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Use of AI-Driven Targeted Marketing on Instagram by Online Retail SMEs

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Abstract

Artificial Intelligence is applied nowadays throughout industries, including business. There, it is used not only by large companies but also by small and medium-sized enterprises. It is especially beneficial for SMEs engaged in online retail, as they aim to implement targeted marketing, and AI systems can implement a range of tasks there. However, the use of AI by online retail SMEs for targeted marketing has yet to be studied thoroughly, and there is a need to determine how these companies utilize AI and what the future perspective is. The research was focused on the implementation of targeted marketing on Instagram.

For these purposes, the blended research was conducted. Interviews with seven online retail SMEs were led to explore their experience with AI technologies for targeted marketing. Also, the survey with 50 participants was conducted to study what Instagram users think about the integration of AI systems into Instagram marketing by SMEs.

Qualitative content analysis and descriptive analysis of findings led to answering research questions and determining how online retail SMEs use AI for targeted marketing on Instagram, which benefits it brings to companies and customers, and the future perspective. The research led to the conclusion that natural language processing, analytics systems, computer vision and image recognition are highly efficient in Instagram marketing. Also, it showed that now Online retail SMEs mostly utilize AI at the basic level, but this practice is actively developing and, in the future, should become more common. Moreover, the value of applying AI for targeted marketing on Instagram was seen by businesses and customers controversially with both positive and negative aspects.

Keywords/tags (subjects)

Targeted marketing, AI, SMEs, online retail

Miscellaneous (Confidential information)

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Contents

Figures

Tables

1 Introduction

In this chapter, the introduction to the topic of research is given. The author's interest and motivation, the actuality of the problem, and the research questions are described. In addition, it contains an explanation of how the work is structured.

1.1 Background and motivation

Emerging technologies in our century of digital innovations make the business environment more and more competitive. Companies discover new opportunities and capabilities by employing the latest technologies. Nowadays, tasks completed by workers just in the last century can be automated and performed by machines, often with a higher level of efficiency. Many of these machines are based on the work of Artificial Intelligence.

Artificial Intelligence (AI) is a game changer in our times. This technology of producing intelligent machines, which seemed inaccessible recently, has gradually started transforming almost all spheres of human lives. It is used extensively throughout various industries, from medicine to aviation. In the business world, AI plays a crucial role also. It provides a wide range of benefits, including significant data patterns being quickly revealed, analytics and visualization happening fast, product design being improved, precise insights being provided, and much more (Soni et al., 2020). It leads businesses to higher efficiency, productivity, better customer experience, and consequently, growing profits. That is why many companies are applying AI-based systems nowadays, and their number is constantly increasing.

One of the types of companies for which AI can be crucial is online retail companies. In our times, AI technologies are available not only for large online retail corporations that can afford to use the latest innovations but also for small and medium-sized companies (SMEs). The scale to which they use AI is much smaller, allowing them to stay competitive in the market, optimize processes, and open new growth opportunities. There are many areas where SMEs can apply AI, and one of them is marketing. In marketing, Artificial Intelligence systems can be involved in data analysis, content creation, customer communication, and many more. It helps companies to create and implement efficient marketing campaigns and reach a deeper level of personalization, which is required by the latest trends of customers' wishes and behavior.

Moreover, social media marketing is one of the most widespread types of marketing for small and medium-sized companies. It can be considered affordable and relatively easy to implement. Hence, it attracts businesses of minor scales. Along with various platforms, companies often prefer Instagram due to its worldwide popularity and user-friendliness. Moreover, Instagram is highly linked with AI, as it constantly launches different AI tools, and various separate AI applications are created for Instagram, which can be successfully applied to marketing. There is a great variety of tools and systems available now for businesses.

However, sometimes, especially in the case of SMEs who are finding their place in the market, it can be easy to get lost in this variety. In addition, AI is a broad, complex subject, the use of which requires some expertise. That is why, for small and medium-sized online retail businesses, Artificial Intelligence is both an essential tool for surviving and developing in today's market and a challenging concept to undertake.

The involvement of AI in implementing marketing on Instagram by SMEs is a recent but topical field of discussion and practical question. However, despite the actuality of it, limited research about it is noticed. It is not clear how exactly and in which scales SMEs are utilizing AI, with which challenges and opportunities they are facing, and which impact the utilization of AI by SMEs makes. That is why it is interesting for the author to see how exactly SMEs in online retail are applying AI nowadays on Instagram, as it corresponds to the author's interest in technologies for business and marketing. The outcomes of studying this research question could be valuable to several sides. It can be helpful for SMEs as it will allow them to see some standard practices and get some insights on conducting an AI-based Instagram marketing campaign. To developers of AI tools, it can show what is most in demand among SMEs and their needs, concerns, and wishes. To Instagram users, it can be useful to be aware of how, with the use of AI, online retail SMEs can market to them, as it directly impacts customers. It shows that different practical benefits come from this work to diverse sides.

1.2   Research questions

Based on the author's motivation and the topical problem, it was decided to explore using Artificial Intelligence by online retail small and medium-sized companies to implement marketing on

Instagram. Marketing was narrowed down to targeted marketing, a popular strategy among companies now, and it is mainly demanded for social media marketing.

After that, the objective of the thesis research was defined. It is to explore the current landscape of application AI for targeted marketing on Instagram by online retail SMEs, analyze future perspectives of utilizing AI in this area, and define the impact of AI-driven Instagram marketing campaigns launched by SMEs on Instagram users and customers. Based on this objective, several research questions were posed in this work:

RQ1: What kind of AI systems can be applied to implementing targeted marketing on Instagram?

RQ2: To what extent online retail SMEs operating on Instagram are utilizing them now, and what is the future perspective?

RQ3: Does using them add value in experience and implementation from both the business and customer's perspective?

1.3 Structure of the thesis

This thesis work is focused on how AI is applied by small and medium-sized enterprises engaged in online retail for implementing targeted marketing on Instagram. Consequently, it includes exploring technological innovations used in business and aspects of implementing marketing. These topics are planned to be researched within SMEs and the specific online retail industry.

The work starts with an introduction where the topic's background, the author's motivation, research questions, and the structure of the thesis are explained. It is followed by the literature review chapter, where theoretical data on the topic is collected and analyzed. This analysis gives the author the necessary knowledge to proceed with the research. The next chapter is methodology. Ther the chosen research approach, data collection, and analysis methods are described.

Moreover, aspects of research quality and ethical considerations are considered in that chapter also. The next chapter reflects the results of the research. In the final chapter, research questions are being answered, and conclusions are made.

Planned outcomes of this thesis should include the thorough analysis of AI applications for targeted marketing on Instagram from the viewpoints of both online retail SMEs and Instagram users, the overview of concrete AI experiences of SMEs, and the analysis of future perspectives in this area.

2 Literature review

In this chapter the theoretical database for conducting the research is collected and analyzed.

2.1 Online retail

There has been extensive research on online retail that shows it has become an essential part of the retail industry. It has several names, such as electronic retail, internet retail, or e-retail, but generally, they all refer to distributing retail products or services via online shops. These stores can have only an online presence, or they can be a combination of digital and physical stores (Muthhukkannu & Abipriya, 2019). However, apart from selling, e-retail includes a wide range of activities, among which are implementing marketing, selling, paying, and delivering (Godara, 2022). Now, a big part of the population would not imagine their life without online shops. Many customers prefer to shop through the Internet, and many businesses prefer to sell online instead of opening actual stores. Online retail brings a lot of positive aspects to both sides, and its intense development is analyzed further.

According to Doherty and Ellis–Chadwick (2010), online retail started to appear in the middle of the 1990s. At that moment, people were focused on discovering opportunities delivered by the Internet. The interest in that phenomenon was raised considerably as society started to see how the Internet could shift their lives in different areas, and businesses and the retail industry, in particular, could not be left without attention. Earlier, it was predicted that the Internet could bring massive changes, which happened to be confirmed later (Doherty&Ellis–Chadwick, 2010). It shows

that the idea of selling online was developing for a pretty long period. Then, nearly 30 years after its emergence, it grew into a highly successful sector of retail.

The literature explores how exactly the Internet changed the retail industry, and which beneficial aspects emerged from its usage for it. Doherty and Ellis–Chadwick (2010) showed that among the overall advantages of using the Internet were its ability to reach everything on a global level, transfer information in large quantities, simplicity of accessing and utilizing, and cost efficiency. They started to be applied to many sectors, including the retail industry. More precisely, it allowed retailers to develop more personal communication with clients, reach a broader amount of pro-spects with the help of efficient online marketing strategies, collect necessary data in an auto-mated way, and conduct thorough market research (Doherty & Ellis–Chadwick, 2010). All these actions were not possible to be implemented so efficiently by selling through physical stores. It means that the Internet brought the retail industry to a new level and allowed companies to be-come more competitive.

It explains the fast growth of online retail during recent years. Already in 2003, it was reported to be the fastest-growing sector of utilizing the Internet (Forsythe & Shi, 2003). Moreover, since then, that growth has only continued to rise. For example, according to (Statista, 2024), in 2023 e-com-merce accounted for 15.6% of total retail sales in the United States, and these numbers are ex-pected to increase in the future. It is still not the primary sector of the whole retail industry, and physical stores continue to be a more solid and significant part of the selling business. However, compared to online retail, the growth of brick-and-mortar retailing is much slower.

E-commerce as percentage of total retail sales in the United States from 2019 to 2027

Share of total retail sales

Year	Value
2019	11.1%
2020	14.7%
2021	14.7%
2022	14.7%
2023	15.6%
2024	16.6%
2025	17.8%
2026	19.1%
2027	20.6%

Source
eMarketer
© Statista 2024

Additional Information:
June 2023
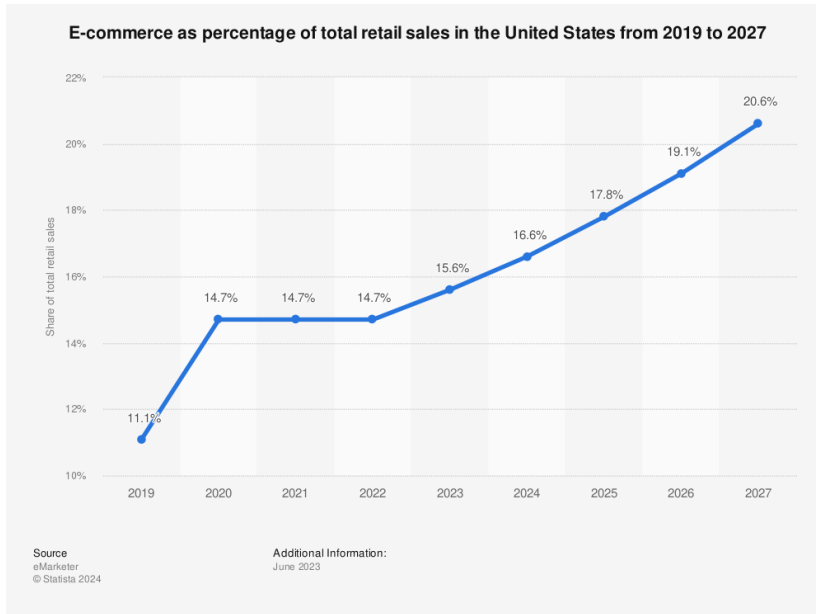
Figure 1. E-commerce as percentage of total retail sales in the United States from 2019 to 2027 (Statista, 2024).

The recent situation and global trends have contributed to it a lot. Ratchford et al. (2022b) stated that one of the main occurrences that gave a strong impulse for online retail was the coronavirus pandemic, when the demand for online shopping was raised hugely due to the necessity to be on lockdown and when many physical stores were not working. Whereas it is mostly part of our past nowadays, many of us kept some of the habits developed during the pandemic, and many people prefer to shop online more than they used to before the pandemic (Ratchford et al., 2022b). That is why that period impacted the demand for online retail a lot.

Moreover, there are some other reasons described in other sources. One of the global trends reported by IPSOS is tech-celeration. Marjolinnasalmi (2021) explained that it means the acceleration of technology, the fact that because of advancements in technologies, the change is happening at a fast speed (Marjolinnasalmi, 2021). It concerns not only the usage of technologies on significant levels but also the fact that people rely more on technologies in their everyday lives, and many everyday duties are implemented with the help of technologies, which also concern shopping.

Moreover, the tech-celeration aspect changes not only the demand for online retail but also this industry itself. The research of Attar et al. (2022) showed that recent technological developments brought new online retail opportunities, which allowed companies to be more competitive in the market and reach customers on a new level. For example, different technologies are appearing in online shops, such as chatbots, which are in charge of supporting customers and answering their questions; augmented and virtual reality for increasing the experience of clients; blockchain technology for implementing payment processes; and others (Attar et al., 2022). These technologies are being integrated into various areas of online retail, and they make all steps from searching for a good or service to delivering it more efficient.

Researchers added that, as a consequence of these new features, new trends started to develop in the retail industry, and soon, they shaped a new reality of retail business. It was transformed from market-centered to user-centered commerce. (Attar et al., 2022). It brings one of the most significant trends in online retail nowadays – personalization, which means that customers are treated individually according to their needs and wishes, and all of them have their unique journey of buying a product or service.

2.1.1   Online retail in social media

Another trend in online retail, which is highly related to personalization, is presence in social media and operating through it. Dolega et al. (2021) stated that online retail has undergone significant changes. One of them mentioned by researchers is the emergence of social media platforms as a way to communicate with clients, support companies, and merchandise via online word-of-mouth and digital marketing campaigns (Dolega et al., 2021). It means that online retail companies are utilizing social media nowadays extensively, as it is an effective way to address several goals.

According to Karimov & Brengman (2011), social media platforms help increase companies' social presence, which is necessary for creating trust and loyalty among consumers and improving their experience. That is why, by having social media accounts, companies are considered to be more trustworthy. In addition, it often makes interaction between seller and buyer easier (Karimov & Brengman, 2011).

Consequently, it shows that using social media for sales benefits both consumers and companies. Nowadays, online retail businesses employ diverse platforms such as Facebook, TikTok, Pinterest, and Instagram. Social presence is crucial for large companies, but it also helps Small and medium-sized enterprises (SMEs) grow and build customer connections.

2.1.2 SMEs in online retail

Small and medium-sized enterprises (SMEs) are a vital part of the economy as they create a big part of the business sector. For example, in the European Union, SMEs are represented by 99% of all companies (European Union, n.d.). According to Gouveia & Mamede (2022), they play an important role in the job market, as they are essential for fostering technological innovation, creating jobs, and preserving social order.

According to the European Commission, small and medium-sized enterprises are defined based on their number of workers and their financial turnover. Medium-sized companies' staff headcount is equal, or less than 250 workers and their turnover is equal, or less than 50 million. For small companies, the staff headcount is less than 50 workers, and the turnover is equal to or less than 10 million (European Union, n.d.).

