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MARKETING AND INTEGRATED COMMUNICATION

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MASTER THESIS

Personalizuotų reklamų įtaka ketinimui pirkti prekes internetinėse parduotuvėse	Impact of personalized advertising on intention to purchase goods in online stores

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INTRODUCTION

As individuals are becoming more and more computer literate each day, the number of people using the Internet and mobile applications as their primary information source is sharply increasing (Samson et al., 2014). Online shopping has also emerged significantly (Rahman et al., 2018). Due to this, many companies are moving towards online retail. Moreover, companies also have to invest and partake in online marketing more than ever before (Jenyo and Soyoye, 2015). Formerly, traditional communication tools (such as journals, radio, television) used to be of high significance, however, over the last few years, the digital media has prospered considerably and has become a very important mode of communication in marketing (Ahmed et al., 2019). This is particularly relevant during the current global pandemic COVID-19 as consumers are progressively moving towards online shopping (Sharma and Jhamb, 2020).

In the customer-centric era, where the competition is increasing day by day, companies that own online retail stores are obliged to find solutions for attracting and convincing customers to purchase their products or services. One of the methods, widely used by companies, is personalized advertising. By placing personalized, relevant advertisements on various websites, businesses are able tailor their offers accurately to the needs of each consumer (Wessel and Thies, 2015). However, it is of high importance for companies to own the great knowledge on how to utilize personalized advertising correctly, in order for it to be impactful. This is because, when it comes to personalized advertising, there is a very fine line between what is considered as appropriate and what is not.

In general, the positive impact of personalized advertising on consumer response was described by many scholars previously (Tam and Ho, 2005; Maslowska et al., 2011; Bang and Wojdynski, 2016; Keyzer et al., 2015). Moreover, a few characteristics of personalized advertisements, which may influence consumers' perceptions towards them, have also been identified. Depending on how certain characteristics are controlled by businesses, the impact of personalized advertising on consumer response may vary very significantly. For instance, Goldfarb and Tucker (2011) have emphasized the importance of personalized advertisements not to be intrusive – if, for instance, they are too prominent and appear in the middle of the screen, it may be perceived as a privacy invasion and manipulation, thus diminishing the potential positive impact on consumer response significantly. Furthermore, the credibility of the company, which targets a consumer with a personalized advertisement, also has a direct impact on consumer response. In particular, advertisements sent by businesses with low credibility may cause some

privacy concerns to emerge (Bol et al., 2018). Moreover, informativeness of personalized advertisements is also believed to affect consumer response in terms of perceived usefulness (Zhao and Wang, 2020; Dehghani et al., 2016; Pintado et al., 2017) and attitude towards the advertisement (Zhao and Wang, 2020; Dehghani et al., 2016; Pintado et al., 2017; Gaber et al., 2019; Murillo-Zegarra et al., 2020). It is possible that the informativeness may increase the positive attitude towards the advertisement through increasing perceived relevance due to the fact that the message is specifically tailored to individual's needs, thus making it more relevant to the consumer. Finally, another characteristic of personalized advertisement, which affects consumer response, is entertainment. For instance, it was found that when certain hints of humor are present in the advertisement, it makes consumers perceive it as fun and enjoyable, thus increasing perceived enjoyment (Bauer et al., 2005).

In the consumer-centric era, where individuals are becoming more and more selective day by day, it is crucial for businesses to ensure relevant and targeted approach to each prospect. Previous researches have proved that personalized advertising impacts consumer response, which, in most cases, was described in form of perceptions, attitudes and concerns. However, little research was done regarding the impact of personalized advertising on consumers' purchase intention, which is one of the most crucial stages in the consumer decision making process. It is important to gain knowledge whether the characteristics, which influence the consumer perceptions, also influence the purchase intention through attitude towards an advertisement. In addition, as the significance of online shopping is increasing, it is useful to measure the impact of personalized advertising on purchase intention online, in particular. It is important to measure how personalized advertisements are able to encourage conversion in online stores. Therefore, this thesis focuses on answering the following problem question:

What impact does personalized advertising have on intention to purchase goods in online stores and how perceived characteristics of personalized advertisements and consumers' perceptions differ according to whether an individual perceives the advertisement as highly personalized them or less personalized?

The goal of this paper is to examine the impact of personalized advertisements on consumers' intention to purchase goods in online stores.

In order to fulfill the goal of this paper, the following objectives have been set:

1.   To investigate the significance of personalized advertising by identifying its advantages for consumers and businesses;

2.   To identify the significant characteristics of personalized advertising and analyze their impact on consumer perceptions;

3.　　　To develop a research methodology that will assist in understanding the possible relationships between constructs as well as systematically design a model that will ensure valid results;

4.　　　To conduct an empirical research, which measures the impact of personalized advertisements on online purchase intention;

5.　　　To interpret, discuss and conclude data as well as provide recommendations for scholars and businesses.

Methods applied

Firstly, theoretical research was conducted in order to explain the impact of personalized advertisements and their characteristics on consumer response. For the most part, previous academic articles have been used to help describe the impact of personalized advertising on consumer response, its advantages as well as how various factors moderate this relationship. Furthermore, in order to explain the impact of personalized advertising and its characteristics on attitude towards the advertisement as well as on online purchase intention, empirical analysis has been conducted. Data analysis helped to test the hypothesized suggestions regarding the impacts of four personalized advertising characteristics on consumer response in form of privacy concerns, perceived usefulness, perceived relevance, perceived enjoyment, and, subsequently, on attitude towards the advertisements as well as online purchase intention. The research was conducted by gathering and examining all the data and performing statistical analysis using SPSS analytics platform. In particular, statistical tests, such as regression, correlation, independent samples t test as well as moderator analysis have been performed. Additionally, prior to conducting data analysis, a reliability test was performed.

Structure of the Master thesis

The structure of present Master thesis is the sequence of introduction, literature analysis, methodology, data analysis, conclusions and recommendations. Firstly, the thesis begins with an introduction, which describes and summarizes the relevance and importance of the topic as well as defines the problem, goal, objectives. After that, an extensive literature analysis helps to investigate the theoretical aspects of personalization and personalized advertising. In methodology, a research model, development of hypotheses as well as research instruments and sampling design are provided. This helps to systemize the methods used for the research. In data analysis, tests of the hypotheses as well as additional insights are provided and results are discussed. Finally, conclusions and recommendations summarize the collected results and provide insights for future researches and businesses.

Contribution for scholars and business

To date, few attempts have been made to measure the impact of personalized advertising on online purchase intention, while taking into an account various characteristics and perceptions related to personalized advertising. Therefore, this research will help to deepen knowledge on this topic.

This thesis also contributes to business. In particular, it provides companies with knowledge on how to use personalized advertising efficiently, so that it does not evoke negative reactions, which otherwise may be easily emerged. Therefore, personalized advertising should be handled skillfully. With this knowledge, companies will be able not only to increase the conversion, but also retain customers and sustain a relationship with them.

1. THE THEORETICAL ANALYSIS OF PERSONALIZED ADVERTISING ON CONSUMER RESPONSE

1.1 Significance of personalized advertising

Personalized advertising has become a widely used tool by businesses as it allows them to provide consumers with individualized and unique offers, which increases the possibility to achieve a conversion and even retention. According to Bol et al. (2018), personalization refers to a company's strategic approach which ensures that the content and its distribution fits individual characteristics, interests, preferences, communication styles and behaviors of consumers, thus creating an interactive relationship between the sender and the receiver. Tiihonen and Felfernig (2017) described personalization as a tool that helps to tailor certain information to match a consumer's needs and preferences. Additionally, Fan and Poole (2006) suggested that personalization is an important tool for building customer relationships. Besides building customer relationships, which may be considered as a long-term benefit of personalization, it also affects the perceived effectiveness of marketing efforts, which may be measured by profit, customer share and responsiveness (Ramnarayan, 2005). Many companies are becoming committed to the customer-centric culture, where the main priority of all business processes is to ensure that the needs of a customer are identified and satisfied (Bolton, 2004). As more and more businesses are practicing customer-centric culture, they also incorporate personalization to online advertising more frequently, thus targeting their consumers with personalized advertising. Personalized advertising refers to gathering online data and later using it to create and tailor the advertisements to specific individuals according to their needs and preferences (Gironda and Korgaonkar, 2018). One of examples of personalized advertising could be targeting an individual with a static banner which contains an attractive offer of a product in which the consumer is interested, according to previous browsing behavior. This way companies try to reach current and potential consumers on a more personal level by caring about their needs and thus offering a personalized solution to satisfy them. To conclude, in the customer-centric era, many companies use personalization in advertising. Personalization helps to tailor the message of an advertisement to individual needs, preferences and interests of consumers, thus providing them with special attention and care that is essential not only in order to achieve higher profits, but also in order to generate more customer loyalty.

Online personalized advertising has also become a widely used marketing tool for companies due to the fact that many businesses are trying to expand their advertising reach and

the impact of regular advertising gradually declines. As more and more competitors come into the market and consumers become more selective and demanding while searching for product alternatives, businesses are obliged to create personalized approach to each prospect in order to attract, encourage and persuade them to purchase their products or services that might potentially satisfy their needs or solve a problem. Thus, general advertising, which was targeted towards all users, shifted to personalized, targeted advertising which is based on user preferences and browsing behavior online (Deshpande et al., 2014). Interestingly, a research, performed by Iyer et al. (2005), suggests that in today's competitive environment, it is more effective to practice personalized advertising instead of targeted pricing due to the fact that targeted pricing creates even more competition, while personalized advertising helps to approach consumers who already show interest in certain products or services and are thus more likely to respond positively. A wise approach to personalization may create a competitive advantage over other companies. In particular, according to Yu (2011), one of the most frequently used online advertisement formats are personalized e-mails, which refer to users by their name. For instance, it is quite common for companies to regularly send their customers newsletters that address them by their name and/or surname. Additionally, another very popular form of online advertising includes personalized display advertising. Specifically, according to Bruce (2017), display advertising in form of static and animated banners can be effective in engaging and re-targeting consumers. However, these are merely two most common examples of the many options how personalized advertising is utilized. Although personalized newsletters and banners allow companies to reach consumers on an individualized level, both of them bring certain benefits as well as drawbacks, which makes them different from one another. The table below generally explains the most common advantages and disadvantages of personalized newsletters and banners to better understand the main differences between these two main types of personalized advertising.

Table 1. Advantages and disadvantages of personalized newsletters and personalized banners.

	Advantages	Disadvantages
Personalized newsletters	Greater possibility of consumer viewing them as they are sent directly; very cost-effective (Hartemo, 2016); may be used for loyalty programs (Tubulekas, 2017).	More likely to evoke privacy concerns than personalized banners; can only be sent if a user provides an e-mail; one offer may only be sent once, otherwise can be viewed as intrusive, therefore, it is not flexible in time; may sometimes be viewed as potentially containing a harmful virus and can be considered as junk (Yu and Cude, 2009);
Personalized banners	One offer may be targeted a few times via different websites to increase impact and possibility of viewing; flexible in timing and placing (Bleier and Eisenbeiss, 2015); less likely to evoke privacy concerns as they are not sent via personal e-mail; it is easier to control during which stage of consumer decision making process an offer is being sent.	Possibility of banner-blindness; may evoke privacy concerns.

To conclude, due to consumers becoming more selective, demanding and the competition increasing, companies are obliged to find a solution for how to attract, encourage and convince individuals to purchase their products or services among the many possible alternatives that exist in the market. Thus, one of the great and widely used solutions is personalized advertising, which may help the company to obtain competitive advantage by approaching each consumer individually and solving their specific needs.

Before a personalized advertisement is sent to a potential consumer, there are some technical procedures that need to be carried out by a business. In order to target consumers with personalized advertising, firstly, businesses use tracking tools in order to collect and process data for marketing purposes. This allows companies to target their promotional messages to consumers' demographics and interests (Treiblmaier and Pollach, 2011). According to Freedman (2020), there are four types of consumer data collected by companies: personal data (personally as well as non-personally identifiable information), engagement data (details how consumers interact with a business's website, emails, apps, paid ads, etc.), behavioral data (purchase history, information about product usage and qualitative data) and attitudinal data (consumer satisfaction, purchase criteria and more). In a research, performed by Camilleri (2019), it was suggested that the latest technologies, which help businesses to capture and analyze consumer data, facilitate customer-centric marketing by targeting and re-targeting individuals online and on mobile, which serves both, individuals and organizations. The impact of advertisements has been increased due to companies having the ability to use various programs and analytical tools (Majhi and Chirputkar, 2020). As suggested by Gomer et al. (2013), some companies use first-party tracking, where the

consumer data is gathered by the website which is being visited. In addition, the authors also mentioned that some companies also use third-party tracking, where the data of consumer browsing and searching behavior is gathered through third party networks. For instance, some retailers use index of intent to search via the internet to determine the likelihood of purchase intention (Shim et al., 2001). Whenever a consumer is actively searching for a specific product category via search engine, this indicates that he or she might intend to purchase one of the possible alternatives. Thus, a company could use this data in order to create and send the potential consumer an attractive offer suggesting to purchase the product which is the same or similar to the one that was searched for. Moreover, it is important to note that data of consumers' browsing behavior might be used outside and within the website of a company. According to Lambrecht and Tucker (2013), dynamic retargeting refers to a practice where companies are able to target consumers with personalized advertising on different websites based on data collected while the user was still browsing their website. To sum up, tracking tools are used by companies in order to collect various consumer data, whether it is their personal information, browsing behavior, browsing history or other. Many companies practice first-party tracking and third-party tracking to gather the necessary data, which may later be used outside and within the website of an organization. This data is later turned into knowledge about certain traits, patterns, interests and preferences of company's consumers.

The knowledge that companies gain through collection and processing of consumer data helps businesses to get to know their customers better and send them personalized, impactful and convincing messages. Based on collected customer data, companies are able to decide what marketing mix is most suitable for each individual (Arora et al., 2008). In his study, Frick (2018) suggested that in order to infer consumers' preferences and thus be able to send personalized advertisements, it is required for businesses to have access to information on individual consumers. Otherwise, if this information is not available, it is impossible for a company to get to know the preferences of its individual consumers, thus, without the data, they can only be targeted with a generic advertisement. Therefore, as tracking and database technologies are becoming more advanced, companies are able to understand their customers and convert that understanding into a product or service that appeals to them by sending a persuasive message (Tam and Ho, 2005). These messages create a sense of an individualized service to the potential consumer (Kaynama and Black, 2000). Therefore, after consumer data is collected and processed, the information a company acquires can be used further to decide, for instance, which product or service, sold by the company, would best fit the needs and preferences of that individual. For instance, let's suppose that a consumer has paid a certain online store a visit and clicked on certain products that seemed interesting. However, a consumer did not proceed to purchase yet and left the online shop.

Fortunately, a company utilizes tools that track consumers' browsing patterns inside the online shop. In this case, as the consumer is visiting another website, a company that owns the online shop, which was visited by an individual previously, has the knowledge of his or her preferences and thus might target them with a personalized advertising based on previous browsing behavior. For instance, specifically, the company could remind an individual of a product that he or she was perhaps interested in by sending a static banner that displays the product and an attractive discount that is available. To summarize, the information gathered using various tracking tools is later turned into knowledge about each consumer's preferences, interests and needs. This knowledge is highly valuable for companies as it helps to understand how each individual may be approached in the best way and increases the probability of conversion.

1.2 Advantages of personalized advertising for consumers and businesses

Many researchers have proved that generally, personalization in advertising and, in fact, even low level of it, leads to positive consumer response. In a research, conducted by Tam and Ho (2005), it was suggested that personalized offers, which match consumer's preferences, have a positive impact on consumer response. If a targeted offer matches consumer's interests, it is natural that he or she might want to look into it attentively. According to Maslowska et al. (2011), personalized advertisements are more impactful and persuasive than generic ones. This idea is supported in an experiment, performed by Bang and Wojdynski (2016), where it was suggested that the participants pay relatively more attention to personalized in comparison to non-personalized advertisements. As personalized advertisements are often based on consumers' interests and preferences, it is very likely that such advertising will attract more visual attention than non-personalized advertising and, therefore, it might be easier to convince the consumer to purchase a product or service that is relevant to them. Another experiment, conducted by Keyzer et al. (2015), measured the impact of personalization, based on consumers' gender, on attitude towards the brand and click intention on social network sites. It was therefore concluded that even a small degree of personalization, such as based on gender, has a positive influence on consumer responses. Furthermore, positive responses of consumers towards personalized messages, sent by businesses, are often in form of a recommended product purchase. An experimental study, conducted by Behera et al. (2019), showed that the presence of personalized advertising in digital channels causes positive impact on company's operating parameters, such as sales, revenue, average order value and others. The increase in these parameters mostly indicates that the company successfully sells more of its products or services to consumers. Therefore, if a potential consumer perceives the personalized advertisement as relevant to him or her at that time, it is likely to have

a positive impact on consumer response and the response is likely to be in form of a purchase. To conclude, in general, personalized advertisements are more impactful, persuasive and attract more visual attention than non-personalized advertisements due to the fact that they are based on consumers' interests and preferences, thus being personally relevant to the viewer. In fact, even low level of personalization evokes positive consumer response, which may often be in form of a purchase, increased attention, click intention and more positive attitudes.

Besides leading to positive consumer response, personalized advertising also causes positive relationship between the business and its customers. In a research, conducted by Behera et al. (2019), it was proved that personalized advertising positively affects customer relationship. Previous shopping experiences may turn the existing customers into returning customers if the experience was pleasant by decreasing perceived risk (Shim et al., 2001). This idea is also supported by Fridh and Dahl (2019), who suggested that positive past experiences with personalized advertising positively affect the relationship between the company and the consumer. Therefore, if a purchase was successful and the consumer is happy with the product, this will positively affect the future buying behavior and it is likely that the consumer will repurchase from that company again (Koskinen, 2017). Consumers, who receive personalized messages at the right time, are likely to make a purchase and there is a chance that after a while the relationship between that consumer and the business will be sustained. In addition, Gerdman and Nordqvist (2017) asserted that in order to build trust and loyalty towards the business, advertisements need to be accurate and relevant for the consumer. Tran et al. (2020) also suggested that personalized advertising increases the connection between a consumer and a brand as well as enhances brand usage intention. In other words, personally relevant advertisements make consumers feel as though companies know what their interests, preferences and needs are, thus strengthening the relationship between them. In addition, interestingly, according to Pahlman and Waldenskiold (2013), individuals are more willing to share data for marketing purposes with companies, from which they purchased a few times previously as they feel that this is an investment in their relationship. In summary, personalized advertising causes sustainable relationship between consumers and businesses. Firstly, personalized advertising makes consumers feel as though companies are "closer" to them and are aware of their specific preferences, thus creating a stronger relationship. Secondly, if consumers' previous experience regarding personalized advertising of a certain company was positive, they are likely to turn into returning, loyal customers. Therefore, in order to build consumer's trust and loyalty towards the business, personalized and relevant advertisements need to be targeted towards them. Additionally, consumers are more willing to share their data with companies that they have a strong relationship with, therefore, in this case,

the relationship between consumers and companies might be strengthened by personalized advertising further.

Personalized advertising can serve the consumers as a reminder. Personalized advertising is a good strategy to remind consumers to purchase a certain product if they were looking for it and showed interest previously (Segijn and Ooijen, 2020). For instance, advertising, which is based on consumers' previous browsing behavior, may invite them to visit a website and purchase a product or service (Manchanda et al., 2006). Therefore, personalized advertising might encourage a user to return to the shopping process from where they left (Frick, 2018). An exploratory study, performed by Fridh and Dahl (2019), showed that consumers are more susceptible to personalized advertising that captures their interest, thus being reminded that a certain problem or need, that could be satisfied with an advertised product or service, exists. Taking into an account dynamic retargeting, personalized advertising is the most impactful shortly after the website was visited by a consumer (Johansson and Wengberg, 2017). In particular, Sahni et al. (2019) suggested that personalized advertising based on consumer's activity on a company's website has a better impact if it is targeted during the first week after the visit. For instance, if a consumer showed interested in a certain product, but did not complete the purchase and exited a website, it would be impactful for companies to remind such consumers of the possibility to purchase that product by targeting them with an advertisement containing an attractive offer related to that product shortly after a visit. Such reminders may often appear in forms of display advertising, more specifically, static or animated banners that appear on various websites. These banners may also contain a call-to-action button, which, for instance, could invite consumers to purchase the product right now. Thus, besides reminding consumers to purchase the product that they were interested in, personalized advertisements may also be a highly convenient and time saving way for users to access the source from which the product may be purchased. To conclude, personalized advertising works as a reminder by encouraging consumers to come back to the online store and continue their shopping process from where they left. This is achieved by tracking a user's browsing behavior and sending advertisements containing products that were clicked on while the user was still browsing the website. Additionally, personalized advertisements are the most impactful as reminders when they are sent shortly after the visit.

Personalized advertising satisfies consumers' need for uniqueness. Consumers' need for uniqueness (CNFU) refers to an individual's aspiration to be different from others, which can be achieved by acquiring and utilizing goods to enhance one's personal and social identity (Tian et al., 2011). Zhu et al. (2014) suggested that consumers' need for uniqueness is one of the main drivers of how they respond to individually personalized offers. In particular, Stiglbauer and Kovacs (2018) asserted that consumers with high CNFU (consumers' need for uniqueness) react

more positively to advertisements that contain personally relevant products. This idea is also supported by Maslowska et al. (2011), who suggested that consumers' need for uniqueness strengthens the persuasive impact of personalized advertisements. According to Fridh and Dahl (2019), personally relevant advertisements make consumers feel like they have been uniquely selected to view certain offers that match their interests and needs. When personalized advertising is targeted towards consumers with high need for uniqueness, it gives them an idea that special attention was dedicated in order to provide them with a unique offer. It lets consumers know that they are important for the company and, therefore, special and individualized approach is used in order to reach each of them. Additionally, Bang et al. (2019), suggested that personalized advertising is more impactful when it is targeted towards consumers that have moderate to high level of narcissism, because it helps to enhance self-identification and self-image. To sum up, personalized advertising can be highly impactful for consumers with high need for uniqueness and high level of narcissism. This is due to the fact that such advertisements satisfy consumers' aspiration to feel unique, different and special. When users are targeted with personalized advertisements, they know that a company put effort, dedication and time to get to know their preferences and send an offer based specifically on those preferences.

