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# THE ROLE OF MARKETING CHANNELS DRIVEN BY ARTIFICIAL INTELLIGENCE IN CONSUMER PURCHASE DECISIONS TOWARDS FAST FASHION PRODUCTS IN ESTONIA AND SPAIN

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I hereby declare that I have compiled the paper independently and all works, important standpoints and data by other authors has been properly referenced and the same paper has not been previously presented for grading. The document length is 12,563 words from the introduction to the end of conclusion.

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## ABSTRACT

The study aims to research the influence of four AI-driven marketing channels on fast fashion products consumers' purchase decisions among Estonian and Spanish people. AI-driven marketing is used to make automated decisions based on data collecting, data analysis, and other observations about the audience or economic developments that may affect marketing activities (Mari 2019). The fast fashion field is used in this paper because of several unique distinctive features of the fashion industry: short shelf-life; fast customer response and a high flow of products.

PPC advertisement, chatbots, apps with visual search or personalised engine and automated emails as the most integrated AI-driven marketing tools were considered examining the positive influence on consumer purchase decisions in two countries. A research model for this study was developed using the literature review. The author uses a quantitative research method. The sample size is 203 respondents; selected by probability sampling. The empirical evidence was collected by surveying through a structured questionnaire. The dataset is analysed using SPSS software.

The study findings investigated that there is a link between the AI-driven marketing channels and consumer decision to purchase fast fashion products. The study finds that social media marketing, blogs and websites channels have a strong influence in shaping customer purchase intent of Estonian consumers. However, the mobile applications, and automated emails channels are shaping customer purchase intent of Spaniards increasingly.

This investigation provides ample scope to frontline employees, managers and marketers in the fast fashion industry on how to improve ROI, online and offline sales, implement beneficial models and methods in a marketing department, improve client relationships and develop AI-driven marketing strategies.

Keywords: artificial intelligence, ai-driven marketing, consumer purchase decisions, fast fashion

# **INTRODUCTION**

Marketing is increasingly data-driven, automated, and intelligent in the modern era (Chintalapati, Pandey 2021). Information consumption on the Internet has become indispensable. Digital marketing and real-time communication with customers are vital to success in any of businesses today, as it's used to increase sales, brand awareness, and brand management, among other purposes. Traditional marketing channels, like the radio and newspaper, no longer hold the key to successful campaigns, and digital marketing practices are very important to majority business types to reap the benefits (Mari 2019).

Technological advancements gained popularity among marketing approaches and strategies. The usage of social media provides companies with a valuable tool to reach out to potential customers to encourage them to purchase their products (Funde, Mehta 2014). As a result, these accomplishments often enable organisations to better serve their customers by managing customer needs and offering products. Now customers have multiple options on digital platforms, and machine learning can offer marketers with the most proper products to offer them (Verganti 2017). Organisations have been investing substantially in machine learning to improve their marketing abilities as a result of the quantity of data (Ma, Sun 2020). Therefore, AI integration into marketing channels is increasing, starting from providing customer support opportunities to the analysis of various online promotions. Many companies use AI and machine learning (ML) to forecast customer requests, aid frontline service employees in serving consumers and allow bots to answer simple service inquiries to improve the customer experience (Campbell et al. 2020).

The author of the current paper chooses the fast fashion field because this is a good sample due to the wide variety of companies in these countries. Also, the set of customer touchpoints in the fast fashion sector is very diverse, which means AI-driven marketing should be implemented and help businesses as well. Additionally, this field has hallmarks such as short shelf life; fast customer response and a high flow of products, which are distinctive from the whole fashion industry.

The research problem of the thesis is related to the notion that the number of internet purchases has increased with the help of AI-driven marketing, but there is no understanding which AI-driven marketing channels positively influence on consumers' purchase decisions. In this research AI-driven marketing channels stand for channels that are made possible only due to AI integration into their business model.

The author investigates which AI-driven marketing channels have a positive impact on purchase decisions of Estonian and Spaniard users in the fast fashion field. "Marketing professionals face increasing complexity due to the explosion of digital and data touchpoints, as well as unprecedented consumers' expectations in terms of interaction, content, and offer personalization." (Mari 2019) Businesses usually face difficulties in sales and revenue increase through AI-driven marketing due to time and resource necessity and they are also short on these (Sznida 2020). According to Richardson's 2019 Selling Challenges Research Study, people need to gain more than just selling actions through marketing. Businesses need to understand the right marketing tools in their field in order to make a strong link with the audience, encourage customer interest and make a competitive customer journey, which all stimulate sales enhancement (Market Business news 2021). However, the implementation of AI-driven marketing should be individual, yet coordinated, at each step of the consumer journey (Mari 2019).

The author is going to fill the gap through analysis of AI-driven marketing channels in Estonia and Spain for getting a better perception about fast fashion products users' attitudes towards these channels in those countries. These countries are chosen due to differences in various aspects. Estonia is a leading company in innovations (Invest in Estonia 2019), the IT sector, digital marketing, etc. However, Spain is not so developed in this innovation sphere, it is considered as a moderate innovator, however, Estonia is an innovation leader (European commission 2021). Additionally, the mentality of the population is different and the consumer behaviour principle also differs. The investigation and comparison of the results could give data, which will help in further research.

In the future, frontline employees, managers and marketers of the fast fashion sector can use the findings of the current paper for increasing and developing ROI, online and offline sales,

adopting beneficial models and methods in a marketing department and improving relationships with clients.

Within this context, the thesis aims to explore which AI-driven marketing channels (social media marketing (PPC advertisement), blogs and websites (chatbots), mobile applications (visual search, personalised engine), automated emails) have a positive influence on fast fashion products users' purchase decisions in Estonia and Spain. Based on the above, the author developed the following research question of this investigation: "Which AI-driven marketing channels (social media marketing (PPC advertisement), blogs and websites (chatbots), mobile applications (visual search, personalised engine), automated emails) have a positive influence on consumers' purchase decision in fast fashion field of Estonian and Spanish customers?"

To achieve the aim of the thesis, the following objectives are set up:

- To find on an understanding of AI-driven marketing and its types and assign them to users' reception in order to reveal its influence on consumer purchase decision in the fast fashion field,

- To bring out the main results of previous empirical studies about AI-driven marketing in the fast fashion field,

- To conduct an online survey among digital users of the fast fashion in Estonia and Spain countries and investigate types of AI-driven marketing, which positively contribute their purchase decision,

- To find out which 4 AI-driven marketing channels have a positive impact

and more common for digital users with various background characteristics,

- To draw up conclusions about what types of 4 AI-driven marketing channels are

prevailing in the fast fashion field in Estonia and Spain.

The structure of the paper includes theoretical and empirical parts. The first chapter of this thesis provides a theoretical overview of the AI-driven marketing topicality and clarification of the topic choice with arguments. Subchapters focus on explaining the concept of AI-driven marketing and its types and assigning it to marketing and sales; the author analyses the concept of customer purchase decision and its role in the online environment; define the relevance of artificial intelligence driven marketing to customer purchase decisions in the fast fashion field.

The second chapter entails the research methodology used to answer the above research question and fulfil the gap. This study will collect quantitative data through the survey with 26 statements during 3 weeks. The research design, survey instruments, collecting method and the connection between research model and questionnaire are developed in this chapter. In the third chapter the results of the research and their interpretations will be discussed as well as limitations and future research directions.

The author would like to thank her supervisor Iivi Riivits-Arkonsuo for providing invaluable guidance, support, and suggestions during the design, research, and writing of this thesis. Also, the author would like to thank Olha Lysa for the consultations and strong support in the data analysis part.

# 1.THEORETICAL FRAMEWORK FOR EVALUATING AI-DRIVEN MARKETING AND CUSTOMER PURCHASE DECISION

In this chapter, the author has described the concept of artificial intelligence in marketing, customer purchase decisions in the digital sphere and relevance of AI-driven marketing to customer purchase decisions. Firstly, artificial intelligence in marketing is specified to enhance the level of customer service and experience; business decision-making and attitude. Then the four AI-driven marketing channels are introduced; starting with social media marketing, blog and website, mobile applications and email marketing which perform as crucial parts of customer journey and affect consumers' purchase decisions. Besides, the following subchapters reveal the concept of customer purchase decision in the Internet and the concept of the fast fashion field. Lastly, the author highlighted the relevance of AI-driven marketing to customer e-purchase decisions in the fast fashion field.

#### 1.1. The concept of artificial intelligence in marketing

The customer marketplace has progressed to the point where the person delegates the time-consuming task to a third party (Gretzel et al. 2006). Nowadays customers are motivated by a need for more comfort and time-saving methods, and they select services appropriately to this (Seiders et al. 2007). Over the past few decades, the world has been rapidly transformed by technological advances. The Internet has become an indispensable source of information consumption. GlobalWebIndex found that 54% of social media users do product research via social media and 71% are more likely to buy things they learn about on social media (Barysevich 2020). "AI paved the way for new ways to provide value and use to customers. AI refers to the general concept that technological facilities can think and execute jobs like humans using software and algorithms." (Kumar et al. 2019) AI is rapidly being used to support a wide range of customer-brand experiences (Campbell et al. 2020).

The evolution of marketing has been continuously impacted by technological advancements and has strongly established how marketing and artificial intelligence (AI) can work together to produce positive results (Siau, Yang 2017). Digital marketing has different channels: AI-driven and non-AI-driven. "Artificial intelligence (AI) is at the core of a corporate and societal

transformation. Companies may use AI to better understand, anticipate, and engage customers in a variety of ways." (Campbell et al. 2020) This trend to AI-assisted customer decisions is crucial for the marketing field (Klaus, Zaichkowsky 2020). AI technologies are used to encourage customers to make impulse purchases, and artificial intelligence has been an essential component of the digital transformation of businesses (Duan et al. 2019). For digital marketing specialists, artificial intelligence has expanded their access to identifying, analysing, converting, and retaining clients (Nair, Gupta 2021). Bag et al. (2021) claims that AI-enabled systems are helping humans make better decisions by disrupting businesses and reinventing innovative business models. The term artificial intelligence pertains to any technology that simulates human intelligence, moreover, it also applies to semantic search, machine learning, and recognition of images and voices (Nair, Gupta 2021). "Artificial intelligence (AI) in marketing is currently gaining importance, due to increasing computing power, lower computing costs, the availability of big data, and the advance of machine learning algorithms and models." (Huang, Rust 2020) The first basic definition of artificial intelligence was introduced by a group of computer scientists and mathematicians who proposed the AI term in 1956 as the result of a summer workshop named "Dartmouth Conference" (Hildebrand 2019). However, the term has been explained in different ways during the years (see Table 1).

Author(s)	Year	Definition
Marr, D.	1976	"AI is the study of complex information processing problems that often have their roots in some aspect of biological information processing." (p.2)
McCarthy, J.	2007	"It is the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable." (p. 2)
Sterne, J.	2017	"It is a machine pretending to be a human." (p.4).
Arsenijevic, U., Jovic, M.	2019	"Is a tool that enables marketers to create highly personalized customer experiences, increases organization's responsiveness and solve customers' problems." (p.1).
Huang, M., Rust, R.	2020	"The use of computational machinery to emulate capabilities inherent in humans, such as doing physical or mechanical tasks, thinking, and feeling" (p.31)

Source: compiled by author based on the sources in the table

A definition of AI can vary, and finding the precise meaning of this concept is difficult. Some authors' concepts are based on solving human (not only biological) problems through intelligent machines (Marr 1976; McCarthy 2007; Arsenijevic, Jovic 2019), others are based on simulation of humans' capabilities (Sterne 2017; Huang, Rust 2020).

### 1.1.1. AI technology in Marketing and Sales

Whether entrepreneurs run an old economy business or a digital one, AI is a force that affects everyone (Hildebrand 2019). With customer service and innovation becoming increasingly

important intangibles for companies, their success increasingly depends on marketing, attracting, and acquiring the best talent (Esch, Stewart Black 2021). Artificial Intelligence already permeates almost all functional themes of marketing, ranging from customer experience to marketing operations to business decision-making (Hildebrand 2019; Chintalapati, Kumar Pandey 2021). AI is seen as having parallel exogenous and endogenous effects according to an emerging marketing paradigm (see Figure 2) (Mari 2019).

