

UNIVERSITY OF LJUBLJANA
SCHOOL OF ECONOMICS AND BUSINESS

MASTER'S THESIS

**DEVELOPING DIGITAL MARKETING WITH USE OF FACEBOOK
IN THE CASE OF AN E-COMMERCE COMPANY**

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INTRODUCTION

The world population is almost 7.7 billion people, a good 59.6% of which are using the internet. That's 1187% growth in just 10 years. (Miniwatts Marketing Group, 2020) With half the world population being online, it has become almost mandatory for businesses to have their online presence as well, if they want to keep up with the needs of their customers. Being online is not enough. What is driving the sales for the business is consumers staying online. Every year the number of hours that we spend online is increasing. According to the latest report about the digital trends of 2019, the average internet user spends 6 hours and 42 minutes per day on the internet, which amounts to a quarter of their lives (Salim, 2019). From that, 3 hours and 14 minutes are spent on mobile devices and 3 hours and 28 minutes on computers or tablets.

Marketing has been integral part of how company do business for decades, or at least part of the business of successful companies. If we look at the official definition for marketing of the American Marketing Association we will see that they define marketing as the activity, or even set of institutions, and processes with which we create, communicate, deliver and exchange offerings that are of value for customers, partners and society at large (American Marketing Association, n.d.).

Over the last two decades, there has been a drastic change in the way the consumers search and receive information about the things they like and are interested in, be it products or services. Also, the way they make decisions about what to buy in the present or planning for future purchases has changed together with the way they shop and how they share their opinions about the purchased products or services (Vinerean, 2017). This drastic change has been facilitated by the rise of social media platforms, such as Facebook, Instagram, Twitter and others. The Social media platforms are in rapid growth and are constantly challenging the status quo. They are changing from one day to the next, creating an environment where the ideas of today can already be old news and invaluable by the next day (Kaplan & Haenlein, 2010).

The most popular online social media platform at the moment is Facebook and it can probably be stated that it is the most popular network of all times (Boyd & Ellison, 2007, p. 211). What started as a sidekick work project between friends at college in order to create a communication channel for students, has now grown into the world's largest social media platform with more than 2.6 billion active monthly users (Clement, 2020e). Facebook achieved \$69,7 billion in total revenue in January 2020, with \$21 billion in the final quarter of 2019 (Facebook, 2020). Moreover, the social media has approximately 2.5 billion people who are actively engaging in social media activities on Facebook, offering marketing opportunities for brands of any size and locations to reach large amount of people based on various demographics and interests. Because of the easy set-up of business accounts, creating campaigns and its sophisticated targeting possibilities, Facebook has become a key player with digital advertisers all around the globe. Numerous e-commerce companies rely on Facebook advertising as the main channel for increasing their revenue and reaching new customers.

Although probably anyone can create a campaign and run it on Facebook even with a minimal budget, in order to create a campaign that will have an impact on the long run it takes a lot of experimenting and testing what works best for different industries, products, services and also different target audiences. Keeping up with all the new updates that come from this platform can also inspire advertisers never to settle for only one approach, but to always think outside of the box, be creative and unique in order to gain competitive advantage and stand out from the crowded advertising space that Facebook has become. Setting up specific goals that can support the company's strategy must be part of every campaign building process.

The primary purpose of this master thesis is to acquire deeper and better knowledge about digital marketing and social media, in particular about Facebook as a marketing channel and by experimenting with different kind of Facebook ads to improve the conversion of the company for better website purchases. Furthermore, the purpose of my master thesis is also to present the findings from different A/B testing experiments that I will conduct on Facebook Ads Manager as a future guide on the importance of testing, analyzing and learning on the Facebook social media platform and to show what are the key benefits of this approach.

The main goal of this master thesis is to test and determine which Facebook ads create the best results in terms of website purchases for the ecommerce company. This will empower me to offer suggestions about improvement, solutions and changes which will help the marketing team from the company use more diverse Facebook ads to drive conversions in order to improve and strengthen their digital marketing strategy. My experience in working with Facebook advertising in an ecommerce company has showed me that experimenting is the key to success. In the fast-changing environment of social media, the key to success is agility, the ability to react fast on the different type of changes and adapt accordingly. Testing different approaches, reevaluating everything that it is executed as part of the digital marketing campaign, learning and adapting is crucial to finding the key factors that are working the best for specific products or brands. What worked one day, can become fast obsolete if there are some new trends to be followed. That is why advertisers have to stay alert on every opportunity in this fast-changing environment and try to understand the customers, their wishes and preferences, and their biggest challenges. Only by becoming customer centric, can digital advertisers come closer to what the customers really want and see growth in their performance.

With my master thesis, I am aiming to answer the following research questions:

- Are page visitors more likely to convert than people who have not visited the company website at all when showed Facebook ad?
- Does a Facebook ad which shows a discount drive website conversion at a lower cost (CPR) than an ad without discount?

- Does Facebook ad with a vertical video has lower cost per click (CPC) than horizontal ad with a horizontal video?
- Does Facebook video ad with titles drive more conversions than Video Facebook ad without titles?
- Do Collection ads with video generates more conversions than collections ads with images?

To answer the main research questions for the empirical part of this study, I chose case study as a research approach. The key advantage of this kind of approach is that it can provide information from observed empirical evidence. Beside the literary overview that I conducted on these topics and the gained theoretical knowledge from the scientific articles, scholar papers, books and online blogs, all the hypotheses are created on my 2-year professional experience in digital marketing and Facebook advertising.

This master's thesis is structured from two parts: theoretical and empirical. The theoretical aspect helps me to determine the most important key points of the literature review, which consist of reliable sources and materials, scientific articles, books about the selected topic, scholarly papers and online blogs on Social Media Marketing and Facebook Marketing in order to always have the latest and most relevant information needed as this domain is growing so fast. I explain their characteristics, challenges, and possibilities they represent for the businesses. Moreover, different theories and concepts assisted me to broaden my knowledge about the topic and helped me to frame the key research questions stated above. This first part of the thesis is focused on offering a theoretical overview of digital marketing as a new and popular branch of marketing, the changing behavior and purchasing habits of the new e-customers, the rapid grow and importance of social media marketing and Facebook marketing. I go into more details about different types of Facebook ads and the possibilities for targeting on Facebook in order to give theoretical background to the experiments I will be running.

The key part of this master thesis is the empirical study based on the case study of the company's advertising on Facebook. A/B testing experiments were set on Facebook Ads Manager of the company in order to approve or dismiss five different hypotheses. All the experiments that were set on Facebook have been done under the supervision from the marketing team of the company. The obtained findings were analyzed using descriptive statistics. The goal of the A/B testing is to determine what type and format of Facebook ads have better performance regarding website conversions. The results will empower me to develop marketing campaign on Facebook in order to identify which type of Facebook ads work better, so that I can offer suggestions about improvement, solutions and changes which will help the marketing use more diverse Facebook ads to drive engagement and conversions.

In conclusion, I finish my master thesis with proposals and recommendations for more powerful Facebook advertising strategy for the company.

1 SOCIAL MEDIA MARKETING

1.1 Digital Marketing

According to Philip Kotler (2010), called the father of modern marketing, marketing is the science and art of exploring, creating, and delivering value to satisfy the needs of a target market at a profit. With the fast development of technology in this fast paced environment we live in, and change of our lifestyle which is always more and more influenced by what we see online, be it on Facebook, YouTube, Instagram, blogs we are following etc., consumers, like never before are challenged to make choices from the ever growing range of products (Reece, 2010, pp. 75-77).

Although the mediums through which business do advertising have changed over the past few decades, its core still remains the same: it is still trying to influence people on which actions to take, what to choose to buy or what website to visit (Ryan & Jones, 2009, p. 3).

That is why a new branch of marketing was developed and that is digital marketing. It is the buzzword of the time we live in. Digital marketing is an effective way of putting the customer of all online activities that a business can have: be it running campaigns through digital media channels, generating leads or providing after- sales service (Chaffey & Smith, 2017).

1.2 E-Customers

Customers being online is what makes it even more exciting about business all around the world, no matter if they are big or small. Everyone has access to the global markets and the chance for a direct and more personal communication with customers all around the world. Not only are the online customers changing the way they communicate with each other and with the business, but they are also changing their screens from bigger to smaller (Chaffey & Smith, 2017).

With the increasing customer power, which comes as more customers use the internet for different sort of activities, for business it becomes challenging to maintain a good and long-term relationship with their existing customer and obtain new customers at the same time. Besides having good products and services, it is imperative for the businesses to create and sustain trust, to have a capable and good customer service if things don't always go as smooth as they should (Urban, 2004, pp. 157-159, 177).

The voice of the customer is the groundwork for consumer insight. If the right attention is given to it, it can give a lot of insights about what are the customer's needs, preferences, perception about the company (Smith, Wollan, & Zhou, 2011, pp. 67-68).

The biggest advantages of the Internet as a medium, according to Spiller and Baier are the following (Spiller & Baier, 2005, p. 208):

- Wide reach – more than 4 billion people in 2017, 2.46 billion from which are social media users (Clement, 2020f).
- Convenience – both for the consumers who are shopping on their devices from the comfort of their home and for business, which can have direct contact with their customers.
- Selective communication – business can target and communicate with their existing and prospect customers at any time no matter where in the world they are.
- Low cost – paying for effectiveness.
- Creative variety – endless array of creative solutions for text, audio, video, graphics.
- Flexibility – once placed on the desired platform, changes of different kind of ads can be done almost instantly.

1.3 Social Media Landscape

Social Medias have become the place where brands are entering dialogue with consumers (Dyck, 2014, p. 5). “Social media is the term commonly given to Internet and mobile-based channels and tools that allow users to interact with each other and share opinions and content. As the name implies, social media involves the building of communities or networks and encouraging participation and engagement” (Chartered Institute of Public Relations, 2013).

Kaplan and Haenlein (2010) define social media as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User- Generated Content” (Kaplan & Haenlein, 2010, p. 61).

The growth of different social media platforms has developed a new type of customer relationships, which gives the customers an opportunity for connecting not only with their closest friends but also with like-minded people from all over the world through sharing and exchanging personal and social content with them (Lee, Olson, & Trimi, 2012).

With the wide usage of smart phones and their video cameras, the customers are in position where they can take photos, record videos and post that content instantly on social media. In order to be in step with the customers preferences and to take advantage of the customer willingness and eagerness to share this content, the companies have to create the right environment for the customers to do so by creating the right platforms (Mangold & Faulds, 2009). In this way, the companies are giving the customers a space where they can share their user-generated content, which will reach their network of friends and consequently increase brand awareness.

1.4 Marketing and Social Media

Moreover, social media platforms such as Twitter and Facebook offer the opportunity of creating environment for the customers where they can form online communities based on the interest around certain brands, products, or companies (Culnan, McHugh, & Zubillaga, 2010). On the other hand, the most famous social media platforms are used in great extent

by companies for their promotional activities and it is essential to adopt social media as a key marketing tool for increasing purchase intention and generating purchases to enhance competitive advantage (Jarrah, 2018).

Although social media for consumers is usually where they spend their leisure time, business must not take it with leisure. Defining how often should they post on Facebook is by no means enough if a company wants to establish its social presence. Social media is where business invest their money and time and that is why it is important that is accompanied with a solid strategy as well. Reece suggest 6 guidelines for social media planning, execution and measuring results (Reece, 2010):

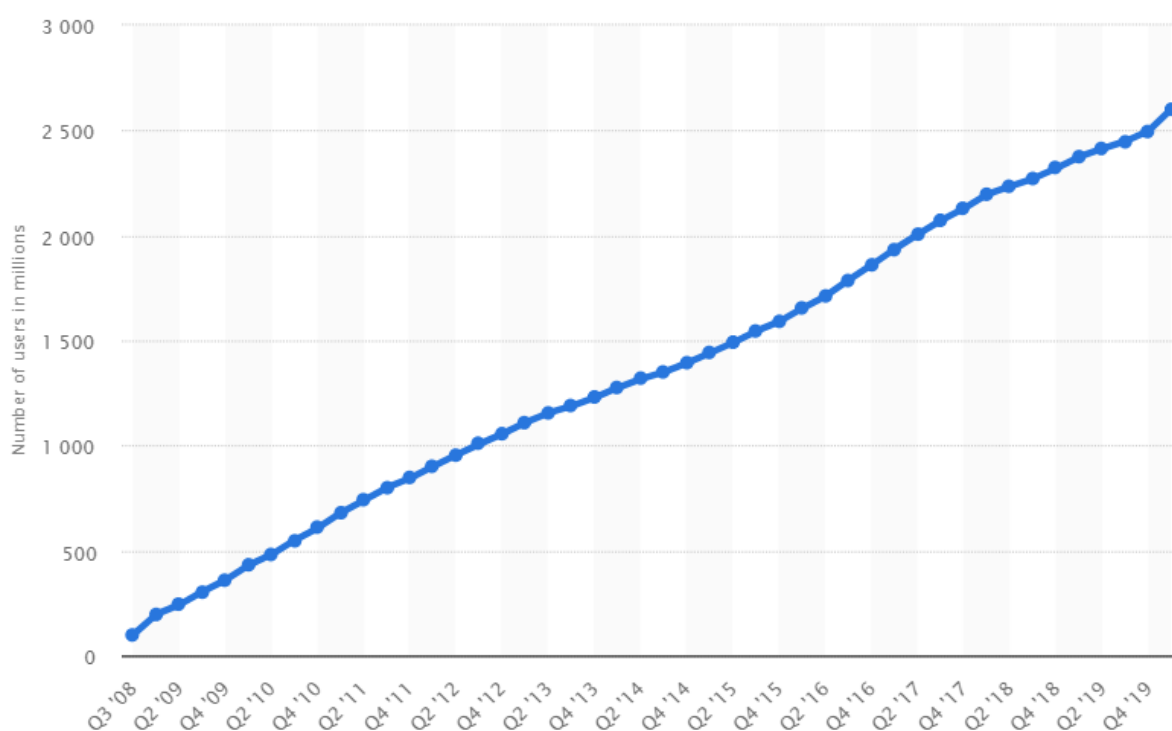
- Purpose: what are your objectives and what do you want to accomplish?
- Research: who is your target audience and where can you find them?
- Analyze: statistics, media tools, metrics and trends
- Strategize: the strategy should be tightly related to your business goals and marketing objectives
- Implement: develop social media tactics to achieve your strategy
- Execute and evaluate operationalize and measure the plan for continuous improvement (Reece, 2010).

Because of its interactive environment and strong usage by consumers, companies can easily look for and reach new customers on social media, engage with their past, current and potential customers, and promote their products (Curran, Graham, & Temple, 2011). In fact, using the social media platforms as a marketing and advertising tool has been established as an effective and powerful instrument to obtain numerous new customers (Hanna, Rohm, & Crittenden, 2011).

1.5 Advertising with Facebook

Facebook has the highest online presence among all the social media in the world, with over 2.6 billion monthly active users, as seen in Figure 1 (Clement, 2020e). The number of business that are actively advertising is also on the rise, with currently more than eight million active advertisers (Clement, 2020e).

Figure 1: Number of Facebook Users From 2008 to 2020



Source: Clement (2020e).

Over the years, Facebook's business has been constantly advancing, offering advertisers diverse opportunities to reach their business goals, discover new relevant audiences, reengage and retarget previous buyers or site visitors (Henderson, 2018).