Personalized advertising reduces expenditures of the companies. According to Iyer et al. (2005), businesses that focus on advertising their products or services to consumers who are likely to be interested in those products or services and purchase them, may have lower advertising expenditures. For instance, taking into an account banner advertising, it may be inefficient to target large audiences that might not be interested in a product or service being advertised due to so-called banner-blindness. Banner blindness refers to users' tendency to consciously or subconsciously ignore banner advertising (Harms et al., 2019). Personalized banners, on the other hand, have a positive impact on attention (Koster et al., 2015) and prevent the tendency for banner-blindness (Kaspar et al., 2019). Therefore, while non-personalized banners may simply be ignored by users, personalized banners, on the other hand, attract attention. If a banner advertisement contains a product or service which is irrelevant to a user, he or she will simply ignore it, thus making it pointless for businesses to invest in targeting such banner advertisements towards large audiences. Additionally, in this case, besides reducing expenditures, personalized advertising also increases the probability that a consumer will purchase a product or service as it is relevant to them, thus increasing company's profits. This idea is supported by Johnson (2013), who suggested that the ability to target consumers with personally relevant advertisements increases profits of all companies. To conclude, by using personalized advertising, businesses will not only lessen their expenditures due to increased attention and decreased possibility of banner-blindness, but there is

also a chance that the profits will be larger as there is a higher chance that personalized advertisements will persuade consumers to make a purchase more easily.

1.3 Characteristics of personalized advertising influencing consumer perceptions

Personalized advertisements are more impactful when they are not too highly visible or prominent. According to Goldfarb and Tucker (2011), targeted advertising and obtrusive advertising do not work well when combined as it may cause privacy concerns and create a sense of manipulation. Such an idea is supported by Zhao and Wang (2020), who found that intrusive personalized advertising causes privacy concerns to emerge. Van Doorn and Hoekstra (2013) also asserted that the positive impact of personalized advertising is less significant when an advertisement is intrusive. Morimoto and Chang (2006) explained that intrusive commercial e-mails are often simply ignored due to the fact that users have a specific purpose when they log on to their account. And, if the purpose for which they logged in to their account is disturbed by an advertisement, it may be viewed as annoying and intrusive. This could also be valid taking into an account, for instance, display advertising – if an individual is browsing a website with a certain goal in mind and suddenly a banner pops up in the middle of the page, it is likely that a user will simply close the banner without reading the content of it. Thus, even if a banner contained some valuable offer that matched consumer's interests, they simply did not notice it as they were irritated by the intrusiveness and closed the advertisement as soon as possible to continue doing what was intended. In general, personalized advertisements are already more noticeable than non-personalized advertisements (Malheiros et al., 2012). This is because an advertisement that matches users' preferences and interests already attracts the eye without having to be placed on a highly visible and intrusive place of a website. Therefore, if an advertisement is truly relevant to a consumer, he or she will notice it even if it is placed on one corner of a web page, for instance. Additionally, Lin and Kim (2016) asserted that intrusive personalized advertisements have a negative impact on perceived usefulness and, subsequently, on attitude towards an advertisement as well as purchase intention. Such phenomenon may emerge due to the fact that if an advertisement appears at the wrong time and in a place that could be considered as intrusive, it may disturb the consumer from performing their online task and cause irritation, thus decreasing perceived usefulness. To conclude, personalized advertising may have a negative impact if it is too highly visible and intrusive as it may be viewed as a violation of privacy, interruption and manipulation, thus causing the consumer to close it immediately, usually without even viewing or reading the content. On the other hand, if personalized advertisements are placed somewhere that

is not intrusive and interruptive, the impact will be more positive, because personalized advertisements naturally attract more attention.

Highly personalized advertisements are more impactful when they are sent by a trusted company. In a research, performed by Bleier and Eisenbeiss (2015), it was implied that less trusted companies should avoid sending highly personalized advertisements to their potential consumers. The authors also explained that small retailers or companies that are at an early stage of business lifecycle are usually less trusted, because a certain opinion has not been formed by consumers yet. In particular, a trusted company is, most commonly, a company that has been in a market for a while, is moderately or highly well-known and does not have a poor reputation. If, for instance, a highly personalized advertisement is sent by a relatively new company that is not well-known, consumers may react negatively towards such an advertisement as they may not trust the company with their personal data yet. Moreover, individuals tend to mistrust companies which are known to have a bad reputation and damaged credibility. According to Featherman et al. (2010), when consumers come across an advertisement sent by a company that has a damaged credibility, they tend to assess possible privacy risks prior to having any business with such a company. Consumers are not willing to self-disclose to companies with a damaged credibility due to increased privacy risk, which emerges due to lack of trust (Bol et al., 2018). Moreover, Murillo et al. (2016) stated that credibility of the advertisement impacts advertising value. Logically, consumers tend to value the content of the advertisement more if it is sent by a credible source. To conclude, companies that have not yet earned the trust of consumers should avoid targeting them with highly personalized advertising regardless of whether it is in form of displaying personal information or very specific products with high degree of matching due to the fact that it may provoke privacy concerns. On the other hand, highly personalized advertisements, which are sent by well-known brands with a good reputation and high credibility, are usually perceived as more acceptable due to higher level of trust.

Personalized advertisements are more impactful, when they can be considered as a timely, relevant, convenient, up-to-date and complete source of information. Informative personalized advertising has been found to evoke positive consumer response in form of attitude towards an advertisement (Zhao and Wang, 2020; Dehghani et al., 2016; Pintado et al., 2017; Gaber et al., 2019; Murillo-Zegarra et al., 2020; Murillo et al., 2016) as well as on intention to purchase a product that is depicted in the message (Blanco et al., 2010; Mustafi and Hosain, 2020). Furthermore, informativeness in personalized advertising helps to increase perceived usefulness of the consumers (Zhao and Wang, 2020; Dehghani et al., 2016; Pintado et al., 2017). Taking this into an account, it could be possible that attitude towards the brand and, subsequently, purchase intention is positively affected by informativeness due to increased perceived usefulness. For

instance, if an individual comes across an advertisement that they perceive as a high-quality source of information, it may be considered as a useful tool, which can help to form a certain decision or form an attitude. Moreover, informativeness increases perceived relevance, when mixed with personalized advertising. For instance, if an individual comes across an informative advertisement that has been tailored to their needs according to their previous browsing behavior, it may be perceived as a timely and relevant source of information, thus increasing perceived relevance. Informative advertisements have a direct impact on perceived value (Aziza and Astuti, 2019; Murillo et al., 2016). Moreover, Dehghani et al. (2016) stated that consumers value advertisements which are relevant to their specific preferences. To conclude, informative personalized advertising tends to be perceived as a useful and relevant source or information. This is due to the fact that if an advertisement is tailored to an individual's needs and preferences as well as contains beneficial information about the product of interest, is can be considered as a useful, relevant and convenient source of information that may help to form a certain attitude or make a purchase decision.

Personalized advertising is considered as more impactful when it contains some entertaining attributes. According to Sai Vijay et al. (2019), one of the atmospheric cues of a website – entertainment, has a positive impact on satisfaction and loyalty. Taking this into an account, it is logical that entertainment is also a significant attribute in advertising, that may be placed outside of an e-tailer's website. This is due to the fact that when a consumer sees an entertaining personalized advertisement of a certain brand, which they recognize by, for instance, a logo or a slogan, some positive associations, related to that brand, may emerge in a consumer's mind. If a personalized advertisement is entertaining and enjoyable, there is a possibility that the consumer will form a positive attitude or even make a purchase decision due to increased perceived enjoyment. Such an idea is supported by Teixeira et al. (2014), who found that entertaining advertisements are perceived as more attractive and may even push the consumer towards the stage of interest or purchase. Bauer et al. (2005) stated that entertaining attributes in the advertisement make consumers perceive such messages as fun and enjoyable. Such a perception may be caused by humor or visual imagery that is present in the advertisement (Teixeira et al., 2014). Rauwers et al. (2018) found that one of the entertaining attributes – perceived humor, positively affects consumer response in form of brand recall, brand recognition, attitudes towards the advertisement as well as the brand and purchase intention. The authors concluded that creative media advertising is more impactful than traditional media advertising. To conclude, entertainment is an important attribute of personalized advertising as it makes the process of viewing the advertisement fun and enjoyable. Cues of entertainment, such as humor or visual imagery in advertising may evoke positive associations related to the brand as well as act as persuasive tool in the stages of interest and even purchase.

It is important to note that the impact of personalized advertising also depends on consumers' certain individual perceptions and preferences. Various perceptions can mediate the relationship between personalized advertising and purchase intention. For instance, a qualitative study, performed by Van den Broeck et al. (2020), suggested that the positive impact of personalized advertising depends on consumers' perceived relevance. This idea is supported by Keyzer et al. (2015), who suggested that personalized advertising positively influences consumer responses by positively affecting perceived relevance of the advertisement. In other words, if personalized advertisement is perceived as relevant, the consumer response towards the advertisement will be positive. Some individuals might not perceive personalized advertising as relevant due to various reasons, such as the change of interests and preferences over time. On the other hand, if the perceived relevance of a personalized advertisement is high, it will have a positive impact on consumer response (Kim and Huh, 2016). This positive response may be, for instance, in form of increased attention and decreased advertisement avoidance (Jung, 2017). In addition, the impact of personalized advertising may also depend on perceived usefulness (Gironda and Korgaonkar, 2018). Some advertisements may not be perceived as useful, because, for instance, a consumer has already bought the advertised product or service from another company previously. In this case, a personalized advertisement may no longer be useful, because a consumer already owns the product or service. Therefore, the personalized advertisement has to be useful at the time of viewing in order to be impactful. Kim and Huh (2016) suggested that another factor which may influence the impact of personalized advertising is perceived privacy risk. The authors mentioned that some individuals are afraid that the information about their online activity may be potentially misused by the business. Some individuals highly value their privacy and are very cautious when it comes to sharing their personal information with businesses. In this case, personalized advertisements can make consumers feel as though their privacy was violated, thus making personalized advertising unimpactful. On the other hand, if perceived privacy risk is low, consumers may be able to enjoy the benefits of personalized advertising, thus making it more impactful. Another significant determinant of the impact of personalized advertising is perceived enjoyment. According to Mai and Schoeller (2009), advertisements, which evoke strong positive feelings, are considered as the most memorable and enjoyable. For instance, if an individual views an advertisement that they perceive as enjoyable and entertaining, its impact on consumer response will be positive. Advertisements, that are perceived as attractive and entertaining, tend to have a stronger persuasive impact (Teixeira et al., 2014). To conclude, some individual perceptions of consumers may have an impact on whether the effect of personalized advertising on consumer response is positive or negative. These perceptions and characteristics include perceived

relevance, perceived usefulness, privacy concerns and perceived enjoyment. It is important for businesses to take into an account how these perceptions are affected by certain characteristics of personalized advertisement. If companies are aware of how personalized advertising can affect these perceptions in a way that will push the consumers towards the purchase decisions, the personalized advertising will be utilized in the most efficient way.

Repetitive personalized advertising has a positive impact on consumer response. A research, performed by Wessel and Thies (2015) showed that in order for consumers' purchase intention to be increased sustainably and significantly, they need to be continuously exposed to the personalized advertisement. According to Verma (2009), generally, advertisements can increase the persuasive impact if they are targeted towards users from a low to moderate level. However, if an individual is being exposed to an advertisement at high levels of repetition that is beyond a moderate level, the advertisement becomes unimpactful. In particular, Kaulina and Kaulins (2018) suggested that personalized advertising has a negative impact on purchase intention if it is too frequent and is shown more than five times. On the other hand, the authors also mentioned that if such advertisements are repeated up to three times, they are perceived as relevant and motivate consumers to purchase the product or service. In other words, when a personalized advertisement is targeted towards a consumer a few times, it increases the possibility of a purchase. For instance, the consumer simply may not have realized the advertisement or may not have paid attention to its relevance. When a user realizes that a certain product is service has been advertised to them continuously, they may become interested and look deeper into it. Additionally, Campbell and Keller (2003) asserted that repetitive advertisements for unfamiliar brands cause negative thoughts. Moreover, consumers may start considering the inappropriateness of such repetitive advertisement for unfamiliar brands. Logically, this rule could also be applied for various product categories – if consumers are repetitively exposed to an advertisement for a product which they are unfamiliar with and not interested in, the response to such a personally irrelevant advertisement will be negative and vice versa – if a user is interested in a certain product category and thus a personalized advertisement of that same product is repeatedly shown, the impact on consumer response will be significantly more positive. To conclude, generally, repetitive personalized advertising has a positive impact on consumer response when it is targeted towards users at a low to moderate level of repetition. Although an advertisement may be more persuasive when an individual is exposed to it a few times rather than once, the level of repetition should not be too high, otherwise, it may be perceived as intrusive or annoying.

Personalized advertising can be highly impactful and positively affect consumer response if its content matches the content of a website in which it is being targeted towards the consumers. Such practice, when commercial advertisements are placed within the content of a certain website,

is called contextual targeting (Broder et al., 2007). It is a form of personalized advertising, where the advertisements are relevant to consumers as they are based on the content of websites that they visit (Yeun Chun et al., 2014). Personalization in form of contextual targeting attracts more visual attention (Malheiros et al., 2012). Specifically, Jeong and King (2010), examined how contextual advertising influences the impact of banners. It was therefore suggested that contextually relevant banners caused positive reaction of consumers and increase purchase intention. The reason for such a great impact of contextual advertising is the fact that they are relevant to the surrounding content (Broder et al., 2007). Moreover, contextual targeting positively affects consumer click behavior when it is combined with behavioral targeting (Lu et al., 2016). Bleier and Eisenbeiss (2015) suggested that the impact of contextual advertising depends on consumers' browsing mode. In particular, the authors stated that consumers, who are in a goal-directed browsing mode during the time they visit a website, are not affected by contextual advertising. A research, conducted by Yeun et al. (2014), showed that positive attitudes towards the advertisement are caused when contextual targeting is used by businesses. Interestingly, the authors also suggested that the relationship between contextual advertising and its impact is moderated by the complexity of an advertisement. In particular, it was suggested that the less complex an advertisement is, the more positive attitude towards the contextual advertisement will be. To conclude, contextual advertising is an impactful form of personalization as it matches the content of a website which is being viewed by the consumer. Advertisements which are contextually relevant attract more visual attention and increase purchase intention. Although contextual advertising can have a great impact when used on its own, it is also highly impactful when combined with behavioral targeting. Furthermore, users tend to react more positively to contextual advertising when it contains lower level of complexity. However, users, that are in goal-directed browsing mode, cannot be affected by contextual advertising.

The impact of personalization on consumer response depends on the type of personalization which is being used by the company. According to Kim (2002), personalization helps organizations to support one-to-one marketing by providing an opportunity to display only potentially interesting products, services and information to particular users on websites; determining the potential consumers that might be interested in a new product and sending them attractive offerings and deals related to that product. Unfortunately, some companies still use personalization inefficiently. For instance, some businesses invest large amounts of money sending e-mail advertisements that refer to a user by their name even though the product or service is completely irrelevant to them and, in this case, the e-mail is usually deleted before even being opened by the recipient (Yu, 2011). This type of personalization, which is merely in form of using a consumer's name or other personal information, can therefore be considered as inefficient and

evoke privacy concerns. According to Yu (2011), consumers react negatively to personalized e-mail advertisements which use their name, unless the advertisement contains a product that they might like. Consumers simply feel uncomfortable when their personal information is displayed on an advertisement (Malheiros et al., 2012). Advertisements, which are personalized based on consumers' preferences, interests and browsing behavior, on the other hand, tend to be more impactful as they contain a product or service that a user might actually like and need. Consumers feel more comfortable with this type of advertisements than the ones that display personal information, because they attract more positive attention and increase interest (Malheiros et al., 2012). For instance, personalized static or dynamic banners often contain offers that are based on previously collected interests of a user and usually do not disclose any personal information. Specifically, Boerman et al. (2017) suggested that banners, which offer products that have been previously placed in a shopping cart, but were not purchased, significantly increase click-through rates. Additionally, results of an experiment, performed by Kaspar et al. (2019), suggested that demographically targeted banners attracted more visual attention than non-targeted banners. Therefore, banners, personalized based on demographic data, attract more visual attention, thus increasing the probability that a user will click on it and proceed to purchase a product or service. To conclude, although personalization in form of disclosing personal information, such as a name, is usually unimpactful due to privacy concerns, personalization based on consumers' interests, previous browsing behavior and even demographic data is perceived more positively and therefore attracts more visual attention, thus increasing possibility of a click and purchase.

1.4 Interfaces between consumer perceptions caused by personalized advertising and online purchase intention

Besides affecting consumer response in form of attitudes, perceptions and concerns, it is possible that personalized advertising also creates a pleasant experience and, therefore, helps to form a positive attitude towards an advertisement and encourages to purchase at that moment. In particular, perceived usefulness (Zhao et al., 2020; Kim and Han, 2014; Lin and Kim, 2016), perceived relevance (Jung, 2017; Escalas, 2007; Trampe et al., 2010) and perceived enjoyment (Shi, 2018) positively affect attitudes towards the advertisement and, subsequently, purchase intention. On the other hand, privacy concerns have a negative impact on attitude towards the advertisement and purchase intention (Smit et al., 2014; Lin and Kim, 2016). Furthermore, Tam and Ho (2006) suggested that consumers already have expectations and beliefs that the product displayed in a personalized advertisement will be good even before the actual purchase (cit. according De Keyzer et al., 2015). This may be possible due to the fact that if, for instance, an

individual has a specific problem that needs to be solved, personalized advertising that fits a user's needs may create a hope that the product should be highly valuable if it is advertised as the one which will potentially solve a problem. It may be possible that consumers trust companies, when they offer a product or service which fits their needs or interests at that time. Thus, a company may meet and even exceed the existing expectations if it understands the consumer's needs precisely and, besides providing a personalized experience, offers a product that satisfies the need completely. These hopes and expectations alone may positively affect the intention to purchase a product or service that has been displayed in a personalized advertisement. Moreover, the findings of a research, performed by Goldsmith and Freiden (2004), indicated that personalized advertising not only increases purchase intention, but, in most cases, the consumers are also highly satisfied with their purchase afterwards. If a business applies personalized advertising wisely, the consumers are not only more likely to purchase the product that is being offered, but they will, most possibly, also like that product and perceive the whole personalized experience as highly valuable to them. This may increase users' trust and, after such a positive experience, this may cause an even more significant impact of personalized advertising on purchase intention in the future. This idea is supported by Fridh and Dahl (2019), who suggested that the overall personalized experience may create added value. In other words, if an individual perceives the advertisement as highly personalized to them, the positive impact of personalized advertising on various perceptions, attitude towards the brand and purchase intention may be even more significant than if the message was perceived as less personalized. To conclude, when a relevant offer that may possibly satisfy a certain need or solve a problem is provided, it is usual for consumers to have certain hopes, expectations and preconceived positive opinion prior to the purchase. These expectations not only influence the purchase intention and attitude towards an advertisement in a positive way, but, if the company meets and exceeds these hopes, the whole experience is perceived positively and adds value to the product, thus potentially increasing purchase intention in the future.

If users are searching for information about a certain product via the internet, it is likely that they will purchase the product online too. The results of a research, performed by Shim et al. (2001), suggest that consumers usually have an intention to purchase products through the same medium they search for information about the product in order to save time, effort and cost. Additionally, Kumar et al. (2005) suggested that searching for information online itself saves a lot of time and effort, therefore, it is preferred by consumers. In this case, if an individual is searching for information about a certain product on the internet, it is likely that he or she will also purchase that product online. Therefore, personalized advertising on the internet, where consumers search for information due to low costs and effort, could be highly impactful. That is why measuring an

impact of personalized advertising on intention to purchase online is essential. Businesses are able to collect information about individuals' previous as well as current searches and use this data in order to select which advertisement would be the most appropriate and viewed as relevant by an individual. Additionally, in order to encourage an individual even further, advertisements often lead to the advertised product in the e-tailer's online store, if they are clicked on by the potential consumer. Thus, a landing page creates an impact of invitation to make a purchase, therefore, conversion is more likely to happen (Reyes, 2016). To conclude, if consumers search for information about a certain product or service via the internet, it is likely that they will purchase that product or service via the internet as well. Thus, businesses can collect the data based on consumers' searches in order to target them with the most suitable personalized advertisement at the right time.

Although there is a possibility that personalized advertising may positively affect purchase intention, similarly as when taking into an account its impact on consumer response, there are certain characteristics that need to be considered. According to Baek and Morimoto (2012), it is important to be aware of the factors that cause avoidance and resistance in order for personalized advertising to be impactful. It is important for companies to ensure that all necessary actions are taken to ensure that personalized advertisements do not evoke any concerns. Thus, it is highly important to take into an account various mediators that may influence the relationship between personalized advertising and purchase intention. If, on the other hand, companies do not consider how certain characretistics impact consumers' perceptions, personalized advertising may become inefficient and thus the potential advantages of it for both, consumers and businesses, may be lost. As discussed in the previous chapter, some of the significant characteristics that affect consumers' perceptions include level of intrusiveness (Goldfarb and Tucker, 2011; Van Doorn and Hoekstra, 2013; Morimoto and Chang, 2006), credibility of the message (Bol et al., 2018), informativeness of the message (Zhao and Wang, 2020; Dehghani et al., 2016; Pintado et al., 2017; Gaber et al., 2019; Murillo-Zegarra et al., 2020) and entertainment (Bauer et al., 2005). As it was proved that these factors are significant characteristics that impact consumers' perceptions, it is very likely that they have an impact on purchase intention through consumers' perceptions and attitude towards the advertisement as well. Mitchell and Olson (1982) have demonstrated that the way consumers evaluate an advertisement affects purchase intention (cit. according Comiati and Plaias, 2010). In particular, if the response to the advertisement is positive, it may be possible that, in this case, such an advertisement will efficiently encourage consumer to purchase a product. Interestingly, some previous researchers have already analyzed the effect of specific factors on the relationship between personalized advertising and purchase intention. Table below provides an insight on how various characteristics and factors, which affect the impact of personalized

advertising on consumer response, also affect the impact of personalized advertising on purchase intention in the same way.

Table 2. Factors influencing the impact of personalized advertising on purchase intention.

Author(s)	Year of publication	Factor analyzed	How factor affects the impact of personalized advertising on purchase intention
Mehta and Kulkarni	2020	Repetition of personalized advertising	Higher frequency of exposure positively affects the perception and, subsequently, purchase intention of consumers.
Kaulina and Kaulins	2018	Repetition of personalized advertising	Too high level of repetition has a negative impact on purchase intention.
Jeong and King	2010	Contextual relevance	Contextually relevant personalized advertising has a significant and positive impact on purchase intention.
Malheiros et al.	2012	Type of personalization	Although advertisements that display personal information are more noticable, they are less likely to be interesting for consumers. Advertisements that are based on consumers' interests, on the other hand, gain much more attention, which is later converted into a purchase.

