. (Kotler, P. et al., 2013: 4-7).

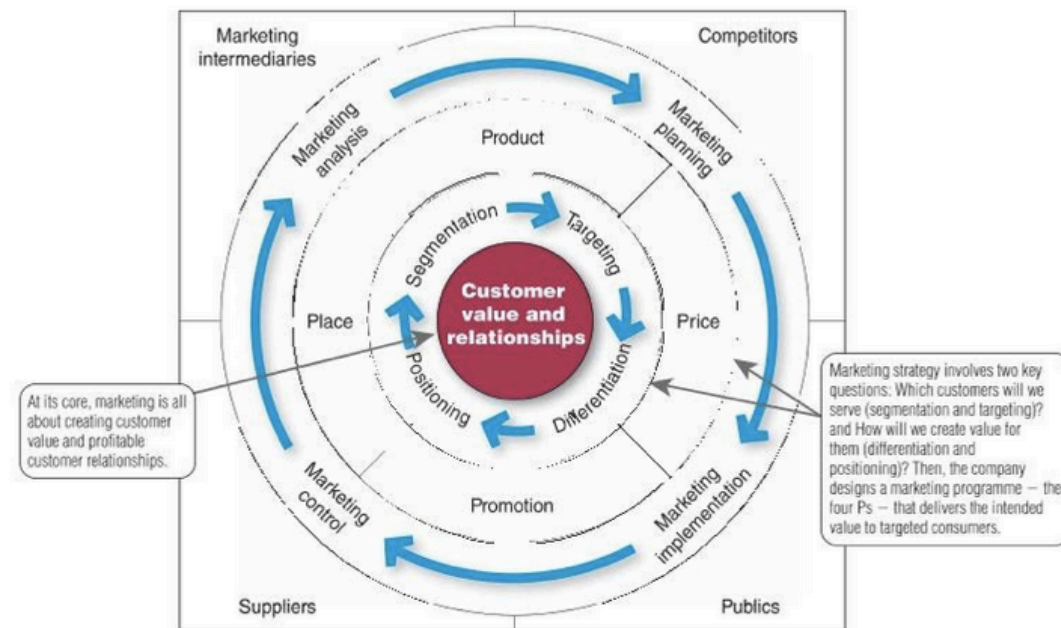


Figure 1 Marketing mix (Source: (Kotler, P. et al., 2013: 51)

Once a company has the information about what consumers need, they need to start working towards how to satisfy those needs. Organizations try to implement the information they have gathered and create strategies on how to some value can be delivered for a consumer. A tool that helps organizations to turn the information and ideas into action is the marketing mix (Figure 1). The marketing mix is a combination of the major tools used in marketing and even though the concept is quite old, it is still used today. The combination and mix of the tools of 4Ps forms a solid base for successful marketing. Marketing is about smooth interaction of the marketing mix elements, those being product, price, place and promotion. All of the marketing mix elements support and depend on each other. The elements of product, price, place and promotion explained in short focus on the process of creating a product, how it is made, when to produce it and ensuring its profitable life, tactical pricing decisions, focusing on the movement of goods from a company to consumer through different channels of distribution and finally about focusing on different communication techniques (Brassington F., Pettitt, S., 2013: 27-29).

2.2 Advertising and visual advertising

There are multiple ways how companies try to fulfill the needs, wants and demands of a consumer and to reach out to customers. One way of reaching out to customers is by using advertising techniques. And by advertising, it is meant the usage of “any paid form of non-personal presentation and promotion of ideas, goods or services by an identified sponsor” (Kotler, P. et al., 2013: 447). Advertising as a promotional tool is one part of the marketing mix tool (Figure 1), where “promotion refers to activities that communicate the merits of the product and persuade target customers to buy it” (Kotler, PT, Armstrong, G. 2017).

Promotional methods can support the other elements in the marketing mix tool by communicating the merits of a product to consumers. Promotion can also be split into a collection of tools, a promotion mix, where advertising is one of the mix tools (Figure 2). The promotion mix also consists of other tools such as public relations, personal selling, sales promotion and direct marketing tools. These promotion mix tools, as advertising is one of them, are used in organizations and as part of marketing to communicate the merits of a product to consumers persuasively and to form a lasting consumer relationship (Kotler, P. et al., 2013: 418-422).



Figure 2 Promotion mix (Kotler, P. et al., 2013)

The process for creating advertising begins by setting objectives about what the message is to be delivered, to what target group and within what period of time the message need to be delivered. Once these objectives are clear, marketers can decide which type of advertising they need to use. Advertisements can be created either to inform, persuade or to remind. Informative ads can be, for example, telling about new product functions or the benefits of it, whereas reminders are created so that consumers would remember the product and to build a lasting brand relationship. Persuasive advertising techniques are used to stand out in competitive markets and, for example, to make consumers switch from a competitor's brand to yours. The purpose of advertising is to help customers' through the buying process (Kotler, P. et al., 2013: 444-449).

Once the objectives are clear, the advertising strategy can be formulated. The strategy consists of two parts, those being the process of message creation and selection of the media through which the message will be delivered. The primary mediums are television, newspaper, the Internet, direct mail, magazines, radio and outdoor. Today there has been a shift towards the use of digital marketing and online media more frequently (Kotler, P. et al., 2013: 450-457).

Marketers use several different advertising techniques to create seductive ads that are trying to draw consumers' attention and deliver a particular message. One of the most important techniques used in advertising is the way of using images. More specifically, we can talk about visual advertising, which is a strategic use of images in advertising. Images are designed to highlight the characteristics of the product in advertising. This can be done by using, for example, images of certain elements or colours, so that audience's attention would be caught and the desire to consume would rise. A good example of this is, beer advertisements, which "use visuals to suggest the taste and texture of the product, i.e., to call to mind the heat (the consumer's need or problem) and the refreshing sensation (the consumer's satisfaction or solution) drinking the beer" (Barroso, P. M., 2019). "Visual marketing covers the role and influence of visual (pictorial and textual) marketing stimuli in consumer behaviour, as well as the visual processing mechanisms underlying consumer behaviour. This is founded in vision science, cognitive psychology, and social psychology, and aims to understand and assess the influence of

visual marketing activity and to improve visual communication design” (Wedel, M., Pieters, R., 2008).

2.3 Digital marketing, digital metrics, and analytics

Due to the development and launch of the Internet, there has been a shift towards digital marketing and advertising. In 1969, the very first computer network was launched together with the US military and multiple research organizations. In 1990, Tim Berners-Lee created the URL protocol, web browser software and the World Wide Web (Jones, A.T., Malczyk, A., Beneke, J., 2011). It is important to focus on finding ways how to improve advertising produced to be used online or in any other way digitally. Therefore, it is also essential to take a look at what the terms digital marketing and digital metrics mean so that this study could be profoundly understood. Digital marketing which is also known as e-marketing and electronic marketing or interactive marketing, can be defined as “marketing that makes use of any interactive electronic communications technology or media in order to accomplish marketing objectives” (Dacko, S., 2008: 183).

In a broader context of e-commerce, e-marketing emphasizes the set of efforts by a firm that are focused on promoting its offerings and making them accessible to current and prospective customers by means involving electronic interactive communication. (Dacko, S., 2008: 183)

To measure digital marketing, analytics steps into the picture. Analytics refers, for example, to “the process of measuring, collecting, analysing and reporting the behaviour of visitors on a website, in order to understand and optimize web usage.” (Dodson, I, 2016: 287). A word metric, on the other hand, is used to describe the measurement or number collected or tracked, which then will be analysed (Dodson, I, 2016: 290).

3 How has marketing and advertising evolved throughout the years?

Marketing and visual advertising has gained a lot of observation ever since the terms evolved. There is an ongoing discussion about how much visuals and the creative way of using them have imposed opportunities for marketers to make even more effective

advertising. Literature chosen here focuses on as wide perspective as possible about research done in the field of visual advertising, digital advertising and how data has been used to improve advertising to provide a solid base for future study.

3.1 The role of marketing & advertising in business throughout the years

Marketing and advertising were briefly explained in section 2, but to fully understand how those concepts, terms and definitions have evolved to their current form, it is important to take a few steps back and take a look at the history of marketing and advertising. Marketing, as we understand it today, has a long history and its roots reach to the late nineteenth and early twentieth centuries. During the time of the industrial revolution, when mass production techniques started to develop, also marketing began to develop. Before this time, there was no need to advertise products because of the scarcity of products and competitive markets did not really exist yet. But because of technological development, companies began to produce more than it was possible to sell effortlessly, and this led to the sales era where companies tried to find ways to effectively sell goods they had produced. The era of aggressive selling lasted until about the 1960s. After the post-production selling period of time, during the 1970s, marketing began to shape and earn its place in the corporate strategy. Companies started to change the approach towards more of listening to what consumers want and produce based on that. During the period of 1980s, the shift towards more about listening to people's needs and wants led to a situation where marketing started to formulate into its current form as a strategic concept (Brassington F., Pettitt, S., 2013).

We're looking for the most original use of an Apple since Adam.

What in the name of Adam do people do with Apple Computers? You tell us. In a thousand words or less. If your story is original and intriguing enough, you could win a one-week, all-expense paid trip for two to Hawaii. Which is the closest we could come to paradise.

Win fabulous prizes for creative writing.

To enter, drop by your nearest Apple dealer and pick up an entry blank. Fill it out. Then write an article, in 1000 words or less, describing the unusual or interesting use you've found for your Apple. A jury of independent judges will cast the deciding vote for the grand prize: a week for two, airfare included, in Hawaii. The judges will also choose 16 additional winners, two each from eight categories: graphics/music, entertainment, home, business, education, scientific, professional, and industrial. And each winner will choose from a long list of longed-after Apple peripherals—from Apple Disk II's to Graphics Tablets to printers. Or you can take a \$250 credit towards the purchase of any Apple product. The contest ends March 31, 1980. All winners will be notified by May 15. Entry forms are available at your participating Apple dealer. Call 800-538-9696, (800-662-9238 in California), for the one nearest you. Mail the entry blank, your article and any photos to: Apple Computer, "What in the name of Adam" contest, 10260 Bandy Drive, Cupertino, CA 95014. And may the juiciest application win.

