

THE IMPACT OF AI AUTOMATION ON MARKETING: IMPLICATIONS AND  
STRATEGIES FOR EFFECTIVE ORGANISATIONAL ADAPTATION

Name



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### Abstract

**Background:** Artificial intelligence (AI) has transformed modern marketing by enabling businesses to personalise customer experiences, automate decision-making, and generate data-driven insights. As organisations increasingly embed AI into strategic marketing activities, questions arise regarding its effectiveness, implementation challenges, and ethical implications. Understanding these dynamics is essential for developing responsible and competitive AI-driven marketing strategies.

**Aim:** This thesis examines the applications of AI in marketing strategies, evaluates the benefits of AI adoption in advertising, and identifies key considerations when integrating AI automation into organisational marketing practices.

**Methods:** A qualitative secondary research approach was used. A single-case study design focusing on Walmart was adopted to explore how a major global retailer applies AI in its marketing strategy. Data from credible secondary sources were analysed using thematic analysis to identify patterns and insights relevant to AI-enabled marketing.

**Results:** Three themes emerged from the thematic analysis:

- Impact of AI automation on marketing, highlighting how AI tools provide deep insights into customer behaviour, preferences, and purchasing patterns, enabling personalised service delivery.
- Implications and strategies for effective organisational adaptation, demonstrating how machine-learning frameworks can predict future customer actions and support strategic marketing decisions.
- Challenges in applying AI to marketing, including ethical concerns, data confidentiality, and organisational readiness for technological change.

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**List of Abbreviations**

AI – Artificial Intelligence

B2B – Business to Business

B2C – Business to Consumers

AIA – Artificial Intelligence Act

SMEs – Small and Medium-sized Enterprises

HR – Human Resource

HRM – Human Resource Management



## Chapter 1: Introduction

This chapter introduces the research phenomenon by exploring the different marketing strategies that can be used by organisations. The sections will then narrow down to the use of artificial intelligence (AI) in marketing strategies. Moreover, the sections will highlight the research aim, objectives, questions, and significance.

### 1.1 Background of Study

Before the integration of technology, there were traditional marketing paradigms, which included print media, radio, and television, among other mass communication channels. Although marketers adopted traditional marketing strategies to reach a wider audience, Tarik and Adnan (2018, p. 46) found that these channels only allowed a one-way approach to marketing communication. In essence, the traditional marketing strategies limited marketers from sending customised marketing messages, hence lacking personalisation and precision targeting. Besides that, the effectiveness of traditional media, such as television, was also put into question by the researchers. For instance, the study found that most consumers shunned advertising content by changing channels during commercials and that devices like TiVo and DVR allowed consumers to fast-forward or skip advertising content (Tarik & Adnan, 2018, p. 47). Moreover, due to the lack of personalised content, consumer tiredness of advertising messages was prominent, creating a leeway for multitasking during advertisements. This meant that traditional advertising strategies were not as effective in delivering marketing content; hence, there was a need for further improvement.

However, with technological advancements, there was a significant shift in how organisations and businesses approached their marketing needs. According to Hussain et al. (2023, p. 102), technology brought about digital marketing with the Internet, providing new toolkits like social media, search engine optimisation, and email marketing as new avenues for marketers to reach and engage their prospective consumers. Indeed, studies by Shankar et

al. (2022, p. 548) affirmed that digital marketing provided businesses with immediate and more direct consumer interactions, allowing companies to collect user-generated data that brought about new realities in targeted and personalised advertising. The availability of user-generated data marked a paradigm shift towards more measurable, scientific, and data-driven marketing, where businesses incorporate various data analytics tools to understand consumer preferences, behaviours, and purchase patterns. Even so, it is critical to note that the complexity and vast amounts of customer data created the need for a more sophisticated technological solution to maximise the ever-growing volume of data and the need for more personalised advertising. This created an opportunity for marketers to integrate artificial intelligence into marketing practices, given its potential to analyse vast data considerably faster and more efficiently to denote patterns and advance data-driven predictions. Ultimately, AI emerged as a game changer as it revolutionised how businesses engaged and understood their consumers and their individual preferences, making personalisation a critical factor in marketing protocols, enhancing brand loyalty and increasing conversion rates.

The integration of AI in marketing strategies has brought about noteworthy improvement in marketing tactics and new techniques and approaches to distributing and presenting value to customers. In the study by Wan Abdul Rahman et al. (2020, p. 1), the integration of AI software in campaign management, customer data integration, and customer segmentation has allowed businesses to accelerate sales at a comparatively lower cost and with fewer human resources. This is attributed to AI advancing deeper insights, allowing for predictive analytics, and providing a more comprehensive view of consumer behaviour, thus adding value for consumers and brands alike. Its adoption and implementation in marketing protocols have also significantly changed how organisations optimise, execute, and conceptualise their marketing strategies. Therefore, as AI technology advances, marketers are not left behind in leveraging its potential to provide targeted and personalised content to their

customers, enhance efficiency in content delivery, and streamline the whole marketing process. Against this background, exploring AI automation's impact, implications, and strategies on marketing is both a timely and critical research with a profound effect on consumers and businesses alike.

## **1.2 Problem Statement**

### ***1.2.1 Consumer Trust and Ethical Considerations***

This thesis aims to understand the various ethical issues surrounding integrating and applying AI in marketing practices. Businesses must ensure they are building consumer loyalty and trust at all times and in all activities, they are engaged in, including marketing. While many companies strive to uphold this endeavour regarding AI marketing practices, there is a lack of a clear ethical framework, hence exacerbating consumer trust issues, with the most pertinent issue concerning AI marketing strategies being privacy and transparency challenges. Studies by Purnamasari et al. (2023, p. 30) contend that, unlike Apple and Patagonia (an American retailer company), most marketers face difficulties in advancing the right balance between privacy expectations and personalised experiences, as well as have a hard time offering consumers transparent explanations stemming from their AI-driven decisions. This creates a leeway for unwarranted ethical dilemmas, which, by extension, erodes brand loyalty and consumer trust. As such, it is crucial to advance an ethical framework that can be incorporated into guiding privacy and transparency issues in AI marketing strategies. In so doing, businesses can effectively navigate the fine line between upholding consumer privacy expectations and advancing personalised marketing content, thereby limiting cases of ethical dilemmas in marketing. In addition to consumer trust and transparency issues, algorithmic bias and fairness exist, resulting in ethical challenges. Such biases stem from a lack of an explicit methodological framework, hindering the development of inclusive and fair AI-driven marketing strategies. With this in mind, it is essential to shed

light on the underlying consequences attributed to biased algorithms in different cultural contexts and among diverse demographic groups.

### ***1.2.2 Compliance Challenges and Regulatory Ambiguity***

The growth and evolution of AI and its application in various sectors, including marketing, has vastly outpaced the existing regulatory framework. According to Scherer (2015, p. 372), the AI regulatory landscape is characterised by frequent evolution, resulting in a scarcity of clear guidelines for marketers to adhere to or interpret when advancing various AI-driven marketing strategies. This means that most marketers have a hard time comprehending the nuances of the ever-evolving regulatory landscape, compounding cases of non-compliance that result in unprecedented reputational and legal repercussions. Moreover, the current regulatory framework is not up to date to effectively tackle the existing uncertainties, hence the need for a more comprehensive, watertight, clear, and well-defined regulatory framework that adheres to the unique challenges posed by AI in marketing (Veale & Zuiderveen Borgesius, 2021, p. 100). Thus, it is vital to propose compliance expectations that foster innovation and promote the responsible use of AI in marketing protocols for a more stable foundation for AI-driven marketing practices.

### ***1.2.3 Adaptation Challenges for SMEs***

Integrating AI protocols and applying them in marketing practice requires vast amounts of knowledge and skills, as well as financial resources. This requirement makes it comparatively easy for large and already established companies to embrace AI in marketing as they have the human and financial resources to explore and implement AI-driven marketing strategies. This is, however, not the case for many Small and Medium-sized enterprises who, in most cases, face unique challenges when embracing AI-driven marketing protocols. Among the notable difficulties they face include financial constraints and return on investment constraints, which hinder them from fully taking advantage of AI to improve their

competitive advantages. The second issue borders on implementation barriers subject to the lack of critical technical expertise. According to Wei and Pardo (2022, p. 8), most SMEs do not elaborately understand AI technologies, making it relatively difficult for them to advance seamless integration and integrate appropriate solutions suitable for their marketing goals and needs. As such, it is essential to shed light on the underlying challenges SMEs face when integrating AI into their marketing practices and provide the needed guidance to help them efficiently navigate the technical barriers in AI integration in marketing.

### **1.3 Research Aims**

The primary goal of this thesis was to underscore the underlying implications of AI automation in marketing. In doing so, this thesis seeks to provide strategic recommendations and highlight actionable insights from which marketers can efficiently navigate AI-driven marketing practices. The above research aim is expounded in four critical aspects as follows:

1. The Impact of AI on Consumer Behaviour
2. The Ethical Framework for AI Marketing Practices
3. Regulatory Guidelines for AI Marketing Strategies
4. Adoption Strategies for SMEs

### **1.4 Research Objectives**

The research objectives for this thesis are presented below:

1. To understand what artificial intelligence entails and the challenges that hinder its implementation.
2. To assess the impacts of robotics on marketing.
3. To investigate how consumers respond to AI-driven marketing and how such responses impact their purchase intentions and brand loyalty.
4. To discuss the adaptive strategies used by organisations to advance effective AI automation and efficient AI marketing practices.

5. To recommend the needed ethical framework and regulatory guidelines for effective and efficient AI-driven marketing strategies.

### **1.5 Research Question**

The research question underpinning this thesis is: What are the implications of AI automation on marketing, and how can companies adapt to these changes?

### **1.6 Significance of Study**

This thesis expounds the existing knowledge on the application of AI in marketing protocols. As such, the thesis has significance for various stakeholders, including consumers, shareholders, and businesses. The thesis provides critical insight into strategic marketing practices involving Artificial Intelligence. With the ever-changing business environment, it is becoming more critical for companies and marketers alike to understand the vital role of AI in shaping organisational structures, redefining success metrics, and influencing consumer behaviour and purchase intentions. As such, this thesis will serve this purpose by shedding light on AI's effective and efficient approaches and applications in gaining competitive advantage and market share. It not only provides businesses with an understanding of the application of AI in marketing but also enables them to effectively align their marketing goals and strategies and fully harness the power of AI in advancing personalised and individualised consumer content.

### **1.7 Research Outline**

This thesis will have four chapters. The first chapter is the introductory chapter, where the background of the study and problem statement underpinning the research are articulated. The second chapter describes what artificial intelligence entails and its impacts on marketing. This chapter will also provide an analysis of the impacts of robotics (a branch of AI) on marketing. The third chapter provides information on companies implementing AI. In this chapter, a case study of Walmart will be presented. The final chapter in the thesis will be the

conclusion and recommendations chapter, summarising the key findings and discussions before providing recommendations for future studies and policy recommendations.



## Chapter 2 Artificial Intelligence

The present chapter provides a critical analysis of existing literature sources to understand the impacts of AI automation on marketing strategies. It will also highlight the gaps in the literature that future researchers should fill. A diagrammatic presentation of interaction among key factors and resulting outcomes reviewed and reported in this chapter are presented in the Figure 1 below.

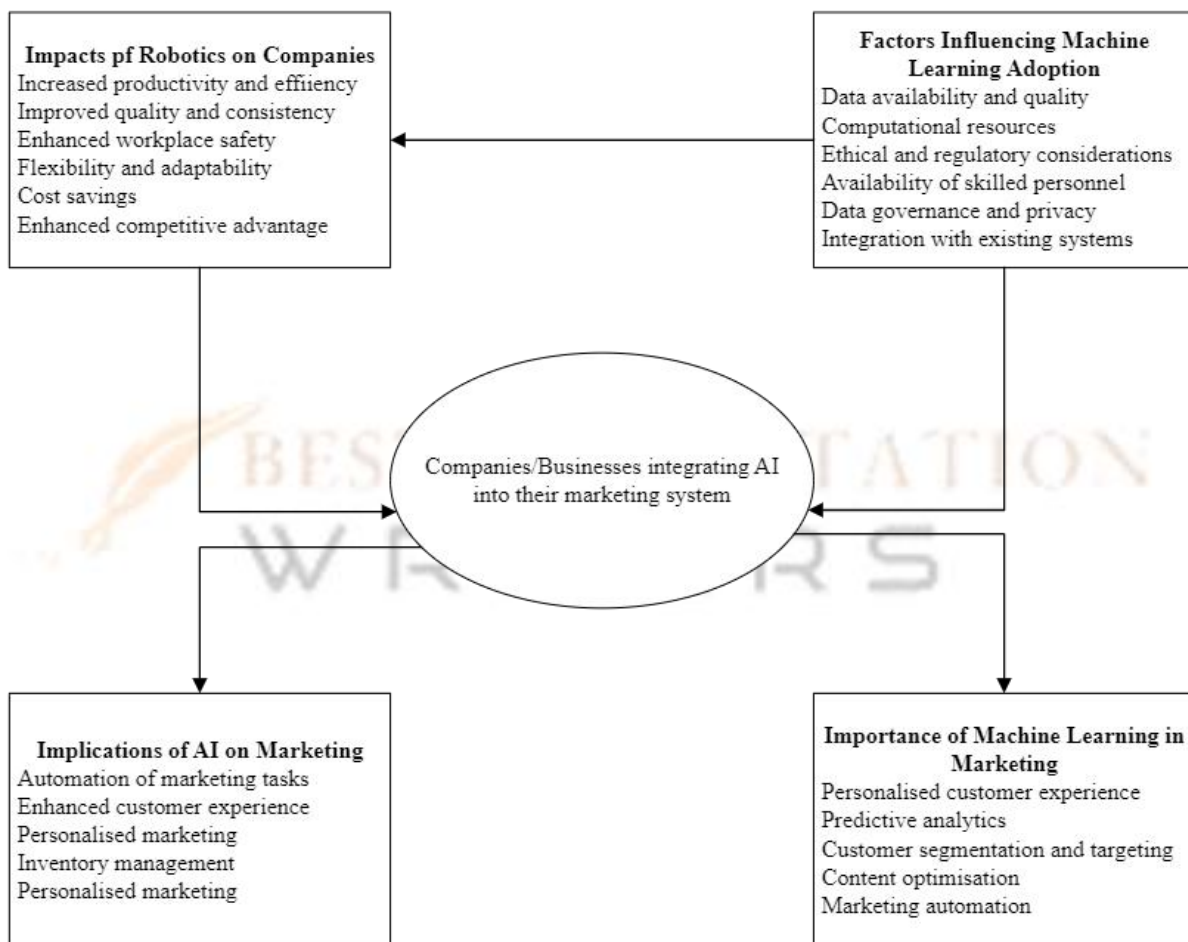


Figure 1: Impacts of AI/Machine Learning/Robotics on Business (Author, 2024)

### 2.1 Definition

This subchapter will provide a detailed explanation of what artificial intelligence means. Moreover, it shall reveal more information on what marketing entails. Through these definitions, it will be possible to determine the applications of AI in marketing.

