



Artificial Intelligence in Modern Digital Marketing

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Abstract

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<p>This thesis investigates the impact and use of artificial intelligence (AI) in contemporary marketing, with a particular emphasis on understanding the prospects, problems, and consequences of AI integration into marketing strategy. Using a mix of quantitative survey data and qualitative interviews with marketing experts, the research investigates the present level of AI adoption in marketing, its advantages and downsides, and upcoming trends in AI-driven marketing efforts.</p> <p>The study's findings highlight the widespread use of AI technology in marketing, with the majority of respondents recognising its positive impact on a variety of marketing functions such as promotional activities, information management, customer service, decision-making, and overall operational efficiency. However, important problems of AI implementation were a lack of innovation, reliability, variety, and a high cost.</p> <p>The qualitative interviews support the survey results by offering insight on the particular uses of AI in content development, keyword research, customer engagement, and marketing analytics inside digital marketing organisations. Furthermore, the interviews highlight increasing areas of interest such as Natural Language Processing (NLP) and predictive analytics, demonstrating a growing trend of employing sophisticated AI capabilities to improve marketing results.</p> <p>This thesis offers significant insights into the intricacies and subtleties of using AI into marketing campaigns via a thorough study of the data obtained. It emphasises the necessity of investing in AI education and training, prioritising data protection and ethical issues, encouraging AI and human cooperation, constantly monitoring AI performance and effect, and remaining current on AI trends and advances. By implementing these tips, marketers can fully use AI to create creativity, efficiency, and effectiveness in their marketing efforts, eventually obtaining greater outcomes and keeping ahead of the competition in today's digital age.</p>
Key words Digital Marketing, Artificial Intelligence, Machine Learning, Deep Learning, Marketing Strategy, Data Privacy

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1 Introduction

Artificial intelligence (AI) is a quickly developing technology that will revolutionized several industries, including marketing. Understanding consumer requirements, developing value propositions, and successfully communicating with target audiences are the main goals of marketing (Kaplan & Haenlein 2010). Nonetheless, a dynamic and complicated corporate environment presents a number of obstacles to marketing, including resource limitations, client expectations, and data overload. Consequently, creative ideas that improve marketing effectiveness and results are required.

Data-driven project management is one of the most exciting uses of AI in marketing. The act of organizing, carrying out, and overseeing projects to accomplish certain goals within a predetermined budget and time range is known as project management. Marketing requires project management in order to align resources, monitor progress, and coordinate numerous operations. But project management is also a difficult and unpredictable job that calls for ingenuity, problem-solving abilities, and human judgment (Bizarrias, Silva, Penha & Russo 2020).

AI has the potential to improve human skills and provide significant assistance with marketing project management. AI may automate processes, provide insights, and improve decision-making by using machine learning, natural language processing, data analytics, and other methods. By offering data-driven suggestions, forecasts, and feedback, artificial intelligence (AI) may assist project managers in enhancing project planning, execution, and tracking (Nieto-Rodriguez 2023). AI may also facilitate improved collaboration, more effective communication, and quicker situational adaptation for project teams.

Efficiency in AI mainly refers to how efficiently AI systems make use of the resources available to them while helping organizations accomplish their objectives. The digital and social media industries are always changing, and this has led to the introduction and development of several AI technologies in response to corporate, public, and market needs (Loureiro, Guerreiro & Tussyadiah 2021). AI has the potential to be a useful instrument for market communication and is adaptable to any kind of firm that engages in digital marketing. In that regard, using AI might be a helpful tool to boost marketing initiatives for firms. Additionally, since more labour could be completed in the same amount of time, the process of reaching financial objectives would be easier to access. In this sense, using the data that AI has collected, data-driven judgments may be the answer to having repetitive chores controlled by the system (Makridakis 2017). Businesses may see AI as part of a Return on Investment as it can make predictions more quickly and accurately, automate tedious jobs, and reveal new investment possibilities. As a result, companies that include AI in their digital

marketing plans may take advantage of this digital revolution and simultaneously meet the demands and expectations of stakeholders and consumers in their industry.

Even when AI has many benefits, there will always be drawbacks that need to be considered. One of the main concerns with AI research and use is employment loss due to automation. Artificial intelligence (AI)-powered robots and other machines are becoming better at doing jobs that have historically been done by people. Thus, as AI develops, it will be able to take the place of human work in a variety of sectors. Future, resulting in a high rate of unemployment. Societies have long been concerned about the possibility of job losses as a result of automation (Bessen 2019). A further issue associated with the development of AI is privacy infringement. Because of the volume of data that AI can collect, processing, and analysing from a range of sources, including search engines and social media platforms (Frey & Osborne 2017). The issue comes when AI monitors someone's behaviour and daily activities and gathers private or sensitive data about them without their knowledge or permission. Additionally, people may be targeted for marketing and advertising campaigns using this information, which may have an impact on their decision-making. Artificial intelligence systems are vulnerable to being hacked and manipulated by bad individuals. This raises apprehensions over the possibility of AI-driven marketing initiatives being interrupted or used as a means to disseminate false information (Shaik 2023). Strong security measures are necessary to safeguard AI systems and maintain customer confidence.

Artificial Intelligence (AI) offers a potent tool for marketers, but it is essential to recognise and tackle its limitations. Marketers may accomplish their marketing objectives by prudently evaluating the disadvantages and incorporating protective measures to properly and ethically use AI.

Businesses that want to stay competitive must include AI in their marketing plans. The practical uses of automation and artificial intelligence in marketing, especially digital marketing, are examined in this thesis. This decision was driven by the growing use of digital marketing in companies. After taking into account the industry's dynamic character and the widespread adoption of AI and machine learning, this analysis focuses on the impact of these technologies on marketing.

The primary objective of the thesis is to determine the impact and usage of AI in modern marketing. The specific objectives of the thesis are:

- **To determine which artificial intelligence is often used in corporate marketing.**
- **To analyze the influence of artificial intelligence in marketing.**
- **To evaluate the use of AI in marketing.**
- **To examine the opportunities and challenges of using AI in marketing.**

The following research questions will be examined in the thesis:

- **In the field of marketing, what are the present possibilities and threats of using AI?**
- **What are the current and potential applications of artificial intelligence (AI) in the handling of marketing projects?**
- **How can marketing projects be better planned, carried out, and monitored with the use of artificial intelligence (AI)?**

2 Theoretical Framework

2.1 Artificial Intelligence:

The theoretical development of machine intelligence with the capacity to understand and pick up any intellectual work that a person can is known as artificial intelligence or AI. Imagine a machine that could think and act like a person in many different ways: with strategy, resolving issues, making decisions, representing information, planning, acquiring knowledge, and even communicating in natural language. AI is the capacity of a machine to do tasks in a "smart" manner. In this context, the machine is a potent computer system that has the speed and accuracy to process massive volumes of data. Artificial Intelligence (AI) is a broad word that encompasses a wide range of topics, including robots, natural language processing, vision, voice, rule-based expert systems, and machine learning. Even if various facets of AI vary, many of them now cooperate to accomplish a common objective (Venkatesan & Lecinski 2021).

Artificial intellect (AI) is the use of human intellect by machines. Since Alan Turing created the renowned Turing Test in the 1950s to investigate whether computers are capable of thinking, the concept has been around and much study on AI can be traced back to that time (Turing 2004). Their premise appears to be that an AI problem is how to make a machine act in ways that, if performed by a person, would be considered intelligent. Globally, artificial intelligence (AI) greatly enhances a broad range of processes and services. The study of artificial intelligence's application to machine learning and quantum computing helps to quickly resolve complex problems.

Data volume and complexity are growing at a rate that is faster than humans can process. People often struggle or are unable to quickly handle related challenges; however, machine learning has made this possible and more quickly. Quantum computing makes labor simpler by solving problems in a matter of seconds (Wichert 2020). Machine learning in AI is required due to the progress made in quantum information systems. Even in the absence of a complete quantum computing solution, the benefits will mount. A project called Robot Hand's Dexterity uses skilled robots to solve practical problems. They learn how to successfully transfer knowledge into a new context in a simulated environment. This method is used to support the development of dexterity (Museros, Pujol & Agell 2014).

Marketing processes are automated using artificial intelligence (AI). Computers can now better detect user behavior and identify groups with the highest likelihood of becoming customers thanks to deep learning, an AI-based technique. Programs may provide specific details on the leads that have the highest conversion rates, enabling marketers to concentrate their efforts on the most

qualified leads and avoid wasting time on unqualified ones. It also makes it possible to customize products. This entails locating potential customers based on their buying history, location, and demographics, among other things. It also includes customer data related to the goods themselves as well as monitoring (Tanveer, Khan & Ahmad 2021).

AI makes it possible to customize relevant messages for customers. Businesses may better understand their consumers' interests and provide recommendations based on data by using predictive analysis. This is used by both Netflix and Amazon to suggest shows and products. Building a database of information that a marketer can use to push consumers towards a certain item or service is quite effective. People can easily solve difficulties thanks to AI. It is also a cost-cutting tool since 85% of customer interactions will happen without human participation (Hermann 2021).

2.2 Components of Artificial Intelligence:

The goal of artificial intelligence (AI) is to automate processes that typically require human intellect. Two particular methods for doing this are machine learning (ML) and deep learning (DL), and both are regarded as components of AI. However, artificial intelligence also encompasses approaches that do not need any kind of "learning"; this branch of AI known as symbolic AI is concerned with formulating rules for all potential scenarios in a given field of study (Keresztesi & Reş 2022). These human-written guidelines are based on previous understanding of the particular subject and assignment at hand. While symbolic AI performs well in jobs requiring clearly defined logic, such as picture classification or voice recognition, it struggles miserably in situations requiring higher-level pattern identification. Where ML and DL techniques excel in these more complicated jobs (Malhotra 2018).

Machine Learning:

Learning how to use data to teach a computer to learn and then use that data to forecast or make judgments is known as machine learning. Without being specifically coded, it entails using one or more computer algorithms to evaluate and draw conclusions from the data. In machine learning, a number of algorithms are usually applied quickly and in a certain order to provide a set of predictions (Alpaydin 2020). An approach to machine learning known as "supervised learning" trains computers to make predictions or classifications using labeled data sets. A supervised learning algorithm figures out how to take in data and turn it into something useful. The fundamental procedures of supervised machine learning are as follows: (1) procure a dataset and partition it into dis-

tinct training, confirmation, and evaluation sets; (2) construct a model that establishes the correlation between targets and elements using the training and verification datasets; and (3) assess the performance of the model by applying it to a test set in order to ascertain its ability to predict unobserved instances. The algorithm compares its performance on the training data set against its performance on the validation data set in each iteration (Batta 2024).

A machine learning technique known as "unsupervised learning" trains its models and algorithms using datasets that do not include labels. The goal of the method is to discover the data's underlying structure without any previous knowledge of the data. Unsupervised learning, in contrast to supervised learning, looks for patterns in a data collection and categorizes specific occurrences within it. The three most popular unsupervised learning tasks are anomaly detection, association, and clustering. As the name implies, clustering divides occurrences in a data collection into discrete clusters according to a certain set of attributes. They used a clustering technique for their dataset in the present reality and discovered three unique groupings. An agent that uses reinforcement learning, a kind of machine learning algorithm, has the ability to interact with its surroundings by acting and being rewarded or punished for its activities. The algorithm's objective is to figure out the best course of action that will maximize the total reward over time (Alpaydin 2020).

