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"Revolutionizing Digital Marketing with AI"

RELATORE:

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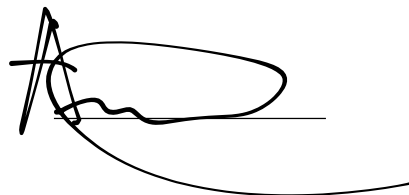**LAUREANDO/A: Artur Lala**

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ABSTRACT

There is not a concrete and unified definition for Artificial Intelligence (AI), despite the fact that it is one of the most popular terms nowadays. AI refers to an activity which is devoted to turning machines into intelligence, as it is considered as a quality that entities must have in order to function in an appropriate way. In technical terms, AI is a process of integration between "cloud computing, network devices, robots, computer, and digital content production and in various business processes, systems, and daily life operations" Hence, the thesis implemented a survey which was carried out to the participants by sharing its link via social media platforms to investigate the trust in the websites. The research included 82 participants, part of University of Padua which are studying in a bachelor's, master's, or PhD's degree. The survey's aim was to discover participants' beliefs toward online shopping and their perceptions regarding a website created by an artificial intelligence tool. The research findings showed that the most important factor while visiting online shopping for the participants was design and structure appearance which is understandable because is the first visible element of a website. Additionally, including all parts of the shopping online such as: products prices, shipping fees, subscriptions on websites, the respondents appear unsure about whether it's worth the money or not. Generally, it seems that participants consider online shopping as a manageable tool and reasonable to buy from if there was only to price of products even though it can be challenging to evaluate the quality of products. The survey showed that most of participants act cautiously while visiting a website by checking sections such as: privacy statement and about us for more clarity. Travel comfort is classified as the first intention for the participant to buy the product shown on the website generated by artificial intelligence.

Key Words: Data; Evolution; AI; Digital Marketing; Companies; Trust

Contents

LIST OF ABBREVIATIONS

AGI- Artificial General Intelligence

AI- Artificial Intelligence

ANI- Artificial Narrow Intelligence

ASI- Artificial Super Intelligence

CCPA- California Consumer Privacy Act

DARPA- Defense Advanced Research Project Agency

FGCP- Fifth Generation Computer Project

GDPR- General Data Protection Regulation

IoT- Internet of Things

ML- Machine Learning

NLP- Natural Language Processing

PPC- Pay-Per-Click

RFID- Radio Frequency Identification

ROI- Return On Investment

SEO- Search Engine Optimization

B2B-Business to Business

CRM- Customer Experience Management

AIUI- Artificial Intelligence User Interface

STP- Segmentation, targeting and the positioning

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CHAPTER I. INTRODUCTION

There is not a concrete and unified definition for Artificial Intelligence (AI), despite the fact that it is one of the most popular terms nowadays. Generally, AI refers to an activity which is devoted to turning machines into intelligence, as it is considered as a quality that entities have to have in orderto function in an appropriate way. In technical terms, AI is a process of integration between "cloud computing, network devices, robots, computer, and digital content production and in various business processes, systems, and daily life operations" (Rauch, 2019).

As we will discuss in this study, AI has been present since the past, as it is today, as well as it will be in the future. Taking into consideration the great increase and development that AI has went through, it is very important to consider it in terms of future digital marketing efforts. Lately, AI software have started to be used by more and more companies in order to optimize their business processes, to improve their output, to decrease turnaround time, as well as to reduce overhead. Due to its importance and its evolution at this unprecedented rate, companies are jumping on the next innovations of AI, building new marketing software.

Thanks to technology, during the latest years, our world has come a long way. AI has become a part of our daily life in various aspects, starting from smart devices (such as smart-phones, computers etc.), to self-driving cars. But the question arises: Why have this AI equipment's have been built? All the AI equipment's and innovations have been built in order to first understand the customers' needs and tastes, and then deliver to them unique consumer experiences. If we were todefine AI with simple words, we would say that it refers to the intelligence that machines have gained.

Lately, everything related to AI has turned into a hot topic. There are various fields which have showntheir interest toward AI, including digital marketing. Companies have turned to AI in order to provide customers with the ultimate customized experience through the use of automated marketing strategies. In addition, digital marketing has been revolutionized through AI, and has saved companies a lot of time and resources. Customers have also benefited from the use of AI for digital marketing purposes, as it has helped them in the processes of researching products, making purchase decisions, as well as having influenced their buying habits. Thus, we might refer to AI as atool which employs technology, in order to improve customers' experiences.

Companies have implemented AI also on the improvement of their marketing campaigns on ROI (return on investment). Through the use of various processes, such as machine learning or data

analytics analysis, companies have gained the necessary insights on the audience they aim to target or address. AI is crucial in establishing the necessary contact between companies and their customers, as insights provided by it are efficient and effective. As Wedel and Kannan (2016) state, "whether we are doing email marketing or delivering customer support, AI removes many of the manual guesswork involved during customer interactions".

Various processes of marketing previously relied on humans, while now; these procedures have been automated through the implementation of AI. Digital marketing based on AI works mainly through Pay-per-click (PPC) ads. In addition, AI serves companies for their web design, or content generation. Nowadays, an AI-based approach and its elements are largely used by companies worldwide. Through this approach, businesses gain more targeted and quantitative results for their business, by employing contemporary marketing. By just observing the quality of ads lately, it can be seen that they target individual customers in real-time, through the use of multiple channels working at the same time. AI works at details and reaches them in order to recognize and target specific customers, segmenting them in accordance with the businesses' needs. Thus, it is appropriate to state that AI will revolutionize digital marketing further in the future, as we will discuss in this study.

1.1. Problem statement

Digital strategies have been highly influenced by AI, including here not only the options of customer services in accordance with customers behaviors, needs and interests, but also businesses sales processes, as well as their models. If we take a look at various diverse industries that operate in the global market, they have been characterized by impending transformations through AI. For instance, we can consider the transportation industries. Both customer behavior and business models have been altered by self-driving AI-enabled cars. Hayes (2015) states that "taxi and ride- sharing businesses must evolve to avoid being marginalized by AI-enabled transportation models; demand for automobile insurance (from individual customers) and breathalyzers (fewer people will drive, especially after drinking) will likely diminish, whereas demand for security systems that protect cars from being hacked will increase".

Secondly, sales processes in various diverse industries have been tremendously affected by AI. In many sale processes, salespeople rely on telephone calls or equivalent AI assisted equipment's. In this study, we will discuss the possibility of implementing AI agents, which will be supposed to monitor in real-time the tele conversations. For instance, AI has advanced voice analysis

capabilities, which might be implemented on the agent in order to infer to the customers' tone of voice so that the salesperson gets guided on the next strategy to use for any remaining problem or an issue.

Thirdly, AI has impacted the business models that companies follow in order to succeed in the market. Various companies have currently shifted online, where customers place their orders, and the process goes order-shop-ship. According to Gans et al. (2017), thanks to the high currency that AI provides in digital marketing, the business models might be revolutionized to ship then shop, as AI will be able to predict the products that customers will want or need. This will revolutionize not only the business models, but also customers' behaviors and retailers' marketing strategies. Agrawal et al. (2018) mention the cases of Trendy Butler, Birchbox and Stitch Fix as companies which already employ this approach.

Considering all the above mentioned cases, researchers of marketing and marketing managers are in need for insights in order to understand the ultimate promise of AI for the moment and for the future, but also the timelines and the pathway that AI is supposed to follow in order to revolutionize digital marketing at the climax. In this study, we will address various issues related to the history of AI, the way it has developed to evolve digital marketing, but also on the predictions made for the short, medium, and long term time horizon.

1.2. Aim and objectives of the study

The main aim of this paper is to analyze the ways in which Artificial Intelligence has revolutionized digital marketing and make predictions in the future of it.

In order to fulfill this aim, the below objectives have to be completed:

1- Discovering the relationship between business and AI.
2- Analyzing the meeting points between AI and digital marketing.
3- Investigating the ways in which AI has revolutionized and transformed digital marketing.
4- Predicting the short and long-term impact of AI in digital marketing.

1.3. Methodology

The methodology employed for this paper is of a qualitative nature. As a thesis built as a literature review, there are no quantitative data discussed. The researcher has employed a secondary research method for the data collection process. Sufficient data have been gathered in forms of text. Many secondary sources have been read, analyzed, and summarized for the presentation of

study. The main sources for the data collection have all been cited in the text. The chronological steps followed for the preparation of this study are:

1. Searching for appropriate sources and literature available.
2. Collecting appropriate information on the issues raised.
3. Analyzing, summarizing, and structuring the main data.
4. Presentation of the main information received.

1.4. Significance of the study

Technology and AI have been integrated in various aspects of our lives, but there are various points in which individuals are not aware of it. In various researches consulted for the preparation of this study, it was observed that a great number of consumers either perceive that they have never interacted with AI or feel unsure on whether they have ever interacted with AI. This mostly comesas a result of the fact that consumers are not aware of the AI tools or applications in marketing, despite the fact that they use smart TVs (televisions), computers, smart-phones etc. Thus, this paper will serve as a guide for consumers to understand the way they interact with AI on a daily basis. As for scholars or researchers, this paper might serve as an appropriate source for building a latest and adequate literature background on the ways AI revolutionized digital marketing.

1.5. Structure of the study

The study is divided into six chapters:

The first chapter sets the ground for the study, it begins with the context, the problem of the study, aim and objectives of the study, methodology, and the significance of the study.   The second chapter and the third chapter are the literature review which define the theoretical frameworks of this thesis while the third chapter determines the   methodology. Chapter four includes results and discussions while the last chapter concludes and recommends. All the additional information is included in the appendix section.

CHAPTER II. ARTIFICIAL INTELLIGENCE & DIGITAL MARKETING

2.1. Historical background of AI

If we start to consider the historical background of AI, we will have to go back in time when it was considered impossible to build machines that will perform as humans. However, AI started to be studied in the 1940s for the first time, when connectionism, a school of thought, begin establishing the research stages of thinking. The first known scholar to deal with AI was a British polymath named Alan Turing, who in the 1950s started conducting researches for the possibility of involving math in AI, presented in his book Computing Machinery and Intelligence.

Later on, in 1956, two researchers named John McCarthy and Marvin Minsky organized a project on AI, for the Dartmouth Summer Research Project. This is why they are also regarded as creators of AI. This project turned into an event which involved researchers from all over the world, who participated in an open discussion on issues related to AI. From this year until 1974, AI was booming. During this period, machines were able to store more data, and they became accessible to the populations, as well as faster and less expensive (Foote, 2016). In addition, algorithms also improved, and researchers were now able to understand the algorithms needed to be applied for various tasks. "Inventions such as Joseph Weizenbaum's ELIZA, Newell and Simon's General Problem Solver displayed important steps towards objective of interpretation of language and problem solving" (Foote, 2016).

Due to these successes and also to the great support that AI gained thanks to top researchers, Defense Advanced Research Projects Agency (DARPA) and various others government strategies were convinced to fund AI. Anyoha (2017) states that during this period, government agencies were more interested in building a machine which would type and then translate spoken language. In addition, they required a machine which would process various data. However, as AI was evolving, many obstacles appeared in the way. For instance, one of the issues was the fact that machines built were either unable to work fast, or unable to store all the necessary information.

In the 1980s, the situation with AI changed for the better due to two main reasons. First of all, more funds were promoted to the evolvement of AI; and secondly, there was a growth in both information and algorithms. Later on in this period, John Hopfield and David Rumelhart began to make deep learning methods (enabling machines to learn from experiences) pretty popular. In this same period, expert systems, which copied human expert decisions making, were found by Edward

Feigenbaum. Greengard (2019) talks about this period, stating that "Japan invested excessively in AI, especially expert systems as part of their Fifth Generation Computer Project (FGCP) with the target of revolutionizing AI by carrying out logic programming and computer processing". However, not all goals were met as the funding of FGCP stopped; this led to a further decline of AI popularity, despite the fact that many further engineers and scientists were inspired by these evolutions.

In the early 1990s, the focus of research into AI shifted into something that will be called an intelligent agent, which would be used for news retrieval services, online shopping, as well as web browsing. These agents are also referred to as bots or agents. Later on, agents evolved and started using big data programs, turning into virtual or digital assistants (Foote, 2016). Since this period, AI has become a crucial tool in various sectors, such as technology, entertainment, finance, and marketing. In the future, AI language is expected to be the next big thing. As for the present, machines are everywhere, and it is impossible for humans to avoid interaction on a daily basis.

2.2. Elements of AI

Greengard (2019) defines the term AI as various computing systems which complete tasks, the same way that humans make decisions. As mentioned above, since the mid 1950-s when AI was first introduced in the area of science, it has come a long way. For instance, AI has been established as a crucial asset for the management of technologies and businesses. Over the years, AI has been a constantly moving target. We can mention here common aspects in computing (character recognition and computer chess), which in the past were considered as goals to be reached in the area of AI. "Nowadays image recognition, robotics, real-time analytic tools, natural language processing and many other linked systems in internet of things (IoT) need AI for bringing more advanced attributes and abilities" (Greengard, 2019). There are various elements of AI, and below we will discuss machine learning (ML), Natural Language Processing (NLP), robotics, vision and autonomous vehicles.

Machine Learning

ML refers to a process in which the goal to be reached is first defined, and the machine has to complete it itself step by step. During this process, the machine collects data through experience and learns how to complete the goals. In the beginning, simple tasks are defined, such as distinguishing an apple. The machine should not be taught in a detailed manner to achieve the goal, and no code is created to teach it (Ganascia, 2017). On the contrary, the machine is exposed to various images of fruits, for example, and the machine has to try step by step to distinguish the apple.

Deep learning

Deep learning is that element of AI which is used "to handle real-time web ads, recognize and tag friends in postings, convert speech to text, drive autonomous automobiles, and translate texts into several languages" (French, 2018). In addition, this element is also used in cases of unseen locations. It is also used in order to evaluate loan risk, forecast bankruptcy, and identify frauds in banks or credit card businesses. It is also employed by hospitals for the diagnostics of patients, or also for their cure. In comparison to humans, machines that employ the element of deep learning can work continuously without being tired, bored, or distracted (Lou & Yan, 2019).

