

The effects of the Facebook algorithm change on social media advertising and content marketing

Case: Osuuskauppa Keskimaa

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Abstract

The social media giant Facebook has changed its news feed order, also known as algorithm, many times. The algorithm published in 2018, prefers posts of friends over public posts, which lowers the visibility of public Facebook pages' posts.

Inspired by the algorithm change this study explores advertising on Facebook and the objective was to pinpoint which kind of medium - video, picture or link - is the most efficient way of advertising on Facebook via engagement. The goal was to find out if posts published by public entities need money to be successful or are cost-free posts successful enough, and also ideally, what are the key factors to advertising efficiently for free and gain organic publicity. To analyse the results, an adapted model of Attention, Interest, Desire and Action, abbreviated AIDA, was created and used.

During a three-week research period, a series of Facebook posts were created and published in co-operation with Osuuskauppa Keskimaa. These posts were the foundation of the data collection, and well comparable against one another. Furthermore, other features, such as paid advertising and sharing a post, were tested during the research. The results were calculated and compared from multiple perspectives, then analysed following the framework and connected to the main points of literature reviewed.

The results were cohesive indicating that, as an advertising medium in Facebook, video is the most efficient in creating organic reach. Paid advertisements reached the most but, in the end, did not create more engagement. The study is tied to certain location and certain time, which limits the usability slightly, but indications on the most efficient medium of Facebook advertisement can be drawn from the results. The study also provides a solid foundation for further research as to how effectively advertise on Facebook now, and in the near future.

Keywords/tags

AIDA, Facebook, Facebook Algorithm, Digital Marketing, Social Media Advertising and Content marketing

Miscellaneous

A relevant Facebook post of Mark Zuckerberg



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Tiivistelmä

Sosiaalisen median jätti Facebook on muuttanut monta kertaa algoritminsa eli tavan, jolla käyttäjät näkevät uutisvirtansa. Algoritmi, joka julkaistiin vuonna 2018, suosii julkaisuja ystäviltä julkisten julkaisujen sijaan, mikä heikentää julkisten Facebook sivujen näkyvyyttä.

Algoritmin muutoksen innoittamana tämä tutkimus tarkastelee Facebook mainontaa ja tavoite oli selvittää mikä mainonnan muoto - video, kuva vai linkki – on tehokkain Facebookin mainonnassa. Päämäärä oli selvittää tarvitsevatko julkisten tahojen julkaisut rahaa mainontansa tueksi tavoittaakseen käyttäjiä vai riittääkö maksuton mainonta, sekä mitkä ovat ideaalisessa tilanteessa ne tekijät, joilla mainostaminen on ilmaista, mutta jotka saavat siitä huolimatta orgaanista näkyvyyttä. Mukautettu AIDA-malli (lyhenne englannin kielen sanoista Attention *huomio*, Interest *kiinnostus*, Desire *halu* ja Action *teko*) luotiin ja käytettiin tulosten analysointiin.

Sarja Facebook julkaisuja julkaistiin kolmen viikon tutkimusajalla yhteistyössä Osuuskauppa Keskimaan kanssa. Nämä julkaisut ovat pohja tiedon keruulle ja helposti vertailtavissa toisiinsa. Lisäksi, muita ominaisuuksia, kuten maksettua mainontaa ja julkaisun jakamista, käytettiin tutkimuksen aikana. Tulokset yhteen laskettiin ja vertailtiin eri näkökulmista, analysoitiin käyttäen teoreettista runkoa ja yhdistettiin kirjallisuus katsauksessa tutkittuihin pääkohtiin.

Tulokset olivat yhtäläisiä, osoittaen, että Facebookin mainonnan tekijänä video on tehokkain luomaan orgaanista näkyvyyttä. Maksettu mainonta tavoittaa parhaiten, mutta ei kuitenkaan luonut lisää sitoutumista. Tutkimus on sidottu tiettyyn paikkaan ja aikaan, joka hieman heikentää käytettävyyttä, mutta videon osoittama tehokkuus Facebook mainonnassa, voidaan kirjata tuloksista. Tutkimus antoi viitteitä, ja pohjan mahdollisille lisätutkimukselle, miten mainostaa tehokkaasti Facebookissa nyt ja lähitulevaisuudessa.

Avainsanat

AIDA, Facebook, Facebook Algoritmi, digitaalinen markkinointi, sosiaalisen median mainonta ja sisältömarkkinointi

Muut tiedot

Aiheeseen liittyvä Facebook julkaisu Mark Zuckerbergiltä

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1. INTRODUCTION

The importance of human relations in the overall well-being cannot be ignored. As pointed out by Pande (2011) the lack of close human relationships results in increasing incidence of depression, anxiety and other mental problems, and emphasises how communicating with someone close helps in releasing both mental and physical stress.

A critical and necessary element of building relationships is communication. Communication is the connection between people as a result of an exchange of information (Markiewicz 2017).

The social media giant, Facebook, has also taken notice of the importance of human interactions, and, thus, they have decided to revert to the original algorithm which puts emphasis on communication between friends and family. Now companies will have to readjust the content of their Facebook marketing so that it will be creating meaningful interactions, and furthermore aim to hold their position as high as possible in people's News Feed, the way people see the list of updates of friends and public entities, ideally without massive increase in their budget.

1.1. Background

Facebook is going back to the initial idea with their algorithm. An algorithm is a method, steps of a calculation, which can be used in either making calculations, resolving problems or reaching decisions (Harari 2015). In practice the Facebook algorithm change means the way people see their own Facebook News Feed will change. Facebook's algorithm was originally created to put more emphasis on the social interactions between individuals, however, during the past decade their algorithm has been more favourable towards businesses by increasing the amount of so called recommended advertising and other public posts. A survey conducted in 2015 (Wallaroomedia 2018), indicated how people wish to see more posts from their friends and family, Facebook has bit by bit gone back to the original communications

orientated algorithm. In Facebook advertising there are two types of advertisements: paid and non-paid. Facebook has used the past three years to improve the algorithm (Lua 2017) in a way that the consumer will see less of businesses content unless the businesses invest more money on the advertising. This affects the way marketers should go on about their advertising in Facebook. (Vinayaka 2018.)

It is known that the Facebook News Feed has its issues in important places. The CEO of Facebook, Mark Zuckerberg, has announced that his New Year's resolution is to personally spend 2018 focusing on fixing those issues. (Wong 2018.) Zuckerberg himself posted this on his Facebook page (Appendix 1.). In general, Facebook has become too crowded with public posts instead of friends and family's posts (Zuckerberg 2018). This study focuses on the specific algorithm change which have taken place during the first half of 2018, and how this keeps affecting advertising on Facebook. The change is one step further towards the deliberate human relations orientated algorithm that Zuckerberg mentioned.

The topic chosen revolves around the change in the algorithm which occurred in 2018 and, thus, there are no previous studies on the subject itself at the time of beginning the study. At this stage of the study, it is hard to predict as to which direction this current fresh change will bring the future of Facebook advertising, and even professionals can only make assumptions what will happen, making the subject even more interesting and full of limitless potential.

1.2. Motivation for the research

The topic of this work is very recent and there is a very poor literature about the subject. Since Facebook advertising is highly effective in today's business markets, and the changes to the Facebook algorithm will affect the advertising (Peters 2018), thus, should not only be researched more thoroughly but also understood.

The aim of this study was to bring some new fresh information and perspective about the phenomena into the practical field.

This study has been conducted by two authors: Kaari Nieminen and Juuso Inkeroinen. Due to matching interests and passion for the topic, the research is conducted together.

Kaari Nieminen has personal interest in the various aspects of social media marketing and especially in Facebook marketing. Facebook is the most used social media with over 2 billion users while the next biggest, Instagram, has 1,5 billion users (Kallas 2018). This research has provided an equally interesting and beneficial opportunity to have a deeper understanding of this aspect of social media marketing.

Juuso Inkeroinen, has been working for Osuuskauppa Keskimaa's Prisma, hypermarket located in Jyväskylä, Finland, for almost three years. During this time, he came to notice some misgivings in the Facebook marketing and advertising. He has had interests in researching social media marketing with a big company as well, and finds Facebook's algorithm structure interesting new subject, that Facebook's users, and some business alike, necessarily know nothing about.

Due to Juuso's work background and the authors' shared interest on Facebook marketing, a meeting with the marketing representatives of Keskimaa was requested and held. The representatives brought up ideas, suggestions and possibilities for the topic of this study, finally the topic was chosen because of its possibility of being beneficial to both parties involved. The research is conducted in collaboration with Osuuskauppa Keskimaa's marketing department. They had come across this particular change and assessed the possibilities and risks it might create since it has a direct effect on their marketing strategy. Keskimaa had a need for further research in the field but did not have enough time resources to conduct it. They wished to have research done on the topic of which type of advertising creates the most cost-free publicity and visibility.

Facebook's continuously increasing number of users indicates how effective the platform is. In Table 1. is shown how the number of Facebook's users have increased steadily since 2008. (Statista 2018.) This makes Facebook marketing a relevant topic even at this social media age where new platforms are gaining popularity.

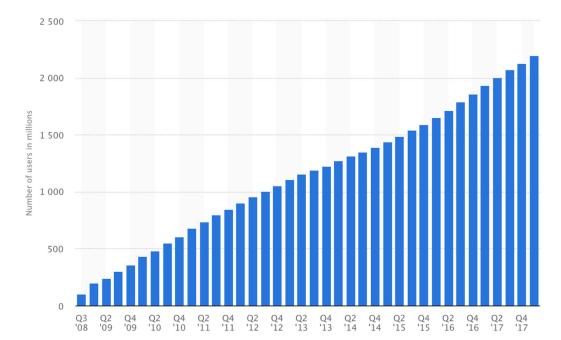


Table 1. Facebook user amount since 2008

1.3. Research question

Starting from the assumption that the change of algorithm will modify the approach to advertising in Facebook making the communication and engagement a more relevant part of the marketing process, thus, the research question of this study is:

Which medium of non-paid advertising (video, picture or link) reaches the consumer in Facebook advertising most efficiently via engagement?

When it comes to research objectives, the objective was to pinpoint the medium of non-paid Facebook advertisement which reaches the consumer most efficiently by creating engagement which after the new algorithm change leads to wider reach. Paid advertising was excluded from the research question because, as pointed out by Bernazzani (2018), it gets significantly more reach and eventually all of Facebook advertising need money in order to be seen. However, engagement leads to non-paid, also known as organic, reach which is cost-efficient.

1.4. Structure of the thesis

The thesis is structured into five chapters. The first chapter is the introduction consisting of the background, the motivation, the research question and the structure.

The second chapter, the literature review, introduces important key concepts such as the Facebook algorithm, its shift, the location pages, the content marketing and advertising.

The third chapter of the thesis, the methodology chapter, describes the deductive and quantitative research approaches, the company Osuuskauppa Keskimaa, as well as the plan of the three weeks period of data collection, its implementation and data analysis. In the same chapter the reliability is also evaluated.

In chapter four, the results, the empirical parts of the three-week results are described in detail.

In chapter five, the discussion, the results presented in chapter four are summarised, analysed and discussed in order to provide answers to the research question.

Managerial implications, the limitations of the research as well as recommendations for future research are identified

The very end of the study has references and appendixes.

2. LITERATURE REVIEW

In this chapter the topics are presented according to the relevance for understanding of the phenomena. As far as the Facebook algorithm, both the previous and current are presented, because of their different but equally significant impact on the research.

As mentioned before the literature on the subject is relatively poor because the topic is new. The literature was reviewed according the keywords. In this thesis the keywords are Digital Marketing, Facebook, Facebook Algorithms, Social Media Advertising and Content marketing.

2.1. Digital Marketing

Facebook is one of the biggest, if not the biggest, digital marketing channels. As pointed out by Chaffey (2018), digital marketing is a modern marketing supported by internet, and he believes that there are five Ds in Digital marketing which outline the opportunities for interactions between businesses and customers, providing a possibility for businesses to reach their customers and learn from them. Chaffey (2018) defines these opportunities as:

- digital devices which includes customers reaching and interacting with business mobile apps and websites via different combination of devices such as smartphones and computers, even gaming devices;
- digital platforms such as Facebook, Instagram, Google and other major apps and browsers;
- digital media is third opportunity that Chaffey lists, which includes various kinds of paid, owned and earned communication channels, e.g. advertising, messaging, emails, search engines and social networks. These channels are utilised to reach and engage audience;
- *digital data,* the information which businesses are able to collect from their interactions with customers and their profiles; and
- digital technology, the marketing technology businesses use to produce interactive experiences ranging from mobile apps and websites to emails, texts and in-store kiosks.

Chaffey (2018) explains that digital marketing is marketing strategy that relies on utilising the ever-evolving technology in order to achieve marketing goals.

Digital marketing is essential for businesses to keep contact with their clientele, develop their strategy and promote their goods. It is everything that is related to business' marketing efforts online. (Chakrabarti 2017.)