Studies by Deghani and Tumer (2015) for Facebook as a social media platform have revealed that advertising on that platform affects brand image and brand equity, both related to a positive change in purchase intention. Their research also demonstrated that best Facebook advertising practices included offering promotions, incentives, and customized messages (Deghani & Tumer, 2015). Facebook is also deemed as essential tool for customer engagement (Malhotra, Malhotra, & See, 2013) and for the generation of queries and leads.

Facebook as an advertising social media platform has two key approaches for promoting products or services: organic promotion and paid promotion. Small business can use the organic promotion, which does not require any payment and create company page for free, engage with their customers and encourage community discussions around that page. However, given the ever-changing algorithm of Facebook, it becomes harder for companies to reach wider target audience just by organic, not paid postings and without any marketing investment in this platform. That is why on the other hand paid promotion becomes crucial for advertisers who want to reach new customers. Investment in paid ads helps the advertisers target new customers with a wide array of targeting opportunities. (Huang & Depari, 2018).

According to Buffer (Lee K. , 2020), there are four main reasons why businesses choose Facebook Advertising as one of the primary marketing advertising platforms:

- Audience size: According to Facebook latest internal data (Facebook, 2020) and Statista (Clement, 2020d), currently there are over 2.6 billion daily active users on Facebook – 1.03 billion of which use the social network through their mobile phones.
- Attention: Most users spend long time on social media every day. The average user spends almost an hour daily just on Facebook, Instagram, and Messenger (Lee K. , 2020).
- Organic reach decline: In the last couple of years, the organic reach on Facebook has been in decreasing and with Facebook modifying and improving its algorithm often most of the companies cannot have organic reach anymore. If business want to reach their target audience and make themselves visible to the Facebook users, they have to opt for paid advertisings.
- Targeting: Facebook Ads offer versatile and very sophisticated targeting options. Business can target users by age, gender, location, demographics, interests, behavior, and even people who are similar to the business's best customers.

What is considered a successful ad is when the user notices it, responds to it, and takes action by going to the web site of the advertiser. A successful ad is expected to monetize the related cost by attracting user's attention (Barreto, 2013).

Facebook ads dominate Facebooks' revenue, with a staggering 98,5% share in 2019. According to Facebook's earning release at the end of January 2020, the total earned revenue from advertising amounted to around \$69,7 billion, which hit a new record for the social media giant (Facebook, 2020). In comparison to the year before, the revenue obtained from advertising was around \$55 billion, which is 27% increase for 2019 (Clement, 2020b). The advertising revenue comes from a high number of active advertisers on the platform, which currently amounts more than eight million active advertisers (Clement, 2020e).

1.5.1 Types of Facebook Ads

Facebook Ads have been changing through the years, starting from very simples one and developing to immersive and engaging ones that we all see nowadays on our news feed or Instagram stories. They help business tell their unique stories by choosing the best format to do so. Currently there are eight types of Facebook Ads and in this part I'm going to do an overview of all of them (Facebook, n.d.).

Photo Ads

Photo ads consist of imagery and copy. Photo ads are simple, and powerful way to increase brand awareness and drive traffic to the website. Simple and easy to create in just a few minutes, photo ads can still be a very powerful way of driving conversions.

Engaging, creative and high quality visuals are crucial for the good performance of the ad. Photos of people enjoying the advertised product can perform better in comparison to photos

of just the product, since they create stronger emotional connections, and the users can often recognize themselves or their wishes in the advertised lifestyle photo. Maintaining visual consistency thought the running ads helps to gain higher recognition from the users. (Facebook, n.d.).

Video Ads

Video ads can consist of videos created out of only photos in a slideshow format, or of video or gif format. Slideshow videos can be created in minutes and are optimal for small or medium business that want to keep a low production cost. Video ads offer the possibility to tell a compelling story and have higher brand recognition.

According to Patel (2016), 85% of Facebook video ads are watched without sound, so it's important to add captions, subtitles or titles whenever possible, otherwise it can mean wasting money for the business. Moreover, it is estimated that mobile video will account for 75% of mobile traffic in 2020 (Facebook, n.d.).

Watching a video on social media platforms has become part of everyday life of many users. Facebook users love content that is engaging and creative, and with video ads advertisers can be both. The range of the video formats and types on social media is ever expanding. Users consume the news, ads, viral moments, vlogs from their favorite influencers, sport events – all in the video format. In the beginning of 2018, Facebook positioned first between the social video platforms, accounting for a significant share of social media video posts across different types of influencers (Clement, 2020c).

Additionally, because of the emerging storytelling aspect of the video ad, videos have high levels of vividness which have been related to a higher number of “likes” on the content (De Vries, Gensler, & Leeflang, 2012).

In their case study Lee J. and Lee M. (2011), examined the influence of the following seven behavioral belief factors on consumers' intention to view online video advertising: social interaction, passing time, escape, relaxation, information, and entertainment. Of these factors, only entertainment and information had a significant motivating influence on viewing online video advertising (Lee & Lee, 2011). This goes in line with Facebook's recommendations, that advertisers should create interactive and engaging content that can attract user's attention even in just the first couple of seconds. Video ads on Facebook can strike emotional connection and be more relevant to the users that regular image ads and are more attention grabbing (Dickerson, 2016).

With advertisers turning more to video advertising, it is important to stand out from the competitors and to tailor the video content even more scrupulously. Facebook video ads have to be structured differently than traditional video advertising or even YouTube in order to be effective on Facebook where the next more interesting thing is just a scroll away. In order to for the Facebook ad video to generate views, engagement and drive conversions the Facebook video ad campaign needs to have an established structure (Dickerson, 2016).

- Frontload the ad – Showcase the most important thing about the product in the first 3 second in order to attract relevant attention.
- Be silent but effective – Optimize for sound off. Most videos are watched without sound, so it is important for the video to be able to tell a clear story even without a sound.
- Use Facebook tools to your advantage – With ever more sophisticated targeting options on Facebook advertisings, it is important to know your audience in order to deliver the right content to them.
- Test – Create different variations of the same video, use different subtitles and play with different formats in order to find what’s working best (Dickerson, 2016).

Stories

Stories is a full-screen video or photo content that appears on Facebook, Instagram and Facebook Messenger and stays only for 24 hours. The sponsored stories however do not have the time limitation and they appear between the organic stories of the users. Therefore, they are a great way to engage with the users who are already immersed in the full-screen environment and drive more reach. They can be creative and fun and attractive content for the users. In fact, one out of tree most viewed Instagram stories are from businesses. According to Facebook users, all across the Facebook family apps share one billion stories every day (Facebook, n.d.). Therefore, it comes as no surprise that more and more advertisers decide for the story format when advertising on Facebook. According to the latest internal data from Facebook, there are four million advertisers who use stories ads every month (Facebook, n.d.).

Not only are they engaging, but stories ads are driving more sales. In a survey done by Ipsos on more than 18000 people, it was revealed that more than 50% of the surveyed people said they were making more online purchases after seeing Stories ads (Facebook, 2018b). Scientific American found that 72% of millennials will not rotate their phones to watch widescreen videos, and this result only proves why it is important to create vertical videos optimized for mobile. (Pogue, 2018).

Messenger Ads

“The Messenger app, then, is such an app instance that facilitates mobile messaging among end-users and interactions between end-users, advertisers, institutions, content developers, and businesses” (Nieborg & Helmond, 2019). According to Bucher (2020),1.3 billion people use Messenger every month. This gives businesses unique opportunity to meet customers where they are and create more personal relationship with them.

Messenger ads can be of two types: Click-to-messenger and Sponsored messages. Click-to-messenger ads are like regular newsfeed ads, but the call to action button opens up the chat between the company and the user (Facebook, n.d.).

This type of ads is good for acquiring new leads, drive website conversions or simply to start interacting with them on Messenger, which means that later on to retarget those same users

with sponsored messages. Sponsored messages is an actual message that appears in the user Messenger and they can only be used if the users already interacted with the business on Messenger, so that it's why click to messenger ads are also widely used among businesses (Facebook, n.d.).

Carousel Ads

Carousel ads consist of up to ten photos or videos in a single ad, with the possibility to add a separate link and description for each of them. They are great for showing off different products, highlighting the story of one single product, or even giving instructions on how to use the product. The carousel images or videos order can be optimized by Facebook itself based on their performance, or their order can be set manual. This format gives the opportunity of creating a compelling visual storytelling in order to capture the user's attention, stand out and reach the desired objectives (Facebook, n.d.).

Slideshow ads

Slideshow ads are combination of images, motion, sound and text that look like videos. They can be created in just a couple of minutes on desktop or mobile for almost no cost. Slideshow ads look like video but use five times less data, which makes them ideal for reaching audiences that have slower connections or older devices. Usually slideshow ads are used to highlight the benefits of the promoted product, display multiple products or tell the business story in an interactive manner. They are a great video alternative, especially for small companies with limited budget (Facebook, n.d.).

Collection Ads

Collection ads consist of main video or image with additional four images places below. They are designed for product discovery, browsing, and driving conversions after capturing the user attention. Collection ads are only designed for mobile format and offer fast loading, full-screen experience. After clicking on collection ad, the user is taken to fast loading, full-screen interactive experience where they can browse different products offered by the business, learn more about them and even buy them without ever leaving Facebook or Instagram (Facebook, n.d.).

The post-click experience is called Instant Experience and according to Facebook's internal data from 2018, their usage has doubled in just one year and they are loading 15 times faster than standard mobile websites (Facebook, 2018a). Since users are using Facebook not only at the comfort of their home, but also when they are on the go and sometimes with slower internet connections, collection ads encourages potential customers to make their purchases immediately and quickly (Facebook, n.d.).

Playables

Playable ads have been designed for mobile app advertisers and consist of interactive video, which is in fact a short preview of their app before the users download it. The possibility to

try the app before deciding about purchasing or downloading the app is the key benefit of these type of ads. That way the mobile app advertisers can reach the users with higher intent since they will be drawn to it by the preview of the app itself.

Playable ads consist of three parts (Facebook, n.d.):

- lead in video (short video that automatically plays the demo which shows an icon of the game controller to signal that the users can play the game)
- game demo (after clicking on the ad, the users can play the game in a full-screen experience without having to leave Facebook or install the app)
- call to action (text to encourage users to install the app from the App store (for iOS users) or from Google Play store (for Android users))

1.5.2 Facebook Target Audiences

By default, Facebook shows ads to users that are most likely to be interested in the product. The advertisers can filter and target the users more specifically with three audience selection filters (Facebook, n.d.):

- Core Audiences – Here marketers can define the ad audience by major demographic and interest criteria, such as age, geography and connections.
- Custom Audiences – This allows advertisers to target users that have been in touch with them before, either existing or past customers, or people that have been interested in their products.
- Lookalike audiences – This feature allows the marketers to find new users that are similar to existing customers.

There are seemingly endless possibilities of how advertisers can approach targeting when it comes to Facebook campaigns, which makes strategizing and planning a critical part of the process. They need to consider how specific and well defined the target audience is depending on the product. These criteria can also change depending on a specific ad's content or the marketing campaign's goal. Sometimes marketers might need to target specific events, holidays or customers milestones where the customers are most likely to make a purchase. Other products are universal so it is detrimental to go into many specifics because the ad may miss a sizable portion of potential customers. In such case, it is better to target a wider, more general audience. In other cases, however, being too general can lead to an ad being ignored and thus unsuccessful (Lister, 2020).

Which leads us back to planning, understanding who might really be interested in the product and utilizing the audience selection tools.

1.5.3 Core Audiences

This filtering tool sets rules for whom the ad will target, based on users' demographics, interests, behavior, etc. There are five major criteria categories: location, demographics, interests, behavior, and connections (Facebook, n.d.).

Location

This is the most straight-forward criteria. It allows companies to advertise to users staying in specific areas, be it countries, states, regions, cities, communities or a proximity radius to a selected location.

Demographics

Here, advertisers can target audience based on major demographics categories, such as sex, age, language, education, employment status, and so on. However, there are many other filtering options to organize tailor-made campaigns. Specified can be field of study and work, name of employer or school, financial background and living arrangements. There are also filters for political views, relationship and family status, and upcoming life events, such as birthdays, anniversaries, new homes or jobs, etc.

Interests

This filter allows for even more personal targeting depending on user's personal interests, hobbies and pursuits. Advertisers may specifically want to cater to nature-loving vegans who love gardening, or to sports fans that enjoy watching games with a beer, or engineers who constantly tinker in their workshops, or yoga teacher whose favorite pastime is reading a book in their local café, and this is where they can do it. It is one of the best targeting option to find a specific audience interested in topics related to the product.

Behavior

This criteria category allows advertisers to target users based on their purchase behavior, device and technology usage and travel history.

Connections

In this category advertisers can reach users who have already made connection by liking their page, responding to their event or used their app. They can also explicitly target friends of those users or decide to specifically exclude any such user.

1.5.4 Custom Audiences

Custom Audiences is a highly effective retargeting tool that allows advertisers to reach users that have already engaged with the product in some way. This can be users that have visited

the product's website, have interacted with previous content or have used an app (Facebook, n.d.).

Contact lists

Contact lists allow marketers to target customers for whom they have contact information (e.g. e-mail address, phone number or apple id) from their CRM or emailing systems. These lists can be for example app or online shop users, or newsletter subscribers, and usually a realistic ad audience (AdEspresso, 2019).

Website traffic

This functionality provides advertisers the option to target customers that have visited their website. These is a crucial audience because it represents users that have already shown internet in the Facebook and have entered the website. Additionally, it can be setup to target people that have done some particular actions on the website. This allows advertisers to show these users specific advertisements based on the product they were previously interested in. Creating audience based on website traffic is only possible if *Facebook Pixel* is running on the product website (Facebook, n.d.). This has been a great change in the advertising industry in the past few years. Because of the sophisticated targeting options, digital advertisers can trace customer actions in order to make the advertisement relevant based on the customer past behavior on the internet (Pinasang, Tulung, & Saerang, 2020).

App users

Apps can be very useful for generating leads. If the app is integrated with Facebook's development kit, advertisers can target audiences based on in-app activity (or inactivity), specific usages or taken actions. This way Facebook apps can nudge users towards resuming a game, viewing a new feature or buying some products.

Engagement on Facebook

This feature allows companies to reach to customers that have visited or liked their page, engaged with any of their posts or ads, sent them a message or saved any of their contents (AdEspresso, 2019).

1.5.5 Lookalike Audiences

Lookalike Audiences is a quick and useful tool for reaching users that are similar to an existing custom audience, which represent new leads that are likely to be interested in the product. It requires a custom audience (described above), target countries or regions, and the percentage of the target location's Facebook users, between 1 and 10 percent (AdEspresso, 2019).

1.6 Performance metrics for Facebook ads

Setting up an objective for the Facebook campaign should be in line with business goals. The advertising objective on Facebook it's the end results towards which the company is hoping the customers will go after the see and click on the ad.

According to Bartley (2020), there are tree broad groupings of types of objectives, depending on the goal the advertisers want to reach,

- Awareness: objective to spark interest for the advertised product or service
- Consideration: objective for customers to consider the advertised product or service and be interested in getting additional information about them
- Conversion: objective for users to buy or use the advertised product or service.