Natural Language Processing

NLP has been referred to as "automatic manipulation of natural language by an AI", including here both speech and text (Bitext, 2019). This type of AI enables the systems to analyze natural language so that they can acquire meanings, starting from simple tweets, product reviews, social media posts etc. To give an example, email spam detection has become possible due to NLP, and it has improved mail systems a lot.

Robotics

Robotics is a field of AI, in which machines or robots are assigned to perform tasks which are either too repetitive, or too hard for humans to do. We can mention here certain fields in which robotics is used; for instance, police officers, hospitals, cleaner or car manufacturers.

Vision

Vision is the field of AI which makes machines able to see. Machines use the camera, analogical conversion, and digital processing to be able to capture and analyze information. The process is usually conducted through ML, so we can say that visions and ML have much in common, as tasks performed use both fields.

Autonomous vehicles

Kumar (2018) defines autonomous vehicles as "the realm of AI which includes cars, trucks, ships, trains and autopilot flying drones".

Image and voice recognition

Image and voice recognition are elements of AI that is mainly used by businesses and marketers in order to help them understand customers' behavior through videos and images they share on their accounts in social media platforms. Businesses advertise through images, providing offers to customers. Then, after customers have identified the details of the offer, marketers will be able to understand contextual consumption. We can mention here the cases of influencers, which advertise a specific brand. Image and voice recognition make it possible to recognize both the social media influencer and the product. The brand Cloverleaf, based in San Diego uses this feature on smart shelf display platforms. As for voice recognition, it allows AI to recognize speech and analyze the words that are being reproduced. An example of this is Sayint, a call center service provider, which employs this feature for monitoring and analyzing customer calls. This feature helps them not only to understand customers' needs and interests, but also to increase their satisfaction and improve caller performance (Kumar, 2018).

Problem solving and reasoning

Problem solving and reasoning is that element of AI which is mainly used by marketers in order to define a specific problem by understanding hidden insights in customers' contents. This type of AI helps to detect patterns in various data available and improve the ability of machines to predict future customer behaviors. Marketing profiles will be more relevant in the future for marketing decisions. "North Face, using IBM Watson, uses AI to determine which jackets consumers may be interested in, based on available data" (Bittext, 2019).

2.3. Types of AI

Various scholars have tried to classify AIs. In accordance with their functionality and capability, thereare two common classification methods. There are three stages in which an AI can evolve. The first stage is that of weak AI, or as it is called in the literature available Artificial Narrow Intelligence (ANI). This is the phase in which AI machines can only do some specific tasks. During this stage, the machines only complete tasks through pre-defined functions; they do not have the ability to think. We can mention here the examples of self-driving cars or Siri. As for the machines build until 2020, Reece (2020) states that there are weak AI. Strong AI, or Artificial General Intelligence (AGI) is the stage in which machines have the ability to think and to make decisions, the same way as humans do. Artificial Super Intelligence (ASI) is defined as the last phase, when machine would have more advanced skills than humans. However, this is just a hypothetical stage.

In terms of functionality, there are "self-aware AI, limited memory AI, reactive machine AI, theory of mind AI" (Dataflair, 2019). For instance, self-aware AI machines are self-aware and have their own consciousness. Limited memory AI is that type of AI which stores past data in order to plan future decisions. However, it might also improve itself by taking data on its memory storage and studying them. One example of such AI are self-driving cars, which implement the information they have required in the recent past in order to make decisions. Joshi (2019) "self-driving cars use sensors to distinguish civilians crossing streets, traffic lights etc. to make wiser driving actions, andthis also aids to avert future accidents".

Reactive machines of AI refer to machines which function in accordance only to their current data. They can only perform narrow pre-defined tasks, considering only the current situation. The theory of mind is a type of AI that is present mostly in the field of psychology. This type of AI is based on emotional intelligence in order to understand human ethics and thoughts. Lately, heavy research is being conducted on this theory (Dataflair, 2019).

2.4. Benefits and risks

2.4.1. Benefits

Humans have benefited from AIs at very high levels. Much manual work is done nowadays by machines, which do not only perform better than humans in many tasks, but also work without any breaks or without stopping around the clock. AI machines have made information available at any time, and for every event happening all over the world. AIs have the ability to process great

quantitative of big data in seconds as well as automate various repetitive operations, while it would take a human being hours or days to complete. In terms of informed decisions, while humans take time to make them, AI system will make it in a matter of seconds.

AIs have the ability to become smarter every time they communicate with a customer. AI has many benefits to marketers, despite the field or industry they might be operating in. First of all, they cannot reduce the tasks that were previously done manually. Secondly, they can now personalize decisions efficiently and effectively, on the specific level that helps them enhance their targeting of audiences. "By automating the process, reducing errors, and increasing the abilities of AI, businesses can not only save money from otherwise expensive business processes, but also increase income" (Polachowska, 2019). Another great benefit of AI in businesses is the ability to identify patterns of customers' purchasing behavior, as well as their browsing habits in various platforms. As AI have access to the transactions done by individual customers, they also benefit customers, by providing them with good purchasing deals or offers.

Marketing jobs nowadays still require human involvement for interaction with customers, such as through online chats, e-mails etc. However, many aspects of interactions have been automated through AI. For instance, we can mention here the automatic messages that businesses can insert to send from their accounts in the social media platforms, as soon as one customer send them a message. Another example of this are chatbots which can address and initiate a conversation in applications or website, as well as communicate with a great number of limitless customers. In the future, Victories (2018) states that computers will be able to respond to customers in a correct way after analyzing the data online that have been obtained from previous communications and interactions.

Companies that have to continuously connect with a great number of customers have been largely supporting their business with AI. For instance, if we take into consideration companies of the travel sector, they employ AI in order to communicate important information, such as flight delays, to millions of passengers. In addition, companies in the transport sector employ AI in order to monitor their buses or taxis, so that they can inform the customers about the locations and the time necessary to arrive at their destination. Such information is provided through applications or websites (Polachowska, 2019).

AI is also crucial for retailers, as it helps them monitor their inventories with cloud technology and something called radio-frequency identification (RFID). These elements help retailers to discover

important and relevant results after the analysis of big data that will help them gain profit and market. Despite retailers, financial companies also benefit from this. Through AI, they have the possibility to forecast stock price fluctuations and volatility. "AI may enhance customer service by using chatbots and advice systems, increase revenue through detection and maximization of market opportunities, predict consumer demand, identify and predict customer behavior, test malware, revise documents and conduct research" (Victories, 2018).

2.4.2. Risks

Even though AI has great potential and is pretty beneficial to many fields of business, it is also associated with various risks. The first risk that AI possesses is the worry of both the general public and researchers. It is usually associated with safety threats, human security, and job loss. There arealso experts who usually express concern about the widespread inequality and discrimination, due to biased algorithms. People are constantly using deep-learning technologies in order to make decisions about getting a job, or a loan in the bank. However, AI gives conclusionsand assumptions to people, by operating through deep-learning algorithms, but it does not give them the sense to which they give such conclusions. In addition, they do not inform people that prejudices and errors might also occur (ITU News, 2018).

Various researchers also express their concern about the safety flaws in electronic grids, security cameras and phone applications. These flaws might result in identity theft or money loss, as well as electricity or internet failures. ITU News (2018) also argues that the continuous developments on AI might lead to challenges in world peace or international safety. "Machine learning, for instance, can be used to create fake audio and video to manipulate elections, policy making and governance" (ITU News, 2018).

Another issue related to risk of AI is the possibility of fraudsters using financial or health information, as well as sensitive marketing that have been previously collected by companies. If there are inadequate precautions for the safety of clients, patients and customers, fraudsters can create false identities. Additionally, as mobiles, sensors, social media platforms and websites usually absorb unstructured information, the ingestion, sorting, and link of data is hard to be done in a proper way. "Such considerations are important for members in compliance with data protection laws, such as European Union General Data Protection Regulation (GDPR) or the California Consumer Privacy Act (CCPA)" (Cheatham, Javanmardian and Samandari, 2019).

Another critical risk related to AI is the interaction between machines and people. Some of the most evident are the complexities of infrastructure and manufacturing systems as well as in

automated transport. In various cases, the possibility of incidents and injuries is very high, as vehicles or heavy equipment drivers in self-driven cars might override systems or might be unable to do so. The way an AI performs can be negatively impacted by process problems and engineering around the whole operation environment. Cheatham, Javanmardian, and Samandari (2019) provide this example "one large financial company got into trouble after its compliance software failed to detect trade problems because all consumer transactions were no longer included in the data feeds".

2.5. Definition of digital marketing

Nowadays, digital marketing is a broad term as it includes all marketing products and or services which are offered online, through the internet or other technology mediums such as phones etc. Digital marketing was invented between 1990s and the 2000s and it has changed the perceptions of how people and business see the world throughout various technologies. Therefore, organizations worldwide are using technology and digital communications to increase their sales and their market share. These digital campaigns are common and efficient as there is one to one contact with the client as clients are scrolling their devices to complete their purchases instead of going themselves to the psychical shop. Digital marketing indeed is a tool of communication of modern marketing, being used with different electronic devices for carrying several messages to the clients more effectively. Therefore, businesses try to leverage several digital channels to connect with their actual and future clients such as Google search, email, social media and their personal websites. Yamin (2017) in their study mention various tools of digital marketing such as search engine optimization, the influencer marketing, search engine marketing, the content marketing and automation, the marketing driven by data, campaign marketing and ecommerce, social media marketing, the optimization of the social media, the direct mail through the e-mails, display advertising, e-books and other games are become more frequent in the advanced technology.

The main difficulty that the businesses are facing is that they are aware of the importance of digital marketing as a significant tool in the promotion mix, however they are trying to accommodate their digital marketing strategies as their knowledge for understanding and implementing it. Recently, social media such as Facebook, Twitter, Instagram, and other social medias, have transformed the demands and the purchase behavior of the customers. Normally, digital marketing is done through a wide networking of customers, by having reliable data any time and at the same time real time feedback from the experience of the customers. Chaffey (2013) in his work determines digital marketing is the usage of modern technologies in order to increase the activities of marketing for

increasing the knowledge of the customers fulfilling their demands. Since the beginnings of Yahoo in 1994, several companies began to maximize their presence online (Smyth, 2007) while in 2001 the market was already dominated by Google and Yahoo for the search optimization. Since the use of smart phones, the companies acknowledged the significance of digital marketing for their profits. Song (2001) in his study specifies that advertising online is one of the most powerful tools for building brands and increasing the traffic for the businesses in order to increase its sales. On the other hand, (Pepelnjak, 2008) states that when marketers evaluated the impact of digital marketing by estimating the advertisement budget, found that digital marketing is more efficient for measuring the return on investment influence on advertisement. Teo (2005) proves that the tools of digital marketing are more efficient for achieving results while (Mortet al., 2002) in their work reveal that the increase of digital marketing is due to the rapid growth of technology and the important market dynamics. Koiso-Kanttila (2004) in the study reveal that digital marketing in terms of achieving several results have the following features such as: navigation, the accessibility, the speed, and the customization.

Table 1 Comparison of the traditional marketing and digital marketing

Traditional Marketing	Digital Marketing
Benefits form the printed media	Benefits online advertising, email marketing, social media, text messaging, affiliate marketing, search engine optimization, pay per click
The analysis of the data gather is easier	The data for the digital marketing is complex
Planning takes much longer	The preparation and the planning is shorter
Through the channels of the traditional marketing the mass reached is higher	Channels of the digital marketing target specific audience
Accessibility is limited	Accessibility is higher
The marketing campaign can't be carried out 24/7	The campaign can run 24/7
Receiving feedback is difficult	The feedback taken is instant

Source: (Yasmin, et. al., 2015)

Except for the benefits that digital marketing might bring, the digital medias are really good to make the brands more popular through the word of mouth (Trusov et al., 2009). Word of mouth is creating several new members and traffic for the websites, the pages and other events which have led to increased visibility. The digital marketing and the digital media have opened the doors for businesses for setting up communication strategies to involve the customers and the potential

clients (Mangold and Faulds, 2009). Rohm & Hanna (2011) state that due to the recent changes of the market shape and all the diversity worldwide, more people are accessing the internet and the social media, therefore, strategies for including these potential clients should be designed and be part of the plan of the marketing communication. Researchers commonly agree that the online service tools are influencing more than the traditional tools of communication (Helm et al. 2013). Moreover, they show that digital marketing tools are influencing the purchase behavior of the clients as the internet is becoming the most significant tool for the lives of people and organizations (Yannopoulos, 2011) and Cetină et al. (2012). Therefore, that's why the implementation of digital marketing tools is becoming radical nowadays.

2.6. Digital Marketing Tools

Traditional and digital marketing are different. Generally, the traditional marketing has lower visibility rather than the digital marketing in the attempt to increase the brand visibility the companies can use several elements to enhance that digital communication strategy. The elements of digital marketing are suitable for all types of firms and all the sizes. The most common tools of digital marketing are: Online Advertising, E-mail Marketing, Social Media Marketing, Text Messaging, Affiliate Marketing, Search Engine Optimization (SEO) and Pay Per Click Advertisement (PPC).

2.6.1. Online advertising

Online advertising is the advertisement of products and services on the internet. Deshwal (2016) in his study specifies that the activities that are being advertised are mainly website based and based on these ads, the person that advertises or the advertiser selects the channels to advertise its product or service based on the target audience. Therefore, the adviser creates contents such as texts and images in order to pursuit to the customers for the message he or she wants to convey. Advertising online includes several categories such as: Floating ads, Expanding ads and Wallpaper ads.

Floating ads: The feature of the floating ad is the web advertisement which initiates, is superimposed, and disappears after a specific period of time. The basic floating ads might appear on the entire website or in a smaller window and sometimes might or might not provide a button to close the window. The most sophisticated versions of the floating ads might come in different shapes or sizes and often include animations, sounds and other components which are interactive (Deshwal, 2016).

Expanding ads: These types of ads do appear mainly when the users clicks over them and do no

expand from scrolling over hyperlinks. Expanding ads take too much time to download and can lead to negative impact of the visitors in that page. Therefore, a polite format is designed and implemented in order to deal with the challenges and enable the ads to serve larger formats but at the same time not to disturb the loading time for the rest of the page that is being explored. Therefore, the loading of the polite ad format is divided in two phases: the first phase or the initial load and the second load or the main loading.