Patel's (n.d.) definition of digital marketing is kept short: "Digital marketing is any form of marketing products or services that involves electronic devices". He emphasises that well-rounded and successful digital marketing includes both online and offline marketing. Patel suggests that there are seven major categories of online

marketing but Alexander (2017) has a different view arguing that there are three more categories. Both Patel and Alexander mention search engine optimisation (SEO), search engine marketing (SEM), social media marketing (SMM), pay-per-click (PPC), affiliate, email and inbound marketing. In addition, in Alexander's opinion, there are also native advertising, marketing automation and online PR. Here following the definitions of the technical terms:

- SEO, Search Engine Optimisation, is about building websites which are visitor
 and search engine-friendly. It is about optimising the website so that the
 search engine prioritises it when a certain keyword is used, and the website
 ranks higher in the search engine results' pages which then increases organic
 reach. (Fishkin 2015.);
- SEM, Search Engine Marketing, which in order to get the most visibility in search engines' results page by utilises both paid and free online advertising.
 Understandably it is costlier but creates more profit in return. (Chris 2013.);
- SMM, Social Media Marketing, refers to internet marketing method which employs social media as its marketing tool (Rouse 2011);
- PPC, pay-per-click advertising, is a common term for marketing tool which
 operates by utilising publisher of the advertisement as a way to bring more
 traffic to the website. A payment to the publisher is made every time
 someone clicks on the advertisement. Most well-known and common type of
 PPC is Google AdWords. (Suojanen 2014.);
- Affiliate marketing, as Entrepreneur (2017) defines, is a method for a business to promote its products by contracting individuals or companies, referred as affiliates, to market the products for a commission;
- Email marketing is very self-explanatory, it refers to marketing via Emails to promote content, events and discounts and also to direct customers to business' website;
- Out- and Inbound marketing are different approaches to reach customers, outbound starts from the company whereas inbound refers to marketing done to increase brand awareness and drive traffic, the company draws the customers in (Vähä-Ruka 2015);

- Native Advertising, the idea is to take in some form of advertising that
 naturally mergers into another outlet of content or material, primarily
 content-led of which BuzzFeed sponsored posts are an excellent example
 (DeMers 2018);
- Marketing Automation refers to a software, it is the software's practise by
 which process design and technology may be matched to improve both
 effectiveness and efficiency of marketing. The goal is to automate marketing
 actions such as emails and social media. (Biegel 2009.); and
- Online PR according to Ironpaper (2013) is very similar to traditional PR, it is
 the practice of safeguarding organic online coverage with blogs and vlogs,
 digital journals and other content-based websites.

As this study revolves around advertising in Facebook, the digital marketing is considered to be highly relevant in regards of this study. This topic leads to understanding how marketing is done in the digital environment, especially in Facebook advertising.

2.2. Facebook©

Facebook is a leading communication platform, where users can share, comment and like different posts and communicate with other users. Founded in 2004, Facebook is now worth billions and is considered one of the world's most recognisable brands. Statistics imply that Facebook is the most popular general-interest social networking website worldwide with almost 2.2 billion active users in a monthly basis which is a 14 percent increase to the previous year. (Statista 2018.)

To understand the basis of this study, knowing the different attributes of Facebook is vital, thus this subchapter provides the necessary information to deeper and better understanding the concepts of Facebook.

Facebook Newsroom states that Facebook originates from a Harvard student Mark Zuckerberg. He initially created it as school-based social network in the beginning of 2004. The original idea of Facebook, then known as Thefacebook, was to be "an online directory that connect people through social networks at colleges" (see Figure 1.). Due to the rapid increase of popularity it was later expanded to be open for everyone above the age of thirteen. (Weinberger 2017).

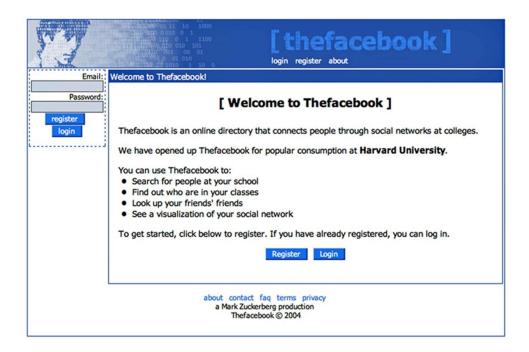


Figure 1. TheFacebook, Weinberger 2017

Nations (2018), who has over twenty years expertise of computer sciences, represents Facebook as a social networking website and service in which users can post comments, share photographs and links to news or other content they consider interesting on the Web, play games, chat live, and stream live video. Users can decide whether their shared content is publicly accessible or shared only among a select group of friends or family or with only a single person. Facebook can also be used for food ordering.

Kissane (2016) evaluates that Facebook is giant business which gets most of its revenues from advertising. Its enormous user base and vast amount of information that they gather about their users, gives Facebook the advantage when targeting a specific audience. For example, Google can help targeting people who use certain

keywords, but Facebook can find, and target people based on information such as their geographical location, age, gender, employment and marital status, ideology, preferences and plentiful of additional categories.

In 2018, Facebook faced huge safety concerns among its users, after it was revealed that some third parties had access on Facebook user data without permission. Especially during the U.S. president election in 2016, where Russian interference through advertising was found out, and where the information of millions of people was sold to Cambridge Analytica aiming to find potential voters for Donald Trump. (Castillo 2018.) This threatens Facebook's position as the leading social media platform as customer might not trust on the platform anymore.

In order to better understand the nature of this study, three very relevant terms of Facebook should be clarified. These terms are "location pages", "likes and reactions" and "click and engagement bait". "Location pages" are mentioned throughout the study as well as "likes and reactions." "Click and engagement bait" are explained in order to further emphasise the issues which partly have led towards the algorithm change (Silverman and Huang 2017).

LOCATION PAGES

Location Pages, which are enabled by Facebook's feature "Facebook Locations", are subpages operated under the businesses' main account. With Location Pages, businesses are able to add local Pages, edit info and manage existing locations, and concentrate local awareness advertisements all from one central location. Location pages enables offline businesses to better shape their Facebook presence, especially in cases where the business has multiple locations.

With Location Pages, businesses can

- help customers find a business quicker,
- provide localised content,
- manage all of their locations from one place, and
- manage and post local Facebook advertisements.

LIKES AND REACTIONS

A known feature of Facebook is the traditional "Like" which allows users to show support or that they enjoyed a picture, wall post, status or fan page. On the other hand, there are the Facebook's reactions which allow users to show more specified reactions: Like, Love, Haha, Wow, Sad and Angry (see Figure 2.). Both liking and reacting can be done by hovering over "Like" and choosing from the six possible reactions depending which of them they wish to portray. One person can only leave on reaction per post or a comment. (Facebook© 2018).



Figure 2. Facebook's Like and reactions, Facebookbrand.com 2016

From April 2010 onwards, Facebook users could follow a certain page by "liking" it, previously this happened by pages having an option to "become a fan" (Rouse 2010).

CLICK AND ENGAGEMENT BAIT

By using click bait headings, publishers try to receive as many clicks as possible with tempting headlines which in return creates organic visibility for them. The headline may include sentences such as "You will never believe this!" in order to maximise clicks and does not necessarily include what the headline or descriptive picture suggests (see Figure 3.). This tactic is generally disfavoured by Facebook. By doing so, publishers aim to gain brand awareness and thus create revenue themselves. (Merriam-Webster 2018.)



Figure 3. Click bait headlines, Shelton n.d.

Engagement bait aims to receive similar advantages by engaging user for example asking them to react to posts with likes or other reaction buttons (Silverman 2017).

FACEBOOK ALGORITHM

The Merriam-Webster Dictionary (2018) definition of algorithm is:

"a procedure for solving a mathematical problem (as of finding the greatest common divisor) in a finite number of steps that frequently involves repetition of an operation; broadly: a step-by-step procedure for solving a problem or accomplishing some end especially by a computer"

In social media, algorithms use data to give suggestions and recommendations to meet the needs and creeds of the user. Every time when a user opens Facebook, there are in average 1500 different posts visible for them which makes Facebook's News Feed filtering essential in order to show only the most relevant content to the users. Because algorithms clear the unnecessary out of our feeds, crucial or essential content is less likely missed out. People are simply too busy to go through and filter the content themselves. (Backstrom 2013).

PREVIOUS ALGORITHMS

The appearance of Facebook's News Feed algorithm has changed many occasions during the lifetime of Facebook. Wallaroomedia (2018) has listed clearly the fluxing changes of Facebook's News Feed annually. News Feed was initially introduced in 2006, two years after the launch of the service. Before that, Facebook was solely showing one's own profile page, and all posts from other users had to be searched manually. In 2006, News Feed became the new homepage which made other's posts and pictures much more accessible. Until 2009, the posts on News Feed were shown chronologically. However, after that the rule how to keep posts high on News Feeds has changed rapidly back and forth. Popularity and posts engagement were the key factors before 2010, and after that, Facebook algorithm has aimed to show its user what it presumed most relevant. This was in use for several years with minor changes and is still one of the main principles of the Facebook algorithm.

Wallaroomedia indicates that already in 2014, Facebook aimed to eliminate "clickbait" posts. If the content is not something the headline suggests, people usually return back, and therefore rather than focusing only on the clicks, the algorithm analyses the time people spent on a link which correlates with the importance of the post. This leads to the algorithm to deprioritise such content and posts.

In 2015, Facebook introduced an option where its users can determine which users or accounts they see first on their News Feed. That option is still in use despite the new algorithm change and, thus, brand ambassadors, unrelated people who promote the brand solely because they consider it worthy, can still be reached without greater effort. In 2016, Facebook began appreciating live videos, worked to polish News Feed with constant improvements for example de-prioritising public content aiming to sell or publish click or engagement-bait typed posts free of charge. (Wallaroomedia 2018.)

CURRENT ALGORITHM

As mentioned above, Facebook had initially the idea of connecting and bringing its users closer to one and other. As it is, they have always had the goal of putting social contact with friends and family at the core of their user's experience. In the past decade Facebook has absconded from their original idea as videos, advertising, and other public content have taken over Facebook. The creator of Facebook, Mark Zuckerberg (2018), mentioned "there's more public content than posts from your friends and family". It seems to be one of the main reasons for their reverse strategy. Vinayaka (2018) supports the authors' hypothesis saying it is easy to speculate that the reason behind the changes to the algorithm is to captive its users again, but it is more likely that the real reason goes deeper. According to Zuckerberg (2018), communication is linked to people's well-being while watching videos is linked to Facebook's negative effects after making people passive. By aiming to create communication between people and different organisations, Facebook can make its users happier and increase communication, thus bring back its core strategy.

When Facebook is returning back to the algorithm preferring communication between individual users, it automatically means that all the public content on Facebook gets less visibility. This generally favourable and user-friendly change in individuals' perspective is thus negative to companies and other public sites after space of News Feed on Facebook is obviously limited. Companies ought to generate content that allure potential customers in order to remain their visibility on News Feeds. As mentioned, meaningful communication is Facebook's target in years to come, and they will appreciate companies able to create content that creates conversation. As pointed out by Lua (2017), Facebook has already mentioned that they will penalise posts aiming to get only clicks and that is the reason posts generating conversation between people will show higher on News Feed. Likes and single comments are not enough anymore, companies have to keep up the conversation, thus they need to budget someone to be responsible for commentating. Live videos are also an effective way of reaching people, and possible Q&A live video of questions and answers could result to better content and understanding of customers which the main goal of content marketing is.

Furthermore, in the year 2018 Facebook will bring to the users a very new feature of advertising (Ramnath and Simari 2018). Augmented Reality, known as AR, is a reality which includes superimposed computer-generated pictures augmented to real-world surrounding over a user's view for example through one's own smart phone camera (Reality Technologies 2016).

Ramnath and Simari (2018) indicates that AR will be introduced using the latest technology enabling a regular poster to come to life through one's own smart phone. In the future, using Facebook's AR Target Tracker, one can only point their own phone camera at a poster they see while walking at street (see Figure 4.), and this normal poster on a wall, for example about an upcoming movie, can change to that captive commercial adventure. This effective new target tracking offers businesses many new ways to connect with their customers, and thus enhance their own brand image.

"Restaurants and stores can create immersive and entertaining AR experiences tied to their storefronts (like fashion shows or chefs in the kitchen) to entice customers to walk in the door. And the opportunity to create games will take us on adventures way beyond what was previously imagined. The possibilities are endless!" (Ramnath and Simari 2018)



Figure 4. Facebook's AR feature can change advertising, research.fb.com 2018

2.3. Social Media Advertising

Advertising on Facebook is effective due to its high number of users which is steadily increasing. Over 2 billion people uses Facebook around the world and over 800 million people like something on the page every day (Newperry 2017). Videos on Facebook are being viewed 100 million hours every day (Constine 2016). Content marketing and targeted advertising is easy through social media platforms such as Facebook, since targeting advertisement by demographics, location, interests, and behaviours allows companies to access the exact people who are most likely to want to buy their products and services. When this kind of advertising visibility decreases after the change of algorithm, it obviously worries companies, and they need to make proper actions.

The importance of the social media advertising is growing as the world digitalises and thus, as a marketer, understanding it is considered important and crucial to every business.

2.4. Content Marketing

A questionnaire implemented by Smart Insights, designates that content marketing is believed to be a top activity making the largest commercial impact in 2018 for companies (Chaffey 2018). Thus, content marketing is considered as one of the big trends of digital marketing all around the globe. Content marketing produces and distributes content for targeted audience, through internet and social media.

Companies aim to create products or services that are valuable and relevant to their customers more distinctively (Steimle 2014). Social media sites such as Facebook use their users' information to maintain the main idea what kind of users they have and further provide third parties an opportunity to gain valuable information about their targeted audience to advertise and market to their audiences more effectively (Facebook Data Use Policy 2016). In the future, in order to keep their visible position, companies have to create something different, interesting and overall the best possible content which creates and encourages conversation in a way that loyal customers are not only willing to follow but also commentate (Peters 2017).

2.5. Theoretical framework

The theoretical framework of this study gives guidelines to the chosen keywords and the analysis of the research's results and analytics, it confines the amount of information and results needed. For this study the AIDA model was chosen because it is a classic marketing framework which has been adapted to fit the digitalising marketing world strategies and thus can be adapted to this study also.

The AIDA Model is a marketing strategy framework or a theory of communication which was introduced by an American sales pioneer E. St. Elmo Lewis in 1951.