The word 'intelligence' can take more than seventy different definitions, whether one surveys a philosopher, neuroscientist, biologist, sociologist, or psychologist. As such, it is not far-fetched when De Bruyn et al. (2020, p. 3) and Kaplan and Haenlein (2019, p. 17) contend that AI remains a fuzzy concept with vast definitions despite being a common term. Indeed, the two studies acknowledge that while many studies have researched AI in recent years, researchers have had a hard time defining what Artificial Intelligence is and what it is not, hence the many definitions. As such, studies by De Bruyn et al. (2020, p. 3) propose three noteworthy definitions for AI. The first definition proposed by the researcher stems from a book by Shieber (2004), where AI is considered, any intelligence advanced by machines. This intelligence aims to make computers handle tasks primarily meant to be done by humans. Although this is a valid definition, De Bruyn et al. (2020, p.3) believe it upholds a general understanding of intelligence and fails to consider that intelligence entails creativity, reasoning, emotional knowledge, self-awareness, and critical thinking. The second definition advanced by the researcher borrows from Goertzel (2014, p. 3) and another study by Thórisson et al. (2015, p. 2), where AI is defined as the ability of a machine to learn or comprehend any intellectual tasks handled by human beings. This definition is premised on the fact that scientists have a relatively narrow understanding of artificial general intelligence and that the currently available AI systems are weak AI that cannot be easily programmed to "learn to learn." The final definition advanced by De Bruyn et al. (2020, p.5) is a rather loose definition, where AI is deemed to be tools and systems that incorporate human intelligence to handle problem-solving, planning, and learning tasks autonomously. Compared to the two initial definitions, this third definition is merited as it considers AI an autonomous algorithm that can advance knowledge by mimicking human intelligence.

On the other hand, it is vital to understand the meaning of marketing. According to Armstrong et al. (2014), marketing is the activity and process of communicating, creating,

exchanging, and delivering offerings that have value. Similarly, Liu (2017) supported the ideation of Armstrong et al. (2014) by claiming that marketing describes the act of selling and promoting products and services, and it incorporates advertising and market research. Furthermore, Brunswick (2014) argued that marketing refers to the process of planning and execution of a given business idea, pricing, distribution, and planning of the idea with the intention of developing exchanges that meet customer needs and the objectives of the respective organisation. Another definition presented by Colbert (2014) described marketing as the practice of enhancing the brand value of an organisation through messages shared with potential customers across several channels. The definition presented by Godwin (2019) also matched with that of Armstrong et al. (2014), as the researchers claimed that marketing involves identifying customers' needs and using this knowledge to develop and promote the required services or products and build a lasting relationship with the customer. According to Colbert (2014) claims that it can be determined that the main objective of marketing is to create value for customers and society as a whole. Moreover, through marketing, an organisation can meet its goals, boost its brand perception, and maximise sales and profits. The current study will focus on how organisations can leverage AI to enhance their marketing strategies, leading to increased profits, sales, and a positive brand image.

## **2.2 The Impact of Robotics on Companies**

The current section will analyse the relationship between robotics and marketing. Integrating robotics into marketing activities positively impacts the business model, sales processes, customer behaviour, and customer service options. Therefore, intelligent robotics are ideal for marketing, as they can obtain data and convert it into effective marketing plans, determine the search keywords with the most engagement, and deliver result-driven marketing strategies within a short period. The impacts of robotics on marketing are presented in the following section.

### ***2.2.1 Impacts of Robotics on Marketing***

The fourth industrial revolution has brought about significant changes through automation, the Internet of Things, and the integration of cyber-physical systems. According to Wisskirchen et al. (2017, p. 13) and another study by Ahmed and Hossain (2019, p. 205), robotics continue to evolve as an influential and significant market, with technological advancement in AI and Robotics expanding daily. These studies explain that robotics has gained traction in vast sectors and industries, thereby revolutionising the business operations landscape, with companies incorporating the new technology to retain their competitive advantage. Therefore, this shift towards robotics has necessitated many researchers to investigate the comparative advantage of automation and further underscore how robots continue to shape the operational stance and business landscape for companies worldwide. One outstanding impact of robotics in most studies is its enhanced productivity. This impact is noted in studies by Javaid et al. (2021, p. 60) that investigated the capabilities of robotics. The findings from this study revealed that robotics play an instrumental role in optimising productivity and performance by allowing for more mobile workflows. It will enable employees to concentrate on productivity, creativity, and other critical dynamic processes, laying the foundation for the company's prosperity and growth. Furthermore, the findings presented by Muth and Nufer (2022) revealed that AI technology helps organisations perform repetitive tasks such as scheduling marketing campaigns to target more potential customers. This move contributes to the effectiveness of the organisation's marketing strategies, as the robots can perform these tasks numerous times and increase the possibility of getting more customers each time. Likewise, Lies (2019) supported the ideation of Muth and Nufer (2022) by claiming that since AI technology can facilitate repetitive tasks such as posting creative social media content to attract more customers, it saves time for marketers to focus on more effective strategies of enhancing customer relationships. Farrokhi et al. (2020) also

mentioned that AI technology supports data-driven decision-making through data obtained from analysing customer behaviour. These decisions are more likely to promote the growth of the organisation, as it is possible to develop products that align with customers' needs. Additionally, AI models can be used to tailor personalised marketing messages that contain content for individual customers, hence increasing conversion and engagement rates. This particular point will be explained further in the sections that follow below when analysing the use of AI-powered chatbots in Walmart to promote digital interactions with potential customers. Javaid et al.'s (2021, p. 60-61) findings are reiterated in a similar study by Del Guidice et al. (2022, p. 12), which found that robotics enhances balance and labour productivity. Results from the regression analysis in the study by Del Guidice et al. (2022, p. 12) demonstrated that adopting humanoid robots indirectly impacts labour productivity as it helps marginally generate new modified routines and efficiently undertake repetitive tasks performed by employees. The study by Pérez et al. (2020) also supports the findings established by both Javaid et al. (2021, p. 60-61) and Del Guidice et al. (2022, p. 12). According to the study, despite robots not being cost-effective, they are the best substitutes for strategically important, general, and repeatable tasks, especially those involving the assembly of different parts and components. For companies to maximise productivity, it is essential to incorporate robots in handling accurate and repetitive tasks, with the human workforce managing manual operations that may be relatively difficult to program the robots to handle.

Beyond the operational environment landscape, robots can also positively impact companies' marketing strategies and practices. Among the critical aspects in this regard include the automation of customer interactions, which is elaborately discussed in several studies, including the research by Hollebeek et al. (2021) and another study by Wirtz et al. (2021). In Hollebeek et al.'s (2021, p. 5) study, robotics, machines, and AI can transform

service organisations and impact how companies engage with their customers in real time.

Various automated systems and chatbots, which, when leveraged by companies, can improve their customer satisfaction, engagement rates, and overall interaction experiences. The same is noted by Wirtz et al. (2021), whose study investigated the service revolution. In addition to the findings by Hollebeek et al. (2021, p. 5), the researchers noted that service robots support flexible customer interactions and can guide them through the service process (Wirtz et al., 2021, p. 40). They are error-tolerant, can offer alternative solutions, and, most importantly, have the potential to guide customers until they conclude their service transactions. In addition to automated customer interactions, robots significantly contribute to data analysis and help companies gain consumer insights to make informed decisions. This is particularly true for AI algorithms, which can process vast data much faster and denote consumer trends, patterns, preferences, and behaviours. These capabilities are critical for marketers who, by extension, integrate them to advance more personalised, individualised, and targeted advertising content or marketing campaigns, thus optimising the effectiveness and efficiency of their marketing efforts. AI can be used to generate different forms of social media content, which can be used in marketing to attract more customers. These moves boost the organisation's productivity rate. The sources have covered the effectiveness of AI models in promoting customer interactions. It can be achieved through the use of chatbots that help customers resolve issues on a 24/7 basis. Thus, it increases customer engagement and conversion rate. Moreover, AI models can be used to generate recommendation engines, where personalised product suggestions and content can be found easily by potential customers. AI is used in virtual assistants to manage marketing emails. In this regard, it can perform repetitive tasks such as responding to customer emails, which boosts engagement and conversion rates.

## **2.3 Key Factors for Implementing Machine Learning into Businesses**

The present section will provide information on the factors that influence the incorporation of machine learning into the operations of businesses. The main focus will be on the challenges that hinder the successful implementation of AI models into many companies' operations.

### ***2.3.1 Concerns and Challenges Regarding Artificial Intelligence***

Many companies and businesses recognise the potential of Artificial intelligence in introducing new operational processes and its vast contribution to problem-solving. While these benefits cannot be overstated, it is crucial to recognise that AI integration brings forth its fair share of challenges, which may impede how businesses use or incorporate it into their business and operational framework. One such challenge borders on ethical risks and concerns attributed to AI technologies. According to studies by Stahl et al. (2022, p 26), the ethical issues arising from AI are three-fold: the first is control of data, the second is lack of transparency, and finally, the reliability of AI models. Beginning with the first issue, both Stahl et al. (2022, p. 26) and another study by Aslam et al. (2022, p. 136) point out the privacy concerns arising from using customer data in training and informing AI and machine learning models. The two studies assert that the growing efforts by business entities to collect and use customer data increase customer privacy concerns, with data-based marketing and innovations further compounding the issue. The second aspect of the ethical issues arising from using AI in business protocols borders on the explainability and transparency of AI models. This concern is discussed in three studies. The first study is research by Balasubramaniam et al. (2023, p. 2) that underscored the ethical guidelines for AI systems. Here, the researchers noted that explainability and transparency are critical factors for AI systems and machine learning algorithms as they may impact the quality aspects, corporate values, laws, cultural values, and user needs of AI systems. These findings are reiterated in

the second study by Ehsan et al. (2021) on the social transparency aspects of AI systems. Like Balasubramaniam et al. (2023, p. 2), the study noted that explanations matter, especially in human-AI interactions where trust is warranted to improve the analytical ability of AI in making informed decisions. The final study that reiterated the need for explainability and transparency in AI and machine learning algorithms is Larsson and Heintz (2020, p. 2). Regarding AI transparency, the study acknowledged that transparency remains a vital qualifier in AI and that organisations should always aim to achieve algorithmic transparency to advance trustworthy AI. The final aspect regarding the ethical issue of using AI in business protocols is the reliability of AI models, as Hong et al. (2023, p. 2) explain. What sets this study aside from many is the fact that the researchers explain why the reliability of AI systems is put into question, with the basic premise being that AI models are still being developed and, as such, they are prone to many issues and challenges which may have unprecedented implications on their overall functioning and reliability.