Reader Service Number 8

apple computer

Figure 3 Apple advertisement 1979 (Source: <http://www.macmothership.com/gallery/gallery10.html>)

It has been argued that Egyptians and Greeks might have known already the perks of product promotion but Romans knew the best way to get people to buy. Some of the earliest examples that we can call advertising have been seen in the ruins of Pompeii. Besides these, some claim that some forms of advertising were also cave paintings. It seems that it is possible safely to say that advertising, like marketing, is not a new phenomenon and has been used for a long time already. Like marketing in general, at least as long there has been something to sell and some form of medium where to talk about the goods there has been ads. Advertising as we understand it today, started to develop when the printed press was invented. The advertising industry began to shape in the mid-19th century and took a leap forward with the industrial revolution during the period of time when marketing also started to develop. During this period of time also newspapers became popular as a medium for communication. Also, the development of lithography boosted the development of colourful and large prints and posters and these images attained a huge success. The first advertising agency was opened in the United States in 1842. At the beginning of the 20th century, a man called Claude Hopkins

believed that advertising was valuable only if it would lead to sales. Besides Claude Hopkins, a few other names also appeared in the field of advertising, one being Albert Lasker, who began to change the advertising business. Because of some of these influential people and their ideas, the advertising business evolved throughout the years and modern advertising developed (Tungate, M., 2007).

As already described, marketing is about "satisfying consumer needs" (Kotler, P. et al., 2013). And promotion and advertising is about "activities that communicate the merits of the product and persuade target customers to buy it" (Kotler, PT, Armstrong, G. 2017). Throughout history, companies have been trying to do advertising and sell their products. Marketing today is an essential part of all organisations and helps organisations to reach their goals. The crucial question in today's competitive markets for companies is about how to provide that little extra for a consumer besides the basic functions of a product and how to reach specific groups of buyers. Also, the attempt to predict the future and what consumers may want tomorrow is what marketers try to do today (Brassington F., Pettitt, S., 2013).

Even though a rather old tool as a marketing mix can be applied today, companies need to improve and develop their marketing and advertising strategies all the time. As explained earlier, advertising started to develop into its current form during the time of the industrial revolution. Firms started to create adverts to sell the products they had created. During those times, it was more common to advertise by printing handbills, posters and newspapers. Advertising started to earn its place in business from the mid-19th century onwards because it was more cost-effective than, for example, personal selling. The post-war period of time strengthened the role of advertising in business and the landing of television into consumers' homes made it possible to advertise to the mass markets. Television made it easier to develop brands and introduce new products to a broader audience. The technological development has had an impact on marketing and advertising. The rise of internet and all kinds of media has boosted the development of advertising to a whole another level. Albeit the development has offered opportunities for marketers, the process has not always been easy. This has forced marketers to also think about new ways of creating ads because consumers are smart and many times can

see the tactics that are used in advertising. This is one of the reason why new ways of creating ads are needed today (McDonald, C., Scott, J., 2007).

Nowadays, the role of marketing and advertising has transformed into a form where they are facing many challenges. Already beginning from the 1990s, marketing has been under a process of transformation due to the rather rapid internationalization. Several global events have impacted the change and made international trade possible. New market opportunities, the changing domestic markets due to international consumer preferences, need to adopt longer-term marketing operations and much more, have had an impact on marketing and advertising strategies (Lazer, W., 1993). Consumers have become much more demanding and are expecting superior quality and reliability from companies. Information technology and development in the communications sector have also brought with them a lot of changes about how companies have started to communicate with consumers and also how products or services are delivered to customers. And these are not the only challenges or changes that companies face (Denison T., McDonald M., 1995). Due to the so-called information overload that consumers face every single day, advertising needs to be created in a way that it reaches the consumers it is targeting. The development of technology has led to a situation where marketing can no longer be separated from the functions of a company and organizations invest a lot in advertising campaigns to reach its audience. The rising expenditures can be explained because of the increasing market segmentation and the wide variety of products and services and small selected target consumer groups. The world wide web as a platform for advertising has taken its place in companies. Its many functions, those being communication and commercial channel and for example entertainment devices, have made it possible for companies to use it as an advertising instrument. The Internet can be said to be the latest channel for commercial communication and advertising and it has shaped organizations in many ways. Marketing and advertising have transformed a lot from them being just a way for companies to sell their stock, to a strategic tool to reach their consumers (Janoschka, A., 2004). Different advertising techniques are created to reach out to consumers today, one being visual advertising into which this study focuses on.

3.2 Visual advertising

As this study focuses on the development of visual advertising, it is important first to take a look on the most important studies and findings that have been made in the topic area. At the end of this section, The Coca-Cola advertisements will be used as an example of how visuals have changed over time. However, first how visual communication and images differ from verbal language and how it is perceived will be considered.

One of the main characteristics of verbal language is that it contains words and sentence structures, whereas visual images do not have a propositional syntax like verbal language. Other than verbal language, visual communication is fluid, indeterminate and open to interpretation and this is what are the main characteristics and attributes of visual syntax and visual persuasion. The observation that we constantly make does not register to our brain just as a value-free data. Each visual sign can be linked to and cause emotional associations, which can not be reached by non-pictorial means. Visual images are many times trying to mimic the real-world and cause associations for consumers so that they can relate to the pictures and visuals they are seeing. Consumers can form connections between pictures and the real-world unconsciously and this is the essence of persuasive communication. Visual images are built by using discreet stylistic choices like colour for example that can attract consumers insidiously. The whole process of interpretation of visual images and communication requires profound mental participation and processing (Messaris, P., 1997). Because of the complexity of visual communication and images and the opportunities it brings with it, it has been an important subject for researchers to study for a long time already.

Around the end of the 20th century, Earnest Elmo Calkins believed that consumers need to be attracted by visuals (Tungate, M., 2007). Advertising has a long and eventful history and besides the above-mentioned name, during the 20th century, several other researchers have studied advertising also from the visual point of view. Based on the studies done, it can be said that the theory developed in the area of visual marketing and advertising focuses mostly on three perspectives, those being vision science, cognitive psychology, and social psychology. Insight from vision science can guide us to

understand better what consumers are most likely to perceive centrally or consciously when looking at advertisements. The science of vision overlaps with cognitive psychology, which has helped on building an understanding of the visual perception of marketing stimuli. Through cognitive psychology, marketers have gained quite a lot of “knowledge about the influence of perceptual characteristics of rudimentary stimuli on attention” (Wedel, M., Pieters, R., 2008).

By first focusing on the science of vision, visual advertising has been studied by using eye-tracking methods. This has been an important part of studying visual advertising because vision is connected to our behavior and decision making. The earliest studies about vision have been done already in 1924 and according to those experiments where visual advertisements or pictures have been shown to subjects, it was claimed that “on the basis of data thus derived we may make the generalization that advertisements having pictures of humans are superior as far as attracting and holding attention are concerned and that the degree of this superiority differs with individuals” (Nixon, H. K., 1924). A much later study done by using eye-tracking methods about the effects of visual complexity in advertising “shows that, as the authors hypothesize, feature complexity hurts attention to the brand and attitude toward the ads, whereas design complexity helps attention to both the pictorial and the advertisement as a whole, its comprehensibility, and attitude toward the ad” (Pieters, R., Wedel, M., Batra, R., 2010). Feature complexity refers to images that are highly detailed and “advertisements that contain more detail and variation in their basic visual features, color, luminance, and edges” (Pieters, R., Wedel, M., Batra, R., 2010). According to Pieters et al. (2010), design complexity on the other hand refers to “variation in terms of specific shapes, object and their arrangements in the advertisement”. The complexity of advertisement has been a subject of study also for Pilelienė, and Grigaliūnaitė who used neuromarketing methods to find how complexity in ads impact consumer’s cognitive processing. The complexity in the layout, according to the study leads to weaker results in affecting consumers because a larger number of items in the picture need to be processed. Therefore, the brand might be left out from enough viewing time and not recalled later on. This on the other hand does not encompass brands to which a consumer has a positive attitude. Nonetheless, it can be said that the ads with lower layout complexity are better recalled later and thus are more effective in marketing communication and for building brand

awareness (Pilelienė, L., Grigaliūnaitė, V., 2016).

Besides vision science, according to the findings, the earliest studies focusing on the psychological perspective of visual advertising were conducted by Professor John Rossiter and Professor Larry Percy. These two men have been the most important names that stand out in the field of visual advertising theory. They have together published several different studies and books about advertising from the visual perspective and having the angle of psychology in their research. The earliest study from them was done in 1978. Their first study “examines the role of visual imaging ability as a mediating variable in consumer response to advertising” (John R. Rossiter, Larry Percy, 1978). This study has been very important step and boost for future studies. The study was the first research concentrated on demonstrating visual mediation affecting learning. The study also introduced the first theoretical model that would predict visual mediation affecting learning. The model was “proposed in which visual imaging ability is hypothesized to mediate the effects of both visual and verbal stimulus content in advertising through a process which we term visual reinforcement”. Data for the study was collected from a sample group and in the end the data supported dual reinforcement advertising model. The results show that the “combination of verbal and visual stimuli generate strongest affective learning” (Figure 4) (Rossiter, J. R., Percy L., 1978).

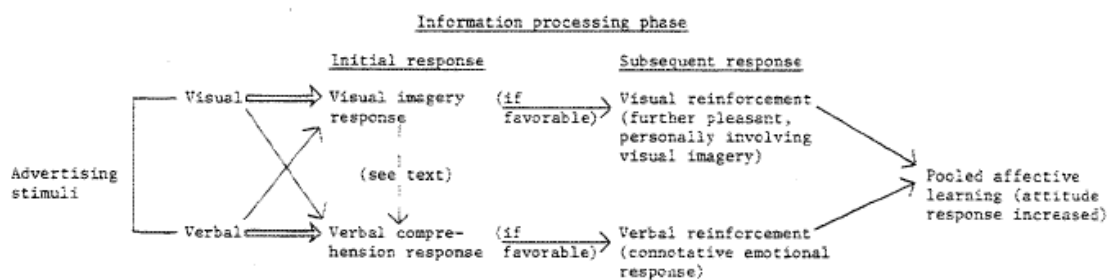


Figure 4 Advertising response model by Rossiter & Percy (Source: Rossiter, J. R., Percy L., 1978)

The study conducted in 1978 created an important base for them to continue their studies. The following study was done in 1980 and they created a visual and verbal loop theory and “it was shown that visual content in advertising is just as capable of increasing the consumers’ product attitude as is verbal content” (Rossiter, J. R., Percy L., 1980).