Regardless of its dating and having gone through modifications and changes, it is considered one of the founding principles and a cornerstone of most of the modern marketing and advertising, making it highly valuable marketing tool. (Suggett 2018).

The acronym AIDA comes from Attention-Interest-Desire-Action (see Figure 5.).

These are four guidelines explaining the four cognitive stages an individual experiences when making a decision whether to buy or not a specific product or a service. Marketers follow this four-step process to reach potential customers and buyers.

Michaelson and Stacks (2011) specify that AIDA is very much relevant in the social networks society since in order to marketing to be successful individuals still have to

- be made or **become aware** of the existence of the product;
- show interest in the product based on what information they obtain about the product;
- express desire over the product or a service which fulfils their interests, wants and/or needs, and
- make the final decision to purchase the product.

Hanlon (2013) believes that the relationship is no longer only between business and customer because of the affect the social media has but one that makes achieving the goals of AIDA trough customer to customer interactions via social networking possible. This thought is shared with a sales and marketing director, Third (2014) who

considers business to customer communication to be more of a traditional version.

He states that grabbing the attention of the audience is crucial in marketing,
engagement being the first step.



Figure 5. AIDA model, SEOCustomer.com, Sandberg 2012

AIDA model is a four-stage formula to get attention, generate interest, create desire and finally take action, in other words, making a purchase. (Barry & Howard 2007).

Thanks to technology, marketers can utilize pioneering research such as eye tracking software to analyse where on the screen participants attention was being drawn and for how long. (Third 2018). Kojima (2010) states that this model proves to be useful by being able to assess the influence of advertising by monitoring and governing every stage of the psychological journey that begins from the individual level to notice an advertisement up to the moment of purchase by individuals involved.

The core of this study is Social Media Advertising. It was seen necessary to adapt the original AIDA model to fit this context accordingly (see Figure 6.). In this study the purpose of utilising the AIDA model is to aid in creating the content for the advertising campaign as well as analyse the results of said content. Very similarly to the original, which's aim is to raise awareness for a brand, this adapted model aims to raise "reach" in Facebook advertising. As mentioned, AIDA was the model and base when developing the three-week advertisement campaign for Osuuskauppa

Keskimaa's Prismas, the same model was used in analysing the results from the Facebook Analytics of the three Location pages.

In this study, the core was to investigate which media of Facebook advertising is most convenient and efficient in reaching as many users as possible and engaging said users in the advertisement. An adapted model of AIDA, as shown in Figure 6, was used to fit the purpose.

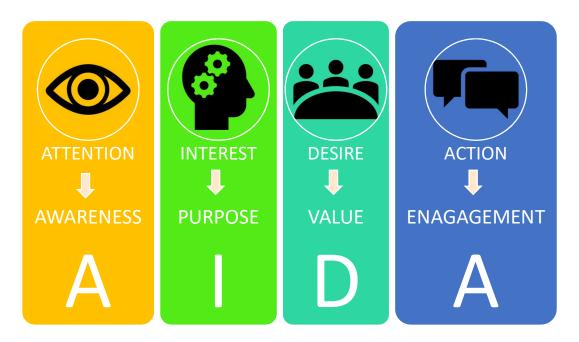


Figure 6. The Adapted AIDA model from E. St. Elmo Lewis

ATTENTION/AWARENESS

Digital marketing specialist Rowels (2013) argues that the first A stands for awareness rather than attention. In this study, the A refers to attention, but this model emphasises the importance of taking control of the *Awareness* of the users. Awareness differentiates from attention:

"brain can pay attention to something without you being aware that it's there" (Hsieh 2011) Creating content that grabs the attention of the users via media or message that is attractive to them, the main idea is about grabbing not only the attention but also the awareness of the user in order it makes the audience engage. The aim is to get the user initially engage with the advertisement, regardless who it is with.

The content or medium of an advertisement should attract attention immediately and turn it into awareness. This happens by creating something that the users consider attractive. Attractive content is something a user can find value in, something that matches their values. Something valued turns into something the user care about and, thus, becoming something the user is aware about. It has the possibility to attract the user to spend enough time to develop interest for the advertisement.

In this study the Attention is used to define which non-paid medium of Facebook advertisement (video, picture or link) is most likely to catch the Awareness of the users.

INTEREST/PURPOSE

Interest is very important part of the AIDA model. The new Facebook Algorithm emphasises real conversation around a topic, in this case the content of an advertisement. Microsoft Corp. conducted a study in which the results disclosed that people in this day and age usually lose attentiveness after eight seconds, this is the effects of a more and more digitalized life. (McSpadden 2015.) Buck (2017) argues that it is not the attention span that is short rather than the amount of options we have, thus, the eight seconds are the time someone has to prove what they offer is interesting or interesting enough. Same logic applies easily to Facebook advertising.

The adapted framework focuses on creating the interest, it is the intention of putting *the purpose* in to the core of the advertisement, much similar to the Golden Circle presented by Simon Sinek in the next paragraph.

The Golden Circle, introduced by leadership expert Simon Sinek, expresses that the way businesses can differentiate from their competitors is by going about the content entirely vice versa to usual order. Businesses traditionally think their core function is:

- 1. what they do,
- 2. how they do, and
- 3. why they do.

As such, every business knows what the core idea of their business is the product or service they provide. The *how* is another crucial part of the function as it portrays the actual and physical way businesses differentiate themselves from the rest. However, the *why* if the function is often forgotten, which is, in Sinek's opinion, a problem for many businesses. Having a core idea or purpose for their business makes raising genuine interest towards themselves and their products easier. (Chaffey 2015.)

Sinek's Golden Circle puts this order other way around instead: *why* is considered the most important part of the function, and the core of the entire process (see Figure 7.). The *why*, as mentioned before, is the purpose, and the purpose is related to the values of the company, not the product itself or the service of the customers. When businesses realise *why*, *how* and *what* they do is much easily reached and the entire process becomes much more effective and efficient. (Chaffey 2015).

The Golden Circle

WHAT

Every organization on the planet knows WHAT they do. These are products they sell or the services

HOW

Some organizations know HOW they do it. These are the things that make them special or set them apart from their competition.

WHY

Very few organizations know WHY they do what they do. WHY is not about making money. That's a result. WHY is a purpose, cause or belief. It's the very reason your organization exists.

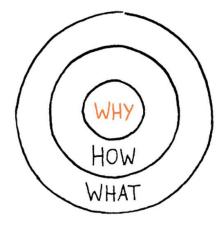


Figure 7. Simon Sinek's Golden Circle, smartinsights.com, Dave Chaffey 2015

In this study the interest was used to explore what non-paid medium of advertising are more valuable to the users. The adapted AIDA's Interest and Desire both rely on Sinek's Circle but slightly differently.

DESIRE/VALUE

After raising interest marketers must make the audience desire the product. Marketers focus on building that desire in a way that the want or need comes from within the users. Being interested in something and desiring it has an immense difference in between one and other. It is important to be capable of changing the audiences' interest of the product into a powerful desire towards it. Efficient advertising is done in a way, that creates a need or a want even when it is yet to exist. In order to achieve this, the advertisement should show the value of the content, which in return, demonstrates clearly how purchase would be beneficiary for themselves (Rawal 2013).

As previously mentioned, engagement in Facebook advertisements has become vital in order to create organic reach, thus, knowing which elements create desire via advertisement is vital. In this study, Desire refers to the desire, want or need to contribute to the conversation, creating value to engage in the advertisement.

Creating value is highly important skill to have in today's market. The best marketing companies understand the market and consumer needs, design marketing strategies that create value, and develop integrated marketing programs that offer value. Different customers can be offered different benefits depending what are the most relevant values to them. (Couch 2017.)

Values affect what is considered desirable, they create a pathway towards the direction individuals wish to approach in their buying decisions. According to Dupont (2017) most shared content in the internet is:

- 1. awe inspiring (25%),
- 2. laughter (17%),
- 3. amusement (15%),
- 4. joy (14%),
- 5. anger (6%), and
- 6. other (23%).

In today's social media and internet societies people seem to put more value to positive emotions and feelings. In advertising values, in this case emotions, affect the level of engagement. As Dupont (2017) emphasises that happiness is what advertising should focus on:

"we want to be overly positive, we are actually sick and tired of the negative crap, we don't like it. I mean it's there, I'm not going to bring it up because it's just right there. There's a lot of negativity but we actually don't like it. This is not what we share. What we share is the happy stuff, right?".

People like to watch and engage themselves in positive content and advertisements. Therefore, positive content should provide better results in regard to creating desire towards the advertisement.

ACTION/ENGAGEMENT

In the traditional AIDA, after grabbing the attention, raising interest and creating desire, the final step is to achieve action. This is what matters in terms of successful marketing and what marketers initially are aiming for. If customer makes the final decision to do the action, for example purchase a product, the implementation of the AIDA model has been successful. If the action wanted is to get a targeted audience to buy products, marketers should honestly and earnestly guide their customers to do so.

The action phase should be made as easy and effortless as possible so that the interested customers do not turn back because of the action being too hard. This would ruin the previous steps taken during the process of AIDA. It is reasonable to consider all the possible risks that might decrease the feeling of convenience during the process of action, these risks should be minimised and solutions to the issues should be developed. (DeMers 2013).

In this study Action refers to engaging, it is considered as the final step of the AIDA model. With Facebook advertising, after the relevant change in the algorithm, engagement is the desired action especially from the marketers' point of view. Engagement is measured within the algorithm and promoted by Facebook itself accordingly without extra costs. Engagement is to be aimed towards and for this reason it is considered to represent Action in this study.

The adaptation of the AIDA model is used as a structure to discuss the results of the research. It also used to support the theory. This study concentrates on why, how and what attracts the audiences and invokes interest, manages to keep it and produces desire for engaging with the advertisement.

3. METHODOLOGY

This chapter covers the following areas of the methodology: the research approach of the study, the context, the method of data collection and the verification of the results.

The research purpose classification provides three categories: the descriptive, the explanatory and exploratory, or a combination of them (Saunders 2016, 174). In this study the third one (exploratory) has been applied because of the novelty of the topic and the possibility to provide answers for the research question.

Developing an au fait research design is critical for ensuring the efficiency and effectiveness of the conducted research (Malhotra 2010, 70).

The structure of the exploratory research tends to generate new insights on the phenomena being studied and provide new insight on the subject. The exploratory research is conducted usually for a problem that has not been researched clearly enough, envisioned to establish priorities, develop operational characterisations and make the final research design more suitable. Given its fundamental nature, exploratory research should draw final conclusions only with extreme caution. (Shields and Rangarjan 2013.)

3.1.Research approach

Different research philosophies are associated with the research approaches. There are two approaches, which are either deductive (quantitative) or inductive (qualitative). The deductive approach is mainly used to test hypotheses, to have a structured methodology, and operationalising perceptions in order to measure them quantitatively, and allows generalisation as well as forming stereotypes. (Saunders et al. 2009, 124-125.) According to Kananen's (2011) simplified classification there are two research approaches (qualitative and quantitative) that are dependent on the study's discipline and the field of science.

In this study a hypothesis was made: there is an association between the medium of the advertisement and the amount of organic reach it gets. In order to achieve the research objectives, choosing the optimal research type is necessary. The access to data ad location have to be taken into consideration. (Saunders et al. 2009, 141-142.) The required data could not have been generated by the authors due to limitation of resources, however, in this case the resources and access to data was granted by Osuuskauppa Keskimaa, which meant using inductive method would not have worked (Saunders et al. 2009, 151.) The quantitative approach was chosen because of the nature of the research and the data available. According to Creswell (2013) Quantitative research is suitable for testing theories by examining the relationship between variables and analysing the data via statistical procedures.

With deductive approach, there is no framework that primarily informs the data collection and the research concentration can thus be shaped after the data has been gathered (Flick 2011).

In collaboration with Keskimaa, authors gathered data from the statistics of three week's period including social media advertising campaign they created and conducted. The data was collected from the Facebook pages of the three Prisma hypermarkets in the Jyväskylä area: Keljo, Seppälä and Palokka by Facebook Analytics after which Keskimaa gave the authors access to this data.

When the topic for this research was chosen, the authors could not find any previous nor on-going research on this specific subject, probably due to its novelty. When it comes to case studies a researcher is able to go beyond the quantitative statistical results and understand the behavioural conditions through the actor's perspective by incorporating qualitative parts to the study. Furthermore, case study research allows the exploration and understanding of complex issues. (Tellis 1997.) However, qualitative approach was not used in this study

3.2. Research context

The context for this study was given by Osuuskauppa Keskimaa which is a part of the largest Finnish retailing cooperative organisation called S-Group. S-Group's operations include market and retail trade, tourism and catering services, and traffic and fuel commerce in the twenty cooperative branches in Finland, Keskimaa being one of them. S Group has hypermarkets, going by the name of Prisma, which provide both daily groceries and consumer goods. Osuuskauppa Keskimaa operates in Central Finland and they have three Prismas located in the Jyväskylä area which are the comparison units in this study. The units are from biggest to smallest (Jyväskylä's city 2018):

- Seppälä's Prisma has the largest selection and is recently renovated, located in fast-growing neighbourhood;
- 2. Keljo's Prisma is located in a suburban neighbourhood, and has the second largest selection of consumer goods; and
- 3. Palokka's Prisma which has a relatively smaller selection, also located in a fast-growing neighbourhood.