Considering the retail sector, SMEs play an important role there, as they are a big part of it. It was stated that among the countries that are members of the OECD (Organisation for Economic Co-operation and Development), SMEs create 70% of employment within all retail industries (OECD, 2023).

Nowadays, SME retailers are significantly affected by technological innovations and the world's situation. Under its effect, many of them choose online or hybrid mode, as it brings many advantages. It broadens their customer base and reduces costs (OECD, 2023). That is why many small and medium-sized companies choose to sell entirely online or combine online and brick-and-mortar selling methods.

2.2   Targeted marketing

Marketing has a long history, and the way our world is changing impacts and transforms it a lot. During this time, several marketing approaches were developed to address business needs. Today businesses are more and more turning to targeted marketing. This shift is explained by the fact that businesses now utilize more innovative digital methods than before; thus, traditional ways of advertising are often preferred to digital ones. They bring new capabilities and allow us to reach even more prospects individually, and this individual approach is valued in our century.

It was defined by MasterClass (2022) that targeted marketing is a marketing approach focusing not on a mass audience but on a specific group of people, which is named target audience. The target audience is a group of customers with the same characteristics, such as age, gender, geographic location, social status, values, interests, and others. As these people share similar characteristics, businesses focus on them and adjust a market message to it. Approaching them in this specific way helps to create a positive response (MasterClass, 2022).

Camilleri (2017) showed that selecting a specific group of customers to serve helps to focus all marketing efforts on them, and thus, it increases the effectiveness. Another research added to that point that businesses can only satisfy some people with a product or service because each individual has specific requirements, and businesses cannot satisfy all of them (Goyat, 2011). Consequently, these sources leaded to the conclusion that choosing a specific group to serve increases the chances of satisfying their demand with the right offer.

Kotler (1994) defined a formula in the core of targeted marketing which consists of three steps: segmentation, targeting, and positioning, and it is often addressed as STP. To understand the flow of targeted marketing, it is essential to look closer at it.

The first step in the core of building a successful targeted marketing campaign is segmentation, which appeared as a concept in the middle of the 1950s with the help of Wendell. R. Smith, an American marketing professor (Goyat, 2011). Camilleri (2017) explained that this process involves dividing customers into smaller homogeneous groups based on specific shared characteristics. Among these characteristics can be similar needs, behaviors, interests, and others (Camilleri, 2017).

The choice of segmentation method depends on different factors, including the kind of product or service, the way of distributing it, the type of market communication, and the nature of buyers and their demands (Camilleri, 2017 -- (Chisnall 1985)).

The next important step in the process of building a targeted marketing campaign is targeting. Camilleri (2017) defined that it is the process when a company chooses from identified segments which of them it is going to serve. The selection is made based on the fact that the needs of a segment can be addressed and if it will bring profit (Camilleri, 2017). This step is necessary as it helps to decide on what marketing force will be directed.

Finally, the last step is positioning. In the work of Camilleri (2017) it was described as the time when target segments are reached by companies with certain "positioning statements." They reflect the impression companies want to make on their customers and the idea they want to put in their minds, so altogether, it creates the perception of a product or service that customers acquire (Camilleri, 2017).
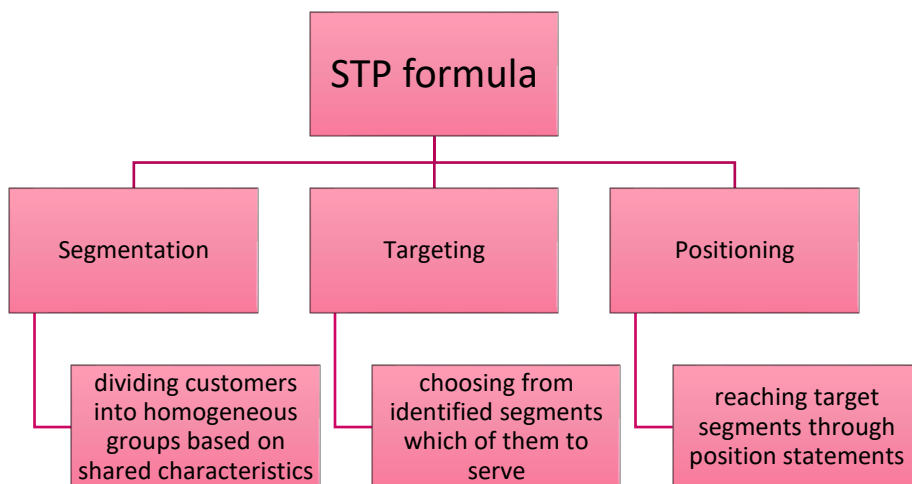
Figure 2. STP formula of targeted marketing according to Kotler (Compiled by the author)

2.2.1   Importance of targeted marketing

A lot of studies explored the importance of targeted marketing and the opportunities it brings to companies. According to one scientific source, first of all, by not considering the whole market but

segmenting it into homogeneous groups, marketers can see which segments are worth spending marketing efforts on and can consequently bring profit. It is a way to concentrate "marketing energy" on a particular segment, which leads to higher chances of getting a competitive advantage within it. It reminds us of a military tactic to concentrate force on something to deal with energy. The concentration of marketing energy brings the same effect (Goyat, 2011).

Secondly, Camilleri (2017) said that with the help of targeted marketing customer's needs and demands can be addressed in a more precise way. It is easier to see how to approach specific groups when they are divided into similar segments. This approach is based on the belief that different sub-groups of customers need different marketing campaigns, as a similar combination of such marketing components as prices, kinds of advertisements, offers, and others would not work for them. Adjusting an offer to specific requirements and being more accurate is an effective way to exceed customer's expectations (Camilleri, 2017).

These studies showed two main advantages of targeted marketing which complement each other. It helps to understand the increasing use of this marketing approach by companies.

2.3   Artificial Intelligence

Artificial Intelligence (AI) is a widely used concept nowadays and a popular topic for research. It is referred to as the technology, which was forming the last, current, and probably next decades (Boucher, 2020). It is integrated into many spheres of our lives nowadays, including business, and the layer of application continues expanding (Xu et al., 2021). However, it is a broad aspect which can be interpreted differently. That is why it is necessary to first look at its definition, history, and specifics for a clearer understanding.

Generally, according to Harkut & Kasat (2019), Artificial Intelligence (AI) is the science and technology of simulating human Intelligence with the use of computer-based machines. These machines are able to accomplish various tasks that a human would be utilizing their Intelligence. AI-based systems can recognize speech, make decisions, perceive images, and other actions as humans can (Harkut & Kasat, 2019).

Scientists have been working on intelligent machines since the 1940s, and one of the first people who started to research that topic was Alan Turing, the English mathematician (McCarthy, 2007). Dick (2019) added to that perspective that the mathematician questioned if machines could think and invented his famous Turing test for testing them. However, the term Artificial Intelligence was first used in 1956 when a group of researchers conducted the Dartmouth Summer Research Project on Artificial Intelligence (Dick, 2019). Consequently, it can be stated that artificial Intelligence was born at Dartmouth in the 1950s, and since then, it has had a long history of development.

Nowadays, AI is a vast science discipline that consists of several branches. A large number of scientists are working on it, which diversifies this field and consequently adds new segments. In our days, AI includes such research topics as natural language processing, machine learning, expert systems, deep learning, and others (Xu et al., 2021). It is essential to distinguish between them to see what can be related to the sphere considered in this research work.

Overall, different techniques, consisting of the AI sector, can be divided into three groups, which are also called "waves." They show how AI was developing chronologically.

The first wave refers to early systems of AI, and it is named expert systems or symbolic AI. Boucher (2020) stated that the work of expert systems is based on algorithms that are given by humans to these systems. Thus, by having this step-by-step guide of actions, a machine can implement some tasks intelligently. These are the most basic kinds of AI systems, which can work in stable environments with strict rules, but they are still utilized a lot in modern society (Boucher, 2020). For instance, it is applied in robotics and natural language processing. More specifically, one of the examples is digital voice assistants such as Siri, which can recognize natural speech and respond to it (Team, 2023).

The second wave represents more advanced and recent methods that started to appear in the 21st century. As it was described by Boucher (2020), they are called machine learning (ML), and these data-driven systems are based on the automated self-learning of machines, which brings the AI industry to a new level. Compared to the first wave, systems of the second wave can improve their performance without human intervention. There are various techniques within machine learning, and they are all suitable for different actions and conditions (Boucher, 2020).

One subgroup that appeared from machine learning is deep learning. Sarker (2021) said that it is also the way machines learn from data, but it is implemented through several layers of neural networks and processing. It is an imitation of how the human brain processes information. In addition, the difference from machine learning is that in deep learning, efficiency is higher as volumes of data are increased as well. It is a prevalent concept nowadays, and it is used in different spheres, including cybersecurity, medicine, recognition of images, and analytics of texts. It also advances natural language processing techniques (Sarker, 2021).

Finally, the third represents possible kinds of AI that could appear in the future. It is predicted that there will be more complicated and advanced kinds of AI, which are possible with the development of technologies. These systems are referred to as artificial general Intelligence (AGI) (Boucher, 2020).

Moreover, AI can be classified as weak or narrow and strong or general. The first two waves are considered to be weak AI, and the third wave is considered to be strong AI. Below, there is a scheme that provides an illustration of the kinds of AI for better understanding.
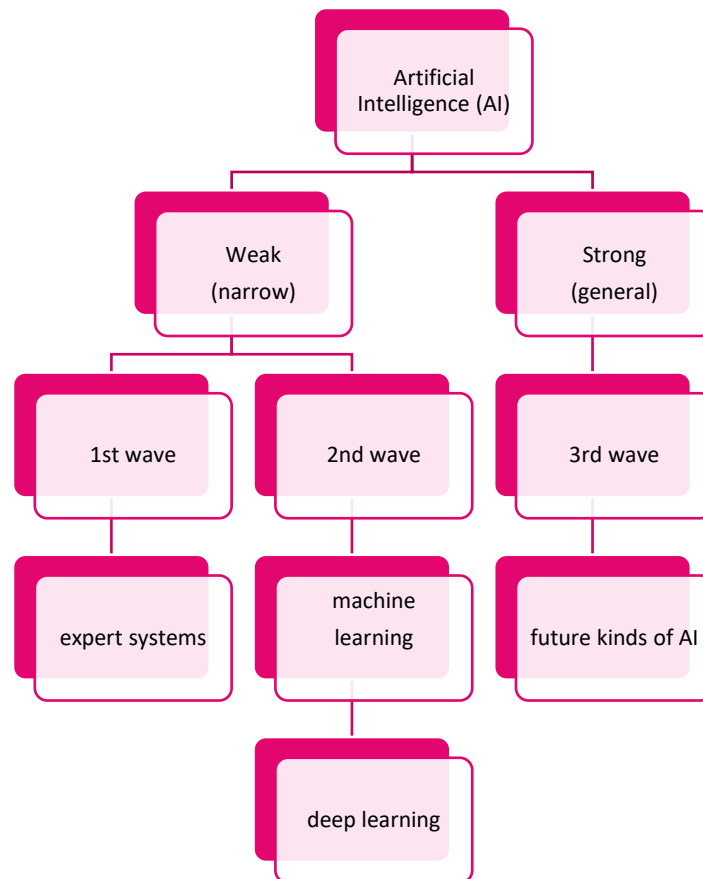
Figure 3. AI classification (Compiled by the author)

2.4   AI in marketing

As mentioned before, AI is a viral technology that is applied throughout industries. In the business sphere, it also brings much value. According to Haleem et al. (2022), the innovation it brings to companies allows them to increase productivity and, thus, profit increases. With AI, many tasks can be automated, and the efficiency of many actions can be increased (Haleem et al., 2022). Therefore, businesses can focus more on tasks that require the application of human creativity, and it helps them to grow.

Marketing is one of the leading business sectors where AI has become popular. In this chapter, it is essential to define the place of AI in marketing. Nowadays, there is even a term "AI Marketing". According to Ben-Seth (n.d.), it means the type of marketing involving artificial intelligence systems for building marketing campaigns that target individual customers and have a significant

aspect of personalization. It can implement tasks and bring capacities that are not available for marketers.

The reason why AI started being applied in marketing more and more is that it provides significant benefits to both companies and customers. From the business point of view, applying AI increases the effectiveness of marketing campaigns from various points.

AI brings automation to companies, which increases productivity in marketing departments. Haleem et al. (2022) stated that AI is aimed at automating jobs that before required human intellect. Consequently, it aids in lowering the amount of resources needed, such as the number of workers, and by that, increases efficiency (Haleem et al., 2022). That is why, by applying AI, marketers get more time and energy for creativity-based tasks.

Moreover, AI systems are often capable of more enormous volumes of work than humans. For example, in research, AI can undertake a higher amount of data. It means that these systems help to implement more work.

Overall, AI can implement several functions within the marketing industry. According to the research of Deloitte, Davenport, and Ronanki (2018), they can be classified into three main categories:

1. Robotics and automation mean that by using AI-based robotic systems, various administrative and financial tasks can be implemented automatically.

2. Cognitive insights mean that AI can help to analyze data and gain insights from it using machine learning algorithms.

3. Cognitive engagement means that AI systems can assist with customer communication via such means as AI-based chatbots (De Mauro et al., 2022).

The examples above show that marketers apply artificial intelligence systems during the implementation of almost all stages of a marketing campaign, from the initial stages of planning to

getting the loyalty of clients. Due to its capabilities, it brings to each step a higher level of person-alization, which is why artificial intelligence plays a vital role in targeted marketing. AI systems are utilized extensively nowadays for it. It is essential to look at how exactly it can bring value to targeted marketing and using which systems.

2.4.1   AI for targeted marketing

As described earlier, the targeted marketing process consists of an STP (segmentation, targeting, positioning) framework. AI techniques can be inserted into each part of this framework.

According to Kumari (2021), it is seen that starting from segmentation, AI allows the conduct of efficient data collection and analysis, which would not be possible by using only human resources. Companies need help to collect and analyze significant amounts of data manually, and in this case, predictive analytics based on machine learning algorithms allow them to implement it efficiently (Kumari, 2021). This AI system helps gather important research insights for marketing campaign planning and implementation because it helps to make critical decisions.

For example, AI is used for analyzing customer data such as buying behavior, interactions on a website, geographic locations, and others. It is an effective way to get insights about customers, their preferences, and wishes so companies can adjust their campaigns and offers to them (Kumari, 2021). By getting explicit information about prospects, companies can understand whom it is more profitable and feasible to target, and thus, they can concentrate their marketing energy on them. It means that they can implement successful segmentation.