Wallpaper ads: Wallpaper ads are mainly the adds which change the background of the page that is being explored by the visitors. This type of ads is being divided in some categories too:

a) Trick Banner or a banner ad which seeks to pursuit the visitors to click just by imitating a message by an operating system.
b) Pop-up: A window which opens in front of the current one, to display the advertisement or an entire webpage
c) Pop-under, which is similar to the Pop-Up page, is a new window which is being openingand does not allow the user to see the other page being opened previously.

Table 2 The tools of digital marketing and its aims

Tools	Aim	Example
Wikis	Informative and rich in context; actually, the dictionary we have	Wikipedia, Twiki
Photo and audio sharing	Interact with videos and photos	Photo Sharingsuch as Flickr ;Audio Sharing scuh as ODEO
Blogs	People that have a particular interest to share their content	Boing Boing & Dosh Dosh
Social Bookmarking or Tagging	Content is being produced using various labels	Digg, Reddit
Video Sharing	The share of the content is done through the videos	Youtube
Collaborative Tools	Collectively produced contents	Zimbra; Google
Business Networking	Relationships with the business worlds	Linked In. e-Academy

Source: (Tayfun and Oclu, 2018)

2.6.2. E-mail Marketing

This online advertising includes e-mails through which are performed marketing activities, it can include mails to the current clients or it might be sold by the private firms based on the target group aimed. In fact, nowadays, email marketing is eligible and is implemented if its allowed. Normally, the businesses which use the e-mails of the clients sometimes might face legal sanctions. Firms all over the world create ads based on the target groups, they create the contents and most of the time the content is visual, and it includes links for route destinations. However, the email receivers are also provided with the opportunity to unsubscribe from the email subscription. Hence, at this way the clients can suspend from the possibility of undesired mails and creating a negative impression of the company (Ellis-Chadwick and Doherty, 2010).

2.6.3. Social Media Marketing

Social media is mainly for group of people or communities of people who meet and navigate on the internet. Nowadays, there are several concepts of social media, and the tools are really diverse. There are several reasons why organizations are using social media tools nowadays. One of the main reasons is the fact that navigating through the social medias is free, and they do not have to pay. However, everyone is given the opportunity to pay for advertising if they are willing to pay. The contents mainly are targeted to reach a large audience.

2.6.4. Text Messaging

Messaging through texts and marketing have been used since before the internet was discovered and the main tool is the mobile phone. Marketing through text messages is often subjective to the permission of the kit and the user cannot block unnecessary messages. Marketing through messages works in this way: the consumers receive the text messages and a confirmation to confirm that that have agreed for the message advertisements. Following this, the businesses began to send messages. This strategy is beneficial because it creates a direct impact on the target group as the information is perceived directly. However, sometimes can lead to negative impact like the other strategies as most of the companies implement the same strategy and can make the customers to get out of these message strategies which automatically reduces the rate of reading the messages (Netmining, 2014).

2.6.5. Affiliate Marketing

The main aim of the affiliate marketing is that the target group that is grouped based on the interests of the affiliate marketing can be directed to a specific website. Through the usage of this tool, the business partners would share their advertisements on different platforms. Incase a visitor visits the target website, the partners will receive payments based on pricing schemes. The pricing could be per view, per click or per shopping (Doubletrade,2015).

2.6.6. Search Engine Optimization (SEO)

Nowadays almost every user on the internet searches for at least one key word in all the search engines. Therefore, the content they are looking for is available through the access engines and the websites in the search engines are sorted based to particular criteria. The websites that reach the top ranking in the search engines normally take more visitors. Hence, the companies are seeking to optimize their websites on the internet based on the search engines. The optimization of the sites upon the research engines is performed differently. Each of the search engines has its own algorithms for being ranked and on the other hand, Google has its own search engine industry and its own algorithm. Even though Google does not have all the criteria, it has the same principles as the owners of the websites. This means that a website is intending to be at the top in the search engine of google, the following applications should be done mainly. Google has its own software which are called bots, that gather data for the internet sites. All this software receives huge amount of data from their websites. Boots notice certain points which are announced by Google: Each single page should have the content of its website consistent, far away from spam and other unnecessary contents for advertising. Moreover, the key words used by the websites should be highlighted at the forefront and have a logical justification for being used within the website.

2.6.7. Advertisement Pay per Click (PPC)

The main aim of the Search Engine Optimization is to increase the traffic of the websites and the aim of Pay Per Click Advertisement is to get traffic based on a fee. The efficiency of this tool is measured by the display and the rate of clicks. Nowadays, there are several providers which offer the service such as Google Shopping Ads, Google Ad sense, and Facebook ads. There are various aspects to be taken into consideration when someone wants to advertise. However, the main aim is to target well, and the money used to be efficient. The second target is maintaining a display rate and click rate really high. The way to do that is through targeting the ad to the right audience. In comparison, to the SEO the results are faster (Bouvier, 2015).

CHAPTER III. THE IMPACT OF AI ON DIGITAL MARKETING

3.1. The need for artificial intelligence in marketing

Artificial intelligence nowadays is fascinating and great technology that is complementing the strategies of content for companies. Artificial intelligence is a broad term which includes arange of other technologies such as the processing of natural language, machine learning, deep learning etc. Machine learning for example influences the strategies of digital marketing of the companies because of its ability to analyze the data and provide feedback. Hence, machine learningassists the marketing teams in conducting the analysis needed. Actually, businesses are using the tools of artificial tools for their digital marketing strategies to save time for other aspects. However, the consequences of artificial intelligence and its evolution are really far, and researchersare reaching common agreement for the use of AI in the strategies of digital marketing to increaseinnovation and overall productivity.

3.2. AI, a game changer

Capatina et al. (2020) in their study reveal that the use of artificial intelligence in the Social Media Marketing has caused the need for further research in order to identify and the expectations of potential users of an AI software for the Marketing of Social Media that is being expected to be developed in the next two years. In their study, they aim to identify the way how the potential users of the AI based software (including the owners and the employees from digital agencies in different countries and the freelancers) perceive the capabilities offered, as an attempt to differ their technological solutions from the others which are available in the market. The authors propose a model through which they seek to investigate the expected capabilities of future AI-based software. Through this the users will be able to test and at the same time to use innovative technologies for social media marketing. They use the R-software to analyze the data from the respondents and define three different capabilities of the AI-based software that are divided into threecategories: audience, image, and the analysis of sentiment.

Frank (2021) in his study state that firms are designing AI products that can address environmental issues through interaction with the surroundings and autonomous learning which could lead to improved performance. The benefits coming from the autonomous performance of

the products from other conventional, static benefits which come from the pre-purchase processes and settled decisions. However, the current literature on studying how to use these autonomous benefits for attracting new customers is scant so far. Hence, in his study the author investigates the impact of these environmental benefits on the purchase intentions of customers and the variation among different types of customers, locations, and products. The author used a hierarchical learningmodelling for 1635 consumer evaluations for the AI products and the results of how the static and autonomous perceived benefits positively influence the intentions for purchasing. The impactof autonomous environmental benefits is higher for women rather than men and for products whichare being targeted for adults than for children.

Devang et al. (2019) in their study state that artificial intelligence is the simulation of the human intelligence processes through machines based a wide range of capabilities such as the recognition of the voice or images, decision making, the techniques of machine learning and the semantic search. The authors perform secondary research, and they aim to educate the marketers for the current and future potentials of artificial intelligence through examples from the real world that include firms that adopt and connect to the AI technologies that increase the marketing performance and their overall profits. The primary research used aimed to investigate the influence that artificial intelligence has on the landscape of marketing. At the end, the authors try to identify the factors that have good acceptability for the artificial intelligence in the marketing field and those that can benefit most to the firms.

Artificial intelligence can be used by different marketers in order to get a deeper consumer insightfor improving the understanding on how to categorize and lead the customers to the next step in their journey and providing a great experience. Therefore, the marketers can increase their returnon investments through analyzing the data of the customers and understanding what they really want. Furthermore, the marketers can avoid wasting time on frequent advertising which can irritate the clients.

Peyravi et al. (2020) agree on the implications and the development that information technology has shown in the last decade. Therefore, the internet era and digital marketing have created a huge impact on mass media advertising. These have set the ground for personalization, marketing automation, neuromarketing, viral marketing, recognition of voice and conversion optimization. Hence, artificial intelligence has increased its importance in the activities belonging to marketing. The authors are aware of the limitations such as the data process and theaccess to the related literature. They confirm that there is a significant impact of AI in today's

world, therefore, it has created a wide range of opportunities for businesses to reach their goals and break the perceptions of traditional marketing.

Theodoridis & Gkikas (2019) in their work describe the present and the future relationship between the digital marketing and the artificial intelligence, and in the meantime several ways of engaging the artificial intelligence in the development of applications. Digital marketing as an important branch of Marketing science is used to create values for the organizations and increase the engagement of the customers by using electronic services. Digital era has helped the vast majority of the industries to monitor their procedures such as the branding, promotion, advertising, production, and the channels of distributions. Based on the data gathered, the experience from the interaction with the customers and the overview of sales, the managers of the businesses might take more accurate data for taking decisions. However, sometimes the amount of data is excessive which might make the work complicated. Firms are investing high amounts to tackle audience of customers which have not covered before and while dealing with huge amount of data can lead to stressful environment. Marketers have to deal with these particular situations daily and they are using smart applications for better analysis of the data and decision making. Recently, in order to increase the awareness of the customers industries are undertaking financial investments and are finding innovative solutions. The main task of the marketers in the world of complex data is to identify the needs of the customers and identify technology solutions. On the other hand, it seems that businesses have understood the speed that the world has switched nowadays and are implementing smart applications to affect the marketing world and the process of decision making. Several intelligent models are being implemented in order to predict the actions of customers based on the variables of interests. They state that data mining, artificial intelligence (AI), machine learning, deep learning could act complementary to marketing science. User profiling, data classification, content optimization, optimized targeted audiences, predictive models, search engine ranking factors optimizations are some of the benefits that artificial intelligence (AI) could provide and generate highly accurate results.

Artificial intelligence can personalize marketing in various ways. Currently, lots of firms are using their personal websites, the posts of the social media, videos, and other materials to fulfill the needs of their customers. One of the main goals of artificial intelligence is the automation of jobs which need mainly the human intellect. The decrease of the number of labor resources which are required by a firm to execute a task or a project or the amount of time that is being dedicated for a particular chore, it highly benefits the firms.

Khokar (2020) state that the business environment is evolving daily, and innovations are being seen in every aspect of business. Marketing has evolved too, and communication and integration have been influenced too, therefore the recent development of artificial intelligence has transitioned the conventional marketing to non-conventional marketing. Therefore, businesses nowadays have to study the attachment of artificial intelligence in marketing and the perception of the consumers for AI marketing. Hence, the author has employed a survey in order to understand the impact of artificial intelligence of marketing as medium of research to understand the awareness and the factors that have led to the adoption of AI. The study revealed that it has been a mass attention of the people directed to the AI, but the proper implementation will take some time to attach to the needs of the companies and customers.

Murgai (2018) in his study accepts that the last decade has shown rapid development in terms of technology and its implementation. Further, it has changed the perception of how we see the world. Business and trade have gained under the umbrella of new technology development in terms of efficiency and productivity. Efficiency and productivity have increased production in large volumes. Moreover, other technologies such as data analytics, mobile devices, automation, and artificial intelligence are changing the how the society and individuals interact with one another. Researchers nowadays are not focusing more on the use of marketing, but on finding solutions through machine learning and the analytics of big data.

3.3. The use of artificial intelligence in various marketing segments

Pricing, strategy and planning, product, promotion, and the management of place all elements have been vital in targeting the artificial intelligence-based systems in almost all marketing scenarios (Haleem et al., 2022). In their study, they acknowledge the importance of other elements such as targeting and positioning, situations, and thinking models towards the product design and end- customer needs have been targeted as essential aspects of marketing for AI applications.

For instance, Han et al. (2021) in their study acknowledge the importance of artificial intelligence for all the companies. In their literature, they show the challenges that are related to the innovations of artificial intelligence enabled for the marketing of business-to-business and the diversity and importance of the roles of artificial intelligence for this matter. Therefore, in their study they examine various aspects that artificial intelligence can allow the marketing innovation of B2B. The authors have implemented a bibliometric research method, to focus on the available literature related to the AI-B2B marketing, respectively 221 journal articles that are published from

1990 to 2021. Except of focusing on most important authors and the articles cited more, the study considers use of artificial intelligence in B2B marketing divided into five categories, they identify the current trends in the current literature and suggest further directions for the research. The research has several implications and through the five categories identified, the researchers might assess the use of artificial intelligence and identify future needs for making appropriate decisions on how to focus their marketing budget on AI. Hence, there is an awareness of the companies of how to implement the innovations of digital marketing through artificial intelligence. The study contributes to the current literature by presenting the first large scale review of all articles available for AI in the B2B marketing through the comparison of the most influential works and performing a series of analysis. Moreover, they identify five categories of how artificial intelligence can be used for facilitating the use of B2B marketing. They classify the articles in five different time periods which explain the present and forecast the future directions.

Ismagiloiva et al. (2020) in their study acknowledge the importance of the artificial intelligence in marketing in the last two decades, therefore, a systematic review is being performed in order to get a deeper insight of the area. Therefore, the researchers have conducted a bibliometric analysis of the current literature which consider the impact of artificial intelligence in marketing using 617 research papers from 1992 to 2020. They visualize knowledge maps of the artificial intelligence in the marketing field through the Cite Space software.

Lai and Yu (2021) in their study reveal that technologies like cloud computing, big data, interaction through motion and sensing, and artificial intelligence have brought several changes to the cultivation of digital marketing. They specify that there is a need for the students to use the applications of artificial intelligence and have a deep insight into the world. Moreover, they can increase creativity for the media and knowledge for project management. At this way their curriculum will be enriched with the abilities of researching and searching for content products and began their business.