Keskimaa is now launching a new approach to Facebook advertising and marketing. Previously they had a shared Facebook page called "Keskimaan Prismat" [Prismas of Keskimaa] but now they are adding a separate location pages under the one domain for each of the three stores letting them to operate inside a certain geological range thus making targeting easier. As previously mentioned in chapter 1.2, the authors met the marketing representatives of Keskimaa and discussed what would be mutually profitable and interesting topic for the study. The research and representatives came into a conclusion that the topic should revolve around the changing Facebook algorithm and its effects to content marketing and advertising. The new page division Keskimaa is testing, will provide an excellent platform to conduct a case study on how the content of the advertisement affects the visibility.

3.3.Data collection

The research is empirical which means it

"is based on observed and measured phenomena and derives knowledge from actual experience rather than from theory or belief" (Cahoy 2017).

The research itself was conducted by making and executing series of Facebook advertisements (see Figure 8.). With Keskimaa, the authors planned an easily dividable structure for Facebook posts in a way that in three consecutive weeks there were three posts per week, in each store. The posts were published every Monday, Wednesday and Friday. Therefore, during the period of conducting the research, each location page had nine posts in total. By following this kind of a base, the authors provided all in all 27 posts. Each week, every page posted a video, a picture and a link post. However, the order of the posts differed between stores - while one store had an order of posting a video first, the other had an image and the third had a link. By using this differencing approach, the comparison between the location pages was made possible.

The data used in this study is only primary data.

Week	Day/Time	Subject	Seppälä	Keljo	Palokka
Week 1	Monday 9 a.m	1. Seasonal Vegetables	Link: Seasonal vegetables (Yhteishyva.fi)	Picture: Seasonal vegetables	Video: Kirsi presenting seasonal vegetables
511. March	Wednesday 3 p.m	2. Easter	Video: Boomerang video of Easter eggs (PAID)	Link: Easter (Yhteyishyva.fi)	Picture: Easter basket
IVIdiCII	Friday 9 p.m	3. Vegan prodcts	Picture: Shopping basket of vege products	Video: Fastened video of the vege selection	Link: Vegan food (Foodie.fi)
	Monday 9 p.m				
Week 2	Worlday 5 p.iii	4. Shoes	Video: New Shoes	Link: S Group's selection of shoes	Picture: Picture of Juuso holding shoes
1218.	Wednesday 9 a.m	5. Bikes	Picture: Line of Jopo bikes	Video: Video of Juuso riding a child's bike (PAID)	Link: Bike repairing tips (Yhteishyva.fi)
March	Friday 3 p.m	6. Console Games	Link: Selection of console games (Prisma.fi)	Picture: Staff memebers play games at Keljo	Video: Video of console games
Week 3	Monday 3 p.m	7. S Bank	Picture: S Bank with customer servant Satu	Video: S Bank services while shopping at Prisma	Link: Apply for mortage (Spankki.fi)
1925. March	Wednesday 9 p.m	8. S Loyalty Card	Link: Get a S-etukortti loyalty card (Skanava.fi)	Picture: S-bonus is money for you!	Video/Link: New televisio commercial (PAID)
	Friday 9 a.m	9. S-mobile	Video: Presenting S-mobile	Link: Upload S mobile (S-mobiili.fi)	Picture: A Person holding a phone with S-mobile

Figure 8. The plan of the 27 posts. Darker blue indicates paid advertising

INCLUSION OF THE PAID ADVERTISING

According to Peters (2018) the paid advertising is significantly more efficient in reaching users after the algorithm change, Peters explains that in order to make their advertisements stand out and more visible businesses must pay more than before. The paid marketing was added into the research as a way to demonstrate the difference paid advertising has in Facebook Advertising. The results including the paid advertising were analysed as well to further prove their effect.

3.3.1. The first research week

The first week consisted of posts concerning daily groceries. On Monday the main subject was seasonal vegetables, on Wednesday posts had a subject of Easter and on Friday vegetarian food.

On Monday of the first week, Seppälä posted a link to the stores' website presenting the seasonal vegetables of March and providing additional information and tips for the possible usages of the vegetables. Keljo's location page posted a picture of a few of the seasonal vegetables arranged on a table, and Palokka a 24-second video of an employee sharing the seasonal vegetables and quick info on them. All of Monday's posts were published at 9 a.m. on March 5, 2018.

On Wednesday, Seppälä posted a video that keeps going back and forth in repetitive manner, a boomerang video, of an employee opening an egg basket full of different Easter eggs. Keljo had a link to a website providing multiple Easter-related tips, and Palokka shared a picture of a basket filled with all sorts of Easter products (see Figure 9.). All three posts were published at 3 p.m. on March 7, 2018.

At the end of the week, on Friday, Seppälä posted a picture of a basket full of vegan products gathered from around the store, Keljo a fastened video of vegan products all over the store, and Palokka a link to Prisma's website showcasing 200 vegan products the stores sell. These posts were published at 9 p.m. on March 9, 2018.

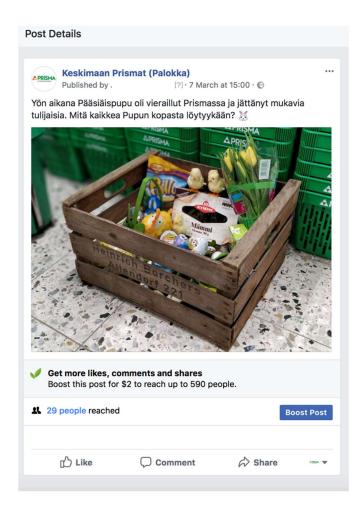


Figure 9. Week One - Easter picture, Palokka

3.3.2. The second research week

The second week revolved around consumer goods section. All the posts had a reminder of the voucher with 20 percent discount of one optional product between 15 and 18 of March 2018. On Monday the posts concerned new shoes, on Wednesday the posts were about bikes and on Friday about console games. Generally, the pace was same as during the previous week, but schedules and the order of posts were divided differently.

The second week began on Monday, with Seppälä posting a video of the new shoes selection, Keljo a link to Prisma's web page of shoes, and Palokka a humoristic picture of a person holding plenty of shoes. These posts were published at 9 p.m. on March 12, 2018.

On Wednesday, Seppälä posted a colourful picture of the Finnish based Jopo-bikes in their store, Keljo a humoristic video of an employee riding a small bike with child's helmet (see Figure 10.) including a welcome to come shopping in the store, and Palokka a link to a page, where customers can see tips on how to check and repair their bikes every spring, as well as other necessities for taking care of one's bike. Wednesdays posts were added at 9 a.m. on March 14, 2018.

Following on Friday, Seppälä posted a link to Prisma's webpage full of various console games Prismas and the online store offer in their selection, Keljo shared a picture of two employees playing a PlayStation game, and Palokka a quick video of the console game selection the store has. These last posts of the week were published at 3 p.m. on March 16, 2018.

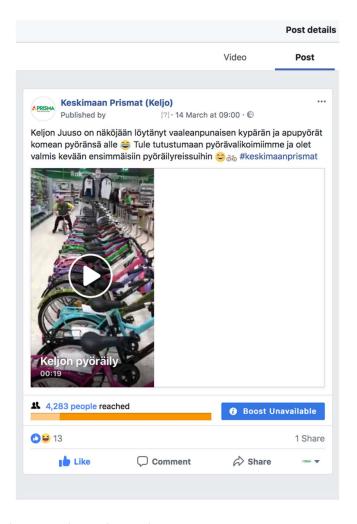


Figure 10. Week Two - Bikes video, Keljo

3.3.3. The third research week

The third and the last research week revolved around the other common services S Group offers, this theme seemed appropriate due to the rebranding S Group was working on. On Monday the posts were about the S-Bank, on Wednesday about the S Group's customer loyalty program: S-Etukortti [S Loyalty Card]. Friday's posts were about S Group's own application called S-mobili [S-mobile]. As in the previous week, the pace was the same, but schedules were, once again, shuffled.

On Monday, Seppälä added a picture of its bank services on their location page, Keljo shared a video how easy, quick and all in all convenient it is to use these bank services while shopping at a Prisma hypermarket, and Palokka a link to a website which explains how to apply for the S-Bank mortgage. Posts were published at 3 p.m. on March 19, 2018.

On Wednesday, Seppälä added a link how to get a loyalty card (see Figure 11.), Keljo a picture which shows how the bonus is actual currency, and Palokka posted a video which was also a television commercial of the same "Bonus is money for you" advertising campaign. These posts were published at 9 p.m. on March 21, 2018.

The last posts, of the whole research, were added on Friday, in a way that Seppälä had a video presenting the easiness and accessibility of the S-mobiili, Keljo a link on how to download the S-mobiili app, and Palokka a simple picture of a phone where the S-mobiili is open. The last research posts were published at 9 a.m. on March 23, 2018.

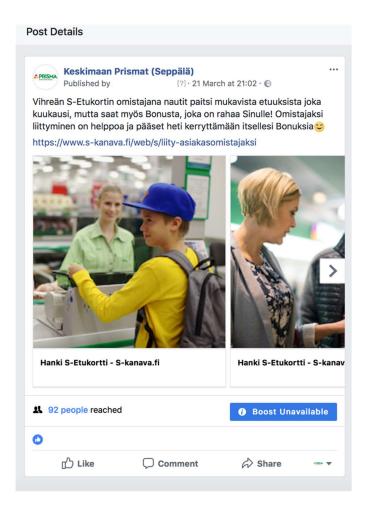


Figure 11. Week Three - S-Etukortti link, Seppälä

3.3.4. Boosted posts

In addition to the different content published, the posts had also some features in order to reach more people. The video of Seppälä on March 7, the video of Keljo on March 14, and the video of Palokka on March 21 all had boosted features as they were paid advertising. These posts had paid features all from the same starting point to the same ending point, from Friday to Friday each week, despite their publishing times, thus posts from Seppälä and Keljo were online couple of days before they had boosted features. Furthermore, Keljo's video was also shared by Juuso, a sales assistant in Keljo, who was present in the video, riding in a humoristic way on a children's bike.

3.4. Data analysis

Kvale (1996) states that data collection, data analysis and the verification and development of propositions are set of consistent and collaborating processes which occur both during, as well as after the data gathering.

The data was derived from the Facebook analytics provided by 27 social media advertisements for Keskimaa's Prismas' three-week long advertisement campaign that the authors made. The data had to be processed, tabulated and translated to English from the Finnish language which was used in the advertising campaign due to the audience constituting mainly of Finnish nationality.

After the three weeks of implementation of the advertisement campaign and collection of data, numbers were tabulated in Excel tables as shown in Table 2. In order to be analysed the numbers were divided in four different labels:

- reach, including paid advertisement;
- engagement, including paid advertisement;
- reach, excluding paid advertisement; and
- engagement, excluding paid advertisement.

These categories were chosen to examine of what scale the difference paid marketing has especially on the reach but also whether it affects the engagement rates.

Reach and engagement including paid advertisement refer to all of the results from the three weeks: three videos, three pictures and three links, as well as both organic and non-organic reach. On the other hand, in reach and engagement excluding paid advertising everything same except there were only two videos counted in.

This choice was made to highlight the difference paid marketing makes but mostly to have clearer image of the results without the effect of the paid video advertisement.

During the final week of the advertisement campaign and data collection, the intended commercial video was not available in a medium of a video. Instead a YouTube link was used, thus, the post looks like a link resulting in glitch in the data. This would decrease the validity of the data, and therefore, the tabulation excluding the paid advertising was made. However, to achieve even more unbiased results, a new table which had the average results was formed

Table 2. Reach with paid advertisement

REACH INCLUDING PAID ADVERTISING				
	SEPPÄLÄ	KELJO	PALOKKA	Total
VIDEO	5686	4465	5733	15884
PICTURE	273	210	109	592
LINK	268	166	93	527
Total	6227	4841	5935	17003

The data analysis included calculating the "success" percentages of previously mentioned four categories. By success is meant it referring to the amount of engagement created compared to the overall reach of the medium.

3.5. Verification of the results

Reliability is the extent to which data collection or analysis methods provide consistent results from a comparable dataset, which can be assessed by comparing whether a similar type of research leads to matching results. (Saunders et al. 2009, 156.)

Concerning this particular research, the findings can be concerned reliable because the methods employed in this research (Facebook Analytics) are directly from the source. This study focuses specifically on these numbers that only Facebook Analytics can provide.

Considering the quantitative part of the study, the quantity of respondents was of a decent size in order to make some predictions about the population, without knowing the standard distribution.

Before the research some factors were taken into consideration that might affect the results. Keskimaa's representative explained that, if the whole sales revenue of Keskimaa's Prisma hypermarkets is represented as 100%, then:

- 1. Seppälä's Prisma is without any difficulty the biggest (49%),
- 2. Keljo comes second (31%), and
- 3. Palokka is the smallest (20%).

In the whole scale of S Group' Prismas in Finland, Seppälä is counted as a big, Keljo as a middle and Palokka as a small-scale store, this applies to their selection and sales revenue as well. This could influence the result since Seppälä naturally has more daily customers and, thus, potentially more Facebook followers.

The reliability is also affected by the relatively brief period of examination since the research is conducted in a timeframe of three weeks. However, to increase reliability, all the content is divided evenly between all the stores in regards of publishing date and time, and the order of the types of media. This was aimed to create a fair and unbiased style to the study.

The comparability of the data has been tested in the theoretical level of study. To further verify the quantitative results, Chi Square test was implemented to all four main categories (*reach* and *engagement* with paid advertising and *reach* and *engagement* without paid advertising). Using the Chi Square formula (see Figure 12.) to analyse the data, to determine whether there is a significant difference amongst the anticipated frequencies and the observed frequencies in one or more categories (Weisstein n.d.). The Chi Square exhibits the theoretical value for the real value to show whether the data is theoretically correct.

$$c^{2} = \sum_{i=1}^{k} \left\lfloor \frac{(o_{i} - E_{i})^{2}}{E_{i}} \right\rfloor$$

Figure 12. Chi Square Formula. Weisstein n.d.