One company can optimize different campaigns for all three different objectives, depending on what it wants to achieve with the campaigns and what kind of audience it wants to reach. There are currently 11 different types of objectives for campaign optimization on Facebook Ads Manager that fall under the above-mentioned categories.

Table 1, Table 2 and

Table 3 show these objectives and what the business goals are if advertisers optimize for them.

Table 1: Awareness

Objective	Business goal
Brand Awareness	Increase user's awareness of the business
Reach	Display the ad to as many people from the target audience

Source: Facebook (n.d.).

Table 2: Consideration

Objective	Business goal
Traffic	After clicking the ad, direct users to the website, landing page, app or Messenger conversation
Engagement	Show the ad to users most likely to engage with the ad. Engagement consist of likes, comments, shares, events responses or offer claims.
App Installs	Direct more users to the website store where they can download the advertised app.
Video Views	Show the ads to users most likely to watch the advertised video content.
Lead Generation	Collect more leads, such as email addresses, through ads that collect this info from users who shown interest in the business
Messages	Encourage more users to start conversation with the business through Facebook Messenger, Instagram Direct Messages or WhatsApp.

Source: Facebook (n.d.).

Table 3: Conversions

Objective	Business goal
Conversion	Drive valuable actions on the website, such as users adding products to a car, downloading the app, registering for the site or making a purchase
Catalog Sales	Automatically show items from the catalog to drive sales based on the target audience.
Store Traffic	Drive visits to the physical store by showing ads to users who are nearby.

Source: Facebook (n.d.).

When deciding on the campaign objectives it is important to originate from goals that are SMART (Zahorsky, 2020):

- Specific: The goals should we bell defined before starting a campaign and in line with the business needs. Having a vague goal can make the companies lose focus from what it is important to them.

- Measurable: Choosing goals that are measurable and translating them into numbers helps advertisers be on track with their campaign goals.
- Attainable: while dreaming big it is important for the growth of the business, even more important is to set realistic goals, which can be tracked step by step and make adjustment on the go if necessary.
- Relevant: connecting the goals to the current marketing conditions, economic situation, and competitor activities will make the goals relevant to the market reality.
- Time-based: choosing a deadline for accomplishing the goals with the campaigns creates limits to endless experimenting with the campaign and encourages reassessment of the results.

Metrics presented in Table 4 are used for measuring the performance of each ad variation of the A/B testing campaign done for the purpose of this master thesis. Setting up clear goals is a crucial part of having a successful campaign. To reach those goals, it is also necessary to track the metrics of the Facebook campaigns in Facebook ads manager. Tracking this metrics every day can show what campaigns have good performance and which need improvement. The metrics will help understand better how the target audience is responding to the ads, which ads are proving to be good and what aspects of the campaigns still needs improvement in order to get better results. Tracking the metrics and responding to the provided insights adequately can help advertisers decide better about their next optimization and digital strategy (Bowden, 2018).

The metrics are different for different industries and can depend upon various factors, such as seasonality, competition, industry, how attractive and relevant the ad is to the targeted audience, what kind of content is advertised and so on. Each company should set up goals that are relevant to the core business and look at metrics that are relevant for that goal. If the goal is website conversions, which is the case for almost all my hypotheses, then the most relevant metrics are the total number of conversion and the cost per result. The goals of each advertiser when it comes to conversions is to have high level of conversions at a low cost per result. Comparing the cost per results between different campaigns can easily indicate which campaigns are performing best.

Table 4: Performance Metrics

Metric	Short explanation
Conversions	Number of conversion actions attributed to the advertised ad, such as website conversions.
Post Engagement	Measures how many people interacted with the company's page and posts because of the shown ads, indicating how relevant the ads were to the company's audience.
Impressions	Total number of how many times the ad was shown on screen for the target audience. It may include several same views of the ad by the same users.
Reach	The number of users to whom the ad was shown at least once
Link Clicks	The number of clicks on links displayed in the ad that drive users to webpages outside of Facebook
Cost per Link Click (CPC)	The average cost for each link click
Click through Rate (CTR)	The percentage of times people saw ad and clicked on it
Cost per Result (CPR)	The average cost per result
Frequency rate	The average number of times each user saw the ad

Source: Tomasetti (2019).

However, looking at other metrics will help to optimize better the campaign if it is underperforming or not performing as good as expected. Therefore, another metrics become important for understanding how the ads is performing. For example, the relevance score is a metrics that tells us how relevant the ad is to the targeted audience. If we have a low relevance score, it means that we need to improve the copy or the visual presentation of the product in order to make it more appealing and worth engaging for the users. When users are clicking on the ad, engaging with it or saving the ad, it improves the relevance score, which consequently lowers the cost per click.

Link clicks show how many people in total click on the ad and we want these numbers to be high, because it means that people are interested in the advertised product if they click on it. If we see that the number of link clicks is high, but the conversions are low, then this is a good indicator to reevaluate the campaign, adjust or even stop it. However, sometimes it is worth keeping also the campaigns that are not generating many conversions if they have high number of link clicks and low cost per click. This means that users are coming to the website,

getting to know the product and then entering into the retargeting audience, meaning they will be show retargeting ads, which have the goal to persuade them to reconsider buying the advertised product or finishing their order if they left a product in a cart.

Creating a successful campaign which will have all the metrics in our favor can be quite a challenge. It takes a lot of testing to see what is actually working well for our business, how our targeted audience is reacting to our creatives and ad formats all the while tracking how each change influences the metrics that are important for reaching the business goals.

2 RESEARCH ON USE OF FACEBOOK ADVERTISING IN THE CASE OF AN E-COMMERCE COMPANY

2.1 Company description and background

The B2C e-commerce company of this case study is a medium size company in the ever more competitive publishing industry. It is a young start-up with a rapid growth. In a two-year period between 2017 and 2019, the company grew by a whopping 4.900% and achieved \$18 million in revenue.

The company was founded in 2013 by two young motivated aspiring entrepreneurs, with a particular and creative idea in mind. A shared experience at the time led them to think outside the box and imagine a new and unique product, something that they themselves needed but could not find on the market. Investing with their own private saving, they collaborated local illustrators and authors to create their first books. The immediate feedback they got from their audience was very reassuring they were on the right track and their idea can be a huge success.

The following year, they tried to expend internationally, expecting that the new markets will behave similarly to their domestic one. This failed, but the owners got a much valuable lesson out of it, redoing their business model from the basics, starting with a thorough analysis of their product. This allowed the company to break down the costs of each process in the production, calculate profit margins and how much of it can be invested in future products. This proved to be a turning point for the company.

The year 2016 marked a successful expansion to foreign markets and today the company is present in nine countries and three continents, selling over a million books so far.

The numbers coming from their business review of the year 2018, the earned \$15 million in revenue, which was a 400% increase from the year prior. The comparison is even more impressive with the year 2016, which in terms of revenue was 4.900%, while the number of employees increased more than 15-fold, from six to one hundred and fifty.

The company has a medium size marketing department, consisting of ten employees. The company is advertising on the following digital marketing platforms: Facebook, Google,

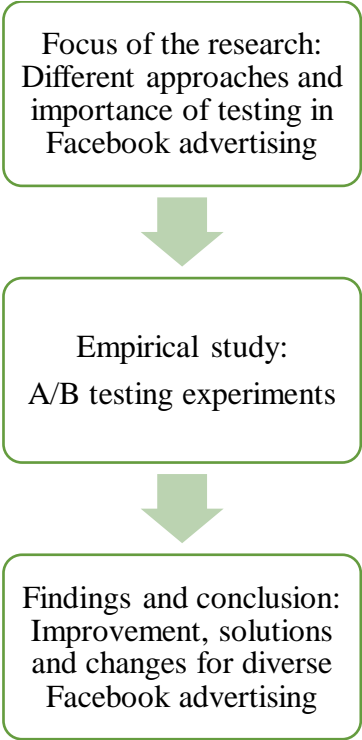
Pinterest, Instagram, Twitter, LinkedIn, YouTube and is using influencer marketing. Although Facebook advertisements is the primary marketing channel for this company in every country they operate, the format of the Facebook ads that the company is using is not very diverse and the marketing team is not conducting A/B tests in order to determine which Facebook ads perform the best in terms of engagement, conversions, website traffic and other optimization goals. The focus of the biggest competitors of the company is also on social media, Facebook and Instagram in particular.

The company’s main focus for the following years is conquering new markets and delivering new, exciting and ever-improving products.

2.2 Research design and approach

The specific objective of my master’s thesis is to test and determine which Facebook ads create the best results when it comes to website purchases for the ecommerce company in order to offer suggestions that they can implement in their digital marketing strategy. The key part of my master’s thesis is the empirical part, which is based on A/B testing experiments. The obtained findings are then analyzed and conceptualized for the purpose of developing a digital marketing strategy. The process of the research design is presented in Figure 2.

Figure 2: Research design



Source: Own work.

2.3 Main research questions

Social media usage is one of the most popular online activities. According to Clement, in 2019 social media was used by around 2.95 billion in the whole world, and the projections show that number is expected to increase to almost 3.43 billion in 2023 (Clement, 2020d).

Social media presents to businesses a variety of opportunities when it comes to finding out new customers, interacting with current costumers, promoting, and introducing special products or services (Curran, Graham, & Temple, 2011). Usage of social media as a marketing and advertising instrument has been broadly established as a proven, effective tool to obtain millions of customers (Hanna, Rohm, & Crittenden, 2011). Social media advertising spending is increasing every year and according to Statista, it is projected to reach \$98,3 billion and is expected to increase further in the future (Statista, 2020).

Because of the wide usage of social media and revenue generated from social media advertising, particularly from Facebook advertising, and its impact on business growth and expansion on one hand, and the lack of testing to determine what type and format of ads are generating the best results on the other hand, research was needed to determine how Facebook advertising can be used as an effective marketing tool for this ecommerce company.

Therefore, following the necessity for additional empirical research on the impact and efficiency of Facebook advertising on the company's overall conversion results, the main goal of this study is to discover which Facebook ads create the best results for the ecommerce company so as to create a more diverse digital marketing strategy. The A/B testing experiments are used to prove five different hypotheses.

A study by Bond et al., (2010) indicates that brands can effectively engage with potential customers through different social media platform, with strong potential for building a strong, loyal following who ultimately become ambassadors for the brand (Bond, Ferraro, Luxton, & Sands, 2010).

Users who engage with brands on social media platforms through liking, sharing, and commenting on business posts generate higher engagement rates. A case study done by Tikno (2017) on online shops has shown that the higher engagement rate gives more benefit for ecommerce companies advertising on Facebook by decreasing their advertising cost, reaching more audiences, and increasing potential conversion into further transaction. From the findings of this research, the online shop marketers and advertising designers can also understand and pay more attention on how the users of Facebook interact with the advertisement when making advertising decisions (Tikno, 2017). Therefore, based on the literature overview the first hypothesis is:

H1: Page visitors are more likely to convert than people who have not visited the company website at all when showed Facebook ad.

The retargeting possibilities on Facebook are becoming more and more sophisticated each year. Facebook advertising offers advertisers to trace customer behavior to make the advertisement relevant with the customer past behavior on internet. Offering discount to users who already visited the website of the business is one of the easiest ways to convince the customers to come back to the website and buy the products. Mentioning a discount in a retargeting advertisement on Facebook can improve its performance and it influences customer purchase intention. (Pinasang, Tulung, & Saerang, 2020). According to Wells, Valacich and Hess (2011) purchase intention signifies the psychological phase of the decision making process where the customer

the mental stage in the decision making process where the consumer has built an inclination to take action regarding the brand or the item (Wells, Valacich, & Hess, 2011). An empirical analysis by Kantola (2014) done on ecommerce companies suggested that offering a discount in an ad can improve the performance of the campaign, but this effect can vary between different industries (Kantola, 2014).

Therefore, the second hypothesis based on this case study is:

H2: Facebook ad which shows a discount will drive website conversions at a lower cost per result (CPR) than an ad without discount.

It has been shown by research that animated content delivers better results than content with just images (Robideaux, 2013) (Yoo, Kim, & Stout, 2004). Study was conducted to compare video advertising with static advertising, which contains only text and pictures. Dynamic format of ads was able to generate higher recall, liking, and inspiration to take action than the same advertising message which consisted of images, i.e. static content (Deshpande, et al., 2015). Consumers who watched a video advertising demonstrated higher brand recognition due to its more compelling content (Lee, Ham, & Kim, 2013). Based on these literary reviews, I have created three different hypotheses for different kind of Facebook ads, which all involve the format of video ads.

The hypotheses are the following:

H3: Facebook ad with a square video has lower cost per click (CPC) than an ad with a horizontal video.

H4: Video Facebook ad with titles drives more conversions than Video Facebook ad without titles.

H5: Collection ads with video generates more conversions than collections ads with images.

The four experiments I am going to run in order to confirm or dismiss the stated hypotheses are the following:

- Experiment 1: Discount vs. no discount for different target audiences
- Experiment 2: Performance of different format of Facebook video ads (square vs. horizontal video format)

- Experiment 3: Performance of ads with video with and without titles
- Experiment 4: Facebook collection ads (video vs. photo ad)

The experiments were performed on the company's Facebook ads manager for the US market. For all 4 experiments I am going to use A/B split tests, in which I will change the variables based on the different hypothesis. I will test only one variable for all the hypotheses in order to get clear and conclusive results.

For advertisers trying to incorporate social media in their marketing strategy, the central imperative is to maximize the effectiveness of the limited resources available to invest in the new realm of marketing communication (Weinberg & Pehlivan, 2011).

Therefore, the main goal of this study is not only to confirm or dismiss the stated hypothesis, but above all to provide recommendation for the marketing strategy for Facebook advertisements campaigns.

2.4 Methodology

Through an exploratory research designed through testing different kind of Facebook ads in order to confirm the above stated 5 different hypothesis, the main matters that are highlighted to be examined in this reports are the understanding of the business benefits of experimenting with different kind of Facebook Marketing approaches to achieve the benefits of Social Media and Digital Marketing.

I am going to preform 4 different experiments on the company's Facebook ads manager for the US market. For all 4 experiments I am going to use A/B split tests, in which I will change the variables based on the different hypothesis. I will test only one variable for all the hypothesis in order to get clear and conclusive results. The main reason for choosing A/B testing as part of my experiments is because Facebook automatically divides the advertising budget to equally and randomly split exposure between each version of the creative, audience, eliminating audience overlap and ensuring that users only see one variation for the duration of the test. The equal split between each variation is something that is impossible to accomplish without A/B test. Therefore, the A/B testing results are the most significant statistical technique to prove or dismiss the stated hypotheses.

The placement of the ads in the A/B tests will be automatic. This option helps to maximize the allocated budget and show the ads to more people. Facebook's delivery system will allocate the ad set's budget across multiple placements based on where they are likely to perform best. For the purpose of my master thesis, I am using conversion objective for all of my campaigns and hypothesis.

When analyzing the metrics, the main focus is on website conversion, which is website purchases in this case. However, other metrics that are looked at for better understanding of the results are: Impressions, Reach, Link Clicks, Cost per Click (CPC), Click through Rate (CTR), Cost per result (CPR), and Frequency Rate.

Quantitative data is collected from Facebook Insights and Facebook Analytics. This data is analyzed using descriptive statistics in form of tables and graphs. The results of these tests are analyzed in order to confirm or dismiss the stated hypothesis and help me compare different strategies to determine the best one for the company. Quantitative studies are used to test theories by exploring the relationship between variables (Creswell, 2013).