Two studies reiterated the ethical framework for AI marketing strategies, with two more advancing the regulatory guidelines for effective AI adoption in marketing protocols. Regarding the ethical framework, studies by Hermann (2022) aimed to provide an ethical perspective on how businesses can leverage AI in marketing. In the AI ethics in marketing section, Hermann (2022, p. 49) mentions the ethical issues of using AI in marketing. According to the study, AI marketing may result in potential irreconcilability of what goodness means from an environmental, consumer, and societal point of view. While AI automation in marketing may increase consumption, which may be beneficial on an individual level, it may cause the depletion of resources, drive climate change, and impact the environment. The other ethical issue raised by Hermann (2022, p. 50) borders on non-maleficence, where the researcher asserts that AI applications may result in environmental harm, which may affect both the consumer and the company. One such harm advanced under

the non-maleficence section regards data protection and consumer privacy, which occur when consumer data is collected without consent or when user-generated data is de-anonymised or leaked. Autonomy is the other ethical issue discussed by Hermann (2022, p. 51) under the premise that AI can potentially shape the customer decision-making process. As such, the researcher contends that it is unethical if psychological and personalisation targeting and recommendation are adopted primarily to influence customer choice architecture by delegating customer choice sets to AI models and algorithms. The second study on the ethical framework for AI integration was by Ashok et al. (2022). Under the information domain section, Ashok et al. (2022, p. 14), like Hermann (2022, p. 50), identified privacy and security issues as a non-maleficence requirement for AI use. This meant that marketers must always uphold customer privacy and safeguard their data. In the cognitive domain section, Ashok et al. (2022, p. 13) mention the principle of justice and fairness when using AI in marketing protocols. When integrating AI models into business operations, businesses should always focus on human rights principles and uphold social justice and empathy. Autonomy and accountability are ethical considerations under the cognitive domain discussed by Ashok et al. (2022, p. 12). Like Hermann (2022, p. 51), the researcher believes that the development and use of AI in business and marketing must not infringe on human power to decide. Instead, AI models and algorithms should uphold and preserve the freedom of choice and human agency.

The following studies further analysed the regulatory framework for AI. The first study was a journal article by Smuha (2021) on the race to regulate AI. According to Smuha (2021, p. 7), regulating AI is 'not a walk in the park', and this fact is attributed to several factors. For instance, the researcher asserts that there is a lack of a commonly agreed-upon definition for AI, making it difficult to compare and assess AI investment levels, adoption rates, and advancement across countries and industries. The other issue is that AI entails a

collection of several technical tools, meaning that while a regulation policy may be warranted, it may result in unprecedented consequences across the industry (Smuha, 2021, p. 8). With this in mind, the researcher believes that the race to regulate AI is not unqualified since trust in AI cannot be traded off, especially in B2B and B2C contexts. As such, a "proper dose of protective regulation" is warranted since failure to enact such regulations may ultimately lead to technological backlash for countries and businesses alike (Smuha, 2021, p. 16). The second study that also underscored the regulatory framework for AI marketing strategies was a journal by Mökander et al. (2022). The study, like Smuha (2021), mentions that AI, as currently constituted, is a risk-based system with potential harm to consumers, businesses, and the environment, hence requiring regulations to oversee its integration and adoption in business protocols. One particular regulation that forms the basis of Mökander et al.'s (2022) study is the European Artificial Intelligence Act (AIA), which the researcher believes should be interpreted as a proposal to advance ecosystem auditing and enforcement. Mökander et al. (2022, P. 263) consider the legislation a good starting point that would help businesses balance the benefits of integrating AI and provide the needed safeguards against the underlying risks attributed to its integration. According to the researcher, the AIA should be the reference point for future discourses on regulating AI systems across industries.

According to the sources analysed above, it can be determined that the main concern regarding the use of AI technology in marketing is the issue of privacy of customer data. All sources have agreed that it is essential for the organisation to obtain consent from their customers to allow them to use personal data for marketing purposes. It has also been noted that the organisation is not expected to leak the information or extort it by utilising it in unethical practices. Moreover, it has been revealed that providing customers with adequate knowledge of the role of AI and the importance of giving out crucial data for marketing

purposes will encourage them to trust the organisation with personal data, such as their email addresses, which can be used in marketing lists.

## **2.4 Implications of Artificial Intelligence on Marketing**

This section will provide a detailed analysis of the implications of AI on marketing. As such, it will explore the role of AI models in improving strategic marketing, promoting personalisation and segmentation of customers, and enhancing customer engagement and satisfaction.

Several ethical and regulatory issues have characterised AI. This fact is noted where two other studies reiterated the ethical concerns arising from AI automation in marketing practices, with another two explaining the regulatory frameworks for AI-driven marketing strategies. Hermann (2022, p. 49) sheds light on the ethical concerns in AI automation when investigating how businesses can leverage AI in marketing. According to the researcher, AI adoption raises critical issues, including beneficence. Using AI brings about potential irreconcilability of what goodness is from a societal, environmental, and consumer point of view. The premise is that although AI may improve sales for marketers and satisfy the customers' needs at the individual level, environmental-wise, it may lead to the depletion of resources and drive climate change, which in totality is not suitable for societal well-being. Besides beneficence, there is the issue of non-maleficence, which characterises AI automation in business and cuts across industries. The non-maleficence issue of particular concern borders on consumer privacy and data protection. Hermann (2022, p. 50) asserts that this issue manifests in two primary ways. The first way it manifests is when companies collect consumer data without their consent, and the second is when consumer data, especially user-generated data, are leaked to third parties or de-anonymised. In addition to non-maleficence concerns, the study discusses autonomy as another ethical issue, particularly in marketing protocols. Hermann (2022, p. 51) contends that it is unethical for marketers to

integrate personalised and psychological targeting with the primary goal of influencing customer choice architecture and giving AI models the right to make choices on behalf of the consumers. The second study that also sheds light on the ethical framework for AI integration in marketing is Ashok et al. (2022). This study also makes findings similar to Hermann (2022), especially concerning consumer and data privacy concerns, by imploring that marketers should ensure that consumer data is protected and not accessed by unwarranted or unauthorised parties. The issue of autonomy is also discussed by Ashok et al. (2022, p. 12), where the researcher explains that businesses must be accountable enough to allow customers to exercise their autonomy of choices, which, according to the researcher, is a human rights principle. As such, marketers must not allow AI models and algorithms to usurp customers' freedom of choice and human agency by influencing their consumption patterns, tastes, and behaviour.

Beyond the ethical framework are the regulatory issues that should characterise AI automation in marketing. In studies by Smuha (2021), the researcher found regulating AI complicated for two reasons. The first reason bordered on the fact that there is a lack of commonly agreed-upon definition of what AI is and is not. This means that the regulating bodies have difficulty comparing and assessing AI advancement, investment, and adoption rates across industries. The second reason entails that AI is a collection of several technical tools, and regulating one tool may have far-reaching and industry-wide consequences. Even so, Smuha (2021, p. 16) believes that AI regulations are warranted, and not advancing regulations means a trade-off in trust, which may extend to B2B and B2C operations, creating a backlash for businesses and countries. Mökander et al.'s (2022, p. 263) study builds upon this fact by acknowledging that currently constituted AI remains a risk-based system that can harm businesses and consumers if not regulated. As such, the researcher believes the advanced AIA in Europe should serve as a benchmark for other jurisdictions to ensure an AI

ecosystem characterised by enforceable regulations and sufficient auditing frameworks in place.

The use of AI-driven tools in the marketing process has key ethical concerns which should be addressed in order to make it more appealing and secure. For instance, the privacy issues are also noted by Stahl et al. (2022, p. 26) and Aslam et al. (2022, p. 136), who indicated that AI automation in marketing raises privacy concerns, particularly regarding how customer data is used to train and inform AI models and algorithms. Like Hermann (2022, p. 50) and Ashok et al. (2022, p. 12), the studies indicated that privacy issues arise from how the companies use customer data and the lack of transparency and reliability that user-generated data will be protected. The persistence of marketers using customer data to train AI marketing algorithms without customer permission raises concerns and mistrust among customers. The findings are also consistent with Balasubramaniam et al. (2023, p. 2), who, like Hermann (2022, p. 50) and Ashok et al. (2022, p. 12), underscore the lack of transparency and explainability in AI models, which by extension impact the corporate values and ethical features that characterise the use of AI. Studies by Ehsan et al. (2021) and Heintz (2020, p. 2) find transparency issues prominent in AI marketing protocols. The premise is that the lack of transparency extends to consumer choices, where autonomy is not upheld, given the absence of algorithmic transparency in consumer decision-making. While no studies explicitly underscored the needed regulatory framework for AI automation in marketing, as is the case with Smuha (2021, p. 16) and Mökander et al. (2022, p. 263), the ethical issues raised in the literature are sufficient grounds to indicate areas that need regulatory consideration. Among such areas, it borders on customer data and privacy and the explainability and transparency facets of AI algorithms, as explained by Mariani et al. (2022, p. 770). Advancing regulatory frameworks to ensure transparency, privacy, and explainability

will go a long way in helping businesses build trust with their customers, which is a win-win outcome for both parties.

#### ***2.4.1 How Can Robotics Improve Strategic Marketing?***

The use of robotics in marketing strategies is becoming multi-dimensional and inevitable, given the strides and advancements in AI and mechanical engineering technology. This fact is acknowledged in the study by Affiah et al. (2022, p. 4), who assert that despite robotics being made primarily for manufacturing purposes, their use extends to marketing, and more so in customer service, where they are revolutionising the service industry. Several other studies reiterate this fact. For instance, Chui et al. (2016, p. 4) agree with Affiah et al. (2022, p.4) that the use of robots extends beyond the industrial sector, given their potential in customer service, where a significant number of customer service-related tasks are handled by robots, improving on customer efficiency and brand loyalty subject to the excellent customer service. The study established that several sectors, including retailing, accommodations, food service, and manufacturing, were susceptible to automation, with robotics making significant inroads into many activities previously done by humans. The basic premise advanced in these two studies is that now, more than ever, robots are taking a central role in enhancing human skills, thus allowing human elements to focus on providing better customer services.

Robotics can be integrated in many ways to revolutionise the marketing scenes for both large and small businesses. This fact is discussed in a literature review by Draskovic (2022) on the marketing potential of social robots. In the study, the researcher noted that embodying social and service robots has been a game changer in the hospital industry, given their ability to work 24/7, their precision and punctuality in service delivery, their quality services, and most importantly, the effortless modification of the scope of their services via hardware and software upgrades (Draskovic, 2022, p. 114). While studies by Donepudi (2020)

did not explain the role of robots in the context of the hospitality industry like Draskovic (2022, p. 114), the study reiterated its merits in retail marketing and how they are revolutionising the sector. This study acknowledges that robots are becoming multi-dimensional and inevitable and emerging as an ongoing phenomenon in the retail industry, creating competitiveness and efficiency in supply chain management (Donepudi, 2020, p. 98). Although retail robots are new and in their preliminary stages, Donepudi (2020, p. 103) asserts that they are instrumental in logistics-related tasks and help in customer service experiences, improving operational efficiency in companies like Walmart and Best Buy. Beyond the advantages of robotics are several challenges and side effects that must be considered. For example, Affiah et al. (2022, p. 5) mention that integration of robotics is relatively costly given the expenses required to purchase the technology and recruit skilled technicians to operate it. Another challenge mentioned in the study and reiterated by Donepudi (2020, p. 104) is the impact such robots have on employment and job markets. In both studies, Walmart is used as an example, where workers in these stores fear that their jobs may be lost or replaced by robots and consider working with machines a strange transition.

#### ***2.4.2 Personalisation and Segmentation of Customers***

The role of market segmentation and personalisation cannot be overstated. It allows businesses to target their customers uniquely and offer services and products that suit their unique perspectives and experiences. While many factors go into the segmentation and personalisation of customers, it is worth noting that AI and machine learning algorithms have made this process much simpler and improved the overall placements and targeting.

According to Mandapuram et al. (2020, p. 142), integrating AI into marketing practice has allowed businesses to advance more individualised and digitised shopping experiences that meet customers' unique needs and requirements. Like Mandapuram et al. (2020, p. 142), another similar study by Rathore (2020) reiterates how AI has been a game changer in

advancing targeted digital marketing. Under the personalisation paradigm, the study noted that AI could process large sets of data in real time, thus making it possible for businesses to personalise their placements, enhance customer experience, and improve their overall product recommendations, thereby increasing profits and enhancing customer loyalty. Unlike Mandapuram et al. (2020, p. 142), Rathore (2020, p. 4) further notes that AI is taking predictive marketing to another level, with machine learning models being instrumental in helping businesses anticipate customer demands, preferences, and behaviours, thus allowing for effective personalised communication and advertising strategies. These findings are not limited to these two studies alone, as several other researchers have also underscored the role of AI in promoting personalisation and segmentation of customers. For instance, Mogaji et al. (2020) investigated how AI can be incorporated into personalising emotionally appealing advertisements. Here, the researchers found that AI significantly helps marketers collect customer data from varying sources, from which trends and patterns can be denoted to inform actionable advertising insights (Mogaji et al., 2020, p. 4). This is particularly true for consumer analytics and big data, which, through AI, businesses can better understand their customers' needs, preferences, and behaviours, among other emotional cues, for targeting purposes. In another study by Boudet et al. (2019), AI is also regarded as the future of personalisation. This tagging stems from the understanding that AI systems will continue to provide even better recommendations as they evolve, making personalisation even more personal.

#### ***2.4.3 Improving Customer Engagement and Satisfaction***

AI has significantly improved customer engagement and helped businesses increase customer brand loyalty. This fact is best underscored by Sung et al. (2021), whose study investigated the role of interactive AI in promoting and improving customer engagement. The study noted that AI provides enhanced information that customers can virtually or physically

interact with, fostering novel customer interactions, especially for products with interactive features (Sung et al., 2021, p. 4). These findings are also consistent with another study by Kamal and Himel (2023) that analysed the influence of AI on customer strategy and engagement. Like Sung et al. (2021, p. 4), Kamal and Himel (2023, p. 208) equally established that Natural Language Processing AI has ushered in a new transformative era of consumer engagement as it empowers businesses to understand deeper customer needs through their social media mentions, feedback, and reviews. These findings mean that AI has made it possible for companies to comprehend the emotional tone of textual content, from which marketers can effectively appeal to the consumer's collective psyche to inform future product refinement and development.