To conclude, in order for personalized advertising to be impactful, there are some important characteristics of personalized advertisements that need to be taken into an account. These characteristics include level of intrusiveness, credibility, informativeness and entertainment. As these characteristics have been found to impact consumers' perceptions by scholars previously, it is possible that they may also influence online purchase intention through attitude towards the advertisement.

2. METHODOLOGY

2.1 Research purpose, model and hypotheses development

The purpose of a present research is to analyze and study the impact of personalized advertisements on online purchase intention as well as to identify the differences in impacts and perceptions between those, who perceive the advertisement as highly personalized to them and those, who perceive the advertisement as less personalized.

After an extensive literature analysis, a conceptual model, which will help to achieve the purpose of a present research, has been developed. The model is based on a theory of planned behavior. Similar approach was used in other researches of this kind. The constructs provided in the research model have also been used in studies of similar nature. Level of intrusiveness was analyzed by Van Doorn and Hoekstra (2013), credibility was also examined in a research, performed by Kim and Han (2014), informativeness was also studied by Logan et al. (2012), entertainment was measured by Ozcelik and Varnali (2018). Moreover, privacy concerns and perceived usefulness have also already been examined in a similar study, performed by Gironda and Korgaonkar (2018), perceived relevance was found to have been studied by Kim and Huh (2016) and perceived enjoyment was looked into by Kim et al. (2017). Finally, attitude towards an advertisement was found to have been studied by Ozcelik and Varnali (2018), purchase intention was examined by Arshada and Aslam (2015) and perceived personalization was analyzed by Shanahan et al. (2019). Certain relationships between the constructs depicted in the conceptual model have been also studied in previous literature. In particular, the intrusiveness of advertising was found to cause the privacy concerns to emerge (Zhao and Wang 2020) and perceived usefulness to decrease (Lin and Kim, 2016). Moreover, Bol et al. (2018) asserted that the lower the credibility of the company, the more likely consumers are to be concerned about their privacy and less likely to self-disclose. Informativeness was found to impact perceived usefulness (Zhao and Wang, 2020; Dehghani et al., 2016; Pintado et al., 2017) and attitude towards the advertisement (Zhao and Wang, 2020; Dehghani et al., 2016; Pintado et al., 2017; Gaber et al., 2019; Murillo-Zegarra et al., 2020) in a positive way. It is possible that the informativeness may increase the positive attitude towards the advertisement through increasing perceived relevance due to the fact that the message is specifically tailored to individual's needs, thus making it more relevant to the consumer. Additionally, according to Bauer et al. (2005), when certain attributes of humor are present in the advertisement, it makes consumers perceive them as fun and enjoyable,

thus increasing perceived enjoyment. Furthermore, consumers' perceptions have been found to have a direct impact on attitude towards the advertisement. In particular, perceived usefulness (Zhao et al., 2020; Lin and Kim, 2016), perceived relevance (Jung, 2017) and perceived enjoyment (Shi, 2018) were found to impact attitude towards an advertisement in a positive way, while privacy concerns impact attitude towards the advertisement in a negative way (Baek and Morimoto, 2012; Lin and Kim, 2016, Smit et al., 2014). Finally, attitude towards an advertisement has been found to positively affect purchase intention (Ozcelik and Varnali, 2018; Wiese et al., 2020; Lin and Kim, 2016).

However, it has not yet been researched how perceived personalization impacts the perceived characteristics of advertisements, consumers' perceptions as well as attitude towards the advertisement and purchase intention. Additionally, the impact of perceived personalization on the relationships between characteristics of advertisements and consumers' perceptions, depicted in a conceptual model of the present research, have not yet been examined. Therefore, perceived personalization has been added to the present research to ensure the accurate examination of the differences in the remaining constructs according to whether the advertisement is perceived as personalized or not. In total, the model of the present study consists of 11 constructs and 27 hypotheses. The model presumes that each of the four characteristics of a personalized advertisement (level of intrusiveness, credibility, informativeness and entertainment) influences one or two of consumers' perceptions (privacy concerns, perceived usefulness, perceived relevance and perceived enjoyment). Subsequently, the model presumes that perceptions have an impact on the attitude towards the advertisement. Finally, the model suggests that the attitude towards an advertisement has a direct impact on online purchase intention. Moreover, perceived personalization construct will be used to measure how perceptions and attitude towards the advertisement as well as online purchase intention vary according to whether the consumer perceives the advertisement as highly personalized to them or not. Additionally, this construct will help to understand how the relationships between the four advertisement characteristics and consumers' perceptions vary according to whether individuals perceive the advertisement as highly personalized to them or not.
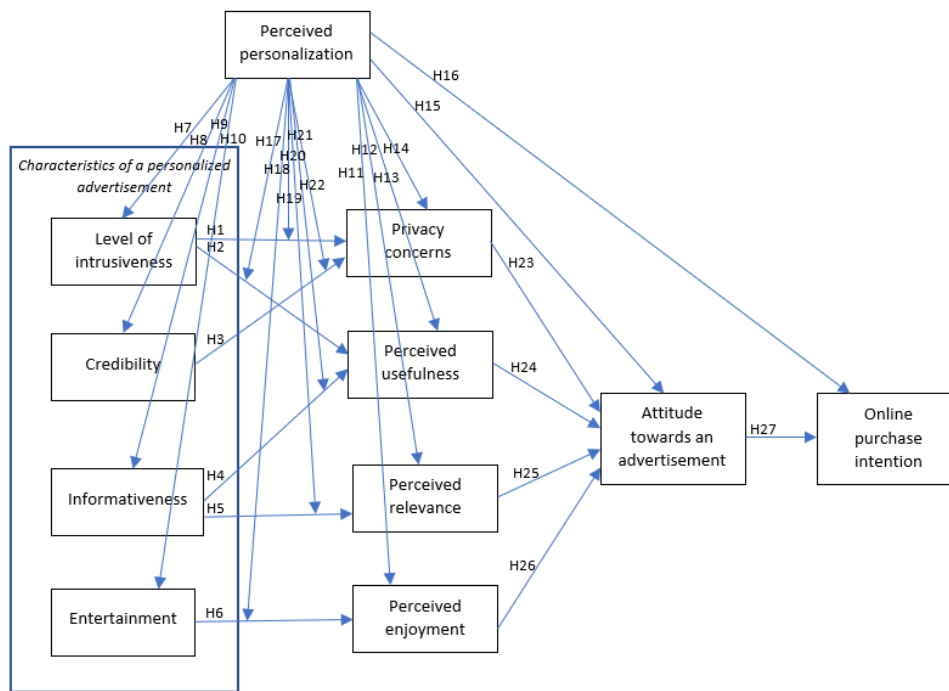
Figure 1. Research model

According to a research, performed by Goldfarb and Tucker (2011), personalized advertising and intrusiveness do not perform well in terms of increasing purchase intention, when combined together. The results of the study also indicated that such phenomenon is even more apparent for individuals who are concerned about protecting their privacy as well as for categories of products, which could be considered as more private. Such idea is supported by Van Doorn and Hoekstra (2013), who suggested that increased feelings of intrusiveness in personalized advertising weaken the positive impact of personalized advertisements on purchase intention. Zhao and Wang (2020) asserted that advertising intrusiveness causes privacy concerns to arise. It is believed that such phenomenon could emerge due to the fact that intrusive personalized advertising may be viewed as interruptive, manipulative and thus be perceived as a violation of privacy. Therefore, it is suggested that:

H1: Level of intrusiveness has a significant positive impact on privacy concerns.

A study, performed by Lin and Kim (2016), suggests that intrusiveness of sponsored advertisements on Facebook, which have been tailored according to a user's purchase history and product information search, has a negative impact on perceived usefulness. The authors also emphasized that intrusiveness of personalized advertisements subsequently impacts the perceptions related to the outcome of the experience in a negative way, thus decreasing attitudes towards Facebook advertisements as well as purchase intention. According to Saxena and Khanna (2013), the positive impact of advertising is decreased whenever the intrusive personalized advertisements interfere with their online activity (cit. according Lin and Kim, 2016). This could

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be due to the fact that, if, for instance, a personalized advertisement appears at the wrong time and in the place that is too highly visible, it will disturb the user from performing their online task, thus causing irritation and decreasing perceived usefulness. Therefore, it is suggested that:

H2: Level of intrusiveness has a significant negative impact on perceived usefulness.

Consumers tend to assess the possible privacy risks prior to having any business with companies or brands which are known to hold a damaged credibility, especially when it comes to the misuse of their personal information (Featherman et al., 2010). According to Bol et al. (2018), consumers may not wish to self-disclose to companies with lower credibility due to lack of trust, which is related to perceived privacy risk. Taking into an account personalized advertising, credibility is one of the main indicators which determines whether the consumer is comfortable with the fact that the company possesses their personal information and thus targets them with an advertisement, which is tailored according to that information. Logically, if the credibility of a message is low, privacy concerns may arise due to the fact that the consumers may be worried about the possible misuse of their personal information. Therefore, it is suggested that:

H3: Credibility has a significant negative impact on privacy concerns.

Numerous authors have proven the positive impact of informativeness on perceived usefulness of the advertisements (Zhao and Wang, 2020; Dehghani et al., 2016; Pintado et al., 2017). In general, the informativeness of advertising has a tendency to evoke positive consumer response in form of positive attitude towards the advertisement (Unal et al., 2011; Blanco et al., 2010; Arora and Agarwal, 2019) and, subsequently, on intention to purchase a product that is being advertised (Blanco et al., 2010; Mustafi and Hosain, 2020). In the model of a present research, perceived usefulness acts as a mediator between two other constructs - informativeness and attitude towards an advertisement. Therefore, considering the fact that previous researches have proved the positive impact of informativeness on attitude towards an advertisement, it is possible that informativeness will also affect perceived usefulness in a positive way. Kim and Han (2014) suggested that consumers value advertisements that provide the information in a timely manner. This is due to the fact that if an advertisement can be considered a timely, relevant, convenient, up-to-date and complete source of product information, it is logical that such a message may be perceived as a useful tool to help make a certain decision. Therefore, it is suggested that:

H4: Informativeness has a significant positive impact on perceived usefulness.

Informativeness has been proved to cause positive attitudes towards the advertisements (Zhao and Wang, 2020; Dehghani et al., 2016; Pintado et al., 2017; Gaber et al., 2019; Murillo-

Zegarra et al., 2020). Consumers may form positive attitudes towards informative advertisements due to high perceived relevance, which appears after an individual views the message sent by an advertiser. In other words, such advertisements, which provide consumers with all the necessary information about a certain product or service, may be viewed as valuable, meaningful source which is relevant to individuals' needs, thus increasing the overall positive attitude towards that advertisement. According to Aziza and Astuti (2019), informativeness increases the perceived value of the advertisements. In addition, Dehghani et al. (2016) stated that consumers value advertisements, which they find relevant to their needs. Therefore, it is suggested that:

H5: Informativeness has a significant positive impact on perceived relevance.

Sai Vijay et al. (2019) measured the impact of atmospheric cues of e-retailer websites on e-satisfaction. It was therefore suggested, that one of the main website atmospherics – entertainment, has a significant and positive impact on e-satisfaction and e-loyalty. Just as in e-retailers' websites, the presence of entertainment is also a significant component in advertisements, which may be placed on various websites, other than the one of an e-retailer. The positive impact of entertainment in advertisements was proved by Teixeira et al. (2014), who suggested that when an advertisement is positively entertaining, it is perceived as more attractive and may even act as a persuasive tool in the stages of interest and purchase. According to the authors, such a positive entertainment may be in form of humour or visual imagery. The positive impact of entertaining advertisements on consumer response (which, in some cases, may even be in form of a purchase) may be caused by increased enjoyment of individuals. In particular, when consumers view an advertisement, which they perceive as entertaining, such a message may also be perceived as fun and interesting for them, thus increasing perceived enjoyment. Such an idea is supported by Bauer et al. (2005), who stated that attributes of entertainment make users view advertisements as fun and enjoyable. Therefore, it is suggested that:

H6: Entertainment has a significant positive impact on perceived enjoyment.

According to De Keyzer et al. (2015) and Scholten (2019), personalized advertisements have more impact on positive consumer response than non-personalized advertisements. In particular, it was stated that perceived personalization of advertisements positively impacts consumer response through increasing perceived relevance. Personalization tends to impact perceived relevance in a positive way due to the fact that it allows to send advertisements to individuals, who are likely to purchase the product (Anand and Shachar, 2009). According to Iyer et al. (2005), personalized advertising makes it possible to target only the consumers, which have a distinct preference for a company's products. If, for instance, an individual comes across an

advertisement that contains a product, which he or she has a preference for, such an advertisement may be perceived as a useful one. Such an idea is supported by Song et al. (2021) and Gao and Huang (2019), who found that personalized messages have a positive impact on perceived usefulness of users. In addition, if an advertisement contains certain recommendations that match a consumer's needs, the content of such a message may be perceived as the one which contains valuable information that may help to make a certain decision. According to Kim and Han (2014), personalized advertisements impact perceived informativeness in a positive way. In other words, if an advertisement is perceived as highly personalized, it may be viewed as a convenient source of product information. Furthermore, Baek and Morimoto (2012) stated that privacy concern is one of the factors which causes skepticism and avoidance towards advertisements. The authors also suggested that perceived personalization decreases advertisement avoidance. Therefore, taking into an account the fact that perceived personalization decreases skepticism towards an advertisement, it may be possible that privacy concerns are less apparent among individuals that perceive an advertisement as the one customized to their needs. Moreover, such an advertisement, which is perceived as highly relevant by individuals, may be perceived as less annoying and intrusive. Such an idea has been suggested by Scholten (2019), who claimed that personalized advertisements decrease a sense of intrusiveness due to the fact that high perceived relevance of the advertisement decreases its negative effect. Therefore, it is possible that individuals, who perceive the advertisement as highly personalized to them, will perceive it as less intrusive. Furthermore, other positive factors of the advertisement, such as entertainment, credibility and perceived enjoyment may also be more prominent among the individuals, who perceive the message as highly personalized to them than among those, who do not perceive it as tailored to their needs. If an individual comes across an advertisement, which contains information about a product that he or she has a distinct preference for, the content of such a message is likely to be perceived as more convincing, believable as well as interesting, entertaining and enjoyable. For instance, Kim and Han (2014) asserted that personalization impacts perceived credibility and entertainment in a positive way. The authors also stated that when an advertisement is tailored according to an individual's interests, needs and preferences, such a message is perceived as more enjoyable. Accordingly, if an individual comes across an advertisement, which they do not perceive as the one which is customized to their specific needs, such an advertisement may be perceived as less relevant, useful, informative, enjoyable, entertaining, credible and cause more apparent privacy concerns as well as a sense of intrusiveness. Therefore, the following hypotheses have been set:

H7: The mean of the advertising level of intrusiveness is significantly higher in the group which perceives the advertisement as less personalized than the group which perceives the advertisement as highly personalized.

H8: The mean of the advertising credibility is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.

H9: The mean of the advertising informativeness is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.

H10: The mean of the advertising entertainment is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.

H11: The mean of the perceived enjoyment of the advertisement is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.

H12: The mean of the perceived relevance of the advertisement is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.

H13: The mean of the perceived usefulness of the advertisement is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.

H14: The mean of the privacy concerns related to the advertisement is significantly higher in the group which perceives the advertisement as less personalized than the group which perceives the advertisement as highly personalized.

Advertisements that are perceived as highly personalized, may cause a more positive consumer response in form of positive attitude towards the message as well as higher intention to purchase than advertisements that are perceived as less personalized. According to Taylor (2020), personalized advertisements are viewed as a positive interaction between the consumer and the brand, thus increasing purchase intention. It was also mentioned that although not all individuals are in favour of personalized advertising, most of them would still prefer to see targeted advertisements over the generic ones. Moreover, Gao and Huang (2019) asserted that personalization is a highly significant factor which positively influences attitude as well as

purchase intention. Taking this into an account, it could be claimed that personalized advertisements cause more positive attitudes and higher purchase intention than non-personalized ones. Therefore, the following hypotheses have been set:

H15: The mean of positive attitude towards the advertisement is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.

H16: The mean of online purchase intention of a product being advertised is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.

In the experimental study, conducted by Li (2016), it was found that favourable impact of personalized advertisements depends on whether individuals perceive the message as personalized. The positive consumer response towards an advertisement is driven by perceived personalization (Shanahan et al., 2019). Moreover, Baek and Morimoto (2012) stated that high perceived personalization decreases advertisement avoidance. Perceived personalization may decrease advertisement avoidance by strengthening the significance of the impact of positive advertisement characteristics (credibility, informativeness and entertainment) on privacy concerns, perceived relevance, perceived usefulness and perceived enjoyment as well as weakening the significance of the impact of a negative advertisement characteristic (intrusiveness) on perceptions related to the advertisement. For instance, the negative impact of advertising intrusiveness on perceived usefulness may be less significant among individuals who perceive the advertisement as highly personalized than among those, who perceive them as less personalized to them. This is due to the fact that if, for instance, an individual is in favour of personalized advertisements, they may pay less attention to the drawbacks and risks related to such messages and more attention to the benefits that they bring. Therefore, it is suggested that:

H17: The impact of level of intrusiveness on perceived usefulness is moderated by perceived personalization.

H18: The impact of entertainment on perceived enjoyment is moderated by perceived personalization,

H19: The impact of level of intrusiveness on privacy concerns is moderated by perceived personalization.

H20: The impact of informativeness on perceived relevance is moderated by perceived personalization.

H21: The impact of informativeness on perceived usefulness is moderated by perceived personalization.

H22: The impact of credibility on privacy concerns is moderated by perceived personalization.

According to Zhao et al. (2020), perceived usefulness has a positive impact on attitude and, subsequently, on purchase intention. This idea is supported by Kim and Han (2014), who stated that when advertisements are perceived as useful, consumers intend to purchase the products that are being advertised. Lin and Kim (2016) also suggested that perceived usefulness impacts attitude towards an advertisement in a positive way. Moreover, according to Baek and Morimoto (2012), privacy concerns cause negative attitudes towards the advertisements (cit. according Jung, 2017). According to Smit et al. (2014), consumers with high privacy concerns tend to protect their online privacy, which influences their attitude towards personalized advertising in a negative way. This idea is supported by Lin and Kim (2016), who asserted that privacy concerns have a direct negative impact on attitude towards the advertisement. Jung (2017) claimed that consumers, who perceive the advertisements as personally relevant to them, are more likely to pay attention to them. Escalas (2007) suggests that relevant advertisements strengthen the effect of persuasion (cit. according Jung (2017). Additionally, Trampe et al. (2010) found that individuals tend to have a more positive attitude towards the brand, when the product is relevant to them. Finally, perceived enjoyment positively affects attitude towards the advertisements (Shi, 2018). Advertisers tend to utilize various techniques with the aim to make consumers more pleased when they come across the advertisements. Therefore, it is suggested that:

H23: Privacy concerns has a significant negative impact on attitude towards the advertisement.

H24: Perceived usefulness has a significant positive impact on attitude towards the advertisement.

H25: Perceived relevance has a significant positive impact on attitude towards the advertisement.

H26: Perceived enjoyment has a significant positive impact on attitude towards the advertisement.

Behavioural response is mainly driven by the attitude towards the advertisement (Ozcelik and Varnali, 2018). In present research, the behavioural response is in form of purchase intention. According to Lin and Kim (2016) attitude towards the advertisement has a direct impact on

purchase intention. Such an idea is supported by Wiese et al. (2020), who found that positive attitudes towards advertisements lead to a higher purchase intention. In other words, if an individual positively thinks of an advertisement and forms a positive attitude towards it, the intention to purchase a product that is depicted in the advertisement will be high. Therefore, it is suggested that:

H27: Attitude towards an advertisement has a significant positive impact on online purchase intention.

2.2 Research instrument

2.2.1 Data collection

The platform, which was used for data collection, is Google Forms. A survey is considered to be the most suitable method of data collection for this particular research due to the fact that it is highly efficient in time and cost. Moreover, an online questionnaire may be filled in by respondents anywhere at any time, using any device that is the most convenient for them. Therefore, an online survey is considered as the most efficient method of data collection for both, respondents and the researcher. The survey was distributed to individuals mostly through Facebook social media platform. Facebook was chosen as the most appropriate platform for the distribution of a questionnaire due to the fact that it is currently one of the most favored social media websites. Therefore, Facebook allows a highly convenient and speedy distribution of a survey.

2.2.2 Questionnaire design

The questionnaire was distributed to Lithuanian speakers. The platform used for data collection is Google Forms. As standard, the questionnaire began with an introductory paragraph, which introduced the purpose of the survey and explained what a respondent's participation meant for the research. In total, the survey consisted of 18 questions. The survey began with a screening question, which asked the respondent if they know Apple brand. The next 2 questions asked whether the individual uses Apple products and whether he or she has purchased any Apple product during the past year. 11 questions contained several statements, which the respondent was asked to evaluate using the seven-point Likert scale. 4 last questions were intended for the collection of respondents' demographic data, such as gender, age, level of qualification and

monthly income. Full questionnaires in English and Lithuanian languages are provided in Annexes 3 and 4.

2.2.3 Research method

A quantitative research method was used for data analysis of the present research. A systematic investigation of relationships between constructs was performed. This was done by gathering and examining all the quantifiable data and performing statistical analysis using SPSS analytics platform.

2.2.4 Research object

In order to ensure the accurate analysis of the present research, a specific product and advertisement, which will be used in the questionnaire, has been chosen. In particular, a banner (Annex 2), which depicts an iPhone 13 Pro Max, has been selected as the research object. This advertisement belongs to Apple Inc. and, in this particular instance, was taken from the digital news platform min.news. This particular advertisement has been selected due to the fact that Apple products often tend to evoke either strong positive feelings or strong negative feelings among the consumers as they are either favored and searched for on the internet or not. Therefore, it is believed that such an advertisement will be effective in evoking either high perceived personalization or low perceived personalization. In other words, people, who like Apple products, will perceive the banner as highly personalized to their preferences and those, who do not like Apple products, will perceive the banner as less personalized to their preferences. This particular banner was also selected due to the fact that it contains a sufficient quantity of information, thus ensuring a more accurate evaluation of informativeness construct and its impact.