The theory proposed in their second study was based on visual imagery and classical conditioning (Rossiter, J. R., Percy L., 1980). The third study conducted by Rossiter "presents 13 broad applications of visual imagery theory to advertising. It covers guidelines for the effective use of visual content in: general advertising, print advertising, and TV advertising". The study was supported by psychological experiments and offer perspectives for even more effective advertising (Rossiter J., R., 1982). Other researchers have also studied the effectiveness of visuals in advertising. A study about examining the effects of the visual components of advertisements was created by Mitchell and Olson in 1981. It was an experiment where three advertisements showing photographs and one advertisement with verbal content about hypothetical brands were shown. The result was that the subjects formed significantly different beliefs, so according to their findings there might be multiple variables that affect brand attitudes those being for example visual components that form inferences about the brands advertised (Mitchell, A.A., 1986).

Besides of the studies focusing on vision science and cognitive psychology, advertising professionals have been interested also about the connectedness of emotions and the effectiveness of an advertisement. While people generally remember only a small part of their experiences and multiple factors have an impact on what is remembered and recalled later on, emotions actually play a key role in this. Emotions and its effectiveness has been studied by multiple authors and it has been found out that people are more likely to remember events that are tied to certain emotions (Kensinger, E. A., 2004). For example, it has been stated by Edell and Burke that "feelings responses may influence the nature of the subsequent processing of the ad" and that "feelings generated by the ad explain variance in the brand beliefs that were formed after accounting for that explained by judgments of the ad's characteristics" (Edell, J. A., Burke, M. C., 1987). So as we can see, also through emotions visuals can have an impact on consumers.

On top of all these aspects, the researchers have taken a look at the topic still today, advertising and visual advertising has been continuously studied focusing on multiple perspectives. One aspect being for example of how visual communication can enhance the promotion of products that are otherwise hard to advertise like highly complex product design concepts. A recent study suggests that visual stories can enhance

consumers' mental processing of a product and advertisement and therefore is a useful method (Seifert, C., Chattaraman, V., 2020).

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PICTURE FRAMES
MADE TO ORDER

COCA-COLA.
DELICIOUS! REFRESHING!
EXHILARATING! INVIGORATING!
The New and Popular Soda Fountain Drink, containing the properties of the wonderful Coca plant and the famous Cola nuts. For sale by Willis Venable and Son, 140 Marietta St.

NATIONAL DECORATION DAY
The graves of the Federal dead will be decorated and substantial services held, at the
NATIONAL CEMETERY, MARIETTA, GA.
Monday, May 31st, at 9:30 A. M.

The Finest, the
Can be had a
68 and 7
W. G.
55 Pea
WHIRLWIND
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At Auction
Special Tra
the W. & North C
ROUND TRI
WHITE PAPER
From Atlanta
through railroad,
for many years in
75 miles from the
and August 1st,
old Librarian's
How to Wash
to 1000 and give
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GERMAN LINENS.
en in the most ex-
ns, Imported Goods,
s, D'Oyles, etc., to
res and quality guar-
in, Johnson & Co.
NEW CARPETS!
ods, all widths.
in, Johnson & Co.

Figure 5 The Coca-Cola ad in 1886 (Source: The Coca-Cola Company, 2011)

A variety of methods have been used to create even better visual advertising. From the beginning of where the roots of advertising touches, the advertising techniques have changed tremendously. To demonstrate the progress of advertising images, the Coca-Cola Company will be used here as an example. Ever since, the company was founded in 1886, also its advertising campaigns have evolved throughout the years. At the beginning of the company's journey, the advertisements were mostly using textual elements and for the first time, the brand was promoted in the first newspapers in 1886. At the beginning of the 1900s, "the first advertising for Coca-Cola appears in national magazines" (The Coca-Cola Company, 2011). Most of the advertisements starting from the beginning of the 1900s started to include people in the advertising images. During the year 1950, the company started to advertise also on television. Over the years, some of their television ads have been remembered as the best ads ever in the history of TV advertising. The advertisement and the images used in them have changed a lot over time and it can be seen that the images and visual elements in the ads have evolved quite a lot. The actual images are now in the center of the focus in the ads and the

usage of text have been minimized. The Coca-Cola Company has used many advertising techniques over the years and most of them can also be linked to culture. "In general, advertising is like holding up a mirror to society. Commercials and other creative from a certain year or era typically reflect what is going on in the culture at any given point in time" (The Coca-Cola Company, 2020).



Figure 6 The Coca-Cola ad in mid 1950s (Source: The Coca-Cola Company, 2011)



Figure 7 The Coca-Cola Company ad 2013 (Source: Hepburn, M., 2017)

As stated earlier, processing of pictures differs from verbal communication and that has been a subject of study already for a long time. Furthermore, according to studies, it is evident that understanding human behavior is essential when creating visual advertisements. Researchers have from as early as the beginning of the 19th century,

tried to find out methods that draw consumers' attention and make them buy. As the examples of the Coca-Cola Company's advertisements Figure 5, Figure 6 and Figure 7 and the literature about visual advertising show, visual advertising has taken major steps in the creativeness of the ads. Researchers have learned a lot about how to position objects in images, usage of colors, usage of text and much more. To better understand how communication (visual or textual) works in advertising, several theories have been developed to help us to understand the communication process.

3.3 Communication theories in advertising and visual advertising

It has been stated by Vaughn (1980: 27) that "the advertising industry has long been challenged to explain how advertising works. That it does work is not an issue. But how it works and why it works are critical concerns still unresolved". For this reason, multiple theories have been developed to explore human behavior and how to improve promotional activities. According to Vaughn (1980), most of the models created for advertising can be split into four groups, those being traditional advertising theories, consumer behavior models, development in high/low involvement and right/left brain theories and an FCB model which is about combining advertising effectiveness and strategic planning.

By focusing on Consumer Behavior Models, most of them were developed in the early 1960s. Many different forms of communication models have been invented but perhaps the most famous one after which the rest have been formulated is called the Hierarchy of Effects Model (Figure 8) created by Lavidge and Steiner in 1961 (Vaughn, R., 1980).

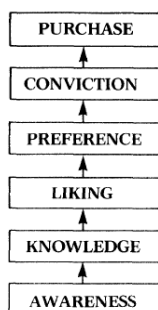


Figure 8 Hierarchy of Effects Model (Source: Vaughn, R., 1980)

The model created had a major impact on how to integrate existing economic, responsive, psychological and social theories. The Hierarchy of Effect Model proposed that a consumer goes through a "sequential hierarchy of events" process in which a consumer steps from awareness, knowledge, liking, preference and conviction before actually purchasing a product. The model has been widely accepted by most marketing professionals (Vaughn, R., 1980). The authors of the model claim that consumers go through multiple steps before actually purchasing anything. How fast a consumer will move through the steps presented in the model, largely depends on the factors affecting the purchase decision. For example, depending on how large the psychological and/or economic engagement relating to the purchase may have an impact on how fast a consumer ends up making a purchase decision. Generally, consumers do not make impulse purchases and need time to go through the process of becoming aware of the product, what the product has to offer, if they like it or not, what their preferences are and if they are convinced that the product offered is a good choice before actually buying or making the final purchase decision. Advertising in general, has different objectives and ad campaigns may be aimed to focus on different results and to different phases in the purchase action. Some advertising may want consumers to become aware of a new product or if the consumer is already aware of the product the next step is to persuade them to purchase. The three main functions of advertising are to provide information or ideas, impact on feelings or attitudes and to produce action. All of the three functions of advertising are closely linked to classic psychology (Lavidge, R. J., Steiner, G. A., 1961) which were also discussed in the previous section of this research.

Hierarchy of Effects Models

	KNOWLEDGE	FEELING	MOTIVATION → ACTION
AIDA Strong 1925	Attention	Interest Desire	Action
DAGMAR Colley 1961	Awareness Comprehension	Conviction	Purchase
Lavidge and Steiner 1961	Awareness Knowledge	Liking Preference	Conviction Purchase
Wells et al. 1965	Awareness Perception	Understanding	Persuasion
	COGNITIVE	AFFECTIVE	CONATIVE

Figure 9 Hierarchy of Effects models (Source: Egan, J., 2007)

Originally, the Hierarchy of Effects model is based on another model called the AIDA hierarchy of effects model, which was invented St Elmo Lewis back in 1900 to explain how persuasive communication and advertising functioned. He was among the first persons to realize that consumer has to go through a process before purchasing. The AIDA (Figure 9) stands for attention, interest, desire and action. (Egan, J., 2007: 43-44).

Besides all the hierarchy of effects models, every marketing and advertising communication can be said to follow the very basic communication model. The basic model of mass communication (Schramm Model of Communication) indicates a two-way connection and interaction between the sender and receiver of a message (Figure 10). The fundamental elements of the model are the message sender, a medium through which the message will be delivered (personal or non-personal) and a receiver of the message, who can also communicate back to sender through giving feedback of the message received. The message can be a combination of words, images or symbols etc. Actually, only 30 percent of our communication is based on words and the rest is based on silent communication methods, those being, for example, movement, smell, touch and color (Egan, J., 2007: 30-31).

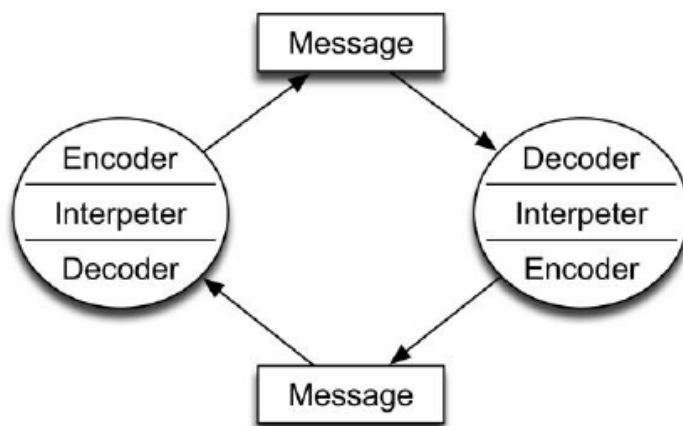


Figure 10 Schramm Model of Communication (Source: Elkins, A. et.al. 2012)

As it is possible to see, many researchers have been interested in finding ways for more efficient communication and processes through which the effectiveness of advertising can be measured. However, as we live in an ever-changing world, new approaches to advertising are needed, especially in the growing field of digital marketing and advertising, which will be further discussed in the following sections of this research.