Artificial Neural Network:

Machine learning models that take cues from the intricate network architectures seen in the brains of living things are known as artificial neural networks (ANNs). Artificial neurons, which are a group of interconnected units or nodes that process, transmit, and learn from instances, make up this system. The network is capable of carrying out a wide range of functions, including reducing dimension, grouping, regression, and categorization. In addition to helping us identify data based on similarities between example inputs, neural networks may also be used to categorize unlabeled data provided they have access to a labeled training set (Venkatesan & Lecinski 2021).

Deep Learning:

Artificial intelligence using deep learning is used to manage real-time online advertisements, identify and tag friends in posts, translate texts into many languages, convert audio to text, and operate autonomous cars. Deep learning AI is also used in places that are hidden from view. For example, banks and credit card companies use deep learning to predict bankruptcy, detect fraud, and evalu-

ate lending risk. Deep learning is being used in hospitals to diagnose, treat, and even detect illnesses in individuals. Deep learning-based AI technology encourages the usage of specified variables to ensure lifetime efficiency. The machines will be able to replicate the instructions in an attempt to provide consistent results. It is made up of network learning units, or what are called neurons. The function of these neurons is to convert input impulses into output signals (Schmidhuber 2015).

One kind of artificial intelligence that is useful and offers many advantages is deep learning. Tasks that would ordinarily be difficult for a human to do might be automated by artificial intelligence. Artificial intelligence is used in deep learning to process and analyze vast volumes of data faster than humans can. Furthermore, well-programmed artificial intelligence reduces the likelihood of errors. The deep learning and execution processes will operate at the necessary speed, accuracy, and precision if the code is written correctly. Cost savings is one of deep learning's main advantages. Working with large volumes of data or procedures may be expensive when using human labor. Artificial intelligence robots can work constantly for lengthy periods of time, unlike humans, who need breaks, sleep, or leisure (Goodfellow, Bengio & Courville 2016). It is possible to teach machines that have access to deep learning AI to repeat tasks without becoming bored, fatigued, or distracted. The robots don't complain about being overwhelmed or overworked. Deep learning-powered artificial intelligence has completely changed the IT industry. Deep learning involves using predetermined data that has been encoded in the computer to complete a job. Artificial intelligence will need more research and applications in a variety of technological advancements in order to sustain deep learning. Deep learning may be maintained with the help of education. The workforce would be better prepared to use AI with efficiency via education. For learners to integrate their learned material with artificial intelligence—also known as deep learning or artificial intelligence—education is necessary. Deep intelligence applications need skills above and beyond the ICT standards that are taught in schools to prepare students for computer literacy. With the use of computers and software, deep learning helps students identify and resolve challenging problems (Zhang, Luo, Loy & Tang 2016).

2.3 Digital marketing:

The phrase "digital marketing" describes the process of advertising goods and services via the use of electronic media such as websites, mobile apps, social media, search engines, and similar platforms. Digital marketing soared to prominence with the advent of the internet in the 1990s (Charlesworth 2018). Comparable to more conventional forms of advertising, digital marketing offers a new angle from which brands can interact with customers and gain insight into their habits. Many companies also combine digital and traditional marketing strategies in their campaigns (Twin

2024).

Historically, advertising in print, on television, and on the radio has been the mainstay of most companies' marketing strategies. Although these options are still accessible today, the rise of the Internet has changed the way companies interact with their clients. As a consequence of digital marketing's ability to integrate marketing with customer feedback, a two-way interaction between the company and the client may be achieved. Because digital technologies allow for a more fluid process, new kinds of value are being generated in novel digital contexts. With the use of digital technology, organizations are able to hone their core capabilities and work together to create significant value for their customers, themselves, and others (James 2024).

By enabling innovative consumer experiences and connections, digital technology-enabled processes boost a company's value. The marketing activity, businesses, and consumers are all a part of a web of adaptable digital touchpoints that enable digital marketing. The interactions are growing at a large pace of over 20% annually, thanks to the migration of more offline clients to digital platforms and the influx of more youthful, technologically savvy consumers into the buyer lines. To understand the pivotal role that AI plays in digital marketing strategy and research, it is important to chart the present landscape of digital marketing academic inquiry and connect it to the corporate sector. That way, we can find out how far behind the times the research sector is when it comes to digital marketing compared to the business world (Chaffey & Ellis-Chadwick 2019).

Commonly used digital marketing tools are:

2.3.1 Content Marketing:

The term "content marketing" describes the process of producing and disseminating useful information about a brand to certain audiences via various media such as the internet and print products.

Content marketing differs from traditional advertising in that it focuses on making the target audience's lives easier in some way, whether that's through teaching them something new, solving a problem for them, providing them with entertainment, or helping them make better decisions. According to the social exchange theory, if a business shares relevant material with its intended demographic, that demographic would reciprocate by showing their support for the business. In order to succeed in content marketing, marketers need to be creative and original while creating material. More than half of the people who get it disregard it because it is inappropriate. Just over 70% of businesses provide their consumers with a variety of impartial and helpful information, according

to IBM research (Palazzo & Vollero 2015).

Luckily, we can rely on statistics to assist us in this matter. Data enables personalization and content appreciation. such as making product and service recommendations based on previous purchases via the use of collected data. Now, content recommendations may be made using data that has been gathered over time. Everyone has their own special hobbies and preferences. By using this data, personalized emails or social media advertisements may be generated for each individual. Achieving marketing objectives may be achieved via the use of AI-enabled intelligent content formulation. Despite appearances, AI-assisted content development is quite potent. The production of useful information for many goods and services requires a substantial investment of time and resources (Dahlen & Rosengren 2016). One company that has created an AI tool that can produce 20,000 lines of ad content in seconds and millions of lines of text is Alibaba. In this way, their stores may potentially create content autonomously. Developed by Alimama, Alibaba's digital marketing unit, the tool will use deep learning models and natural language processing (NLP) technologies to interpret "millions" of human-written sentences from the company's e-commerce platforms in an effort to relieve retailers of the tedious and time-consuming task of writing product listing copy.

2.3.2 Search Engine Optimization:

Search Engine Optimization, or SEO, is a set of procedures aimed at raising a website's, blog's, or infographic's organic search traffic so that it may be designated and shown as one of the top results in internet searches. We can't stress enough how important it is to have a high search engine rating for a certain keyword, as most consumers just look at the first three pages or so of results (Iskandar & Komara 2018).

SEO may also be described as the process of improving a website's visibility in organic search results for certain keyword phrases and simultaneously increasing the site's traffic, both in terms of volume and quality. To improve search engine ranks and attract more relevant visitors, make a website user-friendly, have original content, and have a well-described meta description. In addition, visitors spend more time on a page when there is more content to read, which is directly proportional to the length of the content. The website's visibility in search results is likely to improve as a consequence of this phenomenon (Kietzmann, Hermkens, McCarthy & Silvestre 2011).

2.3.3 Social media marketing:

In the context of marketing, "social media platforms" are online communities where users may communicate with one another and disseminate personal stories, views, and information. Three significant changes have taken place in the industry as a whole as a direct outcome of social media's distinctive qualities as strong, networked, egalitarian, and engaging organisms. To start, there are new avenues of communication between companies and their consumers made available by social media. Social media sites like Instagram, Snapchat, TikTok, and Meta, as well as messaging sites like Twitter and creative communities like YouTube, all play a role in facilitating this connection and the formation of social media networks centered on shared interests and ideals. "Social connection" or "social bonds" has been used in this sense; the strength or weakness of these interactions is determined by their length and intensity. Consumer referral behaviors are significantly predicted by strong links, according to the previous study (Kaplan & Haenlein 2010).

Second, the interaction between brands and consumers has evolved due to the rise of social media. Through conversation or observation, "activities" in social interaction influence the choices and purchasing habits of other people. The term for these kinds of interpersonal connections is "word-of-mouth (WOM) effects". The monetary worth that businesses get from human ties is highly dependent on social networks. In media research, experts have long recognized the importance of social influence on consumer decisions; nevertheless, a new study suggests that people's connection patterns and the strength of their social linkages may be indicators of their level of social interactions. Thirdly, companies now have access to social media data, which has greatly improved their capacity to manage customer interactions and make educated business choices (Libai & al. 2010). The 3Vs—volume, variety, and velocity—are typical ways to define social media data. These aspects pertain to the sheer quantity of data, the diversity of data sources, and the increased real-time data (Alharthi, Krotov & Bowman 2017). Recent advances in information technology have made it possible to collect and make practical use of vast amounts of social media data stored online in a wide range of forms, including text, photos, and video. Customer analysis, market research, and the generation of fresh, original ideas may all benefit greatly from this data type, as can the extraction and creation of new strategic resources that can enhance marketing results. Among the many successful kinds of digital marketing, email marketing has been around for a long time. A study found that the return on investment (ROI) for email marketing is over \$40 for every dollar spent. This proves that pitching a product is the main goal of email marketing. Even while most emails have good intentions, some may try to sell you anything when they claim to be sending helpful information (Katona, Zubcsek & Sarvary 2011).

There are many different reasons to write an email, such as to express thanks to a new client, to build a connection, or to advertise. With the use of AI, we can now see which email formats are most effective in bringing in customers and money. AI-powered solution that frees up marketers to focus more on cultivating long-term connections with customers and less on crafting one-off emails. With the use of predictive intelligence, the business is able to learn more about each consumer on an individual basis, which in turn helps marketers identify the best time to reach them, create effective segments, and evaluate the value of different types of content. By seizing this opportunity, Chowhound was able to boost its business, as shown by a nearly 150% increase in email hits and an open rate that was over 30% higher (Sterne 2017).

AI has the ability to figure out when it's best to send an email, which days people are more likely to open it, provide suggestions for relevant content and design, take into account a customer's preferred colors and images, and much more. The bulk of the tasks listed could be carried out by people specializing in marketing, says Sterne. Still, doing these things wouldn't amount to much. Consequently, the AI is an excellent value. Furthermore, AI has the potential to help marketers enhance sales via the personalization of email promotions. Algorithms have the potential to spot patterns that show which deals entice customers to buy from a company. A 20% discount on a certain piece of furniture or electronic gadget may entice some customers, while the promise of free shipping would entice others even more (Brenner 2023).

2.4 Dimensions of AI in Marketing

The existing body of literature indicates the existence of the following primary marketing functions:

Promotion:

AI-powered conversion optimization tools can effectively attract and convert potential customers by capturing their preferences and recommending relevant products. For example, artificial intelligence (AI) demonstrates proficiency in evaluating advertising graphics by considering their click rate and autonomously choosing visuals that enhance brand recognition or encourage consumption.

Furthermore, via the examination of consumer behavior, a tailored and individualized promotional and advertising campaign will be automatically sent to specific consumers via email, mail, or social media platforms. Moreover, corporations possess the ability to forecast customer behavior and make informed decisions on the kind and timing of their offerings (Turban, King & Lang 2009).