2.2.5 Scales used for measurement

The measuring scales have been adapted from existing literature, listed in Table 3. The constructs have been taken from these particular sources due to high reliability value, indicated in the researches, from which the variables were taken. Furthermore, the constructs were taken from researches which studied a field that is close to the one of present research. Therefore, their items will represent the constructs which they are measuring. For measuring each of the constructs, respondents were asked to answer on a seven-point Likert scale, where 1 stands for strongly disagree, 4 stands for neither agree, nor disagree and 7 stands for strongly agree.

Table 3. List of construct sources.

Construct	Source	Number of items	Reliability
Perceived personalization	Shanahan et al. (2019)	5	α=0.86
Level of intrusiveness	Van Doorn and Hoekstra (2013)	10	α=0.92
Credibility	Kim and Han (2014)	3	α=0.85
Informativeness	Logan et al. (2012)	6	α=0.94
Entertainment	Ozcelik and Varnali (2018)	3	α=0.90
Privacy concerns	Gironda and Korgaonkar (2018)	4	α=0.95
Perceived usefulness	Gironda and Korgaonkar (2018)	4	α=0.95
Perceived relevance	Kim and Huh (2016)	10	α=0.95
Perceived enjoyment	Kim et al. (2017)	3	α=0.91
Attitude towards an advertisement	Ozcelik and Varnali (2018)	3	α=0.91
Online purchase intention	Arshada and Aslam (2015)	4	α=0.91

2.3 Sampling design

Prior to conducting a research, it is important to estimate sample size and sample of interest. Non-probability convenience sampling method was used in the present study. The online questionnaire has been distributed to random participants through a social media website, mostly focusing on university students and young adults. The survey was conducted in Vilnius, Lithuania. Therefore, the target group of the questionnaire is mostly young social media users, who are residents of Lithuania. The required number of participants for present research is approximately 415. Such a number of respondents is considered as the most suitable for the present research due to the fact that it will provide enough examples to observe and compare. In order to estimate the appropriate sample size, required for the accurate execution of present research, the number of respondents, who participated in similar researches, has been examined. In total, ten studies have been selected to estimate the sample size.

Table 4. List of articles used for sample size estimation.

Year	Authors	Topic of the article	Sample size
2012	Baek and Morimoto	Stay Away From Me: Examining the Determinants of Consumer Avoidance of Personalized Advertising	n=442
2016	Lin and Kim	Predicting user response to sponsored advertising on social media via the technology acceptance model	n=536
2018	Gironda and Korgaonkar	iSpy? Tailored versus Invasive Ads and Consumers' Perceptions of Personalized Advertising	n=545
2017	Jung	The influence of perceived ad relevance on social media advertising: An empirical examination of a mediating role of privacy concern	n=557
2018	Ozcelik and Varnali	Effectiveness of Online Behavioral Targeting: A Psychological Perspective	n=409
2018	Alalwan	Investigating the impact of social media advertising features on customer purchase intention	n=437
2019	Aziza and Astuti	Evaluating the effect of Youtube advertising towards young customers' purchase intention	n=240
2020	Mustafi and Hosain	The role of online advertising on purchase intention of smartphones: mediating effects of flow experience and advertising value	n=281
2016	Brahim	The impact of online advertising on Tunisian consumers' purchase intention	n=210
2016	Chang	Effects of mobile advertisement and advertisement involvement on purchase intention in tourism industry	n=488

3. DATA ANALYSIS

3.1 Demographic data overview and reliability analysis

The data of present research has been collected by distributing an online survey via social networking websites. Non-probability convenience sampling method was used in the present study. The respondents received a link, which redirected them to a Google Forms questionnaire, where individuals were able to present their answers. The total amount of respondents, who participated in the survey, is 439. 67,2% of respondents consist of women and 32,8% of respondents consist of men. Moreover, the majority of respondents (43,7%) are 25-35 years of age. A considerable part of respondents also belong to 18-24 and 36-45 age group intervals. Nearly half of the respondents (46%) have Higher Education, while a smaller, but still a considerable part of them have Non-University Higher Education (28%). 38,5% of respondents have a monthly net income of 801-1000 EUR, 23,5% - 1001-1300 EUR and 18,9% - 501-800 EUR. Visualizations of demographic data frequencies are provided in four charts below. More detailed information of various demographic data is provided in Annexes 5-8.

Chart 1. Visualization of frequency according to respondents' gender.
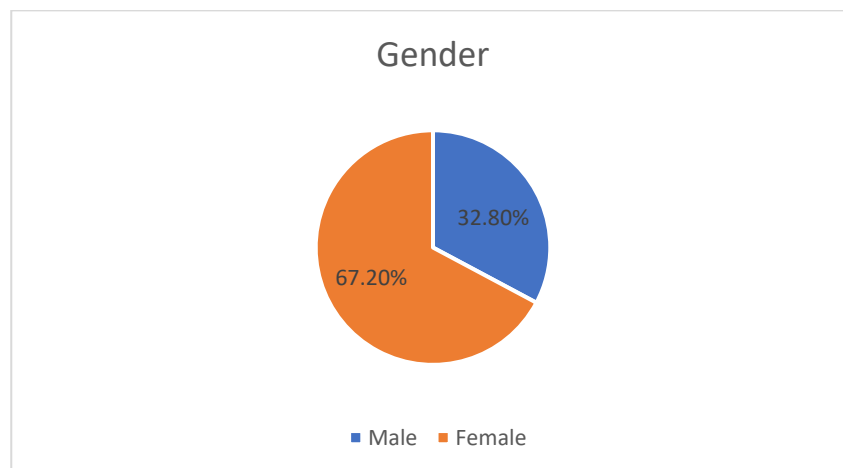
Chart 2. Visualization of frequency according to respondents' age.

Age

- <18 y. o. 1.80%
- 18-24 y. o. 20.30%
- 25-35 y. o. 43.70%
- 36-45 y. o. 18.90%
- >45 15.30%
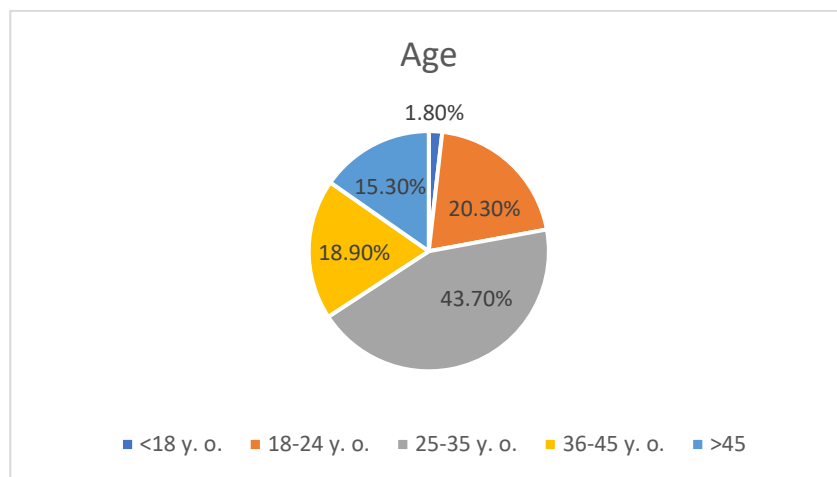
Chart 3. Visualization of frequency according to respondents' education.

Education

- Lower than secondary 1.10%
- Secondary 14.10%
- Non-university higher 28%
- Higher 46%
- Master's degree 10.70%
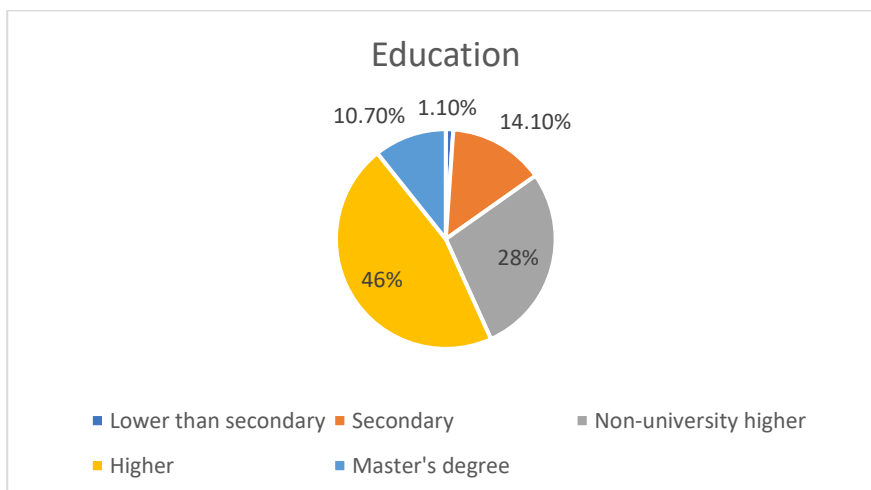
Chart 4. Visualization of frequency according to respondents' income.

Income

- <500 EUR 5.70%
- 501-800 EUR 18.90%
- 801-1000 EUR 38.50%
- 1001-1300 EUR 23.50%
- >1301 EUR 13.40%
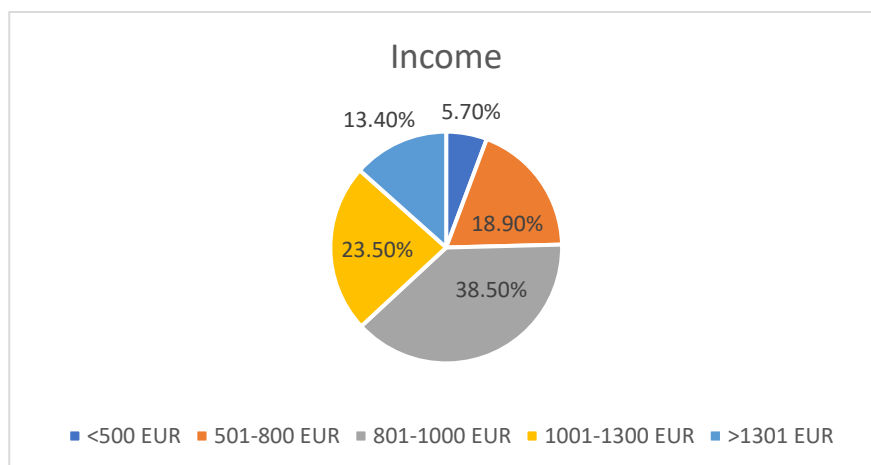
In the questionnaire, respondents were asked to evaluate statements of each construct on a seven-point Likert scale. Due to that, prior to performing empirical data analysis, it is necessary to perform reliability analysis. Reliability analysis helps to determine whether the scale used in the questionnaire of the present research is reliable. The results of reliability analysis are presented in the table below.

Table 5. Results of reliability analysis.

Construct	Cronbach's Alpha	Number of statements
Perceived personalization	0,964	5
Level of intrusiveness	0.972	10
Credibility	0,947	3
Informativeness	0,968	6
Entertainment	0,919	3
Privacy concerns	0,985	4
Perceived usefulness	0,958	4
Perceived relevance	0,990	10
Perceived enjoyment	0,940	3
Attitude towards an advertisement	0,950	3
Online purchase intention	0,982	4

As the Cronbach's Alpha of each construct is higher than 0,6, this indicates that the scales used for present study consistently reflect the constructs they are measuring.

Further, prior to performing empirical data analysis, it is necessary to compute new variables as means of their existing statements. Each of the variables (perceived personalization, level of intrusiveness, credibility, informativeness, entertainment, privacy concerns, perceived usefulness, perceived relevance, perceived enjoyment, attitude towards an advertisement and online purchase intention) consist of several statements and, therefore, the mean of each group of them had to be calculated. After this procedure, new variables have been computed in order to proceed with further empirical data analysis.

3.2 Test of the hypotheses

H1-H6 presume that one construct has an impact on another construct. Therefore, in order to check whether there is an existing impact between each of those variables, a correlation and

regression analysis have been performed. Correlation analysis is necessary in order to check whether there is at least somewhat significant relationship between two constructs and regression analysis will help to identify if one construct impacts another one. Firstly, the results of correlation analysis of H1-H6 are presented in tables below. More detailed results of correlation analysis are presented in Annexes 9-14.

Table 6. Results of correlation analysis between constructs included in H1-H6.

Hypothesis	Constructs	Correlation coefficient	Significance of correlation	Strength of correlation
H1	Perceived intrusiveness and privacy concerns	0,749	<0,001	High
H2	Perceived intrusiveness and perceived usefulness	-0,694	<0,001	Moderate
H3	Credibility and privacy concerns	-0,666	<0,001	Moderate
H4	Informativeness and perceived usefulness	0,747	<0,001	High
H5	Informativeness and perceived relevance	0,721	<0,001	High
H6	Entertainment and perceived enjoyment	0,898	<0,001	High

As indicated in the table above, significance of the correlation coefficient (p) is less than 0,05 in all six cases, which indicates that there is a significant relationship between all constructs, that are included in H1-H6. Furthermore, Pearson correlation coefficient is fairly high in all cases, which indicates that the relationship between all constructs, included in H1-H6, is strong. Therefore, this suggests that there is a meaning to perform regression analysis in order to check the impact of constructs. In order to test the impact of one construct on another, a linear regression was performed. The results of regression analysis of H1-H6 are presented in a table below. More detailed results of regression analysis are presented in Annexes 15-32.

Table 7. Results of regression analysis between constructs included in H1-H6.

Hypothesis	Constructs	R Square	Standardized coefficients beta	T value	Significance	Accepted or rejected
H1	Perceived intrusiveness and privacy concerns	0,562	0,749	23,660	<0,001	Accepted
H2	Perceived intrusiveness and perceived usefulness	0,482	-0,694	-20,173	<0,001	Accepted
H3	Credibility and privacy concerns	0,444	-0,666	-18,679	<0,001	Accepted
H4	Informativeness and perceived usefulness	0,558	0,747	23,481	<0,001	Accepted
H5	Informativeness and perceived relevance	0,520	0,721	21,750	<0,001	Accepted
H6	Entertainment and perceived enjoyment	0,807	0,898	42,728	<0,001	Accepted

According to the results of the regression analysis, presented in the table above, all six hypotheses have been accepted. In all cases, significance indicates that there is an impact of one construct on another. Moreover, although the impact is proved to be strong in all cases, standardized coefficients beta value indicates that the impact is strongest between entertainment and perceived enjoyment.

H1 is accepted. Perceived intrusiveness (β=0,749, t=23,660, p<0,001) has a significant positive impact on privacy concerns.

H2 is accepted. Perceived intrusiveness (β=-0,694, t=-20,173, p<0,001) has a significant negative impact on perceived usefulness.

H3 is accepted. Credibility (β=-0,666, t=-18,679, p<0,001) has a significant negative impact on privacy concerns.

H4 is accepted. Informativeness (β=0,747, t=23,481, p<0,001) has a significant positive impact on perceived usefulness.

H5 is accepted. Informativeness (β=0,721, t=21,750, p<0,001) has a significant positive impact on perceived relevance.

H6 is accepted. Entertainment (β=0,898, t=42,728, p<0,001) has a significant positive impact on perceived enjoyment.

H8-H13 and H15-H16 presume that the means of constructs are significantly higher among personalized the group of respondents which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized. On the contrary, H7 and H14 presume that the means of constructs are significantly higher among the group which perceives the advertisement as less personalized than then group which perceives the advertisement as highly personalized. In order to compare the means of each construct among groups of individuals that perceive the advertisement as highly personalized and less personalized, independent samples t test was performed. Prior to that, the mean of construct perceived personalization has been calculated (Annex 33). After that, perceived personalization has been recoded into a different variable with two values. As the mean of perceived personalization is 4,04, values of low perceived personalization were taken as evaluations 1-4,04 and values of high perceived personalization were taken as evaluations 4,04-7. Therefore, a new recoded variable consisted of two values – high perceived personalization and low perceived personalization. The results of independent samples t test are provided in a table below. More detailed results of independent samples t test are provided in Annexes 34-53.

Table 8. Results of independent samples t test for H7-H16.

Hypothesis	Construct	Mean in low perceived personalization	Mean in high perceived personalization	Significance of t test	Accepted or rejected
H7	Perceived intrusiveness	4,7218	2,5043	<0,001	Accepted
H8	Credibility	3,2227	5,6095	<0,001	Accepted
H9	Informativeness	3,4389	5,7111	<0,001	Accepted
H10	Entertainment	2,4061	4,9460	<0,001	Accepted
H11	Perceived enjoyment	2,2125	4,8603	<0,001	Accepted
H12	Perceived relevance	2,2371	5,1595	<0,001	Accepted
H13	Perceived usefulness	2,8210	5,6238	<0,001	Accepted
H14	Privacy concerns	4,7194	2,3000	<0,001	Accepted
H15	Attitude towards an advertisement	2,3595	5,1746	<0,001	Accepted
H16	Online purchase intention	2,0502	4,8060	<0,001	Accepted

According to the results of the independent samples t test, presented in the table above, all ten hypotheses have been accepted. In all cases, significance indicates that there is a difference between the means of constructs among the group of respondents that perceives the advertisement as highly personalized and the group which perceives the advertisement as less personalized.

H7 is accepted. The mean of the advertising level of intrusiveness is significantly higher in the group which perceives the advertisement as less personalized (M=4,7218) than the group which perceives the advertisement as highly personalized (M=2,5043), t(426,226)=16,888, p<0.001, Cohen's d=1,597.

H8 is accepted. The mean of the advertising credibility is significantly higher in the group which perceives the advertisement as highly personalized (M=5,6095) than the group which perceives the advertisement as less personalized (M=3,2227), t(403,766)=-21,558, p<0.001, Cohen's d=-2,027.

H9 is accepted. The mean of the advertising informativeness is significantly higher in the group which perceives the advertisement as highly personalized (M=5,7111) than the group which perceives the advertisement as less personalized (M=3,4389), t(382,336)=-20,934, p<0.001, Cohen's d=-1,961.

H10 is accepted. The mean of the advertising entertainment is significantly higher in the group which perceives the advertisement as highly personalized (M=4,9460) than the group which perceives the advertisement as less personalized (M=2,4061), t(363,771)=-24,799, p<0.001, Cohen's d=-2,407.

H11 is accepted. The mean of the perceived enjoyment of the advertisement is significantly higher in the group which perceives the advertisement as highly personalized (M=4,8603) than the group which perceives the advertisement as less personalized (M=2,2125), t(337,585)=-23,840, p<0.001, Cohen's d=-2,324.

H12 is accepted. The mean of the perceived relevance of the advertisement is significantly higher in the group which perceives the advertisement as highly personalized (M=5,1595) than the group which perceives the advertisement as less personalized (M=2,2371), t(362,133)=-29,168, p<0.001, Cohen's d=-2,832.

H13 is accepted. The mean of the perceived usefulness of the advertisement is significantly higher in the group which perceives the advertisement as highly personalized (M=5,6238) than

the group which perceives the advertisement as less personalized (M=2,8210), t(437)=-27,077, p<0.001, Cohen's d=-2,587.

H14 is accepted. The mean of the privacy concerns related to the advertisement is significantly higher in the group which perceives the advertisement as less personalized (M=4,7194) than the group which perceives the advertisement as highly personalized (M=2,3000), t(393,813)=14,602), p>0,001, Cohen's d=1,370.

H15 is accepted. The mean of positive attitude towards the advertisement is significantly higher in the group which perceives the advertisement as highly personalized (M=5,1746) than the group which perceives the advertisement as less personalized (M=2,3595), t(405,290)=-27,402, p>0,001, Cohen's d=-2,640.

H16 is accepted. The mean of online purchase intention of a product being advertised is significantly higher in the group which perceives the advertisement as highly personalized (M=4,8060) than the group which perceives the advertisement as less personalized (M=2,0502), t(359,037)=-22,722, p>0,001, Cohen's d=-2,208.

H17-H22 presume that perceived personalization moderates the impacts between eight other constructs (intrusiveness, credibility, informativeness, entertainment, privacy concerns, perceived usefulness, perceived relevance and perceived enjoyment). Therefore, in order to check whether the relationship between two constructs depends on perceived personalization, moderator analysis has been performed. The results of a moderator analysis are presented in the table below. More detailed results of moderation analysis are presented in Annexes 54-59.

Table 9. Results of moderator analysis of constructs included in H17-H22.