Artificial intelligence is used by the marketers in order to increase the demand of the clients. Consumers are having an amazing experience by using applications which are integrated with machine intelligence. It can help to track their purchase; the time and the place being made. It can track also data related to the customers and provide customized messages to them. When the users explore the retailer, messages are generated which contain suggestions and offers to improve the value of their orders.

Rizvi et al. (2021) specify that artificial intelligence is acknowledged as innovative technology, and many corporations and people worldwide are making everything possible to implement artificial intelligence in all the sectors. The introduction of the notions of Smart Factories and Industry 4.0 has obligated somehow the enterprises to use automation and robots to improve their product performance and overall productivity. Indeed, the artificial intelligence is being vital for increasing the research and development, to increase the quality and reduce the errors, to maintain the supply chain of the enterprises by being able to project the demand and simulate the outcomes in terms of high competition. However, the requirement has been to construct an industry which should adapt to the changes and should be compatible to workforce for creating an environment which is collaborative for the employees and the technology for working effectively. Therefore, in order to perform the study, the authors have used several keywords and the Google Scholar. They have examined also several articles, papers and journals and data. After the analyzing process, they suggest particular changes for the current policies.

Liu and Chen (2021) determine that the progress of technology and the advancement of artificial intelligence has increased the use of intelligent technology products. Nevertheless, due to several factors, the marketing status of these types of products is not good especially for the big data and other issues. Recently, due to the competition in the market, the intelligent technologies of digital marketing are facing greater problems. Therefore, the aim of the study was to examine the current situation related to the brand marketing of various intelligent technology under the framework of artificial intelligence and to suggest different optimization strategies for these types of products such as the promotion of the brand marketing which directly affects to the intelligent products. Using the artificial intelligence and different notions of brand marketing, through consistent investigation of intelligent technology brand marketing, the authors analyze the status of the intelligent technology brand marketing and other related issues related to marketing, product type, product price. There are several angles of the factors which do influence the marketing and these elements are put forward for the optimization of smart technology products brand marketing. The results show that the yearly growth turnover of smart technology brand is being reduced at the present stage. The rate for the turnover was increased in 2019 lower than 2015 and it has decreased by 33 %. The authors identify the problems with the marketing strategy of these intelligent technology brands and urge to resolve to optimization of marketing strategy. Marketing gives the enterprises a competitive advantage by using an internal approach to their system automation. Hence, the ability for decision making and the client micromanagement are the

advantages that artificial intelligent marketing offers. On the other hand, data is critical for being used through machine learning algorithms.

Karimova & Goby (2020) in their study explore the relation between the Jungian archetypes that is used mainly in marketing and three other well-known products that are based on artificial intelligence such as Sophia, Alexa and Articoolo. The overall study was conducted through 11 interviews on how they conceptualize these AI based products. The study is an attempt to build theory and perform a qualitative analysis of the narratives of the interviewed. Nevertheless, the human features assigned to the products, the participants revealed that were concerned about the purpose, efficiency and the reliability which showed that it could be assigned to the products. This is an exploitation of the relation of some common archetypes that were traditionally exploited in the traditional marketing and suggest trust of the customers to the artificial intelligence products. The study has great contribution and implications to the current literature as there are few studies which focus on the marketing of artificial intelligence. As artificial intelligence intention is to resemble some features of the human intelligence, the main role of the archetype is to create a personality which will increase the trust for increasing the confidence of customers.

Currently, as the algorithms of artificial intelligence and machine learning are used to forecast different models, the risk for human errors is diminished and the audience data is more efficient together with the advertising. Mostly people would like to see advertisements which are related to them or address their needs. Marketers create targeted ads and strategies which suit their customers. The main aim is to target the right consumers group and respond positively to the advertising in front of them. Hence, they can do this through leveraging the models of the artificial intelligence and the algorithms.

Hermann et al. (2021) in his study acknowledges that in neoclassical economics both the companies and the customers aim to maximize their self-interest. If the enterprises seek to maximize their profits, the individuals aim is to increase their utility, satisfaction, and happiness. Consumers can receive the utility and the happiness from the consumptions which aim to improve their standard of living. Therefore, in his study the author is focused on anti- consumption, growth, and sufficiency. He adopts an advocacy perceptive which seeks to optimize the status quo through leveraging artificial intelligence in marketing in order to approach a better sustainable consumption. In the marketing framework is claimed to fulfil the needs of the customers, but an endless aim to satisfy the needs can further increase consumption, influence the resources, have an adverse effect for the environment and the climate change. Therefore, as

the companies and the marketers increase their knowledge, they are more aware of the transition they have to make for their businesses to sustainable strategies and marketing practices.

Kuhl (2020) in his study states that the supervision and the monitoring of the needs of the customers is important for the customers because it allows them to design products and services which address the needs and control the activities of the marketing. Even though there are different approaches possible available, most of the enterprises lack automation, scalability, and the capabilities of monitoring. In his work, the author demonstrates the feasibility towards the prioritization and the quantification of the needs of customers from social media data. In order to do so, the author applies an approach based on supervised machine learning following the example of the data from twitter for the domain of e-mobility. The study codes over 1000 German tweets and design eight different classification models, so the respective artefact can determine autonomously the probability each tweet will contain at least one of the eight needs specified before. To increase the contribution in the literature, the study deploys the models of machine learning for being part of a web service for public use. The results suggest important insights for the supervision and monitoring when there are analyzed user-generated contents on a large scale.

Yau et al. (2021) in their work present a framework of the artificial intelligence marketing which allows independent machines to gather large scale data and other possible information, to use the artificial intelligence to create knowledge and use this knowledge for increasing the relationship with the customers in an environment based on knowledge. For designing the artificial intelligence framework, they bring together and consider a huge level of literature review by including examples from the real life and other case studies, and then understand how the studies can contribute to the framework being used in this research study. The artificial intelligence marketing framework is explained from the interdisciplinary perspective, that has an important role from the artificial intelligence and the marketing academia. The artificial intelligence marketing framework includes three main elements which as the initial processor, the leading processor, and the memory storage. The main processor is the key element component which employs artificial intelligence to process large scale of structured data for being able to make decisions related to real time. The artificial intelligence approach has its main hypothetical features, its learning paradigms, the modes which operates with humans. The main aim for developing the artificial intelligence framework is strategically to increase the relationship with the customers and their confidence, their satisfaction, engagement, and loyalty. Further, the article sets future implications that are related for further research for this interdisciplinary work.

Artificial intelligence is helping marketers to design campaigns of marketing that include ad targeting. Nowadays, machine learning can be used to differentiate through the purchase, the current conversion, and exploratory behavior which targets aspects of converting customers from potential customers to actual customers. One of the most amazing tools driven by artificial intelligence is the software for the facial recognition, which helps to track the customers based on their in-store visits and link to their images in their profiles on social media. When these technologies are paired with artificial intelligence smart notifications, they can send frequent offers, real time discounts and welcoming messages to every visitor, which results to a new level of customers experience.

Kose (2018) in their study for example state that the development of internet and the web platform have had a significant impact on the transition of information for becoming it more accessible and transformable. Hence, this digital transition has influenced our daily lives. Because of this, the digital world is being used in all industries and in all the tasks that are performed by people. Marketing is one of the recent developments and the concept of content marketing is taking place to support the digital approach and various approaches. There is vast research on the impact that various digital marketing processes are having specially to improve the awareness of the content through effective digital products and services, that are being circulating in the environments which are popular such as social media. The main objective of the study has been content marketing and how to improve it in an alternative way, based on artificial intelligence. The research paper takes several examples from various models of intelligent content marketing for improving the functions of content marketing and more, thanks to contribution of artificial intelligence which is shaping the future and its trends.

Kreutzer & Sirrenberg (2019) in their study show how artificial intelligence supports the forecasting and helps to improve the profiling of the identities of look-alike audiences. Further, they discuss the opportunities to develop personalized recommendations and the plans of the media based on artificial intelligence. An important use of artificial intelligence is commerce. They reveal that artificial intelligence systems can be used for the sentiment analysis and the creation of the contents and their distributions. However, the identification of fake accounts and fake news is a great challenge for the processes of artificial intelligence.

Pavaloiu (2016) in her study states that the worldwide trends are leading to disruptive innovation and the technology coming from the artificial intelligence is part of it. The aim of the study was to evaluate the influence of artificial intelligence on the global trends, through macro

dimensions upon the environment of the industries, economic and employment dimensions, and other micro-dimensions such as finance, marketing, and management. The study is based on a practical approach which is conducted through qualitative methods such as purposive sampling.The author is focused on the impact of artificial intelligence for the company such as different make-up for the workforce population, the hierarchy, and the needs of the employees for democracy. The study concludes with implications which emphasize the impact that machines could help people by creating an environment which is friendly with artificial intelligence for people and people friendly for the machines.

Geru et al. (2018) in their study investigate how the user generated content in the social media can act as an instrument for marketing research and identify consumer behavior. The analysis was performed based on a sample of 900 images taken from Instagram which containthe hashtag of the good life and are labeled for the digital photos by using algorithms of the machine learning. The results of the study from the visual representation of the clusters show several marketing implications by using the method of K-mean.

Puntoni et al.(2021) reveal that the artificial intelligence helps the companies to provide better product and services to the customers, as it offers the monitoring of the health through the wearable devices, it offers advices through the recommender systems, offers peace through the smart based technology products and other convenience and voice virtual activated assistants. However, they state that artificial intelligence can be considered as neutral tool for evaluating with efficiency and accuracy, the approach does not take in consideration the challenges, social and individual ones when the artificial intelligence is deployed. The research study seeks to overlap the current literature through two different perspectives: from one side the authors acknowledge the fact of the added value that embedding the artificial intelligence to the products and services can offer to the customers, and on the other hand, they build a study based on the integration sociological and psychological one in order to examine the costs that occur when the customers interact with the artificial intelligence. Therefore, by doing so, they divide the experiences of the customers with the artificial intelligence in four groups: data capture, classification, delegation and social. Through this approach they are able to discuss the policy and managerial implications for addressing the manners through which consumers might fail to experience added value into the investments of the enterprises in the artificial intelligence and set further suggestions for the future.

3.4. The cycle research-strategy-action

The current literature proposes a strategic planning framework based on three stages based on the cycle research-strategy- action (Huang and Trust, 2021). Similar approach has been suggested by the work of (Deming, 1986) such as plan-do-act cycle which differs from the previous approach because excludes the influence of the strategy. The cycle suggested by (Huang and Trust, 2021) shows that the indeed is a strategic planning which consists in a circular process which begins with the conduction of the marketing research for understanding the market, the organization, its competitors, and the clients, then developing strategies for the segmentation, the target and the position, design particular actions for the execution of the strategies. Indeed, the cycle does not end with the marketing tasks. The completion of the tasks will also serve as feedback for the research of the marketing with the data, and indeed is a continuous cycle.

Figure 1. AI and strategic marketing decisions

Source: (Huang and Trust, 2021)

3.5. AI and digital marketing

Gacanin and Wagner (2019) in their study consider the main difficulties for the implementation of the customer experience management (CEM). The authors investigate also how the intelligence network and the main drivers of value in a business have been established through AI and ML. Similarly, in their study (Nguyen and Sidorova, 2018) show that the experience of the customers is being improved through the chatbots that are AI driven with the Natural Language Processing (NLP) (Nguyen and Sidorova, 2018). Maxwell et al., (2011) in their study show that the algorithms of AI and the ML allow them to process effective data based on which correct decisions are being taken while (Chatterjee et al., 2019) in their study confirm that the implementation of the AI is important to analyze the habits, the purchases, the preferences and the dislikes of the customers.

The functions of the management of the customers relations (CRM) has benefited from the Artificial Intelligence User Interface (AIUI) (Seranmadevi & Kumar, 2019). Sujata et al., (2019) in their study show that the AI and IoT has transitioned the traditional retail stores to smart retail stores. The transition to smart retail stores has increased the customers' experience and has benefited the customers for shopping and an improved supply chain. Nevertheless, the stores and the AI guide the strategy of the organizations too. Sha and Rajeswari (2019) define the progress of the AI and have evidenced the AI-support machine which is able to track the five senses of the humans. Their results show a better relation of the clients to the brand and a better relation product-brand in the organization.

3.5.1. Strategy and planning

AI can support the marketers in designing and planning and the activities of marketing by giving a hand at the segmentation, targeting and the positioning (STP). Besides, STP, the AI can help the organizations to define the strategic orientation for them (Huang & Rust, 2017). Text mining and the algorithms of the machine learning are applied in different sectors such as banking and finance, tourism and other industries which allow to identify the most profitable segments (Pitt et al., 2020. On the other hand, a combination of techniques related to data optimization, machine learning and tree forests can decrease the number of targeted clients too (Simester et al., 2020).

3.5.2. Product management

AI tools such as those marketing analytics can measure how much the design of the products fits to the needs of the customers and how much it satisfies them (Dekimpe, 2020). So the discussion about modelling includes also the capabilities of the system to service to the innovation and the design (Antons & Breidbach, 2018). Meanwhile the weight of the preferences assigned to the attributes of the products during the product helps the marketers to get an insight into relation to the product recommender system and to attach the marketing strategies for doing a better management of the product (Dzyabura & Hauser, 2019). For instance, deep learning can help to personalize all the recommendations and explore new locations (Guo et al., 2018). Indeed, the artificial intelligence allows to offer different attributes the personalized offers to be aligned with the demands of the customers (Kumar et al., 2019).

3.5.3. Pricing management

The pricing strategy includes factors that are included to multiple aspects for the final definition of the price and its calculation is a job itself. The variation of the prices in real time might change do to the changing of the demand which makes the task of pricing really complex. Hence, at this case AI is armed with bandit algorithm which can change the price dynamically and adjust it according the to real time situations (Misra et al., 2019). For instance, in the scenario of the price that is changing, the Bayesian inference could be useful to calculate the price points which match those of the competitors (Bauer & Jannach, 2018). Dekimple (2020) states that the best algorithms for the price are able to take into account the choices of the customers, the strategies of the competitors and the network supply to find the optimal price.