Marketing Information Management:

Artificial intelligence (AI) systems have a high level of proficiency in the acquisition, processing, and examination of extensive quantities of consumer data from various sources, followed by the extraction of valuable insights from the extensive database. With the aid of artificial intelligence (AI), the procedure of gathering and evaluating data will be enhanced in terms of effectiveness and efficiency (Sterne 2017). Additionally, the endeavor to comprehend the interests and needs of clients for a firm will be facilitated, resulting in improved accuracy.

Management of customer service:

In addition to advertising and marketing information management, AI has also had a significant influence on customer service management in the marketing sector. In addition, AI also prioritizes the examination of consumer behavior by analyzing consumers' data, enabling the provision of tailored and individualized services and goods. Both automated recommendations and appropriate product suggestions are included in the offerings. Furthermore, artificial intelligence (AI), using certain supervised machine learning models, has shown its capacity to provide important insights and recommendations for the purpose of eliciting and monitoring customer needs. Chatbots are extensively used in the fields of consulting and after-sale support, hence facilitating the implementation of round-the-clock client assistance. In addition, robocalls are often used for the purpose of collecting client feedback and promoting sales (Turban, King & Lang 2009).

Furthermore, social media platforms have become an essential conduit for enterprises to directly interact with clients, and their significance should not be overlooked. AI must prioritize customers' issues and make smart decisions on which ones to reply to since it is impractical to respond to every single consumer complaint (Feger 2023).

The process of making marketing decisions:

Artificial intelligence (AI) plays a crucial role in enhancing and facilitating decision-making processes via the provision of recommendations provided by intelligent systems. These choices in-

clude the selection and implementation of the selling method, the determination of appropriate distribution channels, the assessment of the timing and need of rearranging materials or commodities, and the establishment of appropriate sales pricing and profit margins.

AI may facilitate the creation of a model that replicates the decision-making process of professional trading agents, hence enhancing the logic and validity of machine-learning models. Furthermore, the integration of machine-based analysis with human judgment and creativity in a hybrid intelligence system makes it advantageous for the development of precise and suitable marketing tactics. Artificial intelligence (AI)-based decision-making systems have the potential to accelerate the process of strategy formulation, bolster trust in strategic decision-making, improve the quality and quantity of decision-making, and enhance the accuracy and precision of decision-making. Moreover, it may facilitate the formulation of more coherent judgments via the examination of the objective conditions within the industry and the responsible resources, so optimizing the scheduling of production missions (LI 2007).

Marketing Operations:

Given the transformative impact of artificial intelligence (AI) on the field of marketing, it is imperative for enterprises to enhance their capabilities and adapt to the evolving landscape and digital systems within this domain. A popular approach to improving organizational administration involves the use of AI website builders, such as Firedrop, the Grid, and Wix ADI. The AI website builder facilitates a streamlined and enhanced approach to creating impactful online interfaces via the use of chatbots, AI-driven search engine optimization, and many other AI technologies within the realm of web design (Mamtora 2022).

In addition, AI amplifies the managers' ingenuity and empowers companies to dedicate more time to cultivating innovative products or services by assuming burdensome and monotonous tasks. AI applications, such as robots and automated factories, exemplify how AI may assume laborious and monotonous tasks, hence allowing humans to allocate more time towards creative and inventive endeavors. Moreover, artificial intelligence (AI) has the ability to enhance operational processes via the creation of diverse marketing strategies tailored to various anticipated scenarios. It can then autonomously and flexibly execute these specialized operational processes (Kumar, Rajan, Venkatesan & Lecinski 2019).

Voice, text, and image processing technologies are extensively used in the field of marketing to enhance the representation of information, reasoning, planning, and execution. These technologies

operate at an impressive scale and pace that surpasses human capabilities. Natural language processing (NLP), an AI method that has gained significant traction in recent times, is increasingly supplanting manual searches and comprehending human behaviors (Wirth 2018).

Pricing and product management:

Artificial intelligence (AI) has the capability to autonomously and precisely assess market performance and product demand. Consequently, AI may use this information to forecast price variations for various goods or services. Moreover, artificial intelligence (AI) has the ability to analyze and anticipate market development, so enabling the anticipation of future needs. Hence, it is more convenient for a corporation to establish the pricing of a product at a suitable and satisfactory level, which is automatically adjusted by AI via its comprehensive analysis, and provide it at a fair and lucrative quantity (Milgrom & Tadelis 2018).

Transaction financing and security:

The sector of financing, including the acquisition of enough money, allocation of resources for marketing endeavors, and streamlining of checkout and payment processes, has seen the emergence of AI as a potential domain. Artificial Intelligence (AI) has provided diverse financial aid to customers to improve the security and ease of the checkout and payment process. AI has the capability to replicate human cognitive powers in studying and solving issues. Consequently, it can effectively identify, prevent, or counteract instances of fraud and cyber-attacks in the payment process via the analysis of large amounts of data. The growing prevalence of AI-driven cyber-attacks necessitates the continuous adaptation of AI-powered fraud-combating systems to meet market demands. This entails the regular updating of customers' identifiable data and the development of personalized user models for payment authentication. These measures are crucial in ensuring that the system is designed to identify customers rather than attackers. In addition to enhancing payment security, artificial intelligence (AI) also contributes to the ease and efficiency of payment via the use of automated payment systems facilitated by AI-driven advancements. The automated payments include several aspects, including the subscription feature, auto-replenishment, and auto-stored payment methods information (Jarek & Mazurek 2019).

Transportation:

Transportation and delivery is a crucial aspect of marketing that is significantly impacted by artificial intelligence (AI), hence facilitating the seamless completion of the whole consuming process. If

not properly managed, it has the potential to undermine the progress achieved in fundamental marketing endeavors. Refrigerated delivery trucks have been used for many decades. However, with the advent of the AI revolution, contemporary delivery vehicles are now integrated with apparatus for autonomous air temperature monitoring and intelligent sensor structures. In addition, scientists and researchers have previously introduced the idea of AI-driven temperature recorders and sensors capable of diagnosing problems, identifying status, and monitoring operations online (Shan, Liu, Prosser & Brown s.a.).

Furthermore, a growing number of companies use artificial intelligence (AI) to provide efficient and automated distribution. Uber Eats utilizes artificial intelligence (AI) to optimize delivery timings by considering many key parameters, including the anticipated preparation time of dishes, the time required for driver pickup, the time for delivery from the restaurant to the client, and the availability of drivers. The existing literature on the influence of AI in the marketing industry is limited and either incomplete or not up-to-date with the newest circumstances. Insufficient study exists that examines the current, complete, and holistic values and effects of AI in marketing. In addition, the current research mostly focuses on the effects of AI rather than the mechanisms via which AI generates these effects. This article will explore the primary benefits that AI delivers to marketing and the methods by which these benefits are created (Kumar, Rajan, Venkatesan & Lecinski 2019).

2.5 Marketing strategy

During this critical phase, marketers have the opportunity to leverage artificial intelligence (AI) to inform three crucial strategic choices: segmentation, targeting, and positioning. Prior to making specific STP (Segmentation, Targeting, and Positioning) decisions, marketers must first determine the overarching strategic positioning that will serve as a guiding framework for their STP initiatives. In their study, Huang and Rust (2017) put out a method that utilizes technology to strategically position a company, focusing on the aspects of standardization-personalization and transaction-relationship. An organization may adopt one of the following approaches: a commodity strategy, which leverages automated/robotic technology to enhance efficiency; a relational strategy, which focuses on fostering the lifetime value of current customers; a static personalization strategy, which employs cross-sectional big data analytics (e.g., similar customers) to personalize; or an adaptive personalization strategy, which utilizes longitudinal customer data to enable dynamic personalization over an extended period of time. Firms' STP decisions will be guided by this strategic positioning. For instance, in the event that a company adopts the static personalization strategy, it may seek to

possess a substantial, pertinent, pre-existing, and prospective client database. Subsequently, unsupervised machine learning techniques can be employed to investigate patterns of preference or buy behavior, serving as the foundation for targeting and positioning efforts. If a company adopts the adaptive personalization method, it may consider utilizing supervised machine learning techniques to further analyze the satisfaction levels of its current clients over a period of time, even if the magnitude of these dissatisfactions is not significant (Huang & Rust 2017). Nevertheless, by adopting a data-driven approach to STP, companies can increasingly depend on AI to investigate the potential of STP.

Typically, this phase of strategic decision-making places greater emphasis on the utilization of cognitive artificial intelligence (AI) due to its capacity to analyze data and generate novel conclusions or decisions. Nevertheless, it is important to emphasize that the categorization of some programs into specific intelligence primarily relies on the intended purpose for which the application is utilized. In instances where artificial intelligence (AI) becomes fully routinized, such as in segmentation applications, it exhibits several attributes commonly associated with mechanical AI. This is due to its tendency to systematically and repetitively identify patterns from data, without delving deeply into the underlying rationale behind making novel decisions (e.g., segmentation without retargeting).

Segmentation:

Segmentation refers to the process of dividing a market into distinct segments, wherein each segment consists of customers with certain demands and desires. For instance, the shoe market can be divided into two segments based on gender, namely male and female shoes. Similarly, the air travel market can be segmented into budget and luxury airline sectors based on price and quality. Mechanical artificial intelligence (AI), particularly the diverse mining and grouping methodologies, possesses the capability to detect innovative patterns within datasets (Liu 2020). The flexibility of AI segmentation lies in its ability to break down the market into several segments, where each individual consumer is considered a segment. Additionally, AI segmentation has the capability to consolidate dispersed long tails into a single segment (Pitt, Bal & Plangger 2020). Transfer learning is a technique that can be employed to represent the tail of a distribution by acquiring knowledge from the head of the distribution and subsequently applying this knowledge to the tail, which is characterized by limited data. The ability to aggregate and disaggregate data provides marketers with the flexibility to choose the optimal segment size.

Previous research has demonstrated the utility of data mining in revealing trends that may elude human marketers. Text mining and machine learning techniques can be employed to automate the processing and analysis of loan requests, enabling the categorization of borrowers into two groups: good customers, who are expected to repay the loan, and bad customers, who are not. Additionally, automated text evaluation and connection analysis can be utilized for psychographic customer segmentation within the art market (Valls, Gibert, Orellana & Antón-Clavé 2018). Furthermore, data mining can be employed to derive tourist segments based on the significance of destinations to consumers, surpassing traditional clustering methods. Lastly, retail customers can be micro-segmented based on their preferences, facilitating personalized recommendations.

Targeting:

Targeting involves the strategic selection of specific segment(s) that a corporation should concentrate its marketing efforts on. Market segmentation is a more mechanistic process that can be automated using mechanical artificial intelligence, providing the necessary data. However, selecting the appropriate sector necessitates expertise in the field, astute decision-making, and intuitive understanding. A range of technologies and analytics have been employed to facilitate targeting, including the utilization of search engines that rely on keywords searched and browsing history to effectively reach search consumers (Liu 2020). Similarly, social media platforms employ interests, content, and connections to effectively target social media consumers. The recommended artificial intelligence (AI) for this decision pertains to recommendation engines, which have the capability to provide multiple viable targets for marketing managers' ultimate determination. Additionally, predictive modeling can be employed to determine the most suitable segment to target. Prior research indicates that diverse cognitive artificial intelligence can be employed for this objective.