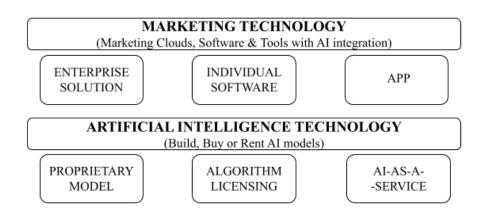


Figure 2. Marketing and AI Technologies dependencies Source: Mari (2019, 3)

Figure 2 shows that marketing technology (marketing clouds, software & tools with AI integration) and artificial intelligence technology (build, buy or rent AI models) are parallel, but have a significant value for each other's existence. Enterprise solutions, individual software, apps supported by AI technology have a beneficial side of the market (Garvin 2019). Digital marketers can gain approval from relevant stakeholders by linking their business strategy and AI (Nair, Gupta 2021). Businesses directly benefit from proactively implementing an AI strategy in which models are defined according to how they respond to specific business requirements, whether they are built in-house, bought from third-parties, or rented out-of-pocket. Despite not investing in AI capability elaboration, a marketing department may already gain from these recent advancements since AI is already deployed throughout the marketing processes. (Mari 2019)

Stone et al. (2020) claimed "We expect that tomorrow AI will be used in strategic decisionmaking (e.g. which business models to use, which strategies to follow, which markets to target, which channels of communication and distribution to use, what pricing and competitive positioning strategies to follow)." Both B2B and B2C markets seem to benefit from AI applications in marketing (Esch, Black 2021). AI-driven marketing enables the transformation of data into actions and interactions to predict behaviours, anticipate needs, and hyper-personalise messages by automating, optimising, and augmenting the transformation process (Mari 2019). By computerising other marketing aspects and generating data, this advance facilitates the deployment of AI in marketing, however, it also requires integration of AI with these applications, which will take and make recommendations based on data feeds (Stone et al. 2020).

These AI-enabled tools can also help firms better understand how their customers perceive and engage with their product and service offerings as firms implement AI-driven marketing to educate their customers about products and services offered and make it easier for them to navigate between choices (De Bruyn et al. 2020). Artificial intelligence may be used by advertisers to identify potential customers from social media users, allowing for more personalised advertising (Bag et al. 2021). Customers who abandon their shopping carts or churn will be less likely to be margin-sapping outcomes, while they will likely be more loyal to the store or positive about it (Esch, Black 2021).

There are 14 AI and ML channels, which perform as a crucial part of the customer journey in marketing - content curation and content creation; voice search; programmatic media buying; propensity modelling; predictive analytics; ad-targeting; lead scoring; dynamic pricing; web & app personalization; chatbots; re-targeting; marketing automation; dynamic emails (Nair, Gupta 2021). Almost every part of digital marketing is affected by artificial intelligence, from social media to paid advertising (Stone et al. 2020). Although different ML applications produce a variety of financial results, the level of technical sophistication varies across them (see Figure 3) (Mari 2019).

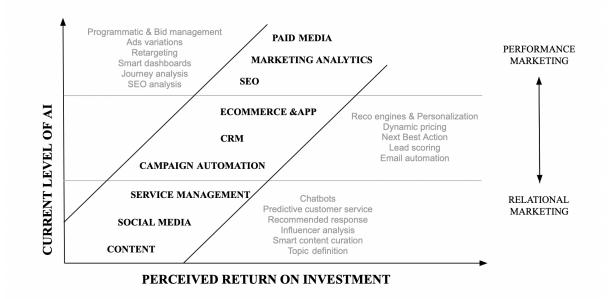


Figure 3. A cross-functional analysis of AI sophistication and ROI Source: Mari (2019, 3)

The idea of artificial intelligence is to solve problems the best way possible or, if uncertainty is present, to get the best outcome (Paschen et al. 2020). Artificial intelligence has been widely employed to enhance the accuracy of marketing tactics and to automate marketing (Yeo et al. 2022). According to Mari (2019), managers believe that incorporating AI into the fields of paid media, marketing analytics, and SEO will yield the best returns. In order to develop effective sales strategies and tactics, B2B companies can use AI solutions to turn enormous amounts of data into information and knowledge (Paschen et al. 2020). In the chart below, AI is illustrated as a new component of production (see Figure 4).

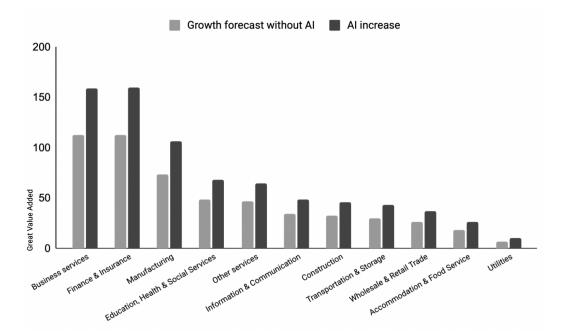


Figure 4. The effect of AI on the GVA growth of different industries by 2035 year Source: Plant Automation Technology

According to Plant Automation Technology, the Finance & Insurance and Business Services sectors will achieve the highest growth points by 2035 with the help of AI increase. However, the Utilities sector will have a more beneficial state due to AI increase by 2035, because growth will be increased almost by a half with the help of AI compared to growth forecast without AI adoption. Regarding Adobe Communications Team (2021), 3 of 4 companies that have implemented AI achieved a boost in sales by 10% or more percentage. Summing up, artificial intelligence can be used to completely transform manufacturing processes by using artificial intelligence in manufacturing plants.

In a wide range of cases, AI is becoming more powerful at addressing marketing and business challenges (Grewal et al. 2020). Huang and Rust (2021) claimed that AI can play a crucial role in each of the three phases of strategic marketing: marketing research - marketing strategy - marketing action (see Figure 5).



Figure 5. AI and strategic marketing decisions Source: Huang & Rust (2021, 32)

"Our cycle views strategic planning as a circular process, starting from conducting marketing research to understand the market, the firm, the competitors, and the customers; to developing strategies for segmentation, targeting, and positioning; and to designing specific marketing actions to execute the strategy." (Huang, Rust 2021) Every link of this process has subactions, which are categorised into three types.

These three types of artificial intelligence available to a marketer: mechanical, thinking, and feeling. The AI intelligences provide unique benefits: mechanical AI is best for standardization, thinking AI is good for customization, and feeling AI is ideal for relationalization (see Table 2). (Huang, Rust 2021)

AI intelligence	Mechanical AI	Thinking AI	Felling AI
Strategic decision			
Marketing research	Data collection (sensing, tracking, collecting, processing)	Market analysis (identify competitors and competitive advantages)	Customer understanding (revealing existing and potential customer needs and wants)
Marketing strategy	Segmentation	Targeting	Positioning
Marketing action	Standardisation	Personalization	Relationalization
Product/Consumer	Automate process and output of meeting customer needs and wants	Personalise products based on customer preferences	Understand and meet customer emotional needs and wants
Price/Cost	Automate process of price setting and payment	Personalise prices based on customer willingness to pay	Negotiate price and justify the cost interactively
Place/Convenience	Automate customer access to product	Personalise frontline interactions	Personalize experience for customer engagement
Promotion/ Communication	Automate communication with customers	Customise promotional content for personal communication	Tailor communication based on customer emotional preferences and reactions

Table 2. A strategic framework for AI in marketing

Source: Huang & Rust (2021, 34)

The ability to maintain consistency makes mechanical AI beneficial for standardization. Mechanical AI in marketing has provided various benefits including collaborative robots (cobots), drone delivery of goods, self-service robots that deliver services, and service robots that automate social presence in the field - all of these are all designed to produce standardised, consistent and reliable results. (Mende et al. 2019). Thinking AI is capable of recognizing patterns from data (e.g., text mining, speech recognition, facial recognition), which enables personalization (Chung et al. 2016). For example, personalised recommendation systems like Netflix movie recommendations and cross-selling recommendations on Amazon, which are used

on common platforms. Feeling AI can help improve relationships by personalizing them (i.e., by, for example, recognizing and responding to emotions) (Huang, Rust 2021). A marketing function or activity requiring interaction and communication with the goal of maximizing customer lifetime value (e.g. customer service) should consider using AI, a good example of which is interaction with prospects (Nalini et al. 2021).

Summing up, AI and Marketing technology have a parallel existence towards each other, however, they play a crucial role in everyone's presence. Strategic marketing consists of 3 main types of AI: mechanical, thinking and feeling. 14 channels of AI and ML have an impact on marketing approaches and results, that is why AI is a quite new, but essential item in sales.

#### 1.1.2. AI-driven marketing channels

In this paper the author is investigating 4 AI-driven marketing channels and their influence on consumer behaviour. They are social media marketing (PPC advertisement), blogs and websites (chatbots), mobile applications (visual search, personalised engine), and automated emails. In this research the term "AI-driven marketing channels" means the channels that would not be possible without an AI integration. These channels are chosen, because they are the most common and spread approaches in the fast fashion field (Clutch 2018).

The first one was defined by Yadav and Rahman (2017) as "a process by which companies create, communicate, and deliver online marketing offerings via social media platforms to build and maintain stakeholder relationships that enhance stakeholders' value by facilitating interaction, information sharing, offering personalized purchase recommendations, and word of mouth creation among stakeholders about existing and trending products and services. "Brodie et al. (2013) state that social media can help organisations develop engaging, profitable relationships with their customers and influence their perception of their products. In addition to educating customers, obtaining their feedback, and increasing sales, fashion brands have incorporated social media into their marketing strategies (Tran 2020). Through viral marketing, social media can even be more effective at boosting the interest of the young and digital generation in new products and trends (Kim & Ko 2012).

The second are blogs and websites. By leveraging user-generated content, blogging in the digital age has become one of the most convenient and effective tools for communicating and sharing information (Tran 2020). Chaffey et al. (2006) has defined this concept as "an easy method of regularly publishing web pages that are best described as online journals, diaries, or news events listings". A business blog or any other kind of blog that might bring money is primarily designed

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to rank your website higher in Google SERPs (Search Engine Results Pages) - increasing your visibility (Minaev 2021). Advertising on specialised blogs or websites is an ideal method for brands to reach their respective target audiences (Tran 2020). There are 2 opportunities to advertise products or services: first one - space and audience supply for advertising and created content for brand; second one - blogger's or website owner's publishing of review and promotion and getting wage for this work (Minaev 2021). Currently, fashion blogs and websites account for the largest segment of the blogosphere focused on fashion brands, fashion products, street styles, and personal style (Halvorsen et al. 2013).

The third are mobile applications. Because of their widespread use and mobility, they are quickly becoming the most popular method of digital marketing (Tran 2020). Digital devices enable organisations to engage with clients in a more individualised and timely manner thanks to a variety of interactive capabilities (Tong et al, 2020). If the goal is to engage users interactively, or to provide a more computer-oriented application than a website, then a mobile app is a suitable solution (Oragui 2018). Promoting brands can use branded applications to improve consumer perceptions of them and enhance purchase decisions (Tran 2020). Fashion apps have a variety of digital features that allow users to do everything from searching information to shop and buy products (Sung, 2021). However, Tsang et al. (2014) consider that unless agreement is secured as an opt-in, consumers' attitudes toward marketing on smartphones are generally negative.

Last one is automated email. Goic et al. (2021, 17) consider that "Email is not only a massive form of communication, but it also enables firms to send personalized messages to their customers and generate timely evaluations of the messages' impact." However, the volume of private information that may be utilized to identify consumers and how data is presented to maintain consumer confidence are both limited by consumer notions of privacy (Nowak & Phelps 2021). Additional important aspects of email content is entertainment, which can provide additional value to customers and so build brand equity and a second one is credibility - property of email that may assist a brand beat out other options in a consumer's evaluation process (Tran 2020). The reputation of the organisation, the message's sender, and the advertising medium all play a role in the email's trustworthiness (Goldsmith et al. 2000). Nethertheless, customers may be distracted or overwhelmed by the amount of information contained in e-mail advertisements, but if marketing specialists are rightly skilled and can mitigate this disadvantage, overall impact on customer purchase decisions can be favourable (Tran 2020). Brui (2018, 6) claims that "Nine

out of ten fashion brands have a newsletter sign up box in their homepages". Automated email marketing is a prominent tool of most shops in the fast fashion sector, but each company has its own email marketing approach (Tran 2020).