3.4 Digital marketing and advertising

As explained earlier, digital marketing can be defined as “marketing that makes use of any interactive electronic communications technology or media in order to accomplish marketing objectives” (Dacko, S., 2008: 183). This section focuses on how digital marketing has developed and how it has impacted visual advertising. The development of the Internet has been one of the most significant development in the 20th century and a major turn point for marketers in the ad-games and an important addition to the marketing toolset. The Internet “is a decentralized, internationally operating network of computers that share a communication protocol which facilitates the exchange of information” (Janoschka, A., 2004). Through the rise of the Internet, websites have been used as advertising instruments and functions as a carrier for the ads as well. Electronic communication and the Web have allowed decentralization of this planet and made it possible to communicate worldwide through the virtual world no matter where people are physically located so it is easy to reach out to a wide audience of consumers (Janoschka, A., 2004: 43-46).

How traditional media differs from digital marketing is that traditional ads can be viewed only at a specific time, to a defined extent and with a predetermined content. The Web provides a much broader options for marketers to advertise since it allows to store a much larger amount of data. Otherwise, web advertising works like traditional advertising, “it is a paid or unpaid form of promotional communication through a medium” to increase the sales of a product (Janoschka, A., 2004: 46-47).

As an advertising platform, the Internet took its place during 1994 when the Internet was commercialized (Zeff, R., Aronson B., 1999). Moreover, ever since its usage has been growing as an advertising medium. According to statistics, worldwide spending on Internet advertising and specially to display advertising has been estimated to rise to over 225 000 million U.S. dollars by the year 2022 (Statista, 2020). Many studies are focusing on how to utilize the Internet as a tool for advertising and how useful the interactivity that the Internet brought with it works with advertising. It has been stated by Yuping, L., and Shrum L. J. (2002) that interactivity may be a good thing because “two-way synchronized communication is potentially more engaging than one-way

unsynchronized communication” and “two-way communication is positively related to user cognitive involvement” (Yuping, L., Shrum L. J., 2002). Other perspectives to online advertising are, for example, how engaged consumers are to online advertising, creativeness in online advertising, the importance of consumer location, personalization and search engine advertising. From the perspective of personalization, it has been found out that consumers tend to accept personalized advertising better than ads that are not targeted to a specific bigger group of people (Baek, T.H., Morimoto, M., 2012).

The major ways to communicate with consumers online are search engines, display ads, etc. (Nosrati et al., 2013). However, the rise of social media has been an important aspect in the field of online advertising. Facebook, for example, has become one of the most used social media site for marketing and advertising purposes (Guttmann. A., 2018). Factors such as attractive content, communication and interactivity can be seen as impactful factors relevant when using social media as a marketing tool (Mohammadian, M., Mohammadreza, M., 2012). For marketers, the fact that consumers are not anymore just passive message receiver has become a challenge. Consumer decisions are more and more affected by other peoples’ opinions and are a result of social decisions. (Kotler, P., Kartajaya, H., Setiawan, I., 2016: 13).

3.5 Visual perspective to online advertising

By not forgetting the visual and creative aspect of this study, the effectiveness of online advertising has also been studied from the perspective of message-related factors, because these factors marketers can easily control. Some researchers have studied the effectiveness of online advertising and which factors influence consumer visual attention. As earlier explained, eye tracking has been used to find out answers about how consumers perceive advertising and so it has been used to study online advertising as well. Based on some studies, the content of advertising should follow factors such as larger headline and little bit smaller body text, dominating textual elements, complex layout, positioning the brand in the upper left corner, etc. However, in the context of the Internet, are these valid points for online advertising. (Grigaliūnaitė, V., Pilelienė, L., 2017). It has been found out that the size of digital advertisements can have an impact

on how effective the ad is. Large full-screen ads in interactive formats can enhance brand recall and advertising effectiveness. In addition, the more entertaining and interactive the ad is, then the consumer is more likely to be better engaged (Baron, S. D., Brouwer, C., Garbayo, A., 2014). On the other hand, some claim that the language should be considered more important than images in online advertising. This might be because of the lack of space available for pictures. The message delivered plays an important role in online advertising (Janoschka, A., 2004: 73-74). Some ads can be perceived as annoying; therefore, also in online advertising impacting consumers' emotions must be considered as an important aspect and an influencer. It has been proven that pleasant emotions lead to higher engagement rates and attention towards the ad and the brand, as well as the possibility of forwarding the message to someone (Eckler, P., Bolls, P., 2011).

The findings researchers have done about the usage of pictorial elements in advertising has helped marketers to implement these strategies in multiple ways. Before the rise of digital marketing, visual advertising might have been more complex and include much text, as seen in the example of the Apple advertisement (Figure 3) at the beginning of this study. Today professionals are more concerned about the design of the ad than ever before. The ads today are designed by using much knowledge gathered and technology has changed advertising a lot since all of the advertising must be suitable for multiple different mediums like on print, web, or mobile phones. For example, to be able to create an ad for a brand successfully, it is important to first fully understand the strategy behind the brand. All of the visual and verbal elements should support the brand image and work in different platforms. The knowledge about how to use pictorial and textual elements in adverts has changed the adverts to be a bit clearer. "Simple stated, differentiation is what distinguishes one brand from the rest" (Landa, R., 2016). When creating content to digital platforms, it is important to keep in mind, for example, the stylistic choices of typeface, how the content is placed on the ad and keeping graphic elements consistent in the ad, size of the content and much more. The design of the content online must be clear for scrolling and for consumers to use. Also, when websites or any digital advertising is designed, it is important to remember to follow visual hierarchy that ranks pictures and text in the order of importance. The key elements in the ad must be made clearly visible with the help of color and contrast for example

(Landa, R., 2016). This is possible to see also from the Apple advertisements today (Figure 11) as these have become much more simplified than what they used to be before and are easier to even quickly glance online.

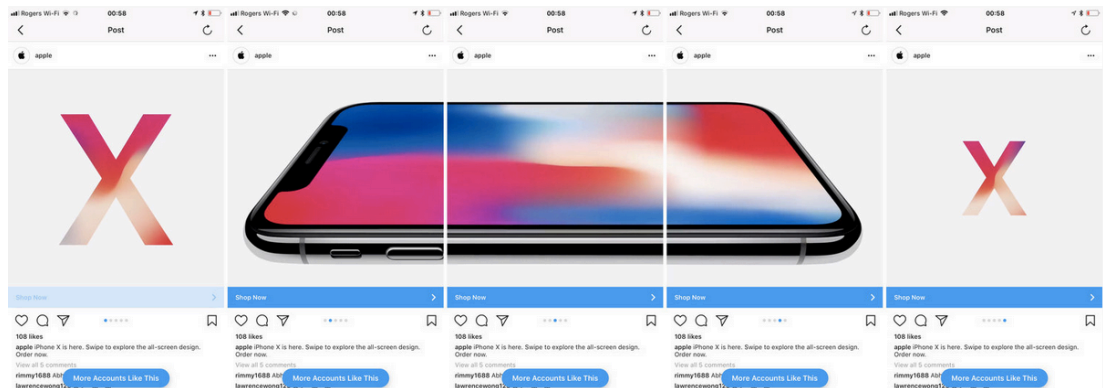


Figure 11 Apple Instagram ad (Source: Schmidt, G., n.d.)

Positioning the objects in the images has been considered as an important factor in advertising for a long time already.

Composition is the form, the whole spatial property and structure, resulting from the arrangement of graphic elements (type and images) in relation to one another and to the format (boundary edges and shape of the screen or page, etc.). For each and every composition, you use formal elements (line, shape, color, value, and texture) to visualize images and type, employing basic compositional principles (balance, emphasis, unity, rhythm, and proportion) in the process of composing and creating graphic space (Landa, R., 2016: 53).

Marketers have considered the rule of thirds as an important tool to help to position objects in images correctly. According to Landa, R. (2016) rule of thirds is "an asymmetrical compositional technique often used by filmmakers, photographers, and designers to create harmony, balance and emphasis". The basic idea is that the image would be created so that the image would not be cut to half or that the focal point would not be in the center of the image (Landa, R., 2016).

By looking at visual advertising from the digital perspective, it has been found out that an advertisement that is positioned on the right side of the Internet news portal page and is in the upper position can attract more from the visual attention perspective. Positioning the advertisement on a web page correctly can increase the ads viewing time

substantially (Figure 12). Also, how the brand is positioned in the online ad can impact the results. Positioning the brand on the upper left corner of the online ad can increase its attractiveness (Grigaliūnaitė, V., Pilelienė, L., 2017).

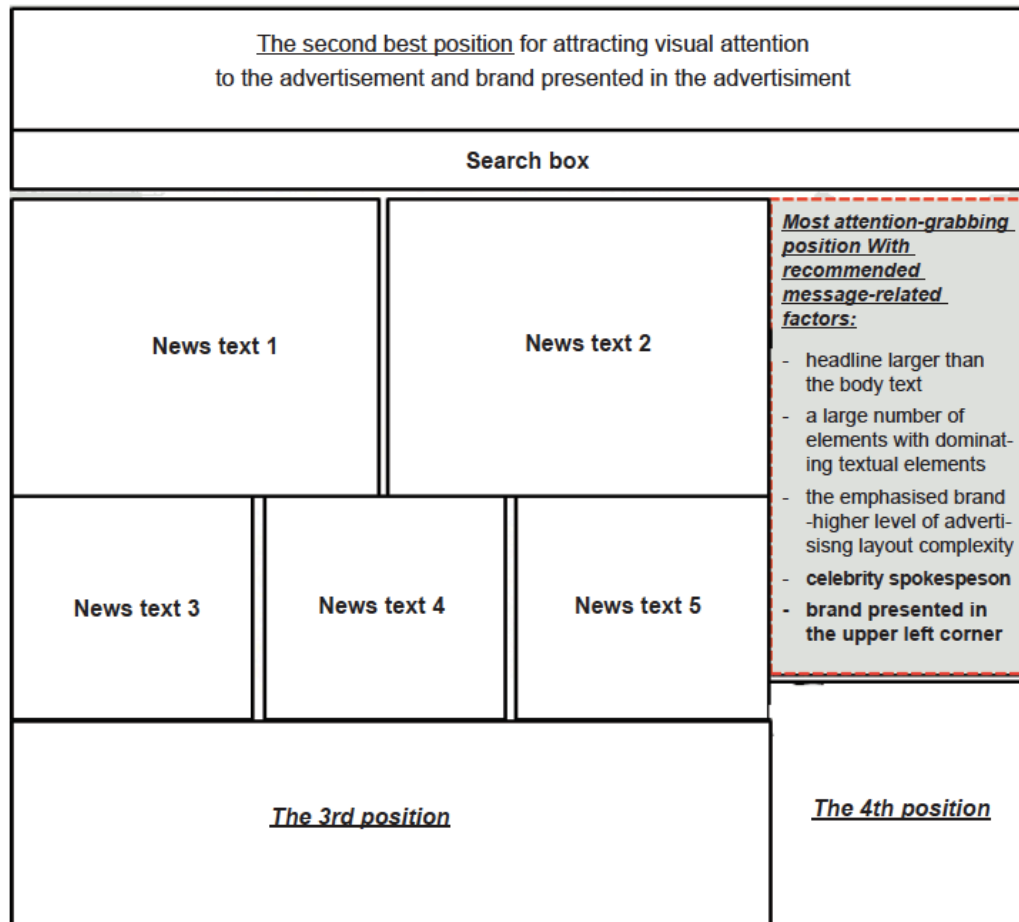


Figure 12 The most attention-grabbing position of the advertisement in the context of the Internet news portal page (Source: Grigaliūnaitė, V., Pilelienė, L., 2017)