Positioning:

The process of positioning involves establishing a competitively advantageous position for a product in the minds of customers, thereby bridging the gap between product qualities and customer advantages. Brand positioning, also known as advertising positioning, is frequently linked to customer perceptions and communications in order to uphold a favorable perception. In their study, Daabes and Kharbat (2017) illustrate the application of data mining techniques in extracting a customer-centric perceptual map. This map serves as a substitute for marketer expertise, derived from the analysis of consumers' perceptions.

Positioning, in contrast to mechanical-based segmentation and thinking-based targeting, focuses on appealing to buyers' emotions, often through a positioning statement or slogan in promotional

communication. The positioning slogans of tourism in prominent destinations often highlight the emotive aspect (Galí, Camprubí & Donaire 2017). Certain effective positioning statements enable brands to establish a distinct and enduring presence in the minds of customers, hence facilitating sustained success in the market. For instance, Nike's slogan "Just do it," Apple computer's slogan "Be different," and McDonald's slogan "I'm loving it" all employ emotional appeals to effectively engage with customers. Feeling AI, specifically feeling analytics, is well-suited for this strategic decision as it aids in the creation of persuasive slogans by comprehending the factors that strongly connect with the intended client base.

2.6 Risks of AI

Despite the potential of artificial intelligence, scientists and the general public are nonetheless concerned about the short- and long-term economic effects, such as job losses, risks to human security, and safety issues. Experts often draw attention to the societal risks posed by AI, including the possibility of pervasive discrimination and the maintenance of existing inequalities via biased algorithms. People often utilize deep-learning technologies to determine who is eligible for loans or jobs. Deep-learning algorithms, however, function in a variety of ways and do not explain to users why AI makes particular assumptions or conclusions, how mistakes might happen, or how and when biases can appear. There may be safety issues with some applications, such as those for mobile phones, security cameras, and electronic grids. This might result in financial loss, identity theft, or power and internet outages. Advances in AI technology may potentially provide new difficulties for maintaining world peace and security. For example, machine learning may be used to produce phony audio and video in order to influence elections, the formulation of public policy, and governance (De Bruyn, Viswanathan, Beh, Brock & von Wangenheim 2020).

Another recent development is the prospect that fraudsters may utilize what seems to be private marketing, health, and financial data that businesses gather to give AI systems. Inadequate safety measures might be combined to generate fictitious identities. Target firms may still face regulatory repercussions and consumer outrage even when they are unintentional partners. It is very challenging to effectively ingest, organize, and connect data because of the growing volume of unstructured information being absorbed from sources including websites, social media outlets, mobile devices, and sensors. As a result, it is simple to make mistakes like sharing or accessing private information that is accidentally concealed in anonymized data. Members must take these factors into account in order to comply with data protection legislation, such as the California Consumer Privacy Act (CCPA) and the General Data Protection Regulation (GDPR) of the European Union (Buttazzo 2023).

The interplay between humans and machines is the key area of risk. Among the most obvious are the intricacies of automated production, transportation, and infrastructure systems. If operators of heavy machinery, automobiles, or other equipment are unable to override the systems because they are concentrating on something else, or if they are unaware that they should do so, accidents and injuries may result. This is a real risk in applications like autonomous vehicles. Human judgment is another means of demonstrating the process' fundamental results. Within the data analytics organization, equality, confidentiality, protection, and enforcement may be adversely affected by scripting errors, data management mishaps, and poor modeling decisions. Engineering and process issues may have a detrimental impact on AI system performance across the whole operational environment. For instance, a major financial institution had difficulties when its compliance software was unable to identify trading irregularities due to the removal of all customer transactions from the data feeds. It is evident that although robots do much better than humans when it comes to teamwork, human connection is still essential. The human-computer interaction that is fundamental to team management cannot be developed by a computer. Individuals often become reliant on these inventions, which might be problematic for future generations. Machines can only do jobs that humans have created, thus any output that is not relevant may have a big impact (Duggal 2024).

3 Research Methodology

3.1 Research approach:

A research approach refers to the comprehensive strategy that one chooses to study a research subject. The term "research approach" refers to the overall approach used to gather and analyse data in order to address a specific research issue. There exist two primary research methodologies.

The quantitative approach focuses on gathering and analysing numerical data. The objective is to discern patterns, trends, and correlations within the data using statistical techniques. Quantitative research typically follows a deductive approach, wherein it begins with a hypothesis that is subsequently examined through the gathering and analysis of data. Quantitative research approaches often involve the use of surveys and experiments.

The qualitative approach is centered on the gathering and examination of non-numeric data, such as written text, visuals, or audio recordings. The objective is to acquire a more profound comprehension of experiences, viewpoints, and significances. Qualitative research often employs an inductive approach, wherein data gathering serves as the initial step, followed by the development of themes and insights based on the collected data. Qualitative research methods may include interviews, focus groups, and ethnography.

In order to gain a complete understanding of this subject, a mixed-approaches strategy was utilized, incorporating both quantitative and qualitative data collection methods. This integrated technique enables the triangulation of findings, whereby results obtained from one method can be utilized to validate or enhance the findings obtained from the other method.

The selected mixed-methods strategy capitalizes on the advantages of both quantitative and qualitative research methodologies. Quantitative data offers a comprehensive understanding of patterns and perspectives inside the specific group by using numerical analysis. A survey was utilized to get data from a broader sample of marketing professionals. Conversely, qualitative data provides a more profound comprehension of the underlying reasons behind the quantitative data, enabling the investigation of individual experiences and views. This comprehensive investigation was accomplished by conducting interviews with a more focused and specific group. By integrating these two approaches, the study may not only ascertain overarching patterns in the utilization of artificial intelligence in marketing strategies but also explore the fundamental drivers and obstacles encountered by marketing experts in this dynamic environment.

3.2 Data collection and analysis:

An online survey was created and disseminated in order to gather data for the quantitative portion of the study. The survey platform “Google Forms” provided a user-friendly interface for participants and permitted streamlined data collecting. The survey was conducted among marketing professionals employed in the digital marketing field. Although a larger sample size would be preferable, the 36 people who completed the survey provided significant preliminary insights for investigating the subject. The survey instrument had a combination of closed-ended and open-ended questions. The demographic data, such as firm size, industry emphasis, and job title, was collected using closed-ended questions that included pre-determined response alternatives. Additionally, participants' degree of expertise with AI in marketing was assessed using the same kind of questions. Furthermore, the present use of AI technology in marketing operations, as well as the participants' general views on the pros and cons of AI in marketing, were investigated using closed-ended questions.

In order to enhance the quantitative data and get a more profound comprehension of the qualitative elements of AI integration into marketing initiatives, six marketing experts were interviewed using Google meet platform in May 2024. I deducted the interviews in different days based on the interviewees' desires and schedules to make it affordable for everyone. For instance, I interviewed AIContentfy's representatives which are “Mads Khaejer, Casimir Westerholm, Nishita Bhardwa” to get a wide information about AIContentfy and its AI practices. Moreover, Mads Khaejer 's interview has taken a place in 24.04.2024. whereas, Casimir Westerholm's interview has taken a place in 25.04.2024 and the last AIContentfy's interviewee called Nishita Bhardwa, her interview has happened in 26.05.2024. Then I interviewed Henil Gohil and Vishal Bavasiya that work at OptimumBrew Technology LLP in 27.04.2024 and 29.04.2024 while mentioning that Henil Gohil was the first one. Finally, I interviewed Daniyal that works at Outpace SEO in 28.04.2024.

The participants were deliberately chosen from a range of digital marketing companies and marketing technology vendors. The selection of interviewees was strategic, reflecting their direct engagement with AI tools within their professional roles. Three professionals were chosen from AIContentfy Oy, where I am currently employed, leveraging my access and familiarity with these candidates. These interviewees use the company's specialized AI tool extensively in roles ranging from content creation to team management, providing hands-on insights into the integration of AI in marketing efforts. Additionally, two more interviewees were identified through their professional profiles on LinkedIn for their roles at OptimumBrew Technology LLP and Outpace SEO, showcasing significant AI usage in their marketing strategies. Another professional from OptimumBrew Technology LLP was contacted via email. This method ensured a diverse representation from the field, crucial

for understanding the multifaceted impact of AI across different marketing practices and organizational contexts.

The interviews attempted to obtain a wider and more nuanced viewpoint on the issue by including companies of various sizes and competencies in the digital marketing industry. A semi-structured interview guide was created to maintain uniformity throughout interviews, while also providing the opportunity to adapt and investigate emerging themes or go more into particular subjects depending on participant replies. The interview guide explored similar topics as the survey, providing more in-depth analysis on specific areas such as the particular applications of AI used inside their organizations, growing trends and areas of interest in AI-driven marketing, and the difficulties faced when incorporating AI into marketing plans.

After collection was complete, the survey data were imported into Excel for analysis. Closed-ended question answers were summarised using charts and graphs, which gave a clear image of the patterns and similarities among the sample population. Thematic analysis was performed on the interview transcripts. Through the identification of prominent themes and patterns within the narratives of the participants, the study aims to uncover the underlying reasons behind the quantitative data and dig into the details of using artificial intelligence in marketing plans from a subjective and first-hand viewpoint.

4 Findings of the Study

4.1 Based on the survey:

In order to achieve the objective of the study, an online survey questionnaire was administered to 36 individuals from various firms that had expertise in the use of artificial intelligence in marketing. An insightful data graphic was produced by analyzing the responses using Microsoft Excel.

4.1.1 Demographic profile

A demographic profile is a comprehensive analysis of the attributes of the individuals participating in a survey. This split often encompasses factors such as age, gender, income level, education level, geographic area, years of job experience, etc. Through the analysis of the demographic profile of respondents, researchers may acquire a more profound comprehension of the individuals who took part in the survey and how their features may impact the replies. This facilitates a more subtle analysis of the data and aids in determining the generalizability of the results to a wider population.

Table 1. Company size of respondents

Company size	Frequency	Percentages
Solo entrepreneur	6	16.67
2 – 10 Employees	10	27.78
11-99 Employees	12	33.33
50 – 500 Employees	6	16.67
500 + employees	2	5.55
Total	36	100

Table 1 displays the total count of workers in the organizations of the survey participants. The top 33.33% of the participants are employed by organizations with 11-99 workers.

Table 2. Years in operation

Years in Operation	Frequency	Percentages
Less than 1 year	9	25
1-3 years	13	36.12
4-6 years	7	19.44
7+ years	7	19.44
Total	36	100

Table 2 shows that 36.12% of the respondents work in organizations that have been operational for 1 to 3 years.

Table 3. Industry type

Industry type	Frequency
Healthcare	1
E-commerce	2
Finance and Banking	1
Marketing	21
Customer Service	3
Human Resources	1
Fast food and beverages	1
Graphic design	1
Link-building agency	1
Perfumes luxury	1
Software Company	2

Saas product	1
Total	36

Table 3 displays the industrial category of the organization to which the respondents belong. The majority of the responders (21) are from the marketing business.

Table 4. Position in the company

Position in the company	Frequency
SEO Executive/ Specialist	14
Freelancer	2
Link builder	3
CEO	3
Marketing	3
Owner	2
Others	9
Total	36

Table 4 displays the respondents' positions within their respective organizations. The majority of the respondents (14) are from the SEO team.