In the Chi-Square (see Figure 12.) O stands for the observed value, E stands for the expected values and "i" as the "ith" position of the contingency table.

4. RESULTS

As mentioned above in the chapter 3.2, previously Keskimaa has had only one Facebook page for all three Prismas. During the spring 2018, Keskimaa launched separate location pages for each Prisma operating under the main page, thus starting from zero with all the three pages gave the study a balanced and unbiased foundation for the research part of the study. With these location pages it is easier to reach customers in the area of business and thus making targeting more precise. The aim was to create content for each page in order to discover most cost-efficient technique to increase the number of followers from the ground up.

The Figure 13., 14., 15., 16., 17. and 18. presents inclusively the organic and paid reach of each post as well as the clicks, reactions, comments and shares of the posts, collectively known as the engagement. The posts are shown in the order of publishing date from bottom to top and the numbers are announced in the past tense to indicate that the numbers are from the time the collection of data concluded. Thus, the current situation of the reach and engagement numbers may and should differ from the amount of reaches, clicks, reactions, comments and/or shares the time of finishing the data collection.

All of the lists presented in the figures are in a chronological order starting from the bottom upwards and, thus, may be referred in chronological order as e.g. "the first post" or "the sixth post". The boosted posts, also known as paid advertisements or paid feature, are specified and presented in more detail (see Figures 14., 16. and 18.).

4.1. Seppälä

Seppälä's list of all posts (see Figure 13.) includes all the posts that were posted during the three-week period on their location page. There are nine posts in total of which three are links, three pictures and three videos, one of the videos being a boosted post as also known in this study as paid advertising.

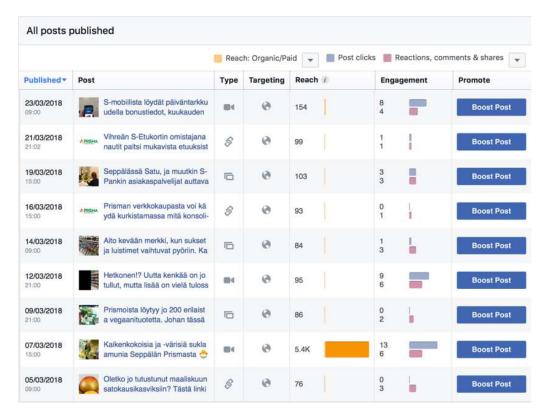


Figure 13. Seppälä's Posts

4.1.1. Links

The first advertisement posted on Seppälä's location page was a link which, very expectedly, had the smallest reach when comparing to the rest of Seppälä's post. The post reached 76 users and received three reactions, comments or shares, but did not receive any clicks. In comparison also to other links posted during the three-week period it is quite clearly on the lower side as the second link, the sixth post, reached already 93 users. It received nearly twenty more than previous week's link, but regardless of the success in the reach, it fell short with the engagement as it had only one reaction, comment or share and no clicks, making it overall the weakest post of Seppälä in regards of engagement.

The last link type of post of Seppälä was the second to last all in all that was posted in Seppälä's page during the campaign period. The link got nearly hundred reaches, and is the only link posted in Seppälä's location page to get any clicks, one, and also had one reaction, comment or share. The links posted on Seppälä's location page were not very successful.

4.1.2. Pictures

The first picture, the third post, posted by Seppälä had the reach of 86. The reach is bigger than the link, the first post, had, however, the first picture post received also only two reactions, comments or shares and similarly failed to receive any clicks.

The second picture, fifth post, reached 84 users, meaning two less than the previous week's picture, nevertheless, it had one click and three reactions, comments or shares, making it more successful in creating engagement in comparison.

Out of the three pictures posted on the location page, the last was the most successful in terms of reach. It was the first post to organically reach over hundred users by totalling up to 103 reaches. The picture also received three clicks and three reactions, comments or shares, making it the most successful picture in regards of both reach and engagement.

4.1.3. Videos

The second advertisement of the first week was a video which was the first of the three paid advertisements, also referred as boosted post. The video's reach was massive by having 5437 reaches, however its organic reach was very consistent with the other posts on Seppälä's location page, receiving only 94 reaches (see Figure 14.). This difference is quite significant when comparing it to the post's paid reach which had almost 60 times larger reach. The engagement it received, however, totalled in 13 clicks and six reactions, comments or shares which is seemingly small but making the video the strongest post in Seppälä measured by both reach and engagement as well.

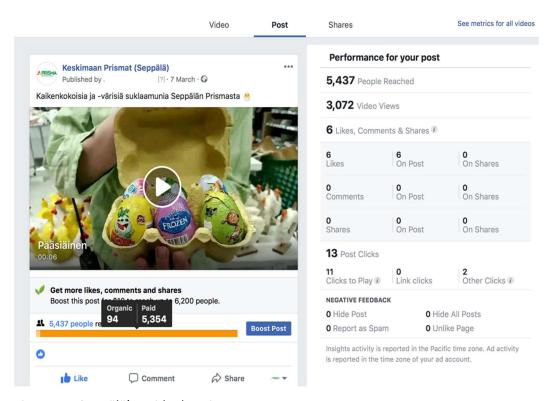


Figure 14. Seppälä's paid advertisement

The second video, the fourth post, had the reach of 95, which is one reach more than in the first video. The second video had the amount of nine clicks and six reactions, comments or shares, making it quite close to the numbers of the previous video's organic part. The ninth post of Seppälä, the last video, got easily the biggest organic reach out of Seppälä's posts by reaching 154 users. This video is the strongest

organically reached post of all the stores. It also had eight clicks and four reactions, comments and shares, thus narrowly failing to get as good engagement as the previous week's video.

4.2. Keljo

Keljo's list of posts published (see Figure 15.) includes the posts that were posted during the three-week period of campaign on their location page. There are nine posts in total of which three are links, three pictures and three videos, one of the videos being a boosted post as also known in this study as paid advertising. The posts are in the same chronological order as Seppälä's list, from bottom upwards, but differencing in the order of the posts, thus, the first post is a picture.

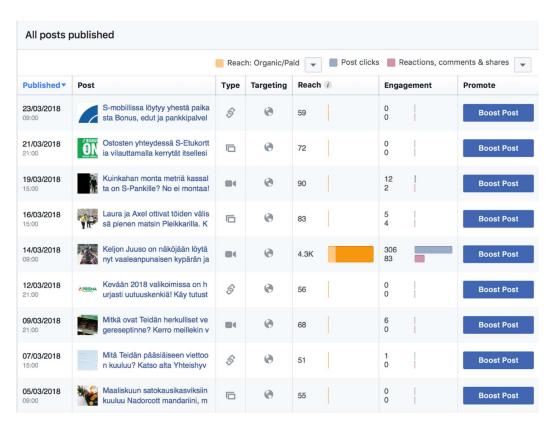


Figure 15. Keljo's Posts

4.2.1. Links

The first link posted on Keljo's location page, the second post all in all, got 51 reaches and also had one click but did not receive any reactions, comments or shares. This is the weakest of the posts that were posted on Keljo's location page in regards of measuring the reach and clicks.

The second link, the fourth post, started the second research week by receiving 56 reached users, slightly more than the previous week's link, but regardless was not able to get any clicks or create engagement. The last link of the three had similar success as it got also around the same reach (59) as the two before it and got three more than the previous link had. However, it, similarly, failed to create any engagement, nor did get any clicks.

In Keljo's case, links are not working particularly well in engaging people, thus, are not creating any additional organic reach.

4.2.2. Pictures

The first picture reached 55 users and did not engage users in any way. Despite being a picture, which was thought to create more engagement than a link, it had both a smaller reach and engagement compared to Seppälä's first post which was a link and posted at the same time, however Seppälä and Keljo are not entirely comparable due to the difference in range. The second picture on Keljo's location page, the sixth post, not only achieved a reach of 83 which is approximately 150% more compared to the previous picture but also received five clicks and four reactions, comments or shares, thus, being notably more successful than the picture posted during the previous week and all in all the most successful post of Keljo when excluding the paid marketing. The last picture posted in Keljo's location page received 72 reaches but did not create any engagement.

4.2.3. Videos

The first video, the third post, reached 68 users and got six clicks on it, thus, when compared to the two previous posts, a picture and a link, it is more successful. However, this post did not receive any reactions, comments or shares either.

The second video, fifth post, of Keljo had the paid feature and, thus, it got a colossal peak in the reach and engagement (see Figure 16.), very much similarly how Seppälä's first video, which also was a boosted post. This video reached total of 4307 users, over one thousand users less than Seppälä's boosted post. However, the video had significantly more organic reach than any other post in any store during the three weeks. The video gathered 712 organic reaches, which is by far the biggest organic reach of the stores which is the desirable result. The post also received 306 clicks and got 83 reactions, comments or shares, thus making this video easily the best result in regards of the engagement when comparing it to all other posts from all the stores.

The second video was also the only post that was shared by someone who is in the advertisement themselves, in this video's case one of the authors, Juuso.

The last video of Keljo, the seventh post, started the last research week and reached 90 users. It was the best non-boosted post of Keljo, not taking the previous video into consideration. In comparison to its reach, the post also had relatively high engagement by receiving 12 clicks and two reactions, comments or shares, making the post the most successful post measured by organic clicks and comparing to all of the stores.

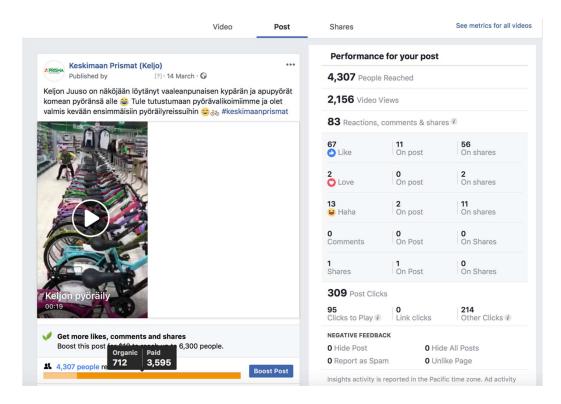


Figure 16. Keljo's paid advertisement

4.3. Palokka

All of Palokka's posts are also listed similarly as in Seppälä's and Keljo's (see Figure 17.). There are nine posts in total of which three are links, three pictures and two videos as well as one video that is in a link medium for technical reasons making it both link and video. Nevertheless, the post is treated as a video. However, as it was meant to be the boosted post for Palokka's series of advertisements and was posted as such the results are not entirely reliable.

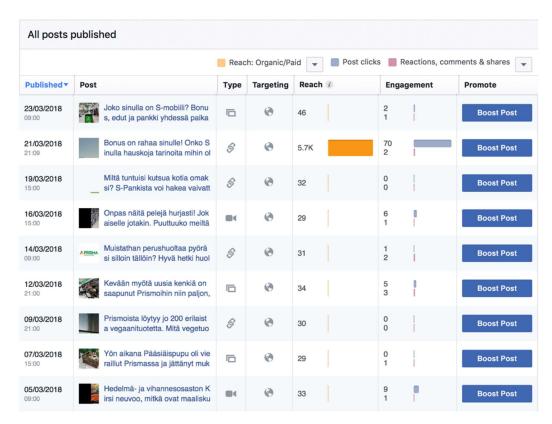


Figure 17. Palokka's Posts

4.3.1. Links

In a way Palokka had four links, but as previously mentioned, one of them is not treated as such in this study.

The first link, third post, managed to reach 30 users but it failed to receive any engagement, unlike Palokka's two previous posts. The second link, the fifth post, kept the similar number of reach with 31 reaches. This post received one click and two reactions, comments or shares, thus, making the link more engaging than the previous week's link. The third link, the seventh post, was meant to be the last link published Palokka's location page. This post reached 32 users, but quite similarly to the link of the first week, it failed to receive any engagement.

The reach and engagement which Palokka's links created imitate the other two stores' results: link is not efficient in raising engagement and thus creating organic reach.

4.3.2. Pictures

Palokka's first picture, the second post, got 29 reaches and one reaction, comment or share, but did not receive any clicks, differencing from the post before it a lot. This is the weakest post of all the stores measured by the reach and clicks.

The second research week started with a picture, reaching 34 users, quite similar to all posts from the previous week but still managing to be the highest so far. This post received five clicks and three reactions, comments or shares, notably more than the previous picture. This picture is the most successful advertisement of Palokka measured by the amount of reactions, comments or shares, exceeding the paid advertising as well.

The final post of Palokka was a picture also. The post received the highest organic reach of Palokka out of the nine posts, exceeding 40 organic reaches for the first time with 46 users reached. This post got also two clicks and one reaction, comment or share.

4.3.3. Videos

The first post was a video and it reached 33 users and had nine clicks and one reaction, comment or share all together. Even though the first post of Palokka had the smallest reach compared to Seppälä and Keljo's first posts, it had as many as nine clicks while Seppälä and Keljo had none. This was also Palokka's strongest post measured by the number of clicks of the posts with only organic reach (excluding the paid advertising).

The second video got 29 reaches, lowest video out of all the stores. It, however, received six clicks and one reaction, comment or share.

The eight post, the last video, was similar to the first video of Seppälä and the second video of Keljo, in the sense that it had the paid features. However, as mentioned before, unlike the other videos, this post was a link to a YouTube video, thus, it cannot be compared simply to the other videos, the paid advertisements nor other links as it was boosted.

Nevertheless, the video had a great peak on the reach, all in all biggest of all of the posts from the all stores. It had 5671 reaches, however only reaching 29 users

organically, the rest are due to the paid reach (see Figure 18.). The post received 70 clicks, making it easily the strongest post measured in clicks by Palokka and Seppälä, but it earned only two reactions, comments and shares.