3.5.4. Place management

The access for the product and the evaluation for their availability are crucial components for the marketing mix to measure the customers satisfaction. The distribution of the products is relied on the relations of the networks, the logistics matters, the management of the inventory, the issues related to the transportation and the warehousing, which are mechanical and repetitive in their nature. Hence, the AI is the best fit solutions for the place management by providing innovative solutions such as robots for the packaging tasks, drones for the delivery process, the IoT for tracking the orders and for the refilling (Huang & Rust, 2020). The standardization and the mechanization for the process of distribution brings too much convenience to the suppliers and the

customers. Nevertheless, the convenience in the management of distribution process, the AI allows the firms nowadays to engage customers in the context of their services. The robots of services which are programmed with the emotional AI codes are really useful for surface acting (Wirtz et al., 2018). Robots are able to greet and engage with the customers but nevertheless, the human elements features will need to complement the environment of the services that will delight the customers. The automation process of services accompanied with the AI features offer better opportunities for the increment of the productivity and the performance (Huang & Rust, 2018).

3.5.5. Promotion management

Promotion management uses media planning and scheduling, the management of the advertising campaigns the optimization of search engines etc. The tactics of promotions are being transformed from the physical to the phy-gital. The digital marketing and the campaigns of the social media have progressed due to the development of the of digital transformation all over the world. Due to the transition to a more technological world, the clients are the ones who decide for the contents, for the place and the timing. AI allows to offer customization and personalization messages based on the customers profile and likings (Huang & Rust, 2020). Moreover, the analytics of the contents can help to increase the optimizations of the value and to increase the effectiveness of the messages. AI algorithms allow us to track in real time the customers preferences and dislikes. AI algorithms that are being offered on social media offers new paths for the marketers to attach the marketing strategies based on the customers preferences (1).

3.6. Multiple AI benefits

Each of the AI tools can be used to generate unique benefits: (Huang and Rust, 2020) in their study states that mechanical AI is best fit for standardization, thinking AI is best for the personalization while the feeling AI is used for the renationalization. Mechanical AI ensures profits due to the capability to be consistent. In the marketing field, there are several forms of mechanical AI such as collaborative robots to help with the packaging process, drones which help to distribute physically goods, robots which do the self-delivery services and other robots which have a social presence in the frontline (Mende et al.2019). All these examples aim to produce outcomes which are standardized, consistent, and reliable.

Thinking AI is related to the personalized benefits due the capability to understand patterns from different data such as the text mining, the recognition of speech, the facial recognition etc. Any activity or marketing function which can lead to personalized profits should be included in thinking AI. The most frequent applications are personalized systems for the recommendations. The best examples are the recommendations for movies or Amazon suggestions for products. (Chung et al.2016)

Feeling AI brings relationship benefits such as set personalized relations to the abilities to recognize and answer to the emotions. Any activity or marketing function that demands interaction and the communication for the creation of relational profits should be considered feeling AI – the best example is customer service. A wide range of marketing activities includes feelings such as the satisfaction of the customers, the moods of the customers , the emotions that are being shown in advertising can be included in the AI feeling (Huang and Rust, 2020).

CHAPTER IV METHODOLOGY

4.1. Research methods

The study will implement a combination of qualitative and quantitative research. The aim for using a mixed approach is that through both these tools the study will answer to the research questions, seeks to collect evidence, and produce findings that have not been determined in the current literature . Moreover, the study seeks to produce findings that will be applicable beyond the boundaries of the existing studies.

4.1.1. Qualitative research

Qualitative research seeks to understand a current issue through the perspective of the people who participate in the study. Qualitative research seeks to obtain more information in relation to the beliefs, opinions, behaviors of the population that is being studied. The strength of qualitative research is the ability to give textual description of the experience of the people in relation to a current issue. Indeed, it provides more information related to the "human" side of a particular issue. Qualitative issue is also effective as it seeks to identify intangible factors such social norms, religion, ethnicity, and other factors which influence is not clear for the study (Denzin, 2000).

 When qualitative research is being along with the quantitative approach, it can help to comprehend better the complex reality between a particular phenomenon. Even though the results from the qualitative data can be often used for study samples which share similar characteristics to the study population, it offers a rich and a complex insight of a phenomenon which will be more superior rather than the understanding of the data and be generalized for other populations or geographical areas. There are different methods that are being included in the qualitative research, however, the most frequent ones are:

- Observations of the participants.

The observation of participants is appropriate for the collection of the data that normally comes from observing the behavior.

- Interviews.

In-depth interviews are mainly used for gathering information in relation to personal beliefs, history, perspectives, and life experiences when sensitive topics are being considered.

- Focus groups.

Focus groups are effective when grabbing data for study groups for studying their cultural norms, or

other concerns related to the groups or subgroups which are considered as representatives of the population.

Each of these methods is particularly suited for different types of data (Denzin, 2000).

Overall, qualitative research methods are more flexible, and they allow to the researcher's higher level of spontaneity and adaptability and better interaction between the researchers and the participants that are included in the study. For instance, qualitative studies are used mostly through open-ended questions which are given the space to the participants to express their own beliefs and the responses are not exactly the same for all the participants. Participants are given the freedom to express their opinions and their answers are more complex than a simple answer yes or no. Additionally, the qualitative research methods allow the researchers to set a more informal relationship between him/her and the participants rather than in the quantitative research methods (Denzin, 2000). By implementing the qualitative methods, the researchers have also the opportunity to respond immediately to the participants answers and ask other subsequent questions which allows them to get a better understanding of the phenomenon. It is important to highlight, nevertheless, that there is high flexibility of both parties as researchers are free to ask questions while the respondents have the freedom to answer tailored questions without being pressured. This way, the answers are meaningful and have a rich and explanatory nature. Hence, this study uses qualitative research to do a literature review on the topic by highlighting available studies and working papers that follow the same topic or the closest one (Denzin, 2000).

4.1.2. Quantative research

One of the main factors that distinguished qualitative research from the quantitative one is the outcome that each of them produces. In the qualitative research the researchers aim to learn from the details of the testimonies of the participants that are being involved in the study. Indeed, this consists of compiling, comparing, and evaluating the feedback and the inputs of the participants. Qualitative research is often focused on giving answers on the "why" behind an issue or a particular phenomenon. In contrast, quantitative research is used for developing a statistical picture for the trend or the connection. Hence, statistical results can shed light mainly on cause and effects relations and may confirm or reject the main hypothesis of the study. Even if the outcomes are positive or negative, it can enrich the comprehension of a particular subject and spark its action (Barroga and Matanguihan, 2022).

Quantitative research is often considered on answering the "what" or "how" in relation to a particular behavior, correlation, or phenomenon. The question of how to investigate and analyze

quantitative data is a straightforward approach different from the qualitative tools. In the quantitative approach, the researchers generally show the data through different charts, elements, or graphs. Normally, the data is evaluated through descriptive or inferential statistics. The descriptive statistics is mainly used to give information on the sample study that is being used in the study while inferential study is being used to give general results for forecasting future trends and other predictions related to the population that is being studied. Nevertheless, the benefits that quantitative research methods might bring, the participants cannot personalize their responses or add their own personal beliefs (Barroga and Matanguihan, 2022).

4.2. Data collection

The quantitative research demonstrated below was realized by using "QuestionPro" as a key tool to accumulate the data. A web-based software for administering online surveys. It provides an intuitive wizard interface for creating survey questions, tools for distributing your survey via email or your website, and tools for analyzing and viewing survey results (Stephen Asunka 2016). The objective of this survey was to reflect the perception of a certain amount of people regarding buying online in websites as well as to determine the logic behind their choices and actions. In addition, to identify their opinions towards a website structured by an AI. This study is very current since Artificial Intelligences have gained a boost and are influencing the "mechanisms" of the world day by day. It should be noted that in such studies, there is a high degree of subjectivity both from the designer of the survey in the interpretation of data and at the same time from respondents. It may be that the respondents are unable to provide clarity, or at the same time they do not wish to respond.

To identify the background and main characteristics of a student, the study used a diversity of independent variables:

1. Gender
2. Age
3. Last education level concluded.
4. Occupation in this period
5. Monthly spendings on apparel perspective

The information is provided as natural numbers and their percentage equivalent.

4.3. Research Design

The research began in early March – April and it has included participants which are students or recent graduates from the University of Padua. The first step was the structuring of the study and the literature review, the methodology was defined and then the survey that has been implemented for the study. The data was collected from mid-October 2023 to the end of October 2023. The survey link was distributed to the students' social medias account including WhatsApp, Instagram, and Facebook.

4.4. Research Instrument

The survey questionnaire is composed of a total of 16 questions. Three sections composed of the questionnaire, the first section dealt with demographic information, the second with online shopping, and the third section covered the website generated by artificial intelligence. The questionnaire included:

- Closed questions in the form of multiple-choice questions.
- 7-point Likert scale questions (importance, agreement, and influence).
- Multiple choice questions with only one answer option.

The survey was accompanied by a letter of consent which informed the participants with the purpose of the study. The main aim of the study was to collect 100 answers. However, by the end of the data collection only 82 students responded and participated in the survey.

4.5. Reliability and Validity

Before the survey was distributed, it was sent to the supervisor for approval and for showing the consistency and the validity of the questions that are defined in the questionnaire. As the researcher is not native speaker in language, the survey has been sent to three native speakers to evaluate if the questions make sense in English and if there is any error to be avoided. Moreover, finally, the survey has been distributed to ten participants as a trial and error before the distribution of the survey for being able to estimate the reliability and validity. After all these steps, the survey was designed in Google Forms, and it was distributed to the participants.

4.6. Ethical considerations

At this study, the participants are informed for the purpose of the study and all the possible descriptions are specified at the survey form. Nevertheless, all the data is being stored in a confidential way and at the same time personal data and identity is being kept confidential. No personal information was asked for from the participants and there is no question or variable which requires the participants to do so. The participation in the study is voluntary and each participant has been given the opportunity to leave the study in case they do not want to participate or their answers to be withdrawn from the study.

4.7. Limitations

Although questionnaires are considered as a very efficient method in terms of cost and time, there are still several limitations that are associated with their use as research instruments:

- The responses provided by respondents might not be entirely accurate.
- When questionnaires are filled out, it is possible that certain questions won't be answered.
- Variations in comprehension and interpretation.
- Difficulty expressing emotions and sentiments.
- Analyzing certain questions might be complicated.

CHAPTER V. RESULTS AND DISCUSSIONS

5.1. Results

The survey covered 82 participants from the University of Padua. The data was categorized based on variables such as gender, age, education level, occupation, monthly amount of apparel spendings and shopping online activity. In total, the survey included 4 students who rarely shop online, 4 students who occasionally shop online, 15 students who sometimes shop online, 26 students who frequently shop online, 25 students who usually shop online and 8 students who every time shop online from 3 education levels: bachelor's degree, master's degree, and PhD's degree.

Table 1. Demographic data

Independent Variables	Categories	Number of Students	Percentage Level
Gender	Male	39	*47.6%*
	Female	36	*43.9%*
	Prefer not to answer	7	*8.5%*
Total		**82**	***100%***
Age	19-22	15	*18.3%*
	23-26	40	*48.8%*
	27-30	24	*29.3%*
	31 and above	3	*3.7%*
Total		**82**	***100%***
Education Level	Bachelor's Degree	22	26.8%
	Master's Degree	55	67.1%
	Phd's Degree	5	6.1%
Total		**82**	***100%***
Occupation	Student	29	35.4%
	Full Time Employee	7	8.5%
	Part Time Employee	27	32.9%
	Internship	19	23.2%
Total		**82**	***100%***
Monthly Amount of Apparel Spendings	Under 50€	18	22.0%
	51€-70€	31	37.8%
	71€-90€	24	29.3%
	Over 90€	9	11.0%
Total		**82**	***100%***
Shopping Online Activity	Rarely	4	4.9%
	Occasionally	4	4.9%
	Sometimes	15	18.3%
	Frequently	26	31.7%
	Usually	25	30.5%
	Everytime	8	9.8%
Total		**82**	**100%**

Source: The author

Results for the gender show 39 of the participants were males (in percentage 47.6%) while 36 of them were females (in percentage is 43.9%). Only 7 participants did not prefer to reveal their gender or 8.5 % of them.

The figures for the age show that the group with the highest level of participants was the group 23-26 years old (in percentage 48.8 %) followed by the age group of 27-30 . In the group 27-30 participated 24 participants or 29.3 %. The age group between 19-22 years old had only 15 participants (in percentage 18.3 %) while the age group between 31 and above had 3 participants (in percentage 3.7 %)

Results for the education level showed that 55 of participants had a master's degree or 67.1 % while 22 of them had bachelor's degree or 26.8 %. Only 5 of them had a doctoral degree or 6.1 %. In relation to their occupation, most of the participants reveal that they are students precisely 29 or 35.4 %; 7 of them were full time employee or 8.5 %; 27 of them were part time employee or 32.9 %; whilst 19 of them still pursue their internship or 23.2 %.

The data for the monthly amount of apparel spendings indicate that 24 of the participants spend between 71-90 euro (or 29.3 % in percentage); 31 participants spend between 51 and 70 (37.8 % in percentage) and 18 of them spend below 50 (or 22 % in percentage). Only 9 participants spent above 90 euro (or in percentage 11 %).

The next phase was to point out the student's principles regarding what they consider significant on a shopping online website. The students were asked the question" How important do you consider these factors while visiting a new online shop?". For every factor, the participants could choose a level of importance. The information is presented as standard numbers and percentages.

The data is shown in the table below.