In addition to consumer engagement, AI has significantly improved customer satisfaction when interacting with different products and services. This fact is underscored in three major studies. The first is an empirical study by Zahra et al. (2023), which assessed customer satisfaction with AI-powered services. This study acknowledged that customer service in AI systems takes a relatively unique dimension, with the quality of AI playing a critical role in determining the satisfaction level of customers (Zahra et al., 2023, p. 82). As such, factors such as AI's ability to respond and understand customer inquiries, the response time used in this regard, and the transparency in AI systems go a long way in improving customer satisfaction when using AI-powered systems or services. The second study is by Omisakin et al. (2020), which aimed to design an AI-powered feedback service channel for supermarkets. Like Zahra et al. (2023, p. 82), the researchers also found that AI was instrumental in helping companies advance a wise and far-reaching understanding of their customers. It influenced how businesses assessed the customers' feelings and needs and allowed companies to hasten their knowledge of the services and items offered, promoting a positive experience and improving customer satisfaction. The final study on customer

satisfaction in the context of AI is research by Zhao et al. (2022), which sought to determine whether AI improved customer satisfaction using interviews and microblog data. This study also made similar findings, noting that pleasant voices and good service attitudes from AI models enhanced customer satisfaction (Zhao et al., 2022, p. 116). Unlike the other two studies, this research provided another dimension to the findings, indicating that most consumers were not stressed when interacting with AI-powered services or systems that were more human-like, positively impacting customer satisfaction. The Figure 2 below shows key variations in the level of AI adoption by different businesses are reported in the evidence from the existing literature.

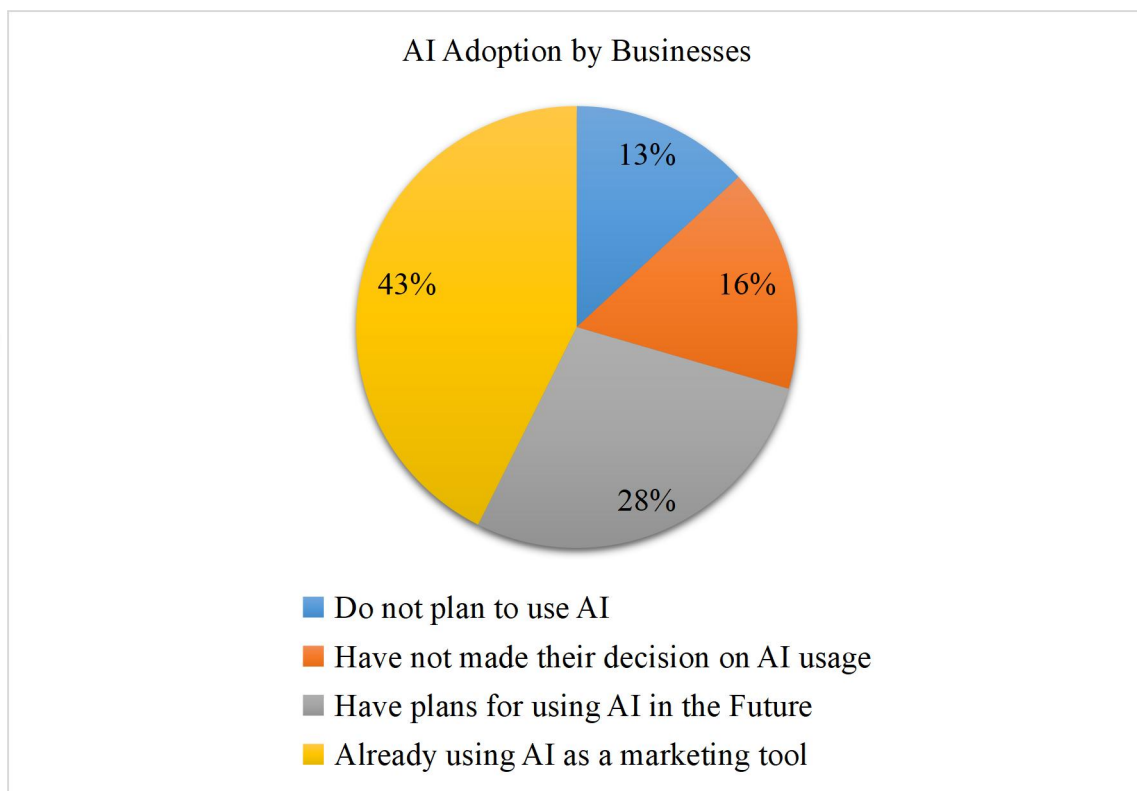


Figure 2: Variations in AI Adoption by the Businesses (Author, 2024)

### 2.5 The Importance of Machine Learning in Marketing

The present section will analyse the importance of machine learning in marketing. This section will, therefore, explore the role of machine learning in promoting a positive

brand image, enhancing effective human resource management, and encouraging customer purchasing behaviour.

### ***2.5.1. First Steps into Brand Transformation***

A strong and distinguishable brand is a valuable asset for any organisation as it enhances its overall performance and, most importantly, helps build consumer perception about its services and products. Pamuksuz et al. (2021, p. 2) contend that brands have similar personalities to human personalities and that, more often than not, consumers prefer brands that exemplify personalities identical to their own. This means that businesses must ensure that they form solid and reasonable brands since they are long-lasting assets for the company. This assertion is also cited in another study on algorithmic brand culture by Carah and Angus (2018). In addition to reiterating the importance of having a solid brand, the researcher recommended using social media to advance algorithmic brand culture. Unlike Pamuksuz et al. (2021, p. 2), the researchers found that social media platforms like Instagram and Facebook were important experimentation sites for advancing data-driven optimisation, particularly in participatory branding. This recommendation stems from the fact that brands are participatory, given the open-ended operational process that primarily relies on consumers to integrate them into cultural spaces, everyday practice, and their self-narratives. They do not operate in isolation, as explained by Pamuksuz et al. (2021, p. 2), but instead draw on algorithmic media to capitalise, modulate, and judge participation (Carah & Angus, 2018, p. 4). Thus, social media can be deemed the first step in brand transformation since such platforms promote culturally embedded and participatory modes of branding that allow businesses to understand cultural life effectively. Social media platforms create algorithms, databases, protocols, and interfaces that optimise and engineer commercial participation.

### ***2.5.2 Consumer Behaviour***

Integrating AI and machine learning in various business aspects has brought unprecedented opportunities and trends for businesses to exploit. Indeed, most organisations today understand the revolutionary abilities attributed to machine learning and AI algorithms, particularly in helping companies make informed decisions and have the needed insights about their customers. In a study by Bharadiya (2023, p. 125) on the trends and opportunities of AI and machine learning, the researcher acknowledged the proactive role of these cutting-edge technologies in sifting through massive datasets, aiding businesses in denoting trends and patterns and making accurate predictions about future outcomes. The role of AI and machine learning in empowering businesses to mitigate risks, anticipate customer needs, and optimise operations was also noted, with the researcher mentioning that businesses that leveraged machine learning and AI models were on a trajectory to success as they quickly uncovered hidden patterns and identified opportunities for growth and improvements. While this study did not directly mention how businesses leverage AI and machine learning to denote consumer behaviour and purchase trends, Martínez et al. (2020) did that by constructing a machine-learning framework that helps companies predict customer purchases. The primary algorithms used in predicting the purchase probabilities in the study included the gradient tree boosting, the extreme learning machine, and the logistics Lasso. While each algorithm had a different accuracy level, the primary finding reiterated that integrating Machine learning can significantly help businesses understand and predict consumer behaviour and efficiently allocate resources to marketing and sales departments (Martínez et al., 2020, p. 11). Another model similar to Martínez et al. (2020) was advanced by Khan et al. (2020) to promote a demand forecasting machine learning algorithm for business. Here, the researchers noted that machine learning algorithms revolutionised business intelligence practices, leading to effective and accurate decision support given the ability to denote

consumer trends and patterns (Khan et al., 2020). Besides that, the researchers found it enhances higher forecast accuracy, which businesses need to advance accurate market strategies, improve customer satisfaction, increase stock turnover, and decrease supply chain costs.

More evidence has been presented on the impact of AI on consumer behaviour. Moreover, the study by Gkikas and Theodoridis (2021) investigated the marketing milestones achieved through AI automation and how these adoptions have contributed towards understanding consumer behaviour. According to Gkikas and Theodoridis (2021, 168), consumers are bombarded with many forms and types of advertisements; however, through AI targeting, marketers can denote customer needs and recommend solutions that customers will perceive as personalised recommendations, hence satisfying their needs. AI enables organisations to increase customer experience and satisfaction, improving sales, customer trust, convenience, and loyalty. Similar findings were noted in another study by Khatri (2021), who, like Gkikas and Theodoridis (2022), investigated how AI automation transforms the consumer and marketing landscape. Khatri (2021, p. 525) asserted that various elements of AI, including machine learning, big data, and analytics, play a critical role in the digital marketing scene as they allow marketers to understand or alter consumer behaviour based on consumer tastes, needs, and preferences for particular services or products. The AI tools help businesses offer targeted ads and AI-powered solutions through a detailed analysis of consumer brand interactions and choices consumers make on social media and websites.

### **Chapter 3: Companies Adapting to AI**

This section will explore companies that have adopted AI models in their marketing strategies. The main focus will be on Walmart. Thus, a case study of Walmart will be presented, detailing the impact of AI automation in marketing and the implications and strategies adopted by Walmart to promote the successful implementation of AI models in its marketing.

#### **3.1 A Case of Walmart**

This section will focus on Walmart and how it utilises AI automation to improve the outcome of its marketing strategies. This section will also mention the advantages associated with adopting AI in Walmart's marketing sector.

##### ***3.1.1. Background of Study***

Being a fast-moving industry, the market success of retail entails keeping up with technology, including AI and machine learning algorithms, which have emerged as critical factors in retail. Studies by Mahmoud et al. (2020, p. 171) contend that AI is emerging as an inescapable technology for online and offline stores, where retailers are incorporating it in redressing the balance, given that many customers have embraced a multichannel approach to shopping. It has revolutionised the retail sector by aiding customers' search for products and has also been instrumental in advancing personalised shopping experiences through chatbots. According to Pearson (2019, p. 260), AI models have made smart personalisation a reality, meaning retailers can comprehend their customers' preferences, tastes, and needs, increasing their profit levels. Furthermore, studies by Shankar (2018) assert that because of AI, business and retail data on customer satisfaction, online browsing, and purchases have doubled every 1.2 years. In the case of Walmart, the retailer can collect data for approximately 1 million transactions every hour, allowing the retailer to train their AI and machine learning models on relatively big data sets (Mahmoud et al., 2020, p. 171). This data is stored and used in the

Intelligent Retail Lab, which Walmart considers the store of the future. Here, innovative technologies are designed to track products and sales and, most importantly, help monitor inventory, informing store managers when fresh and other goods need to be restocked.

Against the above background, this study seeks to highlight the impact of AI automation on marketing concerning Walmart.

### ***3.1.2 Context/Relevance of Study***

The retail landscape continues to witness significant changes, with AI revolutionising the retailer operating model and customer experience. The impact of AI extends to the retail value chain, where its role in automating processes, reducing complexities, and offering real-time analytics cannot be overstated (Allocio, 2020, p. 52). Through AI automation, retailers have been able to innovate and evolve their retail value chains by automating forecast abilities, enhancing customer experience, offering personalised product and service recommendations, advancing interactive mirrors, and automating manual and repetitive tasks. This, in totality, has enabled retailers to have many options to streamline their business processes, enhance profitability, and, most importantly, improve customer experience. But despite the above implications, Alsheibani (2020, p. 2) contends that not all businesses are reaping the benefits of AI, considering that integrating AI into the business landscape is not a straightforward process but one characterised by unprecedented challenges. Besides the technical and data infrastructure needed to operate AI systems, retailers have difficulty interpreting and understanding AI analytics, given the skills and workforce requirements. As such, this study will help bridge this knowledge gap by underscoring the implications and strategies for effective organisational adaptation to AI automation, using the case of Walmart.

### ***3.1.3 Elaboration of General Themes and General Context***

This case study is elaborately expounded using three themes as follows.

### **3.1.3.1 Theme 1: The Impact of AI Automation on Marketing**

Technology has indeed revolutionised how organisations go about their marketing needs. Before the adoption of technology, marketing was premised on traditional forms of marketing such as print media, radio, and television, which, according to Tarik and Adnan (2018, p. 46), accommodated a one-way approach to marketing and did not allow for customised or personalised advertising. Following technology adoption, significant changes in marketing strategies were witnessed, as Hussain et al. (2023, p. 102) explain. With automation, marketers had access to new avenues for marketing, including social media, search engine optimisation, and email marketing, which allowed them to reach and engage their customers effectively. In another study by Shankar et al. (2022, p. 548), the researchers found that marketing automation using AI and machine learning algorithms provided new realities in targeted and personalised advertising. In essence, AI made it possible for businesses to advance more measurable, scientific, and data-driven marketing, with companies being able to effectively understand consumer tastes, preferences, behaviours, and purchase patterns to inform their marketing practice and strategies.