Overall, the methodological approach chosen for this case study is aiming at providing results as a fusion of the literature review and quantitative research in a more structured and academic assessment.

2.5 Quantitative Research

2.5.1 Research Goal and Objective

The main goal of this research is to determine what kind of Facebook ads can generate the best performance results in order to offer suggestions about improvements and changes regarding Facebook advertising that can be incorporated in the digital marketing strategy of the ecommerce company, which can be supported by actual facts and data obtained from A/B testing experiments. The key objective of the A/B testing experiments is to determine what type and format of Facebook ads have better performance regarding website conversions. The best performing ads in this case are going to be the ones who generate the highest conversions on website, have the lowest CPC or CTR. Beside these main metrics, other metrics are actively looked into, analyzed and evaluated in order to create a broader understanding of the performance of the Facebook ads and to confirm or dismiss the hypotheses.

The main objective of this research is to test whether:

- Page visitors are more likely to convert than people who have not visited the company's website at all
- Offering a discount to users drives conversion at a lower cost
- Video with a square format has lower cost per click (CPC) than horizontal video
- Video with titles generates more conversions than video without titles
- Collection ads with video generates more conversions than collection ads with images

2.5.2 Data Collection and Analysis

Primary data was collected by running the Facebook ad campaigns from 3 to 8 days, depending on the specific campaign, until an adequate amount of data had been collected from all ad variations and after that until the marketing team itself decided when to stop the campaigns due to declined performance of expired offer.

All the experiments were conducted through the Facebook Ads Manager of the company, on which the performance was tracked, and metrics were looked at. After the end of the

campaigns, the data was exported from Facebook Ads Manager into Excel files. The results are then represented with charts, tables, graphs or descriptively.

2.6 Experiment 1: Discount vs. No Discount Ad for Different Target Audiences

2.6.1 Measurement

The first experiment on Facebook Ads Manager was specifically designed for two different target audiences and with different kind of offer in order to entice them to buy the advertised product. This experiment had two objectives set in place. The first objective was to test if users who are already familiar with the brand and the advertised product (warm audience) are more likely to convert upon being reminded of the product by an ad than users who do not know the product at all (cold audience). Therefore, the goal of the first objective of this experiments was to confirm the following hypothesis:

H1: Page visitors are more likely to convert than people who have not visited the company website at all when showed Facebook ad.

The second objective of this experiment was to test if the conversion of the users which are shown discount in a Facebook ad is more likely to have a lower cost per result (CPR) than the conversions of users which are not presented with a discount.

Consequently, the main goal of this experiment was to confirm the research hypothesis:

H2: Facebook ad which shows a discount will drive website conversions at a lower cost per result (CPR) than an ad without discount.

The testing for this experiment was therefore done on two levels:

- Testing if the warm audience is more likely to convert than the cold audience
- Testing if the ad with discount will have better results (lower CPA in this case) than the ad without discount.

As it can be seen in Table 5, for this experiment I created one campaign, two different target audiences and 4 different ad sets. The first target audience consisted of a warm audience (users who visited the company's website in the last 7 days prior to setting up the campaign). The estimated audience reach based on the defined target audience was 140,000 people with estimated daily reach from 5.600 to up to 16.000 users. The second target audience consisted of a cold audience (broad target audience). The estimated audience reach for the second target audience was 130 million people with estimated daily reach from 18.000 to 52.000 people. Both target audiences were defined within 18-45 age range and living in the USA.

The campaign daily budget was set to 400 dollars, as this was the recommended budget in Ads Manager in order to get relevant results of the A/B testing. The budget was split evenly between the 4 ads sets, meaning each ad set received a 100 dollars daily budget. The

placement of the campaign was set to automatic, meaning that Facebook’s algorithm automatically shows the ad on placements which are most likely to perform best based on the defined target audience and bid amount. The campaign was mainly shown on Facebook and Instagram news feed. The campaign was optimized for website conversions and therefore the key metric that was looked at during its running was Cost per Result (CPR). The campaign was set to run for 7 days, from 4 June 2020 to 10 June 2020, but since the A/B testing had enough data and it already showed the winning ad set after 3 days, the campaign was stopped on 7 June 2020 because of its declined performance and higher CPR.

Table 5: Campaign structure for Experiment 1

Structure	Campaign characteristics
Variable	More than one (ad copy, headline, image, target audience)
Versions	4 Ad Sets
Target audience (TA)	Two TA: Visitors from the 7 last days (warm audience) and Broad (cold audience)
Target audience location	USA
Target audience age	18-45
Target audience gender	All
Campaign daily budget	400 dollars
Split	Even split (25/25/25/25)
Placement	Automatic
Delivery optimization objective	Conversions
Key Metric	Cost per Results (CPR)
Duration	4 days (4 June 2020 – 7 June 2020)
Estimated reach	130.140.000

Source: Own work.

The main variable for this campaign was the target audience and creative (ad with and without discount). Therefore, both the ad copies had the same basic, while the ads that were communicated the discount had one more sentence with the discount added in it. The image was the same for both ads, although the ad with discount had a sticker with the percentage

of the discount on it. The headline for the ad was different: the ad without discount did not communicate the discount, while the one with the discount communicated the discount code and its percentage. The differences in the ad copy can be seen in Table 6.

Table 6: Variables of the campaign for Experiment 1

Variable	Ad without discount	Ad with discount
Copy	Basic copy	Basic copy + discount added at the end
Headline	Not communicating the discount	Communicating the discount code and its percentage
Image	Lifestyle photo	Lifestyle photo + sticker with discount percentage

Source: Own work.

2.6.2 Sample characteristics

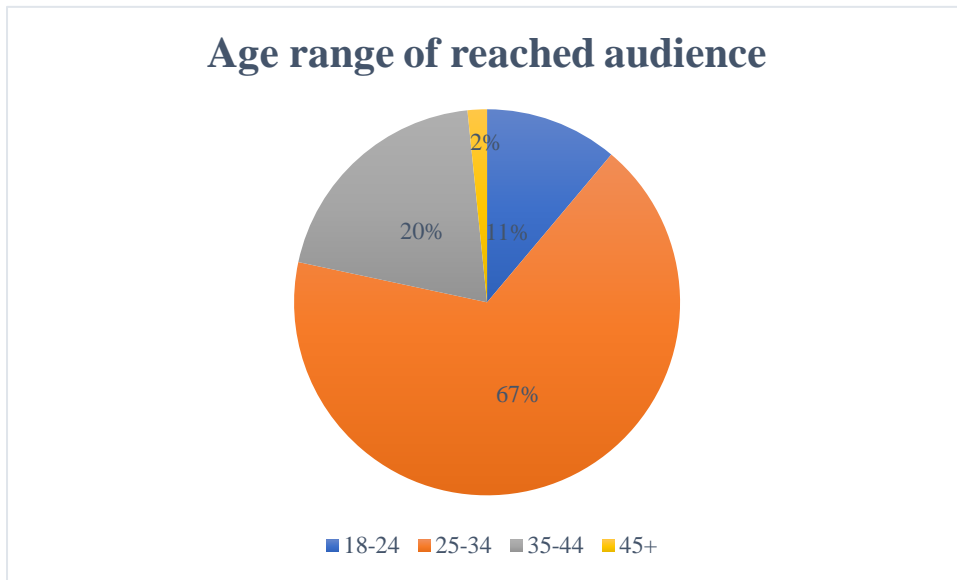
The sample for this experiment consisted of two different target audiences.

The first target audience was users who visited the company's website in the last 7 days before the campaign started running. Because of the familiarity of this target audience with the company's products and its interaction with the website this audience is called a warm audience. Previous buyers from up to 30 days were excluded from this audience, in order to target only the warm audience. Both male and female genders were included in the targeting.

The second target audience was defined broad, with both male and female genders inclusion. Previous buyers from up to 30 days were excluded from this audience in order to target only the colder audience.

The total number reached in this experiment was 138.048 people, out of which 92% were women and 8% men. These numbers go in line with the general target audience of the company, with women being the main customers. The pie chart shown in Figure 3 below illustrates the percentage of the reached audience based on four different age groups. The biggest age group of the reached audience is 25-34 years old, making it the 67% of the total reached audience.

Figure 3: Percentage of reached audience by age range (Campaign 1)



Source: Own work.

2.6.3 Findings

In this section, I will present the findings and the results of the A/B testing experiment in order to approve or dismiss the hypothesis.

The first campaign consisted of two different target audiences and two different ads that were shown to both audiences: with and without a discount. Table 7 reveals the metrics obtained from the A/B testing experiment.

Within the first target audience (warm target audience), the ad version with discount hit 23.737 impressions, while the ad version without discount had slightly more impressions, 24.095. This means that these ads were shown on screen 47.832 times and this number may include several same views of the ad by the same users.

The frequency metrics shows us the average number of times each person sees our ad and while it helps with the ad and brand recall, we should monitor closely this number in order not to show the same ad to the same people too often. The frequency number for this experiment are in the normal range, with 1.71 frequency rate for the ad with discount and 1.64 for the ad without discount, which means that the same ad was shown 1.71 and 1.64 times on average to the same user.

Table 7: Metrics for Target Audience 1 of Campaign 1

Metric	Target Audience 1 (warm audience)	
	Discount	No discount
Impressions	23.737	24.095
Reach	13.856	14.716
Link Clicks	110	108
CPC	\$1.95	\$1.79
CTR	0.46%	0.45%
Frequency	1.71	1.64
Conversions	15	14
CPR	\$20.8	\$22.2
Amount spent (USD)	311.53	310.91

Source: Own work.

The number of reaches on the other hand shows to how many people the ad was shown and therefore these numbers are lower than the impressions. The ad with discount reached 13.856 users, and the ad without discount 14.716 within the first target audience.

Out of all the people to whom these ads were shown, 110 people clicked on the ad with discount, which is 0.46% CTR. This number is obtained by dividing the number of link clicks with the number of impressions. We have similar results for link clicks for the ad without a discount, which is 108, so consequently the CTR is 0,45%. The ad without discount reached one more conversion (15 conversions) in comparison to the ad without discount (14 conversions) at a lower CPR (\$20.8 vs. \$22.2) within the warm target audience.

The key metrics that were monitored in this experiment were the Conversions and the CPR because the optimization objective for this campaign was set on Conversions in order to test if version A results in higher conversions at a lower cost than version B of the ad.

Table 8: Metrics for Target Audience 2 of Campaign 1

Metric	Target Audience 2 (cold audience)	
	Discount	No discount
Impressions	67.353	69.251
Reach	54.320	56.000
Link Clicks	150	169
CPC	\$1.31	\$1.15
CTR	0.22%	0.24%
Frequency	1.24	1.24
Conversions	19	17
CPR	\$16.3	\$18.2
Amount spent (USD)	309.73	309.38

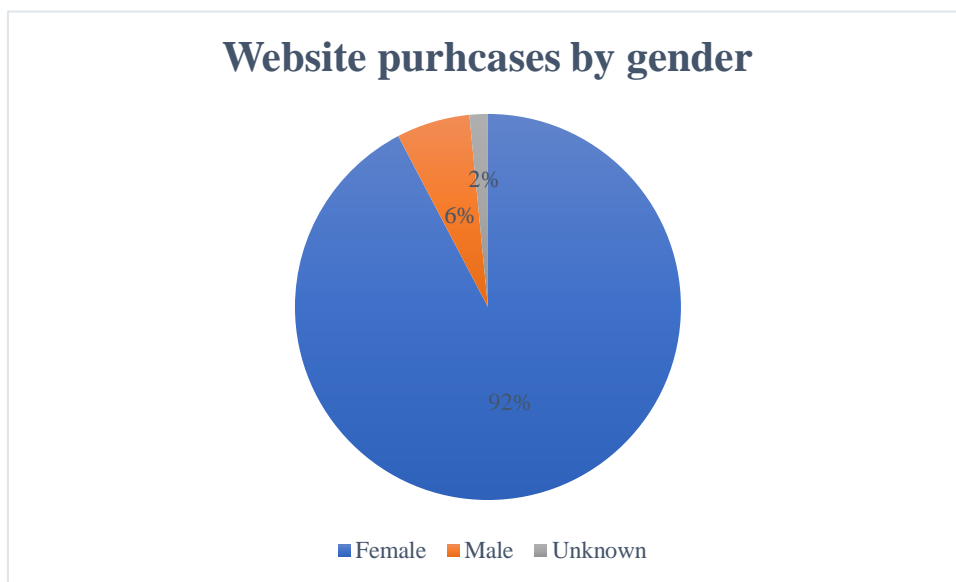
Source: Own work.

Similar results as in the warm audience can be seen also in the cold audience, when it comes to the key metrics that were closely monitored and analyzed. The cold audience had a much bigger impressions number compared to the warm audience, which is natural if we consider the broad defined audience. The ad with discount hit 67.353 impressions, while the ad without discount hit 69.251 impressions. The reach was also higher than the warm audience and it had 54.320 people reached with the ad with discounts on the one hand, and 56.000 reached with the ad without discount on the other. This resulted also in a higher number of people clicking on the ads, although given the much higher impressions and reach, these numbers weren't as high as expected. The ad with a discount had 150 link clicks, which is only 36% higher compared to the warm target audience, while the percentual increase in impressions and reach was 184% and 292% respectively. The ad without a discount had higher 169 link clicks, which is more compared to the ad with discount and also 56% increase compared to the no discount ad that was showed to the warm target audience. Interestingly enough, the higher impression and reach did not result in better CTR. In fact, the CTR ads for the cold audience was 0,24% (discount ad) and 0,21% (no discount ad) lower than those of the cold audience. Because of the bigger reach and impressions, the frequency for the ads within the cold audience were lower and resulted in the same average time (1.24) that both the ads were shown to the users.

The key metrics had better results with the cold audience. The number of generated conversions of the ad with discount was 19, and 17 of the ad without discount, which is a 26% and 21% increase of the respective ads within the warm audience. The higher number in conversions resulted in lower CPR: \$16.3 for the ad with discount and \$18.2 for the ad without discount, which is a decrease for 21% and 18% from the CPR of the respective ads for the warm audience.

This campaign generated in total 65 conversions at a \$19.10 CTR. Out of all the conversions, as seen in Figure 4, 60 conversions were done by women (92%), 4 by men (6%) and 1 by unknow gender. The CTR for the female buyers was higher (\$19.48%) than the one for male buyers (\$15.02).

