

Digital Marketing at the Mercy of Artificial Intelligence

¹Mboloko Moningo Costa, ²Ansah Jackson, ³Tinotenda Maxwell Nyamuranga, ⁴Joseph Boshia, ⁵Fabrice Mvita

¹ Zhejiang Gongshang University, School of Economics
^{2,3,4}Zhejiang Gongshang University, Management Science and Engineering
⁵University of Ottawa, Économie

DOI: 10.29322/IJSRP.13.12.2023.p14418

<https://dx.doi.org/10.29322/IJSRP.13.12.2023.p14418>

Paper Received Date: 4th November 2023

Paper Acceptance Date: 8th December 2023

Paper Publication Date: 14th December 2023

Abstract

Artificial Intelligence (AI) is revolutionizing how marketers conduct themselves digitally. There is a lack of empirical research into how AI affects digital marketing. Hence, this study aims to explore how the prevalence of AI in businesses has enhanced digital marketing. We proposed a model containing AI and five digital marketing forms: content marketing, social media marketing, email marketing, pay-per-click advertising, and search engine optimization. 252 responses were analyzed using the partial least square-structural equation modeling. The findings indicate artificial Intelligence has a positive and significant effect on content marketing, social media marketing, email marketing, pay-per-click advertising, and search engine optimization. Content marketing appeared to be hugely affected, and pay-per-click appeared to be the least affected by AI. The study encourages marketers to deploy AI in every facet of marketing since it significantly affects digital marketing.

Index Terms: Artificial Intelligence, content marketing, social media marketing, email marketing, pay-per-click advertisement, search engine optimization

I. INTRODUCTION

Artificial Intelligence (AI) has been rapidly transforming the digital landscape, and one of the areas where its impact has been particularly significant is digital marketing (Stone et al., 2020). Artificial Intelligence has become a powerful tool for digital marketers, enabling them to make informed decisions based on real-time data and insights (De Bruyn et al., 2020). The use of AI technologies such as machine learning, natural language processing, and predictive analytics has made it possible for marketers to create highly personalized and targeted campaigns that resonate with their audience (Chintalapati & Pandey, 2022; Saura et al., 2021). AI-powered technologies have enabled marketers to enhance their campaigns, improve targeting, and streamline their operations (Gkikas & Theodoridis, 2019; Luo et al., 2021). With the ability to analyze massive amounts of data, identify patterns, and generate insights, AI has opened up new avenues for customer engagement and experience (Anandvardhan, 2021; Mussa, 2020).

One of the primary benefits of AI in digital marketing is its ability to improve customer segmentation and targeting. By analyzing customer data such as browsing behavior, purchase history, and social media activity, AI algorithms can identify patterns and preferences that allow marketers to deliver highly personalized content and offers (Dwivedi et al., 2021; Manjula, 2021; Prentice et al., 2020). This not only enhances the customer experience but also increases the effectiveness of marketing campaigns, leading to higher conversion rates and revenue (Ameen et al., 2021). Another key area where AI is transforming digital marketing is in the automation of repetitive and time-consuming tasks. With AI-powered tools, marketers can automate processes such as lead scoring, email marketing, and social media posting, freeing up time for more strategic activities such as campaign planning and analysis (Albinali & Hamdan, 2021; Design & Development, 2023). This not only improves efficiency but also reduces the risk of errors and allows marketers to focus on high-value tasks that have a greater impact on business outcomes (Bhan, 2023).

Furthermore, AI is also enabling marketers to improve the accuracy and effectiveness of their advertising campaigns (Kavyashree, 2023). By analyzing customer data and behavior, AI algorithms can identify the most effective ad formats, channels, and messaging, resulting in higher click-through rates and engagement (Chung et al., 2020; Prentice et al., 2020). Additionally, AI-powered tools can monitor and optimize campaigns in real-time, making adjustments based on performance data to maximize results (Li et al., 2019). Summarily, the impact of AI on digital marketing has been significant and transformative, and the technology is expected to play an increasingly important role in shaping the industry in the coming years (Yu, 2021). As businesses continue to adopt AI-powered tools

and technologies, they will be better equipped to meet the evolving needs and expectations of their customers, creating more personalized and engaging experiences that drive growth and revenue (Kessinger, 2022; Mussa, 2020).