Table 2. The importance of the factors in the website

Factors	Extremely Important	Very Important	Moderately Important	Neutral	Slightly Important	Low Importance	Not Important at All	Total
Design and Structure Appearance	**23** / *28.05%*	19 / *23.17%*	17 / *20.73%*	11 / *13.41%*	12 / *14.63%*	0 / *0.00%*	0 / *0.00%*	**82** / *100.0%*
System and Information Quality	16 / *19.51%*	**22** / *26.83%*	13 / *15.85%*	16 / *19.51%*	15 / *18.29%*	0 / *0.00%*	0 / *0.00%*	**82** / *100.0%*
Ease of Use and Navigation	7 / *8.54%*	15 / *18.29%*	**27** / *32.93%*	18 / *21.95%*	13 / *15.85%*	2 / *2.44%*	0 / *0.00%*	**82** / *100.0%*
Reviews and Ratings	10 / *12.20%*	11 / *13.41%*	16 / *19.51%*	**24** / *29.27%*	18 / *21.95%*	3 / *3.66%*	0 / *0.00%*	**82** / *100.0%*
Pictures of Real People	10 / *12.20%*	12 / *14.63%*	11 / *13.41%*	14 / *17.07%*	**26** / *31.71%*	8 / *9.76%*	1 / *1.22%*	**82** / *100.0%*

Source: The author

From the figure it can be noticed that regarding the first factor "Design and Structure Appearance" participants consider it as an extremely important factor (28.05%) while visiting a new online shop. Concerning the second factor "System and Information Quality", from the results is considered very important (26.83%) compared to the other levels of importance. The third factor "Ease of Use and Navigation" is identified as a moderately important factor (32.93%) in comparison to the other levels of importance for this factor. Continuing with the fourth factor "Reviews and Ratings", participants consider it as a neutral factor (29.27%) in a level of importance. Lastly, the fifth factor "Pictures of Real People" is considered as a factor with slightly importance level (31.71%) compared to the other importance levels for this factor.

The aim of the following questions was to gain insight into the relationship between the participants and shopping online. A 7-point Likert scale was the method used in this section of questions. For the agreement type, there were seven alternatives on a 7 point Likert scale, ranging from 1-Strongly disagree to 7-Strongly Agree. The findings were analyzed using the cross tabulation approach. There were 5 total amount statements. The information is presented as natural numbers (the total number of voters) and their percentage equivalents. The results are demonstrated in Table below .

Table 3. Beliefs on the shopping online

Statement	1-Strongly Disagree	2-Disagree	3-Somewhat Disagree	4-Neither Agree nor Disagree	5-Somewhat Agree	6-Agree	7-Strongly Agree	Overall
Online Shopping is well worth the money	0	7	12	**36**	15	9	3	**82**
	0.00%	8.54%	14.63%	**43.9%**	18.29%	10.98%	3.66%	**100.00%**
If there is no free shipping option, I won't even think about shopping online	3	9	**34**	21	9	3	3	**83**
	3.61%	10.84%	**40.96%**	25.30%	10.84%	3.61%	3.66%	**100.00%**
Examining and evaluating the quality of items in online shopping environment is challenging	0	4	12	17	**29**	11	9	**82**
	0.00%	4.88%	14.63%	20.73%	**35.37%**	13.41%	10.98%	**100.00%**
Prices of products on online shopping are very reasonable	2	8	10	20	**27**	11	4	**82**
	2.44%	9.76%	12.20%	24.39%	**32.93%**	13.41%	4.88%	**100.00%**
If I shop online, I could unintentionally purchase a product	8	**30**	21	14	9	0	0	**82**
	9.76%	**36.59%**	25.61%	17.07%	10.98%	0.00%	0.00%	**100.00%**

Source: The author

From the table above it can be noted that the most common answer to the statement "Online Shopping is well worth the money" was " 4-Neither Agree nor Disagree", 36 participants from 82 chose this option. It indicates that multiple participants are unable to make a specific decision regarding this. Concerning the second statement "If there is no free shipping option, I won't even

think about shopping online", the most frequent response was "3-Somewhat Disagree", 34 participants from 82 opted for this. According to it, free shipping might not be a big deal to the participants when it comes to online shopping.

The most common response about the third statement " Examining and evaluating the quality of items in online shopping environment is challenging" was "5-Somewhat Agree", chosen by 29 respondents. This suggests that participants might struggle to comprehend the quality of products found on the internet. In regard to the fourth statement "Prices on online shopping are very reasonable", the most frequent answer was "5-Somewhat Agree". This statement is roughly similar to the first statement but in this case the participants were more on the side of agreement than neutrality, which in my opinion is due to the term "Prices" having an influence on their choice.

Last but not least the fifth statement "If I shop online, I could unintentionally purchase a product" received from the majority of the respondents, the second level of agreement "Disagree", which was chosen by 30 participants out of 82. The answers show that a large number of students avoid committing the mistake of purchasing a product online unintentionally.

In order to understand the importance of a brand name, the participants were asked this question "How much influence does the brand name of a product or service have on your decision to make a purchase?", considering the possibilities to choose the levels of the influence. The data is presented in percentage. The results are illustrated in Figure 2 below.

Figure 2. Brand name influence
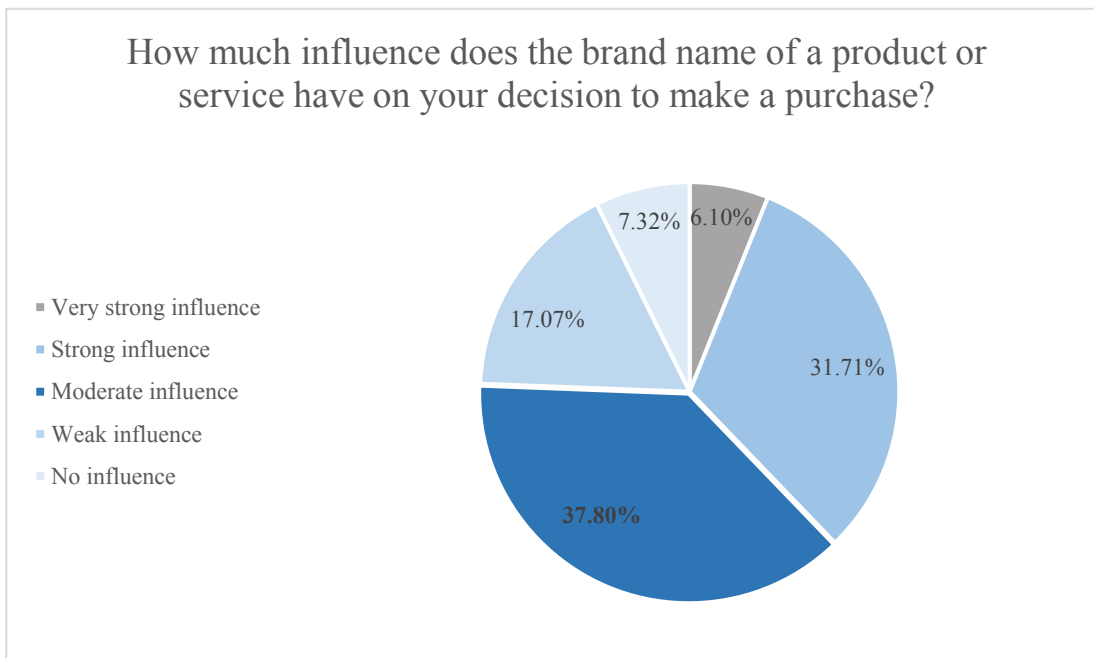
Source: The author

According to the results, it is evident that the majority of participants are influenced by the brand name and to be more precise 37.80 % have a moderate influence by the brand name and 31.71 % are strongly influenced to buy a product by the brand name.

Moving on to the next question, to be able to understand better the relationship between the participants and the privacy section of a website, do you agree with this phrase "I usually read the privacy statement of the website before purchasing a product" was asked. The gathered information is shown as a percentage. Figure X presents the findings in more detail.

Figure 1. Importance of Privacy Statement
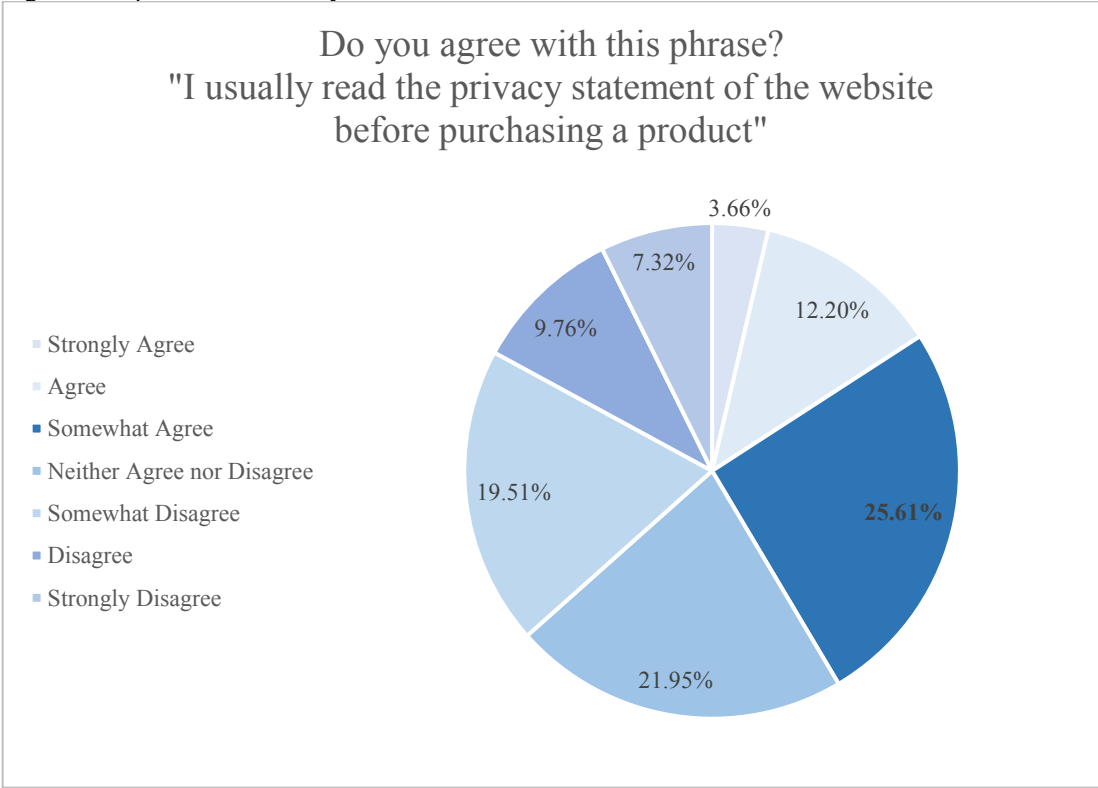
Source: The author

Based on the findings, it can be seen that the three degrees of agreement "Somewhat Agree", "Neither Agree nor Disagree" and "Somewhat Disagree" had very similar numbers, which indicates that there were only minor differences in the respondents' viewpoints. The data suggest that the participants read the privacy statement and may even view it as a crucial aspect of the website.

To gain more insight about the connection of the section "About Us" on a website and trustworthiness of the participants to buy online, we asked their level of agreement on this phrase "I usually check the section "About Us" in order to be more aware about the credibility of the website.". The answers are shown in percentages. Figure below illustrates the data.
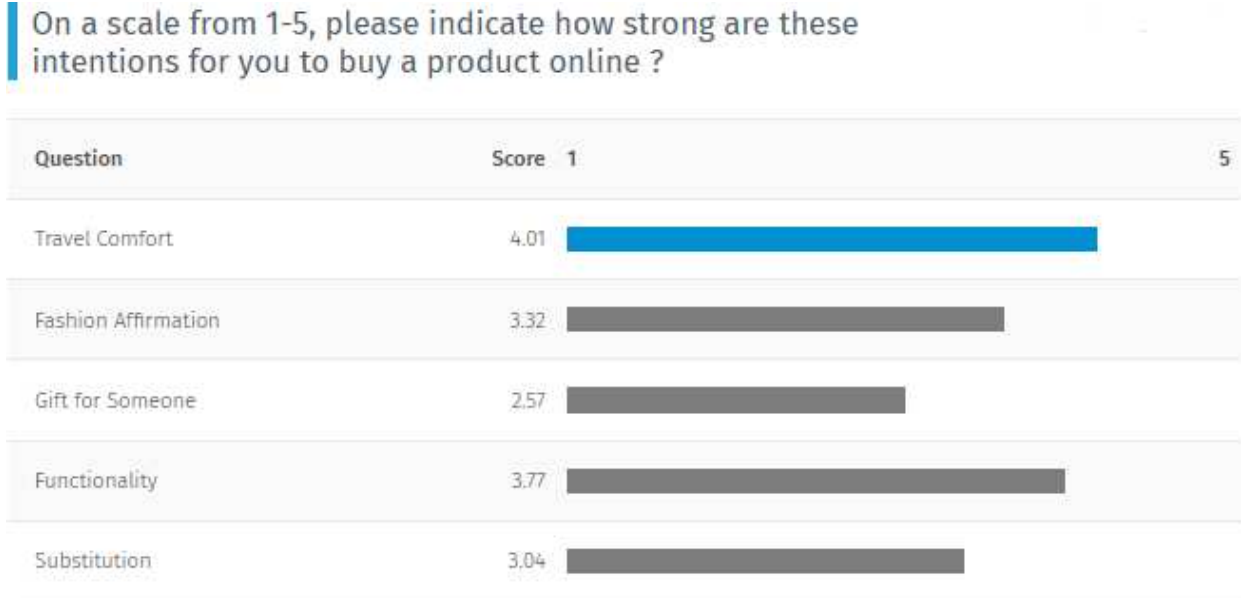
Figure 2. The relevance of "About us" section
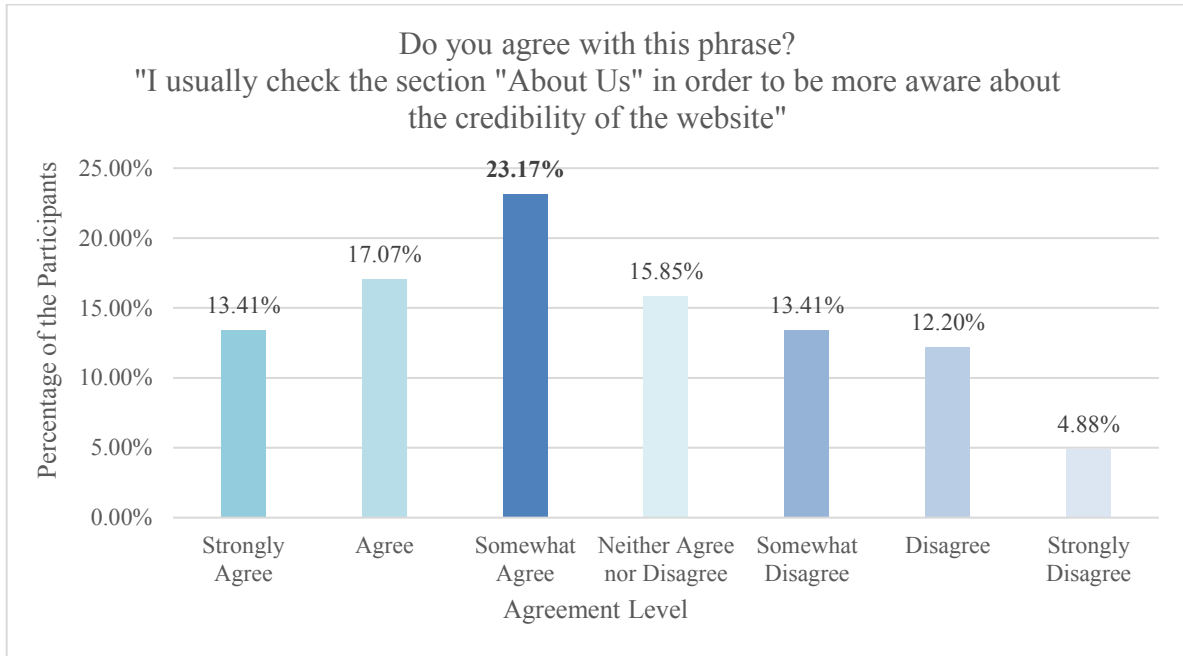
Source: The author

From the figure , it can be seen that participants tend to check this section to be able to understand more about the credibility of the website. The level of agreement "Somewhat agree" was chosen by 23.17% of the participants, although it should be noted that the other percentages are generally rather close to one another, indicating that the students have differing viewpoints on this choice.