The importance of positioning the object correctly has been proven by a study done by using another eye-tracking method study that found out that for example by positioning apparel banner ads next to articles related to fashion causes a consumer to be more interested in the ad. Also, by adding discount information and placing models in the pictures can increase the effectiveness of the ad and be more attention-grabbing (Huang, Y.T., 2018). What has changed to traditional advertising is that some research focusses on finding ways how consumers could have an impact on what is shown in the ads online. The technology could help marketers to define the content and composition already at the time consumer is glancing the ad, not after going through some buying statistics (Dávideková, M., Greguš, M., 2017). Content positioning and the content in

general seems to be an important factor to consider in the ad creation even today, but that can be done with the help of technology.

The differences between traditional visual advertising and visual online advertising are related to the fact that reading habits have changed through the digital tools. The average time a person spends on reading content from the mobile device is much shorter than what it might be when reading a magazine, for example. The importance of visuality as a tool that grabs the attention has increased majorly because of this. Today the same message needs to be designed so that it can be used in different platforms and mediums and so that it attracts as fast as possible. The elements in the message need to be able to bend to multiple different forms, unlike when the positioning or the functionality needed to be considered only for print ads, for example. Also, some visual elements that have changed are the brightness of the colors used on digital platforms. Color usage differs from traditional printed media because of the light intensity. Digital advertising allows us to use stronger and brighter colors than what it is possible in printed communication where a four-color system is used. To be successful, colors need to be used differently than in printed communication (Pohjola, J., 2019). Color has been considered an important part of communication for a long time already. For example, some colors have been used only for religious or governmental bodies and only royalty was allowed to use rare blue and indigo pigments that represent and indicate power and social roles. Today, understanding the usage of colors is a vital part of successful marketing. Technology allows marketers to be even more creative with colors. Advanced electronic devices allow new color choices. According to Gorn et al. (2004), the background color of a website can affect how a consumer perceives the time it takes for the page to download. The color has an impact on the quickness and relaxation. In the study hue, value and chroma dimensions of the color were manipulated and it was found out that the colors that cause more relaxed feelings impact consumers to be more willing to wait for the page to load. Another study found out that when the background color of a computer screen is red, a more favorable interpretation of "visuals representing specific product details" were formed (Mehta, R., Zhu, R.J., 2009). On the other hand, when the color was blue, that was more favorable for visual that contained remotely related associations like road signs or maps (Mehta, R., Zhu, R.J., 2009). These facts about color used in an online environment are important because marketers want

consumers to stop and watch their advertisements.

Some other things that have changed due to the development of technology is that the development of monitors have allowed marketers to use very detailed typography. The overall appearance of images however, has changed to be less detailed because they are then easier to adapt to different display sizes. One other thing that has changed is the fact that the same message transforms into different sizes and shapes when shown in different platforms, which leads to the importance of considering the image resolution and pixels differently. The visual identifier of websites e.g., favicon (16x16 pixels), as seen in Figure 13, demonstrates the way how much an image resolution can change when a picture is transformed from vector format to pixel format. Vector graphics have made it possible to create very accurate images (Pohjola, J., 2019).

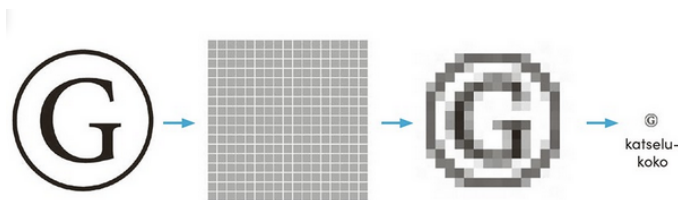


Figure 13 Image changed from vector format to pixels (Source: Pohjola, J. 2019)

The above-mentioned factors and possibly many more, demonstrate that the designing process of an advertisement is far more complex and many factors in the visual design need to be considered today. This has led to a situation where detailed information is needed to support marketers in the visual advertising creation process. This is why marketers have started to implement data analytics in their advertising creation processes. This is further considered in the next chapter of this study.

3.6 How digital metrics and data analytics have been used in advertising

As it is possible to see, marketing and advertising has evolved a lot during the years. Today, the focus has been more and more towards digital advertising and more effective ways to reach out to consumers. Marketers are forced to rethink their advertising tactics in order to create the most effective visual ads. One way of doing this has been the

rising attempt to use digital metrics and data analytics in advertising. Marketers might have thought that digitalization could make advertising easier, that it would be easier to create the right content for the right audience at the right time. However, digital advertising is far more complex than that. Already decades ago, marketers have been trying to measure the advertising effectiveness by counting the number of posters on the streets or the number of press runs of magazines. Fortunately, measuring techniques have evolved from that. Even though a lot of effort has been put to measure circulation (actual copies of a magazine sold or read), media audiences (number of people viewing television and listening to radio) and specific advertising audiences, other ways has been formulated as well (Darrell, B. L., Henderson, S. B., 1950). Traditionally, marketers have measured offline advertising, for example, by using reach-and-frequency distribution. "Effective frequency asks how many exposures are needed for an ad to become "effective", while effective reach addresses the number of people who are exposed at that level" (Cannon, H.M., Riordan, E.A., 1994). Advertising and the effectiveness of the message delivered has also been measured by using cost per impressions (CPM) technique, which is presented in Figure 14 (Bolland, E. J., 1989).

$$\begin{array}{l}
 \text{Advertising} \\
 \text{CPM} \quad = \quad C1 + C2 / .2R \\
 \text{where } C1 \quad = \quad \text{total production costs} \\
 \quad C2 \quad = \quad \text{cost of advertising space} \\
 \quad R \quad = \quad \text{audited circulation}
 \end{array}$$

Figure 14 The CPM Model for Advertising (Source: Bolland, E. J., 1989)

Practically, measuring online campaigns has the same purpose as measuring offline advertising. The purpose is to measure the productivity of marketing, assessment of return on marketing investment, calculation of overall satisfaction and participation of consumers and to estimate market share and predict demand (Meyer, K. Wilkins, N., 2015). The rise of online media has forced marketers to find out more appropriate ways to evaluate digital marketing. Data analytics is used to collect data and analysing it to better understand consumers. The content of an ad can be, for example, analysed if it is valuable or not. Data collecting and analytics can give an opportunity to see what kind of content is effective and what consumers are consuming and interacting with. Also, what kind of information users are looking for online can be analysed. With some tools

like Adobe Omniture and Google Analytics, it is possible to measure and test content to find out the ways that lead to the highest user satisfaction. The points of interest on websites, for example, can be seen which is the best way to position content online. To find out answers to how people are behaving online and on digital platforms, a combination of quantitative data and qualitative user feedback can provide answers to these questions (Hemann, C., Burbary, K., 2013).

The tools used to collect such data these days are, in most cases, linked to social metrics. This is because today most of the communication is executed by having a social component on it. The most popular metrics for social media platforms today are the number of likes the page gets, how many people it has reached, engagement of users, how many people are talking about the content, amount of followers, number of clicks, etc. (Hemann, C., Burbary, K., 2013). Whereas, if digital marketing in general is considered, some ways to collect data about the effectiveness of it might be, for example, in the case of search engine marketing (SEO) investigating the visibility of a web page. By calculating the results and data collected, a conversion rate (CVR) can be found which presents a result about how many times the page has been seen and acted upon in the form of clicking on it, for example. Other qualitative ways to measure user behaviour online are A/B testing, Call to Action (CTA), User experience (UX), Rating systems, Surveys and forms and the Flow of Users. A/B testing has started to become a popular way to test the functionality of an advertisement or a web page, for example. A/B testing refers to comparing two versions of a page or an element on a page such as a picture or the heading. By using these methods, it is possible to understand better how users understand a website or an ad on it (Saura et al., 2017). A/B testing can be used to measure visual media and test different types of pictures and their functionality if a static picture works better than a 360 product image or whether it is better to use people or a product in the image, for example. By using A/B testing Disney for example found by comparing two versions of their web pages (seen in Figure 15 and Figure 16) that in one specific case more hierarchical approach worked out better than having a lot of visual and moving images on the screen (Siroker, D., Koomen, P., 2013).



Figure 15 A/B test example (Source: (Siroker, D., Koomen, P., 2013))



Figure 16 A/B test example (Source: (Siroker, D., Koomen, P., 2013))

Also, neurophysiological tools have become more and more popular in investigating visual attention in advertising. Tracking eye-movements, heart variability and brain responses have been part of studying advertising for a long time already but are still today relevant tools. By using these methods, it has been found about, among other things that advertising can impact differently between genders (Guixeres et al., 2017). Eye-movements have also been studied from the perspective that a person forms a certain path, a scan path he or she follows when seen the same picture several times. Some people might follow the same path or order over and over again that he or she used when viewing a picture or web site for the first time. These tools are important because they can provide information about if the company is achieving its organizational goals by using the set strategies (Josephson, S., Holmes, M.E., 2002). Other ways to measure online advertising are bounce rate and cost per click. Bounce rate indicates the amount of people who immediately bounce back to the website where they came from.

A high number usually expresses that the campaign was not successful (Meyer, K. Wilkins, N., 2015).