It is imperative to state that studies on artificial Intelligence's effect on digital marketing are rare in literature. In this context, it is crucial to understand AI's impact on digital marketing and how businesses can leverage this technology to stay ahead of the competition. This study delved into exploring the impact of AI on five key digital marketing methods: content marketing, social media marketing, email marketing, pay-per-click advertising, and search engine optimization marketing. The study poses the question that: does artificial Intelligence affect digital marketing?

II. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

2.1 Artificial Intelligence

Many definitions of AI have been put forth in the literature, all of which capture the essential ideas of non-human intellect that have been programmed to carry out particular tasks. A species of robots that was "rapidly evolving, a breed capable of seeing, reading, speaking, learning, and even feeling emotions"(Yu, 2021) was the definition of Artificial Intelligence when it first appeared. Later, as it gained popularity, more scholarly definitions were available. According to Murphy et al. (2019), artificial Intelligence (AI) is the theory and creation of computer systems that can carry out activities that typically require human Intelligence, like speech recognition, visual perception, decision-making, and language translation. Kaplan & Haenlein (2020) present a more extensive and possibly more elaborate explanation for AI in terms of its capacity to independently comprehend and learn from external data in order to attain particular results through flexible adaptation.

The unifying theme across the aforementioned notions is that machines are becoming increasingly capable of doing specific functions and duties that people currently perform in the workplace and society at large (Manjula, 2021). Individuals can train machines to behave like humans. We can give them sight, hearing, speech, movement, and writing abilities. Artificial Intelligence (AI) would be applied to these devices if they could teach themselves to improve their vision, hearing, speech, movement, and writing--all without human assistance (Dwivedi et al., 2021). That is precisely where we are now in terms of AI capabilities. Individuals experience an AI tool or AI model that uses speech recognition, computer vision, natural language processing, AI chatbot, or another AI capacity to see, hear, speak, move, and write. These tools then enhance themselves without being specifically trained (Qin & Jiang, 2019).

2.2 Digital Marketing

All marketing strategies and techniques that use an electronic device or the internet to display, advertise, or sell goods or services are considered part of digital marketing (Lopes et al., 2022). Businesses use online channels to further their goals through digital marketing. Websites, social media pages, targeted marketing, and email tend to attract more potential consumers and keep current ones (Rathore, 2021). It involves a series of procedures that engages with clients at every point of the purchasing cycle, rather than just posting a sponsored Instagram ad to boost sales (Stone et al., 2020). Email, social media, advertising, and multimedia messaging transmitted through mobile and the web are all examples of digital marketing (Piñeiro-Otero & Martínez-Rolán, 2016). The global population is online to some extent—over 60%—and more people are getting online daily (Piñeiro-Otero & Martínez-Rolán, 2016). Because of this, businesses are growing their digital marketing expenses by double-digit amounts while cutting down on traditional marketing (Coursera, 2023).

An essential component of digital marketing is data. Real-time tracking of a customer's journey enables marketers to get valuable data (Rathore, 2021). Organizations may also target particular demographics by creating content specifically for their preferred digital platforms (Lopes et al., 2022). For instance, Starbucks has gathered information from its rewards mobile apps, for example, to assist spot seasonal trends and develop specialized promotions (Piñeiro-Otero & Martínez-Rolán, 2016). Some of the digital marketing methods include search engine optimization (SEO), social media marketing (SMM), content marketing, pay-per-click (PPC), affiliate marketing, native advertising, and email marketing (Gkikas & Theodoridis, 2019a; van Esch & Stewart Black, 2021; Zaiceva, 2022).

2.3 Artificial Intelligence and Digital Marketing

By automating routine operations, personalizing campaigns, and making decisions based on data, AI has proven to have the ability to completely transform the digital marketing space (De Bruyn et al., 2020). Ads can be more relevant to users by using AI to collect and analyze user data and forecast future behavior (Devang et al., 2019). AI also aids organizations in developing unique advertising strategies and making intricate marketing choices (Chintalapati & Pandey, 2022a). AI's ability to give customized product recommendations, ads, and pricing is helping to drive the personalization trend in digital marketing (Saura et al., 2021). McKinsey Global Institute predicts that during the next three years, the value created by the application of AI and machine language to issues in Marketing and Sales will be between \$1.4 Trillion and \$2.6 Trillion (van Esch & Stewart Black, 2021).