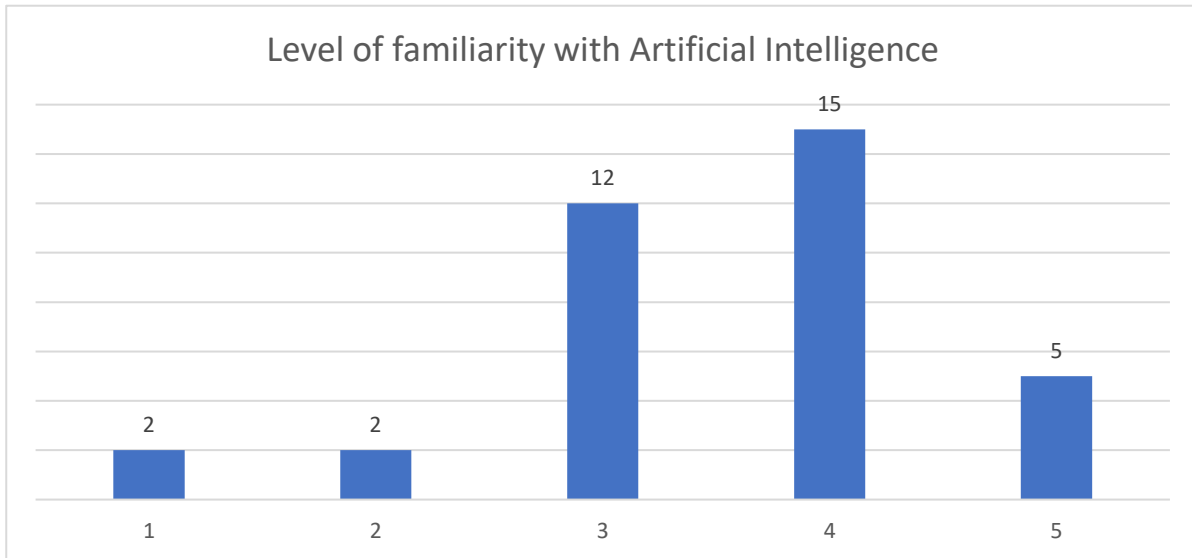


Figure 1. Level of familiarity with AI

Figure 1 displays the respondents' degree of familiarity with AI, rated on a scale of 1 to 5, with 5 being the highest and 1 being the lowest. Out of the 36 responses, 15 had a familiarity level of 4.

4.1.2 Data analysis

Use of AI in organization:

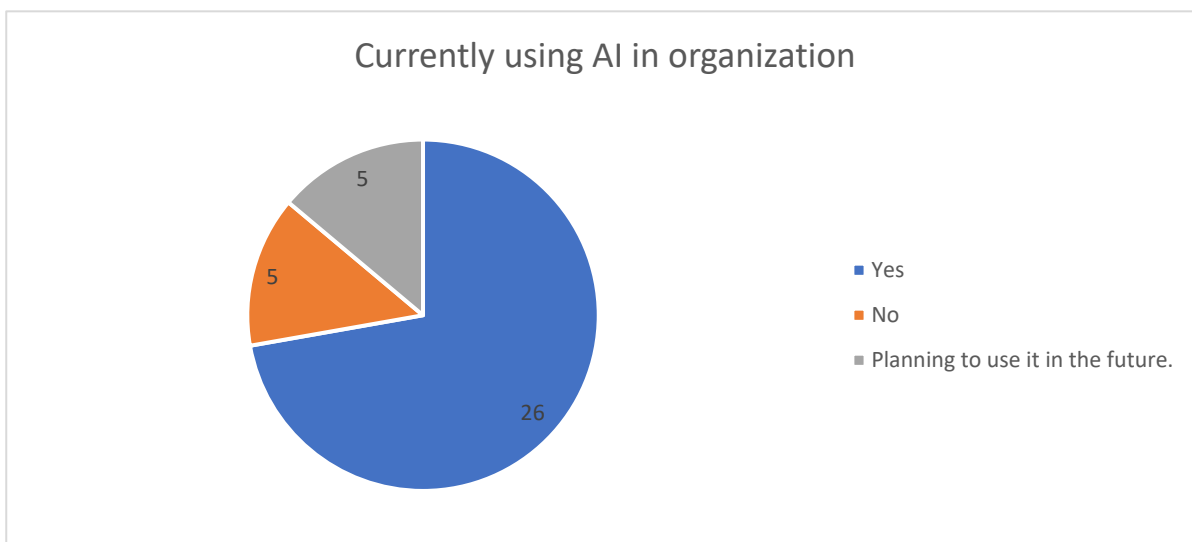


Figure 2. Currently using AI in organization

Figure 2 shows that 72.22% of respondents are currently using AI technology in their business. 13.89% of the respondents are not using and 13.89% of the respondents are planning to use AI in business in the future.

AI facilitates marketing functions:

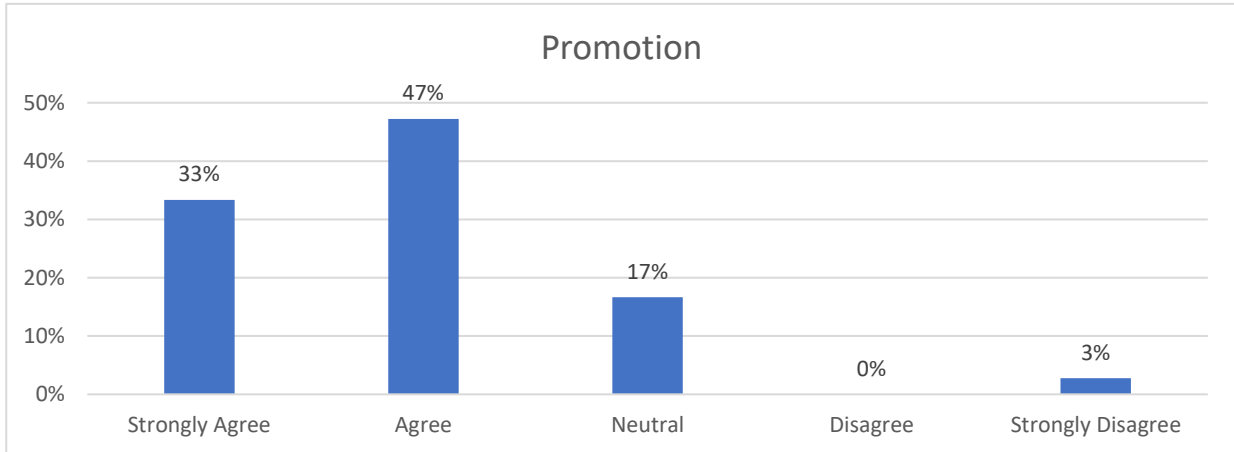


Figure 3. Promotion

Figure 3 shows 47% of the participants agree that the use of artificial intelligence enhances the promotional aspect of marketing, however, a mere 3% of the participants strongly disagree with this viewpoint.

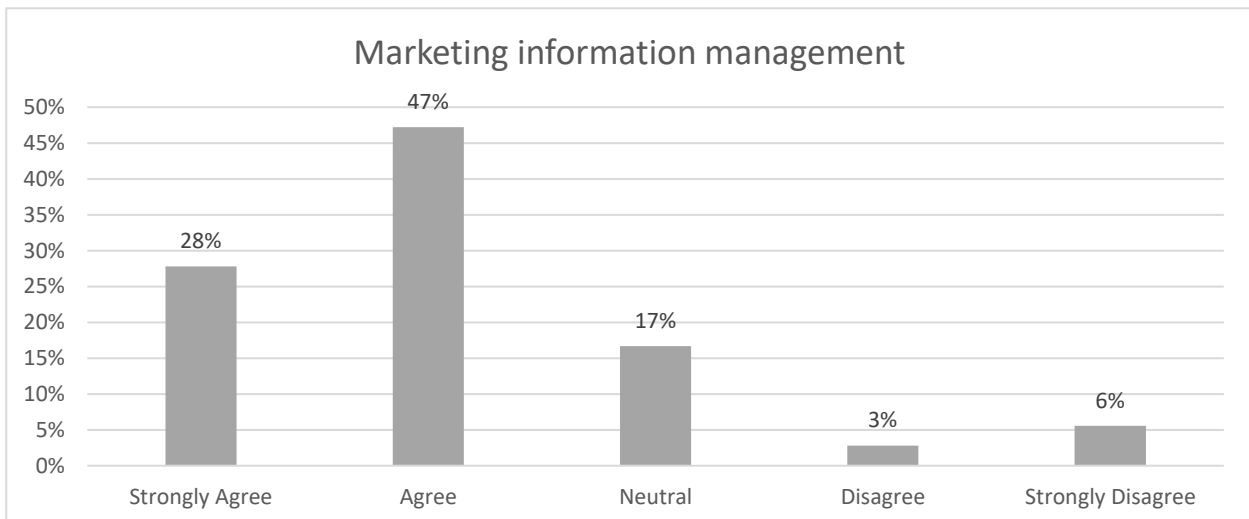


Figure 4. Marketing information management

Figure 4 displays that 47% of the participants agree that the utilization of artificial intelligence amplifies the administration of marketing information. In contrast, just 3% of the participants have a dissenting opinion, while 6% of the participants strongly oppose this perspective.

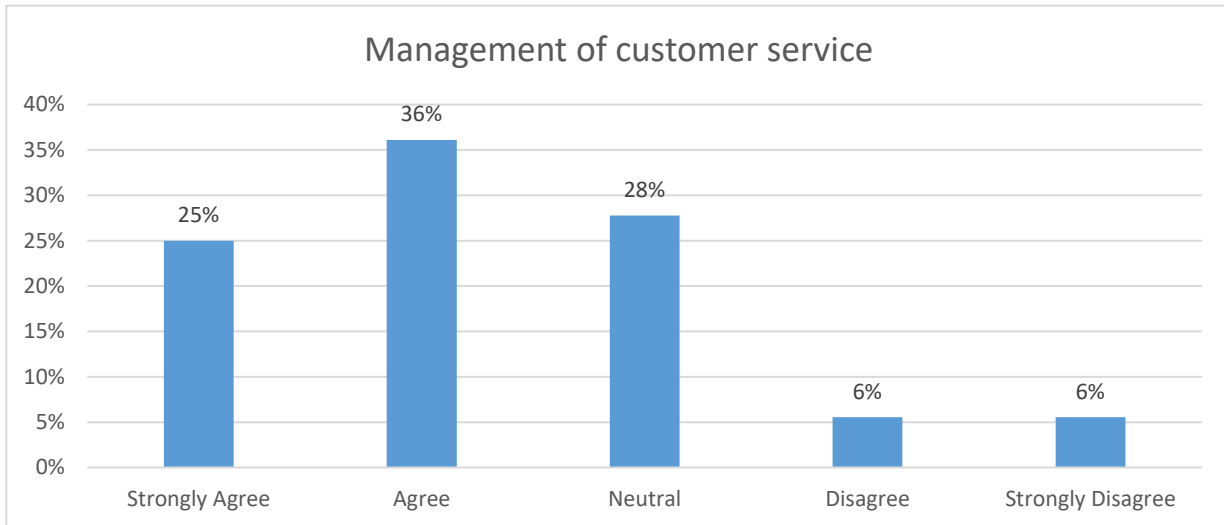


Figure 5. Management of customer service

Figure 5 shows the majority of participants (36%) agree that the use of artificial intelligence improves the management of customer service, while just a small fraction of participants (6%) strongly disagree with this perspective.