Out of the three stores, Palokka's boosted post is the only boosted post which did not have the most successful rate in both reach and engagement in the store's location page, as the fourth post of Palokka had more reactions, comments or shares than the paid advertisement.

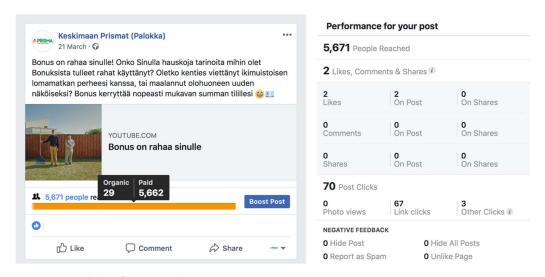


Figure 18. Palokka's paid advertisement

4.4.Chi-Square

This data analysis part was done by entering the data to an Excel sheet, calculating the value via Chi Square formula utilising an Excel table (see Tables 3. and 4.) and deducting the table value to be at 9,49.

The results of the test showed huge difference between the table value of Chi Square and the value of the test in regard to the results which include the paid advertising (see Table 3. and Table 4.), whereas using the data which exclude paid advertising (see Table 5. and Table 6.) the component value is under the given table value, thus, theoretically the results of the included paid advertising are not comparable but the ones excluding paid advertising are in-line with theoretical numbers and should be comparable. Only the results excluding paid advertising, in theory, are suitable to make generalisations of a larger population.

Table 3. Chi Square - Reach with paid advertising

CHI SQUARE – REACH INCLUDING PAID ADVERTISING				
OBSERVED	EXPECTED	RESIDUAL= (OBS-EXP)	(OBS-EXP) ²	COMPONENT= (OBS-EXP) ² /EXP
5686	5817,189202	-131,1892019	17210,6067	2,958577777
4465	4522,404517	-57,40451685	3295,278555	0,728656303
5733	5544,406281	188,5937188	35567,59075	6,415040484
273	216,8078574	56,19214256	3157,556886	14,56384895
210	168,5509616	41,4490384	1718,022785	10,19289815
109	206,641181	-97,64118097	9533,800221	46,13698091
268	193,0029407	74,99705934	5624,55891	29,14234825
166	150,0445216	15,95547844	254,5772924	1,696678358
93	183,9525378	-90,95253779	8272,36413	44,9701006
			SUM	156,8051298

Table 4. Chi Square - Engagement with paid advertising

CHI SQUARE – ENGAGEMENT INCLUDING PAID ADVERTISING				
OBSERVED	EXPECTED	RESIDUAL= (OBS-EXP)	(OBS-EXP) ²	COMPONENT= (OBS-EXP) ² /EXP
46	59,31175468	-13,31175468	177,2028128	2,987650825
409	388,306644	20,69335605	428,2149845	1,102775323
89	96,38160136	-7,381601363	54,48803868	0,565336516
12	3,597955707	8,402044293	70,5943483	19,62068298
9	23,55536627	-14,55536627	211,8586872	8,994073147
12	5,846678024	6,153321976	37,86337134	6,476048653
6	1,090289608	4,909710392	24,10525613	22,10903961
1	7,137989779	-6,137989779	37,67491852	5,278085244
3	1,771720613	1,228279387	1,508670252	0,851528306
	sum			

Table 5. Chi Square - Reach without paid advertising

CHI SQUARE – REACH EXCLUDING PAID ADVERTISING				
OBSERVED	EXPECTED	RESIDUAL= (OBS-EXP)	(OBS-EXP) ²	COMPONENT= (OBS-EXP) ² /EXP
249	233,3186398	15,6813602	245,9050578	1,053945188
158	157,7115869	0,288413098	0,083182115	0,000527432
62	77,9697733	-15,9697733	255,0336592	3,270929855
273	294,5088161	-21,50881612	462,6291709	1,57084999
210	199,0730479	10,92695214	119,3982831	0,599771212
109	98,41813602	10,58186398	111,9758453	1,137756209
268	262,1725441	5,827455919	33,95924249	0,129530125
166	177,2153652	-11,21536524	125,7844175	0,709782796
93	87,61209068	5,38790932	29,02956684	0,331342017
SUM				8,804434824

Table 6. Chi Square - Engagement without paid advertising

CHI SQUARE – ENGAGEMENT EXCLUDING PAID ADVERTISING				
OBSERVED	EXPECTED	RESIDUAL= (OBS-EXP)	(OBS-EXP) ²	COMPONENT= (OBS-EXP) ² /EXP
27	26,91588785	0,08411215	0,007074854	0,00026285
20	17,94392523	2,056074766	4,227443445	0,2355919
17	19,14018692	-2,140186916	4,580400035	0,23930801
12	13,87850467	-1,878504673	3,528779806	0,254262249
9	9,252336449	-0,252336449	0,063673683	0,006881903
12	9,869158879	2,130841121	4,540483885	0,460067969
6	4,205607477	1,794392523	3,219844528	0,765607477
1	2,803738318	-1,803738318	3,253471919	1,160404984
3	2,990654206	0,009345794	8,73439E-05	2,92056E-05
	SUM			3,122416548

5. DISCUSSION

The aim of this case study was to come with an idea and guideline as to which medium of non-paid advertising (video, picture or link) reaches the consumer in Facebook advertising most efficiently via engagement. The case company,

Osuuskauppa Keskimaa provided impeccable opportunity to conduct a case study and would be mutually beneficial to both parties, the company and the authors.

The motivation for the study arises from the need for theoretical clarification and proof for the subject.

On more personal level, the drive and interest for this specific topic comes from the authors' notice of the lack in Facebook advertising efficiency and understanding of the importance of efficient Facebook advertising. This study has made the authors expand their knowledge around digital marketing, social media marketing and especially all the complexities of Facebook and its algorithm as well as the AIDA model which works as the framework for the study. Implementing the AIDA model deepened the understanding of the possibilities of using traditional marketing models to one's advantage in the digital marketing era.

On the professional level, the study provides a three-week data collection period via well-planned marketing campaign implemented on a "blank canvas" with the purpose to find the most cost-efficient type of a Facebook post to use as an advertisement. The results of this study are convenient for businesses of all sizes to consider when planning and implementing their Facebook, or possible other social media, advertisement campaign. The research question was

"Which medium of non-paid advertising (video, picture or link) reaches the consumer in Facebook advertising most efficiently via engagement?"

In the beginning of the study, a hypothesis was formed: there is an association between the medium of the advertisement and the amount of organic reach it gets. The literature reviewed, a professional's opinion and the authors' experiences of the matter helped shaping the hypothesis. The hypothesis comes down to three parts

- 1. videos engage the most,
- 2. links engages the least, and
- 3. Seppälä's reach is the largest, Keljo's the second, and Palokka's is the last, because of the hypermarkets' sizes.

The third part of the hypothesis represents a cause for the difference between of the results of the three stores.

5.1.Conclusion of the results

SEPPÄLÄ

The full reach of the first video, 5437, is by far the strongest one Seppälä had during the three weeks. Comparing it to the reach of the ninth post, which had the second highest reach with 154 reached users, really shows the difference the paid advertising makes. Another noticeable result in Seppälä's posts is how video reaches the most people and also engages the most (see Figure 19.).

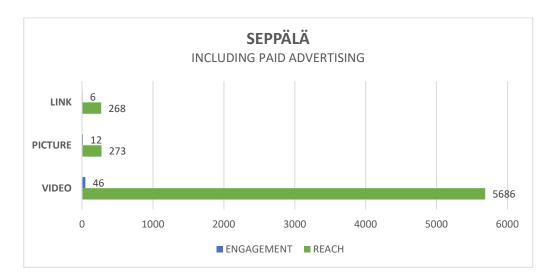


Figure 19. Seppälä's engagement and reach during research

KELJO

The same pattern continued in Keljo as it did in Seppälä; the pictures managed to get more reach than the links and similarly videos triumphed over both pictures and videos, boosted post reached the most and videos create the most engagement regardless whether using the paid feature or not (see Figure 20.).

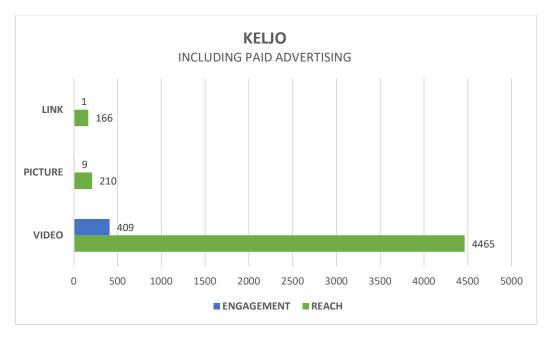


Figure 20. Keljo's engagement and reach during research

PALOKKA

Palokka was the one with the lowest reach and in engagement, however, in terms of percentages, it has the highest engagement compared to reach when excluding the effects of paid advertising: 12,12%. Similarly, to the other two stores, videos are the ones that reach the largest audience (see Figure 21.).

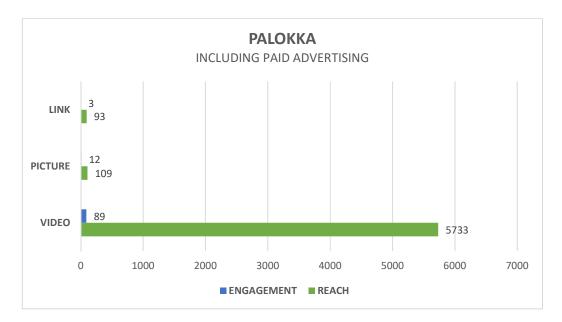


Figure 21. Palokka's engagement and reach during research

CHI-SQUARE

The hypothesis for the Chi-square was that there is an association between the medium of the advertisement and the amount of organic reach it gets. As mentioned before in chapter 4.4 the table value is 9,49. In this study, the test value for both of the ones including paid advertising (see Table 3. and Table 4.) is significantly larger than the test value:

• Reach: 156,8051298>9,49, and

• Engagement: 67,9852206>9,49.

Thus, the hypothesis is rejected by Chi-square when it comes to results including paid advertising. However, the values that exclude paid advertising are:

• Reach: 8,804434824<9,49, and

Engagement: 3,122416548<9,49.

The value is smaller than the table value, thus, in that case the hypothesis stands.

5.2. Summary

The graphs presented in this chapter help the understanding of the data, they indicate clearly the results of reach and engagement in both cases when the paid advertising is included and excluded. In the graphs videos are presented as green, pictures as blue and links as yellow columns.

Videos seem to be the most efficient in terms of creating engagement, they reached the highest *reach* and in most cases the *engagement*. The strongest post measured by engagement out of all the posts with only organic reach of all the stores, excluding the posts which have paid advertising.

REACH

The first graph of the overall results (see Figure 22.) including the total reach, indicates how effective videos are if the paid advertising is included. As mentioned in the previous chapter, the videos with paid features had enormous peak on their result as the graph clearly indicates. Reach, all in all, follows the expected pattern in a way that video has the most reachability, then comes picture and link respectively the last.

Despite Palokka's high video column in Figure 22., the table otherwise indicates that Seppälä's reach is the highest, Keljo's the second highest and Palokka's reach lowest of the three stores, as initially expected. In Figure 23., the graph clearly demonstrates the same result in percentages emphasising that no less than 93 % of the whole reach is consisting of with only videos.

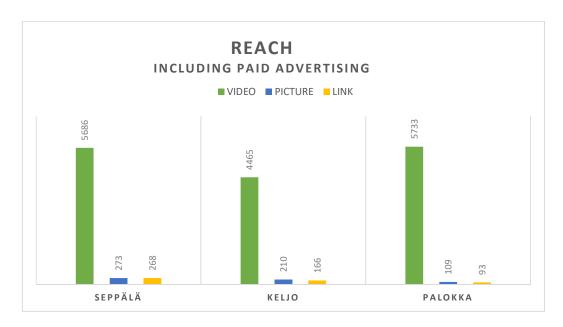


Figure 22. Reach including paid advertising

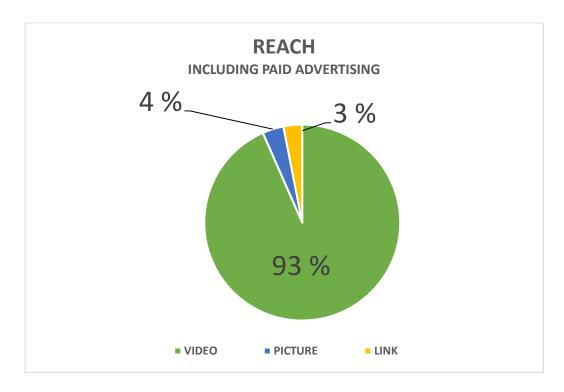


Figure 23. Reach including paid advertising in percentages

The graph excluding paid advertising (see Figure 24.), excludes all the posts affected by paid features which, in turn, change the number on the chart considerably. In this case, all the posts including paid advertising have been removed, thus, each store's results are missing one video post. Obviously, the results of all the picture and link posts remain identical. In order to view the results excluding the paid advertising, only two videos were used in the calculations instead of the regular three, nevertheless, the store's numbers have three pictures and three links, and therefore, this table is not entirely true to the original results: pictures and links seem more efficient in terms of reach than videos (see Figure 24.)(see figure 25.). However, as Figure 25. indicates, the percentages of the three are comparatively close to one another, and videos remain quite strong regardless of the unfavourable situation of having the least posts.

Even with the averages, Seppälä's reach is the largest of the stores, followed by Keljo and Palokka correspondingly.