Artificial Intelligence is replacing humans in spotting marketing trends because it is more efficient at doing so than humans and can react to new information more quickly (Gkikas & Theodoridis, 2019a). Automated digital marketing services are one way that

AI digital marketing helps brands and marketers save time and money (Nair & Gupta, 2021). With the right data, AI can accurately foresee how and when your ideal customers will make purchases. There are many mundane chores that can be automated with the help of AI algorithms (Reimers et al., 2016). Artificial Intelligence (AI) facilitates decision-making and aids in the production of high-performing content. Organizations may more effectively target the correct customers with irresistible offers when they use AI-powered digital marketing methods (van Esch & Stewart Black, 2021).

2.4 Artificial intelligence and content marketing

AI is changing the digital world in more and more ways, and content marketing is no exception. When AI used in content marketing improves the planning, creation, and optimization of content in many ways (Lopes et al., 2022). Because of this, companies can improve their efficiency, offer more personalized experiences, and gain insights from data (Kaput, 2021). One of the primary uses of AI in content marketing is to automate repetitive chores so that marketers can focus on strategy and creativity at a higher level (Sitecentre, 2023). In addition, AI-powered content marketing tools help marketers make better choices and tailor their content to their target audience by analyzing vast amounts of data (Sitecentre, 2023). Deloitte (2022) indicates that AI can help with creating and optimizing content, making sure it is interesting, useful, and good for search engines.

AI content marketing tools automate time-consuming tasks such as content ideation, data analysis, and content creation (Coursera, 2023). Given this, marketers can allocate more time to strategic planning and creative efforts, invariably improving the efficiency of content marketing processes. According to Gartner (2020), by 2024, AI will automate repetitive task and can handle 69% of the workload of marketers. In a study by Rodrigue (2023), AI-powered tools fasten content production by 75%. In the Salesforce (2022) report, 87% of marketing leaders indicate that AI has transformed their workflows. More so, AI algorithms evaluate huge volumes of data to identify trends, preferences, and patterns and provide marketers with relevant information to inform their content strategies. According to Deloitte (2022), firms that use AI for data analysis experienced a 10% rise in revenue. In addition, Econsultancy (2019) revealed that 61% of marketers use AI to improve audience targeting. Lastly, Accenture (2016) indicated that 75% of consumers are likelier to patronize firms that offer personalized content. Given this, we propose that:

H1 – Artificial Intelligence is positively related to content marketing

2.5 Artificial intelligence and social media marketing

AI is the most important factor in how social media works in the 21st century. Research shows that the market for AI in social media is proliferating (Khan, 2022). The market is projected to reach \$3,714.89 million by 2026, with a compound annual growth rate (CAGR) of 28.77% during the period 2021–2026 (Kessinger, 2022). This means that the use of AI in social media marketing is likely to grow a lot over the next few years and will be a big reason why businesses all over the world are growing. In the AI in the social media market, NLP technology is used to collect, analyze, and visualize customer-related data, such as responses to particular products and services. NLP technology is also used to understand human languages via virtual chatbots. The use of NLP technology in social media platforms has increased, which helps in offering 24/7 services to customers (MarketsandMarkets, 2023).

Machine learning models are used by popular social networks like Facebook, LinkedIn, Instagram, and so on to suggest people/accounts to follow, jobs to apply for, spot visuals, track current engagements, and so on (Kaplan & Haenlein, 2010). The Gartner report says that 37% of companies use AI to manage and curate material (Gartner, 2019). By looking at how a brand has done over time, machine learning and natural language processing models can get social insights that can be used to make customer recommendations (Anandvardhan, 2021). AI is a crucial part of the social networks we use every day, like Facebook and Twitter. Facebook uses advanced machine learning applications of Artificial Intelligence to do things like show posts that are similar to those with which a user has already interacted, recognize faces in pictures that have been tagged, show ads, and send pop-ups (Anandvardhan, 2021). Instagram, a social networking site owned by Facebook, uses AI to find and delete fake posts. Computer vision is an AI technology that Snapchat uses to track users' faces and add effects that move with the user's face in real-time. AI is used by LinkedIn to do things like automate bidding, suggest jobs, suggest people a user might want to connect with, serve specific content in feeds, help marketers target audiences, and track conversions (Kaplan & Haenlein, 2010; Kessinger, 2022). Given the above, we propose that:

H2 – Artificial intelligence is positively related to social media marketing

2.6 Artificial Intelligence and Email Marketing

AI enables companies to send highly personalized emails without manually creating email campaigns (EraInnovator, 2020). This technology can divide an organization's audience and offer targeted messaging. AI analyses client behavior, engagement, and purchase trends. Marketers use the data to produce dynamic content for each subscriber, guiding them along the customer journey (EraInnovator, 2020).