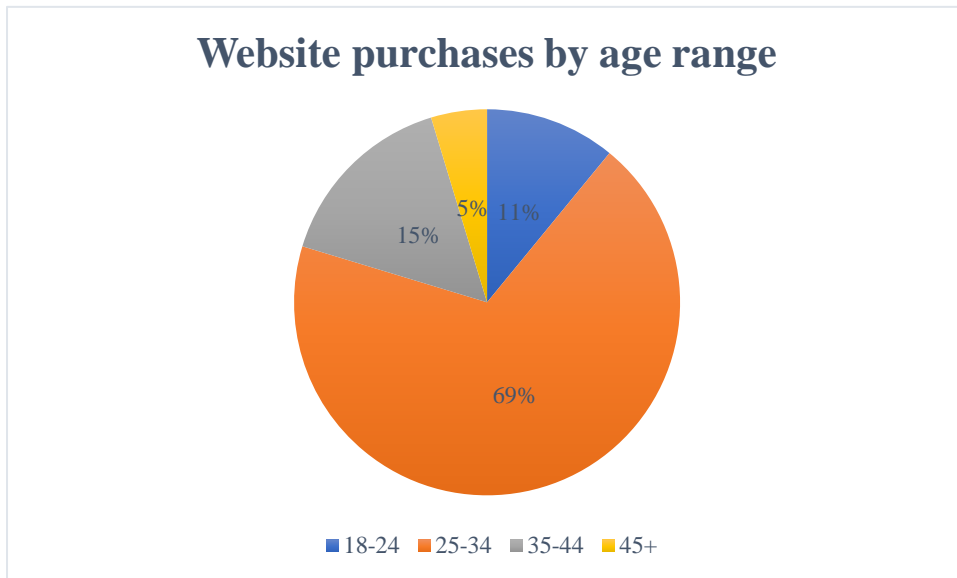
Figure 4: Campaign 1: Website purchases by gender



Source: Own work.

As it can be seen in the pie chart in Figure 5, the age group that converted the most for both genders was from 25-34 years, with 62% of generated conversions for female and 100% for male audience. Second female age group that converted the most was the next age range, from 35-44 years, with 15% of the generated conversions.

Figure 5: Campaign 1: Website purchases by age range



Source: Own work.

2.7 Experiment 2: Horizontal vs. Square Video

For the third experiment that is focused on Facebook video marketing, I designed 2 different A/B testing experiments, both optimized for website conversions. The objectives of these experiments were to test the following two hypotheses:

H3: Facebook ad with a square video has lower cost per click (CPC) than horizontal an ad with a horizontal video.

H4: Video Facebook ad with titles drives more website traffic than Video Facebook ad without titles.

2.7.1 Measurement

A campaign with one video in two different video formats was created for the purposes of the third experiment centering on Facebook video marketing. One video format was square and the other a horizontal video. The objective of the first experiment for Facebook Video Marketing was to test what kind of video format has better results when it comes to CPC. The main goal of this experiment was to confirm the research hypothesis:

H3: Facebook ad with a square video has lower cost per click (CPC) than an ad with a horizontal video.

The structure of this campaign was constructed as it can be seen in Table 9.

Table 9: Campaign structure for Experiment 2

Structure	Campaign characteristics
Variable	Creative
Versions	2 ads
Target audience (TA)	Value Based Lookalike Audience (1% to 3%) of Buyers
Target audience location	USA
Target audience age	18-65+
Target audience gender	All
Campaign daily budget	\$200
Split	Even split (50/50)
Placement	Automatic
Delivery optimization objective	Conversions
Key Metric	Cost per Results (CPR) and Cost per Click (CPC)
Duration	7 days (4 June 2020 – 10 June 2020)
Estimated reach	9.400.000 people

Source: Own work.

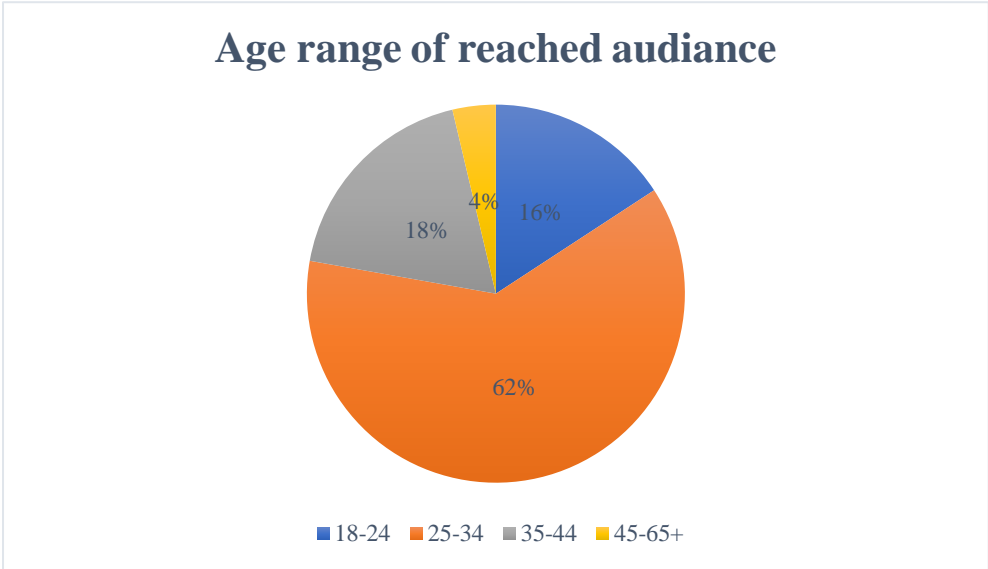
The only variable for this experiment was the creative, or the video format in this case. The campaign consisted of two ads: one with the square format video and the other with the horizontal format of the same video. The campaign had one target audience that was equally divided into two groups: 50% of the target audience was shown the ad with the square video and 50% were shown the ad with the horizontal video. The target audience was set to Value Based Lookalike Audience which targeted 1% to 3% of US population that most resembled the company's buyers. Buyers from the previous 30 days were excluded from this targeting. This enabled me to reach out for new potential customers who are more likely to convert. The demographics for this target audience was people living in the USA who are aged between 18 and 65+ years old. The estimated audience reach was 4.700.000 people in both ad sets, or 9.400.000 in total, with the potential daily reach between 11.000 and 30.000 people. The estimated number of purchases that this campaign could obtain based on the targeting was around 10 conversions per day.

The daily budget of this campaign was \$200, with the budget being allocated equally to both ad sets. The placement of the campaign was automatic, showing the ad on both Facebook and Instagram. The optimization objective was website conversions and the key metrics that were closely monitor each day were CPR and CPC. The campaign duration was 7 days, from 4 June 2020 to 10 June 2020.

2.7.2 Sample characteristics

The sample used for this experiment consisted of Value Based Lookalike Audience targeting 1% to 3% of the people leaving in USA who are the most similar to the company’s high-value customers. All genders were included in this target audience and the age range was not specifically defined, meaning it incorporated all the users from 18 to 65+ years old. With this targeting, the campaign reached 146.000 during its running time, 87% of which were women (127.264) and 12% were men (18.016). The biggest reached group in this campaign was people from 25-34 years old, making it 62% of the total reached audience, which can also be seen in the pie chart in Figure 6.

Figure 6: Percentage of reached audience by age range (Campaign 2)



Source: Own work.

2.7.3 Findings

The first experiment for Facebook video marketing consisted of two ad versions in which one same video was advertised in two different formats: horizontal and square format to one target audience. Table 10 shows the metrics that were analyzed during the 7 days of running this campaign. The main metric that was analyzed and observed, beside the number of conversions and CPR, was CPC, since it is directly correlated to the first hypothesis for this experiment.

Table 10: Metrics for Campaign 2: Horizontal vs. Square video

Metrics	Horizontal video	Square video
Impressions	82.687	116.097
Reach	57.056	88.112
Link Clicks	137	300
CPC	\$2.14	\$1.05
CTR	0.17%	0.26%
Frequency	1.45	1.32
Conversions	52	30
CPR	\$11.5	\$19.9
Amount spent (USD)	\$599.9	\$599.9

Source: Own work.

The ad with the horizontal video was shown on the screen of the users 82.687 times, out of which 57.056 were unique views. Of all the people who saw the ad, 137 click on it, resulting in a 0.17% CTR. The frequency rate of the horizontal video ad was 1.45.

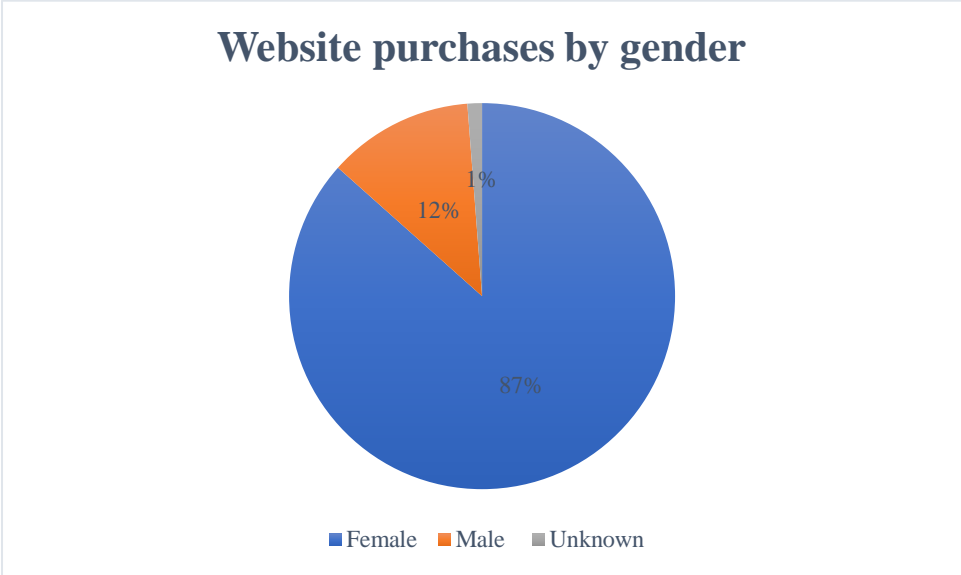
When it comes to the key metrics, the horizontal video generated 52 website conversions in total with \$11.5 CPR, which is a great CPR for this company. The CPC however, was not that good and the company was spending \$2.14 for each of the link clicks. The total budget spent for the horizontal video ad was \$599.9

If we look at the results of the ad with square video format, we will notice different results. The square video ad was shown 116.097 times, which is a 40% increase from the horizontal video ad. The number of uniquely reached people was also 54% higher for the square video and reached 88.112 people. The biggest increase happened in the number of people who clicked on the ad. It had 300 link clicks, which is a 119% increase from the link clicks of the horizontal video. The CTR was therefore higher and reached 0.26%, while the CPC was lower and resulted in \$1.05. The frequency rate for the square video was 1.32.

However, although the main analyzed metric for this hypothesis (CPC) had better result for the square video, the number of conversions and CPR on the other hand had inferior results. The square video generated 30 website conversions in total, which is a 42% decrease from the horizontal video. These conversions were generated for a \$19.9 CPR which is a 73% increase in cost per conversion.

The campaign had 82 conversions in total, which were generated at a cost of \$14.63 per result. Women made 71 purchases, which is 87% of the total conversions, while man made 10 purchases, resulting in 12% of the total conversions as it can be seen in the pie chart shown in Figure 7. One conversion was done by unknown gender. The CPR for the male buyers was \$12.77, while for female audience it was \$14.93

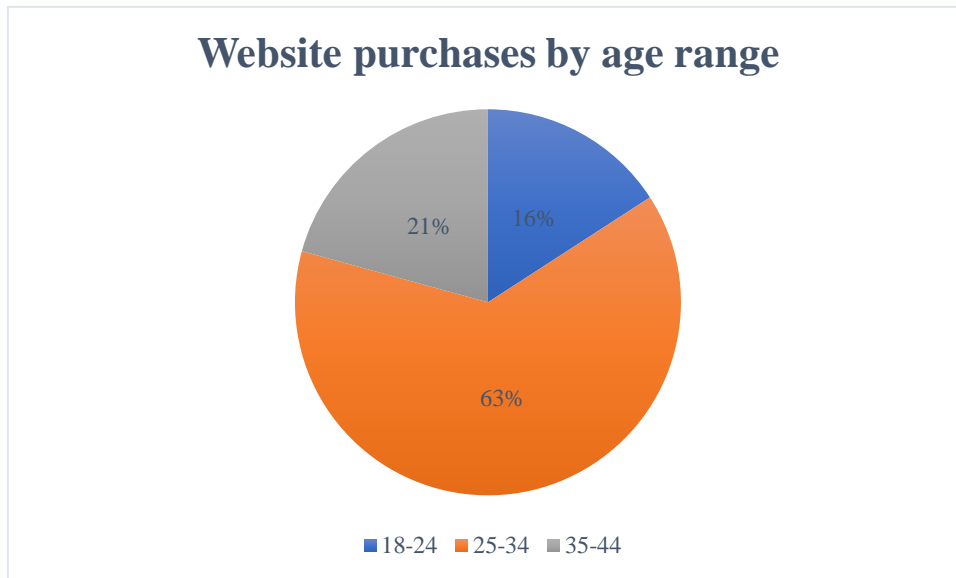
Figure 7: Campaign 2: Website purchases by gender



Source: Own work.

When it comes to the age of the converted users, as it was the case in the first experiment, the biggest number of conversions came from users who were between 25-34 years old, making it 58% of the total conversions by all age groups, as shown in Figure 8. Inside this age range 46 conversions were done by female audience and 5 from male audience. Users who converted and were between 35 and 44 made 21% of the total conversions, with 14 conversions done by female and 3 by male audience. The smallest age group of converted users was the audience between 18 and 24 years old, which consisted of 16% of the total conversions. Within this age range 11 conversions were done by female and 2 conversions by male audience.

Figure 8: Campaign 2: Website purchases by age range



Source: Own work.

2.8 Experiment 3: Video with Titles vs. Video without Titles

2.8.1 Measurement

The other campaign that was created with regard to the second Facebook video marketing experiment was the campaign that was testing the effectiveness of videos with and without titles. Therefore, this campaign consisted of 2 different ads of the same video: one ad had the video with titles and the other ad consisted of the same video but without titles. The objective of this campaign was to test which video will generate higher sales and its main goal was to confirm the research hypothesis:

H4: Video Facebook ad with titles drives conversions at a lower CPR than Video Facebook ad without titles.

As seen in Table 11: Campaign structure for Experiment 3, the tested variable in this experiment was the creative and the campaign had two different ads. Same video was used in the two ads with one difference: in the first ad, the video was with titles and in the second ad, the video was without titles in order to test which one performs better. The target audience was the same for both the ads and was set to broad, meaning no restrictions were applied other than the defined age, which was set from 23 to 45 years old, since this people from this age range buy the advertised product the most. As in all the campaigns the target audience was from USA territory. Buyers of last 60 days were excluded from this audience, in order to reach more new people who still do not know the product.

Table 11: Campaign structure for Experiment 3

Structure	Campaign characteristics
Variable	Creative
Versions	2 ads
Target audience (TA)	Broad audience
Target audience location	USA
Target audience age	23-45
Target audience gender	All
Campaign daily budget	\$200
Split	Even split (50/50)
Placement	Automatic
Delivery optimization objective	Conversions
Key Metric	Cost per Results (CPR)
Duration	7 days (4 June 2020 – 10 June 2020)
Estimated reach	120.000.000 people

Source: Own work.

The estimated reach based on the defined audience was 120.000.000, a similar number as we had in the first experiment, although a little bit lower because of the limited age range. Furthermore, the estimated potential daily reach was between 16.000 and 45.000 people, while the estimated number of daily conversions was between 3 to 14.