### **3.1.3.2 Theme 2: Implications and Strategies for Effective Organisational Adaptation**

The benefits of AI automation in marketing cannot be overstated. However, to maximise the potential of AI and other machine learning algorithms, it is crucial to consider the ethical issues and concerns that arise from using them. One such issue is regarding the explainability and transparency of AI Marketing protocols. According to Benkert (2019, p. 9), the lack of transparency in how customer data is used, collected, or handled may significantly erode the existing trust, impeding customer sales and brand loyalty. This is also true for Balasubramaniam et al. (2023, p. 2), who noted that the absence of transparency and explainability in AI algorithms could also affect consumer trust and brand loyalty. Indeed,

businesses that consider ethical issues, including privacy concerns and transparency issues, will avoid unnecessary ethical dilemmas and reap better personalisation and segmentation attributed to the automation of marketing practices. On the other hand, those who fail to consider privacy and other ethical issues when integrating AI into their marketing needs may witness a sales decline and a loss of market share, given the lack of trust in their brand.

### **3.1.3.3 Theme 3: Challenges Facing Walmart in Applying AI for Marketing**

Despite the positive impacts experienced by Walmart upon the integration of AI technology in its marketing operations, several challenges still hinder it from successfully implementing AI. Several researchers have analysed these challenges and presented their contributions to this research topic. For instance, Yi (2023) claimed that Walmart has massive customer data based on its large customer base, making it difficult to ensure consistency, accuracy, and integration across various platforms used by AI algorithms, limiting effectiveness. Similarly, Olaniyi et al. (2023) added to this point by claiming that due to the extensive customer data, the company faces challenges in its attempts to balance using customer data for personalisation while respecting privacy regulations and maintaining lasting relationships with customers. To avert legal ramifications, the company must maintain a perfect balance, which is difficult to achieve. Furthermore, Keller (2017) mentioned that the company faces difficulties in identifying and retaining skilled personnel in data analysis to ensure effective decision-making based on insights from data-driven algorithms. Pandey et al. (2021) also noted that in cases where the company gets lucky to find skilled personnel, it has to come to terms with the fact that it will demand higher compensation. Similarly, Marr (2019) agreed with Pandey et al. (2021) by claiming that even when the company decides to train its existing employees on AI models, it is forced to spend more financial resources in providing continuous learning opportunities for the continually changing technology. Likewise, Kheng (2023) claimed that effectively integrating AI with the company's existing

marketing strategies requires the collaboration of the marketing team and AI specialists, which might lead to adverse outcomes due to issues arising from poor understanding between the two parties and inadequate skills. Based on the information above, it is clear that some of the challenges that limit the effective implementation of AI at Walmart include financial constraints and customer data management. In the case of financial constraints, it has been revealed that the company is forced to pay more for training programs and hiring AI specialists. The main concern here is that AI technology keeps advancing, and the company must provide continuous learning to its staff to improve their skills in handling the new AI models. It has also been determined that the company faces issues maintaining collaboration between AI specialists and its marketing team. This issue was also coined because inadequate skills in either of the teams might hinder the successful implementation of AI technology in marketing.

The other challenges identified involve ethical considerations and bias. In this regard, Davenport et al. (2019) argued that AI algorithms might contain existing societal biases if the company fails to carefully monitor and design them. The bias could be propagated by segmenting specific population groups, especially in AI-driven marketing campaigns. Zysman and Nitzberg (2020) added to this point by explaining that some populations might be under-represented in the data utilised to train the AI algorithmic models, hence leading to biases. Similarly, Guha et al. (2021) supported Zysman and Nitzberg (2020) by claiming that, in most cases, AI models are designed to replicate the outcomes generated by human decision-makers. Hence, model trainers might manipulate the training data to replicate their expected results. In relation to this point, the company might find it difficult to ensure transparency of the AI models, as balancing transparency with protecting proprietary algorithms is a sophisticated task. Weber and Schütte (2019) also mentioned that it is difficult for Walmart to accurately determine the return on investment of AI marketing initiatives due

to the sophisticated interplay of different factors affecting customer purchasing behaviour. Thus, the company is unable to determine whether to invest more in the venture or reduce its investments. Therefore, it is evident that the probability of biases in AI algorithmic models might limit the company from attaining its goal of reaching a wide audience for its products. It has also been mentioned that the process of deploying and maintaining AI models, providing regular training to staff due to AI model advancements, and providing high compensation for skilled personnel forces the company to spend a lot of money on this venture. The company is unable to determine the return on investment as it is difficult to determine the mediating role of factors that influence customer purchasing behaviour in the relationship between the effectiveness of AI implementation and customer purchasing behaviour.

### ***3.1.4 Presentation of Case and Critical Examination***

Although many retailers worldwide have adopted AI, Walmart is among the few retailers making it big using AI and machine learning algorithms. According to Cheryl Ainoa, the Executive Vice President and Chief Technology Officer, AI has been a game changer in how the company provides customer experience (Ainoa, 2023). At the centre of this is conversational AI, which the retailer leverages in three primary ways to improve the customer shopping experience and brand loyalty. First, the company uses it to help customers shop much faster. This is made possible using the Walmart Voice Order (see Figure 3), which allows them to order items online using their mobile devices and smart speakers. The Text to Shop feature also serves this purpose, making it relatively easy for customers to reorder items and schedule delivery or pickup at their convenience.

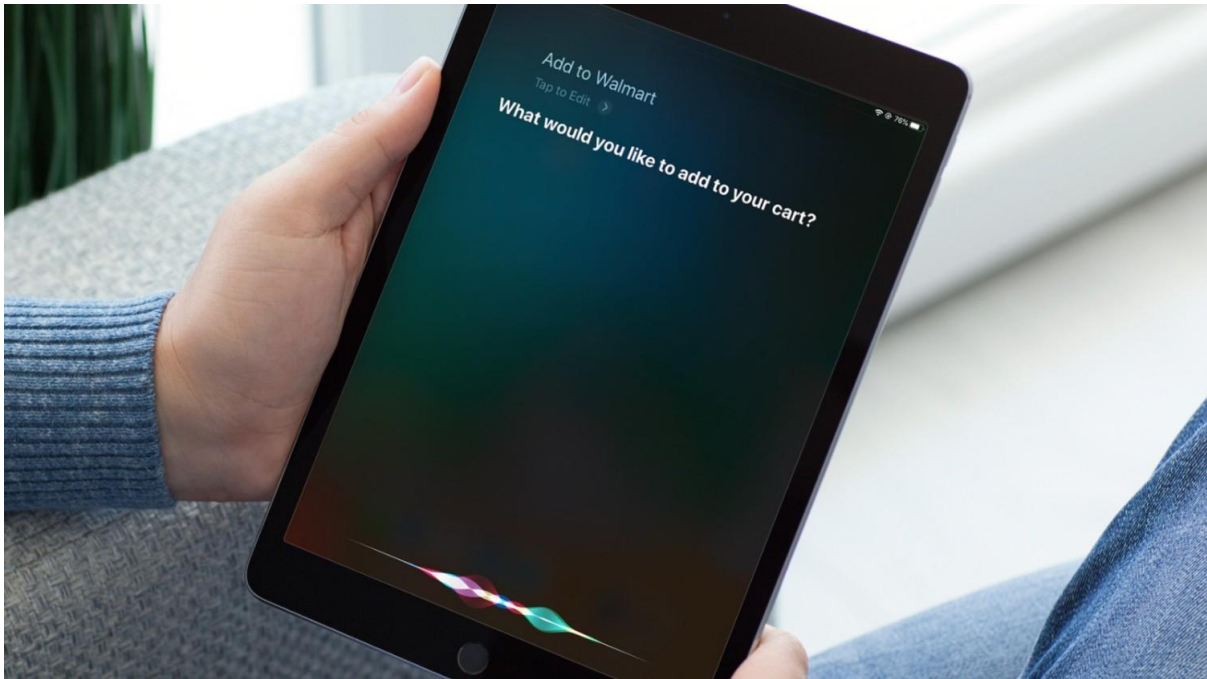


Figure 3: Walmart Voice Order (Ainoa, 2023)

Second, Walmart has incorporated chatbots to aid customers in their shopping needs. This is particularly helpful when customers want their issues solved easily, quickly, and without talking to someone. By leveraging natural language understanding (NLU), the retailer has reduced customer contacts, allowing agents to focus on helping those with complex challenges or queries, thus increasing customer satisfaction. Finally, the retailer leverages AI to make it easy for in-store customers to find desired items. This is made possible using the Ask Sam voice assistant (see Figure 4), which helps customers access sales information, look up prices, access store maps, and locate various items through simple queries. This has not only improved personalisation but also made shopping experiences more seamless.

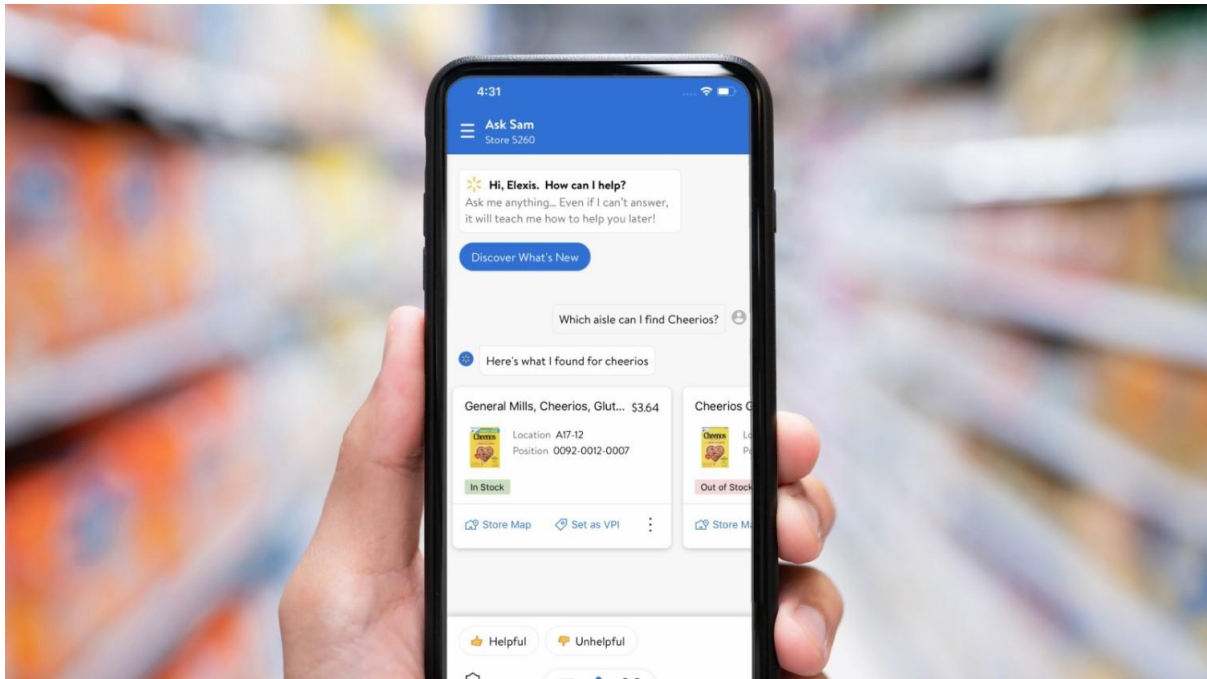


Figure 4: Ask Sam (Ainoa, 2023)

To uphold transparency, the company has an elaborate privacy notice that explains to customers how the data is collected, how it is used, and why it is collected in the first place (Walmart, 2023). The privacy policy also reiterates the steps the company is taking to uphold the safety and security of its customer data across its mobile apps and websites.

### **3.1.5 Discussion**

Walmart is among established retailers leveraging AI to improve customer engagement and enhance their marketing needs. The company uses conversational AI, particularly Walmart Voice Order, Ask Sam voice assistant, and chatbots, to improve customer service and brand loyalty. This approach is consistent with Hussain et al.'s (2023, p. 102) findings, which established that automation has enabled businesses to reach and engage their customers more effectively. It is also consistent with Shankar et al. (2022, p. 548), who equally found that AI and machine learning algorithms advanced new realities that allow personalised targeting as businesses can understand consumer tastes, preferences, and purchase patterns more effectively. Besides that, Walmart, through its privacy notice, explains to customers how their data are collected and used across its applications and

websites. This is consistent with Benkert (2019, p. 9), who reiterated the need for businesses to use AI automation to uphold explainability and transparency on how customer data is collected, handled, and used. The same is noted by Balasubramaniam et al. (2023, p. 2), whose study asserted that the lack of transparency and explainability in AI algorithms could potentially impact customer trust and affect brand loyalty. By considering these ethical issues, Walmart can improve consumer trust and loyalty to their brand, hence improving sales and market share.