After segmenting customers, companies need to reach their chosen segments. During this step of targeting, AI systems help adjust content to each customer based on their preferences, providing a unique experience to each person (Kumari, 2021). That is why many companies are using artificial intelligence to make their websites, content on social media, emails, and other channels of marketing communication more personalized (Haleem et al., 2022). It leads them to deliver a better customer experience and increase loyalty among clients.

Furthermore, Kumari (2021) stated that AI-based systems for content generation make the process of content writing much more effortless. The author mentions that even though creativity is

essential for that process, AI tools can accomplish simple tasks, such as writing emails, organizing content on social media, and creating personalized messages (Kumari, 2021). From this article, it can be concluded that AI can do some repetitive tasks and give more time for implementing creative ones to content writers. It makes the process of targeting through various communication channels and later positioning less time-consuming.

Moreover, AI can help to communicate with customers, which is also necessary during targeting and positioning. Nowadays, companies are providing personal chatbots or assistants working with the help of AI, and it also brings a sense of personalization to customers and improves their experience.

2.4.2   AI systems in marketing

It is necessary to look closer at which systems specifically are used in the marketing sphere.

According to Biswas (2023), three main AI fields are applied within the business sector. They are Natural Language Processing (NLP), Computer Vision (image recognition), and Predictive Analytics.
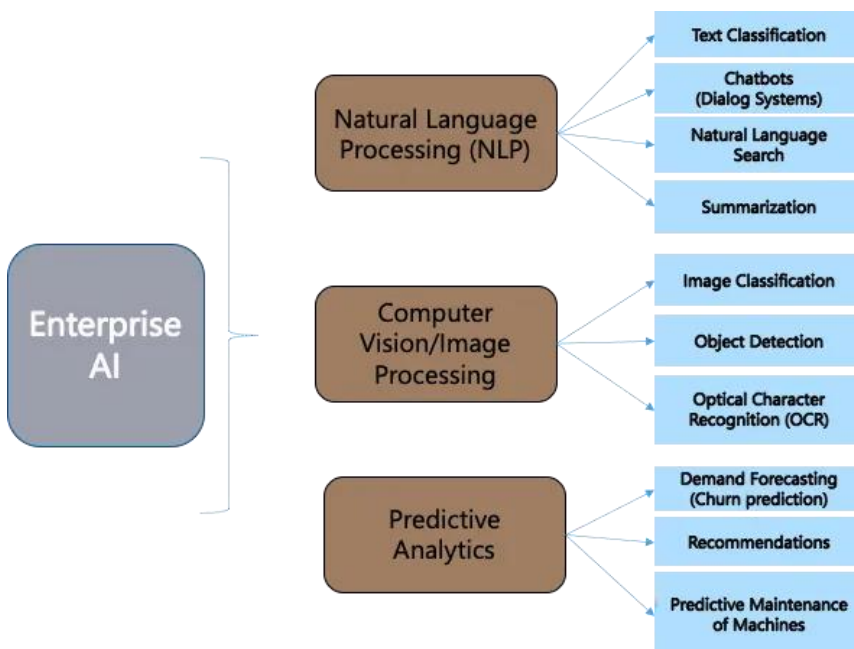

Figure 4. Enterprise AI. (Biswas, 2023)

It is essential to understand what each of these fields is. Below there is an explanation of these fields collected from diverse scientific sources:

- Natural Language Processing (NLP)

NLP is the sector of AI where machines can understand and work with human language. This technology combines AI, machine learning, and linguistics. NLP is integrated with many spheres of our life. It is widely used within the marketing area for creating content and systems of customer support (Parashar, 2022).

- Computer vision (image recognition)

Computer vision is another sector of AI that makes computers see. Its techniques are aimed at allowing automated analysis of videos and images. It means that computers can identify, interpret, classify visual materials, and react to them. Computer vision is used for various purposes, such as facial recognition or object detection. In terms of marketing, it is often applied for sentiment analysis of the audience (Waelen, 2023).

- Predictive analytics

Predictive analytics is the area of AI that allows us to analyze data and make predictions based on the analysis. It involves machine learning and statistical algorithms. Analytical techniques emerging from it make it possible to detect certain relations between data and predict some trends or directions based on it. Predictive analytics are helpful in many industries, from healthcare to finances. In marketing, it also can bring valuable insights and assist in making data-driven decisions (Božić, 2023).

2.5 AI in social media

Social media is an inevitable part of modern life. Nowadays, its area of usage is expanding. Sadiku et al. (2021) stated that it is more than just a way of interacting but also a tool for, for example, public relations, e-commerce, marketing, and many more. That is why many online retail businesses are developing there.

The usage of AI in social media is constantly growing, and for some processes, it has become an inevitable component already (Sadiku et al., 2021). AI is being integrated into social media in different ways. As was already concluded, its application is diverse. Thus, it can perform various functions there.

There are various AI-based mechanisms launched by social media platforms themselves and separate AI tools that can be integrated into social media. Gillis (2023) stated that, overall, these systems can assist in content generation, posting management, communication with followers, advertising management, data analysis, categorization, tagging, content moderation, content suggestions, and video filtering (Gillis, 2023). Companies mainly adopt it as an efficient way to improve performance and optimize processes. They are implementing marketing, research, and analysis of customer behavior and general trends with the help of AI (Sadiku et al., 2021).

Many of the actions implemented with the participation of AI on social media are directed at increasing the level of personalization there. That is why utilizing AI is beneficial for performing the targeted marketing campaign.

It is essential to review ways of applying AI by marketers who realize targeted marketing campaigns on social media. It can be used for such actions as:

• Content generation

NLP technology and generative AI systems can produce text- or image-based social media content (Gillis, 2023). This technology helps companies to generate posts more efficiently, as the process can be partly automated. Even though the creativity aspect belonging to human intelligence cannot be eliminated, AI can enhance the work.

Marketing content creator Akshita Sharma, who worked for such brands as Narrato, The Next Scoop, and Writesonic, shares that AI helps her to find ideas for content, create text, generate visual materials for posts, do a translation for content and transform content through content repurposing. Overall, Akshita Sharma saw the main advantage of using AI for content generation: it saves time and directs focus on more critical tasks (Sharma, 2023). In addition to saving time by

automation, there is the aspect of targeting, which is brought by the fact that, for example, AI writing tools can orient the content to the target audience as they adjust to their preferences and specifics of a company. That is why the produced content can be highly relevant and targeted.

• Data collection and analysis

Social media is a significant data source, as people share their preferences, interests, feelings, and thoughts. That is why it is easy for companies to get there data about customers and their behavior, current trends, and other valuable information, and with the help of AI programs, this process can be much more efficient.

First, applying such tools can help get essential insights about the target audience. It analyzes the content posted by the company and its competitors and shows what kind of content target customers prefer. Thus, necessary adjustments can be made.

Secondly, Sadiku et al. (2021) said that AI tools allow the implementation of social listening, which describes an opinion about the company. It can gather information through the social media channels of a company and analyze what customers are saying about it. This information is a great way to improve a marketing campaign, as target customers' opinions matter (Sadiku et al., 2021).

• Communication

Developed communication with customers is an important aspect of personalized marketing, as this interaction creates bonds. Integrating AI-based chatbots into social media accounts makes this process much more manageable. Sadiku et al. (2021) said that AI chatbots create instant and efficient ways of communication, as they can always answer automatically on time. This aspect increases the experience for clients.

• Targeted advertisements

Many social media platforms, such as Facebook and Instagram, have a function of creating advertisements. They can be adjusted to target different groups based on behavioral and demographic

aspects. That is why it helps companies to promote their products or service to their targeted seg-ments (Sadiku et al., 2021).

2.6   Marketing in Instagram

Instagram is one of the world's most popular social networks. In 2023, it has more than 2.3 billion users, and it is among the five most widespread social media platforms around the world (Ruby, 2023).

Figure 5. Instagram logo (Dreamstime, n.d.)

Lim & Yazdanifard (2014) told that it was created in 2010 by Kevin Systrom and Mike Krieger. The name consists of two words: "instant" and "telegram." In the beginning, it was launched as an ap-plication allowing to post photos and videos, but with time, more functions were being added. In 2012, Instagram was bought by Meta, the parent company of Facebook (Lim & Yazdanifard, 2014).

In 2011, the function of hashtags was added. A hashtag is presented as a word or a combination of words with a particular sign (#), and it is a way to find materials on a specific topic. In 2013, the op-tion of sending direct messages also appeared. It is called "Direct" (Ha, 2015). This information showed that even though Instagram is a relatively young platform, it had a rich story of its devel-opment before it turned into a social media we have nowadays.

Nowadays, Instagram offers a wide range of features. As it is stated on the introductory page of its website (Instagram, n.d.), it aims to "give people the power to build community and bring the

world closer together." It is listed that apart from sharing posts, it is possible to share and create reels (short, engaging videos), make stories (content lasting for 24 hours), communicate via messages, and buy products via shopping features.

With time, Instagram developed from just an application to a community where people are able to connect, make friends, share their thoughts and feelings, and express themselves. Moreover, it has also become a platform for many businesses.

Companies have the opportunity to switch their regular accounts to business accounts. Sheikh (2023) specified that this professional mode allows one to access the account's performance, keep track of analytics, and get valuable tools (Sheikh, 2023). This information shows that Instagram is convenient to use for companies.

Many companies see Instagram as an excellent platform for implementing marketing. Chaudhary (2021) said that Instagram offers a basic communication model. It helps companies to exchange data through publishing photo and video materials and writing comments. Furthermore, as feedback, they can get comments and reactions from their followers. Moreover, the option of Instagram Direct makes communication even more efficient.

Moreover, Instagram provides plenty of tools for marketing. According to the Instagram webpage dedicated to business in Instagram (Explore What's Possible With Instagram Ads, n.d.), Instagram ads help to "advertise your business and reach your next customers with precise targeting and actionable insights."

More specifically, it is mentioned that it can promote specific posts by transforming them into advertisements, reach the desired audience by adjusting targeting parameters, define budget limits for advertising, monitor the effectiveness of the ads, and create campaigns across platforms using Ads Manager, which can work for Instagram, Facebook, and other platforms.

Chaudhary (2021) concluded that Instagram helps to enhance the brand presence, attract more customer's attention, and make a company more visible. Moreover, it is added that it is also efficient to create bonds with customers and implement successful communication. As an advantage,

Chaudhary highlighted that despite Instagram offering some paid options for marketing, it is free for companies to start advertising on this social platform.

That is why, due to its diversity, Instagram is an excellent choice of marketing space for both small and big businesses. Chaudhary (2021) stated that multinational, well-known brands utilize it, but it also helps to grow small enterprises. It is prevalent among fashion businesses due to its visual aspect (Chaudhary, 2021). Literature shows the range of tools and benefits this social media offers to different types of businesses.

2.7 Use of AI in online retail and by SMEs

There is extensive research on how AI is applied in marketing and how it adds value to implementing targeted marketing. Some sources also consider this aspect from the perspective of small companies.

There is some research on overall usage of AI by SME. For example, Lahtinen (2023) defined main trends of how SMEs are utilizing AI nowadays. First of all, only part of SMEs is actually employing AI technologies. Most of companies are aware about them, but are not using them, and some companies do not know much about it yet. However, the use of AI by SMEs is constantly growing now. Furthermore, in our time there are plenty of AI solutions available for companies of small sizes on the market already and a lot of them is being released. Many of these AI solutions do not require companies to have a high level of digitalization. In addition, SMEs tend to use external AI sources such as systems and applications (Lahtinen, 2023).

Also, Lahtinen (2023) added that the potential applications of artificial intelligence that small and medium-sized enterprises (SMEs) see are varied and include product and service development and production, quality control, maintenance and remote diagnostics, sales and marketing, customer service, finance, IT functions, and HR management (Lahtinen, 2023). This source presents the common viewpoint presented in many sources that the industry of AI is quite developed for specifics of SMEs and has a lot of utility to offer to small companies.

Furthermore, it was discovered that this topic is studied more deeply, and it is discussed how SMEs can use AI for specific purposes, such as marketing. With the help of the work on utilization

of artificial intelligence in the digital marketing of SMEs by Maxwell (2023), it became clearer on how SMEs can apply AI for implementing marketing and which benefits they receive from it. Overall, this work showed that with Artificial Intelligence systems small companies can market digitally in less expensive and more efficient ways. Moreover, AI brings them also the possibility to compete with larger enterprises. Solutions powered by AI can be applied to a wide range of tasks in marketing. For example, SMEs can efficiently analyze data, create, manage, and personalize marketing campaigns, create content, and communicate with customers with the help of AI.

The outcomes of AI application for marketing in SMEs are also considered in the scientific work by Maxwell (2023). The main ones of them are that AI makes customers more engaged and easily converted, and it allows to understand the audience better. Moreover, with the big amounts of information easily received with AI, campaigns can be made more targeted. In addition, time and resources are saved greatly. However, utilization of AI for marketing by SMEs is also connected with some challenges such as technical issues, lack of human touch, privacy and ethical concerns, workplace reduction and others.

On the whole, the list of findings is summarized in that research. Maxwell (2023) stated that main implications of AI are in "improving efficiency and cost reduction", "improving customer targeting and personalization" and "increased competitiveness". With these changes brought by AI, the business environment is changing, and SMEs are getting more opportunities to stand out and grow (Maxwell, 2023). This research provides valuable findings on the use of AI by small and medium-sized enterprises for digital marketing. However, they are quite broad and lack the specifics.

Giving the e-commerce perspective of utilization of Artificial Intelligence, some literature sources agree that AI finds vast application in e-commerce and adds value greatly to customer experience. For instance, Nguyen (2023b) outlines such benefits of using AI in online retail as improving customer experience, lowering costs and better personalization. The big emphasis is made in the research on the last concept. AI allows to personalize experience of customers in online retail in many ways. They can get personalized marketing messages, content, and product recommendations. With natural language processing and machine learning, it becomes possible to adjust to individual preferences of customers, which is crucial for retail industry. Some examples of how AI can personalize experience are virtual assistants, chatbots and recommendation algorithms

(Nguyen, 2023b). This research considers different aspects of utilizing AI in e-commerce and shows that this technology is extremely useful there.

2.8 Future perspectives of AI

There is a lot of predictions on how Artificial Intelligence will develop in the future. Some researchers are focusing on main directions of AI development in general, while others focus on more specific points. For example, on how SMEs will use AI in the future or how AI will be used in social media.

Sadiku et al. (2021b) defined in their research how the use of AI for marketing will be changed on social media. It shows that AI will allow to implement even more precise personalization techniques in social media marketing, and companies will be moving to hyper-personalization. Moreover, communication through chatbots will be developed even more. It will imitate better human interaction. In addition, researchers underlined that in the future companies implementing marketing on social media will rely even more on AI, and it will become a necessary mechanism for building a marketing campaign (Sadiku et al., 2021b). It helps to understand that importance of AI on social media will be increasing in the future.