The next step was to identify the potential of different purposes to affect the participants decision on buying online. Differently from the other questions, this time the answers are displayed as an average score in which 1 stands for "Very Unlikely" and 5 for "Very Likely". Participants were given the follow request "On a scale from 1-5, please indicate how strong are these intention for you to buy online.".

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Figure 3. Intentions to buy online

On a scale from 1-5, please indicate how strong are these intentions for you to buy a product online ?

Question	Score	1	5
Travel Comfort	4.01		
Fashion Affirmation	3.32		
Gift for Someone	2.57		
Functionality	3.77		
Substitution	3.04		

Source: "QuestionPro"

Based on the results we can assume that for the participants, "Travel Comfort" is the strongest intention to buy online. With a score of 4.01 holds the first place, followed by "Functionality" having a rating of 3.77 and "Fashion Affirmation" with a score of 3.32. Lastly the students consider less potential intention to buy online the followings "Substitution" and "Gift for Someone".

The purpose of the next questions was to find out the perception of the participants regarding the provisional website created by an AI. The first question provides more information concerning the content of the website. The method used in this section was a 7-Likert Scale with level of agreement answers. Even in this question likewise one of the questions above, 5 statements are shown. The data is presented on natural numbers and percentages. Table X illustrates it in more details.

Table 4. Website Content Honesty

Statement	1- Strongly Disagree	2- Disagree	3- Somewhat Disagree	4- Neither Agree nor Disagree	5- Somewhat Agree	6- Agree	7- Strongly Agree	Overall
The website provides truthful information	0	6	12	**29**	19	13	4	**82**
	0.00%	7.32%	14.63%	*35.37%*	23.17%	14.63%	4.88%	*100.00%*
The website reflects integrity	0	6	9	18	**33**	11	5	**82**
	0.00%	7.32%	10.98%	21.95%	*40.24%*	13.41%	6.10%	*100.00%*
The information provided by the website is believable	0	2	9	20	**29**	17	5	**82**
	0.00%	2.44%	10.98%	24.39%	*35.37%*	20.73%	6.10%	*100.00%*
The content of the website reflects competency	0	4	7	18	**31**	11	11	**82**
	0.00%	4.88%	8.54%	21.95%	*37.80%*	13.41%	13.41%	*100.00%*
The website content reflects expertise	0	3	13	19	**27**	14	6	**82**
	0.00%	3.66%	15.85%	23.17%	*32.93%*	17.07%	7.32%	*100.00%*

Source: The author

From the table it can be noted that a large number of participants do not have a concrete attitude regarding the first statement "The website provides truthful information". 35.37 % of them neither agree nor disagree about the fact that the website information was accurate. In my opinion this belief is caused by the fact that nobody can be 100% certain that what is claimed is true. In the other hand, the participants looks to have a common opinion concerning the other statements. A great number of students consider the website a website that reflects integrity, specifically 40.24% of

them. In contrast with the first statement, the participants have chosen more the level of agreement "Somewhat Agree" by 35.37% regarding the credibility of the information even though a significant number have selected the neutral degree of agreement too. It can be mentioned that oddly the same level of agreement "Somewhat Agree" is chosen even for the other two statements about the competency and expertise of the website. Respectively the percentages of these selections are 37.80% and 32.93%.

The second question was still 7 point Likert one and related for another aspect of the website, "The Website Predictability and Ease of Use". Identical with the question above, 5 statements are illustrated, and the participant is required to choose a level of agreement. The data is provided in natural numbers and in their percentage equivalent. Table X summarizes the feedback.

*Table 5. Website Predictability and Ease of Use*

Statement	1- Strongly Disagree	2- Disagree	3- Somewhat Disagree	4- Neither Agree nor Disagree	5- Somewhat Agree	6- Agree	7- Strongly Agree	Overall
The interaction with the website went as I expected	0	0	11	9	19	27	16	82
	0.00%	0.00%	13.41%	10.98%	23.17%	32.93%	19.51%	100.00%
I find it predictable that the website has the type of content it does	0	0	11	13	35	20	3	82
	0.00%	0.00%	13.41%	15.85%	42.68%	24.39%	3.66%	100.00%
The website is what I anticipated	0	0	15	29	20	13	5	82
	0.00%	0.00%	18.29%	35.37%	24.39%	15.85%	6.10%	100.00%
I found the website easy to use	0	0	3	15	13	40	11	82
	0.00%	0.00%	3.66%	18.29%	15.85%	48.78%	13.41%	100.00%
I found it easy to get this website to do what I wanted to do	0	6	8	18	28	14	8	82
	0.00%	7.32%	9.76%	21.95%	34.15%	17.07%	9.76%	100.00%

Source: The author

Table above shows that in comparison with the table in question above, the participants have diverse thoughts regarding these statements. Firstly, 32.93% of students agree that the interaction with the website went as they expected, and the majority have selected the levels of agreement on the right side of the neutral degree. Regarding the predictability, a significant number of participants have chosen "Somewhat Agree", specifically 42.68%, therefore is understandable that the respondents may be familiar with the contents of these websites. Moving on to the third statement "The website is what I anticipated", the answers are truly diversified, with the degree of agreement "Neither Agree nor Disagree" being the most selected answer by the students.

A reason for this selection might be the fact that the expectations of customers for shopping online are increasing day by day because of the new technologies implemented in online shops. The statement about the ease of use is easy to understand because approximately half of participants have chosen the level of agreement "Agree", indicating how user-friendly the website was. At last regarding the fifth statement "I found it easy to get this website to do what I wanted to do", a great number of participants has selected the degree of agreement "Somewhat Agree" precisely 34.15% of the participants displaying somehow the positive interaction with the website.

The next final task concerning the perspective of the participants on the AI created website was risk and trust. In order to understand more about these concerns, 4 statements were presented and for each statement, the participant need to choose one level of agreement. Similar to the other questions, 7 Likert Scale was applied. The results are demonstrated in Table 8.

Table 6. The website risk and trust

Statement	1- Strongly Disagree	2- Disagree	3- Somewhat Disagree	4- Neither Agree nor Disagree	5- Somewhat Agree	6- Agree	7- Strongly Agree	Overall
I believe that there could be negative consequences from using this website	4	**33**	15	25	5	0	0	**82**
	4.88%	***40.24%***	*18.29%*	*30.49%*	*6.10%*	*0.00%*	*0.00%*	*100.00%*
I feel I must be cautious when using this website	4	19	12	**31**	14	2	0	**82**
	4.88%	*23.17%*	*14.63%*	***37.80%***	*17.07%*	*2.44%*	*0.00%*	*100.00%*
I expect this website will not take advantage of me	0	0	1	20	**37**	17	7	**82**
	0.00%	*0.00%*	*1.22%*	*24.39%*	***45.12%***	*20.73%*	*8.54%*	*100.00%*
I trust this website	0	0	0	17	20	**33**	12	**82**
	0.00%	*0.00%*	*0.00%*	*20.73%*	*24.39%*	***40.24%***	*14.63%*	*100.00%*

Source: The author

According to the findings, a significant number of participants assume that accessing the website is unlikely to have any negative effects on them. Precisely 40.24 % have selected the level of agreement "Disagree" on the first argument. Continuing on the second statement, practically comparable with the first one because it displays too data about the risk beliefs on a website, 37.80 % of the participants which is the larger percentage, are neutral regarding the fact to be cautious when using this website or not. Third argument "I expect this website will not take advantage of me" which is closer to the concept of trust, was considered as a valid perspective because 45.12 % of the participants have selected the level of agreement "Agree". To conclude this set of questions, the fourth statement, which can be mentioned as part of the most important ones, reflects the final thought of the participants regarding the website. For the argument " I trust this website", 40.24% of the respondents have chosen "Agree" and this suggests the following : The participants can buy from the website generated by an AI.

The last question addressed in this survey was about the perspective regarding the involvement of Artificial Intelligence in the generation of the website. It was a Yes/No question, and the goal was to determine how many participants believe that the website is created by an AI. The findings are illustrated in percentages on pie chart below.

Figure 4. Perspective about AI involvement
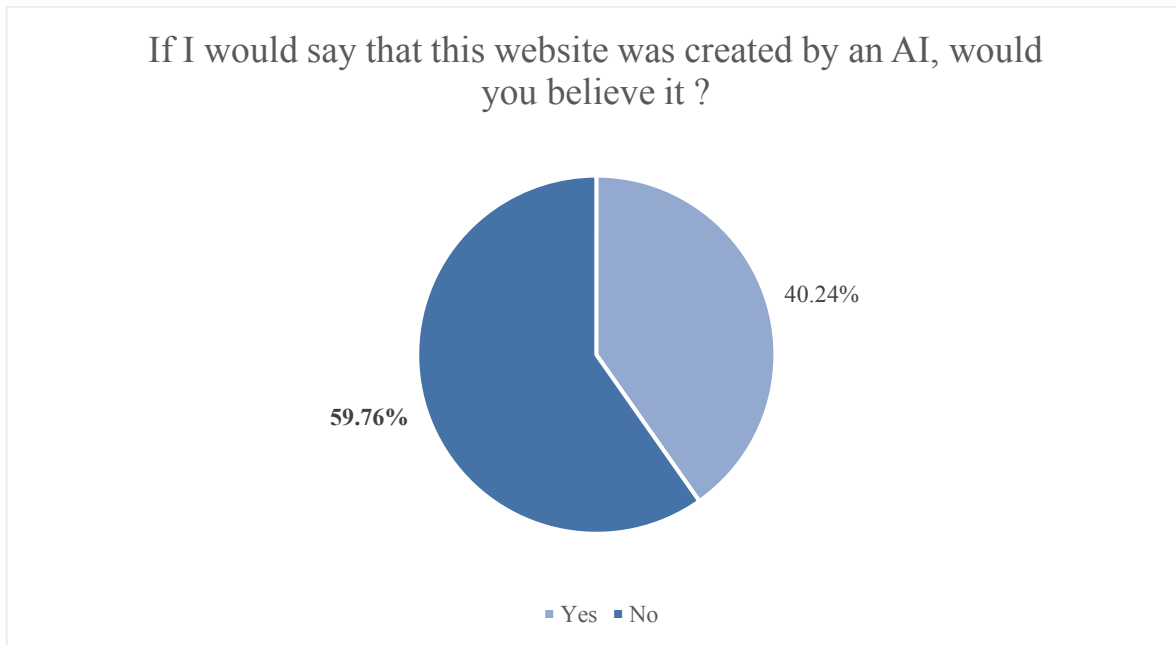
Source: The author

Based on the figure above , we can clearly understand that 59.76% of the participants do not believe that the website is generated by an Artificial Intelligence. In the other hand, 40.24% of the participants think that an AI is responsible for creating the website. In my opinion the proportion of the answer "No" is greater because the provisional website is quite similar to the websites created by human beings. The small differences can be recognized maybe by students with higher technological knowledge.

5.2. Discussion

In this section, we are going to review the survey findings, connect them together based on similar characteristics and bring up some interpretations. The questionnaire answers will be analyzed into two main areas: the first area is regarding online shopping beliefs and the second area is about the judgment of a provisional website.

The purpose of the survey was to evaluate the opinions and decisions of participants concerning the purchase of products online and to analyze their perception on a provisional website created by an AI. Additionally, it was crucial to highlight any potential factors and intentions that the participants would have while buying online. The results of the first area can be divided into 3 groups:

➢ Importance of specific factors for the participants while visiting a website
➢ Their points of view regarding purchasing online
➢ How interest do they have on particular sections on a website

Beginning with the first group, in order to understand which factors the participants consider important while visiting a website, we asked participants to select the level of importance based on 7 points Likert scale for each of 5 factors. Based on the outcomes if we will rank the factors considering their level of importance from extremely important to slightly important the list it will be structured like this:

1. Design and Structure Appearance
2. System and Information Quality
3. Ease of Use and Navigation
4. Reviews and Ratings
5. Pictures of Real People

My point of view is that "Design and Structure Appearance" stands as the most important one considering the visible aspect. Layout is the first piece of the website which is noticed first while visiting it and it is logical to expect a beautiful design as the first thing to see when you open a site.

Secondly, to comprehend more about the logic of purchasing online, using again 7 points Likert scale, the participants had to select a level of agreement for 5 statements connected to buying on an online shop. Based on the results, we can say that the participants can be interested in purchasing online as due to prices being reasonable, at least 32.93% of them. Nowadays the number of online shops is increasing therefore the creation of competitions may be decreasing the prices of products. A disagreement from the participants is the second statement and it can be presumed that

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free shipping options are not mandatory for participants to buy online. The fact that products online cannot be touched and relying on pictures might increase the challenge of the quality check and from the results can be noted that the majority of participants agree with that. One other interesting point to mention from the results is the fact of getting influenced by the brand name. An overwhelming number of participants, 74.6% get influenced to buy a product by the brand name of a product.