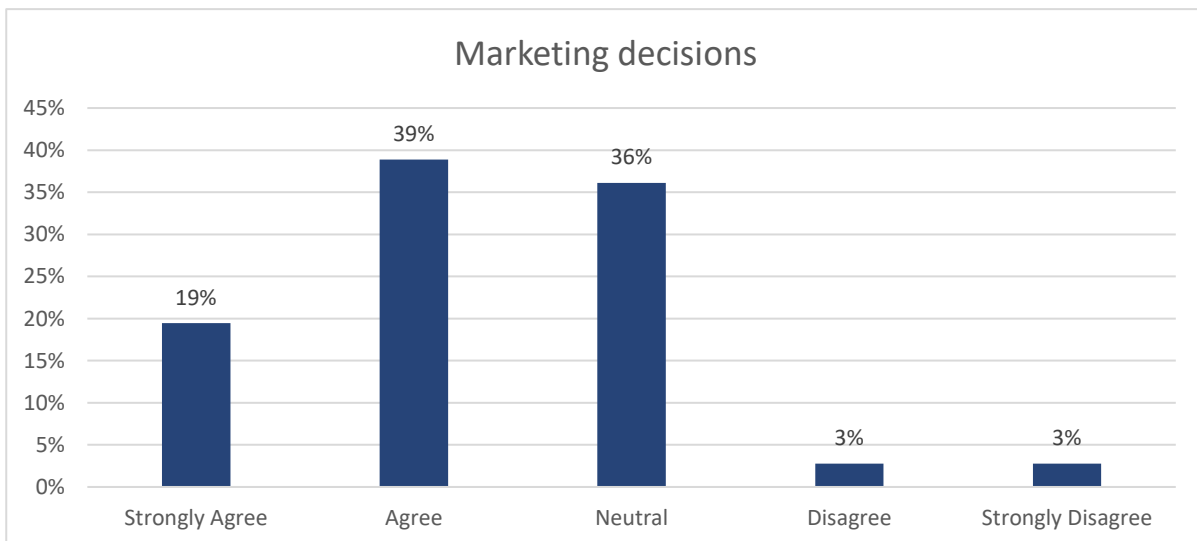


Figure 6. Marketing decisions

Figure 6 shows that 39% of participants think that using artificial intelligence improves marketing decisions; 36% are neutral; and just 3% strongly disagree with this viewpoint.

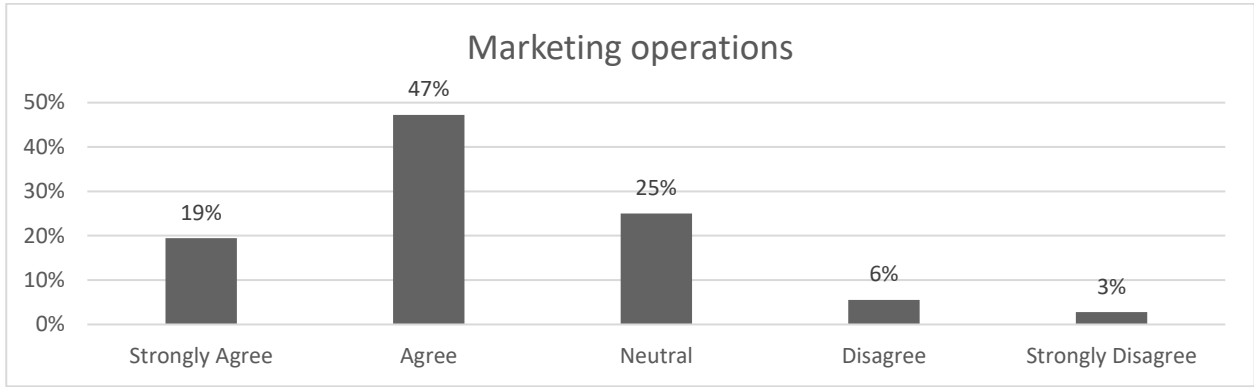


Figure 7. Marketing operations

Figure 7 displays most respondents (47%) agree that using artificial intelligence enhances marketing operations.

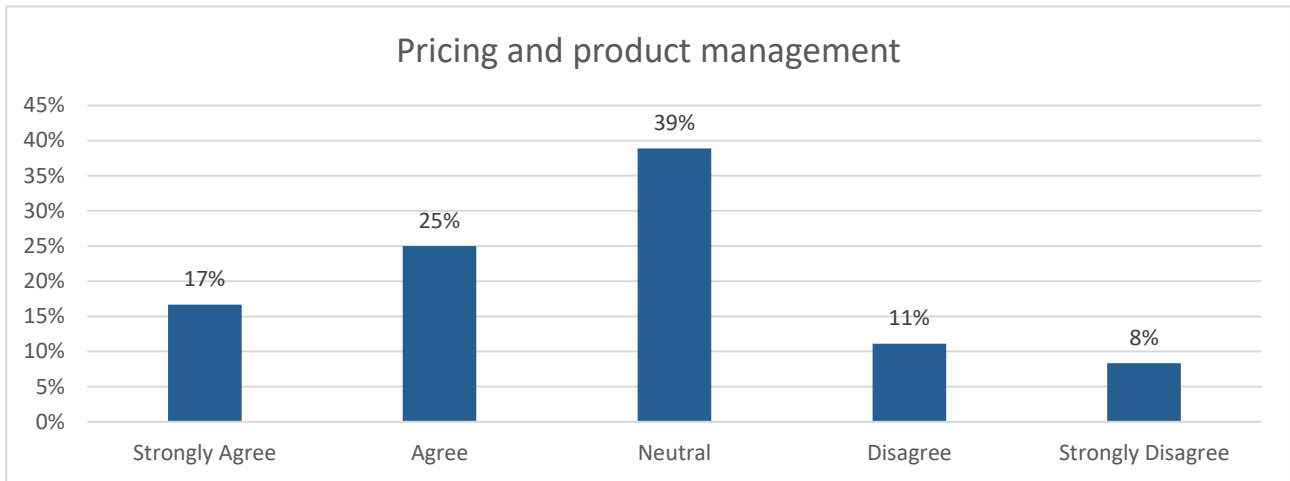


Figure 8. Pricing and product management

Figure 8 shows approximately 39% of the respondents have a neutral perspective on the use of artificial intelligence (AI) in the price and product management aspect of marketing.

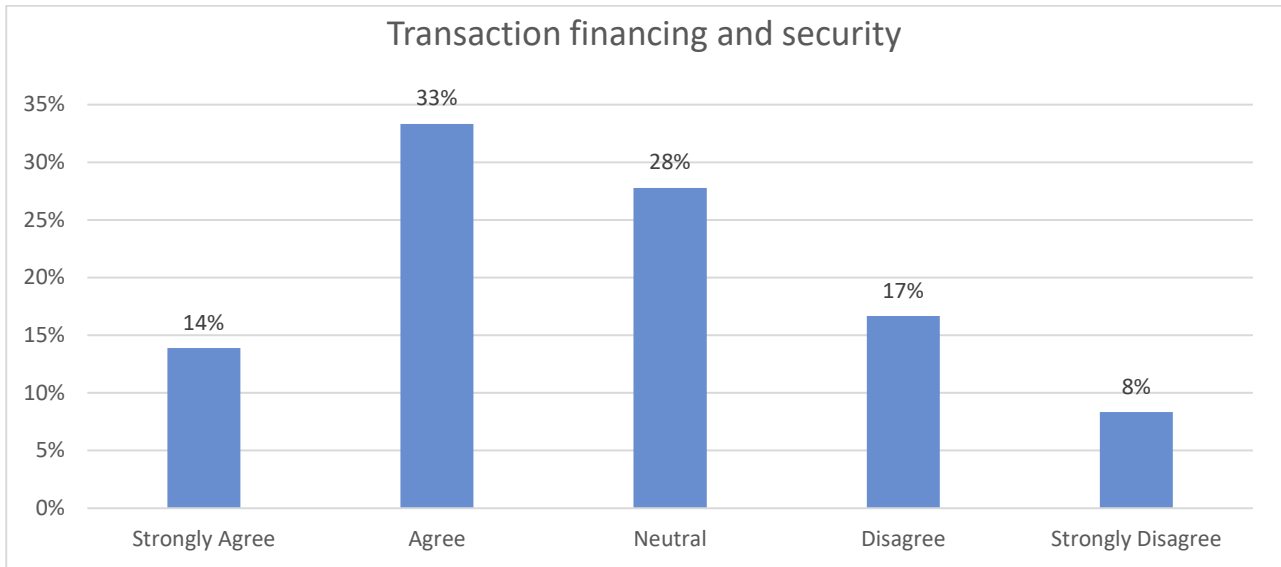


Figure 9. Transaction financing and security

Most respondents (33%) agree that using AI improves transaction financing and security.

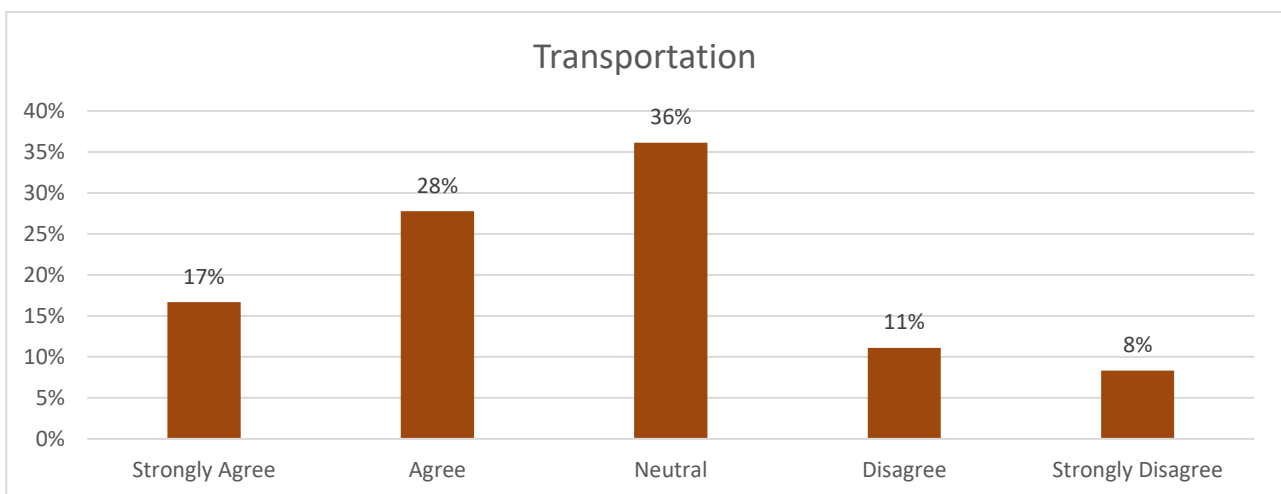


Figure 9 indicates the majority of the respondents (36%) have a neutral point of view about the utilization of AI in transportation functions.