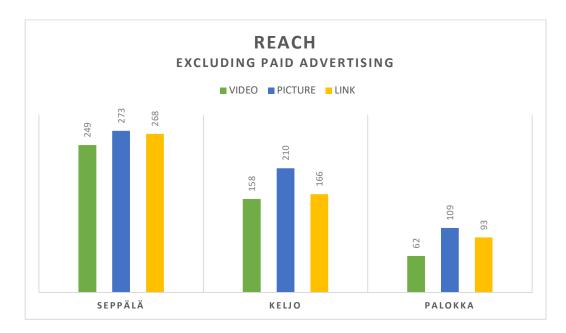


Figure 24. Reach excluding paid advertising

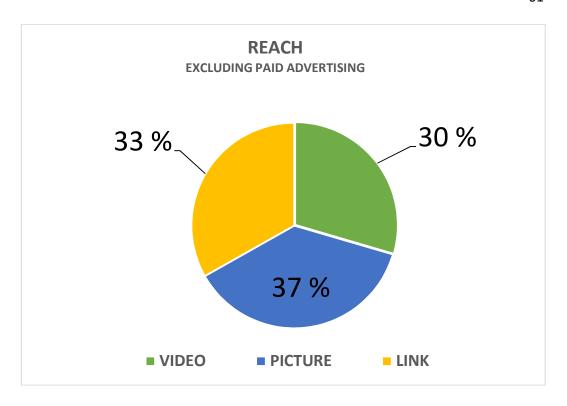


Figure 25. Reach excluding paid advertising in percentages

To gain another point of view of the results of the reach is by taking into account only the organic parts. Figure 26. is the last chart of reach, which takes into account all the 27 posts, but only uses the organic part of reach. In other words, this graph does not leave out the videos which include paid advertising but takes only the organic reach of these videos into consideration, and from this view, the familiar pattern, where videos dominate the table, suits Seppälä and Keljo, however, in Palokka's case pictures are more efficient in reaching than videos, thus, breaking the pattern.

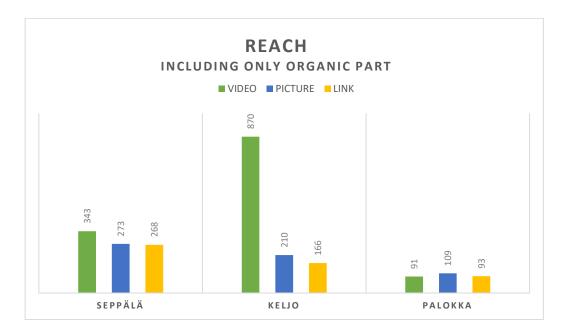


Figure 26. Reach including only organic part

Keljo's results of videos' reach remain fairly large due to the fifth video, which was shared, making the advertisement gain extremely efficient engagement compared to the other 26 posts. Despite Keljo's column of videos, Seppälä still has generally the best reach, followed once again by Keljo and Palokka correspondingly. Figure 27. illustrates how videos have over twice better reach than pictures and links together, which, once again, indicates how effective videos are in reaching Facebook users.

However, Keljo's previously mentioned boosted post, lifts the percentage of videos higher. Without Keljo's video's great results the percentage of videos would very likely be a lot smaller, making the graph similar to one excluding the paid advertising.

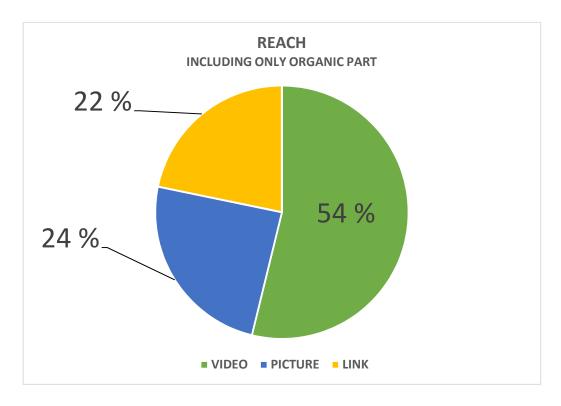


Figure 27. Reach including only organic part in percentages

ENGAGEMENT

The engagement including paid advertising follows the of the other charts. The order remains as video, picture and link, resulting in the all stores video being the most engaging of the three types of posts. When examining the video columns (see Figure 28.), in this graph Seppälä has the least reach out of the stores. However, Seppälä is still the strongest one with links and the store has equal number reaches in pictures alongside with Palokka.

In Keljo's case the results show how videos are once again the strongest there, mainly due to the post that was shared, as mentioned in the previous paragraphs.

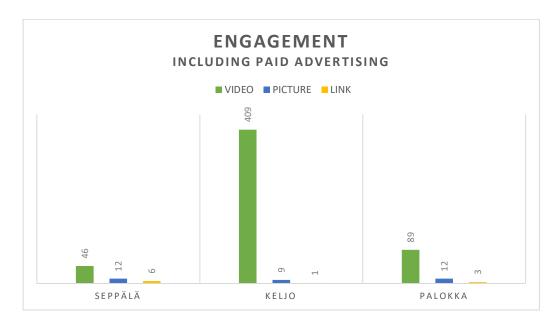


Figure 28. Engagement including paid advertising

As Figure 29. shows, videos portion of the pie chart is of a same size as the results of reached users, 93% of the total. Pictures and links seems to be a bit stronger in engaging users rather than in reaching them. Pictures have 5% engagement and links only 2%, when comparing it to the reach where the percentages were 4% for pictures and 3% for links (see Figure 23.).

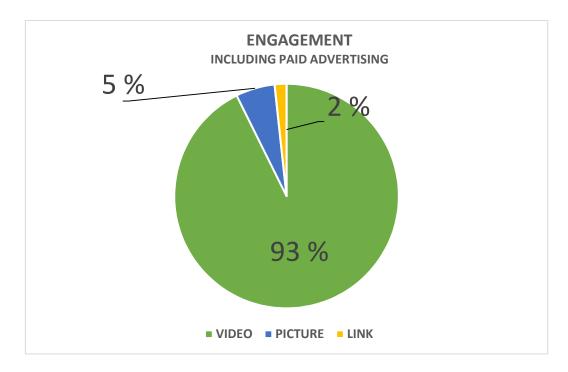


Figure 29. Engagement including paid advertising in percentages

Even though the engagement chart, which excludes paid advertising (see Figure 30.), has the unfairness of leaving one video post out of the calculations, which decreased the number of videos by one, this fact does not affect the result of videos as the videos once again, are still the most successful way to engaging users. The chart depicted in Figure 31., indicates the presumable order of videos being the highest in engaging users of which pictures and links follow. The same goes with stores in order of Seppälä, Keljo and Palokka. Videos are even stronger in engagement, as those cover 60% of the whole engagement which excludes paid advertising, and links remain the weakest of the three with only 9% of the total (see Figure 31.).

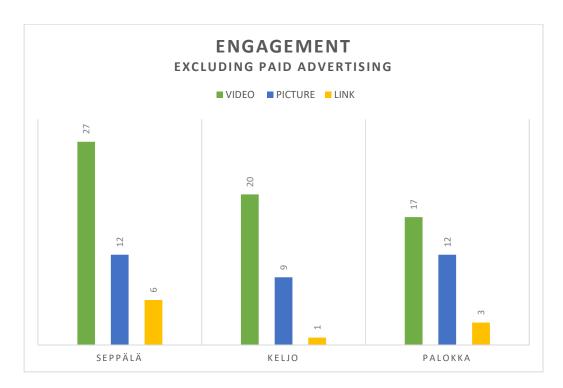


Figure 30. Engagement excluding paid advertising

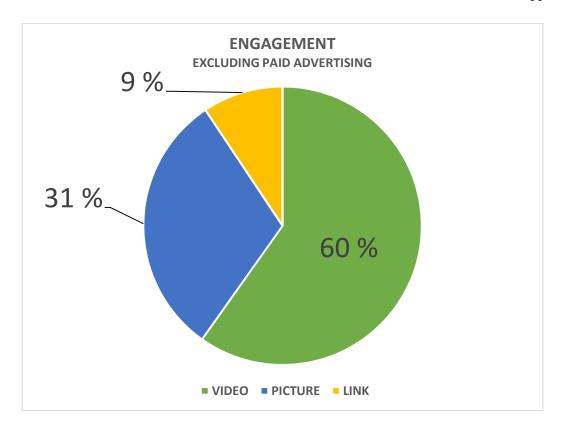


Figure 31. Engagement excluding paid advertising in percentages

5.3. The average values

In this chapter, the results are looked from the averages' perspective: each result is divided by the number of posts and then multiplied by three (see Figure 32.), e.g. the full result of videos in all stores is divided by either nine or six depending whether the average result includes or excludes the paid advertising. When only six videos are used compared to the nine posts of pictures and nine of links, fair results were achieved when comparing these three. After calculating the results' averages, the authors used the numbers to gain another perspective and making generalisations more accurate, as well as to emphasize which type of content could potentially have the averagely and realistically best reach and/or engagement. The average numbers correct some minor glitches that the posts might have had during the process.

$$\overline{X} = \frac{\sum X}{n}$$

Figure 32. Formula for calculating the average values, www.brighthubeducation.com Stannard Gromisch 2012

AVERAGE: REACH

The average reach including paid advertising (see Figure 33.) is precisely the same as the result of reach including paid advertising without average calculations (see Figure 23.). Video gets, similarly, up to 93% of the whole reach as the numbers or amount of posts do not change

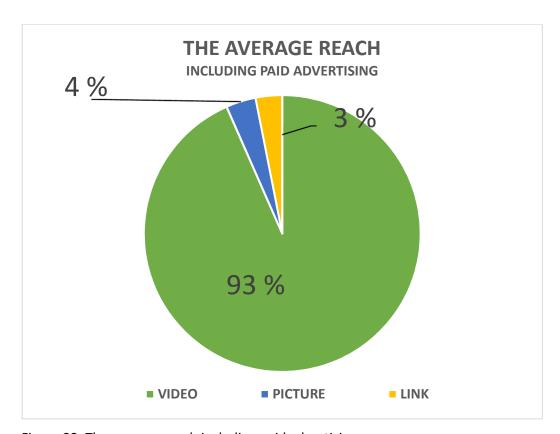


Figure 33. The average reach including paid advertising

In Figure 34., which consists of reach that excludes the paid advertising, the average result is essential to correct the bias that was the result of removing the paid content. When the percentages are compared to the result of reach that exclude paid advertising without average calculations (see Figure 25.), video once again bypasses pictures and links. However, all the three are quite similar and close to one another.

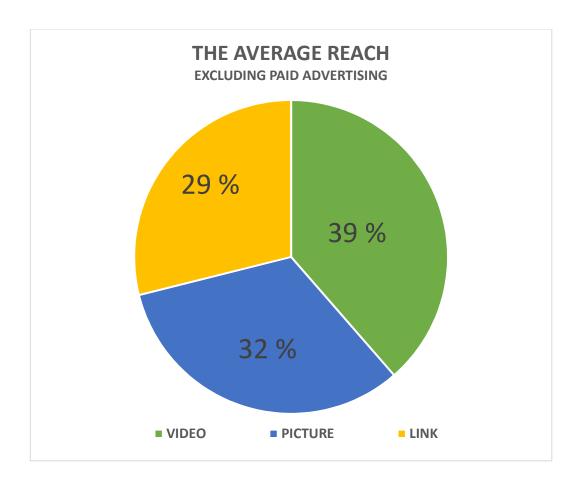


Figure 34. The average reach excluding paid advertising

AVERAGE: ENGAGEMENT

As reach had the exact same percentage between reach, including paid advertising and the average reach, including paid advertising, the same goes with engagement, as numbers or amount of posts do not change, thus, Figure 35. is exactly the same as

Figure 29. The average engagement, excluding paid advertising (see Figure 36.) differs from the average results of reach, excluding paid advertising. In engagement, videos cover 69 % of the whole engagement, while links only 7 %. The similar chart (see Figure 25.) with reach was quite equal between all the three. All in all, videos have the strongest standing in both the reach and engagement. This indicates that the reach of videos fairly equal in regards of engagement, despite removing boost features.

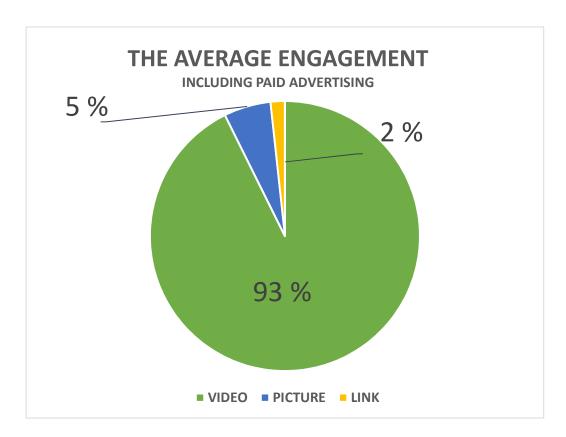


Figure 35. The average engagement including paid advertising

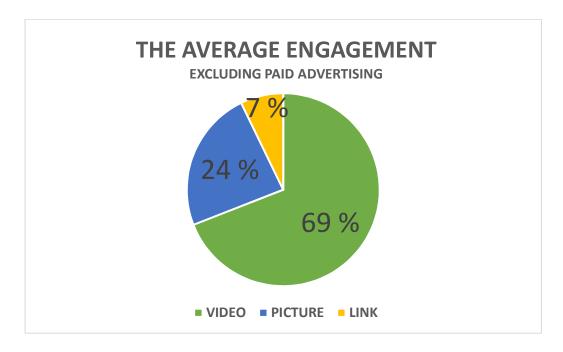


Figure 36. The average engagement excluding paid advertising

5.4. Assessment of the results in relation to existing research

On deeper view of the results, authors aimed to find the reasons for some of the posts reaching notably more organic visibility than others.