By going back to the visual point of view, advertising effectiveness can be tested, for example, by using click-through rate (CTR) and conversion rate (CVR). As already mentioned, the spending to display advertising has been on the rise and this is because display advertising can increase the revenue significantly by showing different textual or image ads on multiple mediums. CTR is the main way to measure display advertising effectiveness. (Chen, J. et al., 2016) Using Click through rate is a fast way of measuring how many people have seen the advert and if the ad has been successful. CVR is usually indicating the percentage of viewers who end up completing the desired goals (Meyer, K. Wilkins, N., 2015). According to the findings, there are a minimal amount of studies that quantitatively focus on how the visual or creative elements in the ad affect the response rate. However, one study indicates that visuals having high contrast should be performing better and have a higher rate of CTR. Images having too many objects or textual characters, on the other hand, might not be very effective and have a lower CTR value (Azimi, J. et al. 2012). Besides of the CTR, CVR has also been tested from the visual perspective. Although the amount of research in this area is also limited, the findings indicate that visuals have a potentiality on predicting CVR (Jiang, J., Jiang, H., 2017).

Marketing and advertising have transformed into data-driven advertising, which is used to “leveraging a wide range of delivery channels, as well as creative content that is appropriate to each, in order to establish and grow relationships that benefit marketer and consumer alike”. However, putting that data to work is not always easy and challenges still remain. Collecting and analysing an overwhelming amount of data is a complex process, especially in the perspective of visual advertising. Marketers are relying on technology and are trying to improve the functionality of data-driven marketing and advertising. Digital execution, data management, automation technology and creative development just to name a few are some factors marketers are trying to focus on intensively (Braverman, S., 2015).

4 Methodology

The purpose of this chapter is to introduce the methodology chosen for this topic. The research design, the qualitative research method, and the interview method will be further explained. But first the fundamental idea behind the research should be considered. Basically, why this study has been conducted, is to provide new insight into a topic that has not been that much covered by other researchers yet. The idea is to gain knowledge rather than to solve a particular problem. According to Brassington and Pettitt (2013: 164), "Marketing research links the organisation with the environment in which it is operating and involves specifying the problem, gathering data, then analysing and interpreting those data to facilitate the decision-making process". The fundamental idea is to support marketing functions by gathering information to identify opportunities for marketers, evaluate their actions, to monitor performance and to help to understand better the whole marketing process (Brassington F., Pettitt, S., 2013: 164).

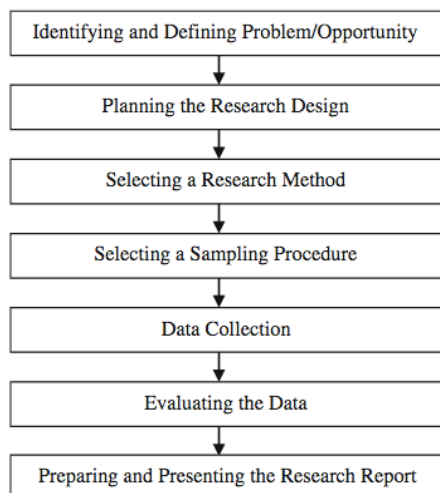


Figure 17 The Research Process (Source: Sreejesh, S., Mohapatra, S., 2014)

The research process (Figure 17) usually includes the steps that are first defining the research topic by identifying a problem or an opportunity, defining the objectives of the research, reviewing relevant literature, designing the research and deciding what methods to use, collecting and analysing the data and finally reporting the findings (Sreejesh, S., Mohapatra, S., 2014: 14).

Three types of research that can be chosen depending on what kind of problem is tried to be solved or what are the objectives of the research. The different approaches are exploratory, descriptive and causal research that are each used for different purposes. Exploratory research is used to collect preliminary data to help provide ideas and insight and to clarify a certain problem rather than trying to find solutions to a problem. Descriptive research aims to help marketers to better understand a specific problem. Causal or predictive research is usually selected as a method to test a cause-and-effect relationship to see possible outcomes or predictions for a problem (Brassington F., Pettitt, S., 2013: 167).

This study aims to provide insight into how visual advertising has changed over time and how data analytics have impacted those changes. Therefore, exploratory research is the most suitable form of research to be selected. So that the research could provide some insight and new ideas to the chosen topic, a suitable type of data needs to be selected to support the study. There are generally two main types of data that can be collected, those being qualitative and quantitative. In qualitative research, data collected is usually open to analysis and interpretation. This is a good way to collect data when there is no need for statistical qualification. Quantitative research, on the other hand, is related more to numbers. It is a method for collecting quantifiable data and is not open to interpretation (Brassington F., Pettitt, S., 2013: 168).

The conducted study can be seen as a combination of primary research and secondary research as the data needed to support this study is only partly readily available. Primary research is usually conducted when the research must be done from scratch and the information needed does not exist yet. Secondary research is the other option and is considered for this study because, in secondary research, the needed information is already available and can be easily accessed (Brassington F., Pettitt, S., 2013: 178). Material collected through secondary research can bring some additional knowledge and reliability to the study. A qualitative methodology was chosen for this study as a research method. This is because qualitative research allows the researcher to find answers to the questions in a detailed manner. Examples of qualitative data collection methods are surveys, in-depth, largely unstructured interviews, structured interviews, semi-structured interviews, observation and experimentation (Brassington F., Pettitt, S., 2013:

180-188). Surveys are a way of collecting data by sending out a pre-determined set of structured interview questions to a selected population or a group of individuals. Surveys might be more quantitative but this method also had some qualitative features (Sreejesh, S., Mohapatra, S., 2014). Structured and semi-structured interview techniques selected as a data collection method for this study will be further explained in the next section of this study.

4.1 Data collection method

Qualitative research and conducting interviews were considered as the most appropriate approaches to collect the data and results of this study. Individual interviews can be split into three different types depending on how much the interviewer is guiding the discussion. The three different interview types are non-directive or unstructured interviews, semi-structured interviews and standardized open-ended interviews (Sreejesh, S., Mohapatra, S., 2014: 47).

The data collected for this study were collected through a combination of two structured interviews and two semi-structured interviews. Structured interviews are a set of predetermined and standardized questions. A structured interview can also be considered as an interview-administered questionnaire (Brassington F., Pettitt, S., 2013: 181). The interview questions were sent out to the marketing professionals through email and a specific deadline for answering was given. Semi-structured interview on the other hand, is based on a predetermined script but is open to flexibility and there is a possibility to include open-ended questions while interviewing (Brassington F., Pettitt, S., 2013: 181). The two semi-structured interviews were run by using Google hangouts and face-to-face interview style and the structure of the interviews followed a script but few areas were pursued with more in-depth questions. Interviewing as a method for this study is a suitable method since it allows questioning complex questions that are otherwise hard to present. Interviewing gives an opportunity to seek answers to the research questions by communicating with industry professionals who can share their insight into the topic area and knowledge that would not be otherwise available.

The questions for this study were divided into four different sections (see Appendix 1). The first section is also known as "A. Background information", was created to clarify the interviewees' background. The sections B, C, and D are diving into the actual topic area by first focusing on finding out how marketing and advertising have evolved from marketing professionals' perspective. The idea is to gain insight into the evolution of visual advertising and its development. Sections C and D focus more on the topic area and the questions focus on finding out how the development of technology has impacted the development of visual advertising and imposed opportunities for marketers to create even more impactful advertising, or is it perhaps hindering the ad creation process. The emergence of data analytics and its impacts on visual advertising is also further discussed with marketing professionals. Especially in the last two sections of the interview are critical in findings insight knowledge because the knowledge otherwise in this topic area is quite scarce and difficult to obtain.

As already mentioned, the structured interviews were conducted through email. This approach was selected or given as an option for those who were too busy to take part of face-to-face interview. Even though, the structured interview approach might not have the same kind of flexibility as the semi-structured interviewing style, this is still a good opportunity to get the valuable knowledge and information needed to answer the research question. One of the interviewees was sent additional questions on top of the original questions to clarify some answers.

Besides the interviews, some secondary research was used as a method to bring in additional information to support the study, as mentioned in the previous section. The secondary data was collected by using the Internet and materials provided by organizations.

5 Results

This chapter will present the empirical results of the conducted research. The purpose of this research is to explore and investigate the development of visual advertising and the impact of data analytics on it. This section intends to present and discuss the findings

gathered through the literature review and the conducted interviews. Some secondary research will be presented to support the findings, as well.

In total, four interviews were conducted to find answers to the research question. All of the four respondents were marketing professionals having years of experience working in the field of marketing, advertising and digital marketing. These professionals have been working in roles such as paid media, search engine advertising and optimization, digital publications, print advertising, digital marketing and advertising and copywriting. Their working experience varies from having a few years of experience in digital marketing to having even 20 years of experience working in the field of marketing and advertising. It is important to emphasise that their answers to the interview questions are their own opinions based on their own experiences.

5.1 The role of marketing and advertising in business throughout the years

Overall the objective of this study is to find out how visual advertising has changed over time and especially in the era of data analytics. The study starts by considering how the role of marketing and advertising in business has changed over time. The first section of the interview was designed to find answers to this question. As described earlier in the section 3.1. of the literature review, the role of marketing and advertising in business has been under transformation. Marketing and advertising have transformed a lot from being just a way for companies to sell their stock, to a strategic tool to reach their consumers (Janoschka, A., 2004). According to the interviewees, the role of marketing and advertising has changed a lot throughout the years. The development of technology plays a massive role and influencer in the development of advertising.

The change in marketing and advertising has been huge in recent years. Formerly advertising was offered to everyone, but instead of relying on that, people today demand (subconsciously) advertising and communication from brands that interest them. Targeted advertising has made mass advertising expensive and, therefore, unpopular in general media. Also, responsibility has become an important part of marketing communications. (Jonne Martikainen, Account Director)

Together with Jonne, Aleksi Romo, Art Director and Producer, believes that targeted and personalized advertising is a large business that has grown within the last ten to twenty years. The other respondents have stated that the importance of serving the customer's customer has become an important aspect when creating advertising and when looking at the things from the perspective of working in a marketing agency. According to one of the respondents, in Finland, we are still miles behind the rest of the modern world in digital marketing and especially reallocating budgets from offline media, mainly because each one of those media is losing reach.