Lastly, regarding the online shopping, to understand more about the interest of participants on observing two sections of a website, "About Us" and "Privacy Policy", they were asked to choose a level of agreement about the fact of checking these two elements of a website. The reason why was asked only for these two elements is because the AI that generated the provisional website, created these two sections. From the results, is noticeable that for both sections the participants have chosen more from the agree side of the answers therefore we can say that AI can create parts of a website that people consider important to check. Consequently, AI can influence people's decision by making them believe in the website truthiness by generating these two sections in a credible way.

Continuing on with the second part of the survey responses, which can be considered as the most important ones regarding the surveys intention. In order to understand in-depth about the participants perception on shopping websites, we decided to divide the questions in three categories:

1. The website content honesty
2. The website predictability and ease of use
3. The website risk and trust

The first category provides more in detail insights concerning the content of the website generated by an AI. From table 6, it can be noted that the majority of respondents have chosen "Somewhat Agree" and "Neither Agree nor Disagree" on 5 statements included. Such reasoning can happen due to different reasons. If we take as an example the first statement, "The website provides truthful information", the percentage is higher on the neutral level of agreement as mentioned even above on the analysis. In my opinion this belief is caused by the fact that people in general cannot be always certain that what is claimed is true. By overviewing the answers about the other statements, it should be mentioned the bizarre selection of the level of agreement "Somewhat agree" in all the other 4 statements. Considering that, we can assert the assumption that the content of the website reflects reliable information by taking into account the elements of integrity, competency, and expertise.

Furthermore, the second category contains more thorough information on the dependability

and accessibility of the website. As can be seen from the table 7, there is more variety of choices and answers revolving around the agree segment of the statements. A large number of participants agree on the fact that the website is manageable and easy to utilize. By this information, we may acknowledge the fact that an AI is capable of creating a website that makes online shopping pleasant. Having a look at the data, the perception regarding predictability is varied. The majority of answers are around the levels of agreement, "Somewhat Agree" and "Neither Agree nor Disagree", which might suggest that the participants are not quite certain on website predictability. The logic behind this point of view may be the fact of not thinking about the website characteristics before visiting it.

The purpose of the survey's last questions was to find out how participants felt about the risk associated with browsing the website that was presented and the faith they possess in using the website. To begin with, a great number of participants disagree with the statement on the potential negative consequences of utilizing this website. This data indicates that the website does not show any unreliable components. Nevertheless, participants lack a concrete belief regarding the need to be cautious while using this website. It is possible to derive from the information provided that either being cautious is not seen as a significant factor or that there are no parts displayed on the website to cause concern to the participants. In my opinion, the internet is a big dimension, can look safe but we should constantly be cautious while surfing on it. The participants conclusion selection is that they believe this website to be trustworthy. These findings imply that artificial intelligence has the capabilities of building a website that people will find reliable.

The final results show that might be challenging to understand that an artificial intelligence generated this website.

CHAPTER VI. CONCLUSIONS AND RECOMMENDATIONS

6.1. Conclusions

Based on all this, the study can conclude that marketing is not done only to make money, it has not to do only with sales, advertising or only with publicity. All of these intertwine itself by creating pleasure from selling, profiting or even when others talk about it by advertising it or publishing it. All these firms do to keep their customers close with different strategies which are aligned to different stakeholders which provide them a profit, and this aims to provide the resources to operate in the years of next. Therefore, the definition of the right strategies with the aim of long-term development of the enterprises in the market is difficult. For this, experts from the field of marketing are needed.

In the third section were discussed the quantitative study and the results. The survey was carried out to the participants by sharing its link via social media platforms. The research included 82 participants, part of University of Padua which are studying in a bachelor's, master's, or PhD's degree. The survey's objective was to discover participants' beliefs toward online shopping and their perceptions regarding a website created by an artificial intelligence. The research findings showed that the most important factor while visiting online shopping for the participants was design and structure appearance which is understandable because is the first visible element of a website. Additionally, including all parts of the shopping online such as: products prices, shipping fees, subscriptions on websites, the respondents appear unsure about whether it's worth the money or not. Generally it seems that participants consider online shopping as a manageable tool and reasonable to buy from if we only to price of products even though it can be challenging to evaluate the quality of products. The survey showed that most of participants act cautiously while visiting a website by checking sections such as: privacy statement and about us for more clarity. Travel comfort is classified as the first intention for the participant to buy the product shown on the website generated by artificial intelligence.

By analyzing the answers regarding the perception of the website, we can conclude it briefly into these 3 points:

1. The majority of participants consider the content of the website proficient even though despite not being sure about the truthiness of it.
2. Concerning the predictability, a large number of participants somewhat agree that the interaction between them and the website is what they expected and anticipated likewise the simplicity of use.

3. Addressing one of the most crucial points, risk and trust, a wide range of students consider the website as legitimate and not as a website that may have an adverse impact.

In simple terms, it is visible to state that an artificial intelligence-generated website cannot be easily comprehended.

The questionnaire was the research instrument used to collect data and is built from various questions mainly related to online websites impact, but also other questions about marketing and sales, having a clear picture of how the influence of websites strategies that are implemented in practice and how much importance is given to shopping online nowadays.

Creating consumer confidence through the quality of certain products or services today everywhere in the world is the priority of customer-oriented enterprises and the same should happen also even online. The promotion policy has evolved so much that today clients can choose from many options while companies have different forms of communicating more easily with the customer. Nevertheless, very little has been done in dealing with marketing strategies with the AI, both theoretically, also in the analysis of the practical implementation of these strategies.

6.2. Recommendations

The sustainable development of the enterprise in the market requires meticulous implementation of business strategies. Implementation is a critical moment for any enterprise. Marketing managers must find the easiest possible techniques to put into practice the marketing strategies to achieve the goals of the organization. The implementation of the AI into a business model in the business is not easy at all, as it requires the implementation of the technological tools, the appropriate human resources, and a bunch of knowledge in lots of fields. Nevertheless, the organizations nowadays will have to bear in mind that:

They have to learn as much as it is possible about artificial intelligence and its tools and embrace it in their business models as a new evolution. The first thing to be considered while embracing AI is the fact it does not offer returns immediately. It will take time, efforts, and development as even the training of the employees will require time. The way it is all organized and managed is crucial for the successful implementation of the AI.

Artificial intelligence is a technological tool, a machine is not employee per se. This means that for its successful completion of the tasks is necessary to be fed with data and information from all possible sources. As much as possible information is given to the AI tools the better it is. The implementation and the coordination of the AI tools with the other departments is crucial and HR should be responsible for giving the right directions they should take and source it with the most

important tools for performing better. It is also important that the AI tools should be aligned with the key performance indices of the firms to make sure that the defined objectives are achieved.

The firms should be aware that the implementation of artificial intelligence will not reduce human work. It is true that artificial intelligence is reducing specific tasks, however, other tasks are emerging. AI tools are new tools like any other type of tools, and the execution and the implementation will create new opportunities for all the organizations and particularly for those who are trained to do the coordination and the development of the AI tools.

The most important strategy for organizations nowadays is to learn from the other success stories, for instance Uber or Airbnb. Nowadays, companies are getting dizzy when they see the success of their competitors instead of taking them as good example to motivate them. This means that if other companies have implemented the AI and it has become part of their transactions, it is not so complicated, and they can easily replicate the same thing. Obviously, the succeeding step is to investigate the environment and the threshold below which the machines are able to perform certain tasks. This type of progress is becoming awkward for the organizations, as the implementation of AI even though has received lots of attention it has raised several questions which are not sorted out yet.

6.3. Future Research Opportunities

This research has various limitations considering granting valuable insights about online shopping mindsets and opinions and perceptions on a specific website. Firstly, the participants of the survey were restricted to the students at the University of Padua. A recommendation may be to examine various universities in Italy and other countries too. Self-reported statistics may not always accurately reflect respondents' real actions due to their nature. It is advised that future research on online customer behavior in Internet purchasing to use real behavior data instead of self-reported data. Thirdly, the website created by the AI is not a final product but only provisional to obtain a glance of the perception on a website. A possibility for the future may be to use an AI to generate a complete legit website in order to conduct an in-depth evaluation of the different points of view on a website.

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APPENDIX

Letter of Consent

UNIVERSITA' DEGLI STUDI DI PADOVA

DIPARTIMENTO DI SCIENZE ECONOMICHE ED AZIENDALI "M.FANNO"

Hello everyone,

You are invited to participate in my survey related to my thesis. In this survey, approximately 80 students will be asked to complete a survey that asks questions about their perception and thoughts on a specific website. It will take approximately 10 minutes to complete the questionnaire. Your survey responses will be strictly confidential and data from this research will be reported only in the aggregate. Your information will be coded and will remain confidential. If you have questions at any time about the survey or the procedures, you may contact me by email: artur.lala@studenti.unipd.it Thank you very much for your time and support. Please, before the start of the survey, it is required to check the website on the link written below. This is a provisional website created to better understand the perception of everyone who will complete the survey.

With my best regards,
Artur Lala

Survey Questions

Participants Details

1. Gender: How do you identify?

a) Male

b) Female

c) Non-binary

d) Prefer not to answer

2. Age

   a) 19-22

   b) 23-26

   c) 27-30

   d) 31 and above

3. Education Level: Attending

a) Bachelor's Degree

b) Master's Degree

c) PhD's Degree

4. Occupation

a) Student

b) Full Time Employee

c) Part Time Employee

d) Internship

e) Others

5. Monthly Amount of Apparel Spendings

a) Under 50€

b) 51€-70€

c) 71€-90€

d) Over 90€

6. How frequently do you shop online ?

a) Never

b) Rarely

c) Occasionally

d) Sometimes

e) Frequently

f) Usually

g) Every time

7. How important do you consider these factors while visiting a new online shop ?

	Extremely Important	Very Important	Moderately Important	Neutral	Slightly Important	Low Importance	Not Important at All
Design and Structure Appearance	❏	❏	❏	❏	❏	❏	❏
System and Information Quality	❏	❏	❏	❏	❏	❏	❏
Ease of Use and Navigation	❏	❏	❏	❏	❏	❏	❏
Reviews and Ratings	❏	❏	❏	❏	❏	❏	❏
Pictures of Real People	❏	❏	❏	❏	❏	❏	❏

8. Shopping Online Rating

	1-Strongly Disagree	2-Disagree	3-Somewhat Disagree	4-Neither Agree nor Disagree	5-Somewhat Agree	6-Agree	7-Strongly Agree
Online Shopping is well worth the money	❏	❏	❏	❏	❏	❏	❏
If there is no free shipping option, I won't even think about shopping online	❏	❏	❏	❏	❏	❏	❏
Examining and evaluating the quality of items in online shopping environment is challenging	❏	❏	❏	❏	❏	❏	❏
Prices of products on online shopping are very reasonable	❏	❏	❏	❏	❏	❏	❏
If I shop online, I could unintentionally purchase a product	❏	❏	❏	❏	❏	❏	❏

9. How much influence does the brand name of a product or service have on your decision to make a purchase?

a) Very strong influence

b) Strong influence

c) Moderate influence

d) Weak influence

e) No influence

10. Do you agree with this phrase? "I usually read the privacy statement of the website before purchasing a product"

a) Strongly Agree

b) Agree

c) Somewhat Agree

d) Neither Agree nor Disagree

e) Somewhat Disagree

f) Disagree

g) Strongly Disagree

11. Do you agree with this phrase? "I usually check the section "About Us" in order to be more aware about the credibility of the website"

a) Strongly Agree

b) Agree

c) Somewhat Agree

d) Neither Agree nor Disagree

e) Somewhat Disagree

f) Disagree

g) Strongly Disagre

12. On a scale from 1-5, please indicate how strong are these intentions for you to buy travel bag ?

	1-Very Unlikely	2	3	4	5-Very likely
Travel Comfort	❏	❏	❏	❏	❏
Fashion Affirmation	❏	❏	❏	❏	❏
Gift for Someone	❏	❏	❏	❏	❏
Functionality	❏	❏	❏	❏	❏
Substitution	❏	❏	❏	❏	❏

13. The Website Content Honesty

	1-Strongly Disagree	2-Disagree	3-Somewhat Disagree	4-Neither Agree nor Disagree	5-Somewhat Agree	6-Agree	7-Strongly Agree
The website provides truthful information	❏	❏	❏	❏	❏	❏	❏
The website reflects integrity	❏	❏	❏	❏	❏	❏	❏
The information provided by the website is believable	❏	❏	❏	❏	❏	❏	❏
The content of the website reflects competency	❏	❏	❏	❏	❏	❏	❏
The website content reflects expertise	❏	❏	❏	❏	❏	❏	❏

14. The Website Predictability and Ease of Use

	1-Strongly Disagree	2-Disagree	3-Somewhat Disagree	4-Neither Agree nor Disagree	5-Somewhat Agree	6-Agree	7-Strongly Agree
The interaction with the website went as I expected	❏	❏	❏	❏	❏	❏	❏
I find it predictable that the website has the type of content it does	❏	❏	❏	❏	❏	❏	❏
The website is what I anticipated	❏	❏	❏	❏	❏	❏	❏
I found the website easy to use	❏	❏	❏	❏	❏	❏	❏
I found it easy to get this website to do what I wanted to do	❏	❏	❏	❏	❏	❏	❏

15. The Website Risk and Trust

	1-Strongly Disagree	2-Disagree	3-Somewhat Disagree	4-Neither Agree nor Disagree	5-Somewhat Agree	6-Agree	7-Strongly Agree
I believe that there could be negative consequences from using this website	❏	❏	❏	❏	❏	❏	❏
I feel I must be cautious when using this website	❏	❏	❏	❏	❏	❏	❏
I expect this website will not take advantage of me	❏	❏	❏	❏	❏	❏	❏
I trust this website	❏	❏	❏	❏	❏	❏	❏

16. If I would say that this website was created by an AI, would you believe it ?

a) Yes

b) No