In the work of Lahtinen (2023), the change in AI usage by SMEs was considered. It was stated that by 2033 the amount of SMEs employing AI will grow significantly. Small companies will have more expertise and experience on using AI, and it will become a necessary tool. SMEs which will refuse from utilizing AI will have a risk of losing their competitiveness on the market, as it will be the essential tool for survival (Lahtinen, 2023).

The graph below is an adapted version of Roger's curve of innovation by Lahtinen (2023). It illustrates the change among SMEs in using AI. The amount of laggards will decrease, while the amount of companies using AI will grow.
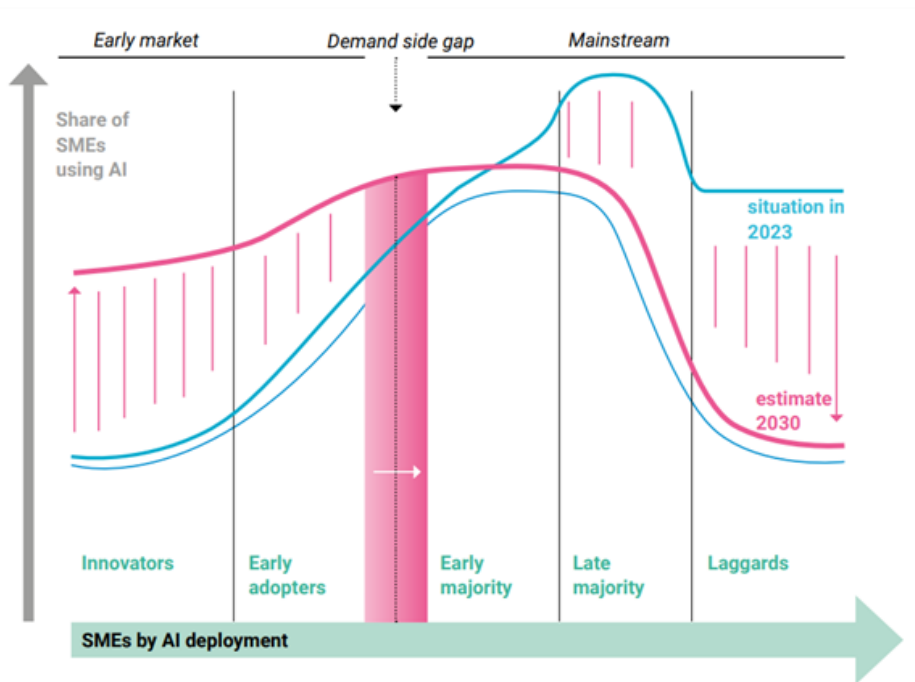
Figure 6. AI deployment in SMEs (Lahtinen, 2023)

These articles help to understand how AI will be developing, and what can be expected from social media and SMEs regarding it.

2.9 Summary of literature review

After the literature review was done, it was essential to make a summary of key findings from it. They are listed below:

- Online retail is a growing sector of the business industry. Many types of companies are engaged in online retail, but SMEs represent a big part of them. In addition, nowadays, retailing on social media is also becoming widespread.

- It is beneficial for companies and customers to sell and shop online, and the popularity of online retail is constantly increasing. It also happens due to happenings in the world, such as the coronavirus pandemic and technological advancements. Moreover, technology development impacts the online retail industry by bringing new trends. One of them is the need for personalization.

- The current realities of high competition and the explicit supply on the market require companies to make a lot of effort. Furthermore, customers demand a more advanced level of service and often want to be treated individually. It all leads to the increased need for targeted marketing, which helps to address the demands of customer segments more precisely.

- Targeted marketing is a complex process involving diverse steps. With the use of technology, it can be implemented more efficiently. AI systems are integrated a lot in targeted marketing. It can perform many functions, including data analysis, personalization of marketing messages, content production, and communication. The most applied AI systems in marketing are Natural Language Processing, Computer Vision, and Analytics.

- AI is an essential part of social media. It is integrated into many social media platforms such as Instagram and Facebook. AI-based functions offered by social media platforms and separate AI tools that can be applied to social media are efficient for implementing marketing through social networks.

- Instagram evolved from a platform for sharing photos to a complex application used for various purposes. One of them is for business. It is possible to advertise products and services, sell them on that platform, and establish customer relationships. Instagram offers a variety of professional tools for this purpose, some of which are based on the work of AI.

- AI has found its diverse application within the e-commerce sector where it especially can add value to marketing processes. In SMEs, the usage of AI is also growing, and it is applied there for various purposes.

To sum up, there is a rich database on how AI is applied within the marketing sector and in online retail, and the perspective of SMEs has also been raised. However, the perspective of utilization of AI in social media has not been completely defined and the question on how exactly online retail SMEs utilize AI for targeted marketing remains open.

3   Methodology

3.1   Research approach

The part of implementing successful research is the thorough choice of methods and planning. In this chapter, the research approach, methods of data collection and data analysis, aspects of

research quality, and ethical considerations will be described. The goal of this research is to explore the ways of utilizing AI by SMEs implementing online retail for targeted marketing on Instagram and its effect by getting insights from two perspectives: companies and customers.

There are several approaches for conducting research: qualitative, quantitative, and mixed methods. The choice of the procedure depends on the research topic and questions (Creswell, 2012). It is crucial to understand all these three methods to see the difference and make the choice.

Verhoef and Casebeer (1997) stated that quantitative research is based on identifying trends and tendencies, finding relations between variables, and making comparisons. It is done through gathering numerical data from a large number of respondents and statistical analysis of it. Quantitative methods are usually used for precise, limited, quantifiable, and visible research questions.

On the contrary, according to (Verhoef and Casebeer, 1997) qualitative research is more about considering some central concept or problem. It is done through gathering verbal or visual data from a small number of respondents but in an extensive way in which people give broad responses. Analysis of information is done with the help of text analysis and interpretation. Qualitative methods are mostly used for general and wide research questions.

However, sometimes, research can require collecting both qualitative and quantitative data. In this case, a mixed method can be utilized. The mixed method is defined as gathering and analyzing qualitative and quantitative information in one research. Combining these two types of data can give more comprehensive insights into the research topic (Creswell, J. W., 2012). According to Wallwey & Kajfez (2023), utilizing this method makes the research deeper and broader, as the topic is explored in different directions, and insights obtained by researchers can include general concepts, personal experiences, and valuable precise details.

For this work, the mixed method was chosen as research questions required both quantitative and qualitative information. The core of the research is exploring the specific experience of SMEs

utilizing AI for targeted marketing on Instagram. This can be done by diving into individual cases and considering specific situations which require qualitative methods. However, to get a complete overview, the customer's perspective is also needed. For that purpose, quantitative methods were chosen, as the statistics can better reflect customers' attitudes towards applying AI for marketing on Instagram. That is why the combination of two research methods is a way to get an extensive view on the topic of research.

To sum up, by using the mixed method, the emphasis is made on qualitative data. However, the collection of two types of data should be conducted simultaneously.

3.2   Data collection

For each research approach, a specific data collection method should be chosen that suits the needs of the research questions and allows to gather the most relevant data. As the qualitative method, the method of grounded theory was chosen. Grounded theory is presented as a procedure of examining individuals in a systematic way, which allows one to form a generalized understanding or answer to a question (Creswell, 2012). This type of data is often done in the form of an interview. Interviews are one of the main qualitative methods of collecting data. According to Stuckey (2013), interviews are a way of collecting data during which interviewees are guided to answer a particular question of research.

There are three types of interviews: structured, unstructured, and semi-structured. In order to make a selection of interview types for this research, it was essential to understand and consider all of them. The questioning in structured interviews follows a predetermined and sequential order. They are organized so that an interviewer has a limited number of defined questions with a specific sequence that should be followed. This type of interview can be suitable when many responses should be received (Stuckey, 2013). Unstructured interviews are the opposite. They do not consist of structured questions, but usually, only the general topic of discussion is defined. Based on it, an interviewee is sharing their experience, and the discussion is developing uniquely (Stuckey, 2013). This type of interview is more individual, and it can help to discover some new

concepts as it grows in an unpredictable way. The third type of interviewing, which is considered as a balance between two previous, is semi-structured interviews. There is a list of topics that should be covered during an interview. However, the direction of the discussion is set by a person's responses (Stuckey, 2013). It is the most widespread kind of interview in qualitative research due to its balance of flexibility and structure. Open-ended questions provide a helpful system for conducting the interview but, at the same time, do not limit researchers and respondents. Overall, the main difference among these types of discussions, according to Stuckey (2013), is in the interviewer's degree of control over the interaction and the interview's purpose.

As for the quantitative method, surveys were chosen. It is a questionnaire given to a group of people named a sample to detect opinions, features, and opinions of the population (Creswell, 2012).

There are different types of surveys according to their objective and the way they are held and distributed. Also, they can differ by the frequency of deployment. For this research, a cross-sectional type of survey was chosen. Cross-sectional studies are conducted during a short period. A small group representing a large part of the population participates in it. They answer short and specific questions aimed at understanding what participants are thinking at the current time (Dermatol, 2016). This type of survey is suitable for this research as it corresponds to the research time frame and purpose.

3.2.1   Sampling

Sampling is a process through which a group of individuals representing larger population is selected with a purpose of conducting research. It helps to study the population in research without surveying a too big amount of people (Bhardwaj, 2019). There are different types of sampling for various research purposes and conditions. In this work, two types of sampling were selected for interviews and the survey.

Sampling for interviews

For interviews purposive sampling was chosen. It is a subtype of non-probability sampling where not every representative of population can be selected for research but only some individuals who meet required criteria. In purposive sampling, candidates are selected depending on the aim of research. There can be certain parameters and respondents should correspond them. If there are

strict limits in a study, using purposive sampling can increase the chances of getting accurate re-sponses (Bhardwaj, 2019).

This type of sampling was suitable for interviews, as their aim was to explore the specific type of SMEs and their experience. That is why it was necessary to set a list of particular criteria for inter-viewees to find candidates who were related to the research topic and were able to answer the research questions fully. For this research, it was planned to conduct interviews with SMEs. The interview candidates were chosen based on the following criteria:

1. Company is engaged in online retail.
2. Company uses Instagram for marketing.
3. Company implements targeted marketing campaign.
4. Company employs Artificial Intelligence as a marketing tool.
5. It is a small or medium-sized company.
6. Company is easy to reach.

It was aimed to interview from 6 to 10 companies. In total, 14 different companies were reached, and 7 out of them replied with a positive response. Below there is a table presenting a list of par-ticipants in interviews with describing a type of a company, its size and who presented it during the interview.

	Company	Occupation of interviewee	Size
1	Pet shop	Store owner	24 employees
2	Manicure store	Store owner	One-person company
3	Women's clothing store	Marketing manager	155 employees

4	Asian food store	Store manager	11 employees
5	Vintage clothing store	Store co-owner	6 employees
6	Cosmetics store	Store manager	203 employees
7	Skiing supplies store	Marketing specialist	48 employees

Table 1. List of interviewed companies

The aim of interviews is to explore experiences of the specific type of companies from the specific aspect: online retail SMEs and how they use AI for Instagram targeted marketing. That is why it was crucial to select companies which meet all of these criteria, and purposive sampling was suitable for this process.

Sampling for survey

For the survey, simple random sampling was chosen. It is a subtype of probability sampling. In probability sampling every individual from the population has a chance of being selected for the research. At the same time, simple random sampling means that participants for the research a selected randomly. Each of them has an equal chance to participate in the study, and the selection is not biased. It is suitable, when the studied population is homogenous (Bhardwaj, 2019). This type of sampling was chosen as the specific group of population was suitable for participating in the survey, but it was necessary to avoid the bias factor. That is why it was efficient to select participants in the random order.

Bachelor's students and recent graduates were chosen as target population for surveys. They were considered as a representative group for the research. The aim of survey is to explore opinions of Instagram users on usage of AI by online retail SMEs for targeted marketing on Instagram. Bachelor's students and graduates were considered a group which uses Instagram a lot, and thus, it was decided that their opinion can be representative. Moreover, these survey candidates were the easiest part of population to reach for the author.

Overall, approximately 300 bachelor's students and recent graduates were reached with a request to participate in the survey. The survey was distributed mostly through online channels such as WhatsApp and Instagram messages and emails. In total, 50 students participated in the survey. According to these numbers, the response rate can be calculated with using the following formula:

$$Total\ response\ rate = \frac{total\ number\ of\ responses}{(total\ number\ in\ sample - ineligible)}$$

According to the formula, total response rate was calculated as 50/300 and the result was 0,16 or 16%. It was considered as a reasonable response rate taking into account the mode of survey and the ways of its distribution.

3.2.2 Interview design

The semi-structured type of interview was chosen. The reason for the selection is that it is suitable for the purpose of research. The aim of interviewing is to gather diverse experiences of utilizing AI for targeted marketing on Instagram from different SMEs. With semi-structured interviews with companies' representatives, it will be possible to get various insights as open-ended questions will encourage interviewees to share extra details and provide broad responses from which much valuable information can be extracted. Moreover, semi-structured interviews are more flexible and adaptable, which is crucial while interviewing people from different backgrounds, as various types of small companies will be reached. In addition, they create a more informal atmosphere, which leads to participant engagement.

The list of topics for discussion was defined beforehand. After that the approximate set of questions was predetermined. It could help to have some guidance and support while conducting interviews. However, it was not fixed as some follow-up and additional questions could emerge during interviews. Moreover, questions were adapted based on the specific context and details relevant to each SME interviewed.

The list of topics discussed during interviews consisted of following topics:

- Company's background Information
- AI usage by company
- Insights from using AI

- Challenges and limitations of using AI

- Future outlook on AI usage

- Business impact of using AI

- Customers' response on using AI

In Appendix 1, a script for the interviews could be found. However, it is important to remember that it was adapted and transformed for each interview during the process of interviewing.

3.2.3   Survey design

The cross-sectional type of survey was designed. This method was suitable, as it is meant to be conducted during the short period of time and requires the small group of participants. These conditions corresponded to the specifics of the research. A list of sections was defined for the survey:

- Demographic information

- Instagram usage

- AI in Instagram marketing

- Feedback

After the survey topics and questions were defined, the survey was created with the help of Google Forms. It contained 19 various questions. Most of them were multiply-choice questions, and a few were open-ended and required further elaboration. Survey was open for two months, and then the number of 50 responses was achieved it was closed, and after that the results were reviewed. The survey plan can be seen in Appendix 2.