AI contributes to the improvement of marketing strategies:

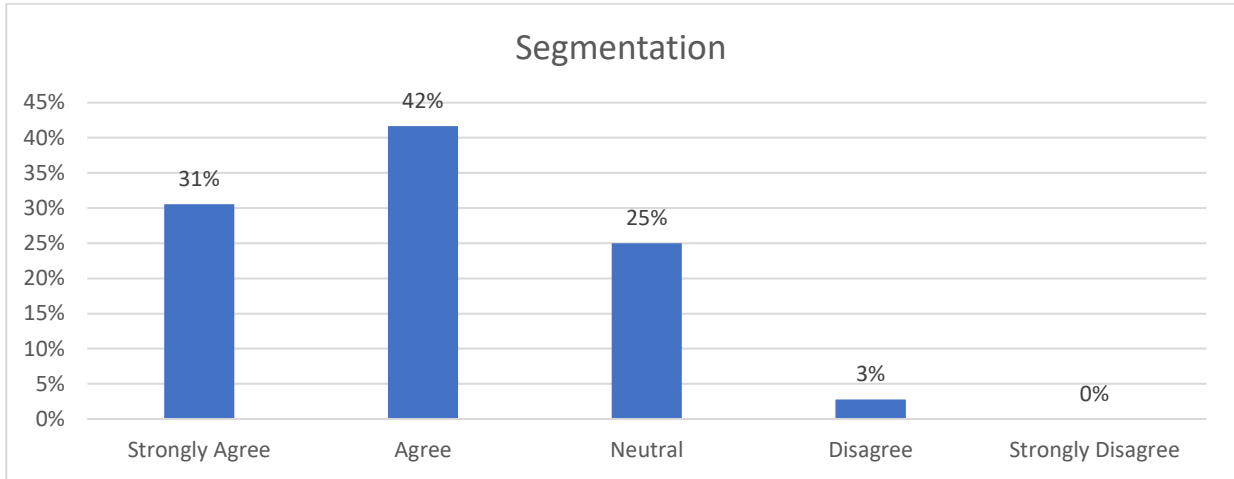


Figure 10. Segmentation

Figure 10 displays the majority of respondents (42%) agree, while the second largest group of respondents (31%) strongly agree that AI plays a significant role in enhancing segmentation.

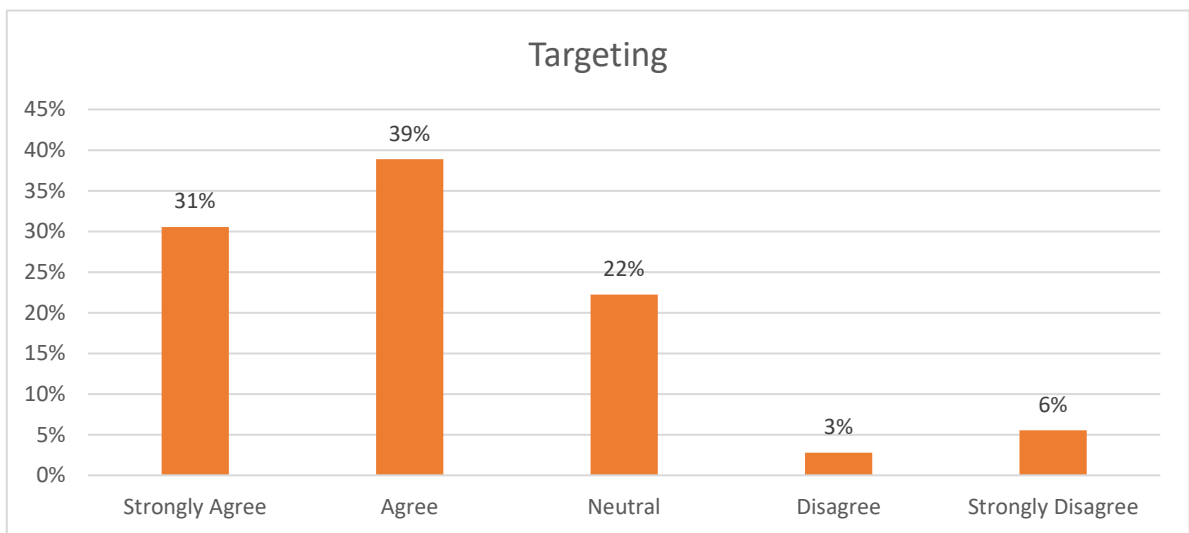


Figure 11. Targeting

Figure 11 shows the majority of respondents (39%) agree, and the second majority of respondents (31%) strongly agree that AI supports the formulation of marketing strategy for targeting customers.

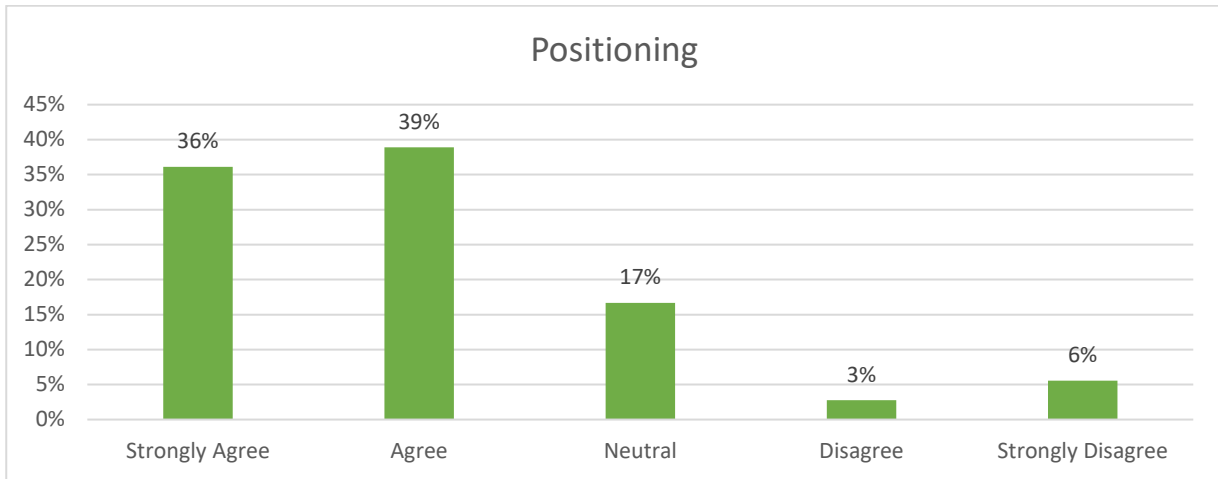


Figure 12. Positioning

Figure 12 indicates that 39% of participants agree and 36% of participants strongly agree that AI helps in improving market positioning strategies.

Drawbacks of using AI in Marketing:

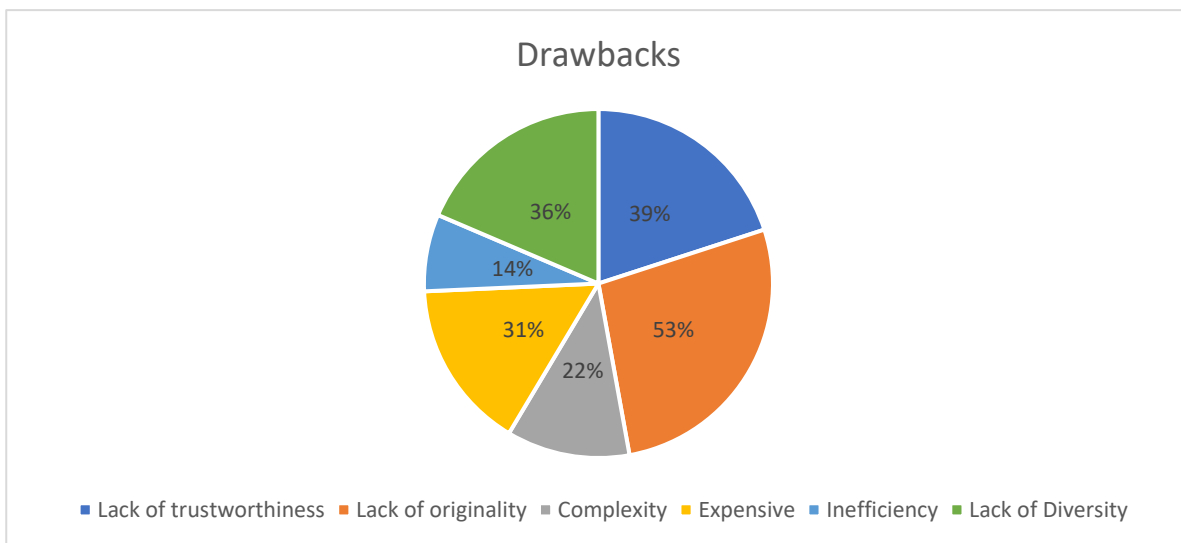


Figure 13. Drawbacks

Figure 13 shows the majority of participants (53%) feel that the most prevalent disadvantage of using AI in marketing efforts is the absence of creativity. 39%, 36%, and 31% of participants felt that the lack of trustworthiness, lack of variety, and high cost are the unfavorable aspects of employing AI in marketing, respectively.

4.2 Based on the interview:

4.2.1 Participant demographics:

Industry: All participants work within the digital marketing field, specializing in SEO and content creation.

Company Size: The sample includes representatives from both startup-sized agencies (1-20 employees) and established businesses (50-100 employees).

Gender: The interview pool consists entirely of male professionals.

4.2.2 Key Findings:

Universal AI Adoption:

All respondents demonstrate a strong understanding of AI and confirm its active application within their organizations' marketing initiatives. These applications encompass content creation, keyword research, customer service chatbots, and marketing analytics.

Emerging Areas of Interest:

Interviewees expressed particular interest in exploring the potential of Natural Language Processing (NLP) for content development, customer interaction, and sentiment analysis. Additionally, predictive analytics hold significant appeal for understanding customer behavior and anticipating market trends.

Perceived Benefits of AI in Marketing:

Increased efficiency and productivity through automation, improved targeting and personalization of marketing campaigns, data-driven decision-making for marketing strategies, and enhanced customer service experiences were highlighted as key benefits of AI integration.

Potential Drawbacks of AI Integration:

Data privacy concerns and the need for responsible data collection practices, the potential for algorithmic bias leading to unfair outcomes, over-reliance on AI diminishing human creativity, and cost/complexity of implementation for smaller businesses were identified as potential challenges.

The interviews reveal a promising future for AI's transformative impact on marketing strategies. Increased efficiency, superior targeting, and data-driven decision-making are all potential benefits of AI integration. However, responsible data use, mitigating algorithmic bias, and maintaining human oversight remain critical considerations. As AI technology continues to evolve and become more accessible, it will undoubtedly play a progressively prominent role in shaping the future of marketing. However, the success of this integration will require a balanced approach that leverages the power of AI alongside human expertise and ethical considerations.

5 Conclusion and Recommendation

5.1 Conclusion:

This study investigated the influence and use of Artificial Intelligence (AI) on modern marketing approaches. The study used a mixed-methods approach, including a quantitative survey and qualitative interviews specifically aimed at marketing professionals. The findings indicated a noticeable increase in the usage of artificial intelligence inside marketing departments. The main areas of concentration for AI implementation were improving promotional efforts, managing customer support, and analyzing data. Although most participants saw the potential advantages of AI in enhancing marketing tactics and decision-making, they also expressed worries about originality, trustworthiness, and cost.