Hypothesis	Constructs, on which the moderating effect is tested	R Square	Unstandardized coefficient beta	T value	Significance of interaction	Accepted or rejected
H17	Perceived intrusiveness and perceived usefulness	0,7293	-0,0203	-1,1578	0,2476	Rejected
H18	Entertainment and perceived enjoyment	0,8912	0,0497	3,0324	0,0026	Accepted
H19	Perceived intrusiveness and privacy concerns	0,5714	-0,0201	-0,7532	0,4517	Rejected
H20	Informativeness and perceived relevance	0,7688	0,1145	6,3953	0,0000	Accepted
H21	Informativeness and perceived usefulness	0,7274	0,0451	2,3408	0,0197	Accepted
H22	Credibility and privacy concerns	0,4523	-0,0038	-0,1226	0,9025	Rejected

According to the results of the moderator analysis, presented in the table above, only three out of six hypotheses have been accepted. Significance indicates that there is a moderating impact of perceived personalization on relationships between entertainment and perceived enjoyment, informativeness and perceived relevance as well as informativeness and perceived usefulness. On the other hand, high significance value indicates that perceived personalization has no moderating impact on relationships between perceived intrusiveness and perceived usefulness, perceived intrusiveness and privacy concerns as well as credibility and privacy concerns. Moreover, unstandardized coefficients indicate that in all three accepted cases, although the moderating impact of perceived personalization is present, it is not extremely significant, especially in case of relationship between entertainment and perceived enjoyment. The strongest moderating impact of perceived personalization is on the relationship between informativeness and perceived relevance. Three plots provided below depict the moderating impact of perceived personalization on the relationship between entertainment and perceived enjoyment, informativeness and perceived relevance as well as informativeness and perceived usefulness.
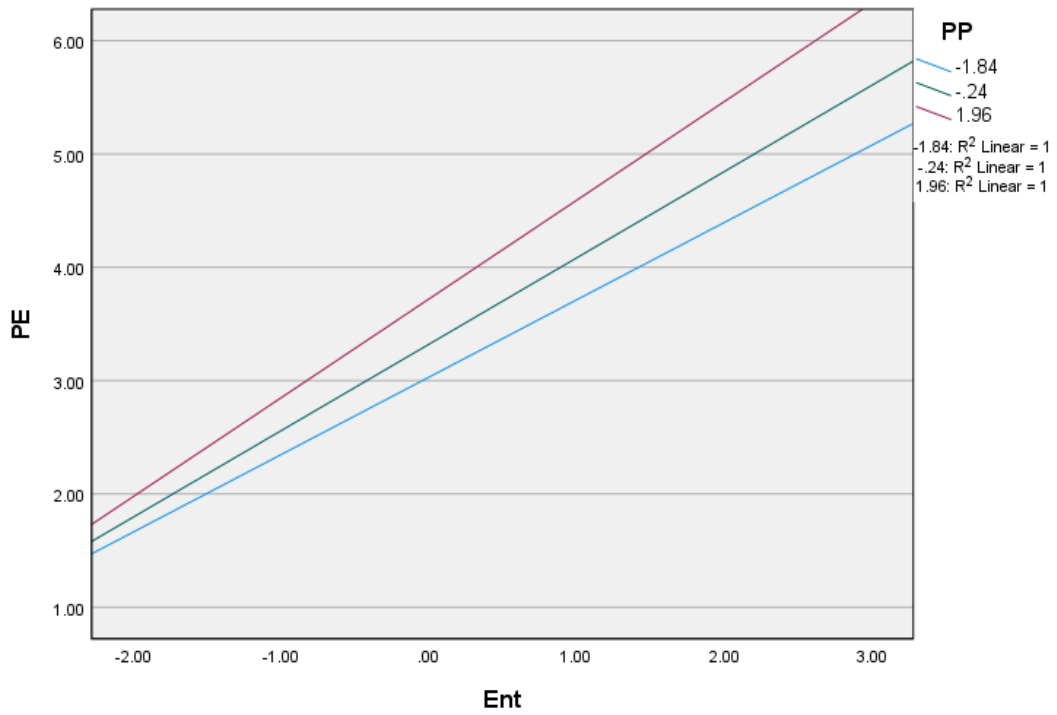
Chart 5. Visualization of moderating impact of perceived personalization on relationship between entertainment and perceived enjoyment.
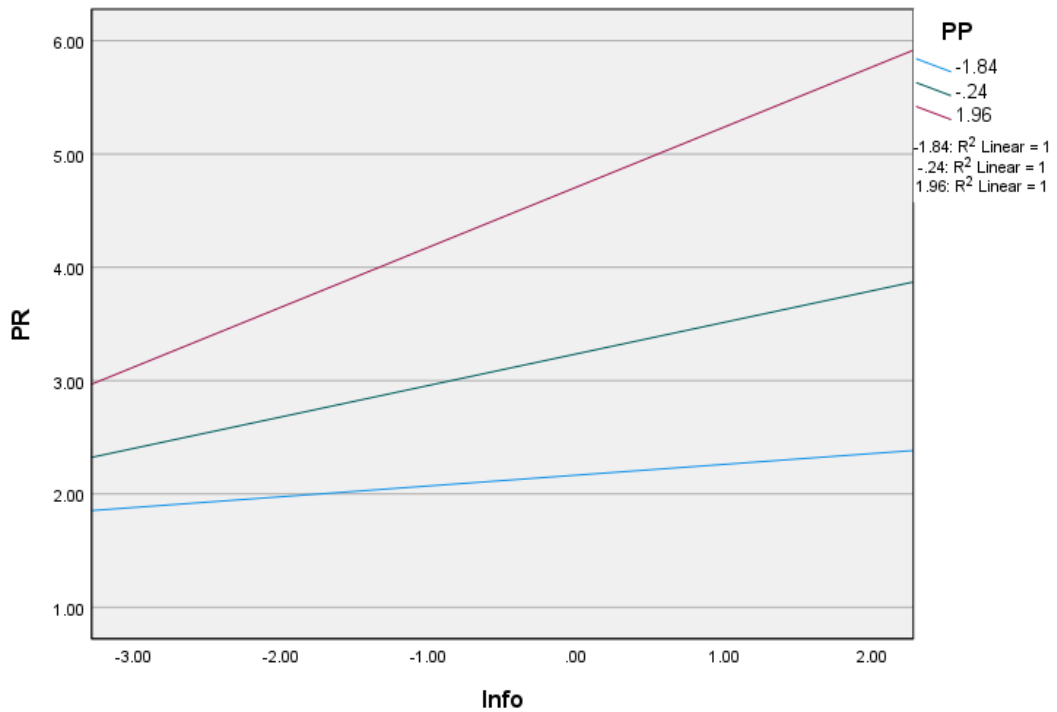
Chart 6. Visualization of moderating impact of perceived personalization on relationship between informativeness and perceived relevance.
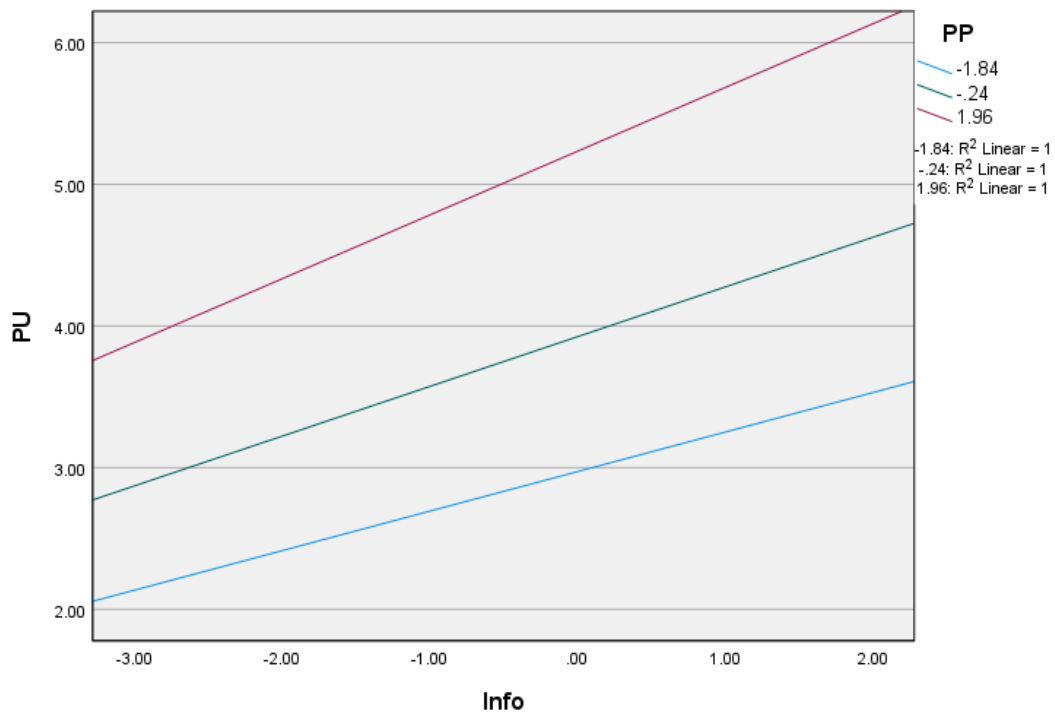
Chart 7. Visualization of moderating impact of perceived personalization on relationship between informativeness and perceived usefulness.

According to the graphs, provided above, it can be concluded that the higher the perceived personalization of an advertisement, the stronger the impact of one variable on the other. In particular, the higher the perceived personalization, the stronger the positive impact of entertainment on perceived enjoyment. Moreover, the higher the perceived personalization, the stronger positive impact of informativeness on perceived relevance. Finally, the higher the perceived personalization, the stronger positive impact of informativeness on perceived usefulness.

H17 is rejected. Perceived personalization has no moderating impact on the relationship between level of intrusiveness and perceived usefulness (β=-0,0203, t=-1,1578, p=0,2476).

H18 is accepted. Perceived personalization has a moderating impact on the relationship between entertainment and perceived enjoyment (β=0,0497, t=3,0324, p=0,0026). The higher the perceived personalization, the stronger the positive impact of entertainment on perceived enjoyment.

H19 is rejected. Perceived personalization has no moderating impact on the relationship between level of intrusiveness and privacy concerns (β=-0,0201, t=-0,7532, p=0,4517).

H20 is accepted. Perceived personalization has a moderating impact on the relationship between informativeness and perceived relevance (β=0,1145, t=6,3953, p=0,0197). The higher the personalization, the stronger the positive impact of informativeness and perceived relevance.

H21 is accepted. Perceived personalization has a moderating impact on the relationship between informativeness and perceived usefulness (β=0,0451, t=2,3408, p=0,0000). The higher the personalization, the stronger the positive impact of informativeness on perceived usefulness.

H22 is rejected. Perceived personalization has no moderating impact on the relationship between credibility and privacy concerns (β=-0,0038, t=-0,1226, p=0,9025).

H23-H26 presume that four constructs (privacy concerns, perceived usefulness, perceived relevance and perceived enjoyment) have an impact on attitude towards an advertisement. Therefore, in order to check whether there is an existing impact of each of the four variables on attitude towards an advertisement, a correlation and regression analysis has been performed. Firstly, the results of correlation analysis of H23-H26 are presented in the tables below. More detailed results of correlation analysis are presented in Annexes 60-63.

Table 10. Results of correlation analysis between constructs included in H23-H26.

Hypothesis	Constructs	Correlation coefficient	Significance of correlation	Strength of correlation
H23	Privacy concerns and attitude	-0,588	<0,001	Moderate
H24	Perceived usefulness and attitude	0,839	<0,001	High
H25	Perceived relevance and attitude	0,939	<0,001	High
H26	Perceived enjoyment and attitude	0,895	<0,001	High

As indicated in the table above, significance of the correlation coefficient (p) is less than 0,05 in all four cases, which indicates that there is a significant relationship between four constructs (privacy concerns, perceived usefulness, perceived relevance and perceived enjoyment) and attitude towards an advertisement. Furthermore, Pearson correlation coefficient is fairly high in all cases, which indicates that the relationship between all constructs, included in H23-H26, is strong. Therefore, this suggests that there is a meaning to perform regression analysis in order to check the impact of four constructs on attitude towards an advertisement. In order to test the impact of four constructs on attitude towards an advertisement, a linear regression was performed. The

results of regression analysis of H23-H26 are presented in a table below. More detailed results of regression analysis are provided in Annexes 64-75.

Table 11. Results of regression analysis between constructs included in H23-H26.

Hypothesis	Construct	R Square	Standardized coefficients beta	T value	Significance of t test	Accepted or rejected
H23	Privacy concerns and attitude	0,346	-0,588	-15,206	<0,001	Accepted
H24	Perceived usefulness and attitude	0,703	0,839	32,196	<0,001	Accepted
H25	Perceived relevance and attitude	0,881	0,939	57,003	<0,001	Accepted
H26	Perceived enjoyment and attitude	0,802	0,895	42,035	<0,001	Accepted

According to the results of the regression analysis, presented in the table above, all four hypotheses have been accepted. In all cases, significance indicates that there is an impact of each construct on attitude. Standardized coefficients beta indicates that privacy concerns have a moderate impact on attitude towards an advertisement, while the rest of the constructs (perceived usefulness, perceived relevance and perceived enjoyment) have a strong impact on attitude towards an advertisement.

H23 is accepted. Privacy concerns (β=-0,588, t=-15,206, p<0,001) has a significant negative impact on attitude towards an advertisement.

H24 is accepted. Perceived usefulness (β=0,839, t=32,196, p<0,001) has a significant positive impact on attitude towards an advertisement.

H25 is accepted. Perceived relevance (β=0,939, t=57,003, p<0,001) has a significant positive impact on attitude towards an advertisement.

H26 is accepted. Perceived enjoyment (β=0,895, t=42,035, p<0,001) has a significant positive impact on attitude towards an advertisement.

H27 presumes that attitude towards an advertisement has an impact on online purchase intention. Therefore, in order to check whether there is an existing impact between these two variables, a correlation and regression analysis has been performed. Firstly, the results of

correlation analysis of H27 is presented in the table below. More detailed results of correlation analysis are provided in Annex 76.

Table 12. Results of correlation analysis between constructs included in H27.

Hypothesis	Constructs	Correlation coefficient	Significance of correlation	Strength of correlation
H27	Attitude towards an advertisement and online purchase intention	0,854	<0,001	High

As indicated in the table above, significance of the correlation coefficient (p) is less than 0,05, which suggests that there is a significant relationship between attitude towards an advertisement and online purchase intention. Furthermore, Pearson correlation coefficient equals to 0,854, which is fairly high. This indicates that the relationship between constructs, included in H27, is strong. In order to test the impact of attitude towards an advertisement on online purchase intention, a linear regression was performed. The results of regression analysis of H27 are presented in a table below. More detailed results of regression analysis are presented in Annex 77-79.

Table 13. Results of regression analysis between constructs included in H27.

Hypothesis	Constructs	R Square	Standardized coefficients beta	T value	Significance of t test	Accepted or rejected
H27	Attitude towards an advertisement and online purchase intention	0,729	0,854	34,275	<0,001	Accepted

According to the results of the regression analysis, presented in the table above, H27 has been accepted. Significance indicates that there is an impact of attitude towards an advertisement on online purchase intention. Standardized coefficients beta indicates that the impact is strong.

H27 is accepted. Attitude towards an advertisement ($\beta=0,854$, $t=34,275$, $p<0,001$) has a significant positive impact on online purchase intention.

3.3 Additional insights

It is important to perform some additional tests which will assist in helping to find out whether individuals, who intend to purchase the iPhone 13 Pro Max, use Apple products or have purchased them during the past year. In order to receive such data, Independent samples t test was performed. The results are provided in the tables below. More detailed results are provided in Annexes 80-83.

Table 14. Results of independent samples t test for calculating means of online purchase intention among respondents, who use Apple products and among those, who do not.

Construct	Mean among those, who use Apple products	Mean among those, who do not use Apple products	Significance of t test
Online purchase intention	3.9898	2.8673	<0,001

Table 15. Results of independent samples t test for calculating means of online purchase intention among respondents, who have purchased Apple products during the past year and among those, who have not.

Construct	Mean among those, who have bought Apple products during the past year	Mean among those, who have not bought Apple products during the past year	Significance of t test
Online purchase intention	3.8423	3.0747	<0,001

The results, presented in the tables above, indicate that individuals, who use Apple products, often have a higher intention to purchase the iPhone 13 Pro Max than individuals, who do not. Moreover, individuals, who have purchased Apple products during the past year, have been found to have a higher intention to purchase the phone than those, who have not.

The mean of the online purchase intention is significantly higher in the group which uses Apple products (M=3,9898) than the group which does not use Apple products (M=2,8673), t(437)=6.589, p>0,001, Cohen's d=0,633.

The mean of the online purchase intention is significantly higher in the group which has purchased Apple products during the past year (M=3,8423) than the group which has not purchases Apple products during the past year (M=3,0747), t(437)=4.288, p>0,001, Cohen's d=0,421.

Such results imply that consumers, who already possess or have purchased the product of a certain brand, are more willing to purchase again in the future. In this case, personalized advertising may act as a reminder or simply notify the consumer of a brand-new product that appeared in the market.

3.4 Discussion of results

Prior to the discussion of results, a table below provides a summary of the results for all 27 hypotheses.

Table 16. Summary of tested hypotheses

No. of hypothesis	Hypothesis	Confirmed or rejected
1	Level of intrusiveness has a significant positive impact on privacy concerns.	Confirmed
2	Level of intrusiveness has a significant negative impact on perceived usefulness.	Confirmed
3	Credibility has a significant negative impact on privacy concerns.	Confirmed
4	Informativeness has a significant positive impact on perceived usefulness.	Confirmed
5	Informativeness has a significant positive impact on perceived relevance.	Confirmed
6	Entertainment has a significant positive impact on perceived enjoyment.	Confirmed
7	The mean of the advertising level of intrusiveness is significantly higher in the group which perceives the advertisement as less personalized than the group which perceives the advertisement as highly personalized.	Confirmed
8	The mean of the advertising credibility is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.	Confirmed
9	The mean of the advertising informativeness is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.	Confirmed
10	The mean of the advertising entertainment is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.	Confirmed
11	The mean of the perceived enjoyment of the advertisement is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.	Confirmed
12	The mean of the perceived relevance of the advertisement is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.	Confirmed

13	The mean of the perceived usefulness of the advertisement is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.	Confirmed
14	The mean of the privacy concerns related to the advertisement is significantly higher in the group which perceives the advertisement as less personalized than the group which perceives the advertisement as highly personalized.	Confirmed
15	The mean of positive attitude towards the advertisement is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.	Confirmed
16	The mean of online purchase intention of a product being advertised is significantly higher in the group which perceives the advertisement as highly personalized than the group which perceives the advertisement as less personalized.	Confirmed
17	The impact of level of intrusiveness on perceived usefulness is moderated by perceived personalization.	Rejected
18	The impact of entertainment on perceived enjoyment is moderated by perceived personalization,	Confirmed
19	The impact of level of intrusiveness on privacy concerns is moderated by perceived personalization.	Rejected
20	The impact of informativeness on perceived relevance is moderated by perceived personalization.	Confirmed
21	The impact of informativeness on perceived usefulness is moderated by perceived personalization.	Confirmed
22	The impact of credibility on privacy concerns is moderated by perceived personalization.	Rejected
23	Privacy concerns has a significant negative impact on attitude towards the advertisement.	Confirmed
24	H24: Perceived usefulness has a significant positive impact on attitude towards the advertisement.	Confirmed
25	Perceived relevance has a significant positive impact on attitude towards the advertisement.	Confirmed
26	Perceived enjoyment has a significant positive impact on attitude towards the advertisement.	Confirmed
27	Attitude towards an advertisement has a significant positive impact on online purchase intention.	Confirmed

Present research highlighted the impact of four characteristics of personalized advertising (intrusiveness, credibility, informativeness, entertainment) on consumers' response in form of privacy concerns, perceived usefulness, perceived relevance and perceived enjoyment as well as on attitude towards the advertisement, and, subsequently, on online purchase intention. Moreover, the study helped to identify whether the impacts between constructs as well as their means differ according to whether individuals perceive the advertisement as highly personalized or less personalized. Simply put, the research analyzed whether individuals evaluated items of constructs higher or lower on the 7-point Likert scale according to how personalized the advertisement is perceived by them. Furthermore, the method of the research assisted in examining the role of the level of perceived personalization in strengthening or weakening certain interactions between perceived characteristics of personalized advertising.

The results of the first six hypotheses of the present study indicate that there are significant relationships between perceived characteristics of personalized advertising. Firstly, it was proved that perceived intrusiveness has a significant positive impact on privacy concerns. Taking into an account the perceived intrusiveness construct, respondents of the questionnaire were asked to

imagine that the advertisement, which was shown to them at the beginning of the survey, appeared in the middle of the screen as they were performing a specific task. It is only natural that if an individual found such an appearance intrusive, it would also cause some privacy concerns to arise. This is due to the fact that a negative perception often evokes certain worries related to the subject that evoked that negative perception. On the contrary, if an individual does not perceive such a sudden appearance of an advertisement intrusive, it is logical that such an individual may have less apparent privacy concerns related to such a situation. Such results are in line with previous research, conducted by Goldfarb and Tucker (2013), who also claimed that the negative impact of intrusiveness on purchase intention is related to the privacy concerns. In other words, the authors suggested that if an individual perceives the advertisement as intrusive, it is likely that privacy concerns arise and, therefore, purchase intention is impacted in a negative way. Moreover, perceived intrusiveness was also proved to have a negative impact on perceived usefulness. For instance, if an advertisement appears in the middle of the screen while an individual is performing a specific task, he or she might perceive such a message as intrusive, and, as a result, close the advertisement immediately without reading the offer that is portrayed in it. If such a situation occurs, it is likely that perceived usefulness of the advertisement will be low due to the fact that the person did not even get the chance to read it due to high perceived intrusiveness. On the contrary, if an individual does not perceive such an appearance of an advertisement as intrusive, he or she may take some time to view the content of it and, therefore, perceive it as more useful. These results are in line with findings of a research, conducted by Lin and Kim (2016), who found that intrusive Facebook advertisements negatively affect perceived usefulness and, subsequently, attitude towards the message. An intrusive message, which interrupts a task an individual is performing, may evoke a sense of invasion and manipulation, thus decreasing perceived usefulness. Furthermore, it was found that credibility has a negative impact on privacy concerns. Such findings are in line with the results of a previous research, performed by Bol et al. (2018), who found that individuals are significantly less willing to self-disclose to retailers with low credibility due to lack of trust, which is related to privacy concerns. For instance, if an individual comes across a personalized advertisement sent by a non-credible advertiser, such a message is likely to evoke some privacy concerns. Individuals prefer to come across advertisements that are sent by companies, which do not possess a damaged credibility, as such messages are less likely to evoke privacy concerns. This is particularly important when taking into an account personalized advertising as individuals are not comfortable with non-credible companies possessing their personal information. This is due to the fact that if a personalized advertisement is sent by a company with a damaged credibility, individual may feel as though their privacy is threatened or their personal information may be potentially misused, thus causing an unsafe feeling. Moreover,

present research also found that informativeness has a positive impact on perceived usefulness. These findings are in line with the results of an earlier research, performed by Zhao and Wang (2020), who claimed that perceived usefulness may be increased by increasing the informativeness of an advertisement. Such a phenomenon arises when relevant information of the advertisement is presented in a convenient and timely manner. If an advertisement contains sufficient amount of information, such a message will be considered as a useful source by a consumer. Accordingly, informativeness was also found to have a positive impact on perceived relevance. In particular, if an individual perceives the advertisement as an informative source, such a message is likely to be perceived as valuable, meaningful and worth to remember. Sufficient amount of information in an advertisement may evoke some new ideas in a consumer's mind, especially if such an advertisement is tailored to his or her preferences and needs. For instance, the consumer may come across an advertisement, that presents a certain product, which he or she has not heard about before. However, if it targets a specific need or solves a certain problem, which a customer has, such an advertisement may be found as highly relevant and evoke interest or even subsequent actions, such as purchase intention. To the best of the authors knowledge, the impact of informativeness on perceived relevance has not yet been researched on the topic of personalized advertising. Perceived entertainment was found to have a positive impact on perceived enjoyment. Interesting and entertaining advertisements are viewed as more enjoyable and fun to look at, especially if they contain some cues of humor (Teixeira et al., 2014). Such entertaining advertisements, that are fun to watch, are accepted positively by consumers, especially if they help to brighten the mood. In some cases, such entertainment of advertisements may even be associated with the brand itself, thus causing a long-term positive impact. One of such examples could be the brand "Old Spice", who have been using cues of humor in their advertisement for so long, that it has become a part of brand's image. As might be expected, such advertisements are enjoyable to watch and also increase an intention to purchase the product.