AI-driven tools have been identified as key approaches for improving the quality of the decision-making process in the business context. With reference to the case study of Walmart, it can be noted that most companies in the retail sector are currently using AI tools to support their decision-making processes. With reference to the explanations by Shankar et al. (2022, p. 548), AI has the ability to collect and assess insights from data about human analysts, which has a great impact on the decision-making process. Consistent arguments are presented in the study by Balasubramaniam et al. (2023, p. 2), which established that data analytics is an important aspect of AI-driven tools as it enables businesses to utilise data to make improved decisions about the needs and preferences of the targeted consumer needs. Evidence from Walmart's case study about the importance of AI in the decision-making process has also been stressed in the previous analysis by Zysman and Nitzberg (2020), which found that AI-driven tools often use machine learning algorithms to assess and understand key trends in the market. Therefore, organisations are able to make decisions effectively based on complete and comprehensive information presented to them through AI-driven analytics.

Pattern recognition is another important aspect of AI-driven tools, which allows them to support effective decision-making processes in the business. Evidence from the Walmart case study, as reported in the studies by Keller (2017) and Yi (2023), shows that the increased

use of AI tools in the marketing process has enabled this retail company to dictate a large portion of market shares in the contemporary market. According to Pandey et al. (2021), AI systems are highly effective in spotting key patterns in large market-based data, which human analytics may find to be too subtle or challenging to notice. Consistently, Olaniyi et al. (2023) established that AI-drive tools have the ability to impact big consumer data, allowing businesses to easily understand novel trends in the market, such as changes in customer needs and preferences as well as information about the newly introduced products in the market. A key challenge faced by most of the companies using traditional marketing methods is the inability to recognise key patterns and trends in the market effectively and timely. However, this goal can be easily achieved if they adopt AI-driven marketing tools. The Figure 5 below shows how different departments and sections of Walmart are using AI to improve their performance in the market.

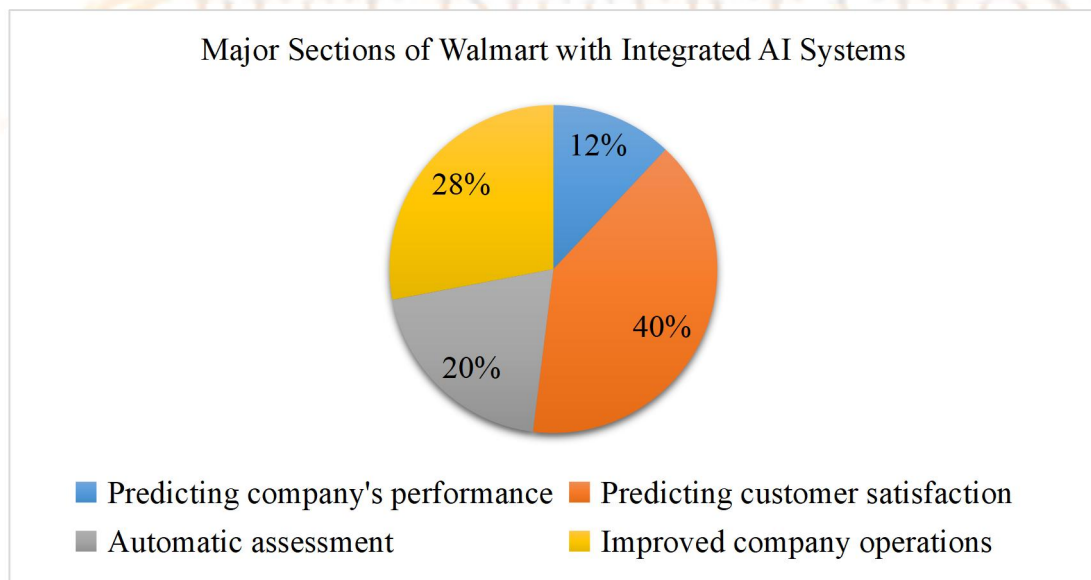


Figure 5: Major Sections of Walmart with Integrated AI Systems (Author, 2024)

AI-driven tools allow automation of routine decision-making processes. As stated by Marr (2019), businesses can create AI systems which utilise predetermined criteria to make highly effective and timely marketing decisions which are specific to the target consumers. A key example of such automation is derived from the case study of Walmart, which uses

chatbots in its customer service to enable it to handle large volumes of inquiries, hence reducing job-related stress on its limited human resources. The use of automation has also been emphasised in the study by Kheng (2023), which noted that AI-based automation often expedites decision-making as well as reduces incidences of mistakes which are often associated with manual procedures in the marketing process. Automating marketing and sales procedures may provide the sales and marketing team of a business with more time to focus on overall strategies as well as nurturing the leads showing real promise (Hermann, 2022). Therefore, this is an indication of more prospects and more customers, as well as providing the business with detailed information about the behaviours of the target consumers.

AI has been reported as an important tool for promoting complex decision-making scenarios during the marketing process. Precisely, the study by Davenport et al. (2019) established that businesses can use AI to make complex marketing decisions, and their human resources have limited ability to effectively engage with different component variances. As reported in the Walmart case study, AI systems are widely used in the retail sector to optimise delivery routes by accounting for key variables such as weather, traffic, and fuel prices (Zysman & Nitzberg, 2020). However, the speedy evaluation process of the AI systems is not often considered in this challenging selection to achieve good outcomes. As reported by Zysman and Nitzberg (2020), businesses can use AI systems to analyse historical data, allowing them to forecast future trends and project marketing outcomes with impressive accuracy. Therefore, the adoption of AI-driven marketing tools empowers business marketers to make informed decisions regarding product launches, the most effective pricing strategies, and campaign timing.

An in-depth synthesis of existing evidence further shows that AI-driven tools are widely used in making risk assessment-based decisions during the marketing process. Consistent with the information presented in the study by Ashok et al. (2022), the risk

assessment process is often based on the existing historical facts. In the marketing context, AI-driven tools can be used to assess the effectiveness and feasibility of newly developed marketing strategies based on the previous successes and failures of the business within the same market. From the case study conducted, it can be noted that Walmart is among the key retailers which heavily invest in AI-driven marketing processes. According to Zysman and Nitzberg (2020), Walmart uses AI-driven tools and systems to examine large volumes of previous marketing and consumer behaviour data in order to develop an in-depth understanding of key information which they might have missed. Even though the importance of AI-driven tools has been emphasised in a wide range of studies, some business scholars, such as Guha et al. (2021) and Weber and Schütte (2019), have raised concerns about the authenticity of information generated from AI-driven data analytics as the process is often prone to bias leading to misleading outcomes. Despite these limitations of AI tools, they are still considered to be highly effective data analytics tools compared to the manual approach.

Strategic planning is an important aspect of the marketing process. Consistent with Benkert (2019), strategic marketing planning allows the elimination of unproductive initiatives which are not related to the original goals and objectives of the company, as well as enables the company to focus on increased productivity. Information from Walmart's case study shows that this company uses AI-driven tools and systems to support its strategic marketing approach to enable it to invest more resources in ventures that generate more tangible results, improving on marketing tools with low traffic. Such an approach has enabled the company to mitigate and avoid significant losses. The importance of AI systems in the strategic marketing process is also emphasised in the study by Guha et al. (2021), which reported that AI has the ability to generate insights that can inform strategic marketing decisions by a comprehensive examination of business patterns, consumer behaviours as well

as competitive strategies. Therefore, businesses such as those operating in the retail industry can use AI to estimate consumer product demand in order to guide their decisions about supply chains and stocks. Furthermore, it is important to note that strategic marketing planning, which incorporates AI systems, has the ability to increase decision-making precision as well as empower businesses to seize new opportunities in the market.

In the digital revolution, an increasing number of companies are adopting artificial intelligence for their practical use, and the ones that don't keep up with the latest trends are likely to lose. According to Botvinick et al. (2020, p. 603), data collection, adaption, personalisation, content creation, and performance measurement should be done in execution spear-headed by a multi-prong approach involving data collection/processing, model building, personalisation, content creation, and performance measurement, with a strong focus on ethics and transparency as the utmost prioritised. The key to AI-powered marketing is to find the right data. According to Hu et al. (2023), companies collect and manage data sources using various data analytics techniques followed by their visualisation. These platforms are not limited to a single way of analysis as website analytics, social media interactions, and customer relationship management (CRM) can gather data, among other aspects like demographics, purchase history, and online behaviour. Furthermore, Verma et al. (2022, p. 65) stated that data cleaning and harmonising activities keep custodians and accrue consistency, which are critical catalysts in the machine learning model development chain.

After the dedicated database is set, companies can access different AI models suitable for other marketing goals. The first approach used for adopting AI into marketing tools is the machine learning algorithm trained with a really big data set for learning to predict customer behaviour (Verma et al., 2022). Online retailers generate, for example, a recommendation system that uses machine learning to auto-recommend a product that aligns with a customer's past buying behaviour and shopping history (Ainoa, 2023). Humans have to understand and

interpret these qualitative languages, which makes AI systems capable of understanding and interpreting human language. The hidden depth of human language is not easy to decipher by machines. Being aware of each customer's review of the brand is an essential task that needs the application of AI technology (Botvinick et al., 2020). AI sentiment analysis relies mostly on natural language processing and helps to detect the customer's feelings regarding the brand and the areas that need improvement.

Computer vision makes AI understand visual data or information intelligently. Using computer vision to identify objects in images can help analyse customer behaviour in a real-life store and also recognise a face to develop personalised marketing approaches based on the customers' socio-demographic characteristics (Ainoa, 2023). A new retail possibility is created thanks to data and respective AI models, which transform into a basis, and the companies, in return, could start personalising their customer journey. Verma et al. (2022, p. 65) reported that the organisation and marketing of their content are becoming more personal since the customer data and preferences are analysed, and based on that, customers get tailored recommendations and special offers. AI provides customised web content based on human beings' behaviour and preferences. This results in improved user engagement and relevant experience (Ainoa, 2023). AI algorithms utilise user data to find the most productive target groups that will be the focus of highly targeted campaigns. Such campaigns are more effective than those of their predecessors, which, in turn, leads to higher ROI (Walmart, 2023). Now, AI-based support is subject to a rise in popularity, as the systems provide customised customer help and answers that are instantly available to address the customers' questions.

AI can become a multi-faceted tool used in content marketing and automation of marketing activities. AI enables you to accomplish personalised advertising endeavours like tailoring specific digital ads, emails, or even posts on social media for selected demographics

and categories. This way, you can ensure the timeliness of the message and the audience's interest is achieved (Ainoa, 2023). AI also performs monotonous routine functions, such as generating posts for social media, automating email marketing programs, and tracking performance. So, it frees humans from such non-strategic sessions and allows them to think more about future tasks. Furthermore, Guha et al. (2021) reported that AI will probably never fully replace humans behind creation, but rather, AI can play a supplementary role in content generation by giving ideas, variations of content, and good human engagement. AI is being used as a measurement tool - this helps companies to keep AI in the marketing processes constantly improving. AI approaches explore data from website visitors, orders, and customer participation (Wamba-Taguimdje et al., 2020). The data is used for instant analysis, which allows marketers to make certain changes and corrections in their strategies as they can optimise for better results.

Companies must develop ethical standards in data collection and use, as well as the stringent observance of data protection laws, high data security, and data transparency while dealing with AI in marketing campaigns. Hu et al. (2023) reported that ethics with customers and trust, as well, are key aspects relevant to the sustainability of the AI-based marketing approach, which should be highlighted for its long-term success. Wamba-Taguimdje et al. (2020) further reported that in various ways, with the implementation of these approaches and with establishing and maintaining the ethical culture for AI applications, the companies will have the opportunity to maximise the benefits of AI for their consumers and ensure the consumers are supported, use the marketing tools ethically, and become the leader among the companies for responsible AI in the marketing sector.

### 3.2 Implementation and Requirements

This section highlights the factors considered in the implementation of AI models in Walmart's marketing strategies. It also highlights the implementation process of AI technology.

Many industries are adopting AI to improve accuracy, efficiency, and decision-making. With reference to the case study of Walmart, it is important to note that for a full-scale deployment of AI in businesses, several factors must be considered to guarantee successful implementation. Precisely, information from Walmart's case study shows that businesses should consider different factors before deciding on the type of AI systems to use in their marketing process. The first implementation requirement is understanding where and why the AI algorithm or model is being applied. The second factor is understanding the infrastructure needed to implement AI models in the business effectively. This ranges from the technological assets (data, hardware, and software) to the system and the telecommunications and network components needed to perform the identified tasks (Wamba-Taguimdje et al., 2020). An important factor here, as shown in the case study of Walmart, is AI infrastructure flexibility, which the researcher believes is instrumental in allowing the organisation to support the various components of the systems effectively and rapidly. Finally, capital and human resources are also vital requirements to implement AI algorithms in an organisation (Verma et al., 2022, p. 65). It is important to note that integrating AI models requires loads of time, money, and talent. This means that for businesses to implement AI effectively, they must attract skilled data scientists, engineers, and machine learning experts tasked with overseeing the algorithms and models. The lack of such a critical team may allow room for failure.