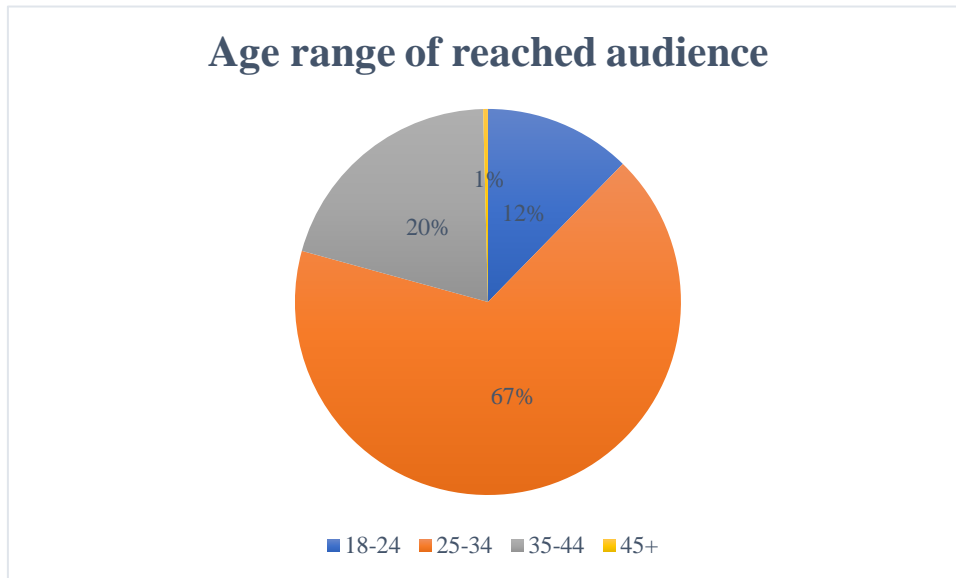
The daily budget of this campaign was \$200, and it was equally distributed between the both ad variations. The placement was set to automatic, while the optimization objective to website conversions. Therefore, the key metrics that were looked at were conversions and CPR. The campaign was set to run on 4 June 2020, and it was active until 10 June 2020, meaning it was set up for 7 days.

2.8.2 Sample characteristics

A sample section of this experiment was a broad target audience from 23 to 45 years old, including both male and female audience, who are located in the USA. During the 7 days duration, this campaign reached 224.447 people of whom 204.351 were from the female population (92%), and 17.664 people were from the male population (8%).

As it was the case in the previous experiments, this campaign also reached the most people who are from 25-34 years old. As it can be observed in Figure 9, the number of reached people within this age group was 150.015 or 67% of the total reached audience, the same percentage we had reached in the first experiment.

Figure 9: Percentage of reached audience by age range (Campaign 3)



Source: Own work.

2.8.3 Findings

The second experiment for Facebook video marketing was set as a campaign with two ads. Both ads had the same video, the only difference being that the first ad consisted of the video with titles and the second ad of the video without titles. Table 12 represents the obtained metrics, concentrating on the two main ones: conversions and CPR.

Out of 112.832 people reached with the video with titles, 375 users performed link clicks on the ad and 38 decided to buy the advertised product. Overall, the ad with the video with titles was shown to users 124.378 times, which lead to 0.30% CTR and \$1.06 CPC. The CPR was \$15.57. The video was shown 1.10 times on average per user.

Table 12: Metrics for campaign 3: Video with titles vs. Video without titles

Metrics	Titles	No titles
Impressions	124.378	123.335
Reach	112.832	107.615
Link Clicks	375	219
CPC	\$1.06	\$1.39
CTR	0.30%	0.18%
Frequency	1.10	1.15
Conversions	38	25
CPR	\$15.57	\$24.12
Amount spent (USD)	\$602.93	\$602.96

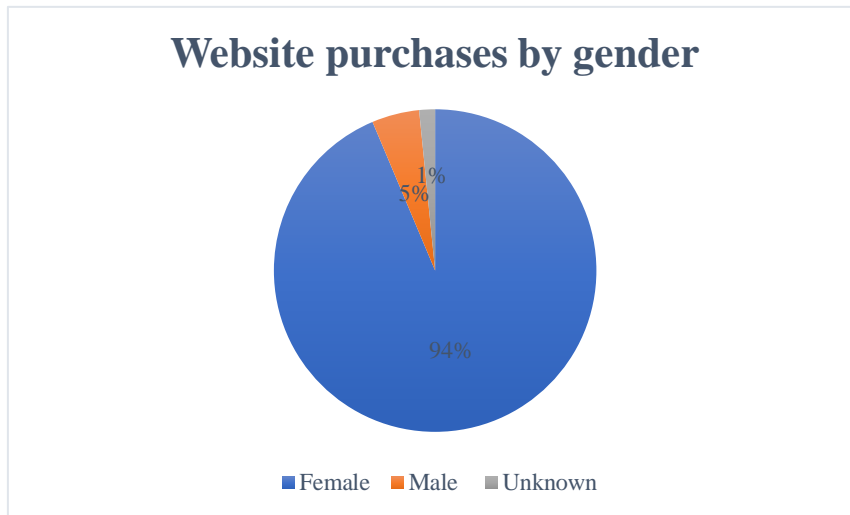
Source: Own work.

On the other hand, the second ad with the video without titles reached 107.615 people, out of whom 219 clicked on the ad itself. This resulted in a slightly higher CPC (\$1.39) and lower CTR (0.18%). The video without titles was displayed 1.15 times on average per user. The main difference when we compare the two videos happened regarding the main metrics: conversions and CPR. The video without titles generated 13 conversions less than the video with titles, or 25 conversions in total. That is a 34% decrease in sold products. The CPR was consequently significantly higher, and the company paid \$8.55 more for each generated conversion. The overall CPR for the ad with the video without titles was \$24.12, a 55% increase from the CPR of the ad with the video with titles.

The amount that was spent for both the ad sets was \$1205.89.

The total amount of conversions generated in this campaign was 63 at a \$19.14 CPR. As it is showed in the pie chart in Figure 10, out of all the purchases, the female population made 59 conversions (94%), the male population made only three conversions (5%), and one conversion was generated by unknown gender (1%). The CPR for the male audience was high and it cost \$27.01 to obtain one conversion, while the one for the female audience was still in the boundaries of what's acceptable for the company and was \$8.12 lower (\$18.89).

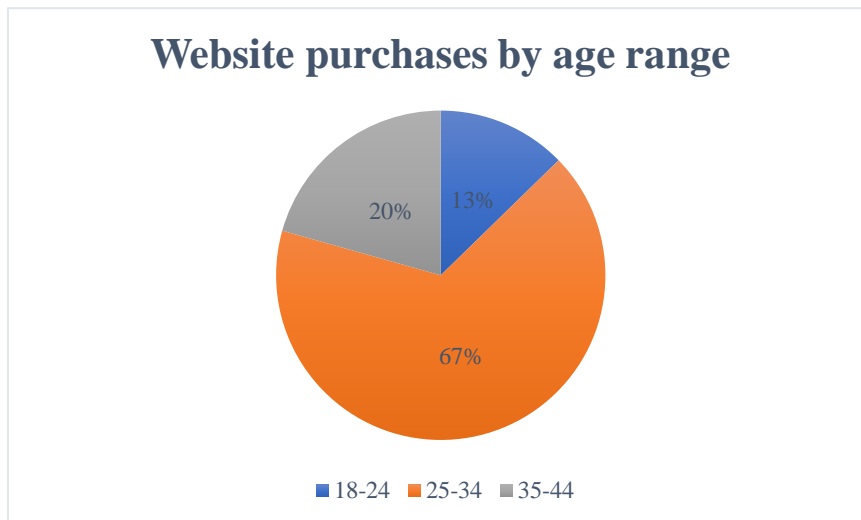
Figure 10: Campaign 3: Website purchases by gender



Source: Own work.

As seen in Figure 11, the people who made the most purchases were from 25-34 years old, as was the case in the previous campaigns as well.

Figure 11: Campaign 3: Website purchases by age range



Source: Own work.

This group generated 67% of total sales and made 42 conversions in total. The female audience aged 25-34 made 40 conversions, while the male audience with the same age range made only three. The second biggest group that converted was the audience between 35 and 44 years old, which generated 20% of the total sales, with 12 conversions being done by female population and 1 by male. The smallest group that converted was the audience aged between 18-24, which generated only 13% of the total conversions, or made 13 conversions in total. Out of them 12 were done by a female and 1 by a male audience.

2.9 Experiment 4: Facebook Collection Ads (Video vs. Photo)

2.9.1 Measurement

The fourth experiments' main focus was Facebook Collection Ads and which specific format drives more conversion. One A/B test was designed with the objective to test the last hypothesis of this research:

H5: Collection ad with video generates more conversions than collections ad with images.

The campaign for the fourth experiment was designed in form of an A/B test, and its structure was similar to the previous experiments, as it is shown in Table 13.

The main variable for the fourth experiment was the creative. The campaign was structured from two different ads which had the same target audience, headline, and call to action. The only difference was that Ad A consisted of an image for the creative, while the Ad B had a video for a creative. The target audience was the same for both ads and was set as broad target audience of all the users living in the USA and are between 25 and 45 years old. The potential daily reach for this campaign was estimated to 23.000 to 66.000 people per day, or 230.000.000 people in total.

The estimated number of conversions that could be made in one day was 2 to 13 conversions. The daily budget for the campaigns was set to \$300 and was equally divided for both the ad variations, meaning each ad got \$150 daily budget. The ad placement was set to automatics, and since the collection ad are shown only on mobile, the automatic placement enabled to display the ads on both Facebook and Instagram on the users' mobile devices.

The optimization objective of this campaigns was set to conversions. The key metrics were number of conversions and CPR. The campaign started running on 4 June 2020 and it was closely monitored until its end on 11 June 2020, when the promotion advertised in it expired and it had to be turned off.

Table 13: Campaign structure for Experiment 4

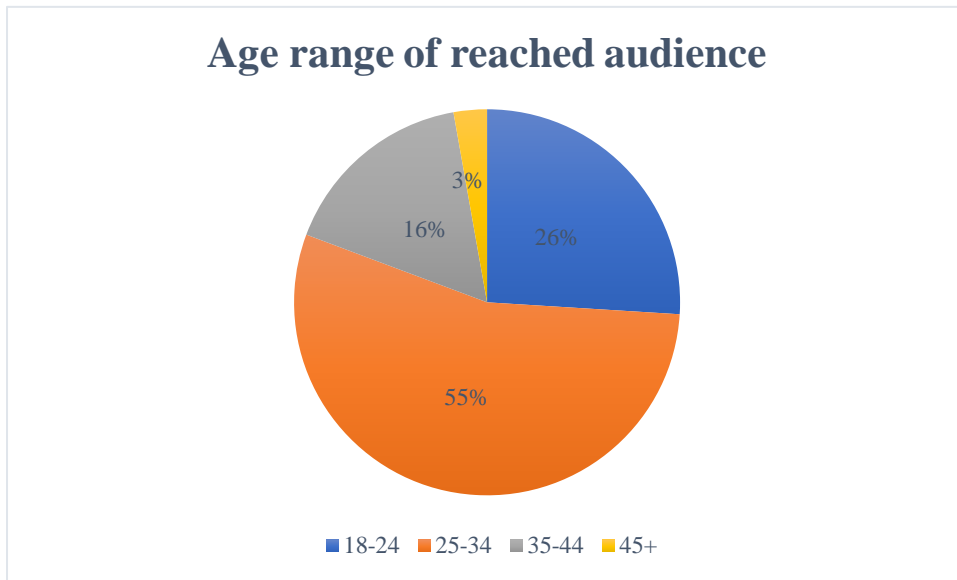
Structure	Campaign characteristics
Variable	Creative
Versions	2 ads
Target audience (TA)	Broad
Target audience location	USA
Target audience age	25-45
Target audience gender	All
Campaign daily budget	\$300
Split	Even split (50/50)
Placement	Automatic
Delivery optimization objective	Conversions
Key Metric	Conversions and Cost per Results (CPR)
Duration	8 days (4 June 2020 – 11 June 2020)
Estimated reach	230.000.000 people

Source: Own work.

2.9.2 Sample characteristics

The main target audience in this sample was users from both genders, from 23 to 45 years old, located in USA. The campaign managed to reach 294.468 people in total during its running, among who 92% (271.232 people) were from the female population, and 7% (20.992 people) from the male population. The number of the reached users who did not define their gender on their Facebook profiles was 2.244 (0.8%). Out of the total reached audience, the biggest group consisted of people who are between 25 and 34 years old. The pie chart in Figure 12 shows the percentage of the people grouped by their age range. For the first time in all the experiments done in this research, the percentage of this age group was below 60% and accounted for 55% of the total reached audience. This group numbered 161.024 users from both genders. The next biggest group was people from 18-24 years old and this group accounted for 26% of the total reached audience, or 76.480 in total. People from 35-44 years old were the third biggest reached group and consisted of 48.576 people, or 16% of the total audience. As per usual, the smallest group that was reached was people from 45 years and above, amounting for only 3% of the total reached audience or 8.213 people.

Figure 12: Percentage of reached audience by age range (Campaign 4)



Source: Own work.

2.9.3 Findings

The experiment for Facebook Collection ad consisted of two ad variations, one with image and one with video for the main creative. The obtain metrics from this campaign can be seen in Table 14. The key metrics that were analyzed were conversions, CPR and link clicks in order to confirm or dismiss the research hypothesis.

Out of 138.400 times that the collection ad with video was shown to unique users, 917 users were attracted to click on it, and furthermore 69 people decided to make a purchase. This resulted in a \$0.52 CPC and 0.45% CTR. The company paid \$15.21 for each conversion, or \$1.050 in total for showing the collection ad with video. The total number of impressions this version of the ad made was 201.806 with a 1.46 frequency rate.

The collection ad with an image as a creative had similar results. Out of 161.791 people who saw the ad, 954 clicked on it, which contributed to a \$0.49 CPC and 0.42% CTR. This version of the ad has 7 conversions less, or 62 in total. The CPR was therefore slightly higher and amounted for \$16.93 per conversion. The number of impressions made with the collection image ad was a little higher and it hit 225.218 impressions in total with a 1.39 frequency rate. The total spent for this ad variation was the same as for the first one, \$1.050.

Table 14: Metrics for Campaign 4: Collection ad with video vs. Collection ad with image

Metrics	Video	Image
Impressions	201.806	225.218
Reach	138.400	161.791
Link Clicks	917	954
CPC	\$0.52	\$0.49
CTR	0.45%	0.42%
Frequency	1.46	1.39
Conversions	69	62
CPR	\$15.21	\$16.93
Amount spent (USD)	\$1.050	\$1.050

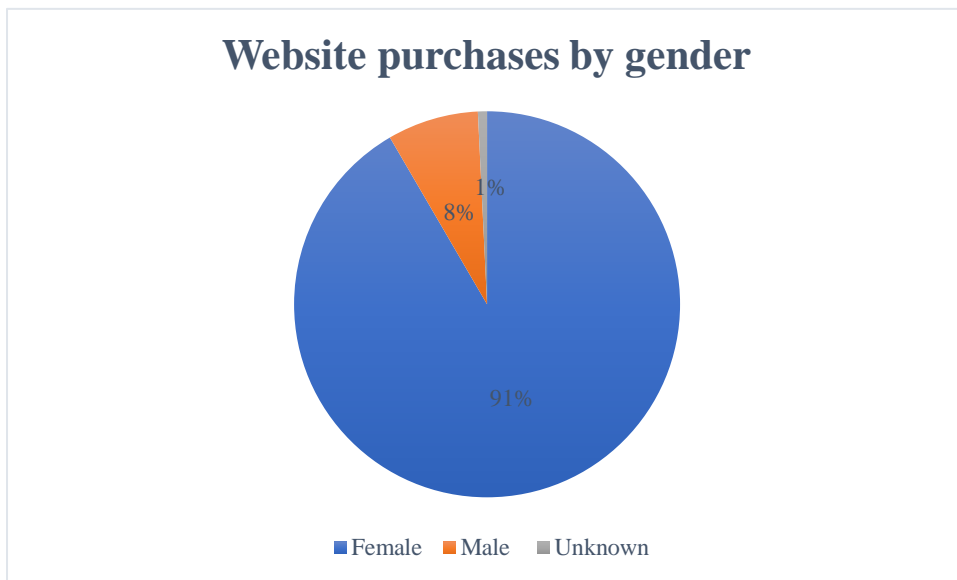
Source: Own work.