To sum up, across the fast fashion sector, social media marketing, fashion blogs/websites, branded mobile apps, and automated emails are observed as some of the most popular marketing strategies. Regarding literature analysis above all four channels - social media marketing, blogs and websites; mobile applications and automated emails have an influence on consumer purchase decisions. The following chapter 1.2. will provide about the role of consumer purchase decision in the online environment.

#### **1.2.** The consumer purchase decision role

This thesis's subchapter fulfils the concept of consumer purchase decision since it is impacted by AI-driven marketing channels. Due to the expanding popularity of online shopping and the fact that customers find AI-driven marketing much safer than traditional marketing, this marketing type has the potential to grow among users (Alzyoud 2018). Email marketing, social media, online advertising, and mobile services can improve the customer experience by making ordering, purchasing, and paying for things easier for customers while also saving them time and money (Qazzafi 2019). In terms of the objectives of this research, this part will only concern the decision making process and final purchase decision of consumers.

#### 1.2.1. The concept of consumer purchase decision in online environment

Unlike traditional e-commerce, social commerce is based on user social networks and can provide significant value to businesses (Zhou 2020). Behavioural scientists have long studied choice and preference, stimulus generalisation and respondent conditioning in the context of human behaviour analysis and learning (Kwan et al. 2005).

In digital marketing, understanding human behaviour might include the initial visit to the homepage, the investigation of associated Web pages, and the ultimate decision to complete or abandon a transaction (Kwan et al. 2005). Major studies showed that there are several different types of consumers in a general consumer audience, each with its own psychographic profile and behavioral characteristics (Huseynov, Yildirim 2019). The favourable attitudes toward online shopping have been shown to positively influence consumers' behaviour intentions (Elseidi 2018). Social media, websites, and blogs are being used along with marketers to reach consumers whose attention has been distracted by media, however, consumers are unable to

recall advertising messages and advertisements, to say nothing of the brand message (Chopra et al. 2020). Besides, consumers use digital devices to seek out products, obtain product information, and make purchases online (Fiore 2008). Marketers face a difficult challenge in breaking through the clutter in the current environment where consumers' attention spans are short and multiple screens compete for their attention, that is why marketing experts realize that emotional hooks are far more likely to engage consumers, so brand stories are becoming increasingly popular (Chopra et al. 2020).

All in all, review of existing research and its results will be included in this study on how these AI-driven marketing channels may influence consumer decision making and their application to fast fashion.

#### **1.2.2.** Decision making model and the process of customer purchase decisions

The daily interactions between people and brands include advertisements, news reports, conversations with family and friends, and product experiences (Court et al. 2009). The physical action and decision-making processes that consumers engage in to acquire, use, and acquire services that suit their wants and preferences are referred to consumer purchasing decisions (Yeo et al. 2022). The entire process of consumption should be understood by marketing managers to properly comprehend the purchasing decisions of consumers, since consumption is a continuous cycle with inseparable phases (Tran 2020). Due to AI-driven marketing advertisements are perceived by customers according to their needs; they can be evaluated as creative even when creatives themselves do not perceive it as such (Bayad 2021).

The first step is about brand perceptions, exposure to recent touch points, and consumer consideration of the first set of brands. Secondly, consumers remove brands as they consider what they want. The next one concerns a consumer's choice of brand at the time of purchase. The final one is about a consumer's establishing expectations after purchasing a product or service, based on prior experience, in order to shape the next decision path.

Purchase decision refers to the process by which a consumer makes a decision, following a series of steps to reach a choice (Karimi et al. 2015). By gathering information which potential customers typically obtain from advertisements, people can determine the quality of products, so, a perception of the product's quality, a consumer's awareness and opinion drive their purchasing decisions (Bayad 2021). According to Karimi et al. (2015), "The classic purchase behavior model" is a linear model that illustrates the important steps in the purchasing process, however, the consumer purchase decision-making framework has been used as the standard model in

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consumer behavior research and online consumer research and is based on studies including those of Engel et al., Howard and Sheth, and Nicosia and Mayer (see Figure 6). Making online purchase decisions requires an adaptive response from decision-makers because it is a dynamic and flexible process (Huseynov & Yildirim 2019).

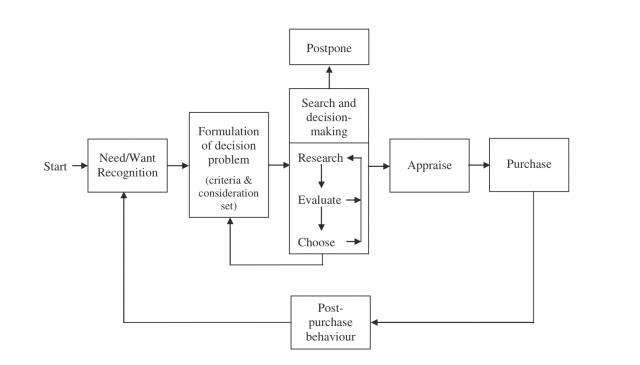


Figure 6. An online purchase decision-making process model Source: Karimi et al. (2015, 138)

This figure is derived from the literature of consumer purchase decision-making and decision analysis. It embraces the need recognition, information search, evaluation of alternatives, purchase and post-purchase stages. Karimi et al. (2015) claims that it illustrates loops within the process as well as supporting the dynamics and constructive nature of the process, additionally, it demonstrates a prescriptive approach since it incorporates a multi-stage process. The model demonstrates a measure and identifies key behavioural trends and variances in the purchasing process.

To conclude, marketing has a huge impact on customer purchase behaviour in the digital era. All the processes are revealed and have a specific cycle, which helps marketers as consumers to achieve necessary phases.

# **1.3.** The relevance of AI-driven marketing to customer e-purchase decisions in the fast fashion field

Fashion fast is commonly referred to as a business strategy creating a business supply chain that responds quickly to consumer needs while producing fashionable merchandise rapidly (Watson & Yan 2011). The term "fast fashion" refers to a variety of strategies for addressing the problem of textile waste (Morgan & Birtwistle 2009). Fashion shows and catwalks have become increasingly prevalent as the Internet and digital technologies have spread (Tran 2020). A fast fashion retailer has built a supply chain to respond swiftly to evolving fashion trends and consumer needs by delivering attractive products to stores with a lead time of one month or less (Watson & Yan 2011). Furthermore, due to this characteristic, the decision-making process is put under pressure by consumers' demands for shorter and shorter lead times (Tran 2020). Zara (Spain), H&M (Sweden), TopShop (UK), and Forever 21 are some examples of fast fashion stores (USA) (Sull & Turconi 2008). The use of internet communication in fast fashion allows retail staff to notify home office designers of customer demands so that they can be fulfilled promptly (Watson & Yan 2011). These shops may meet their consumers' product expectations in four weeks by utilizing a short lead time (Lopez & Fan 2009). Fast fashion items have a short shelf life since newly developed fashion items are constantly replacing them, however, compared to the industry average of 50%, this reduces markdowns to just 15% (Watson & Yan 2011). In addition, low prices are also associated with fast fashion (Tran 2020). By offering low prices, customers are more likely to buy more often, thus increasing the flow of products (Morgan & Birtwistle 2009).

In digital marketing, human behaviour analysis is used to understand the experience of online activity - from the moment a visitor arrives at the homepage to the moment they decide whether to join a mailing list or abandon a shopping cart (Kwan et al. 2005). According to Asling (2017) incorporating artificial intelligence into online and social commerce shopping ensures a more customer-centric experience, leading to a far more effective purchasing process. Consumers present their needs, desires, and opinions via the digital platform in a variety of ways, such as through search, comments, shares, blogs, likes and expressions on various platforms such as websites, mobiles, or face-to-face (Court et al. 2009). Consequently, the quantity, speed, variety, and accuracy of consumer data are definitely enhancing (Yeo et al. 2022). AI can assist in the

transformation of this data into actionable consumer data and AI uses this information to recommend retailers on product and cataloguing (Zhou, 2020).

As claimed by McKinsey&Company (2021), fashion is one of the most important industries since it makes up a large segment of the global economy. Clothing is a symbol of social status, a statement of one's place in society, and a necessity that is needed on a daily basis (Yeo et al. 2022). With the help of social media and other internet abilities, potential customers have an opportunity to get an overview of fashion looks and styles, moreover, Zhou (2020) claimed that shopping online is a type of social commerce user behaviour.

Kopalle et al. (2021) expect that by using a global perspective, marketing academics and practitioners will be able to research and apply AI technologies in a way that is not only more productive for businesses but also more conscious and attentive to major cultural, economic, and social variations around the world.

The literature review described above leads to the following research model which outlines that social media marketing (PPC ads), blogs and websites (chatbots), mobile applications (visual search, personalised engine), and automated emails have a positive effect on consumer purchase decisions toward fast fashion products (Figure 7).

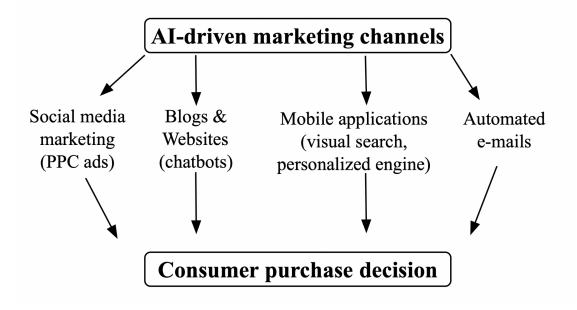


Figure 7. Research model Source: Author's model

Due to completing all the necessary literature review and establishing the research question, the next section will describe the research methodology.

## 2. RESEARCH METHODOLOGY

The purpose of this thesis is to explore the influence of AI-driven marketing channels (social media marketing (PPC advertisement), blogs and websites (chatbots), mobile applications (visual search, personalised engine), automated emails) on fast fashion products users' purchase decisions in Estonia and Spain. Based on this, the study is going to fulfil a research question: "Which AI-driven marketing channels (social media marketing (PPC advertisement), blogs and websites (chatbots), mobile applications (visual search, personalised engine), automated emails) have positive influence on consumers' purchase decision in fast fashion field of Estonian and Spanish customers?". The research methods employed to reach this goal are explained in the second chapter - research methodology. It contains 2 sections: research design and survey instrument, data collection.

#### 2.1. Research design and survey instrument

In order to research a consumer purchase decision (dependent variable) requires the data from product users. For this investigation a quantitative approach is chosen due to empirical facts and a solid analytical construction.

The reason for choosing a quantitative approach by the author for this paper is to evaluate and confirm the data gathered using this method. It's critical to use this research method, which keeps unbiased facts while also providing relevant data for purchase decisions through AI-driven marketing. This kind of research helps to make generalisations from a significant number of participants as compared to qualitative approach; helps to quantify AI-driven marketing channels and customer purchase decisions, and understand the difference in estimations between people with various background characteristics. Furthermore, due to analysis of previous investigations concerning the impact of AI-driven marketing channels towards consumer purchase decisions also used quantitative methods. They provide well-constructed formularities that are useful for this investigation.

The way of collecting data is an online survey on 2 languages – Estonian and Spanish. It is created to collect quantitative data and to answer the research question. This method of data collecting helps to reach people from different locations - in the current situation from Estonia

and Spain. Furthermore, the target group does not need any particular abilities to participate in the survey, allowing this questionnaire to be distributed to a majority of people in order to gather a significant variety of replies.

The survey was translated from English to Estonian and Spanish languages by a translation agency. There were 3 steps in translation for two languages in order to save the real meaning. The first one was translation from English to Estonian/Spanish, the next step – back translation from Estonian/Spanish to English and then third step was comparison of original and back translation in order to be sure that the meaning stayed the same. The adapted Estonian and Spanish versions are used in the questionnaire.