But in the last few years we have seen improvement on the agency side: Relying more on data, testing, making fast, agile decisions and reallocating budgets, shutting down poor performance channels, being curious about new ways to do things. All in all, more "growth hacking" mentality, even though I absolutely HATE that term. (Juho Santala, Digital Planner)

According to some secondary research, the transformation of marketing and advertising has been tremendous. The view that advertising needs to be serving and helping consumers by offering useful information to them rather than just trying to sell things to them has become important. The fact that advertising has shifted to become much more individualized and targeted can be supported by some studies carried out by companies such as Deloitte and Salesforce.com, inc. According to a study by Deloitte, organizations, and, therefore, also marketing needs to be much more focused on being customer-centric. "Achieving growth means that organizations must apply a marketing-centric approach across all functions – aligning the business to better meet customer requirements, in parallel with developing an innovative product and service portfolio" (Deloitte & Touche LLP, 2007). According to Salesforce.com, inc., one-size-fits-all experiences that once were more common tactic in advertising and marketing does not work that well anymore. "Tailored, contextualized engagement across multiple touchpoints is the benchmark" (Donegan, C., 2019). Targeting advertising correctly, personalized messages and reaching out to consumers at the right time are important factors to consider today.

Advertisements, like other contacts today, are not tied to a specific time or place. As a result of technology, it is increasingly important to reach the right people at the right time. Visuality is an important part of advertising, as well as the accuracy provided by the devices (Jonne Martikainen, Account Director).

5.2 The development of visual advertising

As the role of marketing and advertising has evolved tremendously over the years, visual advertising has also transformed. According to the interviewees, the advertising process typically varies a little bit depending on the client, industry and the services offered to the client. According to one of the respondents, the process starts by first drafting the idea, providing a prototype to the client and finalizing the advertising campaign according to the client's wishes. The process includes steps such as recognising the target audience, finding out what is the business strategy of the client, knowing what the client's customers want and need. The fundamental idea and the creative work is to find out how the "offered uniqueness should be communicated to the identified target audience in a way that interests them and in the channels they use" (Jonne Martikainen, Account Director). Basically, the process has not changed and is similar to the traditional advertising process. In the advertising creation process, the AIDA model (presented in section 3.3) is seen as a useful tool at least to some extent.

Yes, we use the AIDA model at least on some level: We try to create messages for every AIDA phase. If possible, we create content on the website and creatives based on AIDA phases and we have different KPIs and metrics for each phase. But this usually happens only when we have sufficient budget enough to do it (Juho Santala, Digital Planner).

A few other interviewees, on the other hand, comment that the model might be a bit outdated.

The basic principle in the AIDA model is still relevant; however, as such, it no longer works (Jonne Martikainen, Account Director).

Aida is perhaps a bit old-fashioned and belongs to the time of print media, TV, and radio (Timo Vennonen, Content Manager).

It can be seen that the development of technology has impacted the tools used in advertising creation processes, but it has also impacted how visuals are created today. According to one of the respondents, "visuality always lives its own time and changes according to trends and fashion. Digitalization has created a requirement for quality images in almost all marketing communications" (Jonne Martikainen, Account Director). According to the respondents', technology has made advertising a process where factors such as color or certain shapes come and go depending on what is popular. In addition, people tend to create a lot of icons these days. In a digital environment, images can be

more accurate and detailed. Infographics have become much more popular after the rise of data analytics, and this is because complicated ideas can be presented easily by using infographics. Additionally, there has to be something that consumers can click on or touch with their mouse. Interactivity has become an important aspect of online advertising today. This is supported by other studies done by online advertising, as it was stated in the section 3.4.1., interactivity in advertising can enhance brand recall and engage consumers better. (Baron, S. D., Brouwer, C., Garbayo, A., 2014).

With one of the interviewees, the importance of images versus text was further discussed. According to the interviewee, usage of text allows marketers to share information that helps consumers. Nevertheless of course, whether images or text are more powerful in online advertising depends on the situation.

If I am buying running shoes to the Boston marathon, the technical characteristics of the product might interest more. Then I would believe that descriptive text could have more weight than visuality in advertising. If, on the other hand, there are street sneakers in search and the main function is to look good (and not necessarily the supportiveness of the shoe or to be orthopedically excellent), the visuality and the appearance of the sneaker are more important.

I think this is more emphasized in B2B marketing, where the visuality or appearance of the products themselves is not the biggest selection criterion. Sure, it also matters, but no one buys a product that looks good both in advertising and life (but does not work for its intended purpose) (Timo Vennonen, Content Manager).

The view that text might, in some situations, be more powerful than visuals has been supported by some studies as well. As mentioned in the literature review, some claim that text should be considered over images and that the message delivered plays an important role in online advertising (Janoschka, A., 2004: 73-74).

People have been an important element in advertising for a long time already. As seen in The Coca-Cola advertising example from the 1950s presented in section 3.2 of this study shows. In addition, as mentioned by Jonne Martikainen advertising always changes according to the trends and follows what is in fashion. This has been noted by The Coca-Cola Company as well "In general, advertising is like holding up a mirror to society. Commercials and other creative from a certain year or era typically reflect what is going on in culture at any given point in time" (The Coca-Cola Company, 2020). The

interviewees and The Coca-Cola Company are not alone with these views, as some secondary research supports these views and observations. A blog post by Adobe shares some visions about current creative trends for 2020. According to Adobe, “consumers are pushing brands to keep up with an ever-widening world of aesthetic shifts. Beyond trends, there is a growing need to deeply connect to larger cultural, economic, and social movements through a multitude of industries. No trend exists in a vacuum — every trend is connected with a multitude of references and micro cultures, all fostered online” (Milis, B., 2019). The shifts in visuals seem to be always connected to the shifts in culture, economy and social movements. Adobe claim that the biggest trends in the visuals and creative side in advertising are the way how any age can be seen as the new normal, imagery and visual narratives do not only focus on youth anymore as there has been a shift towards accepting also mature crowds as important figures. Technology and the emergence of social media have played their part in the change as well, people now expect authenticity.

If anything, the demand for imagery that represents all the diverse facets of humanity and the realities of modern life has grown significantly stronger, and mainstream conversations about the meaning of diversity and inclusion that gained a new level of sophistication (Milis, B., 2019).

Besides these to trends, Adobe believes that consumers today are expecting to see images presenting genuine feelings and experiences.

When it comes to visual imagery, brands are finding that images presenting a strong sense of community and meaningful lifestyle choices resonate best, creating a quick connection between companies and conscious customers (Milis, B., 2019).

By viewing the relevant literature, secondary research, and conducted interviews, it is possible to see how visual advertising has changed because of technology but also because of culture and society evolving all the time. The impact of technology in advertising and the rise of data analytics will be further discussed in the next section of this study.

5.3 Data analytics and visual advertising

Data analytics has been claimed to be an important game-changer in the advertising industry. When asked from the interviewees about data analytics and if it has impacted visual advertising, almost all of them answered that technology and data analytics have impacted advertising. According to the interviewees, data analytics can help marketers to recognize the most important audiences and customers, how to create targeted visual advertising and data can provide important information about the visuals that work the best in the online environment and digitally.

The creative advertising processes have changed over time and different data collection methods and metrics are used to evaluate visual advertising as it is still today an important factor to consider in advertising.

Creatives (pictures) are always the most important part of advertising. In an optimal world creatives always crystallize all the information we have gathered about our client, their industry, their customers, etc. In the modern digital world with powerful algorithms and machine learning, the need for time and budget consuming background work is diminishing because we can test different approaches so effectively. I would say the heavy lifting has switched from background work to testing and learning on creating creatives. And this evolution is still going on and only taking up speed. Fully autonomous “marketing machine” is still almost science fiction, but it isn’t that far ahead – at some point we just give parameters for that machine and it will take care of targeting, media buying and optimization and even doing creative stuff (Juho Santala, Digital Planner).

Today, with the help of technology, it is easy to gather accurate feedback about the visuals, while campaigns can be modified and accurate decisions made based on the information collected. The different data collection methods used, according to the respondents, are Google analytics, a free data analyzing tool (Google, 2020), click-through rate (CTR), A/B testing and HubSpot inbound marketing software and content strategy tool (HubSpot Inc., 2020). The metrics that can be measured are, for example, sales, time on site, downloads and different visual variables.

A/B testing and multivariable testing are very useful tools for the ongoing optimization and also for honing the creation process. Usually, it is best to have some kind hypothesis for testing, but you can do it also “blind” without any objective (Juho Santala, Digital Planner).

According to the respondents, these data collection methods and metrics can enhance the visual advertising creation process. Data analysis can help identify the target audience and thus help in creative work. It can also provide some flexibility in a way that not everything has to be one hundred percent correctly done in the first attempt, pictures can be updated and modified based on data.

In digital advertising, we have the luxury of rethinking and recreating our materials based on the data we gather as we go (Juho Santala, Digital Planner).

According to some studies discussed in section 3.5., data can, for example, be used to see whether certain images work better in specific situations or how well some visuals function. Additionally, data and using different measuring techniques like CTR have revealed that contrast can enhance the performance of visuals and on the other hand, having too many objects in the picture may weaken the image's effectivity (Azimi, J. et al. 2012).

However, some downsides according to some of the respondents, are that the data collected might not always be so accurate or describe the right things. The data does not always necessarily just tell that some visuals have worked well, the results can also be misleading. According to some of the respondents, measuring by using CTR is not always the best choice because you might not know what happens after the click. It might be that the page or visual that consumers click is not at all what they thought they were looking for.

I think analytics is a bit like fire, certainly a good servant but a bad master. It must not be just blindly stared at, it must be understood that data is not infallible either. However, I do not consider analytics as an obstacle or a bad thing. The more we know, the better creative solutions it is possible to make (Timo Vennonen, Content Manager).

However, mostly measuring advertising is seen as only a good thing and can only enhance the visual creation process and creativity. According to Timo Vennonen, the more there is information, the better visuals can be created.

Measuring digital advertising is like having a mini version of market research. Therefore, we should always reflect afterward which parts of the campaigns worked and which did not. The same applies to creative (Juho Santala, Digital Planner).

Apart from the interviewees, several companies also believe that the developed technology and data analytics can strengthen and reinforce marketing and advertising techniques. According to Deloitte, applying people-based measurement techniques that “describes the ability to connect incremental business outcomes to delivered campaigns by accurately measuring the actions of real people across devices, channels, platforms and publishers” (Deloitte, 2018), companies could better see who is viewing your company’s advertising, how people are engaging with the marketing content and how the marketing and advertising created affects consumers. “People-based marketing enables a brand to market to a specific person, rather than a cluster or group.” (Deloitte, 2018). Google and IBM have created image recognition software that enables companies to better perform with their imagery. Google Cloud offers two computer vision products that help companies to understand their images by using machine learning (Google, 2020). IBM’s Watson Visual Recognition software promises to “enable you to analyze images for objects, colors, food, explicit content and other subjects for insights into your visual content” (IBM, 2020).