This campaign had the most conversions from all the other executed in this research. Its final result was 131 conversions in total, with \$16.03 CPR. As shown in the pie chart in Figure 13, out of all the generated conversions, the female population generated 120 conversions or 91% of the total conversions, the male audience had 10 conversions (8%) and 1 purchase was done by a person with unknown gender (1%). The CPR for the female audience was \$16.38, while for the male audience it cost \$11.77 for one conversion.

As shown in the chart in Figure 14, most purchases were made by people who were between 25-34 years old. They generated 76 conversions, out of which 68 were done by female population, 7 by male population and 1 by unknown gender. The group that was between 35 and 44 was responsible for 20% of the sales and had 26 conversions in total.

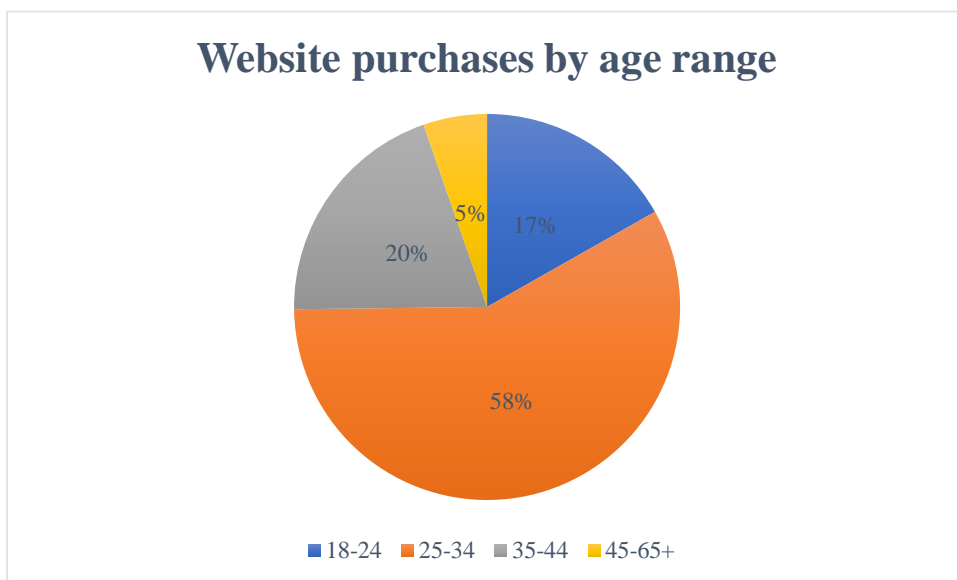
The female audience from this age range made 24 conversions, and the male audience had 2 conversions. Very close to these results came the group from 18-24 years old, who made 22 conversions, all done by the female population. The smallest group that converted was the one aged from 45 and up. They made 5% of the total conversions and had 7 conversions.

Figure 13: Campaign 4: Website purchases by gender



Source: Own work.

Figure 14: Campaign 4: Website purchases by age range



Source: Own work.

3 RESULTS

3.1 Results discussion

The goal of my research was to obtain and analyze the data from A/B testing experiments run on Facebook in order to offer improvements and suggest changes regarding Facebook advertising which can be incorporated into the digital marketing strategy of the ecommerce company from this case. In this chapter, the findings from all five A/B testing experiments are presented and combined in order to answer the research questions and confirm or dismiss

the research hypotheses. The results obtained in this research can be of great contribution to digital advertisers in developing and understanding better the importance of diversity and testing in Facebook advertising and realizing that it makes a crucial part of successful digital marketing strategy.

The first hypothesis from my research was: H1: Page visitors are more likely to convert than people who have not visited the company website at all when showed Facebook ad.

Based on the results from the first experiment, the first hypothesis was dismissed. The result from the first Facebook A/B testing showed that the warm audience had 24% lower conversion numbers (29 conversions) than the cold audience (36 conversions). Although the literature and previous researches done on this topic indicate that the purchase intent becomes stronger in the phase where the audience has already developed an awareness about the product and the company, is familiar with the usefulness of advertised product and has some general information about it, the results from the first A/B testing show that the purchase intent, hence the website conversions in this case, can also develop quickly in a cold audience, who is not familiar with the product at all.

This result can be due to different factors. For instance, one factor can be that the warm audience is already too familiar with the product and has not developed liking for it, therefore is not keen to buy the product. On the other hand, Facebook as a social media platform has become an environment where instant and impulsive decisions are being made and because of its aggressive advertising approach its users are very well familiar with Facebook ads. This in itself erases the differences between the cold and warm audience in a sense that the cold audience does not need to go through the different phases of developing purchase intent before making its final decision about buying the advertised product, more or less impulsively.

In fact, in my professional experience with Facebook advertising I have seen that the best campaign performance when it comes to website conversions can be seen within the broad defined audiences because of the ever more sophisticated algorithm on Facebook, which is targeting the users which are more likely to convert, no matter their previous familiarity with the advertised product.

The second hypothesis of my research was: H2: Facebook ad which shows a discount will drive website conversions at a lower cost per result (CPR) than an ad without discount.

The result from this experiment were in favor of the ad with a discount in both target audiences. In the warm target audience, the ad with discount had a CPR of \$20,8, or 6,7% than the ad without a discount (\$22,2 CPR). The same finding came out also in the cold target audience, where the ad without discount reached \$16,3 CPR, which was 11,7% lower CPR than from the ad without a discount (\$18,2). If we combine the results and look at the average number for both the target audiences, we will see that the average CPR for the ad with discount was \$18,6, and \$20,2 for the ad without a discount, or there was 8,6%

difference. Although these results do not show a drastic difference between the two ad variations, they still confirm the second research hypothesis.

In the world of digital advertising, where advertisers monitor hourly the invested budgets, even a slight difference in the results can make a big difference in the long run, especially if the advertisers have a higher number of running campaigns. The key metric that was taken for this experiment was CPR, since advertisers should be interested not only in the number of conversions they manage to obtain from their campaigns, but also how much those conversions cost them in order to maximize the invested budgets. Since this campaign was optimized for conversions, it is important to also look at the number of conversions obtained by each ad variation. The ad with discount generated 34 conversions in total, while the ad without a discount generated 31 conversions. Yet again, the results, although not drastically different, are still in favor of the ad with discount.

With Facebook being on the top of social media platforms by the number of shared posts that contain video (Clement, 2020c), it becomes prerogative for advertisers to constantly test not only different creative formats (static vs. dynamic), but also to test different video formats, experiment with subtitles and play with different variation of the same video. (Dickerson, 2016). Given the importance of Facebook video marketing, the biggest part of my research was focused exactly on this. Therefore, the next three hypotheses of my research were based on Facebook video marketing and their goal was to test different video formats and variations.

The third hypothesis of my research was: H3: Facebook ad with a square video has lower cost per click (CPC) than an ad with a horizontal video.

The results from the conducted experiment managed to confirm this hypothesis. The ad consisting of the square video had a twice lower CPC than the ad with the horizontal video (\$1,05 CPC for the square video vs. \$2,14 CPC for the horizontal video). This result is naturally tightly connected to the number of link clicks, which was also twice higher in comparison to the horizontal video. This result is a great indication for advertisers who want to attract more website visitors at a lower cost. However, for the company from this case study, which is performance driven, the most important results were the number of conversions and the CPR. The results obtained from this experiment were quite surprising regarding these two metrics, as they were better for the ad with the horizontal video. The horizontal video managed to obtain 73% higher conversions number and CPR than the square video and had 52 conversions in total at a great CPR (\$11,5). The square video had only 30 conversions at \$19,9 CPR.

Given the fact that most of the people use Facebook on their mobile devices, the need for optimizing the content for smart devices becomes essential for reaching the performance goals (Clement, 2020a). Before the growth of different social media platforms which favor the vertical video, like Instagram Stories on Instagram for example, the vertical or the square

video was not a familiar format and people use to see them as a mistake of someone forgetting to flip their phone and film horizontally (Peters, 2019). If we do an overview of the latest blogs and recommendations for video formats used on Facebook, we will notice that the social media experts are suggesting using a square or vertical video, instead of a horizontal one, because this goes in line with the optimization for mobile devices. Therefore, the difference in the results regarding the website conversions was not expected.

The fourth hypothesis of my research was: H4: Video Facebook ad with titles drives conversions at a lower CPR than Video Facebook ad without titles.

Based on the results obtained from this experiment, the fourth hypothesis was confirmed. For this experiment I run two ad variations, one with video with titles and one with video without titles. The obtained CPR for the video with titles was \$15,57, which is a 55% lower CPR than the one for the video without titles, which had significantly higher CPR (\$24,12).

The obtained results were in line with the literary overview done on this topic, and especially with Dickerson's recommendations to show the crucial information about the product or the promotion right from the beginning and to optimize the video for sound off. (Dickerson, 2016). Both recommendations were implemented in the wining ad variation, since the title was presented right from the beginning of the video, and even if the users didn't have the their sound on, they could still understand very promptly what the promotion is about, making the video with titles more visually appealing and memorable. Not only did the video with titles proved the stated hypothesis, it also had much better results when it comes to the number of generated conversions. It had 13 more conversions that the video without titles and it amounted to 38 website conversions in total.

The final, fifth hypothesis from my research was also connected to video marketing, but within a specific Facebook ad format, which is the collection ad. The hypothesis was the following: H5: Collection ad with video generates more conversions than collections ad with images.

This hypothesis was confirmed on the bases of the obtained results. The collection ad that included a video had 69 conversions, while the ad with a static image had 62 conversions. The conversions of the video ad were obtained at a lower CPR than the static image ad (\$15.21 vs. \$16.93). These results were in line with different research done on this topic, like for example the research conducted by Robideaux (2013) indicating that a dynamic and animated content provides better results than content consisting only of static images

Table 15 offers an overview of the confirmed and dismissed hypothesis from my master thesis. What is important to note for the results from this experiment is that while they can provide valuable insights to Facebook advertisers, it is still important to take into consideration that they may differ from country to country. The experiments from my research were run for the target audience in USA and if applied on another country, they may have different results. Moreover, the main target audience for the ecommerce company

from this case is mostly female, so a different behavior may be possible with advertisers who have predominantly male or more balanced audience when it comes to gender.

Table 15: List of confirmed and dismissed hypothesis

	Hypothesis	Approved (✓) or Dismissed (X)
H1	Page visitors are more likely to convert than people who have not visited the company website at all when showed Facebook ad.	X
H2	Facebook ad which shows a discount will drive website conversions at a lower cost per result (CPR) that an ad without discount.	✓
H3	Facebook ad with a square video has lower cost per click (CPC) than an ad with a horizontal video.	✓
H4	Video Facebook ad with titles drives conversions at a lower CPR than Video Facebook ad without titles.	✓
H5	Collection ad with video generates more conversions than collections ad with images.	✓

Source: Own work.

3.2 Practical contribution for digital advertisers

The results obtained from these experiments guide us into the direction of realizing that is important to understand the complex cycle of Facebook advertising, guiding the consumers through different funnels and how that affects the performance of the campaigns. Running test on Facebook in order to discover what brings the best results is benefiting the advertisers by offering actual data and comparison of the results obtained by just slight difference in the creatives, target audiences or ad formats. Therefore, my recommendation for the ecommerce company from this case is to appraise the importance of A/B Facebook tests and to incorporate them into their digital marketing strategy. These tests should be repetitive and ongoing, because customers are influenced by different messages on the social media platform and what worked or did not work for the advertiser in the past can quickly change if just small modifications are being implemented in the creatives and in the advertising approach.

Furthermore, my recommendation, not only for the ecommerce company from this case, but for all digital advertisers in general, who recognize the importance and value of A/B tests on Facebook advertising is to focus on what are the main goals of the company and implement those in the running campaigns. When it comes to A/B tests, it is important to test different variations continuously, but not all at once. In order to get meaningful results from which the advertisers can draw logical conclusion, I recommend testing only one variable at a time.

The results from testing only one variable will be more conclusive, and it will give a clear understanding of what works better in the campaign, so that it can be transmitted into the next running campaigns. This variable can be anything from target audience, ad copy, creative, delivery optimization and so on, and testing one thing at a time will bring more relevant results. This does not mean that few campaigns cannot run at the same time, with each campaign having another testing variable. What is important is to keep one variable per campaign.

Picking the right audience can be quite a challenging task for different advertisers, no matter if they are a new player or an old one with a well-known brand on the market. With Facebook's sophisticated targeting the options for reaching the right audience are getting bigger and bigger each year. This can also be a challenge for the advertisers because the opportunities are so vast. A/B tests are the perfect tool to try different target audiences and to test which ones respond the best to the ads, different offers, or different ad copy. This becomes especially important when working with audiences for retargeting campaigns, where different ad copy can for different segments of warm and cold audiences can be tested in order to determine which key messages or offers are the right for which target audiences.

My other recommendations to all advertisers which are looking to improve their performance on Facebook with regular A/B tests is to dedicate time for setting up the campaigns in the right way, with clear understating of what is going to be tested and for how long. The recommended time frame by Facebook for A/B tests is 4 days, but this can be prolonged if the campaigns need more time in order to find the winning variable, or simply because we know that for some products the customers need more days to convert, this should be applied to the test and taken into consideration when analyzing the results.

My last recommendation is connected to the budget of the campaign. When setting up A/B test, Facebook gives recommendation for the size of the budget, based on the preferred target audience and other test details. However, this budget can be adapted to the business goals and even small daily budgets can give good results if the campaign is running for longer period of time. Advertisers should pick the budget that they are most comfortable with, but still be oriented on getting the winning result within those budget frames. Sometimes a bigger budget will be required in order to obtain the most accurate results, but after all, this budget can be seen as an investment in optimizing the performance, not only of the campaign, but also of the whole account in general.

4 CONCLUSION

The rise of the social media platforms has influenced a change in the lives of their users and in the purchasing habits on the new e-customers. They have created an environment where decisions are done more instantly and are influenced by the advertising of the companies which have incorporated social media marketing in their digital marketing strategies. The rapid growth and advertising strength that social media offer, has given a great opportunity

to digital advertisers to reach out to new customers, engage with them and also learn from their feedback in order to adapt and improve their communication messages, products or services. With the massive usage of Facebook, this social media giant has become one of the main marketing channels for numerous of e-commerce companies and the place where they are building their strongest digital presence. Given the exceptional targeting capabilities of Facebook through which companies can easily target specific or broad audiences worldwide based on different demographic and interest criteria and the simple and fast way in which Facebook ads can be created, it comes as no surprise that Facebook is becoming the key player in the digital marketing environment.