The researcher of this paper analysed different researches and pointed out several measurement tools for four AI-driven marketing channels (independent variables) and consumer purchase behaviour (dependent variable). The author found 5 different measurement tools and created a table with concrete five statements for each factor (see Appendix 1). Based on this table, it is clear that there are five statements for social media marketing measuring that are created by Schivinski & Dabrowski (2014), Kim & Ko (2012); five statements for blogs/websites measuring that are created by Malär et al. (2012), Hsu & Tsou (2011), five statements for mobile applications measuring that are created by Mittal (1995) and Zang (2014), five statements for automated email that are created by Ducoffe (1995) and Jamalzadeh et al. (2012) and six statements for consumer purchase decisions measuring that are created by Shareef et al. (2008).

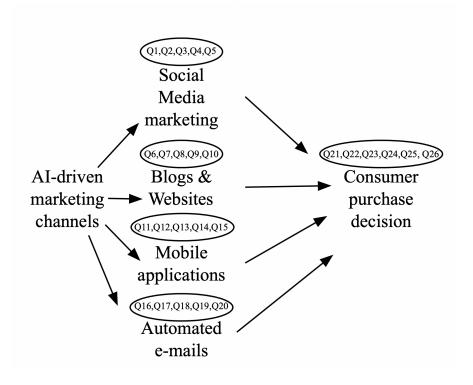


Figure 8. Connection between Research model and Questionnaire Source: Author's model

All statements have a five-point Likert scale: value "1" - "strongly disagree", "2" - "I somewhat disagree", "3" - "Neutral", "4" - "I somewhat agree", "5" - "strongly agree". Fast fashion products are also the subject of every statement. The connection among research model and questionnaire questions and their relevant references are shown in Figure 8. The questionnaire was tested on three persons to ensure that all of the questions are clear and understandable.

#### 2.2. Data collection

In this data gathering process a convenience sampling technique was used in order to research how AI-driven marketing channels influence consumer purchase decisions towards fast fashion. The respondents are selected due to one criteria - the country they are living in: Estonia or Spain. Recruitment of study participants was done through two popular online platforms for finding survey respondents, namely SurveyCircle, SurveySwap and two social media platforms such as Instagram and Facebook.

The process of gathering data took 3 weeks (10.03.22 - 31.03.22). The desired quantity of respondents was not less than 100 respondents per country, and after sharing surveys the final

quantity was 102 respondents from Estonia and 101 respondents from Spain. In total 203 respondents. The sample is from different age groups, sex, countries, education level and employment status.

In the next chapter the author presents sample descriptions and analysis of the results.

## **3. SAMPLE DESCRIPTION AND ANALYSIS OF THE RESULTS**

The following chapter illustrates the sample characteristics, the data analysis and results in six subchapters. The first one demonstrates the sample characteristics supported with demographic profiles of the respondents from Estonia and Spain. The second one shows descriptive statistics of the survey responses and analysis of the collected data. The next subchapter demonstrates the pivot tables of the categorical data gained from 21st question in the survey and their analysis. The fourth one illustrates exploratory factor analysis and the next one is about measuring reliability of obtained factors. The sixth subchapter is about hypothesis testing. The whole analysis was carried out with the help of SPSS and Excel softwares.

#### **3.1. Sample characteristics**

The author received 217 questionnaires. Of those, she found 14 incorrect surveys due to participants responding with extreme points and neutral points for every statement. The actual and effective sample size is 203 (102 respondents from Estonia and 101 respondents from Spain). Appendixes 2 and 3 demonstrate demographic statistics of Estonian and Spanish respondents.

The average age group of the Estonian sample leans towards 26-30. There was not any respondent from the "under 18" age group. The maximum is 18-25 age group. The Estonian sample has more female respondents than male ones. The mean education level of this sample is a bachelor degree. The minimum respondents have "less than high school" and "doctorate" educational levels. The most frequent employment status of the Estonian sample is "employee". Compared to the Spanish sample, the average age group is also 26-30. There are only a few respondents from "under 18" and "above 41" age groups. This sample also has more female respondents. The mean education level is also a bachelor degree. However, more students take part in this survey compared to the statistics.

Summing up, the majority of respondents of this survey are females compared to both samples. The average age of these groups is the same (26-30 years). On average they have a bachelor degree.

#### **3.2.** The survey's respondents' assessment of statements

In order to provide a general understanding of the data, the author demonstrates the descriptive statistics of 25 statements from the questionnaire (Appendix 4) in Appendixes 5 and 6.

Appendix 5 shows the evaluation of each statement by the respondents from Spain. All statements regarding social media marketing were generally accepted by consumers. Point 4 -"somewhat agree" is the most frequently chosen option, accounting for 51.5% for the statement "Social media advertisements (for example, Facebook; Instagram ads) for fast fashion products are frequently seen.", 35.6% for the statement "Social media advertisements (for example, Facebook; Instagram ads) of fast fashion brands enable opinions exchanging with others.", and 27.7% for the statement "Social media advertisements (for example, Facebook; Instagram ads) for fast fashion brands can be easily remembered". 40.6% of respondents are neutral that social media advertisements (for example, Facebook; Instagram ads) for fast fashion products are very attractive, and 28.7% of respondents are neutral that they like to use social media advertisements (for example, Facebook; Instagram ads) to get information about fast fashion products, services, and brands. All statements regarding social media marketing were also generally accepted by Estonian consumers like by Spanish ones (Appendix 6). Point 4 – "somewhat agree" is the most frequently chosen option for the statement "Social media advertisements (for example, Facebook; Instagram ads) for fast fashion products are frequently seen.", for "I like to use social media advertisements (for example, Facebook; Instagram ads) to get information about fast fashion products, services, and brands.", and for the statement "Social media advertisements (for example, Facebook; Instagram ads) of fast fashion brands enable opinions exchanging with others." (40.2%, 32.4% and 39.2%). Additionally, 35.3% of respondents are also neutral that social media advertisements (for example, Facebook; Instagram ads) for fast fashion products are very attractive, and 43.1% are neutral that Social media advertisements (for example, Facebook; Instagram ads) for fast fashion brands can be easily remembered.

In terms of blogs and websites, Spanish participants chose point 3 - "neutral" the most frequently in the 5-point scale, with 3 statements including:

- "Communication activities related to chatbot system in fast fashion brands' blogs/websites (complimenting, criticizing, evaluating, etc.) are credible";
- "I feel good about fashion blogs/websites' chatbots.";
- "Given the chance, I intend to buy fast fashion clothes that are posted (or discussed) in the fashion blogs/websites with chatbots."

However, 31.7% somewhat agreed that information related to fast fashion (products, trends, etc.) from fashion blogs/websites with chatbot system is credible, and 30.7% somewhat agreed that

they frequently use chatbots on fashion blogs/websites. Estonian participants chose point 3 - "neutral" the most frequently in the 5-point scale, with 4 items including:

- "Information related to fast fashion (products, trends, etc.) from fashion blogs/websites with chatbot system is credible."
- "I frequently use chatbots on fashion blogs/websites."
- "I feel good about fashion blogs/websites' chatbots."
- "Given the chance, I intend to buy fast fashion clothes that are posted (or discussed) in the fashion blogs/websites with chatbots."

Other part of the respondents opted for point 4 - "somewhat agree" toward the statement "Communication activities related to chatbot system in fast fashion brands' blogs/websites (complimenting, criticizing, evaluating, etc.) are credible".

Among the items of mobile apps, the statement "Fast fashion apps are pleasing to use." and "After using a fast fashion app, I have a better perception of the quality of the brand's products and services." were addressed with point 3 - "neutral", with 36.6% and 43.6% respectively, by Spanish respondents. However, statements "After using a fast fashion app, I think the brand is more attractive." and "I intend to buy products through fast fashion apps." were addressed with point 4 - "somewhat agree", with 38.6% and 31.7% respectively. Nevertheless, 30.7% of respondents somewhat disagreed that they frequently use fast fashion apps to see their products. Besides, Estonian respondents addressed all five statements with point 3 - "neutral", with 30.4%, 36.3%, 32.4%, 38.2% and 32.4% respectively.

In terms of automated email marketing, Spanish participants chose point 3 – "neutral" the most frequently in the 5-point scale, with 4 items, but rest respondents opted for point 2 - "somewhat disagree" toward the statement "Emails from fast fashion brands are pleasing to read", meanwhile Estonian participants credit this statement as "neutral".

Estonian participants also chose point 3 – "neutral" the most frequently in the 5-point scale, with other 3 statements such as: "Emails from fast fashion brands provide timely and relevant information on products and promotion."; "Fast fashion email advertising is not annoying." and "Fast fashion email advertising does not bring privacy concerns for me.". The other part of Estonian respondents opted for point 4 - "somewhat agree" toward the statement "Fast fashion email advertising is credible".

Lastly, considering the statements that belong to consumer purchase decisions factor, four out of five items received a favourable response, with the most frequently chosen option - point 3 by Spanish respondents. Besides, only one statement has the same percentage (31.7%) in additional option - point 4, that means the respondents somewhat agreed that they feel good when they decide to purchase products of fast fashion brands. However, the statement "I intend to purchase again from fast fashion brands in the future." 34.7% somewhat agreed that they intend to purchase again from fast fashion brands in the future. Estonian respondents also received a favourable response, but with the most frequently chosen option - point 4, towards 4 statements and only for the statement "I frequently purchase products of fast fashion brands" they are neutral.

Summing up, respondents from Estonia and Spain have very similar choices towards 4 factors. For SMM, Blogs/Websites, Mobile apps and Automated emails have the most frequently chosen option "neutral". However, Estonians rate Consumer purchase decision factor mostly on point 3 - "neutral", but Spaniards rate this factor mostly on point 4 - "somewhat agree". This implies Spaniards are more loyal towards buying fast fashion products.

#### 3.3. Respondents' brands choice analysis

The questionnaire of this study contains the question matrix with a multi-select option per one statement. This question matrix consists of statements in columns: Social media advertisements; Blogs / Websites (chatbots); Mobile apps (visual search, personalised engine); Automated emails; and in a row: Zara; Asos; H&M; Forever21; Uniqlo; Esprit.

The author created a pivot table and provides the summary of fast fashion brands' choice by respondents from Estonia and Spain in Table 3. This analysis helped the author to understand and make an overall output concerning sample preferences in AI-driven marketing channels of concrete brands.

	Asos	Zara	H&M	Forever21	Uniqlo	Esprit
Social media marketing						
Estonians	39%	51%	41%	11%	13%	13%
Spaniards	29%	68%	37%	24%	17%	8%
Blogs/ Websites						
Estonians	48%	43%	39%	13%	9%	10%
Spaniards	41%	50%	30%	22%	11%	0%
Mobile apps						
Estonians	38%	40%	32%	11%	9%	8%
Spaniards	49%	47%	37%	14%	10%	5%
Automated emails						
Estonians	37%	37%	37%	11%	3%	12%
Spaniards	26%	58%	30%	22%	18%	3%

Table 3. Fast fashion brands' choice by Estonian and Spanish respondents.

Source: author's calculations

Table 3 demonstrates Estonian and Spanish respondents' choice in fast fashion brands in 4 AI-driven marketing categories. Estonian respondents are mainly engaged in social media advertisements of Zara. However, Asos and H&M brands' social media advertisements have almost the same engagement rate of Estonians, 40 and 42 respectively. Compared to Estonians, Spanish respondents are also mainly engaged in social media advertisements of Zara, but with significant difference. The lowest engagement rate acquired Esprit brand among Spaniards, and among Estonians - Forever21.

Chatbot on the website/blog of Asos is in demand among Estonians. Additionally, almost the same amount of Estonians are using the chatbot of Zara. However, Spaniards are more engaged by Zara brand's chatbot. Moreover, Spaniards don't use Esprit chatbot at all. Uniqlo chatbot has the lowest level of popularity among Estonians.

The usage of Zara app with a personalised engine is in high demand among Estonians. However, a significant number of Estonians also use Asos app. The usage of Asos and Zara apps with a personalized engine is almost in the same demand among Spaniards (49 and 47 respectively). Esprit brand's app is not in a high demand by Estonians and Spaniards respectively.

The level of Zara, Asos and H&M automated email marketing acceptance among Estonians is on the same level, whereas Spaniards accept only Zara brand with a high level of trust. However, only 3 Estonians accept Uniqlo automated email marketing, meanwhile only 3 Spaniards accept Esprit automated email marketing.