3.3   Data analysis

For the survey analysis the method of descriptive statistics was chosen. Descriptive statistics are a way to summarize and represent information with the help of charts, infographics, diagrams, formulas and tables. It is an efficient way to show the overview of data, as it represents such aspects of a data set as central tendency, size, variety, and distribution. It is often implemented with calculating such parameters as frequency, range, mode, standard deviation, mean, median, and percentage of your data (Thinking, 2023). This method was chosen as it suits the purposes of the

research. It will help to explore thoroughly survey responses, as it will allow to make conclusions about customers' opinion on the topic, discover main patterns and represent them effectively.

For analyzing interviews, qualitative content analysis was chosen. Content analysis is a method aimed at detecting certain concepts and ideas through analysis of texts. It allows researchers to analyze the frequency, significance, and connections between specific words, ideas, or themes. Content analysis can be applied to any verbal source such as interviews, conversations, or books (Content Analysis, 2023).

The procedure of content analysis for interviews consists of several steps. Its aim is to convert a big amount of text information into summarized findings. It starts from reading transcribed interviews. After getting overall understanding of data, certain code units are formed. Then the interview transcriptions can be coded. If needed, codes can be grouped to certain categories. However, content analysis is not a linear process. Therefore, these steps can be repeated until all valuable insights are extracted from the data (Erlingsson & Brysiewicz, 2017).

This method is suitable for the research, as it will help to carefully review and analyze interviews with SMEs. As interviews will be semi-structured, there can be diverse insights in an unstructured manner. Thus, with content analysis it will be possible to process transcriptions and identify all important concepts and ideas in an organized manner.

To sum up, in this research two main data analysis methods were chosen for two types of data collection: survey responses are analyzed through descriptive statistics and interviews are analyzed through content analysis.

3.4   Research process

At the beginning of working on this research, the author developed the work plan, which made the process more structured and systematic. It included the specific timeline for work and the plan of action.

According to it, the thesis writing process started in May 2023. The author chose an interesting and actual topic and started to develop it by defining research questions and research objectives. After that, the process of collecting data started in July 2023. First, the existing literature related to the research topic was critically reviewed. It increased the knowledge base for further research. Then, the methods for primary research were chosen. Interviews were designed and conducted during September and October 2023. The survey was also launched in September 2023, and it was closed after two months. After these steps, all received data was analyzed through various methods, and then the final part was completed during which research questions were answered and research quality was measured. Moreover, limitations and directions for further research were considered during that period.

3.5 Research quality and ethical considerations

According to Hug & Ochsner (2014), in order to make research qualitative and ethical, it is necessary to provide the validity, reliability, and generalizability of the findings and observation of ethical principles. To ensure that, the plan for research quality was created.

First of all, the research aims and questions are set clearly at the beginning of the work. It gives a necessary framework for future research and defines its scope. The problem raised in the research should be actual and correspond to the current state of the field. To increase the generalizability of findings, it should also have some practical application. The prior research on this topic is explored to avoid unnecessary repetitions and increase the value of findings.

The literature base for conducting the research is collected to have a theoretical database. It brings the necessary knowledge to provide validity of further findings and conclusions. The literature is taken from credible sources which have a proven academic background. It ensures that they are reliable and trustworthy.

After that, the methodology is defined. A combination of methods for data collection can be chosen. It will help to bring diverse perspectives to findings and make them more comprehensive. Combining qualitative and quantitative methods in the form of a literature review, interviews, and a survey will provide a more affluent foundation of conclusions.

During the collection of data through interviews and survey, ethical principles are considered and observed:

1. Participation is voluntary, and prior to surveying and interviewing, the aim of it is explained clearly.

2. The survey is anonymous, and no personal information such as name and surname is asked to be filled during it. It provides an impartial analysis of findings and allows candidates to share their opinions more openly as they are not concerned about being judged or making a particular impression.

3. As for interviews, no details about companies threatening their privacy are shared. Names of companies are not mentioned as they are irrelevant to the research.

In addition, the sampling for data collection is made carefully. Required criteria for sampling are defined clearly to avoid sampling errors. It helps to conduct the research more precisely as the studied groups are relevant and the findings are valuable.

Data analysis methods are chosen to complement data collection approaches, ensuring that the most valuable insights are extracted from the received data. The data analysis process is straightforward and unbiased.

Furthermore, in all stages of writing this work, plagiarism is excluded, and all necessary references to cited sources are provided correctly.

Overall, the whole process of writing this work is going to be based on principles of academic honesty and openness. The author is genuinely interested in exploring the current state of the studied problem and making justified conclusions. The described above plan for keeping a high level of research quality is meant to guide the process of writing this work.

4   Results

This chapter presents the findings from collecting data through survey and interviews and shows the process of their analysis. The process of data collection, combining data received from different sources and analyzing it leaded to comprehensive collection of results.

4.1   Interviews Results

Overall, 7 interviews were conducted. Each of them gave a unique perspective on the topic. At the same time, through the analysis some common patterns were identified and reach collection of experiences gave a comprehensive overview. Interview transcripts were analyzed trough the content analysis. During this process, various groups of codes were arranged. Coding was implemented with the help of MS Excel. After that, codes were analyzed, and specific concepts and conclusions were received from them. Examples of code groups can be found in Appendix 3. This part contains the collection of findings from interviews, and it is divided on topics defined through coding.

4.1.1   AI usage by online retail SMEs

According to interview replies, companies use various tools and systems with artificial intelligence technologies. Four companies were aware of which AI technologies are utilized in their tools and applications. Among them were computer vision, natural language processing, machine learning algorithms, content generation models, collaborative filtering, and recommendation engines. The most popular technology mentioned by all companies was computer vision. The applications and tools with AI systems inserted identified in the course of discussions were of the following types:

- Tools within Instagram

6 out of 7 companies mentioned that they use tools that are part of Instagram's interface and which are known for employing AI. It shows SMEs' high rate of reliance on internal AI systems in Instagram. Among the main categories of these tools SMEs utilize are Ad tools and Business tools. Ad tools are used to promote posts, create ads according to the advertising goal, and reach the target audience. At the same time, business tools are used in Instagram marketing for getting analytics on account performance, for example, with functions such as Instagram Insights. Some SMEs mentioned that Instagram ads are also managed through Facebook Ads Manager.

- AI external applications

All seven companies mentioned also use various external applications. However, the range of these applications varied from company to company, depending on which goals and tasks were set by companies. In addition, the company's background had a significant meaning. In the analysis,

employed applications were divided by the task they completed. Some companies mentioned the exact names of applications they use, while others only described a function performed by an application.

1. Management

Applications with a function for scheduling automated posting were mentioned by two companies.

2. Analytics

Interviewed companies used applications for analytics of account performance, sentiment analysis such as Hootsuite, analysis of user content posted, and competitors' tracking such as Social Blade. The most widespread analytics application was apps analyzing how the company performs overall on Instagram, as three companies used it.

3. Content creation

Companies use applications to produce different types of content. The most widespread tool used by five companies was an application for writing content such as posts, hashtags, captions, and keywords. Mentioned application's names were Chat GPT, Durable, Sprout Social, and TubeBuddy. Also, three online retail SMEs used applications, such as Steve.ai and Canva, to create and edit video and image content.

4. Chatbots

Two companies integrated AI-based chatbots for automated customer interaction.

5. Image recognition

one company mentioned using an application with image recognition algorithms to identify and tag vintage clothing items in their posts.

It can be noticed that various tools were used, but the majority of companies employed applications for analytics and content creation. Below is the scheme illustrating AI tools employed by

online retail SMEs. It gives a comprehensive overview on the situation within the industry.
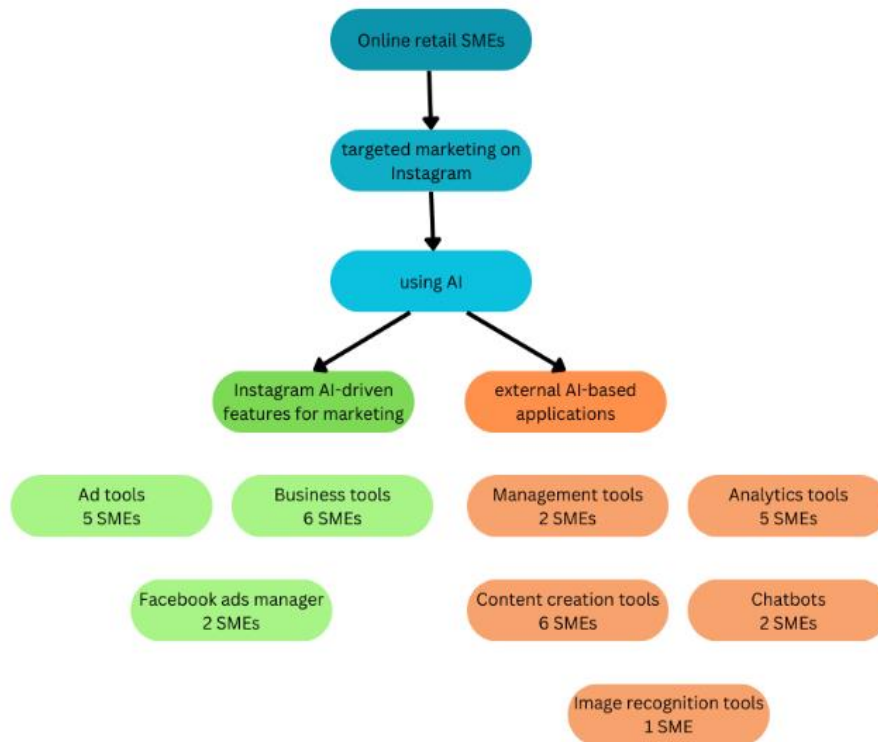

Figure 7. Interviews results on AI tools used by online retail SMEs

4.1.2 Perspective of online retail SMEs on AI usage on Instagram

Goals

All companies had their own goals for using AI, which depended on various factors. The most widespread goal set by all seven companies concerned increasing the targeting of their marketing campaigns and reaching customers on a more personalized level. Interviewed SMEs aimed to create a high level of targeting and personalization by adjusting posting times for maximum engagement, having a deeper understanding of customers' behavior and preferences, delivering more targeted and relevant content, and increasing the engagement of customers.

Moreover, another famous goal set by 5 SMEs was to identify and target new potential customers as they planned to expand their business and reach a broader audience. They needed to find

potential customer segments and understand how to approach them. For that, for example, they needed to find relevant hashtags and keywords for their products.

Also, four companies wanted to save time and increase productivity by assigning tasks to AI instead of workers. In addition, three companies optimize resources and automate the implementation of some marketing tasks. Another goal set by the two companies was to understand the audience better and gain insights into how their Instagram account performs.

Benefits

SMEs received various benefits from utilizing Artificial Intelligence technologies. Five companies reported that AI helped them tailor their campaigns to their audience and preferences, increasing their engagement and satisfaction rates. It was the most popular positive effect SMEs experienced. Moreover, for 4 SMEs, AI tools aided in increasing conversion rates, and their overall amount of sales grew. Three companies also said AI made getting customer feedback easier, as AI tools can effectively utilize customer sentiment through their comments, posts, and so on. In addition, two companies reported that communication with customers became more accessible and efficient using AI chatbots.

Insights from AI

In terms of the analytical abilities of Artificial Intelligence, it brought a range of valuable insights to online retail SMEs. All companies shared that they get information about customer behavior and preferences. It concerns diverse aspects, from identifying efficient times for posting to understanding which types of content resonate most with the audience. Some online retail SMEs also mentioned other kinds of insights. AI helped them to identify popular trends within the industry, customer sentiments regarding their products, content, and activity, and marketing campaigns implemented by competitors.

Influence

Inserting AI systems into implementing targeted marketing on Instagram influenced SMEs in various ways. The primary outcomes mentioned by companies are listed here:

1. Three SMEs reported an overall improvement in their performance.

2. Four companies reported growth in sales.

3. Four companies noticed an increase in profit.

4. Companies mentioned expanding their audience. 5 SMEs got more Instagram followers, and for one SME, amount of website visits increased.

5. Three companies measured growth in conversion rates.

6. Five SMEs reported an increase in engagement.

7. One company said that they improved their brand visibility.

However, three companies specified that these effects could have been more distinctive. At the same time, overall, the primary impression was still positive. SMEs experienced a lot of positive effects, among which the most widespread was the growth of the audience, engagement, sales, and profits.

Customer response

Companies noticed some reactions from customers towards the fact that they started utilizing Artificial Intelligence in their Instagram marketing campaigns. Overall, the majority of SMEs said that customer responses to AI-driven strategies were generally positive. They also gave more details regarding it, such as four companies reporting that the satisfaction rate of their customers increased. Also, four companies noticed that customers started acting more active and engaged. Moreover, 3 SMEs added that their audience appreciated personalization in marketing campaigns brought by AI. At the same time, two enterprises said that AI helped them to develop relationships with their customers and build more trust. However, in addition to mostly positive reactions from the customer side, one company mentioned that its followers preferred the human touch in its marketing campaigns.

Challenges emerging from AI usage

Challenges experienced by online retail SMEs while using AI for targeted marketing on Instagram were also considered. Companies mentioned several issues and concerns regarding using Artificial Intelligence tools and applications. The one that appeared the most often through the interviews was that respondents needed more resources and scope of AI tools they could afford as small businesses. They mentioned that this limitation can restrict the depth of their analysis and personalization techniques. Companies are also worried about the high budget costs required for utilizing advanced AI tools. Another aspect that was holding comprehensive reliance on AI systems was the need for a dedicated marketing specialist to optimize the usage of these systems. Due to these limits, some said they could not manage the competition from larger businesses with more sophisticated AI-driven marketing strategies.

Furthermore, the worry that Artificial Intelligence's world constantly shifts was relatively widespread. It brought a need for continuous training and optimization, which concerned companies. Also, they feared that Instagram's changing algorithms and policies could impact the effectiveness of AI-based marketing strategies.

Online retail SMEs considered the work of artificial Intelligence also. They were concerned about inaccuracies that may appear in AI-driven marketing campaigns. One company specified that, for example, AI models may not accurately capture customer preferences' nuances accurately. In addition, algorithm bias can also appear.

There were worries that AI campaigns could be too intrusive due to their consistency and high productivity. According to interviewed SMEs, lacking a human touch in targeted marketing campaigns can also be problematic. For instance, vintage clothing shops expressed a worry that AI might need help understanding the nuanced style and unique appeal of vintage items. It can be caused by content creation tools still having some limitations.

The risk of over-relying on AI-based tools was also mentioned. Another concern expressed by a couple of SMEs was connected with over-personalization, which efficient AI systems can create. They said that it can be interpreted negatively by some customers. Privacy concerns regarding how AI uses data were also expressed.

Finally, while there are mostly positive reactions from customers regarding the usage of AI for Instagram marketing, some companies are afraid that customer pushback on AI-driven advertising can appear.