This study provides significant information for firms who are navigating the changing terrain of AI-driven marketing. The results indicate that AI is not a one and uniform thing, but rather a set of tools that have the ability to enhance different marketing roles. Organizations may achieve substantial efficiency improvements and customization benefits by deliberately incorporating AI into certain domains, such as content generation, customer segmentation, and campaign optimization.

However, accompanying these advantages are difficulties and apprehensions. As AI continues to influence the marketing environment, it is crucial to address real concerns like as data privacy, algorithmic bias, and the possible decline in human creativity. Moreover, the expense and intricacy of integrating AI may create obstacles for smaller enterprises, underscoring the need to make AI-solutions accessible and affordable.

Nevertheless, the effective execution of AI marketing initiatives depends on more than simply technical expertise. The study highlights the need to create a strong data strategy to power AI systems and reduce possible bias. In addition, it is crucial for organizations to adopt a human-centric perspective that regards AI as a supplementary instrument rather than a substitute for human ingenuity, strategic analysis, and ethical deliberations. Therefore, it is essential to engage in staff training and development programs to guarantee that the marketing personnel has the requisite skills to efficiently use and responsibly oversee AI capabilities.

5.2 Recommendations:

The thesis presents a thorough examination of the effects and applications of artificial intelligence (AI) in contemporary marketing. As a result, a number of suggestions surface that can assist organizations and marketers in harnessing AI for strategic marketing purposes.

First and foremost, it is crucial to prioritize investing in AI education and training. By offering extensive training programs and resources, marketing professionals may expand their comprehension and expertise in AI technologies and tools. This will enable them to successfully use AI in their marketing campaigns. Furthermore, it is crucial to give utmost importance to safeguarding data privacy and upholding ethical principles. By implementing stringent data privacy rules and procedures, the appropriate acquisition, storage, and use of consumer data may be ensured. Furthermore, it is essential to take into account the ethical ramifications and social consequences while using AI-powered marketing strategies in order to maintain trust and credibility with customers.

Moreover, it is crucial to promote cooperation and teamwork between artificial intelligence and human knowledge. To optimize marketing tactics, it is crucial to foster cooperation and synergy between AI algorithms and human creativity, judgment, and intuition. This approach allows us to harness the unique qualities of both AI and human intelligence, resulting in enhanced efficacy. In addition, it is essential to consistently assess the performance and effect of AI. Consistently monitoring and assessing the effectiveness and influence of AI-powered marketing campaigns will pinpoint areas for enhancement and optimization, enabling marketers to enhance their strategy using data-driven insights.

Finally, it is crucial to be informed about the latest trends and advancements in artificial intelligence in order to maintain a competitive edge and foster innovation in the always-changing field of digital marketing. To stay updated on the most recent trends, breakthroughs, and best practices in AI technology, marketers may use state-of-the-art AI capabilities to foster innovation and accomplish marketing goals.

By adhering to these suggestions, marketers may use the complete capabilities of AI to stimulate novelty, productivity, and efficacy in their marketing initiatives, eventually attaining superior outcomes and maintaining a competitive edge in the contemporary digital era.

5.3 Self-reflection:

Upon reflecting extensively on the process and results of this thesis, I have found it to be a very enriching experience that has significantly enhanced my comprehension of the convergence of artificial intelligence (AI) and marketing. During the study process, I have acquired significant knowledge of the possibilities, difficulties, and consequences of using AI in contemporary marketing tactics. An important insight gained from this thesis is the significance of multidisciplinary knowledge and teamwork. As artificial intelligence (AI) continues to profoundly transform diverse sectors, such as marketing, it has become progressively essential for marketers to possess a comprehensive comprehension of AI technologies and their practical uses. This thesis has enabled me

to connect AI and marketing, combining knowledge from both disciplines to provide a thorough examination of AI's influence on marketing.

Furthermore, carrying out this thesis has increased my awareness of the ethical problems related to artificial intelligence in the field of marketing. AI has significant opportunities to improve the efficiency and efficacy of marketing. However, it also gives rise to ethical issues including data privacy, algorithmic prejudice, and the possibility of exploitation. Examining these ethical consequences has emphasized the significance of conscientious AI adoption and the need for marketers to give priority to ethical concerns in their decision-making procedures. In addition, the research technique used in this thesis, which incorporates both quantitative survey data and qualitative interviews, has facilitated a comprehensive comprehension of the subject matter. Through the process of triangulating data from many sources, I acquired a more profound understanding of the intricacies and subtleties involved in incorporating artificial intelligence into marketing plans.

In summary, my thesis has not only expanded the current knowledge of AI in marketing but has also enhanced my research, analytical, and critical thinking abilities. In anticipation of the future, I am enthused to further investigate the dynamic domain of artificial intelligence and its ramifications for the marketing sector, thereby making valuable contributions to continuous discussions and developments within the field.

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Appendices

Appendix 1. Survey

All changes saved in Drive



Questions Responses **36** Settings

AI in Modern Digital Marketing



I appreciate your participation in this survey. As a DIGIBBA candidate at Haaga-Helia University of Applied Sciences, I am now investigating the impact of artificial intelligence (AI) in modern digital marketing for my thesis.

Completing this survey should take around ten minutes. All answers will be kept private and used only to gather information for the thesis.

Email *

Valid email

This form is collecting emails. [Change settings](#)

AI in Modern Digital Marketing

I appreciate your participation in this survey. As a DIGIBBA candidate at Haaga-Helia University of Applied Sciences, I am now investigating the impact of artificial intelligence (AI) in modern digital marketing for my thesis.

Completing this survey should take around ten minutes. All answers will be kept private and used

only to gather information for the thesis.

* Indicates required question

1. Email *

2. Company Name (optional)

3. Company Size: *

Check all that apply.

- Solo entrepreneur
- 2 – 10 Employees
- 11-99 Employees
- 50 – 500 Employees
- 500 + employees

5/13/24, 5:38 PM

AI in Modern Digital Marketing

4. Years in Operation: *

Check all that apply.

- Less than 1 year
- 1-3 years
- 4-6 years
- 7+ years

5. Industry type: *

Check all that apply.

- Healthcare
- Marketing
- E-commerce
- Finance and Banking
- Manufacturing
- Customer Service
- Human Resources
- Other: _____

6. Position in the company: *

AI in Modern Marketing:

7. What is your level of familiarity with Artificial Intelligence? *

Mark only one oval.

1 2 3 4 5

○ ○ ○ ○ ○

5/13/24, 5:38 PM

AI in Modern Digital Marketing

8. Is your organization currently using any form of AI technology in its marketing initiatives? *

Check all that apply.

- yes
- No
- Planning to use it in the future.

9. For your marketing projects, which areas of artificial intelligence are you keenest to discover? *

Check all that apply.

- Content Creation
- Content Personalization
- Search Engine Optimization
- Social media marketing
- Data Analytics
- Chatbots
- Automated Email Marketing Campaigns
- Forecasting Sales
- Improving Customer Experience

Use of AI in Marketing:

5/13/24, 5:38 PM

AI in Modern Digital Marketing

10. Do you agree that AI facilitates the following marketing functions? *

Mark only one oval per row.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Promotion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marketing information management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Management of customer service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marketing decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marketing operations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pricing and product management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transaction financing and security	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transportation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5/13/24, 5:38 PM

AI in Modern Digital Marketing

11. Do you agree that AI contributes to the improvement of the following marketing strategies? *

Mark only one oval per row.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Segmentation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Targeting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positioning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. What are the drawbacks of using AI in Marketing?

Check all that apply.

- Lack of trustworthiness
- Lack of originality
- Complexity
- Expensive
- Inefficiency
- Lack of Diversity

Appendix 2. Interview questions:

1. What is your company's name? Size? Industry? What is your position in the company?
2. Are you familiar with Artificial Intelligence (AI)? Is your organization currently using any form of AI technology in its marketing initiatives? If yes, then How?
3. For your marketing projects, which areas of artificial intelligence are you keenest to discover? And why?
4. Do you agree that AI facilitates marketing functions such as promotion, marketing information management, management of customer service, marketing decisions, marketing operations, pricing and product management, transaction financing and security, and transportation? How?
5. Do you agree that AI contributes to the improvement of marketing strategies (segmentation, targeting, positioning)?
6. Are there any drawbacks of using AI in Marketing? What are they?

Appendix 3. The interviewees' consent

Henil Gohil's Consent:

I am Henil Gohil, I am a SEO Executive at OptimumBrew Technology LLP. I consent to participate in the research study conducted by Batoul Al Sayed for the thesis of AI In Modern Digital Marketing. I understand that my responses will be used for academic purposes and may be quoted in the thesis. I agree to the use of my data in this research under the conditions explained to me.

Signature: _____ Henil Gohil

Date: _____ 17.05.2024

Researcher's Signature: _____ Batoul Al Sayed

Mads Khaejer's consent:

I am Mads khaejer, I am the team leader at AIContentfy Oy. I consent to participate in the research study conducted by Batoul Al Sayed for the thesis of AI In Modern Digital Marketing. I understand that my responses will be used for academic purposes and may be quoted in the thesis. I agree to the use of my data in this research under the conditions explained to me.

Signature: _____ Mads Khaejer

Date: _____ 17.05.2024

Researcher's Signature: _____ Batoul Al Sayed

Nishita Bhardwaj's Consent:

I am Nishita Bhardwaj, I am the content writer at AIContentfy Oy. I consent to participate in the research study conducted by Batoul Al Sayed for the thesis of AI In Modern Digital Marketing. I understand that my responses will be used for academic purposes and may be quoted in the thesis. I agree to the use of my data in this research under the conditions explained to me.

Signature: Nishita Bhardwaj's

Date: 17.05.2024

Researcher's Signature: Batoul Al Sayed

Casimir Westerholm's Consent:

I am Casimir Westerholm, I am the content writer at AIContentfy Oy. I consent to participate in the research study conducted by Batoul Al Sayed for the thesis of AI In Modern Digital Marketing. I understand that my responses will be used for academic purposes and may be quoted in the thesis. I agree to the use of my data in this research under the conditions explained to me.

Signature: Casimir Westerholm

Date: 18.05.2024

Researcher's Signature: Batoul Al Sayed

Daniyal Ahmad's Consent:

I am Daniyal Ahmad, I am the SEO Outreach Specialist at Outpace SEO, that based in Oklahoma. I consent to participate in the research study conducted by Batoul Al Sayed for the thesis of AI In Modern Digital Marketing. I understand that my responses will be used for academic purposes and may be quoted in the thesis. I agree to the use of my data in this research under the conditions explained to me.

Signature: Daniyal Ahmad

Date: 17.05.2024

Researcher's Signature: Batoul Al Sayed

Vishal Bavasiya's Consent:

I am Vishal Bavasiya, I work as a junior SEO at Optimum Brew. I consent to participate in the research study conducted by Batoul Al Sayed for the thesis of AI In Modern Digital Marketing. I understand that my responses will be used for academic purposes and may be quoted in the thesis. I agree to the use of my data in this research under the conditions explained to me.

Signature: _____ Vishal Bavasiya

Date: _____ 19.05.2024

Researcher's Signature: _____ Batoul Al Sayed