However, just being online and setting up campaigns based on implied perceptions and assumptions without any specific goals and strategy is not a guarantee to success. The key to reaching good performance results is testing and learning what works the best for each company, product, service or industry. Carefully monitoring the key metrics that are important for reaching our goals, analyzing the results and adapting our campaigns can lead to better performance of our campaigns. Facebook offers different kinds of ads and it is on the business to find what works best for them. However, given the numerous types of Facebook ads, it is important to test different creative approaches, different formats and variations of the same ad. Even when companies find the approaches that are working well for them, it is crucial to continue testing in order to find even better results.

The main focus of my master thesis was to test different variations of Facebook ads in order to find which ones generate the best results in terms of website conversions. A/B testing campaigns were created on Facebook Ads Manager in order to confirm or dismiss five different hypotheses.

The first test which was focused on testing the website conversion rate of two target audiences, cold and warm, dismissed the first hypothesis: “Page visitors are more likely to convert than people who have not visited the company website at all when showed Facebook ad.” This A/B test showed that Facebook indeed is an environment where instant purchasing decisions are being made and that building awareness about the product and the company is not a pre-requisite for buying a product.

The second hypothesis was focused on creating a different incentive for purchasing a product and analyzing the cost that will be generated for each purchase. The second hypothesis: “Facebook ad which shows a discount will drive website conversions at a lower cost per result (CPR) than an ad without discount.” was confirmed by the A/B testing that consisted of two ads, one with discount and one without discount. Cost per results (CPR) is a valuable metrics that is of great importance of all advertisers which marketing is focused solely on performance and want to generate conversions at a low cost. Even small differences in the CPR between different campaigns can make a difference for the companies that are advertising online, so it is important to keep an eye on the numbers and adapt the campaigns accordingly.

The last three hypotheses of my research were focused on the video ads and their different variations and formats given that the video content is on the rise on Facebook because of its immersive content. The hypotheses were as it follows: “H3: Facebook ad with a square video has lower cost per click (CPC) than an ad with a horizontal video.”, “H4: Video Facebook ad with titles drives conversions at a lower CPR than Video Facebook ad without titles.” and the final hypothesis “H5: Collection ad with video generates more conversions than collections ad with images.”. All three hypotheses were confirmed as expected. These tests have shown the importance of usage of video ads in different variations. How we present the video matters, the format is important and placing titles in the video is more attention grabbing and leads to better conversions.

Based on the literature overview, various learnings from different researches and studies and on the results obtained from my master’s thesis, the expectations from this research were fulfilled. The testing experiments on Facebook have confirmed the importance of testing different approaches and formats and how small changes in the campaigns can lead to different results. Taking the assumptions of what works on Facebook and leaving them behind and instead focusing on obtaining actual data and results from continuous testing is what can improve the performance of Facebook campaigns and the sale goals of the advertisers in general. Each business has its own unique goals and only through testing they can discover what audience, creative and ad formats work give them the best result. The results from my experiments show that it is not only important to drive additional sales, but also to keep costs within the limits of what is acceptable for the company.

However, the experiments from my research are limited to the specific industry the ecommerce company is operating in. Not only that, but also the results can vary for different products and for different target audiences, different age groups, and different countries. The ads that proved to have good performance results in this case, may not be applicable for another advertiser.

That is the reason why my recommendation for further research is to expand the portfolio of advertised products, include advertisers from several different industries which have different target audiences and are advertising in different countries around the globe. That way, the results from the conducted experiments can be compared between the different advertisers and more cohesive conclusion can be drawn. These results can contribute to deeper understanding of the customers behaviors and what impact different formats of Facebook ads have on them.

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APPENDICES

Appendix 1: Povzetek

Porast platform za družbene medije je vplival na spremembo v življenju njihovih uporabnikov in na nakupne navade novih e-kupcev. Hitra rast in moč oglaševanja, ki jo ponujajo družbeni mediji, sta digitalnim oglaševalcem ponudili veliko priložnost, da stopijo v stik z novimi strankami, sodelujejo z njimi in se tudi učijo od njihovih povratnih informacij, da prilagodijo in izboljšajo svoja komunikacijska sporočila, izdelke ali storitve. Z množično uporabo Facebooka je ta medijski velikan postal eden glavnih marketinških kanalov za številna podjetja za e-trgovino in mesto, kjer gradijo svojo najmočnejšo digitalno prisotnost.

Vendar pa biti prisoten na družabnih medijih in postavljanje kampanj, ki temeljijo na implicirani percepciji in predpostavkah, brez določenih ciljev in strategij, ni zagotovilo za uspeh. Ključnega pomena za doseganje dobrih rezultatov je testiranje in ugotavljanje, kaj prinaša najboljše rezultate za vsako posamezno podjetje, izdelek, storitev ali panogo. Skrbno spremljanje ključnih meritev, ki so pomembne za doseganje naših ciljev, analiza rezultatov in prilagajanje naših kampanj lahko privede do boljše uspešnosti kampanj.

Glavni poudarek moje magistrske naloge je bil preizkus več različic Facebookovih oglasov, da bi ugotovili, katere izmed njih zagotavljajo najboljšo konverzijo (prodajo) na spleti strani podjetja. V Facebook Ads Managerju so bile ustvarjene A/B testne kampanje, da bi potrdili ali zavrnili pet različnih hipotez.

Prvi test, ki je bil osredotočen na preizkušanje stopnje konverzije dveh ciljnih skupin, hladne in tople, je zavrnil prvo hipotezo: »Konverzija je verjetnejša, ko se Facebook oglas prikaže ljudem, ki so obiskali spletno stran, kot pa ko se prikaže ljudem, ki spletne strani niso obiskali.« Ta A / B test je pokazal, da je Facebook zares okolje, v katerem se sprejemajo takojšnje odločitve o nakupu, in da ozaveščanje o izdelku in podjetju ni pogoj za nakup izdelka.

Druga hipoteza se je osredotočala na ustvarjanje drugačne spodbude za nakup izdelka in analizo stroškov, ki bodo nastali pri vsakem nakupu. Druga hipoteza »Facebook oglas, ki prikazuje popust, bo privedel do konverzij na spletni strani po nižji ceni na rezultat (CPR) kot oglas brez popusta« je bila potrjena z A/B testiranjem, ki je bilo sestavljeno iz dveh oglasov, enega s popustom in enega brez popusta. Cena na rezultat (CPR) je pomembna meritev, ki ponuja dragocene podatke za vse oglaševalce, katerih trženje je osredotočeno zgolj na uspešnost prodaje, in za vse, ki želijo ustvariti konverzije z nizkimi stroški.

Glede na to, da se video vsebina na Facebooku povečuje zaradi svoje potopitvene vsebine, so bile zadnje tri hipoteze mojega raziskovanja osredotočene na video oglase ter njihove različice in formate. Hipoteze so bile naslednje: »H3: Facebook oglas s kvadratnim videoposnetkom ima nižjo ceno na klik (CPC) kot oglas z vodoravnim video posnetkom,« »H4: Facebook video oglas z naslovi ustvari konverzije po nižji CPR kot Facebook video oglas brez naslovov« in končna hipoteza »H5: Oglas z galerijo izdelkov, ki vključuje

videoposnetek, ustvari več konverzij kot oglas z galerijo izdelkov, ki vključuje slike.« Vse tri hipoteze so bile potrjene po pričakovanjih. Ti testi so pokazali pomen uporabe najrazličnejših različic video oglasov. Način, kako predstavimo video, je pomemben, kot tudi sam format. Umeščanje naslovov v videoposnetek pritegne več pozornosti in vodi do boljših konverzij.

Na podlagi pregleda literature, spoznanj iz različnih raziskav in študij ter na podlagi rezultatov, pridobljenih iz moje magistrske naloge, so bila pričakovanja iz te raziskave potrjena. Preizkusi na Facebooku so potrdili pomembnost testiranja različnih pristopov in formatov ter pokazali, kako majhne spremembe kampanj lahko privedejo do različnih rezultatov. Vsako podjetje ima svoje edinstvene cilje in šele s testiranjem lahko ugotovi, katero občinstvo, besedilo in formati oglasov prinašajo najboljše rezultate. Rezultati mojih poskusov kažejo, da ni pomembno le ustvariti dodatno prodajo, ampak tudi obdržati stroške v mejah, ki so za podjetje sprejemljive.

Zaključujem magistrsko nalogo s priporočilom za nadaljnje raziskave za razširitev portfelja oglaševanih izdelkov, vključitev oglaševalcev iz različnih industrij, ki imajo različno ciljno publiko in oglašujejo v različnih državah po vsem svetu. Tako bo mogoče rezultate izvedenih poskusov primerjati med različnimi oglaševalci in priti do bolj kohezivnega zaključka. Ti rezultati lahko prispevajo k boljšemu razumevanju vedenja strank in tega, kako nanje vplivajo različni formati Facebook oglasov.

Appendix 2: Performance Reports for the Experiments

Figure 15: Performance report from Facebook Ads Manager for Experiment 1: Discount vs. No Discount Ad for Different Target Audiences

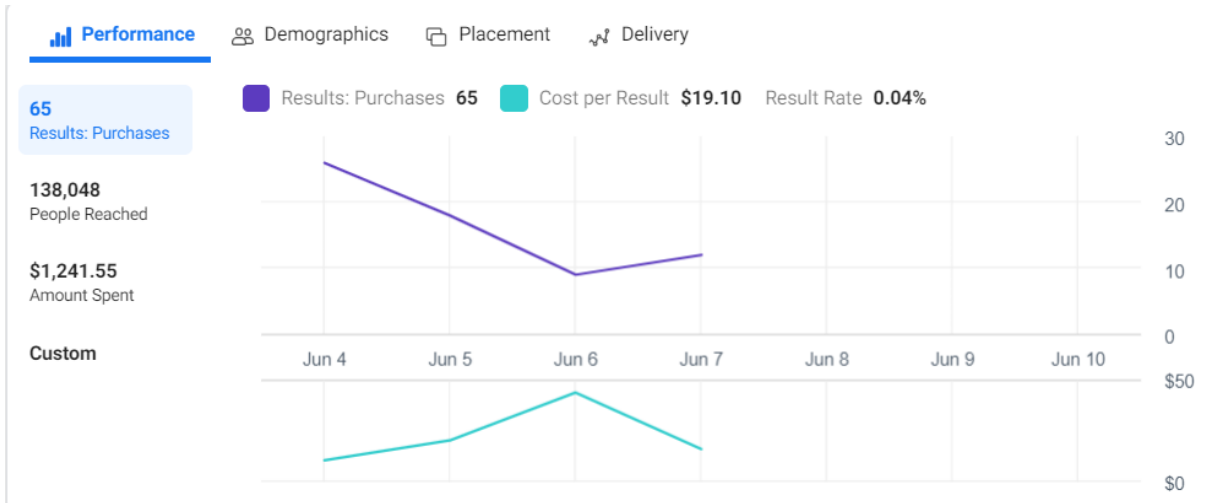


Figure 16: Performance report from Facebook Ads Manager for Experiment 2: Horizontal vs. Square Video

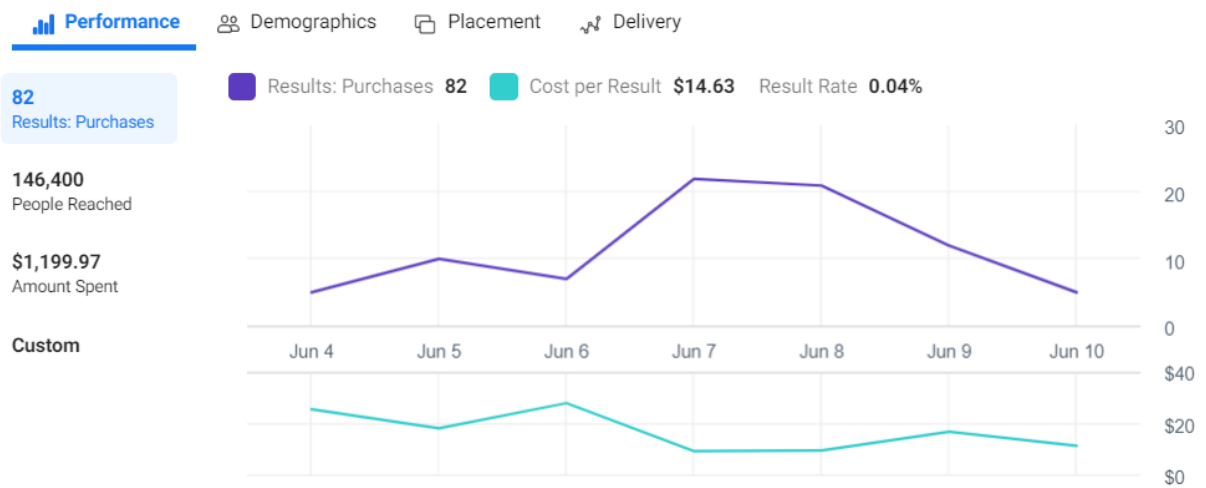


Figure 17: Performance report from Facebook Ads Manager for Experiment 3: Video with Titles vs. Video without Titles

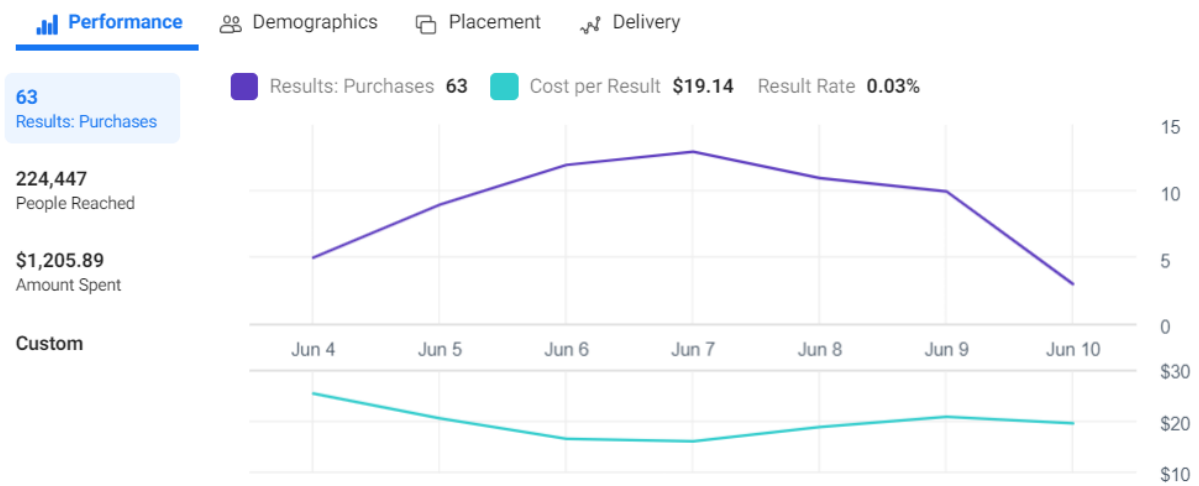


Figure 18: Performance report from Facebook Ads Manager for Experiment 4: Facebook Collection Ads (Video vs. Photo)