4.1.3 Future perspectives of AI usage

During interviews, companies gave various predictions and perspectives on how artificial intelligence can develop in the future and how it may affect them. The most common prediction was that there would be more available AI tools suitable for SMEs, and they would be more accessible, affordable, and easy to use. Consequently, SMEs guessed that it could be more accessible to compete with more prominent brands.

Companies also predict that the effectiveness of AI in Instagram marketing for online retail will be enhanced. Regarding it, diverse specifications were given. More advanced analytics, targeting, and recommendation systems could be created. Also, content generation tools could be developed, and image recognition, which is used by SMEs for product tagging, for example, could be improved. Moreover, companies stated that such systems could appear as real-time analytics, real-time sentiment analysis, integration with augmented reality for virtual try-on, and integration of chatbots for real-time customer engagement. Overall, they expect a significant breakthrough in AI technologies used by SMEs nowadays. Hence, SMEs also expect to get deeper customer insights and achieve a sophisticated level of personalization. At the same time, stricter regulations regarding data privacy and AI use are anticipated.

In general, interviewed stores predicted that AI will play an even more significant role in Instagram-targeted marketing for them, and they will need to make a significant effort to insert these technologies in their marketing campaigns. According to the mentioned efforts, companies were asked what type of adjustments they might need to make in the future to fully uncover the potential of artificial intelligence. Several aspects were mentioned by respondents.

Firstly, the most frequently mentioned method was receiving education and training for more professional employment in AI technologies. It includes completing specific educational courses or getting updates on developments in AI systems. Secondly, half of the companies said that in the

future, they are planning to hire a professional in the sphere of IT or digital marketing, who will be responsible for incorporating and managing AI technologies.

Furthermore, companies estimated that they will rely more on digital technologies and allocate more tasks to AI in the future. It means they plan to expand their AI usage and get ready for it gradually.

4.1.4   Feedback from interviewees

SMEs mentioned several requirements for how Artificial Intelligence should be used for marketing to avoid negative results. According to them, companies should regulate AI-produced content to ensure that it is relevant and non-intrusive. Also, they mentioned that achieving the right balance between automation and personalization is essential, as it is crucial for maintaining customer satisfaction. In addition, some SMEs said it is essential to keep adapting and refining their AI-driven strategies to ensure they align with evolving customer expectations. At the same time, the unique charm of their business should be maintained. However, the specific nature of online retail SMEs gave some limitations and peculiarities to how they employ AI.

Due to limited technological capabilities, many SMEs are able to rely only on essential AI tools available on the platform, and their experience with Artificial Intelligence can differ from companies with more extensive AI capabilities. It leads many small online retail companies to a modest effect, given their essential AI tools used.

Moreover, some respondents mentioned that some other SMEs need to gain knowledge or expertise to insert artificial intelligence systems in their Instagram marketing compared to them. Some SMEs are not even aware of the possibility of AI usage. However, companies said that although they still have much to learn and explore in the evolving landscape of AI, there is considerable potential for growth and improvement in that area.

4.2   Survey Results

Survey results were analyzed with the help of descriptive statistics. Below is an analysis of results divided by sections. Diagrams created by Google Forms were used for the analysis. They display results that show statistics and the percentage of responses to each question.

4.2.1   Information about participants

Demographics

In the Demographic information section, data about participant's gender, age, nationality, and student status was collected. These questions allowed to confirm compliance of the chosen sample and showed how representative the results are. First of all, it was verified that the sample was correct. The main criteria for sampling was that participants should be bachelor's students or recent graduates. The survey confirmed that the selection as among respondents were only these chosen groups, with the predominance of bachelor's students (72 % of participants).

Moreover, the demographic section showed diversity among participants in terms of their backgrounds. For example, there were participants from 14 countries. However, people from Russia and Finland prevailed, respectively. Below is a graph illustrating that.
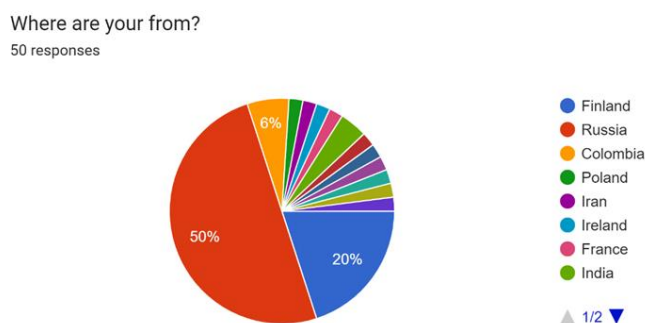

Figure 8. Survey results on participants' nationalities

As for age and gender, it was also heterogeneous. There was almost equal division between men and women. Furthermore, age groups also varied, mostly from 18 to 26. It provided less possibility for bias of results, as the background of participants was diverse.

Instagram usage

In the section about Instagram usage, information about how much and how frequently partici-pants were using Instagram was collected. It helped to see how representative answers are re-garding respondents' awareness and proficiency in Instagram. Moreover, it was asked if partici-pants were aware of the presence and activity of online retail SMEs on Instagram.

It showed that the majority of people visited Instagram daily (74% of participants), and they had been using Instagram for more than five years (58% of participants). Moreover, almost half of the participants used Instagram between 30 minutes and 1 hour. These statistics mean that most re-spondents were using Instagram for an extended duration and on a regular basis. In addition, they were mainly exposed to the content of others while being on Instagram, as most participants (72%) answered that they used Instagram to watch content from others. These statistics show re-spondents as experienced users and content consumers on Instagram, confirming the relevance of their experiences and opinions on a studied topic.
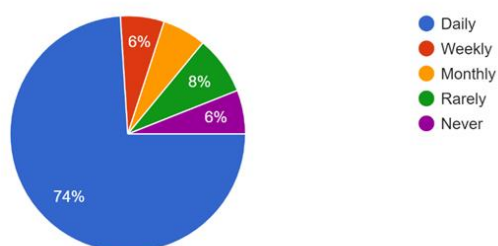

Figure 9. Survey results on Instagram usage

Furthermore, according to answers, half of the participants followed SMEs on Instagram, and 80 % noticed targeted advertisements on that social media. These statistics showed that participants had experience with the content produced by SMEs, so their opinions can be considered relevant.
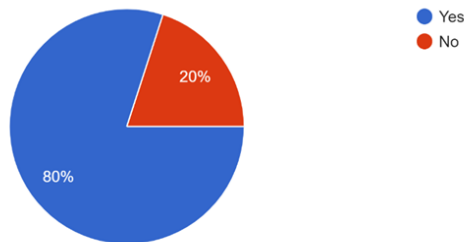

Figure 10. Survey results on SMEs targeted advertising awareness

4.2.2 Perspective of customers on AI Usage on Instagram

The main section of the survey was dedicated to questions about the usage of artificial Intelligence on Instagram and respondents' attitudes to it. Findings from there are analyzed in this part in more detail.

Question: Are you aware that some SMEs use AI for targeted marketing on Instagram?

Responses showed that more than half of the participants (62%) knew that SMEs use AI for targeted marketing on Instagram, while 38% did not know that AI was used for these purposes. This means there is a relatively high level of awareness concerning the usage of AI by SMEs among Instagram users. However, a significant but smaller number of people still need this awareness. It shows that the knowledge of marketing practices of SMEs involving AI is reasonably well spread, but there is still a notable lack of it.

Are you aware that some SMEs use AI for targeted marketing on Instagram?
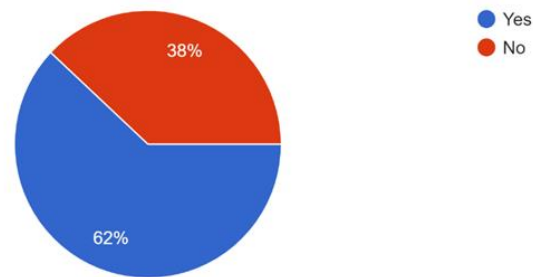50 responses

Figure 11. Survey results on awareness of AI usage by SMEs

Question: How do you feel about the use of AI for targeted marketing by SMEs on Instagram?

More than half of the survey participants (62%) felt neutral about using AI for targeted marketing by SMEs on Instagram. At the same time, for 30 % of participants, it evoked positive feelings, while for 6% of them, it, on the contrary, evoked negative feelings. Also, one respondent specified that it caused mixed feelings involving both positive and negative associations.

It can be concluded from these statistics that neutral sentiments regarding the use of AI by SMEs for Instagram targeting marketing are predominating. It means that a significant amount of people does not have strong positive or negative emotions towards it. The reasons behind the prevalence of neutral feelings can be diverse. However, it indicates that AI-based targeted marketing implemented by SMEs needs to engage Instagram users more or that they feel little effect from it.

Another indicator is that a considerate part of people is open and supportive of SMEs that use AI-driven techniques on Instagram. However, a low percentage expressed negativity about AI-based strategies. This small number indicates that there are still some concerns among a small population, and it is significant to address them.

How do you feel about the use of AI for targeted marketing by SMEs on Instagram? (Select one)
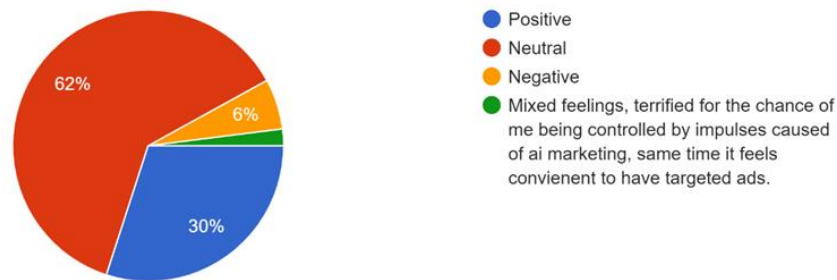50 responses

- ● Positive
- ● Neutral
- ● Negative
- ● Mixed feelings, terrified for the chance of me being controlled by impulses caused of ai marketing, same time it feels convient to have targeted ads.

62%
6%
30%

Figure 12. Survey results on feelings about AI usage for Instagram marketing

Question: How do you feel about AI-produced content on Instagram?

There was a relatively equal division in respondents' feelings concerning AI-produced content on Instagram. This kind of content meant elements such as posts, stories, and captions. Most respondents (34%) felt positive and interested in this type of content. 32% of respondents marked that they did not see any difference in this content compared to content produced by humans. However, 20% of people felt negatively towards AI-produced content, while 14% never saw it.

This relatively balanced distribution of participants' opinions identifies a diversity of sentiments, and several conclusions can be made. Firstly, a considerable proportion of the population approves and favors AI-based content. At the same time, almost a similar proportion of people feel neutral towards AI-produced content, which can mean that they are indifferent or ignorant about it. Moreover, a minor group feels negative about AI content. It can be connected with Instagram users' concerns about the authenticity or quality of this type of content. In addition, a small part of the population has never faced AI-created content. It shows that content produced by AI is not prevalent on Instagram nowadays, and it still needs to be a more common technique.

People have a variable range of views on AI-based content. It can suggest that more awareness could be spread regarding the creation of content by AI, that the process is still gaining popularity, and that various improvements can be made in the future.

How do you feel about AI-produced content on Instagram? (posts, stories, captions, etc.)
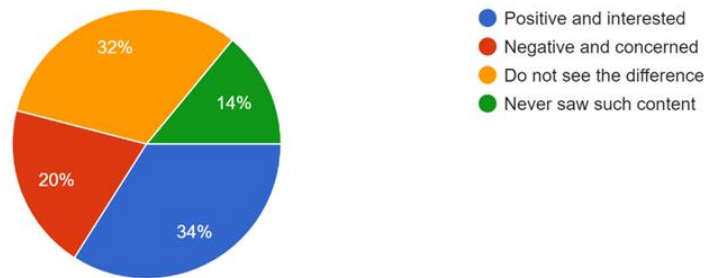50 responses

- Positive and interested
- Negative and concerned
- Do not see the difference
- Never saw such content

Figure 13. Survey results on feelings about AI-produced content

Question: How do you feel if AI-based chatbot replies to you when you send a direct message to a SME?

Almost half of the participants (48%) felt neutral about AI-based chatbots replying to direct messages as SME representatives. At the same time, quite a considerate group of respondents (32%) indicated their negative feelings towards it, while only 18% had positive feelings about it. Also, one respondent specified that chatbots need improvement as sometimes their responses are inaccurate.

The analysis of these findings indicates that most participants did not have strong positive or negative feelings about getting replies produced by AI-based chatbots. However, a considerable proportion of the population had negative feelings towards it, which indicates their dissatisfaction, concerns, or hesitation about being answered by the AI mechanism. Only a tiny part of the population has positive feelings towards AI chatbots. These statistics show a need for improvement for AI-based chatbots used by SMEs on Instagram, as there are significant concerns and adverse reactions. Different aspects of using AI for replying to direct messages on Instagram could be improved, such as the accuracy and reliability of replies. Overall, a complex combination of participants' views regarding AI-based Instagram chatbots shows that their functioning should still be developed.

How do you feel if AI-based chatbot replies to you when you send a direct message to a SME?
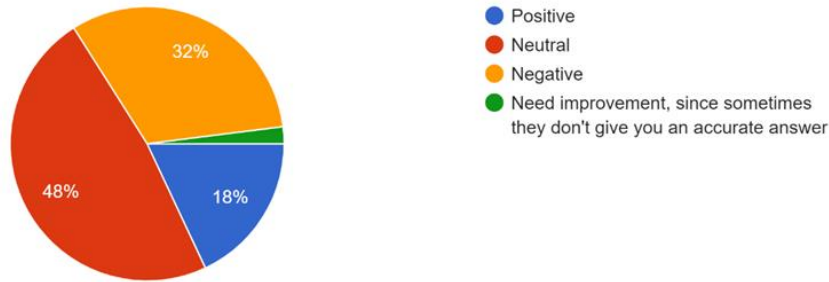50 responses

Figure 14. Survey results on feelings about AI-based chatbots

Question: Would you be more likely to engage with an SME's Instagram post if you felt it was based on your preferences due to AI targeting?

There was relatively equal division between participants who felt they would more likely engage with an SME's Instagram post if they felt it was based on their preferences due to AI targeting (44%) and those who said it would not make any change (42%). At the same time, a small number of respondents (12%) said they would be less likely to engage with this kind of post.

These opposing views on the impact of AI on the engagement of Instagram posts show that, according to some users, AI targeting is efficient and improves their experience. However, for some, it only affects their engagement a little. Moreover, small amounts of concerns and resistance to AI-tailored content were measured. It is essential to pay attention to the fact that for a considerate part of the population, AI targeting does not affect their engagement and that there are small amounts of concerns and resistance to AI-tailored content measured. However, overall, AI-created Instagram marketing creates a positive image for personalization, which is a good sign for SMEs.