Based on the literature review, by looking at some secondary research and taking the interviewees’ perspectives into consideration, it is possible to see how technology and data analytics have impacted marketing and advertising strategies. Many companies and the individuals interviewed believe that data analytics is an important factor that needs to be taken under consideration and that can help in the advertising creation process.

At the moment, it is very important to rely on data analytics also on the visual side of advertising. And in future it will be more like a vital (Juho Santala, Digital Planner).

6 Discussion and Analysis

The overall objective of this study was to investigate the development of visual advertising over time and how data analytics has impacted these changes. The study starts by discussing the relevant literature in a profound manner. The data to answer the research question was collected by conducting two structured and two semi-structured interviews. The interviewees’ answers and knowledge about the subject were

then discussed in the results section and secondary data was gathered to support these findings.

The literature discussed in this study presents how marketing and advertising have evolved over time by first discussing how the role of advertising in business has changed and then investigating the change in actual visual elements in pictures and images. The development of technology and its impact on visual advertising is presented in the literature review and in the results section as well.

The literature, interviewees' knowledge, and the additional secondary research definitely shed light and insights to the research question. At a general level, it can be said that the results clearly indicate that the development of technology and data analytics have had an impact on advertising and visual advertising. The role of marketing and advertising in business has changed significantly due to multiple reasons, technology being one of them. As discussed in section 3.1. of this study, the development of technology has impacted how companies communicate with consumers nowadays (Denison T., McDonald M., 1995). The Internet as a commercial communication channel has changed the advertising tactics as well as the role of advertising to become an important part of organizational strategy (Janoschka, A., 2004). The results from the interviews support these findings, as they all agree on that the development of advertising has been substantial and its role in business has changed significantly. Companies are forced to rethink their strategies on how to reach their target audience. Due to internationalization, the market opportunities are much wider and as a result consumer preferences have changed as well (Lazer, W., 1993). Marketers have had to change their advertising strategies to reach the demanding consumers better. Advertising today need to be much more targeted than ever before. There has been an increase in market segmentation and small selected target consumer groups due to a wide variety of different products and services. The knowledgeable consumers demand informative and value adding advertising that is many times personalized specifically for certain individuals. The importance of targeted advertising has been mentioned in section 3.1. as well. In the world full of information, designing the advertising in a way that it reaches the consumers it is targeting has grown its importance (Janoschka, A., 2004). The view of the importance of targeted and personalized advertising, is strongly

supported by the statements given by the interviewees as well as the secondary research.

As the role of advertising in business has evolved more towards being a strategic tool and an essential part of the operations of an organization. The existing communication theories have altered along with the other changes. The most common communications theories were discussed in section 3.3. and especially the AIDA model was further investigated in this study. AIDA and the other communication models have been used to support the creation process of the promotional activities of a company (Vaughn, R., 1980). Even though the advertising creation process itself has remained the same, the results of this study indicate that the AIDA model seems to be outdated and does not work as well as it used to. One of the interviewees, however, think that it might still be at least partially useful tool today and can be used to support the creation process.

The data collected through the interviews and the secondary research describe the changes in visual advertising as well. The participants having years of experience, variety of skills, knowledge and expertise in the area of digital marketing and advertising bring valuable information to this study. Based on the literature review, one of the major changes in advertising has been that people have been included in the ads besides of text. "Advertisements having pictures of humans are superior as far as attracting and holding attention are concerned and that the degree of this superiority differs with individuals" (Nixon, H. K., 1924). Text and its importance seem to divide opinions but it also depends on the situation whether text or images are more important in ads. The importance of including people in the ads has been confirmed by the literature discussed as well as some secondary data. Adobe claim that presenting people, authenticity, genuine feelings and experiences are the biggest visual trends this year (Milis, B., 2019). The major changes that have happened in visual advertising in a consequence of the development of technology are the aim for clarity in content design as it must be clear for consumers to use and scroll in different devices (Landa, R., 2016). The usage of colours differs from offline advertising due to the light intensity and wider array of colours available in electronic devices. The technology allows marketers to create very detailed and sharp pictures and typography (Pohjola, J., 2019). As mentioned already, personalization and targeted advertising has been stated to be important factors to

consider today when advertising is created. It has been found out that consumers tend to accept personalized advertising better than ads that are not targeted to a specific bigger group of people (Baek, T.H., Morimoto, M., 2012). The ability to create the right kind of content and compositioning of it are important in online advertising. As one last thing, interactivity is an important factor to consider (Mohammadian, M., Mohammadreza, M., 2012). There must be something to click on or touch with the mouse as one of the respondents to the interview stated. Other than that, the visuals are created mostly in the same way as in offline advertising. According to the findings positioning of text, style and advertising techniques has remained mostly the same.

Data analytics has become a popular way to measure advertising effectiveness and the results can shed light on how data analytics have been used in advertising. Based on the results, it seems that the overall campaigns can be measured well by using data. However, from the visual advertising perspective, it seems that the only data analysis technique that can actually test the visual elements in ads is A/B testing. CTR and CVR have been tested as methods for testing the functionality of visual elements in adverts as well but these methods do not seem to be completely reliable. According to the interviewees, the CTR is not a good metric itself. The CTR results might be misleading as we can not be completely sure if consumers click on purpose or if the information clicked was something they were looking for.

Overall, the results indicate that the development of technology and data analytics have had some impact on the visual elements in advertising but the changes have not been significant. Measuring these elements is also in its infancy. However, the importance of data analytics should not be forgotten because its relevance and importance seems to be growing every day.

6.1 Reliability and limitations

This section discusses the reliability and limitations of this thesis. Some data quality issues related to reliability, forms of bias and validity and generalizability may occur. The reliability in this study refers to the combination of structured and semi-structured

interviews. In structured interviews, the problems are related to consistency. (Saunders, M., Lewis, P., Thornhill, A., 2007). Interviewees may understand the questions differently than they were meant. In addition to that, no clarifying questions can be made. This, on the other hand, is possible in the semi-structured interviews where additional questions can be presented. However, some reliability and limitations exist in semi-structured interviews as well. One of the possible bias in this study is related to interviewer bias. "This is where the comments, tone or non-verbal behaviour of the interviewer creates bias in the way that interviewees respond to the questions being asked" (Saunders, M., Lewis, P., Thornhill, A., 2007). Based on the findings made from the interviews, generalization is very hard to make, therefore the results may be considered directive. Even though four interviews were done, a higher number of participants could strengthen the reliability of this study. In addition to the interviews, the amount of existing research done in the topic area of visual advertising on digital format and data analytics investigating visual advertising is limited.

7 Conclusion

This study encompasses digital marketing and advertising, visual advertising and data analytics and metrics used in advertising. The objective was to investigate how visual advertising has evolved and changed over time and how data analytics have impacted these changes.

Interviewing the four industry professionals shed light on this topic and provided valuable knowledge that would have been otherwise very hard or even impossible to find. Based on a combination of primary and secondary research data analysis of the development of visual advertising and data analytics, it can be said that overall visual advertising has not faced major changes in what comes to the actual visual elements in the pictures. The role of marketing and advertising in business has faced major changes and their role has shifted to become an integral part of an organization and its strategy.

To mention the biggest changes in visuals, those are related to trends and technology affecting colour changes, how people are presented in the images, composition and the

attempt to use text effectively. In addition, the need for personalized, informative content and targeted advertising seems to be the biggest changes in advertising. What comes to data analytics in visual advertising, the results indicate that A/B testing has potential as a tool to measure visual elements in advertising. Based on the current knowledge and the findings, other reliable tools or metrics for measuring visual advertising have not been found.

Due to the complexity of this topic area, much of the research already done in the area of visual online advertising and data analytics related to visual advertising, leaves many unanswered questions. The gaps in the existing research allow for more investigation to be done in this topic area. Most of the studies do not follow a logical system or provide specific results that could be multiplied to all digital marketing and visual advertising. Creativity and visuality are hard to fully understand due the complexity of human behaviour. But certainly, there is room for more studies to be made at least in the area of A/B testing in visual advertising as already mentioned the results indicate that this data collection method can be useful in investigating the visual elements in advertising. The amount of existing studies in this topic area is minimal therefore, the results of this study can be practically applied to the industry of marketing and advertising and visual communication research. This study has compiled together the main changes that have happened in visual advertising over time and provides directions for future studies to be made.

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Interview questions

Request for interview

Dear recipient,

This is an invitation to take part in research conducted by Katri Hautala as part of the Bachelor's Thesis, under supervision of Business Lecturer John Greene at Metropolia University of Applied Sciences in Vantaa, Finland. The study explores the evolution of visual advertising and the impact of data analytics on it. And if data analytics have imposed opportunities or challenges to the visual advertising creation process.

Participation in this research is completely voluntary and involves a completion of series of interview questions. The interview/questionnaire is designed to answer questions related to the topic areas of digital marketing, visual advertising and digital metrics and data analytics. Your participation to this interview would be highly appreciated and it could bring valuable information to the existing knowledge in this topic area.

Interview questions for marketing professionals

A. Background Information

In addition to the interview questions, could you please tell us a briefly about yourself and your background in advertising industry?

B. Development of advertising and visual advertising

1. How have you seen marketing and advertising change in business in your view over time?
2. How has visual advertising changed over time?

C. Advertising process & theories

3. What are the steps or ways in which you create an advertising campaign? What is

your advertising process?

4. Do you use of AIDA model in you process and see it is still relevant to today?

D. Technology, data analytics & visual advertising

5. How in your opinion the development of technology has impacted visual advertising?

6. Has the rise of data analytics impacted visual advertising? If yes, how?

7. How has the evolution of data analytics changed the way visual advertising is created today?

8. What are the metrics and techniques that you use to measure visual advertising effectiveness?

9. Do you believe that data analytics can be utilized in visual advertising? If yes, how?

10. Does data analytics aid or hinder the visual advertising creation process?

11. Can data analytics bring new information how to create more effective visual advertising?

12. Do you believe that measuring visual advertising by using click through rate or A/B testing can provide valuable information that help in the advertising creation process?