Automated split-testing of many email versions is another advantage of AI-assisted email marketing. With the use of this level of automated testing, businesses can effortlessly identify the ideal combinations of subject lines, graphics, copy, calls-to-action, and sending times (Salesmate, 2023). Split testing was a labor-intensive, manual operation (Payani, 2023). Companies would have to

manually design many iterations of their email, send them, monitor the responses, and then publicize the victor (Huang & Rust, 2022). AI handles all of that. Different versions of a company's email can be sent to a tiny portion of its list using AI email marketing solutions (Johnson, 2020). The winning combination will then be sent to the remaining members of your subscriber base after tracking the outcomes (Salesmate, 2023).

Companies use AI copywriting tools to generate ideas for their next email campaign. These tools use natural language generation (NLG) to generate human-like content. All companies do is enter a few parameters, such as the topic, tone, and style of your email, and AI will generate several copy variations for them (Hartemo, 2022). Most content generators are pre-trained on conversion copywriting principles, so they can be sure that the AI-created content will be high quality and persuasive (Chintalapati & Pandey, 2022b). Companies still have to review the AI-generated email template before sending it, but it's usually a good starting point. Using content editing tools can help get this done faster (Chintalapati & Pandey, 2022b).

The time an email hits a customer's inbox can be as important as the email itself. Analyzing past customer behavior, AI helps firms to find the optimum time to send their emails by analyzing past customer behavior (EraInnovator, 2020). It considers factors such as time zones, open rate, and engagement history to find the best time to ensure emails are seen. Time zone-based scheduling is especially useful if a firm has a global audience. More data points mean more accurate results (Hartemo, 2022; Payani, 2023).

H3 – artificial Intelligence is positively related to email marketing

2.7 Artificial Intelligence and pay-per-click advertisement

One of the all-important relevance of artificial Intelligence in pay-per-click is that it has given firms the room to automate many processes that would otherwise take a long time to undertake manually (Designbeep, 2023). In the 21st century, artificial Intelligence has improved a firm's PPC ad strategy even in the absence of PPC experts. According to Maloney (2023), AI aids companies in managing their PPC bids and budgets by optimizing the bids and uncovering new keyword opportunities from various unstructured data sources. An automated bid strategy can effectively eliminate issues of the guesswork from setting bids and meeting desired goals (Khraim & Alkrableih, 2015).

AI-powered analytics tools and call-tracking software can assist firms in determining the relationship between the leads generated by particular campaigns or keywords and their offline efforts (EraInnovator, 2020). Organizations can analyze the data pertaining to their offline conversions and adjust their retargeting strategies accordingly (EraInnovator, 2020). Targeting is crucial to the success of an organization's PPC advertising campaign. Given this, they should avoid annoying potential consumers with excessive marketing materials (Payani, 2023). More so, they do not need to allocate their PPC budget to one-time customers who are unlikely to return in the near future (Huang & Rust, 2022).

Even though AI cannot replace designers and copywriters who create marketing materials, AI can make PPC ad copies more effective (Chintalapati & Pandey, 2022). For instance, in Google's Responsive Ads (RSAs), marketers can provide up to 15 headlines and four descriptions. Then Google, with the help of AI, serves up RSAs to users based on their search terms (Designbeep, 2023). Various brands already use chatbots to make their PPC campaigns more engaging (Chintalapati & Pandey, 2022). Fjell (2010) indicated firms use AI tools to increase engagement, reduce bounce rates, and improve conversions. According to Qin & Jiang (2019), combining AI and PPC aid in improving lead quality by letting marketers gather useful data about their users in a more conversational format. Lastly, through optimized advertising models, machine learning plays a significant part in scientific research for bidding and advertisement targeting (Accenture, 2016). It looks at metrics that make it possible to evaluate the impact of various variables on the likelihood of clicks and conversions. Regression models are created using machine learning and accessible data to provide new knowledge and hidden trends (Econsultancy, 2019). Given this, we propose that:

H4 – artificial Intelligence is positively related to pay-per-click marketing

2.8 Artificial intelligence and search engine optimization marketing

In the same way that AI has gotten so interwoven in our daily lives — from shopping to travel, from fitness to eating — SEO is also becoming more and more dependent on it (van Esch & Stewart Black, 2021). AI is used to power algorithms like Google's Rankbrain and BERT. Additionally, Google employs AI to improve and deliver more pertinent results on its SERPs (search engine results pages) (Tinoco, 2023). Similar to how humans can read, understand, and store practically unlimited amounts of data, AI can assist firms in creating a successful SEO strategy (Olson et al., 2021). AI for SEO can help businesses find popular keywords and subjects. In a fraction of the time, they may better grasp target markets, consumer buying patterns, and consumer behavior (Martin, 2019).