Would you be more likely to engage with an SME's Instagram post if you felt it was based on your preferences due to AI targeting?
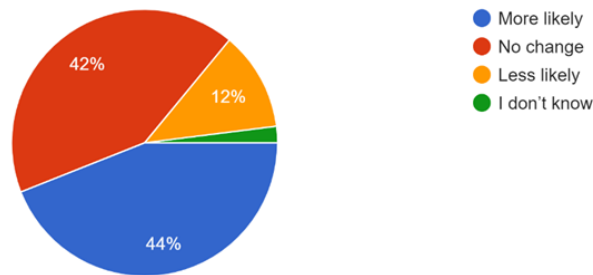
50 responses

Figure 15. Survey results on AI engagement

Question: Do you think that AI-based advertising content on Instagram is more tailored to your interests and preferences?

Most participants (68%) agreed that AI-based advertising content on Instagram is more tailored to their interests and preferences. At the same, 24% of participants disagreed with it. While minorities expressed such viewpoints as that it is probably more tailored to their interests and preferences or that it does not change anything.

Overall, the analysis shows that advertising created with AI is primarily effective at matching customers' interests. However, a minority of the population has the opposite view, which may indicate some inaccuracies and faults in AI-created content. These findings show that SMEs are succeeding in tailoring content to customers' preferences with AI. However, their techniques can still be developed and improved further to satisfy Instagram's target audience better and exclude the chances of mistakes made by AI systems.

Do you think that AI-based advertising content on Instagram is more tailored to your interests and preferences?
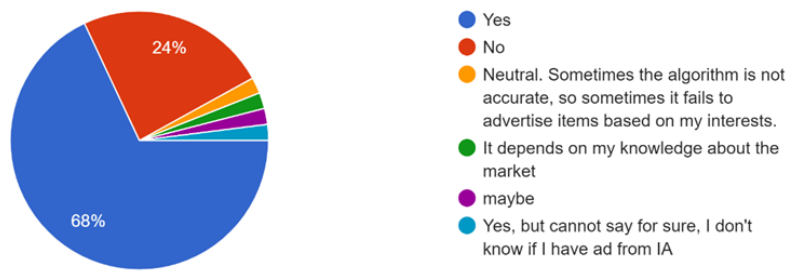
50 responses

- ● Yes
- ● No
- ● Neutral. Sometimes the algorithm is not accurate, so sometimes it fails to advertise items based on my interests.
- ● It depends on my knowledge about the market
- ● maybe
- ● Yes, but cannot say for sure, I don't know if I have ad from IA

Figure 16. Survey results on AI targeting

Question: Do you think that use of AI in Instagram marketing by an SME increases your interest and chances of buying from that company?

Exact half of participants said that the use of AI in Instagram marketing by an SME probably increases their interest and chances of buying from that company. At the same time, 32% of participants said there was no effect, and 18% of survey participants were sure that AI increases their interest and chances of buying from SMEs.

The prevalence of neutral responses shows that most of the population has no specific opinion. It means that they were not exposed to many AI-based advertisements from SMEs or that their effect could have been more considerate. Also, the percentage of negative responses is quite considerate, which concerns how well the use of AI by SMEs for Instagram marketing functionates. While fewer responses are positive, it shows that SMEs achieved a specific success rate with AI. However, AI usage by SMEs should be developed to increase its effectiveness.

Do you think that use of AI in Instagram Marketing by a SME increases your interest and chances of buying from that company?
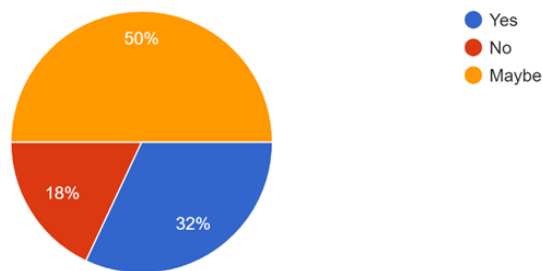
50 responses

Figure 17. Survey results on AI effects

Question: Do you have any concerns about the use of AI by SMEs in online retail for marketing on Instagram?

Participants were asked to share their concerns regarding the usage of AI by SMEs in online retail for marketing on Instagram if they had any. More than half of the responses (58%) indicated that participants had no concerns. Other responses presented various worries expressed by respondents.

Some common patterns among these specified responses indicated that people were concerned about such aspects as data privacy, excessive persistence of advertising, low quality of content, reliability of AI, lack of human interaction, and lack of awareness. It can be concluded that SMEs have a considerable number of diverse concerns about AI usage, and they should be adequately addressed to improve customer experience.

4.2.3   Feedback from survey participants

Moreover, at the end of the survey, participants were asked to share feedback regarding the topic. Several valuable feedback was received from participants. Feedback topics were mainly about the benefits of using AI by SMEs for Instagram marketing, wishes regarding the usage of AI, and concerns about it. They led to several conclusions:

1. AI is seen as an effective business tool for marketing.
2. Less intrusive marketing techniques with AI are desired.
3. AI usage in marketing by SMEs provides significant benefits to customers.
4. There are some concerns about how AI uses data.

4.2.4 Summary of survey findings

Overall, the survey, which contained 19 questions that outlined diverse aspects of the topic, showed customers' views on SMEs' use of AI to implement targeted marketing on Instagram. It helped to see the situation from the perspective of Instagram users who face this type of advertising regularly and see their reactions, worries, and comments to it. Analysis of this data led to the conclusion of how much value AI can add for people in terms of consuming AI-driven targeted advertising produced by online retail SMEs. It provides SMEs with a valuable overview of their audience's experience with their marketing campaigns. It sees what could be done better in the future and where success has already been achieved.

Looking at the findings more specifically, several valuable insights were received through analyzing the survey results. Firstly, customers are relatively aware of how SMEs use AI for targeted marketing on Instagram, and they mostly feel neutral about it. However, approaches could be developed to increase people's positive reactions towards utilizing AI, and awareness could be raised.

In more detail, users feel differently about various ways SMEs insert AI in their targeted marketing campaigns. Speaking about AI-produced content on Instagram, they have a complex mix of positive and negative sentiments. The lack of presence of such content produced by SMEs also makes it hard for people to form an opinion, but positive reactions are also considerable. As for AI-functioning chatbots, the audience's reaction to them is also controversial. A significant part of the population expresses worries and dissatisfaction, which shows the need for improvement, while others find it useful.

Moreover, AI targeting by online retail SMEs helps increase overall engagement. However, its effect on users is relatively low. In addition, content created by Artificial Intelligence is well-tailored

to customers' preferences, but some inaccuracies may still need to be corrected. It indicates the overall need to improve how small companies use AI systems and applications to upgrade the experience delivered to the audience. It also shows that specific success rates have already been achieved.

In conclusion, these statistics show that AI used by online retail SMEs for targeted marketing on Instagram provides value to customers by making their experience more individual, engaging, and adjusted. At the same time, there are many aspects that need to be developed more.

5   Conclusions and discussion

This chapter provides answers to the research questions, shows practical implications of the research, and assesses research quality. In addition, limitations of the research are indicated and recommendations for the future research are given.

5.1   Answering the research questions

The initial purpose of this research was to explore how online retail SMEs currently use AI for targeted marketing on Instagram and consider how AI technologies may be used in this area. Moreover, it was planned to describe the effects of SMEs' AI-driven Instagram marketing campaigns on their clients and businesses. The research was conducted according to the research purpose, and consequently, the research questions were answered. Answers to them are provided below.

RQ1: What kind of AI systems can be applied to implementing targeted marketing on Instagram?

Results showed that a variety of AI systems can be utilized for launching and managing targeted marketing campaigns on Instagram. This rich choice is caused by the fact that targeted marketing requires the implementation of a range of tasks, and to almost all of them, the automation brought by Artificial Intelligence systems can bring higher efficiency and maximization of results. Several main types of AI systems have already found their input in implementing targeted marketing:

1. Natural Language Processing systems, which appear as machines capable of understanding and interpreting human languages, are crucial for targeted marketing nowadays. In that area, they are used for several purposes. One of them is content creation. Applications operating with NLP technologies can create textual content that is highly tailored to target audience segments and meets the required criteria. On Instagram, it is used for writing posts, captions, descriptions, keywords, and hashtags. Plenty of applications with AI ability to write texts are available for companies. Automation of the content writing process helps to produce it regularly and adjust to diverse parameters, which increases the company's presence during the targeted marketing campaigns and personalization focus.

   Also, NLP systems are utilized for communication with customers. It is inserted in chatbots, which can reply to direct messages sent by customers to companies. These machines can answer around the clock, without delays, and explicitly. Moreover, they lack human factors of emotions, which sometimes negatively affect the process of interaction with customers. Companies can find this function in external applications that integrate AI-based chatbots into their Instagram accounts. This smooth interaction through AI chatbots inserted in Instagram's messages helps form client bonds and ensures constant customer support.

2. Analytics systems are Artificial Intelligence machines capable of analyzing data, extracting insights from it, and making predictions based on data. It is used in targeted marketing for discovering trends, predicting customer behavior, assessing the results of advertising campaigns, and making data-driven decisions. This technology is inserted into Instagram itself. Through Business tools on Instagram, it is possible to get insights into marketing strategy performance. Also, the work of Instagram Ad tools is considerably based on Artificial Intelligence analytics systems. With Ad tools, it is possible to get various analytical insights on campaign performance. It helps to see how the audience reacted to a specific campaign and make the strategy more targeted based on this feedback in the future.

   Furthermore, the use of AI analytics is available through various applications. Companies can use tools for analyzing customer sentiment through the information clients leave on Instagram, such as comments or posts, get insights into their competitor's Instagram campaigns, and discover trends within their industry. AI applications can collect valuable data for them, which helps improve targeted marketing campaigns and deliver more advanced personalization.

3. Computer vision and image recognition are AI technologies that allow machines to process video and images. Moreover, deep learning algorithms allow the generation of images and videos. With the help of diverse applications, creating and editing visual and video content is possible. As AI technologies allow setting specific parameters for content creation, it is possible to produce materials that will suit the targeted audience on Instagram. In addition, applications with inserted computer vision allow to analyze images and make certain conclusions based on them. For example, companies can discover which type of photos is trendy for posting within their industry. Consequently, their produced content can resonate better with Instagram trends and their audience's wishes. Together, these AI systems allow working with visual materials to help create content for Instagram feeds, which will deliver value to their audience and correlate with their interests.

The research indicated that all the mentioned AI systems can be useful in Instagram-targeted marketing. Instagram is a developed social network using modern technologies, and AI can be used through functions offered by this social media. A lot of external applications utilizing AI have also been developed. They also can be included in implementing marketing campaigns, as they can perform a range of tasks for targeting customers professionally. AI systems, with their rich capacities, bring effectiveness to targeted marketing and help to reach a deeper level of personalization on Instagram.

RQ2: To what extent online retail SMEs operating on Instagram are utilizing them now, and what is the future perspective?

According to the results, it was concluded that the employment of AI technologies by online retail SMEs is currently at a controversial point. Part of SMEs have already acquired these technologies and are progressing at using them for marketing implementation. At the same time, some online retail SMEs are aware of these technologies but have just started using them or plan to do so, while others have yet to learn much about them. Making a generalizing estimation between several states of online retail SMEs' technological levels, the extent to which they use AI on Instagram at the moment is relatively basic, but it is in the state of development.

Looking more specifically, it was analyzed that many AI solutions are available now that can be applied to Instagram marketing strategies. Many of them do not require a company to be advanced in digital technologies and are pretty accessible, which means they suit the specifics of SMEs. In small enterprises, the level of digitalization is often low, and there are few resources, including human and financial, which can be allocated to inserting AI technologies. Concerns about the lack of human touch, ethical issues, and diverse hesitations also hold some companies from inserting AI into their work. However, knowledge and awareness of SMEs on AI systems is growing. Moreover, in these times, the industry of Artificial Intelligence is well developed for these specifics. There are offers suitable for SMEs, and their number is growing on the market.

The application of AI brings a high level of utility to small online retail companies, as it boosts competitiveness in challenging e-commerce settings; there are many offers, and personalizing experience is a crucial success factor in these competitive settings. Online retail SMEs can apply AI for various purposes, where implementing targeted marketing is one of the leading areas. That is why these small companies' usage of AI is growing. Even though it is relatively limited for the moment, it has considerable potential.

The scope of how much SMEs already applying AI systems use them was studied through interviews. It showed that small online retail enterprises with up-to-date technological approaches use different tools for their Instagram-targeted marketing campaigns. They mostly give preference to basic tools within Instagram where AI is inserted. Almost every business uses Business tools on Instagram, as it is free and easy to use. The other relatively popular option is Ad tools, but it is paid.

A significant amount of SMEs apply to Instagram AI external applications. The type of applications used depends on the needs of a company. However, the most widespread AI tools among online retail companies of small sizes are tools for analytics and content creation, especially text generation. Other used are posting scheduling tools, chatbots, and image recognition tools.

Overall, it was estimated that SMEs use mostly basic tools with AI, which are affordable for their budgets and do not require expert knowledge. Effects from these tools can be modest compared to the sophisticated technologies of big companies, but they create the starting point for SMEs in their AI employment.

From the future perspective, it was researched that estimations and predictions are promising for online retail SMEs in the field of AI and its appliance to targeted marketing on Instagram. Overall, there were diverse propositions, but they all led to the general statement that AI will play a more critical role for companies as a tool, and on social media, including Instagram, it will be embedded comprehensively. Therefore, it will directly concern online retail SMEs, and the utilization of Artificial Intelligence will be essential for them as a way to survive in the digitalized market.

At the same time, using AI might become familiar and accustomed to SMEs. It was predicted that small companies would have more opportunities to utilize AI systems, such as more accessible and convenient AI instruments. In addition to having a wider variety, companies will make significant efforts to insert these technologies in their marketing campaigns. Some SMEs stated they would enrich their knowledge and skills in artificial intelligence technologies, while others mentioned hiring a dedicated professional to manage AI. The outcome of these actions will be higher expertise of SMEs in the area of technology. All these changes can create an opportunity for online retail SMEs to compete with more prominent brands.

Moreover, AI tools might work much more efficiently in the future, leading SMEs to deliver better experiences to their clients with their targeted marketing campaigns. There will be more opportunities for precise personalization on Instagram, which may consequently turn into the trend of hyper-personalization in marketing. All AI systems, such as analytics, targeting, recommendation systems, content generation, and image recognition, might be enhanced in terms of their efficiency. Various instruments such as real-time analytics, real-time sentiment analysis, and integration of chatbots for real-time customer engagement can appear. At the same time, some legislation changes or stricter regulations regarding AI utilization are anticipated.