The boosted posts (paid advertising) will result in higher reach, which is what businesses ultimately aim to do with their advertisements, regardless of it is done by paying more or creating engagement (Burke 2015). Wagner and Molla's (2018) research endorses this view as they mention that the cost of a thousand advertisement impressions is up 122% each year now with the algorithm change which is a result of fewer advertisement impressions.

As mentioned before, paid advertising was extremely efficient, not just compared to the other posts, but overall in gaining reach or engagement organically. However, paid advertisements were placed in the advertising campaign in order to, in a way, test the difference "boosting" has on the results, thus. When comparing the results of paid advertising to only organic reach of the videos (see Figure 37.), the results showed that the organic reach is far less than paid.

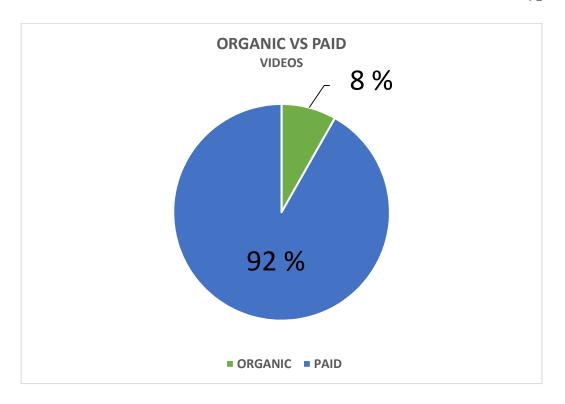


Figure 37. The efficiency of organic versus paid advertising – videos

Nevertheless, paid advertisements do not seem to create engagement any more than normal ones, the reach might be smaller, but the amount of engagement is not significantly bigger in terms of percentages (see Table 7.). In Table 7. the percentage of picture and link are exactly similar due to the paid advertising focusing only on videos.

Table 7. Engagement - paid versus organic

ENGAGEMENT			
PAID		ORGANIC	
VIDEO	3,42 %	VIDEO	13,65 %
PICTURE	5,57 %	PICTURE	5,57 %
LINK	1,90 %	LINK	1,90 %

Videos itself were distinctly good at engaging people, and especially Keljo's fifth post, which was not only a video, but it was also the only shared post by a private user (not a business profile) out of the 27 posts. This specific video turned out to be the most powerful in engaging people. Thus, sharing, especially by familiar face or a post including familiar face, seems to be found out to be the most efficient way of gaining

reach via engagement without actually paying for it. Non-paid reach was the most preferable scenarios. It could be that familiar face gathers more attention and creates interest. According to the AIDA adapted framework's first two phases (Attention/Awareness and Interest/Purpose), it could be due to the familiarity that people take notice of the advertisement and are interested in it because of a familiar face, someone that is interesting to them. This interest creates desire's need or want to perform the action, thus, engage with the advertisement.

Engagement was hard to receive with links, and the reason is most likely that in order to get the information of links, user has to invest more time, or should have deep interest towards the subject for the users to click the link. From the perspective of adapted AIDA model, links are hard tools to even captive users' attention, narrowing down possibilities to get to the level of interest, links might not able to promise enough value compared to the easiness of a video, for example. That could be the reason why links create so few engaging experiences. Videos or pictures can be glimpsed in fast pace and during that tiny moment fulfil the needs of attention, interest and desire which results immediately to the action.

The glitch of Palokka's eighth post, revealed that paid link all in all reaches people quite well, as all the users who even pass the post on their Facebook algorithm are counted as "users reached", but regardless even a paid link did not engage people efficiently, thus, failing to create enough interest or desire for users to engage. The most engaging link of all the stores, which received only one click and one like, comment or share, was about joining S Groups loyalty card system. This was apparently considered as the most interesting link during the new marketing campaign as it created real value possibilities for the users. Some people found it interesting enough to do the action, which created very little but still some, engagement.

Authors noticed that humour is a good way to receive engagement on a post, especially if the fifth post, video, of Keljo and the fourth post, picture, of Palokka are viewed in more detail. In both cases the familiar face is doing something humoristic. In the video Keljo the employee rides child's bike with child's helmet and in the picture of Palokka the same employee holds dozens of shoes to indicate he does not

know what to decide. These both posts, despite Keljo's boosts, were able to create quite good engagement, desiring people enough to make action on the posts, which again is the main aim of the adapted AIDA.

What comes to the raising reach during the three-week research period, it was expected that the more posts were published, the more these upcoming posts would receive reach. This assumption originated from a thought, that every post generally aimed to receive new followers, which would lead to more reaches on the posts, and succeeded as well. As seen from the full lists of Seppälä, Keljo and Palokka (see Figures 13., 15. and 17.), the first week generally reached less users than the second week, and then again, the third and final week reached more than either of the weeks before. Of course, the subject of the weeks might have effect on the result. The first week consisted of daily groceries, which the authors believed might not be as engaging as the products of consumer goods section or additionally the general S Group services of the third week with the new campaign, which are concepts that provide monetary value to the customer.

However, this raising pattern does not rule for engagement. This indicates that despite how many followers any Facebook, or other social media giants, have, it needs interesting content in order to engage people. This has been generally the problem of Keskimaan Prismat -Facebook page, which has over 11 000 followers, but the posts have lacked to engage over 100 people generally. Thus, after single post has a little possibility to take people's attention, the following steps need more effort. The content, or some other factor, to make people to get interested of the post and then desired enough to make the action, which is reaction, comment or share in this case, is crucial. Many companies lack good skills, knowledge or particularly time to put effort on their Facebook marketing, which in today's markets, is worrying.

5.5. Answer to the research question

The answer to the research question "Which medium of non-paid advertising (video, picture or link) reaches the consumer in Facebook advertising most efficiently via engagement?" can be derived from the data collected. The results suggest that video reaches the consumer the most efficiently.

After the change of the Facebook algorithm, the importance of relevant discussion and engagement became valued and important in order to reach people organically. However, when starting from zero, the largest reach was achieved with paid advertising, meaning that boosted posts work most efficiently to gain reach. Paid advertising's efficiency was mainly tested on videos, which in fact, reached tens of times more. The effect of paid advertising was also accidentally tested on a link and the link seemed to gain even more reach than the videos, regardless of the videos being in posted on the two location pages which's area is larger.

However, when concentrating on the non-paid advertisements, the authors focused on how well the advertisements did when excluding paid advertising as well as using the averages of the results (see Figure 38.). The study shows how out of the achieved reach, each medium (video, picture and link) gained approximately 1/3 of the total amount, video slightly succeeding better with 39%.

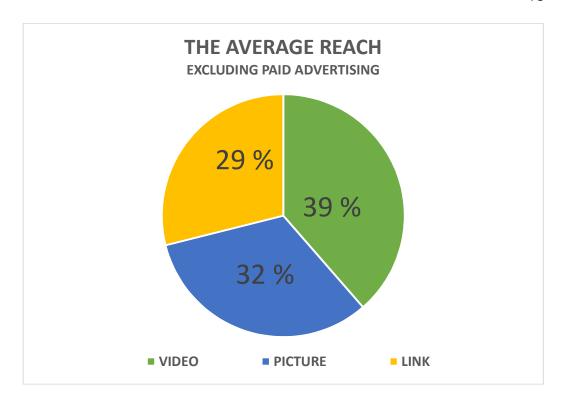


Figure 38. The average reach excluding paid advertising

To answer the research question on a slightly deeper level, it was important to look at the percentages that depict the success of the ability to create engagement (see Figure 38. and Figure 39.). More specifically, which type of advertisement created the most engagement in relation to the amount of the users reached. As Figure 38. shows, *picture* seems to create the most engagement when the paid advertising is included, however, the reliability of this specific result is debatable, as one of the videos was not categorically video but a link instead. And as the results also indicate that a link is the weakest, the percentage of videos' effectivity might have been damaged by it.

In comparison, the chart which depicts the same results but excluding the paid advertising (see Figure 39.), show how video creates the most engagement out of the three (link, picture and video), thus, indicating that organically, video is the most successful in creating engagement and respectively resulting in highest organic reach in Facebook's new algorithm.

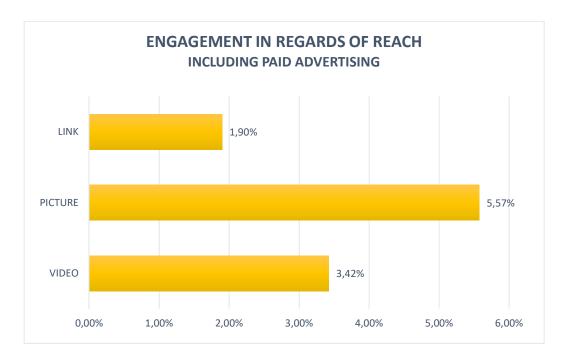


Figure 39. Engagement in regards of reach, including paid advertising: how successful link, picture and video are in creating engagement.

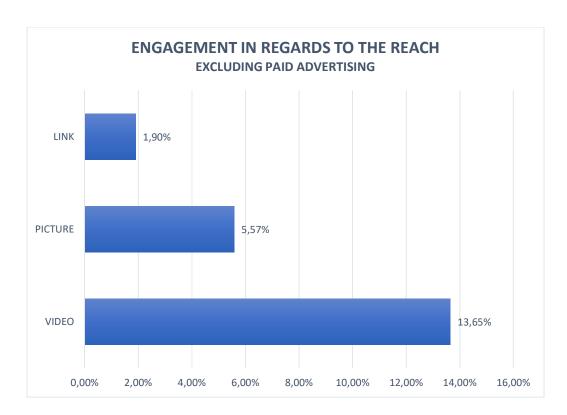


Figure 40. Engagement in regard to the reach, excluding paid advertising: how successful link, picture and video are in creating engage

5.6. Practical/managerial implications

A manager should encourage the employees to engage in the advertisement itself as themselves also during the making of the advertisement as well as after it has been posted. Having a familiar face in an advertising, helps at grabbing attention and keeping the audience interested. This applies to famous people but also when using Locations in Facebook marketing, because it narrows down the area of advertising and makes a local salesperson, so to say, a familiar face. The familiar face of an employee in Keljo's paid video, helped the post to receive such a high organic reach and notably the largest amount of engagement as the employee shared it himself. This is probably the same reason for Keljo's most successful picture, post six, which included two employees playing a game, and they are most likely helped to engage customers or friends who recognise them. Thus, it can be deduced that impersonal posts and advertisements do not reach a lot of engagement and vice versa.

As the results show, the paid advertisements reached unarguably more than any of the other posts, regardless of the type of the post. The reach is after all ultimately the goal of advertisement, engagement is a mean to achieving organic, un-paid, reach. Managers should decide what resources they wish to dedicate to advertising:

- employees making the advertisements during working hours,
- employees making the advertisements during working hours and boost the posts,
- a specific person, a professional, just to manage the social media accounts and creating the content, or
- boost the posts previously mentioned person makes.

The specific amount of money used on the boosted posts for the three-week campaign will not be disclosed, but taking the reach of it into consideration, the alternative is relatively of low cost.

5.7. Limitations of the research

During our research in March 2018, Facebook gained a lot of criticism and controversies due to the Facebook-Cambridge Analytica data scandal. It was revealed that personal information of over 50 million Facebook users had leaked to Cambridge Analytica, a political consulting firm helping Donald Trump's presidential campaign. This leak happened through an app called "This Is Your Digital Life" which had been used by a researcher since 2014, aiming to receive data for only academic research purposes through a personality test it provided. The app was used by 270 000 people who had agreed that their information is available for the use of app. However, the terms of service and Application Programming Interface (API) of Facebook during that time allowed the app to gather the information of their friends as well. This lead to the bad security concerns and fallen stock price of Facebook. (Franceschi-Bicchierai 2018.)

In July 2018, Facebook's earnings report failed to fulfil the expectations in both revenue and the pace of the user growth. This resulted to tremendous drop of \$120 billion in their market capitalisation. Before the results Facebook's value was \$630 billion and after only two days \$510 billion. This is all in all the biggest drop of a single company in the history of Wall Street. Mark Zuckerberg lost 16 billion of his wealth due to this drop which is more than all the billionaires in Finland own together. (MTV 2018.)

The results of the analytics were shown to support the theory that has been reviewed in the literature part of the study which is based on secondary sources such as previous studies and articles related to the topic. As the topic of the new algorithm is fairly new, a poor literature was available. For this reason, reliable information about the previous changes and sources alike was utilised.

Some other reasons that might have affected the results, and could be studied in more depth, are the importance of

- the day of the week
- time of the day
- the pace or order of the posts, and
- the number of existing followers.

5.8. Recommendations for future research

For this study the time period for the advertisement campaign, which was used to collect the data, was three weeks including three posts per week per store totaling in 27 advertisements. To further study the reasons behind the phenomena, this number could be at least doubled.

A significant consideration should be put into the process for the content, what the advertisement is about rather than which medium it is, as well as in the analysis part of the study. In this study the focus was in whether video, picture or a link appeals the most to. To study the implications of the content further as in which type of video or picture engages more: artistic, humoristic or informative.

Another aspect that could be investigated is about the reasons behind the differing results between stores: whether it is random or socioeconomic standing, perhaps.

Overall why are people more active in some areas?

Careful consideration on and a look out for Facebook's operations and scandals, while conducting this study Facebook had one of its biggest scandals in years, which affected the user numbers of Facebook. This spring Facebook went under a scandal which did affect its stock price as it was reported in March 2018 to have plummeted by decreasing the market value by more than 100 billion USD (Vomiero 2018).

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7. Appendices

Appendix 1. Zuckerberg's Facebook post