Resorting to AI for a firm's SEO strategy enables them to be efficient, quicker, and more productive when managing their digital marketing (Gkikas & Theodoridis, 2019). With AI being automated, the element of lengthy and time-consuming tasks are eliminated (Khraim & Alkrableih, 2015). Given this, firms do not need to employ developers to code software but can be more strategic in planning and delivering their digital content creation (Olson et al., 2021). More so, the information that firms can dig out with AI for

SEO is also incredibly accurate and up-to-date, which in turn helps boost productivity and inform meaningful business decisions (Al-Zyoud, 2018). In addition to this, AI for SEO will help organizations to lift their rankings because it enables them to discover and use exactly the right keywords, topics, and content that their audience is searching for (Omar & Atteya, 2020). To further the argument, artificial intelligence tools can spot patterns within huge data sets and provide organizations with suggestions on what keywords they should use to drive more traffic to their channels (Nair & Gupta, 2021). Lastly, AI-enabled voice search in the company's SEO strategy opens up its brand to a new customer segment that uses this search method increasingly more often (Tinoco, 2023; van Esch & Stewart Black, 2021).

H5 – artificial Intelligence is positively related to search engine optimization marketing

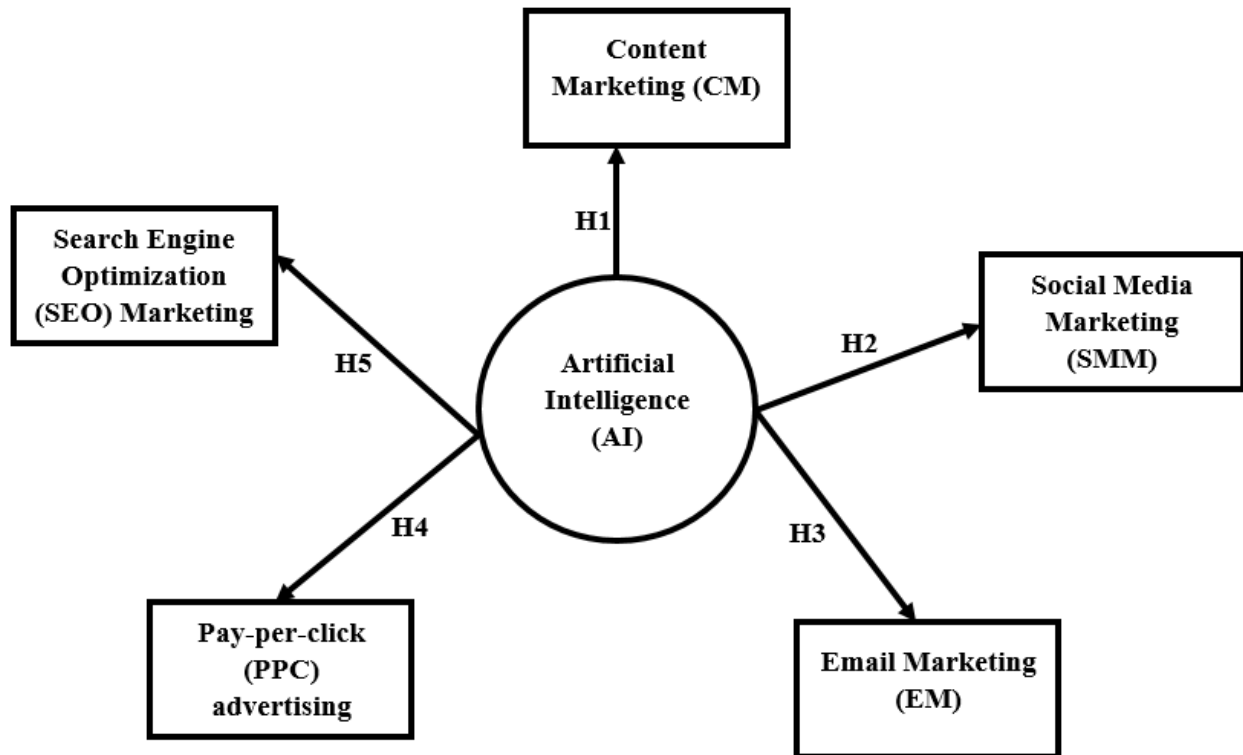


Figure 1 Conceptual framework

III. METHODS

3.1 Sampling and data collection

The study resorted to the random sampling approach to solicit responses from salespersons of three multinationals and four domestic brands that deal with personal care and beauty products in the Democratic Republic of Congo. These firms were engaged because of deploying several AIs, such as robots, to enhance their business. Data were collected using the questionnaire via online, specifically WhatsApp and mail. Participants were individuals who were exposed to artificial Intelligence, hence, are in the capacity to respond to the questions independently. 320 questionnaires were administered for three months. A valid 252 questionnaire was chosen as a sample representing a 78.8% response rate.

3.2 Constructs measurement

All the constructs were measured using the 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Artificial Intelligence was measured with five (5) items from Khan (2022). Content marketing was evaluated with three (3) items from Lopes et al. (2022). Three (3) items were adapted from Khan & Jan (2019) to evaluate social media marketing. Three (3) items were employed

from Bawm & Deb Nath (2014) to evaluate email marketing. Two (2) items were adapted from Khraim & Alkrableih (2015) to measure pay-per-click advertising. Three (3) items were adapted from Kushwaha (2020) to measure search engine optimization. The items were modified to suit the focus of this study. Table 1 contains information on the measurement items.

Table 1 Variables and measurement items

Variables	Measurement items