There are several other studies that explored the challenges faced by retailers when incorporating AI automation into their marketing strategies. Firstly, Shaik (2023) investigated

the impacts of AI on marketing in their qualitative study. The researcher conducted interviews with marketing experts from several companies in India. The findings obtained indicate that most companies face technical compatibility challenges when implementing AI models in their marketing strategies. The reason behind this issue was that the implementation process was sophisticated, thus demanding sophisticated IT software and systems for successful implementation. Furthermore, Shaik (2023) mentioned that most companies lacked skilled personnel to facilitate the implementation process. On the same note, evidence from the Walmart case study shows that businesses should upgrade their technology and provide training to their employees to accommodate the incorporation of AI automation in their marketing operations. Similarly, Hu et al. (2023) shared their thoughts on the strategies that can be used by organisations to ensure the successful implementation of AI automation in their marketing operations. Hu et al. (2023) conducted one-on-one semi-structured interviews with the top management of thirty organisations from Taiwan. The findings obtained indicate that for the successful implementation of AI, companies must evaluate their internal environment and customer relationships. Performing internal evaluations helps the company determine whether its employees are equipped enough to handle the new technology. On the other hand, environmental evaluation is done to help the company figure out market trends and competitors' behaviour in relation to the implementation of AI models.

The case study of Walmart showed that businesses can use AI-driven tools to strengthen their relationships with customers. Evaluating customer relationships helps identify changes in their preferences, which helps determine the possibility of success upon the implementation of AI automation. Auger et al. (2020), Mahesh (2020), and Botvinick et al. (2020) all endorsed Shaik's (2023, p. 998) argument that AI systems require technological compatibility as well as complicated software and IT systems before they can be deployed.

These studies demonstrate that AI training and adaptability are crucial for implementing models or algorithms. Auger et al. (2020, p. 1) stated that supervised learning is required in AI to assist algorithms in connecting the dots from the readily accessible data for input and output, whereas Mahesh (2020, p. 383) stated that unsupervised learning is necessary to allow AI models to identify and comprehend the layout of the data they will be using. Botvinick et al. (2020, p. 603) discovered that reinforcement learning also has a vital compatibility aspect since it helps AI models and algorithms to efficiently absorb knowledge and investigate alternative behaviours that may be required. In addition to technical compatibility, Shaik (2023, p. 998) argued that technical capabilities, precisely workers' skills and knowledge, are critical for AI automation efficacy. Similarly, Hu et al. (2023) encouraged organisations to assess their internal setting before automating their marketing operations, focusing on their workers' talents and understanding of AI models and algorithms. The findings described above align with those of Verma et al. (2022, p. 65), who stated that AI integration necessitates financial and human resources and infrastructural flexibility. Verma et al. (2022, p.65) supported the idea of Hu et al. (2023) on AI implementation by claiming that AI models require time, money, and skill for successful implementation. Therefore, skilled data analysts, engineers, and artificial intelligence professionals are needed to manage the operational model.

Information derived from the Walmart case study emphasises the key strategies that businesses should adopt in order to ensure the successful implementation of AI-driven systems in their marketing programmes. These needs span from technological compatibility to the ability to manage and operate artificial intelligence algorithms and models. As described above, technical compatibility refers to integrating technology into human perspectives. This is a rather crucial phase in the business sector, given that machine learning is undergoing a revolution, with the invention of many methodologies that can be combined

to solve different tasks (unsupervised and supervised learning tasks). Moreover, prediction is an essential component in supervised learning tasks, and organisations should be more concerned about expressing relationships between parameters and the AI algorithm's capacity to forecast output based on the supplied input. A cross-validation takes place to determine the model's effectiveness and whether it can be implemented in diverse operational scenarios. Conversely, unsupervised learning tasks supply input variables to the AI algorithm while leaving the output parameters undefined. The primary purpose is to retrieve and evaluate data and identify hidden patterns that will inform future analyses. The success of these learning tasks mostly depends on the organisation's technical capabilities. Machine learning skills are required to implement AI successfully, and the absence of these skills causes the organisation to perform poorly. Additionally, organisations need to be more capable of tailoring their advertising campaigns and making informed decisions regarding consumer advertising, endorsement, and involvement.

Incorporating AI technology into marketing, which was traditionally all human activity, has renovated how businesses engage with consumers. Mahesh (2020, p. 383) reported that AI has unquestionable advantages that help us in new horizons like personalisation and targeted advertisement. Still, at the same time, it has a set of ethical considerations that have to be carefully examined. Auger et al. (2020, p. 1) further stated that there are a lot of concerns related to bias, transparency, privacy, and misinformation. This issue makes responsible AI in marketing regulation a critical matter of analysis.

Biased algorithms are often one of AI's most significant ethical concerns in the marketing industry. According to Botvinick et al. (2020, p. 603), AI methods are algorithms that learn and perform analysis based on data on what they have been trained. However, data could be illustrated in their troves, and the manifestation of current bias on the data could be found, causing a discriminative result. This bias can play out in ads targeted at specific age

groups, search results, and recommendations of products that unjustly discriminate against particular demographic groups. For instance, Hu et al. (2023) reported that if an AI algorithm trained on historical data captured prejudice that manifests in women who are shown gender-stereotypical ads, it will affect their treatment and make them exclude other options. Hu et al. (2023) further stated that solving this problem, from FAT's perspective, necessitates adherence to fairness, accountability, and transparency (FAT) principles throughout the AI engineering process. An example is using different data sets, continually monitoring and correcting for any intrinsic biases in the algorithms utilised, and keeping it always clear about the mistakes and limitations of Artificial Intelligence (AI) tools in marketing in the context of marketing decisions.

Openness is another critical ethical issue related to AI in marketing that should be mentioned. More frequently, Verma et al. (2022, p. 65) reported that users find out they are having their online activities monitored and curated by AI algorithms without realising it. This opacity leads to a fraction of perception and disuse of chances of trust and manipulation. An illustrative example of this, as reported by Hu et al. (2023), is the implementation of intelligent, advanced chatbots, which may not always disclose their nature. A humble consumer may believe that he is communicating with a resident who is competent enough. This reduction in visibility can deteriorate consumer faith in the brand and harm its image, but at the same time, it can boost brand awareness. Botvinick et al. (2020) further stated that businesses need to develop a transparent practice of their AI tools to put away any suspicions. This is achieved by prominent AI labelling in all marketing campaigns, fully informing consumers about the limitations of AI-generated content, and allowing direct access to experts for more information about how their data is collected and employed in AI algorithms, among other things.

Conversely, maintaining privacy is still a moral problem nowadays that is incompatible with new AI technologies. According to Botvinick et al. (2020, p. 603), marketing strategies often use collecting and information analysis about the mass of data consumers. AI systems use this data collected to develop highly customised marketing plans, and there is the risk of breaching personal data and privacy. Shaik (2023) further reported that AI technologies can build precise customer profiles using information from various sources such as internet browsing, online purchases, and social media activity. This question cuts to the core of the issue of the kind of uses the information might be formatted for, not just for target advertising but also for price discrimination or even manipulating political choices. To solve this problem, Shaik (2023) further reported that it is necessary to apply the data protection laws of the European Union, such as the General Data Protection Regulation (GDPR). The data collection should be conducted only by gaining informed permission from the users, and this data shall be used only for the intended purposes and simultaneously deleted or anonymised upon request. Furthermore, hardware and software have basic security procedures to secure consumer data from hackers.

AI is a tool that can be very handy in marketing but also brings ethical considerations to the fore. Hu et al. (2023) share that AI-powered tools are capable of individualising the content and messages to the level that one may doubt in manipulation. Proceeding an example as reported by Botvinick et al. (2020), AI can gain information from emotional vulnerabilities or past browsing histories to showcase highly targeted adverts or recommendations and thus can influence a consumer to make purchases that are out of honest beliefs or can mislead someone. This may become a problem associated with individual freedom, and AI may abuse them by exploiting individuals' cognitive biases since they are commercially profitable. To minimise this challenge, Hu et al. (2023) further stated that enterprises need to utilise AI tools only in the given manner. This includes not using the

manipulator, ensuring the authenticity and fairness of the AI-created content, and putting the welfare of consumers first, regardless of short-term profit.

AI issues in marketing that are widely spread out are that there are more significant questions where it could go beyond the societal and cultural aspects. Auger et al. (2020, p. 1) stated that AI provides a suitable mixture of content and editing user's behaviour at large volumes, confirming the fears of echo chambers and filter bubbles. Shaik (2023) further stated the self-learning abilities of AI algorithms result in them being shaped and fine-tuned based on users' preferences as well as past interactions, which may consequently cause them to become more biased in presenting the prevailing or already accepted beliefs and opinions, eventually marginalising the presence of diversified ideas in addition to hindering critical thinking. Mahesh (2020, p. 383) also stated that the spreading application of AI for production and decision-making in marketing can build consequences on the human creative character and critical thinking skills. By enabling debate and cooperation, we aim to create and incorporate AI marketing techniques that meet ethical standards and contribute to a stimulating, informed, equitable information environment encompassing all perspectives.

The use of AI technology in marketing campaigns is twofold: the advantages of AI are significant, while the ethics of AI usage should be studied carefully (Shaik, 2023). Forming responsible AI practices to address the difficulties of bias, transparency, privacy, and manipulation is significant for sustainability in digital marketing since it helps create trust between consumers and organisations (Auger et al., 2020). The key points that businesses should pay attention to are fairness, transparency, and accountability in data processing. They then can optimise the potential of AI to help the cause of ethical and sustainable future marketing.

AI turns the way people produce and share digital content. Balasubramaniam et al. (2023, p. 2) reported that AI-based tools can join hands in writing the required marketing

copy. Besides, they can help by personalising messages for some particular target audience groups since this will ensure reaching out to most of them. Besides that, Shaik (2023) further reported that AI could execute the tasks that need the incoming work in completing the content like the watch by the social media accounts and email marketing. Thus, specialists working on non-strategic and non-creative tasks can move on to more valuable roles. Above all, Hu et al. (2023) further reported that AI does not defy human intervention in making good content but instead allows to work around problems with content creation and humanises labour productivity. AI plays an integral role in the campaign cycle by transforming the performance of content and optimising the performance of a campaign.

AI technologies provide businesses with a way of constantly tracking and comparing critical parameters, such as website traffic, conversion rates of customers, and feedback from different channels. According to Hu et al. (2023), this data provides access to the marketers to facts only, which allows them to see the meaning and get ideas about the performance of the campaign in real so they can operate based on the data and optimise their activities all the time to get better results. Wisskirchen et al. (2017, p. 13) further stated that AI Systems continuously perform this data mining function and make frequent alterations and modifications. These are the ways through which they acquire the power to predict the customers' behaviour and create various programs that may be customised to achieve the most favourable results.

AI's role in marketing is not limited to technological features. Hu et al. (2023) reported that it also includes examining the moral values and the collaboration aspects and is the essential element on which achievement depends. Auger et al. (2020) also reported that companies should always deal with ethical issues and ensure they follow, support, and execute data safety regulations, strong data safety measures, and transparency about their methods of AI use in marketing methods (Javaid et al., 2021, p. 60). Providing a smooth

client-brand relationship and resolving ethical matters with sufficient insight are the two important things here for achieving the sustainability and longevity of artificial intelligence-based marketing strategies.

AI has been incorporated into the current marketing systems, and many are changing to address modern needs. Mahesh (2020, p. 383) reported that AI aids via channeling power by using data analytics and customer journey customisation to automate tasks and optimise campaigns. Wisskirchen et al. (2017, p. 13) further reported that AI provides enterprises with an array of opportunities that improve engagement, achieve preset objectives, and stay relevant in which there are many competitors. Ethical issues and reputable practices are now at the top of the agenda to ensure successful AI integration in the digital realm. At the same time, it is necessary to keep in mind that these practices largely shape the future of AI in the modern marketing domain (Javaid et al., 2021, p. 60). AI will go through the changes, and the companies must also move on with time and find a way to make the AI work efficiently with their marketing plans.

### **3.3 Training and Adaptation**

This section highlights the training and adaptations needed before implementing AI technology in a business's operations. The information will serve as an eye-opener to the importance of training in AI implementation.

AI and machine learning continue revolutionising business, sales, and marketing. Thus, training of the algorithms is warranted at the initial phase of integrating these models. Three types of training are advanced, as explained by Auger et al. (2020), Mahesh (2020), and Botvinick et al. (2020). Supervised learning is the first type of training for AI and Machine Learning algorithms. According to Auger et al. (2020, p. 1), supervised learning involves training the AI to connect the dots from a given output and input data set. Here, multiple examples of input data allow the algorithm to learn how to process it and reproduce

the desired output. On the other hand, unsupervised learning, the second type of training available for AI, does not have a correct answer, and there is no teacher (Mahesh, 2020, p. 383). This means AI algorithms here are allowed to denote and understand the structure of the given data using previously learned features. Unlike supervised learning, this type of learning is critical for feature reduction and is used for clustering purposes. The final type of learning for AI and Machine learning algorithms is reinforcement learning. According to Botvinick et al. (2020, p. 603), reinforcement learning allows AI and machine learning algorithms to consider the problem as embedded in an environment. This means the agent progressively improves the actions as it advances in different states or environmental situations. Unlike the other two types of learning, reinforcement learning is a reward-centric and maximising approach premised on the algorithms' ability to accumulate information and explore alternative actions.