The results of the present research also indicate that four perceived characteristics of personalized advertising – perceived usefulness, perceived relevance, perceived enjoyment and privacy concerns have a direct impact on attitude towards an advertisement. It is natural that advertisements, which evoke positive perceptions, such as high perceived usefulness, perceived relevance and perceived enjoyment, also cause more positive attitude towards themselves. On the contrary, if an advertisement is not perceived as useful, relevant or enjoyable by a consumer, the attitude towards such a message will become negative. Perceived usefulness (Lin and Kim, 2016), perceived relevance (Jung, 2017) and perceived enjoyment (Shi, 2018) have also been found to have a positive impact on attitude towards an advertisement in previous researches. Therefore, individuals tend to view useful, relevant and enjoyable advertisements positively. On the other

hand, taking into an account privacy concerns, if they arise during the time an individual views an advertisement, attitude towards such a message has been found to become negative. The results of the present research support findings of previous studies, conducted by Baek and Morimoto (2012), Smit et al. (2014) and Lin and Kim (2016). In the context of personalized advertising, privacy concerns tend to be associated with a sense of worry and discomfort about the fact that companies possess individual's personal information. For instance, some consumers may be concerned about the fact that companies know too much information about them, others may be worried about how such information may be misused in the future. Individuals, who value their privacy, may even feel as though it is threatened by personalized advertising. Therefore, if an individual comes across the advertisement which causes privacy concerns to emerge, attitude towards such an advertisement will be negative.

The present study also confirmed that attitude towards an advertisement positively influences online purchase intention. When an individual comes across an advertisement, which evokes positive perceptions and thus causes positive attitude towards the message, it is likely that the consumer will also intend to purchase the product that is being advertised. If an advertisement is viewed favorably by a consumer, it may trigger an intention for further action, which, in the case of present research, is online purchase intention. The results also indicated that the impact of attitude on online purchase intention is strong. An online banner advertisement was used as a basis for the evaluation of construct items (statements), therefore, it is possible that respondents considered it and indicated that they would also intend to purchase the product through the same medium - online. Shim et al. (2001) suggested that consumers tend to purchase products through the same medium in which they search for information about the product. Therefore, it is possible that the impact of attitude on online purchase intention is strong due to the fact that the attitude towards the banner advertisement and purchase intention were evaluated while taking into an account the same medium. Taking into an account banner advertising, if it is perceived positively by consumers, there is a possibility that they may click on the advertisement and seek further information or even proceed with a purchase, especially if the banner contains a call-to-action button. This finding is in line with the results of previous researches, performed by Lin and Kim (2016), Wiese et al. (2020).

To sum up, four characteristics of personalized advertising (intrusiveness, credibility, informativeness and entertainment) have been found to have direct impact on consumers' response in form of four perceptions (privacy concerns, perceived usefulness, perceived relevance and perceived enjoyment). This means that level of intrusiveness, credibility, informativeness and entertainment are highly important factors that should be taken into an account by the advertisers

when creating and sending personalized messages. This is due to the fact that all four characteristics have an impact on how the advertisement is perceived by consumers and, subsequently, determine attitude towards it as well as online purchase intention.

Furthermore, the findings of the present research indicate that means of credibility, informativeness, entertainment, perceived usefulness, perceived relevance, perceived enjoyment of advertising were higher in the group of respondents that perceived the advertisement as highly personalized than among those, who perceived the advertisement as less personalized. Additionally, the means of attitude towards the advertisement as well as online purchase intention were higher among the groups that perceived the advertisement as highly personalized too. In other words, individuals, who perceive the advertisement as highly personalized to their needs and preferences, tend to perceive it as more credible, informative, entertaining, useful, relevant and enjoyable than individuals, who do not perceive the advertisement as tailored to their needs. Furthermore, individuals, who perceive the advertisement as highly personalized, tend to have more positive attitudes towards it and their intention to purchase the advertised product online is higher. On the contrary, taking into an account intrusiveness and privacy concerns, the means of these characteristics are considerably lower among the respondents, which perceive the advertisement as highly personalized than among the respondents, who perceive the message as less personalized. This indicates that individuals, who perceive the advertisement as tailored to their needs, are less likely to perceive it as intrusive and privacy concerns are less likely to emerge. Such results indicate, that individuals tend to respond to personalized advertisements more positively, due to the fact that they contain their preferred brand or product, which is capable of satisfying their needs. For instance, in the case of this study, respondents were asked to read the banner advertisement, depicting the new iPhone 13 Pro Max. Individuals, who perceived the banner advertisement as tailored to their needs and situation, tended to evaluate the items of credibility, informativeness, entertainment, perceived usefulness, perceived relevance and perceived enjoyment higher on the 7-point Likert scale. This could be due to the fact that the information which they found in the banner, matched the characteristics of a phone that are important for them (for instance, long battery life or high-quality camera). Another reason why the positive perceptions among the group, which perceives the advertisement as highly personalized, were more prominent, could be the fact that they are simply in favor of the Apple brand. Either way it is important to note that such individuals paid more attention to the positive characteristics of the advertisement and the negative factors, such as intrusiveness and privacy concerns, were of less importance to them. When an advertisement offers a product, which is perceived as truly tailored to an individual's needs. consumer tends to pay more attention to the benefits rather than risks. Additionally, consumers, who perceive the advertisement as highly

personalized, form more positive attitudes towards it and their intention to purchase the product online is higher. Naturally, if an advertised product is tailored to an individual's needs, consumer will appreciate such a technique of advertisement as it will make them feel as though a particular product was selected specially for them. Thus, online purchase intention will also be higher among such individuals. Such results are in line with previous research, conducted by De Keyzer et al. (2015) and Scholten (2019), who found that personalized advertisements have more impact on positive consumer response than non-personalized advertisements. Accordingly, if an advertisement is perceived as less personalized, this could mean that an individual does not care about the phone characteristics, provided in the banner or they are simply not in favor of the Apple brand. In this scenario, negative perceptions, such as intrusiveness and privacy concerns, are more prominent. An individual may even find such an advertisement more annoying, irritating and less informative, credible, entertaining, useful, relevant and enjoyable as it simply does not depict the product that could potentially satisfy their needs. Therefore, it can be stated that personalized advertisements are impactful when it comes to increasing positive perceptions, minimizing negative perceptions as well as increasing attitudes towards the message and online purchase intention.

Moreover, perceived personalization has been found to moderate the relationships between entertainment and perceived enjoyment, informativeness and perceived relevance, informativeness and perceived usefulness. In particular, it was proved that higher perceived personalization causes a more impactful relationship between those constructs. For instance, entertainment has a more significant impact on perceived enjoyment among the respondents, who perceive the advertisement as highly personalized than among those, who perceive the advertisement as less personalized. Additionally, the higher the perceived personalization, the stronger the impact of informativeness on perceived relevance. Finally, the higher the perceived personalization, the stronger the impact of informativeness on perceived usefulness. To the best of author's knowledge, this is the first attempt to analyze how the strengths of impacts between constructs differ according to whether the advertisement is perceived as highly personalized or less personalized. Certainly, the results of a research, conducted by Shanahan et al. (2019), suggest that positive response towards an advertisement is mainly driven by perceived personalization. However, in these authors' research, a direct rather than moderating impact of perceived personalization was measured. A more significant impact of two positive characteristics of personalized advertising – informativeness and entertainment on consumer response among individuals, who perceive the advertisement as highly personalized, could imply that consumers appreciate when advertisements are tailored to their needs and preferences. As the means of two characteristics of personalized advertising - entertainment and informativeness are higher among

the group which perceives the advertisement as highly personalized, in this case, there is also a stronger positive impact of these characteristics on consumer response when perceived personalization is high. Such results imply that consumers tend to react more positively to favorable characteristics of personalized advertising due to the fact that they simply prefer when an advertisement depicts a product that is tailored to their needs. On the other hand, if an advertisement is not tailored to a consumer's needs, the positive impact of advertisement's characteristics – entertainment and informativeness on consumer response is less significant. On the contrary, perceived personalization has been found to have no moderating impact on the relationships between perceived intrusiveness and perceived usefulness as well as perceived intrusiveness and privacy concerns. It was hypothesized that the higher the perceived personalization, the less significant the impact of perceived intrusiveness on perceived usefulness and privacy concerns due to the fact that individuals tend to be less affected by the drawbacks and risks when an advertisement is tailored to their needs. However, the results of present research rejected such suggestions. It was found that there is no significant difference of impacts between intrusiveness and perceived usefulness as well as perceived relevance among those, who perceive the advertisement as highly personalized and among those, who perceive the advertisement as less personalized. Such phenomenon could be possible due to the fact that if, for instance, an advertisement evokes a sense of intrusiveness for an individual, it will have a significant negative impact on consumer response no matter if the advertisement is tailored to their needs or not. The negative impact of intrusiveness on perceived usefulness and perceived relevance cannot be minimized by the fact that the advertisement is tailored to a consumer's needs. If an individual comes across a personalized advertisement that they find intrusive, it is possible that they might simply close it without being aware of the fact that it is tailored to their needs. In such a scenario, the negative impact of intrusiveness on perceived usefulness and perceived relevance will be the same as it would be if the advertisement was not personalized. Additionally, it was hypothesized that perceived personalization moderated the impact between credibility and privacy concerns. In particular, it was suggested that the higher the perceived personalization, the stronger the negative impact of credibility on privacy concerns. Contrary to the expectations, this hypothesis was also rejected – it appeared that perceived personalization has no moderating impact on the relationship between credibility and privacy concerns. One of the reasons why this could happen is the fact that if an individual perceives the advertisement as a credible and believable source of information, the privacy concerns will be lower regardless of whether an advertisement is personalized or not. On the other hand, if an individual comes across an advertisement, that contains a product which is accurately tailored to their specific needs or preferences, but the information does not seem to be believable or it does not come from a credible source, low credibility will cause the same

significant negative impact on privacy concerns as it would if the perceived personalization was low. Credibility of the advertisements is highly significant, especially when considering personalized advertising as individuals tend to become concerned if companies with a damaged credibility possess their personal information, according to which an advertisement is targeted. Due to that, perceived personalization has no significant moderating impact on the relationship between credibility and privacy concerns.

To sum up, all four characteristics of advertising – intrusiveness, credibility, informativeness and entertainment have a significant impact on consumer response, which, in the present research was measured in form of privacy concerns, perceived usefulness, perceived relevance and perceived enjoyment. Subsequently, privacy concerns, perceived usefulness, perceived relevance and perceived enjoyment have been found to have a direct impact on attitude towards an advertisement. Present research also supported the hypothesized significant positive impact of attitude towards the advertisement on online purchase intention. Furthermore, it was found that individuals, who perceive the advertisement as highly personalized, tend to often find it more credible, informative, entertaining, useful, relevant and enjoyable. On the other hand, intrusiveness and privacy concerns tend to be lower among the respondents, who perceive the advertisement as highly personalized. This indicates that personalized advertising is appreciated by consumers and thus makes them form more positive attitudes towards it as well as increases purchase intention. Additionally, higher perceived personalization tends to strengthen the positive impact of entertainment on perceived enjoyment as well as positive impact of informativeness on perceived usefulness and perceived relevance. Finally, no significant moderating impact of perceived personalization was found on the relationship between intrusiveness and perceived usefulness, intrusiveness and privacy concerns as well as credibility and privacy concerns. Overall, the results of the research indicate that the positive advertisement characteristics as well as consumer response in form of perceived usefulness, perceived relevance, perceived enjoyment, attitude towards an advertisement and online purchase intention are more prominent when perceived personalization is high. Negative characteristic, which, in the case of present study, is intrusiveness, as well as negative consumer response in form of privacy concerns, tends to be lower when the advertisement is perceived as highly personalized. Additionally, higher perceived personalization causes a more significant impact of informativeness and entertainment on consumer response. Therefore, it may be concluded that perceived personalization plays a significant role in increasing the positive consumer response towards the advertisement as well as online purchase intention.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1.   Based on a carried out literature analysis, numerous advantages of personalized advertising for both, consumers and businesses, have been identified. Considering benefits for the consumer, firstly, personalized advertising helps to provide individualized, unique offers that are tailored to their specific needs and preferences. Secondly, personalized advertising creates a more interactive relationship that is valuable for an individual and satisfies their need for uniqueness. Furthermore, personalized advertising may act as a reminder to purchase a product which was searched for by a consumer previously. Considerint benefits for businesses, personalized advertising reduces expenditures of companies. Furthermore, personalized advertising has a long-term benefit of building customer relationships as it is likely to turn the existing customers into returning customers if the experience related to personalized advertising was positive. Finally, personalized advertising increases companies' profits and consumer share.

2.   Based on a literature analysis, a few characteristics as well as their impact on consumer response have been identified. Firstly, it was found that personalized advertisements, that are too highly visible and obtrusive, have a negative impact on consumer response. Additionally, although repetitive personalized advertising has been found to have a positive impact on consumer response, the level of repetition should not be excessive, otherwise, it may be viewed as intrusive or annoying, thus causing a negative reaction. Furthermore, personalized advertising should be sent by a credible source, otherwise, it may evoke some negative reactions related to lack of trust. Moreover, informative and entertaining personalized advertising was found to have a positive impact on consumer response in form of attitude as well as increased purchase intention. Personalized advertising was also found to have a positive impact on consumer response if its content matches the content of a website in which it is placed. A type of personalized advertising was also found to affect its impact on consumer response – while personalization in form of disclosing personal information may have a negative impact, personalization based on consumers' needs and preferences may have a more positive impact on consumer response.

3.   Based on a carried out empirical analysis, four characteristics of personalized advertising – intrusiveness, credibility, informativeness and entertainment have been found to have a direct impact on consumer response in form of privacy concerns, perceived usefulness, perceived relevance and perceived enjoyment. Such results indicate that it is highly important for

businesses to take into an account these characteristics and try to make the positive factors of advertisements more prominent, while making the negative factors less prominent.

4. Based on a carried out empirical analysis, consumer response to personalized advertising in form of perceived usefulness, perceived relevance, perceived enjoyment and privacy concerns have been found to have a direct impact on attitude towards personalized advertising. Therefore, it is important for businesses to take into an account four characteristics of personalized advertising not only due to the fact they have a direct impact on consumer response, but, according to how the consumers' perceptions are affected by those factors, attitude towards personalized advertising will also be impacted subsequently.

5. Present research also confirmed that attitude towards personalized advertising has a significant positive impact on online purchase intention. Therefore, four characteristics of personalized advertising not only have a direct impact on consumer response and, subsequently, on attitude towards the message, but also on online purchase intention as a result. Therefore, if businesses take into an account the significant impact of four characteristics of personalized advertising, it is likely to increase the number of conversions and, as a result, grow sales revenue.

6. Additionally, it was found that when an individual comes across an advertisement, which they perceive as highly personalized to them, it influences how certain characteristics of advertisement are viewed by a consumer. In particular, if a consumer perceives the advertisement as highly personalized, they may value such an experience and perceive the advertisement more positively as well as pay more attention to its benefits rather than risks. In particular, it was found that when perceived personalization is high, consumers tend to perceive the advertisement as more entertaining, credible, informative, useful, relevant and enjoyable. Moreover, attitude towards the advertisement tend to be more positive as well as online purchase intention tends to be higher, when individuals perceive the advertisement as highly personalized to their needs and preferences. On the other hand, negative perceptions, such as intrusiveness and privacy concerns, have been found to be less apparent when perceived personalization is high. On the contrary, individuals, who perceive the advertisement as less personalized, tend to evaluate credibility, informativeness, entertainment, usefulness, relevance and enjoyment lower on the 7-point Likert scale, while evaluating intrusiveness and privacy concerns higher. Moreover, in this case, attitude towards the advertisement tends to be more negative and online purchase intention tends to be lower. Therefore, the results of present research have confirmed that perceived personalization is impactful when it comes to causing more positive consumer response, attitudes towards the advertisement as well as online purchase intention.

7. The results of present study indicated that high perceived personalization causes a more significant impact of informativeness on perceived usefulness, informativeness on perceived

relevance and entertainment on perceived enjoyment. Such results imply that consumers tend to react more positively to the favorable characteristics of personalized advertising, such as informativeness and entertainment, due to the fact that they prefer when an advertisement offers a product that is tailored to their needs. On the other hand, if an advertisement is not personalized to a consumer's needs and preferences, the positive impact of advertisement's characteristics – entertainment and informativeness on consumer response is less significant.

8.   Perceived personalization has been found to have no moderating impact on the relationships between perceived intrusiveness and perceived usefulness as well as perceived intrusiveness and privacy concerns. It was found that if an advertisement evokes a sense of intrusiveness for a viewer, it will have the same level of a significant negative impact on consumer response no matter if the advertisement is tailored to their needs or not. The negative impact of intrusiveness on perceived usefulness and perceived relevance cannot be minimized by the fact that the advertisement is tailored to a consumer's needs. Additionally, contrary to the expectations, perceived personalization has been found to have no moderating impact on the relationship between credibility and privacy concerns. Such phenomenon could happen due to the fact that if an individual perceives the advertisement as a credible and believable source of information, the privacy concerns will be lower regardless of whether an advertisement is personalized or not. On the other hand, if an individual comes across an advertisement, that contains a product which is accurately tailored to their specific needs or preferences, but the information does not seem to be believable or it does not come from a credible source, low credibility will cause the same significant negative impact on privacy concerns as it would if the perceived personalization was low.

Recommendations

1.   In the future, similar researches could be done in order to examine the impact of personalized advertising on intention to purchase goods in online stores while taking into an account different product categories. This would assist in understanding whether the results differ or could be adapted to other industries.

2.   Similar researches could be done using different research methods as well as different sampling techniques. In the case of present research, it would also be advantageous to perform an experimental study, where participants will be shown a personalized advertisement, which will be tailored to their specific needs, thus a more sincere reaction will be recorded. Additionally, a probability sampling method could be used in order to be able to provide an unbiased representation of the population.

3.   Similar researches may be done in different countries of the world. Attitudes and perceptions towards personalized advertising may be different in other parts of the world, therefore, the results in other countries may also vary significantly.

4.   Similar researches may be done in order to analyze the impact of other characteristics of personalized advertisements on consumer response. In the present study, intrusiveness, credibility, informativeness and entertainment were the four factors determining the consumer response, attitude towards the advertisement as well as online purchase intention. Future researchers may analyze the impact of personalized advertising on online purchase intention, while taking into an account other significant characteristics.

5.   The results of present research could be used as a guideline for businesses that utilize personalized advertising. Present study will assist in understanding how personalized advertising impacts perceived characteristics (intrusiveness, credibility, informativeness and entertainment) and consumer response (privacy concerns, perceived usefulness, perceived relevance and perceived enjoyment) as well as attitude towards an advertisement and a behavioral response, which is online purchase intention. Additionally, the research will provide knowledge on how to utilize personalized advertising efficiently to ensure that negative reactions towards it are minimized and thus the best advantage of it is taken.

Limitations of the research

There are several limitations of present research. Firstly, the research was conducted while taking into an account iPhone 13 Pro Max as the respondents were asked to view the banner advertisement depicting this particular product and evaluate the statements according to it. Due to this, the results of this study could be beneficial to the industry of mobile phones and may not be applicable for other product categories. Therefore, future researches could consider this and study the impact of personalized advertising on online purchase intention while taking into an account other product categories.

Another limitation of present study is the fact that in some cases, when answering the questions of the survey, respondents were asked to imagine coming across the banner advertisement while performing a specific task and after that, to evaluate the statements on a seven-point Likert scale. Although the participants are trusted to have provided their sincere evaluations and opinions, it could be even more credible if they were shown a banner advertisement, customized to specific individual needs, in reality rather than imagination. It is believed that in this scenario, the evaluation of certain constructs, such as intrusiveness and

privacy concerns, would be even more authentic. Therefore, future researches may examine the impact of personalized advertising on intention to purchase goods in online stores while using different research methods.

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IMPACT OF PERSONALIZED ADVERTISING ON INTENTION TO PURCHASE GOODS IN ONLINE STORES

Karolina Bardauskaitė

Master thesis

Marketing and Integrated Communication Master Programme

Faculty of Economics and Business Administration, Vilnius University

Supervisor Evelina Blažinauskytė, Vilnius, 2022

SUMMARY

63 pages, 7 charts, 16 tables, 1 figure, 116 references

The main purpose of this master thesis is to examine the impact of personalized advertisements on consumers' intention to purchase goods in online stores as well as to analyze how perceived characteristics of personalized advertisements and consumers' perceptions differ according to whether an individual perceives the advertisement as highly personalized them or less personalized.

The master thesis consists of four main parts: the literature analysis, methodology of the research, the research and its results, conclusions and recommendations.

Literature analysis reviews the definition of personalized advertising, its significance, advantages for consumers and businesses as well as discusses important characteristics that impact consumers' perceptions towards personalized advertising.

Empirical research helped to identify the impact of four characteristics of personalized advertising (intrusiveness, credibility, informativeness and entertainment) on four consumer perceptions (privacy concerns, perceived usefulness, perceived relevance and perceived enjoyment), and, subsequently, the impact of consumer perceptions on attitude towards the advertisement and online purchase intention. Additionally, the differences of means of advertisement characteristics, consumer perceptions as well as attitudes and online purchase intention were measured between individuals, who perceive the advertisement as highly personalized and those, who perceive the advertisement as less personalized.

The performed research revealed that personalized advertising is favored by the consumers, who perceive the advertisement as highly personalized. Moreover, the mean of negative characteristic and perception was lower among these individuals. Furthermore, it was found that the impact of informativeness and entertainment of personalized advertising on consumer response is stronger, when perceived personalization is high. In particular, it was found that the higher the perceived personalization, the stronger the impact of informativeness on perceived usefulness, the stronger

the impact of informativeness on perceived relevance as well as the impact of entertainment on perceived enjoyment.

The conclusions and recommendations summarize the results of the performed research. The obtained results of the research could be used as guidelines for the companies that utilize personalized advertising and help them to take the best advantage of it.

PERSONALIZUOTŲ REKLAMŲ ĮTAKA KETINIMUI PIRKTI PREKES INTERNETINĖSE PARDUOTUVĖSE

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Darbo vadovė Evelina Blažinauskytė, Vilnius, 2022

SANTRAUKA

63 puslapiai, 7 diagramos, 16 lentelių, 1 paveikslėlis, 116 šaltinių

Pagrindinis šio magistro darbo tikslas – išnagrinėti personalizuotų reklamų įtaką vartotojų ketinimui pirkti prekes internetinėse parduotuvėse bei išanalizuoti, kaip skiriasi suvokiamos personalizuotos reklamos savybės ir vartotojų reakcija į ją atsižvelgiant į tai, ar asmuo reklamą suvokia kaip labai personalizuotą arba mažiau personalizuotą.