Overall, SMEs will allocate more tasks to AI in the future for implementing targeted marketing campaigns. It shows that the use of AI by small enterprises will grow compared to recent reality, and the extent may change from inconsistent application of basic AI tools to developed use of sophisticated systems.

RQ3: Does using them add value in experience and implementation from both the business and customer's perspective?

The blended analysis of interviews and the survey showed two perspectives of companies and customers on whether AI use in Instagram targeted marketing provides value. According to the results, applying Artificial Intelligence systems is highly beneficial for online retail SMEs. However, for customers, the situation is more controversial.

The most common benefit companies get from AI applications in targeted marketing is that it is easier to tailor campaigns to their audience and preferences, increasing customer engagement and satisfaction rates. Also, AI makes it less time-consuming and more efficient to check the performance of marketing campaigns, get customer feedback, and implement communication with clients. Furthermore, artificial intelligence analytics systems provide online retail SMEs with valuable insights. Companies can effectively get significant data on customers' behavior and preferences, customer sentiments, popular trends within the industry, and marketing campaigns of their competitors. These benefits lead to noticeable positive results. Due to AI employment, such representative results were noticed by a majority of companies, such as increasing the number of sales, profit growth, audience expansion, better engagement rates, and overall improvement in performance.

At the same time, companies shared that they experienced some difficulties with using AI. Using AI was connected with specific fears and pressure, as it is still evolving. Issues connected with SMEs' capabilities include:

- the limited scope of AI instruments they could afford as small businesses,
- needing more expertise in AI systems, and
- competition from more prominent brands that employ more advanced AI systems.

Also, the work of AI mechanisms is under concern, such as the need to constantly adapt and learn about the changing AI environment, potential inaccuracies, and limitations in the work of AI systems. Also, concerns about adverse reactions to the innovation from the customer side exist.

However, even though these difficulties are realistic, the AI field is developing and moving in a positive direction for SMEs. The results show that AI can add tremendous value to how online

retail SMEs implement targeted marketing on Instagram. It can complete tasks for which humans often need to apply much effort, and it can considerably improve the personalization level.

From the customer's perspective, the value is still questionable. The survey indicated that over half of Instagram users have neutral sentiments about using AI for Instagram marketing. They mostly believe that AI-based advertising content on Instagram is more tailored to their interests and preferences. However, only a tiny proportion of the population thinks that using AI in Instagram marketing by an SME increases their interest and chances of buying from that company.

Regarding specific elements of AI presence on Instagram, customers have diverse reactions. Instagram users mostly approve AI-generated content with a low rate of negative reactions. At the same time, there is a considerable amount of dissatisfaction and negative feelings. It shows a pretty equal distribution of customer approval and disappointment regarding using Artificial Intelligence. In addition, almost half of customers are concerned about using AI by SMEs for Instagram marketing. They mostly worry about data privacy, overly persistent advertising, poor content quality, artificial intelligence dependability, and absence of human contact.

That is why it is more controversial if customers get much value from SMEs' application of AI tools. They get more personalized content but experience some challenges with it. The prevalence of neutral feelings also shows that customers are experiencing a limited amount of effects of AI-produced targeted marketing campaigns on Instagram from online retail SMEs. As mentioned earlier, their effects are still relatively modest, and customers may need a more precise image and opinion on that due to a lack of understanding. At the same time, these results indicate essential areas for improvement for online retail SMEs to increase the value their customers are getting. This situation may change in the future, and SMEs should put effort into that.

5.2   Practical implications

This thesis work researched the appliance of AI from the specific perspective of online retail SMEs. How they use AI systems for targeted marketing was researched. The study identified several significant findings which can be valuable from diverse perspectives.

First, it identified which artificial intelligence systems benefit SMEs and how they can be used for targeted marketing on Instagram. Experiences of several companies with diverse backgrounds were studied, and these real-life examples illustrate the application of AI. It can be helpful for online retail SMEs who are just going to start applying AI on Instagram and would like to learn about other experiences within their industry. It will give them practical guidelines and recommendations, show challenges, and prevent mistakes. In addition, it can be useful for Instagram users to learn how SMEs use AI technologies. It will increase their awareness and prevent worries.

Moreover, the research identified specific challenges that SMEs are going through while utilizing AI and the difficulties experienced by customers while consuming AI-powered targeted marketing campaigns on Instagram. It can be valuable for AI technology developers to learn these insights into the experience of companies and users with AI. It may help them improve their elaborations.

Overall, the potential of Artificial Intelligence systems for online retail SMEs in terms of implementing marketing on Instagram was uncovered. It showed how exactly this technology can add value to small companies and improve their marketing strategies. During this work, an explicit overview of the role and perspectives of AI usage was received through collecting and analyzing data from a combination of sources.

5.3 Assessment of research quality and research process

The research was conducted according to the plan described in the third chapter (Methodology). Overall, the process from defining the research topic to analyzing findings took approximately seven months. All steps were carefully planned. The work was implemented with orientation on the research purposes and questions. The literature review, where sources were selected with academic reliability criteria, helped collect a database on the research topic. Interviews and surveys were planned according to the goals of the research.

Interviews were semi-structured. However, their structure and list of topics to discuss were predetermined, providing the necessary framework to ensure the questions' relevance. Moreover, this type of structure eliminated limits and provided a possibility to get additional valuable information. Findings from interviews were transcribed, coded, and analyzed through content analysis.

This method was suitable for receiving qualitative data and helped to identify significant insights from it.

As for the survey, it was designed as a cross-sectional survey with a combination of multiple-choice and open-ended questions. It allowed the collection of statistical information from participants and, at the same time, gave them the opportunity to share more precise individual data. Questions were carefully planned, and no relevant information was asked. Responses were turned into statistical diagrams, which helped interpret and analyze them. Specific conclusions were made based on statistical findings. The process of surveying was organized, and the structure ensured its quality.

Samples for both interviews and the survey were thoroughly determined and selected. It ensured that data from the selected respondents were representative enough to make conclusions about the population based on it. It provided the reliability of conclusions.

During the data collection processes, ethical principles were followed. Moreover, anonymity was ensured, and no personal information of participants from the survey and interviews was shared. Participation in interviews and the survey was voluntary. In addition, the author's personal viewpoints did not affect the data analysis process and conclusions. All work was conducted impartially, and findings were shared honestly and objectively.

5.4   Limitations of the research

The work included several limitations due to different reasons. Firstly, the interview participants mainly represented companies from Finland and Russia. It happened due to the location and opportunities of the author. It gave a certain limit to the research, as the experience of companies located in other countries may differ due to various factors. That is why the experience and perspective of prevalently Finnish and Russian online retail SMEs are shared in the research. In addition, the number of companies could be more considerable, which would increase the demonstrativeness and reliability of the findings.

Furthermore, the survey determined the sample group to be bachelor's students and recent graduates. The sample selection was partially affected by the author's connections and the

respondents' availability. The participants from this group can have slightly different experiences with AI-targeted marketing campaigns on Instagram than other parts of the population due to their specific lifestyles and viewpoints. That is why the experience of participants on Instagram may differ to a little extent from other groups, and the low level of bias can be reflected in the research results.

5.5   Recommendations for future research

The use of AI systems by online retail SMEs is an evolving field with many research opportunities. In this work, the use of AI was studied specifically for targeted marketing on Instagram. However, it can also be researched from the perspective of using AI on Instagram for other purposes, such as sales and communication.

Moreover, the research can be narrowed down to studying experiences of specific sectors of online retail SMEs, such as companies selling clothes or cosmetics. It will allow to study the specific industry of online retail SMEs and get deeper insights into it.

Also, particular issues mentioned by online retail SMEs while utilizing AI systems can be considered. It concerns such issues discussed in the research as the need to improve the knowledge of SMEs on AI technologies or limitations they are experiencing while using them. It will allow looking closer at these concerns and finding potential solutions. From the SME's perspective, it is essential for their growth in the landscape of Artificial Intelligence.

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Appendices

Appendix 1. Interview script

1. Introduction

Thank the participant for joining.

Briefly explain the purpose of the interview: to gather insights on the use of AI for targeted marketing on Instagram in the context of online retail for SMEs.

2. Background Information

Gather basic information about the participant's role, company size, and industry.

Explore their experience with AI and Instagram marketing.

3. AI Implementation

- Current AI Systems:

What specific AI systems or technologies does your SME currently use for implementing targeted marketing on Instagram?

How did the integration of these AI systems come about, and what goals were set?

- Algorithms and Tools:

Can you describe the specific AI algorithms, tools, or models employed to personalize marketing efforts on Instagram for your online retail business?

How do these tools contribute to creating a personalized experience for your customers?

4. Insights from AI

In what ways do the AI systems employed help your company understand customer behavior and preferences on Instagram?

Are there specific examples of how these insights have influenced your marketing strategies?

5. Challenges and Limitations

From your experience, what are the primary challenges and limitations of implementing AI for targeted marketing on Instagram as an SME in online retail?

6. Future Outlook

Anticipated Developments:

What future developments or advancements do you foresee in the use of AI for Instagram marketing in the online retail space?

How do you plan to adapt your strategies to incorporate these advancements?

7. Business Impact

From a business perspective, how has using AI for targeted marketing on Instagram affected the ROI and overall performance of your SME?

Can you share any specific metrics or success stories attributed to AI-driven marketing?

8. Customer Perception

How do your customers perceive and respond to AI-driven marketing strategies on Instagram?

Have you noticed any changes in customer satisfaction and engagement since incorporating AI into your marketing approach?

9. Closing:

- Is there any feedback or suggestions you'd like to provide regarding the use of AI for Instagram marketing in the context of SMEs in online retail?

- Thank the participant for their time and insights.

Appendix 2. Survey plan

Title: Survey on the Use of AI for Targeted Marketing in Instagram by SMEs

Introduction: Thank you for participating in the survey! It is focused on the use of AI for targeted marketing on Instagram by small and medium-sized online retail enterprises (SMEs). The aim is to explore your attitudes and experiences as an Instagram user towards application of AI for Instagram marketing in that sector. Your input is highly appreciated for my thesis research! The survey takes just a few minutes. Please answer in English.

Section 1: Demographics

- What is your gender?

Female
Male
Other
Prefer not to say

- What is your age?

18-20
21-23
24-26
27+

- Where are you from?

Finland
Russia
Other

- What is your status?

Student
Graduate

Section 2: Instagram Usage

- How often do you use Instagram?

Daily
Weekly
Monthly
Rarely
Never

- How long have you been using Instagram?

Less than 6 months
6 months to 1 year
1-2 years
2-5 years
More than 5 years

- On average, how much time do you spend on Instagram per day?

less than 30 minutes
30 minutes - 1 hour
more than 1 hour

- What do you use Instagram mainly for?

Sharing photos
Communication
Watching content from others
Shopping
Other

- Do you follow any SMEs (small and medium-sized enterprises) on Instagram for online retail?

Yes
No
Not sure

- Have you noticed targeted advertisements from SMEs (small and medium-sized enterprises) on Instagram?

Yes
No

Section 3: AI in Instagram Marketing

- Are you aware that some SMEs use AI for targeted marketing on Instagram?

Yes
No

- How do you feel about the use of AI for targeted marketing by SMEs on Instagram? (Select one)

Positive
Neutral
Negative
Other

- How do you feel about AI-produced content on Instagram? (posts, stories, captions, etc.)

Positive and interested
Negative and concerned
Do not see the difference
Never saw such content

- How do you feel if AI-based chatbot replies to you when you send a direct message to a SME?

Positive
Neutral
Negative
Other

- Would you be more likely to engage with an SME's Instagram post if you felt it was based on your preferences due to AI targeting?

More likely
No change
Less likely
Other

- Do you think that AI-based advertising content on Instagram is more tailored to your interests and preferences?

Yes
No
Other

- Do you think that use of AI in Instagram Marketing by a SME increases your interest and chances of buying from that company?

Yes
No
Maybe
Other

- Do you have any concerns about the use of AI by SMEs in online retail for marketing on Instagram? If yes, please share them.

Section 4: Feedback

Please share any additional thoughts or comments you have about the use of AI for targeted marketing on Instagram by SMEs.

Appendix 3. Examples of codes from interviews

Code name	Code	Interview №
Challenges	limited scope of AI tools we can afford as a small business	1
	balance to maintain	1
	customers can be put off by overly aggressive or repetitive AI-driven marketing tactics	1
	lack of a dedicated marketing specialist to optimize AI usage	2
	limited resources and can't afford advanced AI tools	2
	also a risk of over-relying on AI and losing a personal touch with customers	2
	content creation tools still have some limitations	2
	it's important to keep costs in check	2
	data privacy concerns, algorithm bias, and the need for continuous training and optimization.	3
	Instagram's changing algorithms and policies can impact the effectiveness of AI-based marketing strategies	3
	investments in education and technologies necessary to start utilizing AI. It also brought some risks to our business	3
	limited AI knowledge and resources available, which restricts the depth of our analysis and personalization	4
	risk of privacy concerns and customer pushback on AI-driven advertising	4
	competition from larger businesses with more sophisticated AI marketing strategies	4
	the potential for inaccuracies in understanding customer preferences	4
	We were concerned that it can turn our account to something standardized and not unique	5
	limited resources for advanced AI tools	5
	the need for constant monitoring to ensure the generated content aligns with our brand identity	5
	AI can struggle with understanding the nuanced style and unique appeal of vintage items	5
	need for high-quality data, potential privacy concerns, and the ongoing need to adapt to changing Instagram algorithms	6
	risk of over-personalization, which can turn customers off	6
	the need for extensive data for training models, the evolving nature of social media trends, and privacy concerns.	7
	AI models may not always capture the nuances of customer preferences accurately.	7
Future perspectives	include more accessible and affordable AI tools designed specifically for small businesses	1
	advanced analytics and automation features	1
	helping small retailers compete with larger brands	1
	better audience targeting and content recommendations. These improvements may help micro companies like mine compete with larger brands.	2
	advancements in AI, such as improved image recognition, real-time sentiment analysis, and inserting augmented reality for virtual try-ons of products	3
	enhance the effectiveness of AI in Instagram marketing for online retail	3
	Progress in AI image recognition for better product tagging	4
	the integration of chatbots for real-time customer engagement	4
	we expect AI to play an even more significant role in Instagram marketing, with improved personalization and automation capabilities. Enhanced AI-driven analytics will provide	4
	more accessible and affordable AI tools tailored for small businesses	5
	Advanced recommendation systems and enhanced content generation algorithms could provide further personalization	5
	Improving AI-driven marketing on Instagram to focus on more sophisticated personalization, real-time analytics, and improved chatbots for customer service	6
	we anticipate stricter regulations regarding data privacy and AI use	6
	development in AI to further enhance personalization and targeting on Instagram.	7
	better sentiment analysis, real-time trend detection, and improved chatbots	7
	Integration with augmented reality for product trying digitally	7