Implementing AI in marketing matters is no longer just an issue of concern to a few organisations but more of a necessity because it is a source of benefits like personalisation, targeted advertising, and improved customer experience. Yi (2023) reported that while users' testimony concerning AI's marketing is overall contradictory, positive and negative impacts on their perspective are vivid. Knowledge of such a spectrum of viewpoints is imperious for businesses to proceed successfully in this cruel ethical field and use AI adequately. Olaniyi et al. (2023) further reported that the other important point is that customer perception consists of priority for convenience and personalisation. The AI techniques can gather and interpret vast quantities of data to pinpoint a person's preference and suggest a marketing campaign that fits the customer. This can lead to content that is more in line with the client's needs, thus increasing the content quality and smoothing customers' routes. According to Keller (2017), AI chatbots, for example, can personalise the product recommendation search process by considering previous purchases and browsing history. In other words, they can be essential in

extending customer satisfaction. Besides, AI technology can take over the responsibilities of routine customer activities like answering frequently asked questions. At the same time, skilled workers get an opportunity to solve more complicated issues and provide more attention.

Privacy issues and data security matters are always on top of customers' minds while making this purchase decision. According to Shankar et al. (2022, p. 548), the most critical issue is the excessive use of personal data by AI-powered marketing campaigns, which causes customers to worry about its collection, preservation, and usage. Users may hesitate to disclose the highly emotional responses to their beliefs and values and doubt how deep the information reaches the company, finally fearing they have no control over their data. Shankar et al. (2022, p. 548) further reported that the pace by which these challenges arise is just as overwhelming as the severity of the consequences; with data breaches and misuse incidents, the trust and acceptance of AI marketing practices drop significantly. With such undeniable issues, the need for data transparency in the collection and use procedures becomes apparent (Wamba-Taguimdje et al., 2020). Enforcing strong data security controls, obtaining consent, and preserving privacy compliance measures are critical steps that build trust and ease data privacy anxieties.

Influence on mental health and privacy is another major issue. According to Shaik (2023), shoppers might see AI technology as a subliminal delivery system, and algorithms could recognise the weak points in each customer or their bias to engage customers in buying activities. As reported by Shaik (2023), there is an additional concern associated with this kind of human manipulation that occurs due to unclear rules governing some automated marketing tools. Hu et al. (2023) further reported that clients could be uninformed about how actively AI manipulates their online encounters, thus building up suspicions and doubts. To manage this challenge, industries should intensify responsible AI deployment methods.

Consequently, there is a need to uphold ethical standards (avoiding lies and making the AI data accurate and fair), and clear explanations about AI use in marketing promotions have to be provided.

AI introduces the aspect of making the tasks of certain professionals obsolete and leads us to wonder about the threat of losing jobs. Hu et al. (2023) stated that customers might interpret AI as the enemy of human contact and personalised service, figuring out the possibility of a future with humans placed in automated systems. On the one hand, Auger et al. (2020) stated that AI is undoubtedly one of the best ways of streamlining specific tasks, so it is significant to notice its supplementary role to human expertise. Auger et al. (2020) further stated that one can deal with workers' concerns through information about using AI to extend human capabilities, allowing marketers to concentrate on more strategic and creative parts of their roles.

Besides individual worries, specific customers have more social ethic objections toward AI's feasible real-world societal implications in marketing. Auger et al. (2020) reported that the possibility of a person being primarily offered content that only shows that already existing beliefs are a crucial danger would be a limitation of the diversity in information and critical thinking. Hu et al. (2023) also reported that another issue could be that algorithms help bias that preserves the status quo, which means ethical issues, mainly about justice and equality, are raised in AI marketing.

**Table 1**

*Overview of impacts of AI-Driven Systems on Marketing*

Product	Price	Promotion	Position
Development of new products		Developing a Unique Customer Experience	
Personalisation of		Personalisation of	

the product	Creating prices in adherence to the buyer power	communication	<ul style="list-style-type: none"> <li>• New channels of distribution</li> <li>• Continuous customer support</li> <li>• Sales Automatisation</li> </ul>
Automatic suggestion to the buyers		Developing the new value and benefits to customers	
Creating added value for the customers		Reducing disappointing effects	

AI influence was the first AI application on the marketing landscape, which has already given birth to the new marketing outlook that we already know how it is. According to Muth and Nufer (2022), such a fantastic technology is a game changer in marketing because it offers the possibility of personalising customers' experiences, fine-tuning marketing approaches, and winning in growth and sustainability. Hu et al. (2023) also reported that AI data determines society's changes. Today's organisations can get and manage massive amounts of data from customers' sources, including website analytics, social media interactions, and Customer relationship management (CRM) systems. Farrokhi et al. (2020) further stated that with various kinds of data sets that supply machine learning programs with a broad range of necessary information, artificial intelligence gets a chance to learn and analyse information that was not previously available to people. Data cleansing and standardisation steps taken by organisations enable data integrity and the meeting of data quality standards that ensure the reliability and effectiveness of AI models.

AI allows one to provide personalised shopping experiences to customers, which otherwise would have been challenging to achieve on such a larger scale. Benkert (2019, p. 9) reported that, by using multi-AI techniques like machine learning and natural language processing, companies could acquire the intelligence needed to negotiate deep meanings from

the details of individual behaviour, past activity, and current interaction. Muth and Nufer (2022) further reported that such data is gathered to deliver relevant marketing messages to every customer throughout a unique journey. The use of this method can be both for online and offline activities. Varying from a perfectly set up website bearing the business goals to customers having uninterrupted access to a chatbot through round-the-clock support- these are some of the ways a customer is offered through the implementation of AI.



## **Chapter 4: Conclusion and Recommendations**

This chapter provides a summary of the main findings obtained from the current study. It provides recommendations to improve the effectiveness of AI in marketing strategies. Lastly, it will detail the implications of the study's findings on various stakeholders in the business sector, such as consumers, marketers, and policy-makers.

### **4.1 Summary of the Study**

The first objective of this study was to understand what AI entails and the challenges that hinder its implementation. Specifically, the reported findings demonstrated that AI is a key tool used in the marketing process, but it has key challenges which may limit its successful implementation. The findings obtained in the current study focused on understanding the meaning of AI and the role it plays in promoting the effectiveness of marketing strategies. The findings have revealed that AI refers to the ability of a machine to learn or comprehend any intellectual tasks handled by human beings. Many recent studies analysed in the sections above have focused on how technological advancements have changed how companies deliver services and handle customer needs and the application and underlying implications of AI models on marketing performance. However, there has been a major change in recent years, with most research examining the intersecting nature of AI in marketing, with the idea that AI is an effective promotional tool with tremendous potential to transform how companies develop advertising campaigns and interact with potential clients.

The second objective of this study was to assess the impacts of robotics on marketing. Precisely, evidence from the case of Walmart demonstrated that AI-drive systems are widely used in marketing programmes by retail businesses. These businesses often use AI to automate routine tasks such as segmentation and data analysis before progressing to more advanced capabilities and complicated foundational applications in anticipating client behaviour. The study has determined that AI-powered chatbots, customised suggestions, and

automated advertising campaigns are essential AI marketing elements that streamline and improve customer relationships, increasing efficiency and fostering a responsive and seamless consumer experience.

The third objective of this study was to investigate how consumers respond to AI-driven marketing and how such responses impact their purchase intentions and brand loyalty. With reference to the case study of Walmart, customers have different perceptions towards AI-driven systems used in the marketing process. Generally, they perceive AI-driven programmes to be highly effective. However, there are concerns that such systems often lack personal touch and inter-personal relationships between the businesses and target customers. Therefore, incorporating AI into marketing operations has been presented as an effective way for organisations to deliver targeted and customised advertising material to potential customers and forecast market trends. These findings confirm that the current study has achieved its aim, which was to analyse the consequences of AI automation in marketing, with the ultimate goal of developing strategic suggestions based on actionable insights to help marketers navigate AI-driven marketing strategies more effectively.

The fourth objective of this study was to discuss the adaptive strategies used by organisations to advance effective AI automation and efficient AI marketing practices. This goal was achieved, as the findings of the current study revealed that AI integration significantly affects customer behaviour. According to the findings, artificial intelligence has enabled marketers to understand better their customers' needs, preferences, and behaviours, which is critical for informing decision-making processes. The data also show that AI marketing approaches based on consumer trust, openness, and explainability benefit firms since they boost brand loyalty and improve sales. The second research goal of this thesis was to analyse the adaptive tactics employed to promote effective AI automation in marketing strategies. This goal was also realised, where the study provides insight into the essential

variables that firms require for efficient AI automation. The factors mentioned included technological capacity and capabilities. Technical capacity is vital because AI models and algorithms require complicated software and IT systems to function, as well as technical capabilities, which include the abilities and expertise needed to handle and use AI algorithms and models.

The fifth goal of this study was to recommend the needed ethical framework and regulatory guidelines for effective and efficient AI-driven marketing strategies. Results from Walmart's case study demonstrated that the adoption and use of AI systems in the marketing process are associated with key challenges. Precisely, this study identified key ethical challenges associated with the adoption and use of AI-driven systems in the marketing process. Ethical challenges AI automation raises are those that businesses must consider when implementing AI algorithms. They included privacy issues, transparency concerns, and autonomy, which, if upheld, businesses can build consumer trust and brand loyalty. The research question for this thesis was: What are the implications of AI automation for marketing, and how can businesses adapt to these changes? Specifically, this research question was addressed by evaluating evidence reported in the existing literature about the importance of AI automation in the marketing process and the key strategies that companies can use to adopt AI-driven tools for their marketing processes. Several themes are discussed in this research question, with the first highlighting the impact of AI on consumer behaviour, the second providing ethical and regulatory guidelines for AI marketing strategies, and the third providing adoption strategies and challenges for SMEs looking to incorporate AI into their business operations.

## 4.2. Recommendations

The subsections that follow below will provide more details on the recommendations based on the current study's findings. The subsections will explore the recommendations for future studies and policy recommendations.

### 4.2.1 Recommendations for Future Studies

While AI in marketing has been extensively investigated, some knowledge gaps remain. These gaps must be filled to ensure an in-depth comprehension of AI's use, application, benefits, and drawbacks in marketing procedures. One such gap is noted in Larva's (2021) study, which discovered a weak understanding of consumer perception of employing AI in marketing strategies (p. 12-13). It was found that most consumers are unfamiliar with AI-driven marketing methods or need more confidence in most AI-generated interactions, recommendations, or content. As a result, future research should provide a more comprehensive understanding of how AI marketing methods and strategies affect customer activity and well-being to create an ethical environment that prioritises consumer security and confidentiality concerns. The second knowledge gap, as identified by Mariani et al. (2022), concerns the ethical implications of AI for marketing. According to this investigation, AI-related confidentiality, fairness, and ethics are among the most understudied subjects that future studies should address (Mariani et al., 2022, p. 770). Thus, future research should focus on how customer data is used in AI marketing practices and marketers' corporate digital responsibility frameworks when operating and developing advertising material using AI. Finally, there needs to be more information to understand the efficacy of AI in various marketing scenarios, with AI performance varying based on the sector in which it has been adopted. Therefore, it is vital to explore sector-specific aspects, such as retail, B2B marketing, and e-commerce, to comprehend the role of AI in marketing.

### ***4.2.2 Policy Recommendations***

With reference to the information from the Walmart case study, it can be noted that AI marketing faces numerous ethical and regulatory challenges. As a result, this study advises developing explicit ethical and regulatory norms to govern AI-driven marketing strategies. These standards encourage responsibility, fairness, customer confidentiality, and openness in organisations acquiring and using customer data to maximise reach. The cornerstone of this policy recommendation is the recognition that customer trust is essential in both B2B and B2C industries and must always be maintained. With the growing incorporation of AI into various corporate operational frameworks, developing a more open and practical guideline would aid in safeguarding client welfare while retaining innovation in the marketing methods employed by different organisations. The second policy recommendation is to increase awareness and consumer education regarding AI marketing strategies. The issue of inadequate understanding of AI technology was highlighted in this study since most consumers were ignorant of the role of AI in marketing. The need to understand roles in marketing leaves many customers wary of utilising or enabling organisations to gather or train algorithms using their private information. Training customers and raising awareness of AI marketing initiatives can assist in filling this knowledge gap. Similarly, teaching marketers the ethical policies in using AI helps them understand the importance of ensuring confidentiality when employing AI models in their advertising campaigns.

### **4.3 Implications of Study**

The current thesis has various implications for stakeholders, such as consumers, marketers, and legislators. In the case of customers, the study's findings help understand the role of AI marketing in improving outcomes in the marketing scenario. Thus, through making tailored advertising and recommendations, the incorporation of this technology in marketing

operations helps meet customers' specific needs. Moreover, the study helps consumers understand that AI marketing relies on customer data to train AI algorithms and models. As a result, the thesis teaches customers about their rights to ensure autonomy of choice and that user-generated data is protected and utilised with their permission. The findings of the thesis are also crucial for businesses. This thesis discusses the benefits of incorporating AI automation into marketing. One of the benefits outlined is that it helps provide insights into customer needs, changes in preferences and tastes, and purchasing behaviours. Furthermore, the thesis helps advertisers comprehend the ethical and regulatory challenges surrounding using AI algorithms in marketing strategies. This information allows advertisers to appreciate the necessity of protecting customer privacy, increasing openness in AI marketing, and assuring AI model explainability, all of which contribute significantly to consumer trust and brand loyalty. Lastly, this thesis has significant implications for policymakers. The study's findings support the need to understand the regulatory framework for AI automation in marketing; hence, this thesis enables policymakers to develop guidelines that safeguard the interests of consumers without limiting company innovation by adopting AI in its marketing strategies.

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