Magistro darbą sudaro keturios pagrindinės dalys: literatūros analizė, tyrimo metodika, tyrimas ir jo rezultatai, išvados ir rekomendacijos.

Literatūros analizėje apžvelgiamas personalizuotos reklamos apibrėžimas, jos reikšmė, nauda vartotojams ir verslui, taip pat aptariamos svarbios savybės, turinčios įtakos vartotojų reakcijai į personalizuotą reklamą.

Atliktas empyrinis tyrimas atskleidė keturių personalizuotos reklamos savybių (įkyrumo, patikimumo, informatyvumo ir linksmumo) įtaką keturiems vartotojų suvokimams (susirūpinimui privatumu, suvokiamam naudingumui, suvokiamam aktualumui ir suvokiamam malonumui) ir vartotojų suvokimų įtaką požiūriui į reklamą bei ketinimui pirkti internetu. Be to, buvo matuojami reklamos savybių, vartotojų suvokimų, požiūrių ir ketinimo pirkti internetu vidurkiai tarp asmenų, kurie reklamą suvokia kaip labai personalizuotą, ir tų, kurie reklamą suvokia kaip mažiau personalizuotą.

Atliktas tyrimas atskleidė, kad personalizuota reklama yra mėgstama vartotojų, kurie reklamą suvokia kaip itin personalizuotą. Be to, šių asmenų neigiamos savybės ir suvokimo vidurkis buvo žemesnis. Taip pat buvo nustatyta, kad personalizuotos reklamos informatyvumo ir linksmumo įtaka vartotojų reakcijai yra stipresnė, kai suvokiamas personalizavimas yra aukštas. Buvo nustatyta, kad kuo didesnis suvokiamas personalizavimas, tuo stipresnis informatyvumo poveikis suvoktam naudingumui, tuo stipresnis informatyvumo poveikis suvokiamam aktualumui, taip pat linksmumo įtaka suvoktam malonumui.

Išvadose ir rekomendacijose apibendrinami atlikto tyrimo rezultatai. Tyrimo rezultatai gali suteikti naudingų gairių personalizuotą reklamą naudojančioms įmonėms ir padėti kuo geriau išnaudoti jos privalumus.

ANNEXES

Annex 1. Constructs and their measurement items

Perceived personalization - Shanahan et al. (2019) - 1 for Strongly Disagree to 7 for Strongly Agree:

1. This advertisement makes purchase recommendations that match my needs.
2. I think that this advertisement enables me to order products that are tailor-made for me.
3. Overall, this advertisement is tailored to my situation.
4. This advertisement makes me feel that I am a unique customer.
5. I believe that this advertisement is customized to my needs.

Level of intrusiveness - Van Doorn and Hoekstra (2013) - 1 for Strongly Disagree to 7 for Strongly Agree:

1. I think that this advertisement is disturbing.
2. I think that this advertisement is alarming.
3. I think that this advertisement is obtrusive.
4. I think that this advertisement is irritating.
5. I think that this advertisement is annoying.
6. I think that this advertisement is uncomfortable.
7. I think it is uncomfortable that personal information is used in this offer.
8. The supplier knows a lot about me.
9. This advertisement gives me an uneasy feeling.
10. This advertisement gives me an unsafe feeling.

Credibility - Kim and Han (2014) - 1 for Strongly Disagree to 7 for Strongly Agree:

1. I feel that this advertisement is convincing.
2. I feel that this advertisement is believable.
3. I feel that this advertisement is credible.

Informativeness - Logan et al. (2012) - 1 for Strongly Disagree to 7 for Strongly Agree:

1. This advertisement is a good source of product information.
2. This advertisement supplies relevant product information.
3. This advertisement provides timely information.
4. This advertisement is a good source of up-to-date product information.

5. This advertisement is a convenient source of product information.

6. This advertisement supplies complete product information.

Entertainment - Ozcelik and Varnali (2018) - 1 for Strongly Disagree to 7 for Strongly Agree:

1. This advertisement is entertaining to me.

2. I think this advertisement is cool.

3. I would enjoy to click on this advertisement.

Privacy concerns - Gironda and Korgaonkar (2018) - 1 for Strongly Disagree to 7 for Strongly Agree:

1. I am concerned that the advertiser is collecting too much information about me.

2. I am concerned that the information collected about me for this advertisement could be misused.

3. I am concerned about collection of my information by the advertiser, because of what others might do with it.

4. All things considered, I believe that my privacy is seriously threatened by personalized advertising.

Perceived usefulness - Gironda and Korgaonkar (2018)

On a scale from 1 to 7, 7 being the highest, do you think that this advertisement is:

1. Unhelpful/Helpful

2. Irrelevant/Relevant

3. Worthless/Worthwile

4. Overall, I feel that personalized advertising is useful (1 for Strongly Disagree to 7 for Strongly Agree)

Perceived relevance - Kim and Huh (2016) - 1 for Strongly Disagree to 7 for Strongly Agree:

1. This advertisement is important to me.

2. This advertisement is meaningful to me.

3. This advertisement is created just for me.

4. This advertisement is worth remembering.

5. This advertisement is of value to me.

6. This advertisement is relevant to my needs.

7. This advertisement is useful to me.

8. This advertisement is worth paying attention to.

9. This advertisement is interesting to me.

10. This advertisement is likely to give me new ideas.

Perceived enjoyment - Kim et al. (2017) - 1 for Strongly Disagree to 7 for Strongly Agree:

1. Seeing this advertisement entertains me.
2. It is fun to see this advertisement.
3. It is interesting to see this advertisement.

Attitude towards an advertisement - Ozcelik and Varnali (2018) - 1 for Strongly Disagree to 7 for Strongly Agree:

1. I am happy to see such advertisement.
2. I respond to such advertisement positively.
3. I appreciate the technique of this advertisement.

Online purchase intention - Arshada and Aslam (2015) - 1 for Strongly Disagree to 7 for Strongly Agree:

1. I would definitely intend to buy the product online.
2. I would obviously consider to buy the product online.
3. I would definitely expect to buy the product online.
4. I would absolutely plan to buy the product online.

Annex 2. Banner advertisement used in the questionnaire

Annex 3. Questionnaire in English language

Dear Respondent,

I am Karolina Bardauskaitė, a 2nd year student of Marketing and Integrated Communications at Vilnius University. I am currently conducting a Master's thesis study to investigate the impact of personalized advertisements on intention to purchase goods in online stores. Thank you for agreeing to take the survey, it will take you up to 10 minutes. The survey is anonymous and confidential, all data collected will be used only for the analysis of the final work and will be summarized.

The results of this study will not be published publicly.

Do you know brand Apple?

- o Yes
- o No

Do you use Apple products?

- o Yes
- o No

Have you bought Apple products during the past year?

- o Yes
- o No

Please, take some time to view the banner advertisement, provided below. Afterwards, please evaluate each statement on a scale from 1 to 7, where 1 stands for Strongly Disagree and 7 stands for Strongly Agree.

	1	2	3	4	5	6	7
This advertisement makes purchase recommendations that match my needs.							
I think that this advertisement enables me to order products that are tailor-made for me.							
Overall, this advertisement is tailored to my situation.							
This advertisement makes me feel that I am a unique customer.							
I believe that this advertisement is customized to my needs.							

Please imagine that you are browsing the internet, performing a specific task and suddenly the banner, provided previously, pops up in the middle of the screen. Taking this into an account, please evaluate each statement on a scale from 1 to 7, where 1 stands for Strongly Disagree and 7 stands for Strongly Agree.

	1	2	3	4	5	6	7
I think that this advertisement is disturbing.							
I think that this advertisement is alarming.							
I think that this advertisement is obtrusive.							
I think that this advertisement is irritating.							
I think that this advertisement is annoying.							
I think that this advertisement is uncomfortable.							
I think it is uncomfortable that personal information is used in this offer.							
The supplier knows a lot about me.							
This advertisement gives me an uneasy feeling.							
This advertisement gives me an unsafe feeling.							

Now, once again, please recall the advertisement shown previously and express you opinion on it by evaluating each statement on a scale from 1 to 7, where 1 stands for Strongly Disagree and 7 stands for Strongly Agree.

	1	2	3	4	5	6	7
I feel that this advertisement is convincing.							
I feel that this advertisement is believable.							
I feel that this advertisement is credible.							

	1	2	3	4	5	6	7
This advertisement is a good source of product information.							
This advertisement supplies relevant product information.							
This advertisement provides timely information.							
This advertisement is a good source of up-to-date product information.							
This advertisement is a convenient source of product information.							
This advertisement supplies complete product information.							

	1	2	3	4	5	6	7
This advertisement is entertaining to me.							
I think this advertisement is cool.							
I would enjoy to click on this advertisement.							

Please imagine that you are browsing the internet and suddenly see a banner advertisement, shown previously. Taking this into an account, please evaluate each statement on a scale from 1 to 7, where 1 stands for Strongly Disagree and 7 stands for Strongly Agree.

	1	2	3	4	5	6	7
I am concerned that the advertiser is collecting too much information about me.							
I am concerned that the information collected about me for personalized advertising could be misused.							
I am concerned about collection of my information by the advertiser, because of what others might do with it.							
All things considered, I believe that my privacy is seriously threatened by personalized advertising.							

While keeping in mind the advertisement, shown previously, on a scale from 1 to 7, 7 being the highest, please evaluate whether you think that this advertisement is:

	1	2	3	4	5	6	7
Unhelpful/Helpful							
Irrelevant/Relevant							

Worthless/Worthwile							
Overall, I feel that personalized advertising is useful.							

While considering the advertisement, shown previously, please express you opinion on it by evaluating each statement on a scale from 1 to 7, where 1 stands for Strongly Disagree and 7 stands for Strongly Agree.

	1	2	3	4	5	6	7
This advertisement is important to me.							
This advertisement is meaningful to me.							
This advertisement is created just for me.							
This advertisement is worth remembering.							
This advertisement is of value to me.							
This advertisement is relevant to my needs.							
This advertisement is useful to me.							
This advertisement is worth paying attention to.							
This advertisement is interesting to me.							
This advertisement is likely to give me new ideas.							

	1	2	3	4	5	6	7
Seeing this advertisement entertains me.							
It is fun to see this advertisement.							
It is interesting to see this advertisement.							

	1	2	3	4	5	6	7
I am happy to see such advertisement.							
I respond to such advertisement positively.							
I appreciate the technique of this advertisement.							

	1	2	3	4	5	6	7
I would definitely intend to buy the product.							
I would obviously consider to buy the product.							
I would definitely expect to buy the product.							

I would absolutely plan to buy the product						

Please, indicate your gender:

- o male
- o female

Please, indicate your age:

- o Less than 18 years old
- o 18-24 years old
- o 25-35 years old
- o 36-45 years old
- o 46 years old or more

Please, indicate the level of your education:

- o Lower than secondary education
- o Secondary education
- o Non-University higher education
- o Higher education
- o Master's degree or higher

Please, indicate your monthly net income:

- o Less than 500 EUR
- o 501-800 EUR
- o 801-1000 EUR
- o 1001-1300 EUR
- o 1301 EUR or more

Annex 4. Questionnaire in Lithuanian language

Gerbiamas Respondente,

Esu Karolina Bardauskaitė, Vilniaus Universiteto Marketingo ir integruotų komunikacijų 2 kurso studentė. Šiuo metu atlieku magistro baigiamąjį darbą, kurio tikslas – ištirti personalizuotų reklamų įtaką ketinimui pirkti prekes internetinėse parduotuvėse. Dėkoju, kad sutikote dalyvauti apklausoje, tai užtruks iki 10 minučių. Apklausa yra anoniminė ir konfidenciali, visi surinkti duomenys bus naudojami tik baigiamojo darbo analizei ir apibendrinami.

Šio tyrimo rezultatai nebus viešai skelbiami.

Ar žinote „Apple" prekės ženklą?

- o Taip
- o Ne

Ar naudojatės „Apple" produkcija?

- o Taip
- o Ne

Ar per pastaruosius metus pirkote „Apple" produkciją?

- o Taip
- o Ne

Prašome skirti šiek tiek laiko žemiau pateikto reklaminio banerio peržiūrėjimui. Tuomet įvertinkite kiekvieną teiginį skalėje nuo 1 iki 7, kur 1 reiškia visiškai nesutinku, o 7 reiškia visiškai sutinku:

	1	2	3	4	5	6	7
Šiame skelbime pateikiamos pirkimo rekomendacijos, atitinkančios mano poreikius.							
Manau, kad ši reklama suteikia galimybę užsisakyti man pritaikytų gaminių.							

Apskritai ši reklama pritaikyta mano situacijai.							
Ši reklama leidžia man jaustis unikaliu klientu.							
Tikiu, kad ši reklama pritaikyta mano poreikiams.							

Įsivaizduokite, kad naršote internete, atliekate konkrečią užduotį ir staiga ekrano viduryje pasirodo anksčiau pateiktas reklaminis baneris. Atsižvelgdami į tai, įvertinkite kiekvieną žemiau pateiktą teiginį skalėje nuo 1 iki 7, kur 1 reiškia visiškai nesutinku, o 7 reiškia visiškai sutinku:

	1	2	3	4	5	6	7
Manau, kad ši reklama yra trikdanti.							
Manau, kad ši reklama kelia nerimą.							
Manau, kad ši reklama įkyri.							
Manau, kad ši reklama sukelia pyktį.							
Manau, kad ši reklama erzina.							
Manau, kad ši reklama yra nepatogi.							
Manau, nepatogu, kad šiame pasiūlyme naudojama asmeninė informacija.							
Tiekėjas apie mane žino daug.							
Ši reklama man sukelia nemalonų jausmą.							
Ši reklama man sukelia nesaugų jausmą.							

Dabar dar kartą prisiminkite anksčiau rodytą reklaminį banerį ir išsakykite savo nuomonę apie jį įvertindami kiekvieną teiginį skalėje nuo 1 iki 7, kur 1 reiškia visiškai nesutinku, o 7 – visiškai sutinku:

	1	2	3	4	5	6	7
Manau, kad ši reklama yra įtikinanti.							
Manau, kad šia reklama galima tikėti.							
Manau, kad ši reklama yra patikima.							

	1	2	3	4	5	6	7
Šis skelbimas yra geras informacijos apie produktą šaltinis.							
Šiame skelbime pateikiama aktuali informacija apie produktą.							

	1	2	3	4	5	6	7
Šiame skelbime pateikiama savalaikė informacija apie produktą.							
Šis skelbimas yra geras naujausios informacijos apie produktą šaltinis.							
Šis skelbimas yra patogus informacijos apie produktą šaltinis.							
Šiame skelbime pateikiama visa informacija apie produktą.							

	1	2	3	4	5	6	7
Ši reklama man yra linksminanti.							
Manau, kad ši reklama yra šauni							
Man būtų malonu paspausti šią reklamą.							

Įsivaizduokite, kad naršote internete ir staiga pamatote anksčiau pateiktą reklaminį banerį. Atsižvelgdami į tai, įvertinkite kiekvieną žemiau nurodytą teiginį skalėje nuo 1 iki 7, kur 1 reiškia visiškai nesutinku, o 7 reiškia visiškai sutinku:

	1	2	3	4	5	6	7
Esu susirūpinęs/-usi, kad reklamuotojas renka per daug informacijos apie mane.							
Esu susirūpinęs/-usi, kad informacija, surinkta apie mane šiam skelbimui, gali būti panaudota netinkamai.							
Esu susirūpinęs/-usi tuo, kad reklamuotojas renka informaciją apie mane todėl, kaip šią informaciją gali panaudoti kiti.							
Atsižvelgiant į viską, manau, kad ši reklama kelia rimtą pavojų mano privatumui.							

Turėdami omenyje reklaminį banerį, rodytą anksčiau, skalėje nuo 1 iki 7, kur 7 – tai aukščiausias įvertinimas, įvertinkite, ar manote, kad ši reklama yra:

	1	2	3	4	5	6	7
Nenaudinga/naudinga							
Neaktuali/Aktuali							
Bevertė/vertinga							
Apskritai manau, kad personalizuota reklama yra naudinga (1 – visiškai nesutinku; 7 – visiškai sutinku)							

Turint omenyje anksčiau rodytą reklaminį banerį, prašome išsakyti savo nuomonę apie jį įvertinant kiekvieną teiginį skalėje nuo 1 iki 7, kur 1 reiškia visiškai nesutinku, o 7 – visiškai sutinku:

	1	2	3	4	5	6	7
Ši reklama man yra svarbi.							
Ši reklama man yra reikšminga.							
Ši reklama sukurta kaip tik man.							
Šią reklamą verta prisiminti.							
Ši reklama man vertinga.							
Ši reklama atitinka mano poreikius.							
Ši reklama man naudinga.							
Ši reklama verta dėmesio.							
Ši reklama man įdomi.							
Tikėtina, kad ši reklama suteiks man naujų idėjų.							

	1	2	3	4	5	6	7
Ši reclama mane linksmina.							
Matyti šią reklamą yra smagu.							
Matyti šią reklamą yra įdomu.							

	1	2	3	4	5	6	7
Džiaugiuosi matydamas/-a tokią reklamą.							
Į tokią reklamą reaguoju teigiamai.							
Vertinu šios reklamos techniką.							

	1	2	3	4	5	6	7
Tikrai ketinu pirkti reklamuojamą produktą internetu.							
Tikrai svarstyčiau pirkti reklamuojamą produktą internetu.							
Tikrai tikiuosi įsigyti reklamuojamą produktą internetu.							
Tikrai planuoju pirkti reklamuojamą produktą internetu.							

Prašome nurodyti savo lytį:

o vyras

o moteris

Prašome nurodyti savo amžių:

o Jaunesnis/-ė nei 18 metų

o 18-24 metų

o 25-35 metų

o 36-45 metai

o 46 metų ar daugiau

Prašome nurodyti savo išsilavinimo lygį:

o Žemesnis nei vidurinis išsilavinimas

o Vidurinis išsilavinimas

o Neuniversitetinis aukštasis išsilavinimas

o Aukštasis išsilavinimas

o Magistro laipsnis arba aukštesnis

Prašome nurodyti savo mėnesines grynąsias pajamas:

o Mažiau nei 500 EUR

o 501-800 EUR

o 801-1000 EUR

o 1001-1300 EUR

o 1301 EUR ir daugiau

Annex 5. Frequencies of male and female respondents

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	144	32.8	32.8	32.8
	Female	295	67.2	67.2	100.0
	Total	439	100.0	100.0	

Annex 6. Frequencies of different age groups of respondents

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 18 years old	8	1.8	1.8	1.8
	18-24 years old	89	20.3	20.3	22.1
	25-35 years old	192	43.7	43.7	65.8
	36-45 years old	83	18.9	18.9	84.7
	46 years old or more	67	15.3	15.3	100.0
	Total	439	100.0	100.0	

Annex 7. Frequencies of different education groups of respondents

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Lower than secondary education	5	1.1	1.1	1.1
	Secondary education	62	14.1	14.1	15.3
	Non-University higher education	123	28.0	28.0	43.3
	Higher education	202	46.0	46.0	89.3
	Master's degree or higher	47	10.7	10.7	100.0
	Total	439	100.0	100.0	

Annex 8. Frequencies of different income groups of respondents

Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 500 EUR	25	5.7	5.7	5.7
	501-800 EUR	83	18.9	18.9	24.6
	801-1000 EUR	169	38.5	38.5	63.1
	1001-1300 EUR	103	23.5	23.5	86.6
	1301 EUR or more	59	13.4	13.4	100.0
	Total	439	100.0	100.0	

Annex 9. Results of correlation analysis between perceived intrusiveness and privacy concerns

Correlations

		Perceived_intrusiveness	Privacy_concerns
Perceived_intrusiveness	Pearson Correlation	1	.749**
	Sig. (2-tailed)		<.001
	N	439	439
Privacy_concerns	Pearson Correlation	.749**	1
	Sig. (2-tailed)	<.001	
	N	439	439

**. Correlation is significant at the 0.01 level (2-tailed).

Annex 10. Results of correlation analysis between perceived intrusiveness and perceived usefulness

Correlations

		Perceived_intrusiveness	Perceived_usefulness
Perceived_intrusiveness	Pearson Correlation	1	-.694**
	Sig. (2-tailed)		<.001
	N	439	439
Perceived_usefulness	Pearson Correlation	-.694**	1
	Sig. (2-tailed)	<.001	
	N	439	439

**. Correlation is significant at the 0.01 level (2-tailed).

Annex 11. Results of correlation analysis between credibility and privacy concerns

Correlations

		Credibility	Privacy_concerns
Credibility	Pearson Correlation	1	-.666**
	Sig. (2-tailed)		<.001
	N	439	439
Privacy_concerns	Pearson Correlation	-.666**	1
	Sig. (2-tailed)	<.001	
	N	439	439

**. Correlation is significant at the 0.01 level (2-tailed).

Annex 12. Results of correlation analysis between informativeness and perceived usefulness

Correlations

		Informativeness	Perceived_usefulness
Informativeness	Pearson Correlation	1	.747**
	Sig. (2-tailed)		<.001
	N	439	439
Perceived_usefulness	Pearson Correlation	.747**	1
	Sig. (2-tailed)	<.001	
	N	439	439

**. Correlation is significant at the 0.01 level (2-tailed).

Annex 13. Results of correlation analysis between informativeness and perceived relevance

Correlations

		Informativeness	Perceived_relevance
Informativeness	Pearson Correlation	1	.721**
	Sig. (2-tailed)		<.001
	N	439	439
Perceived_relevance	Pearson Correlation	.721**	1
	Sig. (2-tailed)	<.001	
	N	439	439

**. Correlation is significant at the 0.01 level (2-tailed).

Annex 14. Results of correlation analysis between entertainment and perceived enjoyment

Correlations

		Entertainment	Perceived_enjoyment
Entertainment	Pearson Correlation	1	.898**
	Sig. (2-tailed)		<.001
	N	439	439
Perceived_enjoyment	Pearson Correlation	.898**	1
	Sig. (2-tailed)	<.001	
	N	439	439

**. Correlation is significant at the 0.01 level (2-tailed).

Annex 15. Results of ANOVA test for regression analysis between perceived intrusiveness and privacy concerns