Summing up, Spanish and Estonian respondents prefer social media advertisements of Zara brand more than others suggested. However, Estonians prefer to use the chatbot of Asos brand, whereas Spanish respondents still prefer Zara one. Estonian respondents prefer to use the mobile app of Zara, however, they accept more automated email marketing of Zara, Asos and H&M brands. Spainiards highlight Asos and Zara brands' apps and prefer only Zara brand's automated email marketing than others suggested.

# **3.4.** Factors representing four AI-driven marketing channels and consumer purchase behaviour

After previous analysis, the exploratory factor analysis was applied to the questionnaire data to find the factors concerning four AI-driven marketing channels (Social media marketing (PPC advertisement), blogs and websites (chatbots), mobile applications (visual search, personalised engine), automated emails). This test was applied in order to reduce latent variables, which cannot be measured directly towards consumer purchase decision factor. Several tests were run in order to determine whether the data is suitable for factor analysis before the exploratory factor analysis.

Firstly, the factorability of the correlation matrix of Estonian and Spanish data was checked. The result showed that no correlation went lower than 0.5. Considering the dataset, factor analysis would be conceptually appealing. The determinant of this correlation matrix of Spanish data is 8.915 and of Estonian - 1.116.

Secondly, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy test was carried out for Spanish data (Table 4). The KMO index is 0,787, this is greater than 0.6, which is a good indicator of the validity of the data. That means data for factor analysis is suitable.

Tuble 1. The results of third and Bartlett 5 ft	be of optimon data	
Kaiser-Meyer-Olkin Measure of Sampling	.787	
Adequacy.		
Bartlett's Test of Sphericity	Approx.	1265.339
	Approx. Chi-Square	
	df	300
	Sig.	.000

Table 4: The results of KMO and Bartlett's Test of Spanish data

Source: author's calculations

For Estonian data Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy test was carried out in Table 5. The KMO index is 0,789, this is greater than 0.6, which is a good indicator of the validity of the data. That means data for factor analysis is suitable.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.789	
Bartlett's Test of Sphericity	Approx. Chi-Square	1244.9 51
	df	300
	Sig.	.000

Table 5: The results of KMO and Bartlett's Test of Spanish data

Source: author's calculations

The following action of Exploratory factor analysis is the factor extraction. The author of this study has chosen the PAF method for both Estonian and Spanish data (Vanston Jr. et al. 1977). For this study, 5 fixed factors were extracted, namely social media marketing, blogs/websites, mobile apps, automated emails and consumer purchase decisions. Additionally, varimax rotation was selected and the rotated factor matrix was then examined for item loadings. The loadings are the regression coefficients for the linear combination of the items for different factors. All items with loading below 0.4 on all factors were deleted due to insignificance (Vanston Jr. et al. 1977). Due to these rules, 4 measurement items were eliminated: 2 from the Websites/Blogs group (BW1, BW2) and 2 from the Automated email group (AE1, AE2) from Spanish data. From Estonian data were eliminated 3 items 1 from Social media marketing group (SMM 5) and 2 from the Automated email group (AE2, AE5). The final output of the rotated factor matrix of Spanish respondents is illustrated in Table 6 and of Estonian ones in Table 7.

	Factor				
	1	2	3	4	5
I feel good when I decide to purchase products of fast fashion brands.	.735				
I will positively recommend fast fashion products to other people.	.726				
I frequently purchase products of fast fashion brands.	.680				
I will positively recommend fast fashion products to other people.	.646				
Overall, I am satisfied about my purchase of products from fast fashion brands.	.577				
Social media advertisements (for example, Facebook; Instagram ads) for fast fashion brands can be easily remembered.		.728			
Social media advertisements (for example, Facebook; Instagram ads) of fast fashion brands enable opinions exchanging with others.		.637			
Social media advertisements (for example, Facebook; Instagram ads) for fast fashion products are very attractive.		.571			
I like to use social media advertisements (for example, Facebook; Instagram ads) to get information about fast fashion products, services, and brands.		.568			
Social media advertisements (for example, Facebook; Instagram ads) for fast fashion products are frequently seen.		.452			
Given the chance, I intend to buy fast fashion clothes that are posted (or discussed) in the fashion blogs/websites with chatbots.			.770		
I feel good about fashion blogs/websites' chatbots.			.633		
I frequently use chatbots on fashion blogs/websites.			.581		
Fast fashion apps are pleasing to use.				.789	
I frequently use fast fashion apps to see their products.				.720	
After using a fast fashion app, I think the brand is more attractive.				.487	
Fast fashion email advertising is not annoying.					.794
Fast fashion email advertising does not bring privacy concerns for me.					.754

# Table 6: Rotated Factor Matrix of Spanish data

Extraction Method: Principal Axis Factoring.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 12 iterations.				
Source: author's calculations		-	-	-

Table 6 (data of Spaniards) demonstrates that the 1st factor consists of five items and measures the construct "Consumer purchase decisions". The factor 2 consists of five items and measures the construct "Social media marketing", the factor 3 contains three items and measures the construct "Blogs/Websites", the factor 4 contains three items and measures the construct "Mobile apps" and the factor 5 contains two items and measures the construct "Automated email marketing".

	Factor				
	1	2	3	4	5
Social media advertisements (for example, Facebook; Instagram ads) for fast fashion products are frequently seen.					.731
Social media advertisements (for example, Facebook; Instagram ads) for fast fashion products are very attractive.					.550
Social media advertisements (for example, Facebook; Instagram ads) for fast fashion brands can be easily remembered.					.422
I like to use social media advertisements (for example, Facebook; Instagram ads) to get information about fast fashion products, services, and brands.					.646
Communication activities related to chatbot system in fast fashion brands' blogs/websites (complimenting, criticizing, evaluating, etc.) are credible.			.643		
I frequently use chatbots on fashion blogs/websites.			.587		
I feel good about fashion blogs/websites' chatbots.			.573		
Given the chance, I intend to buy fast fashion clothes that are posted (or discussed) in the fashion blogs/websites with chatbots.			.532		
I frequently use fast fashion apps to see their products.		.571			
Fast fashion apps are pleasing to use.		.538			
After using a fast fashion app, I think the brand is more attractive.		.645			
After using a fast fashion app, I have a better perception of the quality of the brand's products and services.		.717			
I intend to buy products through fast fashion apps.		.676			
Emails from fast fashion brands are pleasing to read.				.602	
Fast fashion email advertising is credible.				.471	
Fast fashion email advertising is not annoying.				.844	
I frequently purchase products of fast fashion brands.	.750				

### Table 7: Rotated Factor Matrix of Estonian data

I feel good when I decide to purchase products of fast fashion brands.	.746		
I will positively recommend fast fashion products to other people.	.747		
I intend to purchase again from fast fashion brands in the future.	.734		
Extraction Method: Principal Axis Factoring.			
Rotation Method: Varimax with Kaiser Normalization.			
a. Rotation converged in 21 iterations.			

Table 7 (data of Estonians) demonstrates that the 1st factor consists of four items and measures the construct "Consumer purchase decisions". The factor 2 consists of five items and measures the construct "Mobile apps", the factor 3 contains four items and measures the construct "Blogs/Websites", the factor 4 contains three items and measures the construct "Automated email marketing" and the factor 5 contains four items and measures the construct "Social media marketing".

### 3.5. Internal consistency reliability

Next step of analysis was checking the reliability of results, which gives a perception of internal consistency of variables. The value 0.7 is considered as the lowest acceptable level (Tavakol & Dennick, 2011). Table 8 demonstrates that Cronbach's Alpha values for all factors exceeded 0.7 and ranged from 0.745 to 0.854, indicating good internal consistency of measurement scales.

Factor Names	Number of items	Cronbach's Alpha
Social media marketing	5	0.745
Blogs/websites	3	0.798
Mobile apps	3	0.757
Automated emails	2	0.788
Consumer purchase decisions	5	0.854

Table 8: Reliability statistics-Cronbach's Alpha. Spanish data.

Source: author's calculations

Table 9 demonstrates that Cronbach's Alpha values for all factors exceeded 0.7 and ranged from 0.714 to 0.875, indicating good internal consistency of measurement scales.

Factor Names	Number of items	Cronbach's Alpha
Social media marketing	4	0.714
Blogs/websites	4	0.802
Mobile apps	5	0.832
Automated emails	3	0.782
Consumer purchase decisions	4	0.875

Table 9: Reliability statistics-Cronbach's Alpha. Estonian data.

Source: author's calculations

Accordingly, the results of this factor analysis will be used as the final research instruments.

### **3.6.** Hypothesis testing

In order to research the impact of 4 AI-driven marketing channels on consumer purchase decisions a regression linear model was applied. Based on the research model the dependent variable of this investigation is consumer purchase decisions, the independent variables are social media marketing (PPC advertisement), blogs and websites (chatbots), mobile applications (visual search, personalised engine), automated emails. The meaning of the positive influence consumers' purchase decisions in this research is defined as influence, which supported consumers to make a decision towards buying fast fashion products. In this research The results of the regression were demonstrated in the next chapters.

#### 3.6.1. Hypothesis testing regarding Spanish respondents' data

In Table 10 the author analyses the impact of 4 AI-driven marketing channels on purchase decisions towards fast fashion products of Spanish respondent's data.

The first step was a test of multicollinearity by analysing Tolerance value and VIF. Each variable has a tolerance value of more than 0.1 and a VIF of less than 10, that means multicollinearity would not retain the outcome of regression analysis (Grant & Wise, 2016).

	Social media marketing	Blogs/websites	Mobile apps	Automated emails
Tolerance	0.740	0.813	0.656	0.800
VIF	1.351	1.230	1.524	1.250

Table 10. Multicollinearity statistics of Spanish data

Table 11 indicates how strongly the model is related to the dependent variable - consumer purchase decisions (CPD2 to CPD6). This analysis reports that all the independent variables explained a significant 54.1% of the variation in consumer purchase decisions with R2 = 0.541. The model has a good fit.

Table 11. Model Summary Spain

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.664ª	.541	.517	0.7163
a. Predictors: (Constant), AE, SMM, MA,BW				

Source: author's calculations

ANOVA test was conducted in order to reveal the statistical significance of the model. Table 12 illustrates the test-statistic F = 18.912 at an observed very small p (p < 0.05), which indicates that the model is significant.

Table 12. ANOVA TEST

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.813	4	9.703	18.912	.000 <sup>b</sup>
	Residual	49.255	96	0.513		
	Total	88.068	100			
a. Dependent Variable: Consumer p. decisions						
b. Predictors: (Constant), AE, SMM, MA,BW						

After that, the author analyses the statistical significance of each independent variable (Table 13). This research reveals one independent variable including automated emails (B = 0.463, t(101) = 5.499, p = 0.000) has p – value smaller than three significance levels of 0.1, 0.05, and 0.01. Whereas, the mobile app variable (B = 0.273, t(101) = 2.576, p = 0.012) only satisfied one significance level of 0.05. The social media marketing variable (B = 0.141, t(101) = 1.254, p = 0.102) only satisfied one significance level of 0.1, however, the blogs/websites variable (B = 0.039, t(101) = 0.570, p = 0.570) is not satisfying any significance levels.

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		В	Std.	Beta		
			Error			
1	(Constant)	0.403	0.402		1.004	0.318
	SMM	0.141	0.113	0.111	1.254	0.102
	Blogs/	0.039	0.068	0.048	0.570	0.570
	Websites					
	Mobile	0.273	0.106	0.243	2.576	0.012
	app					
	Automated	0.463	0.084	0.469	5.499	0.000
	emails					
a. Dependent						
Variable:						
Consumer						
p. decisions						

Table 13. Coefficients

After this analysis, the author started to test hypotheses and represents the results below.

*H1*: Social media marketing (advertisement) has a positive influence on consumers' purchase decisions towards the fast fashion field among Spaniards.

The hypothesis H1 is not statistically significant. The hypothesis H1 is not accepted.

*H2*: Blogs and websites (chatbots) have a positive influence on consumers' purchase decisions towards the fast fashion field among Spaniards.

The hypothesis H2 is not statistically significant. The hypothesis H2 is not accepted.