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1124.998	1	1124.998	559.778	<.001^b
	Residual	878.248	437	2.010		
	Total	2003.246	438			

a. Dependent Variable: Privacy_concerns
b. Predictors: (Constant), Perceived intrusiveness

Annex 16. Coefficients table for regression analysis between perceived intrusiveness and privacy concerns

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.259	.155		1.667	.096
	Perceived intrusiveness	.902	.038	.749	23.660	<.001

a. Dependent Variable: Privacy_concerns

Annex 17. Results of regression analysis between perceived intrusiveness and privacy concerns

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.749^a	.562	.561	1.41765

a. Predictors: (Constant), Perceived intrusiveness

Annex 18. Results of ANOVA test for regression analysis between perceived intrusiveness and perceived usefulness

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	662.299	1	662.299	406.943	<.001[b]
	Residual	711.218	437	1.628		
	Total	1373.517	438			

a. Dependent Variable: Perceived usefulness
b. Predictors: (Constant), Perceived intrusiveness

Annex 19. Coefficients table for regression analysis between perceived intrusiveness and perceived usefulness

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.696	.140		47.960	<.001
	Perceived intrusiveness	-.692	.034	-.694	-20.173	<.001

a. Dependent Variable: Perceived usefulness

Annex 20. Results of regression analysis between perceived intrusiveness and perceived usefulness

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.694[a]	.482	.481	1.27574

a. Predictors: (Constant), Perceived intrusiveness

Annex 21. Results of ANOVA test for regression analysis between credibility and privacy concerns

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	889.334	1	889.334	348.895	<.001[b]
	Residual	1113.912	437	2.549		
	Total	2003.246	438			

a. Dependent Variable: Privacy_concerns
b. Predictors: (Constant), Credibility

Annex 22. Coefficients table for regression analysis between credibility and privacy concerns

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.273	.213		34.179	<.001
	Credibility	-.850	.046	-.666	-18.679	<.001

a. Dependent Variable: Privacy_concerns

Annex 23. Results of regression analysis between credibility and privacy concerns

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.666[a]	.444	.443	1.59656

a. Predictors: (Constant), Credibility

Annex 24. Results of ANOVA test for regression analysis between informativeness and perceived usefulness

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	766.222	1	766.222	551.361	<.001[b]
	Residual	607.295	437	1.390		
	Total	1373.517	438			

a. Dependent Variable: Perceived usefulness
b. Predictors: (Constant), Informativeness

Annex 25. Coefficients table for regression analysis between informativeness and perceived usefulness

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.471	.167		2.823	.005
	Informativeness	.815	.035	.747	23.481	<.001

a. Dependent Variable: Perceived usefulness

Annex 26. Results of regression analysis between informativeness and perceived usefulness

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.747[a]	.558	.557	1.17885

a. Predictors: (Constant), Informativeness

Annex 27. Results of ANOVA test for regression analysis between informativeness and perceived relevance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	728.141	1	728.141	473.073	<.001[b]
	Residual	672.619	437	1.539		
	Total	1400.760	438			

a. Dependent Variable: Perceived_relevance

b. Predictors: (Constant), Informativeness

Annex 28. Coefficients table for regression analysis between informativeness and perceived relevance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.038	.176		.214	.831
	Informativeness	.795	.037	.721	21.750	<.001

a. Dependent Variable: Perceived_relevance

Annex 29. Results of regression analysis between informativeness and perceived relevance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.721[a]	.520	.519	1.24063

a. Predictors: (Constant), Informativeness

Annex 30. Results of ANOVA test for regression analysis between entertainment and perceived enjoyment

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1077.255	1	1077.255	1825.650	<.001[b]
	Residual	257.859	437	.590		
	Total	1335.114	438			

a. Dependent Variable: Perceived_enjoyment
b. Predictors: (Constant), Entertainment

Annex 31. Coefficients table for regression analysis between entertainment and perceived enjoyment

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.038	.088		.433	.666
	Entertainment	.950	.022	.898	42.728	<.001

a. Dependent Variable: Perceived_enjoyment

Annex 32. Results of regression analysis between entertainment and perceived enjoyment

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.898[a]	.807	.806	.76816

a. Predictors: (Constant), Entertainment

Annex 33. Descriptive statistics of perceived personalization

Descriptives

			Statistic	Std. Error
Perceived personalization	Mean		4.0428	.08235
	95% Confidence Interval for Mean	Lower Bound	3.8810	
		Upper Bound	4.2047	
	5% Trimmed Mean		4.0436	
	Median		3.8000	
	Variance		2.977	
	Std. Deviation		1.72544	
	Minimum		1.00	
	Maximum		7.00	
	Range		6.00	
	Interquartile Range		3.00	
	Skewness		.066	.117
	Kurtosis		-1.369	.233

Annex 34. Group statistics of t test for perceived intrusiveness

Group Statistics

	Perceived_personalization _2gr	N	Mean	Std. Deviation	Std. Error Mean
Perceived intrusiveness	low personalization	229	4.7218	1.54066	.10181
	high personalization	210	2.5043	1.20173	.08293

Annex 35. Results of t test for perceived intrusiveness

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p			Lower	Upper
Perceived intrusiveness	Equal variances assumed	30.197	<.001	16.711	437	<.001	<.001	2.21755	.13270	1.95673	2.47836
	Equal variances not assumed			16.888	426.226	<.001	<.001	2.21755	.13131	1.95945	2.47564

Annex 36. Group statistics of t test for credibility

Group Statistics

	Perceived_personalization _2gr	N	Mean	Std. Deviation	Std. Error Mean
Credibility	low personalization	229	3.2227	1.36633	.09029
	high personalization	210	5.6095	.92856	.06408

Annex 37. Results of t test for credibility

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p			Lower	Upper
Credibility	Equal variances assumed	60.463	<.001	-21.217	437	<.001	<.001	-2.38682	.11250	-2.60792	-2.16571
	Equal variances not assumed			-21.558	403.766	<.001	<.001	-2.38682	.11072	-2.60447	-2.16917

Annex 38. Group statistics of t test for informativeness

Group Statistics

	Perceived_personalization _2gr	N	Mean	Std. Deviation	Std. Error Mean
Informativeness	low personalization	229	3.4389	1.38467	.09150
	high personalization	210	5.7111	.84616	.05839

Annex 39. Results of t test for informativeness

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p			Lower	Upper
Informativeness	Equal variances assumed	107.669	<.001	-20.524	437	<.001	<.001	-2.27225	.11071	-2.48985	-2.05465
	Equal variances not assumed			-20.934	382.336	<.001	<.001	-2.27225	.10854	-2.48567	-2.05883

Annex 40. Group statistics of t test for entertainment

Group Statistics

	Perceived_personalization _2gr	N	Mean	Std. Deviation	Std. Error Mean
Entertainment	low personalization	229	2.4061	.84555	.05588
	high personalization	210	4.9460	1.24391	.08584

Annex 41. Results of t test for entertainment

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Entertainment	Equal variances assumed	26.975	<.001	-25.198	437	<.001	<.001	-2.53992	.10080	-2.73803	-2.34181
	Equal variances not assumed			-24.799	363.771	<.001	<.001	-2.53992	.10242	-2.74133	-2.33851

Annex 42. Group statistics of t test for perceived enjoyment

Group Statistics

	Perceived_personalization _2gr	N	Mean	Std. Deviation	Std. Error Mean
Perceived enjoyment	low personalization	229	2.2125	.84146	.05561
	high personalization	210	4.8603	1.39322	.09614

Annex 43. Results of t test for perceived enjoyment

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Perceived enjoyment	Equal variances assumed	40.951	<.001	-24.327	437	<.001	<.001	-2.64780	.10884	-2.86172	-2.43388
	Equal variances not assumed			-23.840	337.585	<.001	<.001	-2.64780	.11106	-2.86626	-2.42934

Annex 44. Group statistics of t test for perceived relevance

Group Statistics

	Perceived_personalization _2gr	N	Mean	Std. Deviation	Std. Error Mean
Perceived relevance	low personalization	229	2.2371	.82296	.05438
	high personalization	210	5.1595	1.21943	.08415

Annex 45. Results of t test for perceived relevance

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p			Lower	Upper
Perceived relevance	Equal variances assumed	22.776	<.001	-29.645	437	<.001	<.001	-2.92241	.09858	-3.11615	-2.72866
	Equal variances not assumed			-29.168	362.133	<.001	<.001	-2.92241	.10019	-3.11944	-2.72537

Annex 46. Group statistics of t test for perceived usefulness

Group Statistics

	Perceived_personalization_2gr	N	Mean	Std. Deviation	Std. Error Mean
Perceived usefulness	low personalization	229	2.8210	1.12251	.07418
	high personalization	210	5.6238	1.03908	.07170

Annex 47. Results of t test for perceived usefulness

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p			Lower	Upper
Perceived usefulness	Equal variances assumed	2.187	.140	-27.077	437	<.001	<.001	-2.80285	.10351	-3.00630	-2.59940
	Equal variances not assumed			-27.168	436.960	<.001	<.001	-2.80285	.10317	-3.00562	-2.60008

Annex 48. Group statistics of t test for privacy concerns

Group Statistics

	Perceived_personalization_2gr	N	Mean	Std. Deviation	Std. Error Mean
Privacy concerns	low personalization	229	4.7194	2.07854	.13735
	high personalization	210	2.3000	1.34302	.09268

Annex 49. Results of t test for privacy concerns

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p			Lower	Upper
Privacy concerns	Equal variances assumed	70.854	<.001	14.344	437	<.001	<.001	2.41943	.16868	2.08791	2.75095
	Equal variances not assumed			14.602	393.813	<.001	<.001	2.41943	.16570	2.09367	2.74519

Annex 50. Group statistics of t test for attitude towards an advertisement

Group Statistics

	Perceived_personalization_2gr	N	Mean	Std. Deviation	Std. Error Mean
Attitude	low personalization	229	2.3595	.96088	.06350
	high personalization	210	5.1746	1.17034	.08076

Annex 51. Results of t test for attitude towards an advertisement

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Attitude	Equal variances assumed	3.706	.055	-27.634	437	<.001	<.001	-2.81507	.10187	-3.01528	-2.61485
	Equal variances not assumed			-27.402	405.290	<.001	<.001	-2.81507	.10273	-3.01703	-2.61311

Annex 52. Group statistics of t test for online purchase intention

Group Statistics

	Perceived_personalization_2gr	N	Mean	Std. Deviation	Std. Error Mean
Online_purchase_intention	low personalization	229	2.0502	.98658	.06520
	high personalization	210	4.8060	1.48200	.10227

Annex 53. Results of t test for online purchase intention

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
Online_purchase_intention	Equal variances assumed	35.337	<.001	-23.105	437	<.001	<.001	-2.75573	.11927	-2.99014	-2.52132
	Equal variances not assumed			-22.722	359.037	<.001	<.001	-2.75573	.12128	-2.99424	-2.51722

Annex 54. Results of moderator analysis of impact of perceived personalization on relationship between perceived intrusiveness and perceived usefulness

```
Model  : 1
    Y  : PU
    X  : PI
    W  : PP

Sample
Size:  439

************************************************************************
OUTCOME VARIABLE:
 PU

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      .8540       .7293       .8547   390.6569     3.0000   435.0000      .0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     4.1219      .0560    73.6516      .0000     4.0119     4.2319
PI           -.2870      .0334    -8.5902      .0000     -.3527     -.2214
PP            .6552      .0343    19.0755      .0000      .5877      .7227
Int_1        -.0203      .0175    -1.1578      .2476     -.0548      .0142

Product terms key:
 Int_1   :          PI       x         PP
```


Annex 55. Results of moderator analysis of impact of perceived personalization on relationship between entertainment and perceived enjoyment

```
Model  : 1
    Y  : PE
    X  : Ent
    W  : PP

Sample
Size:  439

************************************************************************
OUTCOME VARIABLE:
 PE

Model Summary
          R        R-sq        MSE          F        df1        df2          p
      .9051       .8192       .5548   657.0905     3.0000   435.0000      .0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     3.3634      .0522    64.4776      .0000     3.2608     3.4659
Ent           .7751      .0394    19.6517      .0000      .6975      .8526
PP            .1815      .0366     4.9627      .0000      .1096      .2533
Int_1         .0497      .0164     3.0324      .0026      .0175      .0818

Product terms key:
 Int_1   :          Ent      x         PP
```

Annex 56. Results of moderator analysis of impact of perceived personalization on relationship between perceived intrusiveness and privacy concerns

```
Model  : 1
    Y  : PC
    X  : PI
    W  : PP

Sample
Size:  439

**************************************************************************
OUTCOME VARIABLE:
 PC

Model Summary
          R       R-sq       MSE          F        df1        df2          p
      .7559      .5714     1.9738   193.3111     3.0000   435.0000      .0000

Model
              coeff        se          t          p        LLCI       ULCI
constant     3.5227      .0850    41.4213      .0000      3.3555     3.6898
PI            .7962      .0508    15.6788      .0000       .6963      .8960
PP           -.1647      .0522    -3.1558      .0017      -.2673     -.0621
Int_1        -.0201      .0266     -.7532      .4517      -.0724      .0323

Product terms key:
 Int_1   :          PI       x         PP
```

Annex 57. Results of moderator analysis of impact of perceived personalization on relationship between informativeness and perceived relevance

```
Model  : 1
    Y  : PR
    X  : Info
    W  : PP

Sample
Size:  439

**************************************************************************
OUTCOME VARIABLE:
 PR

Model Summary
          R       R-sq       MSE          F        df1        df2          p
      .8768      .7688      .7443   482.2893     3.0000   435.0000      .0000

Model
              coeff        se          t          p        LLCI       ULCI
constant     3.3990      .0553    61.4571      .0000      3.2903     3.5077
Info          .3064      .0401     7.6454      .0000       .2276      .3852
PP            .6688      .0368    18.1659      .0000       .5964      .7412
Int_1         .1145      .0179     6.3953      .0000       .0793      .1497

Product terms key:
 Int_1   :          Info     x         PP
```

Annex 58. Results of moderator analysis of impact of perceived personalization on relationship between informativeness and perceived usefulness

```
Model : 1
    Y : PU
    X : Info
    W : PP

Sample
Size: 439

**********************************************************************
OUTCOME VARIABLE:
 PU

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .8529      .7274      .8608   386.8701     3.0000   435.0000      .0000

Model
               coeff         se          t          p       LLCI       ULCI
constant      4.0688      .0595    68.4110      .0000     3.9519     4.1857
Info           .3625      .0431     8.4104      .0000      .2778      .4472
PP             .5951      .0396    15.0306      .0000      .5173      .6729
Int_1          .0451      .0193     2.3408      .0197      .0072      .0829

Product terms key:
 Int_1   :        Info      x         PP
```

Annex 59. Results of moderator analysis of impact of perceived personalization on relationship between credibility and privacy concerns

```
Model : 1
    Y : PC
    X : Cred
    W : PP

Sample
Size: 439

**********************************************************************
OUTCOME VARIABLE:
 PC

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      .6725      .4523     2.5224   119.7243     3.0000   435.0000      .0000

Model
               coeff         se          t          p       LLCI       ULCI
constant      3.5702      .1006    35.4897      .0000     3.3725     3.7679
Cred         -.7238      .0691   -10.4735      .0000     -.8597     -.5880
PP           -.1668      .0665    -2.5066      .0126     -.2975     -.0360
Int_1        -.0038      .0309     -.1226      .9025     -.0646      .0570

Product terms key:
 Int_1   :        Cred      x         PP
```

Annex 60. Results of correlation analysis between privacy concerns and attitude towards an advertisement

Correlations

		Privacy_concerns	Attitude
Privacy_concerns	Pearson Correlation	1	-.588[**]
	Sig. (2-tailed)		<.001
	N	439	439
Attitude	Pearson Correlation	-.588[**]	1
	Sig. (2-tailed)	<.001	
	N	439	439

**. Correlation is significant at the 0.01 level (2-tailed).

Annex 61. Results of correlation analysis between perceived usefulness and attitude towards an advertisement

Correlations

		perceived usefulness	Attitude
perceived usefulness	Pearson Correlation	1	.839[**]
	Sig. (2-tailed)		<.001
	N	439	439
Attitude	Pearson Correlation	.839[**]	1
	Sig. (2-tailed)	<.001	
	N	439	439

**. Correlation is significant at the 0.01 level (2-tailed).

Annex 62. Results of correlation analysis between perceived relevance and attitude towards an advertisement

Correlations

		Perceived_relevance	Attitude
Perceived_relevance	Pearson Correlation	1	.939[**]
	Sig. (2-tailed)		<.001
	N	439	439
Attitude	Pearson Correlation	.939[**]	1
	Sig. (2-tailed)	<.001	
	N	439	439

**. Correlation is significant at the 0.01 level (2-tailed).

Annex 63. Results of correlation analysis between perceived enjoyment and attitude towards an advertisement

Correlations

		Perceived_enj oyment	Attitude
Perceived_enjoyment	Pearson Correlation	1	.895**
	Sig. (2-tailed)		<.001
	N	439	439
Attitude	Pearson Correlation	.895**	1
	Sig. (2-tailed)	<.001	
	N	439	439

**. Correlation is significant at the 0.01 level (2-tailed).

Annex 64. Results of ANOVA test for regression analysis between privacy concerns and attitude towards an advertisement.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	472.267	1	472.267	231.212	<.001^b
	Residual	892.605	437	2.043		
	Total	1364.871	438			

a. Dependent Variable: Attitude

b. Predictors: (Constant), Privacy_concerns

Annex 65. Coefficients table for regression analysis between privacy concerns and attitude towards an advertisement.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.436	.133		40.984	<.001
	Privacy_concerns	-.486	.032	-.588	-15.206	<.001

a. Dependent Variable: Attitude

Annex 66. Results of regression analysis between privacy concerns and attitude towards an advertisement.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.588[a]	.346	.345	1.42919

a. Predictors: (Constant), Privacy_concerns

Annex 67. Results of ANOVA test for regression analysis between perceived usefulness and attitude towards an advertisement.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	960.118	1	960.118	1036.611	<.001[b]
	Residual	404.753	437	.926		
	Total	1364.871	438			

a. Dependent Variable: Attitude
b. Predictors: (Constant), Perceived usefulness

Annex 68. Coefficients table for regression analysis between perceived usefulness and attitude towards an advertisement.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.227	.117		1.930	.054
	Perceived usefulness	.836	.026	.839	32.196	<.001

a. Dependent Variable: Attitude

Annex 69. Results of regression analysis between perceived usefulness and attitude towards an advertisement.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.939[a]	.881	.881	.60848

a. Predictors: (Constant), Perceived_relevance

Annex 70. Results of ANOVA test for regression analysis between perceived relevance and attitude towards an advertisement.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1203.073	1	1203.073	3249.367	<.001[b]
	Residual	161.799	437	.370		
	Total	1364.871	438			

a. Dependent Variable: Attitude

b. Predictors: (Constant), Perceived_relevance

Annex 71. Coefficients table for regression analysis between perceived relevance and attitude towards an advertisement.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.337	.066		5.123	<.001
	Perceived_relevance	.927	.016	.939	57.003	<.001

a. Dependent Variable: Attitude

Annex 72. Results of regression analysis between perceived relevance and attitude towards an advertisement.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.939[a]	.881	.881	.60848

a. Predictors: (Constant), Perceived_relevance

Annex 73. Results of ANOVA test for regression analysis between perceived enjoyment and attitude towards an advertisement.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1094.247	1	1094.247	1766.972	<.001[b]
	Residual	270.624	437	.619		
	Total	1364.871	438			

a. Dependent Variable: Attitude

b. Predictors: (Constant), Perceived_enjoyment

Annex 74. Coefficients table for regression analysis between perceived enjoyment and attitude towards an advertisement.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.556	.084		6.639	<.001
	Perceived_enjoyment	.905	.022	.895	42.035	<.001

a. Dependent Variable: Attitude

Annex 75. Results of regression analysis between perceived enjoyment and attitude towards an advertisement.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.854[a]	.729	.728	.96883

a. Predictors: (Constant), Attitude

Annex 76. Results of correlation analysis between attitude towards an advertisement and online purchase intention.

Correlations

		Online_purcha se_intention	Attitude
Online_purchase_intention	Pearson Correlation	1	.854**
	Sig. (2-tailed)		<.001
	N	439	439
Attitude	Pearson Correlation	.854**	1
	Sig. (2-tailed)	<.001	
	N	439	439

**. Correlation is significant at the 0.01 level (2-tailed).

Annex 77. Results of ANOVA test for regression analysis between attitude towards an advertisement and online purchase intention.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1102.661	1	1102.661	1174.759	<.001^b
	Residual	410.180	437	.939		
	Total	1512.841	438			

a. Dependent Variable: Online_purchase_intention
b. Predictors: (Constant), Attitude

Annex 78. Coefficients table for regression analysis between attitude towards an advertisement and online purchase intention.

Coefficients^a

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.037	.108		.346	.729
	Attitude	.899	.026	.854	34.275	<.001

a. Dependent Variable: Online_purchase_intention

Annex 79. Results of regression analysis between attitude towards an advertisement and online purchase intention.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.854[a]	.729	.728	.96883

a. Predictors: (Constant), Attitude

Annex 80. Group statistics of t test for online purchase intention

Group Statistics

	Do you use Apple products?	N	Mean	Std. Deviation	Std. Error Mean
Online_purchase_intention	Yes	196	3.9898	1.81550	.12968
	No	243	2.8673	1.74086	.11168

Annex 81. Results of t test for online purchase intention

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Significance One-Sided p	Significance Two-Sided p	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower	95% Confidence Interval of the Difference Upper
Online_purchase_intention	Equal variances assumed	1.020	.313	6.589	437	<.001	<.001	1.12251	.17037	.78767	1.45736
	Equal variances not assumed			6.559	409.847	<.001	<.001	1.12251	.17114	.78609	1.45893

Annex 82. Group statistics of t test for online purchase intention

Group Statistics

	Have you bought Apple products during the past year?	N	Mean	Std. Deviation	Std. Error Mean
Online_purchase_intention	Yes	168	3.8423	1.78830	.13797
	No	271	3.0747	1.84358	.11199

Annex 83. Results of t test for online purchase intention

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p			Lower	Upper
Online_purchase_intention	Equal variances assumed	.059	.808	4.288	437	<.001	<.001	.76754	.17898	.41578	1.11930
	Equal variances not assumed			4.319	362.279	<.001	<.001	.76754	.17770	.41808	1.11699