*H3*: Mobile applications with AI-driven search engines have a positive influence on consumers' purchase decisions towards the fast fashion field among Spaniards.

The hypothesis H3 is statistically significant and it is accepted.

*H4:* Automated email marketing has a positive influence on consumers' purchase decisions towards the fast fashion field among Spaniards.

The hypothesis H4 is statistically significant and it is accepted.

The author revealed and ranked that automated email marketing (B = 0.463) is the main dominant variable that has a strong influence on purchase decisions.

All in all, the analysis shows that two AI-driven marketing channels have a positive relationship with consumer purchase decisions in the Spanish market. This means that the final purchase decision is significantly influenced by two factors : mobile applications and automated email marketing.

#### 3.6.2. Hypothesis testing regarding Estonian respondents' data

In Table 14 the author also analyses the impact of 4 AI-driven marketing channels on purchase decisions towards fast fashion products, but of Estonian respondent's data. Each variable has a tolerance value of more than 0.1 and a VIF of less than 10, that means multicollinearity would not retain the outcome of regression analysis (Grant & Wise, 2016).

	Social media marketing	Blogs/websites	Mobile apps	Automated emails
Tolerance	0.857	0.554	0.599	0.730
VIF	1.167	1.807	1.670	1.370

Table 14. Multicollinearity statistics

Source: author's calculations

Table 15 indicates that all the independent variables explained a significant 47.1% of the variation in consumer purchase decisions with R2 = 0.471. The model has a good fit.

Table 15. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.609ª	.471	.445	0.6410
a. Predictors: (Constant), AE, SMM, MA, BW				

ANOVA test was conducted in order to reveal the statistical significance of the model. Table 16 illustrates the test-statistic F = 14.285 at an observed very small p (p < 0.05), which indicates that the model is significant.

Table 16. ANOVA TEST

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.478	4	5.869	14.285	.000 <sup>b</sup>
	Residual	39.854	97	0.411		
	Total	63.332	101			
a. Dependent Variable: Consumer p. decisions						
b. Predictors: (Constant), AE, SMM, MA, BW						

Source: author's calculations

After that, the author analyses the statistical significance of each independent variable (Table 17). This research reveals one independent variable namely blogs and websites (B = 0.290, t(101) = 2.623, p = 0.010), which satisfies significance level 0.01. Whereas, the mobile app variable (B = 0.173, t(101) = 1.743, p = 0.085) and the automated emails variable (B = 0.140, t(101) = 1.494, p = 0.138) satisfied one significance level of 0.1. The social media marketing variable (B = 0.245, t(101) = 2.298, p = 0.024) also only satisfied one significance level of 0.05.

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		В	Std.	Beta		
			Error			
1	(Constant)	0.758	0.423		1.791	0.076
	SMM	0.245	0.106	0.200	2.298	0.024
	Blogs/	0.290	0.110	0.284	2.623	0.010
	Websites					
	Mobile app	0.173	0.099	0.181	1.743	0.085
	Automated	0.140	0.094	0.141	1.494	0.138
	emails					
a.						
Dependent						
Variable:						
Consumer p.						
decisions						

Table 17. Coefficients

After this analysis, the author started to test hypotheses and represents the results below.

*H1*: Social media marketing (advertisement) has a positive influence on consumers' purchase decisions towards the fast fashion field among Estonians.

The hypothesis H1 is statistically significant and it is accepted.

*H2*: Blogs and websites (chatbots) have a positive influence on consumers' purchase decisions towards the fast fashion field among Estonians.

The hypothesis H2 is statistically significant and it is accepted.

*H3*: Mobile applications with AI-driven search engines have a positive influence on consumers' purchase decisions towards the fast fashion field among Estonians.

The hypothesis H3 is not statistically significant. The hypothesis H3 is not accepted.

*H4:* Automated email marketing has a positive influence on consumers' purchase decisions towards the fast fashion field among Estonians.

The hypothesis H4 is not statistically significant. The hypothesis H4 is not accepted.

The author revealed and ranked that the blogs and websites variable ( $\beta = 0.290$ ) is the main dominant variable that has a stronger influence on purchase decisions for Estonians. It is succeeded by social media marketing variable ( $\beta = 0.245$ ) as the least variable, which has a kind of an influence on purchase decisions.

All in all, the analysis shows that only two AI-driven marketing channels have a positive and strong relationship with consumer purchase decisions in the Estonian market. Hypotheses H1, H2 are supported, which indicate that the final purchase decision is significantly influenced by social media marketing (advertisement) and blogs and websites (chatbots) factors.

## CONCLUSION

The primary expected result from this research was finding an answer to the central research question of which AI-driven marketing channels (social media marketing (PPC advertisement), blogs and websites (chatbots), mobile applications (visual search, personalised engine), automated emails) have a positive influence on consumers' purchase decision in fast fashion field of Estonian and Spanish customers. This was done by researching the answers to statements in the questionnaire and investigating which AI-driven marketing channels currently have an influence on purchase decisions and concluding which ones have a positive impact was also the objective of this thesis.

The gathered data were analysed by a quantitative method. The analysis was performed based on AI-driven marketing channels and consumer purchase decisions described in the theoretical part. The study finds that social media marketing, blogs and websites channels have a strong influence in shaping customer purchase intent of Estonian consumers. However, the mobile applications, and automated emails channels are shaping customer purchase intent of Spaniards increasingly.

This means that Estonian and Spaniards people have absolutely different preferences in AI-driven channels, which influence consumer purchase decisions. In general, social media marketing, blogs and websites, mobile apps and automated emails are extremely effective at generating sales, and their influence on purchase decisions in the fast fashion industry is positive. However, this huge difference among Estonians' and Spaniards' preferences can be beneficial for marketing departments and digital marketing agencies that use these channels to achieve better conversions and a better return on investment for themselves or their clients.

Additionally, the research investigated that Zara brand's social media advertisements are prefered by Spanish and Estonian respondents more than other suggested brands. The main difference between Estonians and Spaniards preferences is that Spaniards prefer the other three channels (chatbots, apps and automated emails) only of Zara brand. However, Estonians prefer to use the chatbot of Asos brand, to use the mobile app of Zara, and they accept more automated email marketing of Zara, Asos and H&M brands equally. This outcome may be beneficial to the

fast fashion companies, which is frequently regarded as a dynamic industry that is frequently using AI-driven marketing channels for different populations. The fast fashion brands own specific features which depend on monthly change in trends and customer wants; production and marketing needs to align fast.

All in all, this research revealed some key differences among Estonians and Spaniards: in the preference of AI-driven channels of fast fashion products and the preference of AI-driven channels towards fast fashion brands. This may mean that cultural differences and loyalty play a significant role in consumer purchase decisions towards buying fast fashion brands. Moreover, Spaniards have a strong preference for the Zara brand, this could be followed up with the idea that Zara is a worldwide, but Spanish famous brand and this also increases the loyalty level of Spaniards.

There are still many points of interest around this topic that require further investigation. For example, future studies could examine such channels as voice search engines, AI dynamic pricing, etc. in order to gain a better understanding of other AI-driven marketing channels in the fast fashion industry. Also, it would be very useful to compare the influence of digital marketing and AI-driven marketing channels on consumer purchase decisions among users.

To point out some of the limitations of this research, close-ended statements could provoke a misinterpretation of questions, lack detailed information and possibility to create a confusion or even biassed answers. As a result, future research may employ interviews as a method of data gathering. Another limitation of this study is that the respondents are mainly 18-25 aged people. This sample made the observations less objective and could entail a risk of sampling bias. The perception of AI-driven marketing and how it influences buying decisions could be influenced by differences in gender, age, and employment status. An additional one is selected markets. This limits research due to limiting location factors.

Based on this thesis, the author believes companies and fast fashion brands alike, both startup and mature, can better select AI-driven marketing channels that are a good fit for their country and aligned with their business objectives. In addition to increasing awareness and quality of AI-driven marketing strategy, the author hopes this will also help these companies become more efficient in their marketing efforts and more competitive on an international scale.

### LIST OF REFERENCES

- Adobe Communications Teams. (2021). Adobe named to Fast's company's list of the World'sMostInnovativeCompaniesfor2021.Retrievedfrom:https://business.adobe.com/blog/the-latest/adobe-named-fast-companys-list-of-the-worlds-most-innovative-companies-for-2021, 30 January 2022.
- Alzyoud M. F. (2018). Does Social Media Marketing Enhance Impulse Purchasing Among Female Customers Case Study of Jordanian Female Shoppers. *Journal of Business and Retail Management Research*, 13 (2), 135-151.
- Asling, D. (2017). 19 Powerful Ways To Use Artificial Intelligence In eCommerce. Retrieved from: https://www.linnworks.com/blog/artificial-intelligence-in-ecommerce, 7 February 2022.
- Bag, S., Srivastava, G., Bashir, M., Kumari, S., Giannakis, M., Chowdhury, A. (2021). Journey of customers in this digital era: Understanding the role of artificial on online sales intelligence technologies in user engagement and conversion. *An International Journal*, 6 (1), 22-23.
- Barysevich, A. (2020). How social media influences 71% consumer buying decisions. Retrieved from:https://www.searchenginewatch.com/2020/11/20/how-social-media-influence-71-c onsumer-buying-decisions/, 7 January 2022.
- Bayad, J.A. (2021). Accessing (The Impact) of advertisement on customer decision making: *Evidence from an educational institution*. Retrieved from: https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3764088, 1 March 2022.
- Brodie, R., Ilic, C., Juric, B., Hollebeek, L. (2013). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research*, 66, 105-114.

- Brui, A. (2018). How Fashion Brands Use Email Marketing: SendPulse Research. Retrieved from: https://sendpulse.com/blog/fashion-email-marketing, 12 February 2022.
- Campbell, C., Sands, S., Ferraro, C., Tsao, H., Mavrommatis, A. (2020). *From data to action: How marketers can leverage AI*. 63 (2). San Diego, USA: Elsevier.
- Čiarnienė, R., Vienažindienė, M. (2014). Management of contemporary fashion industry: characteristics and challenges. *Social and Behavioral Sciences*, 156, 63-68.
- Chaffey, D., Ellis-Chadwick, F., Johnston, K., Mayer, R. (2006). *Internet Marketing. Strategy, Implementation and Practice 3rd edition.* (3rd ed.) London, UK: Pearson.
- Chintalapati, S., Kumar Pandey, S. (2022). Artificial intelligence in marketing: A systematic literature review. *International Journal of Market Research*, 64, 36-68.
- Chopra, A., Avhad, V., Jaju, S. (2021). Influencer Marketing: An Exploratory Study to Identify Antecedents of Consumer Behavior of Millennial. *Business Perspectives and Research*, 9(1), 77-91.
- Chung, T.S., Wedel, M., Rust, R.T. (2016). Adaptive personalization using social networks. Journal of the Academy of Marketing Science, 44, 66-87.
- Court, D., Elzinga, D., Mulder, S. Vetvik, O.J. (2009). *The consumer decision journey*. Retrieved from:https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/th e-consumer-decision-journey, 7 February 2022.
- De Bruyn, A., Viswanathan, V., Beh, Y. S., Brock, J. K. U., Wangenheim, F. (2020). Artificial intelligence and marketing: Pitfalls and opportunities. *Journal of Interactive Marketing*, 51, 91–105.
- Duan, Y., Edwards, J.S., Dwivedi, Y.K. (2019). Artificial intelligence for decision making in the era of Big Data – evolution, challenges and research agenda. International Journal of Information Management, 48, 63-71.

- Ducoffe, R H. (1995). How consumers assess the value of advertising. Retrieved from: https://people.utm.my/thoo/wp-content/blogs.dir/1795/files/2016/02/How-Consumers-A ssess-the-Value-of-Advertising.pdf, 9 March 2022.
- Elseidi, R. I. (2018). Understanding Egyptian consumers' intentions in online shopping. International Journal of Online Marketing, 8(3), 1-18.
- Esch, P., Black, S.J. (2021). Artificial Intelligence (AI): Revolutionizing Digital Marketing. *Australasian Marketing Journal*, 29, 199-203.
- Fiore, A.M. (2008). The Digital Consumer Valuable Partner for Product Development and Production. *Clothing and Textiles Research Journal*, 26(2), 177-190.
- Funde, Y., Mehta, Y. (2014). Effect of Social Media on Purchase Decision. Pacific Business Review International, 6 (11), 45-51.
- Garvin, K. (2019). *Artificial intelligence in marketing is what customers want*. Retrieved from: https://www.salesforce.com/products/marketing-cloud/best-practices/artificial-intelligen ce-for-marketing/, 27 January 2022.
- Given, L. M. (2008). *The Sage encyclopedia of qualitative research methods*. 2. California, USA: SAGE.
- Goldsmith, R.E., Lafferty, B.A., Newell, S.J. (2000). The impact of corporate credibility and celebrity credibility on consumer reaction to advertisements and brands. *Journal of Advertising*, 29, 43-54.
- Grant, K.A., Wise, S. (2016). ICIE 2016 Proceedings of the 4th International Conference on Innovation and Entrepreneurship. 4. Toronto, Canada: Academic Conferences and Publishing International Limited.
- Gretzel, U., Fesenmaier, D., O'Leary, J. (2006). The transformation of consumer behavior. *Tourism business frontiers*, 9-18.

- Grewal, D., Hulland, J., Kopalle, P.K., Karahanna, E. (2020). The future of technology and marketing: a multidisciplinary perspective. *Journal of the Academy of Marketing Science*, 48, 1-8.
- Halvorsen, K., Hoffmann, J., Coste-Manière, I., Stankeviciute, R. (2013). Can fashion blogs function as a marketing tool to influence consumer behavior? *Journal of Global Fashion Marketing*, 4, 211-224.
- Herhold, K. (2018). How Businesses Use Digital Marketing in 2018. Retrieved from: https://clutch.co/agencies/digital-marketing/resources/how-businesses-use-digital-marke ting-2018, 3 May 2022.
- Hildebrand, C. (2019). The Machine Age of Marketing: How Artificial Intelligence Changes theWay People Think, Act, and Decide. *NIM Marketing Intelligence Review*, 11 (2), 10-17.
- Hsu, H., Tsou, T. (2011). Understanding Customer Experiences in Online Blog Environments. International Journal of Information Management, 31(6), 510-523.
- Huang, M., Rust, R. (2021). A strategic framework for artificial intelligence in marketing. Journal of the Academy of Marketing Science, 49, 30-50.
- Huseynov, F., Yildirim, S.Ö. (2019). Online Consumer Typologies and Their Shopping Behaviors in B2C E-Commerce Platforms. *Journal Indexing & Metrics*, 9 (2), 35-65.
- Jamalzadeh, M., Behravan, N., Masoudi, R. (2012). An empirical study of email-based advertisement and its influence on consumers' attitude. *International Review of Management and Marketing*, 2 (3), 130-138.
- Joy, A., Sherry, J. F., Venkatesh, A., Wang, J., Chan, R. (2012). Fast fashion, sustainability, and the ethical appeal of luxury brands. *Journal of Dress Body and Culture*, 16, 273-295.
- Karimi, S., Papamichail, K.N., Holland C.P. (2015). The effect of prior knowledge and decision-making style on the online purchase decision-making process: A typology of consumer shopping behaviour. *Decision Support System*, 77, 137-147.

- Kim, A.J., Ko, E. (2012). Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand. *Journal of Business Research*, 65 (10), 1480-1486.
- Kumar, V., Rajan, B., Venkatesan, R., Lecinski, J. (2019). Understanding the Role of Artificial Intelligence in Personalized Engagement Marketing. *California Management Review*, 61(4), 135-155.
- Klaus, P., Zaichkowsky, J. (2020). AI voice bots: a services marketing research agenda. *Journal* of Services Marketing, 34 (3), 389-398.
- Kopalle, P.K., Gangwar, M., Kaplan, A., Ramachandran, D., Reinartz, W., Rindfleisch, A. (2021). Examining artificial intelligence (AI) technologies in marketing via a global lens: Current trends and future research opportunities. *International Journal of Research in Marketing*, 4, 32-42.
- Kwan, I., Fong, J., Wong, H.K. (2005). An e-customer behavior model with online analytical mining for internet marketing planning. *Decision Support System*, 41 (1), 189-204.
- Lopez, C., Fan, Y. (2009). Internationalisation of the Spanish fashion brand Zara. *Journal of Fashion Marketing and Management*, 13 (2), 279-296.
- Ma, L., Sun, B. (2020). *Machine learning and AI in marketing Connecting computing power to human insights. International Journal of Research in Marketing*, 37 (3), 481-504.
- Malhotra, N.K. (2010). Introduction: Analyzing Accumulated Knowledge and Influencing future Research. *Review of Marketing Research*, 7.
- Malär, L., Nyffenegger, B., Krohmer, H., Hoyer, W. D. (2012). Implementing an intended brand personality: a dyadic perspective. *Journal of the Academy of Marketing Science*, 40 (5), 35-38.
- Mangan, J., Lalwani, C., Gardner, B. (2004). Combining quantitative and qualitative methodologies in logistics research. *International journal of physical distribution & logistics management*, 565-578.

Mari, A. (2019). The Rise of Machine Learning in Marketing: Goal, Process, and Benefit of AI-Driven Marketing. Retrieved from: https://www.zora.uzh.ch/id/eprint/197751/1/TheRiseofMachineLearning\_ResearchRepo rt\_AlexMari\_2019.pdf, 13 January 2022.

- Market Business News. (2021). What are marketing tools? Definitions and examples. Retrieved from: https://marketbusinessnews.com/financial-glossary/marketing-tools/, 12 January 2022.
- McKinsey&Company. (2021). The state of fashion 2021: In Search of Promise in Perilous Times. Retrieved from: www.mckinsey.com/industries/retail/our-insights/state-of-fashion, 7 February 2022.
- Mende, M., Scott, M.L., van Doorn, J., Grewal, D., Shanks, I. (2019). Service robots rising: How humanoid robots influence service experiences and elicit compensatory consumer responses. *Journal of Marketing Research*, 4, 535-556.
- Minaev, A. (2021). *What is a Blog? Definition of Terms Blog, Blogging, and Blogger*. Retrieved from: https://firstsiteguide.com/what-is-blog/, 11 February 2022.
- Mittal, B. (1995). A Comparative Analysis of Four Scales of Consumer Involvement. *Psychology and Marketing*, 2, 663 – 82.
- Morgan, L.R., Birtwistle, G. (2009). An investigation of young fashion consumers' disposal habits. *International Journal of Consumer Studies*, 33 (2), 190-198.
- Nair, K., Gupta, R. (2021). Application of AI technology in modern digital marketing environment. World Journal of Entrepreneurship Management and Sustainable Development, 17 (3), 318-328.
- Nalini, K., Radhakrishnan, P., Yogi, G., Santhiya, S., Harivardhini, V. (2021). Impact of Artificial Intelligence (AI) on Marketing. *International Journal of Aquatic Science*, 12 (2), 3161-3171.

- Nowak, G.J., Phelps, J. (1995). Direct marketing and the use of individual-level consumer information: determining how and when 'privacy' matters. *Journal of Direct Marketing*, 9, 46-60.
- Oragui, D. (2018). *What is mobile app marketing?* Retrieved from: https://themanifest.com/app-development/what-is-mobile-app-marketing, 12 February 2022.
- Paschen, J., Paschen, U., Pala, E., Kietzmann, J. (2020). Artificial intelligence (AI) and value co-creation in B2B sales: Activities, Actors and Resources. *Australasian Marketing Journal*, 29(3), 243-251.
- Pierce, W.D., Cheney, C.D. (2004). *Behavior Analysis and Learning. P.Smolenski.* London: Lawrence Erlbaum.
- Plant Automation Technology. (n.d.). *The future of artificial intelligence in manufacturing industries*. Retrieved from: https://www.plantautomation-technology.com/articles/the-future-of-artificial-intelligenc e-in-manufacturing-industries, 30 January 2022.
- Qazzafi, S. (2019). Consumer buying decision process toward products. *International Journal of Scientific Research and Engineering Development*, 2(5), 130-134.
- Richardson Sales Performance. (2019). *Research: 2019 Selling Challenges Study*. Retrieved from:https://www.richardson.com/sales-resources/2019-selling-challenges-study-researc h/, 22 February 2022.
- Schivinski, B., Dabrowski, D. (2014). The effect of social media communication on consumer perceptions of brands. *Journal of Marketing Communications*, 22(2), 80-233.
- Seiders, K., Voss, G., Godfrey, A., Grewal, D. (2007). SERVCON: development and validation of a multidimensional service convenience scale. *Journal of the Academy of Marketing Science*, 35, 144–156.

- Shareef, M.A., Kumar, U. and Kumar, V. (2008). Role of different electronic-commerce (EC) quality factors on purchase decision: a developing country perspective. *Journal of Electronic Commerce Research*, 9 (2).
- Siau, K. L., Yang, Y. (2017). Impact of artificial intelligence, robotics, and machine learning on sales and marketing. Retrieved from: https://aisel.aisnet.org/cgi/viewcontent.cgi?article=1047&context=mwais2017, 14 January 2022.
- Sriram, S., Chintagunta, P.K., Agarwal, M.K. (2010). Investigating Consumer Purchase Behavior in Related Technology Product Categories. *Journal of Marketing Science*, 29 (2), 291-314.
- Stone, M., Aravopoulou, E., Ekinci, Y., Evans, G., Hobbs, M., Labib, A., Laughlin, P., Machtynger, J., Machtynger, L. (2020). Artificial intelligence (AI) in strategic marketing decision-making: a research agenda. *The Bottom Line*, 33 (2), 183-200.
- Sukamolson, S. (2007). *Fundamentals of quantitative research*. Retrieved from: https://www.researchgate.net/profile/Vihan-Moodi/post/What\_are\_the\_characteristics\_o f\_quantitative\_research/attachment/5f3091d0ed60840001c62a27/AS%3A92277694478 7456%401597018576221/download/SuphatSukamolson.pdf, 6 March 2022.
- Sull, D., Turconi, S. (2008). Fast fashion lesson. Business Strategy Review, 9 (2), 5-11.
- Sung, E. (2021). The effects of augmented reality mobile app advertising: Viral marketing via shared social experience. *Journal of Business Research*, 122, 75-87.
- Sznida, E. (2020). 7 digital marketing challenges that are hurting small businesses and some solutions. Retrieved from: https://shapemarketer.com/7-digital-marketing-challenges-small-businesses-solutions/, 4 January 2022.
- Tavakol, M., Dennick, R. (2011). *Making sence of Cronbach's alpha*. Retrieved from: https://www.ijme.net/archive/2/cronbachs-alpha.pdf, 11 April 2022.

- Tran, H.T. (2020). The Influence of Digital Marketing on Consumer Purchase Decisions toward Fast Fashion Products. Retrieved from: http://dspace.unive.it/bitstream/handle/10579/18319/877214-1248125.pdf?sequence=2, 9 February 2022.
- Tsang, M. M., Ho, S., Liang, T. (2004). Consumer Attitudes Toward Mobile Advertising: An Empirical Study. *International Journal of Electronic Commerce*, 8, 65–78.
- Tong, S., Luo, X., Xu, B. (2020). Personalised mobile marketing strategies. *Journal of the Academy of Marketing Science*, 48, 64–78.
- Vanston Jr., John, Nichols, S., Soland, R. (1977). PAF—A new probabilistic, computer-based technique for technology forecasting. *Technological Forecasting and Social Change*, 10 (3), 239-258.
- Verganti, R. (2017). Design thinkers think like managers. *The Journal of Design, Economics and Innovation*, 3(2), 100–102.
- Watson, M.Z., Yan, R. (2011). *An exploratory study of the decision processes of fast versus slow fashion consumers*. Journal of Fashion Marketing and Management, 17 (2), 141-159.
- Yadav, M., Rahman, Z. (2017). Measuring consumer perception of social media marketing activities in e-commerce industry: Scale development & validation. Telematics and Informatics. Retrieved from: http://zbw.eu/econis-archiv/bitstream/11159/1381/1/1009506463.pdf, 9 February 2022.
- Yeo, S.F., Tan, C.L., Kumar, A., Tan, K.H., Wong, J.K. (2022). Investigating the impact of AI-powered technologies on Instagrammers' purchase decisions in digitalization era–A study of the fashion and apparel industry. *Technological Forecasting and Social Change*, 177, 23-33.
- Zhou, T. (2020). The effect of information privacy concern on users' social shopping intention. *Online Information Review*, 44 (5), 1119-1133.

Zang, D. (2014). *The Impact of Two-Sided Messaging on Brand Attitude: An Attribution Theory Approach.* https://dr.lib.iastate.edu/server/api/core/bitstreams/992510b3-9b27-4e23-ac93-91283f08 b389/content, 9 March 2022.

# **APPENDICES**

Factor	Code	Statement	Source	
Social media marketing	SMM1	Social media advertisements (for example, Facebook; Instagram ads) for fast fashion products are frequently seen.	Schivinski and Dabrowski (2014);	
	SMM2	Social media advertisements (for example, Facebook; Instagram ads) for fast fashion products are very attractive.	Kim and Ko (2012).	
	SMM3	Social media advertisements (for example, Facebook; Instagram ads) for fast fashion brands can be easily remembered.		
	SMM4	I like to use social media advertisements (for example, Facebook; Instagram ads) to get information about fast fashion products, services, and brands.		
	SMM5	Social media advertisements (for example, Facebook; Instagram ads) of fast fashion brands enable opinions exchanging with others.		
Blogs/ Websites	BW1	Information related to fast fashion (products, trends, etc.) from fashion blogs/websites with chatbot system is credible.	Malär, Nyffeneggr, Krohmer, and Hoyer (2012);	
	BW2	Communication activities related to chatbot system in fast fashion brands' blogs/websites (complimenting, criticizing, evaluating, etc.) are credible.	Hsu and Tsou (2011).	
	BW3	I frequently use chatbots on fashion blogs/websites.		
	BW4	I feel good about fashion blogs/websites' chatbots.		

# Appendix 1. Statements, Factors and Sources

	BW5	Given the chance, I intend to buy fast fashion clothes that are posted (or discussed) in the fashion blogs/websites with chatbots.		
Mobile apps	MA1	I frequently use fast fashion apps to see their products.	Mittal (1995);	
	MA2	Fast fashion apps are pleasing to use.	Zang (2014).	
	MA3	After using a fast fashion app, I think the brand is more attractive.		
	MA4	After using a fast fashion app, I have a better perception of the quality of the brand's products and services.		
	MA5	I intend to buy products through fast fashion apps.		
Automated emails	AE1	Emails from fast fashion brands are pleasing to read.	Ducoffe (1995); Jamalzade, Behravan, and Masoudi (2012).	
	AE2	Emails from fast fashion brands provide timely and relevant information on products and promotion.		
	AE3	Fast fashion email advertising is credible.		
	AE4	Fast fashion email advertising is not annoying.		
	AE5	Fast fashion email advertising does not bring privacy concerns for me.		
Consumer purchase decisions	CPD1	In which channels and which brands you are following?	Shareef, Kumar, and Kumar (2008)	
	CPD2	I frequently purchase products of fast fashion brands.		
	CPD3	I feel good when I decide to purchase products of fast fashion brands.		
	CPD4	I will positively recommend fast fashion products to other people.		
	CPD5	I intend to purchase again from fast fashion brands in the future.		

		Overall, I am satisfied about my purchase of products from fast fashion brands.	
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Characteristics	Categories	Frequency	Percentage %
Gender	Male	18	18
	Female	84	82
Age	Under 18	0	0
	18-25	53	52
	26-30	20	20
	31-35	17	17
	36-40	5	5
	Above 41	7	7
Education level	Less than high school	3	3
	High school	43	42
	Bachelor's degree	45	44
	Master's degree	8	8
	Doctorate	3	3
Employment status	Student	31	30
	Employee	42	41
	Unemployed	16	16
	Self-employed	13	13

# Appendix 2. Demographic profiles of respondents from Estonia

Source: author's calculations

Characteristics	Categories	Frequency	Percentage %
Gender	Male	33	33
	Female	68	67
Age	Under 18	4	4
	18-25	44	44
	26-30	25	25
	31-35	15	15
	36-40	8	8
	Above 41	5	5
Education level	Less than high school	16	16
	High school	30	30
	Bachelor's degree	27	27
	Master's degree	21	21
	Doctorate	7	7
Employment status	Student	45	45
	Employee	26	26
	Unemployed	19	19
	Self-employed	11	11

# Appendix 3. Demographic profiles of respondents from Spain

Source: author's calculations

### **Appendix 4. Online questionnaire**

### Dear Invitee!

My name is Darja Repina, I am an International Business Administration student in my second year. I am writing my master thesis on "ROLE OF AI-DRIVEN MARKETING CHANNELS ON CONSUMER PURCHASE DECISION TOWARDS FAST FASHION PRODUCTS IN ESTONIA AND SPAIN".

As a part of my research, I will study which AI-driven marketing channels have a positive influence on consumers' purchase decisions in the fast fashion field of Estonian and Spanish customers.

\*Fast fashion is the term used to describe clothing designs that move quickly from the catwalk to stores to take advantage of trends (for example, ZARA; ASOS; H&M etc).

It takes about 6-7 minutes to complete the survey.

### 1. Personal information

- 1.1. Please indicate your gender
- Male
- Female
- 1.2. Please indicate your age

Under 18

- 18–25
- 26–30
- 30–35
- 35–40
- Above 41
- 1.3. Please indicate your country
- Estonia
- Spain
- 1.4. Please indicate your educational level
- Less than a High School diploma
- High School
- Bachelor's degree
- Master's degree
- Doctorate

- 1.5. Please indicate your employment status
- Student
- Employee
- Unemployed
- Self-employed

#### 2. Social media marketing

Using a 1-5 scale, rate your agreement with the following statements:

2.1. Social media advertisement (for example, Facebook; Instagram ads) for fast fashion products is frequently seen.

2.2. Social media advertisements (for example, Facebook; Instagram ads) for fast fashion products are very attractive.

2.3. Social media advertisements (for example, Facebook; Instagram ads) for fast fashion brands can be easily remembered.

2.4. I like to use social media advertisements (for example, Facebook; Instagram ads) to get information about fast fashion products, services, and brands.

2.5. Social media advertisement (for example, Facebook; Instagram ads) of fast fashion brands enable opinions exchanging with others.

#### 3. Blogs/Websites (which contain chatbots)

Using a 1-5 scale, rate your agreement with the following statements:

3.1. Information related to fast fashion (products, trends, etc.) from fashion blogs/websites with chatbot system is credible.

3.2. Communication activities related to chatbot system in fast fashion brands' blogs/websites (complimenting, criticizing, evaluating, etc.) are credible.

3.3. I frequently use chatbots on fashion blogs/websites.

3.4. I feel good about fashion blogs/websites' chatbots.

3.5. Given the chance, I intend to buy fast fashion clothes that are posted (or discussed) in the fashion blogs/websites with chatbots.

# 4. Mobile applications (here author means apps, which contains visual search, personalised engine).

Using a 1-5 scale, rate your agreement with the following statements:

4.1. I frequently use fast fashion apps to see their products.

4.2. Fast fashion apps are pleasing to use.

4.3. After using a fast fashion app, I think the brand is more attractive.

4.4. After using a fast fashion app, I have a better perception of the quality of the brand's products and services.

4.5. I intend to buy products through fast fashion apps.

#### 5. Automated emails

Using a 1-5 scale, rate your agreement with the following statements:

5.1. Emails from fast fashion brands are pleasing to read.

5.2. Emails from fast fashion brands provide timely and relevant information on products and promotion.

5.3. Fast fashion email advertising is credible.

5.4. Fast fashion email advertising is not annoying.

5.5. Fast fashion email advertising does not bring privacy concerns for me.

- 6. Your purchase decisions
- 6.1. Question matrix :

In columns: Social media advertisements; Blogs / Websites (chatbots); Mobile apps (visual search, personalised engine); Automated emails

In row: Zara; Asos; H&M; Forever21; Uniqlo; Esprit

6.2. I frequently purchase products of fast fashion brands.

6.3. I feel good when I decide to purchase products of fast fashion brands.

6.4. I will positively recommend fast fashion products to other people.

6.5. I intend to purchase again from fast fashion brands in the future.

6.6. Overall, I am satisfied about my purchase of products from fast fashion brands.

	1	2	3	4	5
SMM1	0%	5%	18.8%	51.5%	24.8%
SMM2	1%	10.9%	40.6%	31.7%	15.8%
SMM3	5%	20.8%	24.8%	27.7%	21.8
SMM4	6.9%	15.8%	28.7%	27.7%	20.8%
SMM5	5.9%	14.9%	29.7%	35.6%	13.9%
BW1	7.9%	27.7%	21.8%	31.7%	10.9%
BW2	6%	13.9%	46.5%	25.7%	7.9%
BW3	8.9%	18.8%	27.7%	30.7%	13.9%
BW4	5%	15.8%	39.6%	28.7%	10.9%
BW5	11.9%	19.8%	36.6%	20.8%	10.9%
MA1	16.8%	30.7%	20.8%	19.8%	11.9%
MA2	7.9%	16.8%	36.6%	26.7%	11.9%
MA3	5.9%	10.9%	34.7%	38.6%	9.9%
MA4	5.9%	11.9%	43.6%	27.7%	10.9%
MA5	9.9%	18.8%	26.7%	31.7%	12.9%
AE1	16.8%	25.7%	16.8%	23.8%	16.8%
AE2	12.9%	10.9%	38.6%	27.7%	9.9%
AE3	11.9%	15.8%	38.6%	25.7%	7.9%
AE4	18.8%	21.8%	22.8%	19.8%	16.8%
AE5	14.9%	20.8%	30.7%	23.8%	9.9%
CPD2	9.9%	8.9%	33.7%	25.7%	21.8%
CPD3	9.9%	16.8%	31.7%	31.7%	9.9%
CPD4	12.9%	12.9%	30.7%	28.7%	14.9%
CPD5	10.9%	9.9%	25.7%	34.7%	18.8%
CPD6	8.9%	13.9%	37.6%	25.7%	13.9%

Appendix 5. Frequency table of respondents from Spain

Note: N=101 Source: author's calculations

	1	2	3	4	5
SMM1	2%	4.9%	19.6%	40.2%	33.3%
SMM2	0%	7.8%	35.3%	33.3%	22.5%
SMM3	0%	8.8%	43.1%	31.4%	16.7%
SMM4	2%	7.8%	27.5%	32.4%	30.4%
SMM5	2.9%	8.8%	27.5%	39.2%	21.6%
BW1	2%	12.7%	43.1%	28.4%	13.7%
BW2	2%	11.8%	33.3%	36.3%	16.7%
BW3	5.9%	14.7%	35.3%	26.5%	17.6%
BW4	2%	13.7%	33.3%	28.4%	22.5%
BW5	5.9%	26.5%	33.3%	20.6%	13.7%
MA1	9.8%	21.6%	30.4%	20.6%	17.6%
MA2	2.9%	13.7%	36.3%	31.4%	15.7%
MA3	2.9%	17.6%	32.4%	30.4%	16.7%
MA4	2%	9.8%	38.2%	36.3%	13.7%
MA5	5.9%	15.7%	32.4%	26.5%	19.6%
AE1	15.7%	25.5%	31.4%	17.6%	9.8%
AE2	4.9%	16.7%	38.2%	23.5%	16.7%
AE3	8.8%	19.6%	27.5%	37.3%	6.9%
AE4	12.7%	24.5%	34.3%	22.5%	5.9%
AE5	2.9%	17.6%	40.2%	26.5%	12.7%
CPD2	2.9%	13.7%	30.4%	25.5%	27.5%
CPD3	2%	15.7%	25.5%	38.2%	18.6%
CPD4	1%	10.8%	31.4%	32.4%	24.5%
CPD5	1%	6.9%	30.4%	36.3%	25.5%
CPD6	1%	8.8%	32.4%	33.3%	24.5%

Appendix 6. Frequency table of respondents from Estonia

Note: N=102 Source: author's calculations

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