Artificial Intelligence (AI)	The adoption of AI has enhanced our engagement with customers. AI aids in better segmenting customers and targeting ads while measuring results. AI helps our firm to measure campaign or advertising success. AI helps our firm to personalize customer experiences. AI provides our firm with the right data and insights to make better and faster marketing decisions.
Content marketing (CM)	Our firm share news and approaches customers about testing products, and share stories about community involvement. Our firm discusses customer needs by tweeting about appropriate development to obtain feedback and ideas. Our firm showcases company offerings on online platforms and develops information channels.
Social Media Marketing (SMM)	Our firm reveals and updates company information through its social media platforms. Our firm answers queries and interacts with clients on our social media platforms. Our firm shares exciting pictures, videos, and links to products on its social media platforms.
Email Marketing (EM)	Our firm sends commercial messages to its clients often via mail. The rate at which customers open and respond to company emails is satisfactory. The delivery and forwarding of the content of our emails are reasonably encouraging.
Pay-per-click advertising (PPC)	Our firm's presence is at the top of the list when consumers look for our products. Our firm posts ads on affiliate sites which consumers access at a fee.
Search engine optimization marketing (SEO)	Our customers have access to our products on well-established search engines. Our firm can reach out to a larger audience via search engines. Our firm builds quality links that promote credibility and trust in the eyes of clients.

3.3 Profile of Participants

The gender information of participants indicates that the majority (181, 71.8%) were females, and 71 (28.2%) were males. More so, the participants were from different age brackets: 95 (37.7%) were 18-25 years old, 123 (48.8%) were 26-30 years old, 28 (11.1%) were 31-40 years old, and 6 (2.4%) were 41 years and above. In terms of education, the majority of participants have an undergraduate degree (143, 56.75), 89 (35.3%) have a Higher National Diploma and only 20 (7.9%) have a postgraduate degree (see Table 2).

Table 2 Descriptive statistics

Item	Profile	Frequency	Valid percentage (%)
Gender	Male	71	28.2
	Female	181	71.8
Age	18-25 years	95	37.7
	26-30 years	123	48.8
	31-40 years	28	11.1
	41 years and above	6	2.4
	Education	Higher National diploma	89
	Undergraduate degree	143	56.7
	Postgraduate degree	20	7.9

N=252

Given that the study is on artificial Intelligence, which augments the prevalence of technologies, it opted to investigate the platforms for which the firms engage their customers. Participants were given the liberty of several options. Given the results in Figure 2, Facebook appeared to be the most used digital platform (158, 31.35%), followed by Bing ads (100, 19.84), while the least LinkedIn (16, 3.17%).

Which platform does your company activity engage customers? choose as many as you want

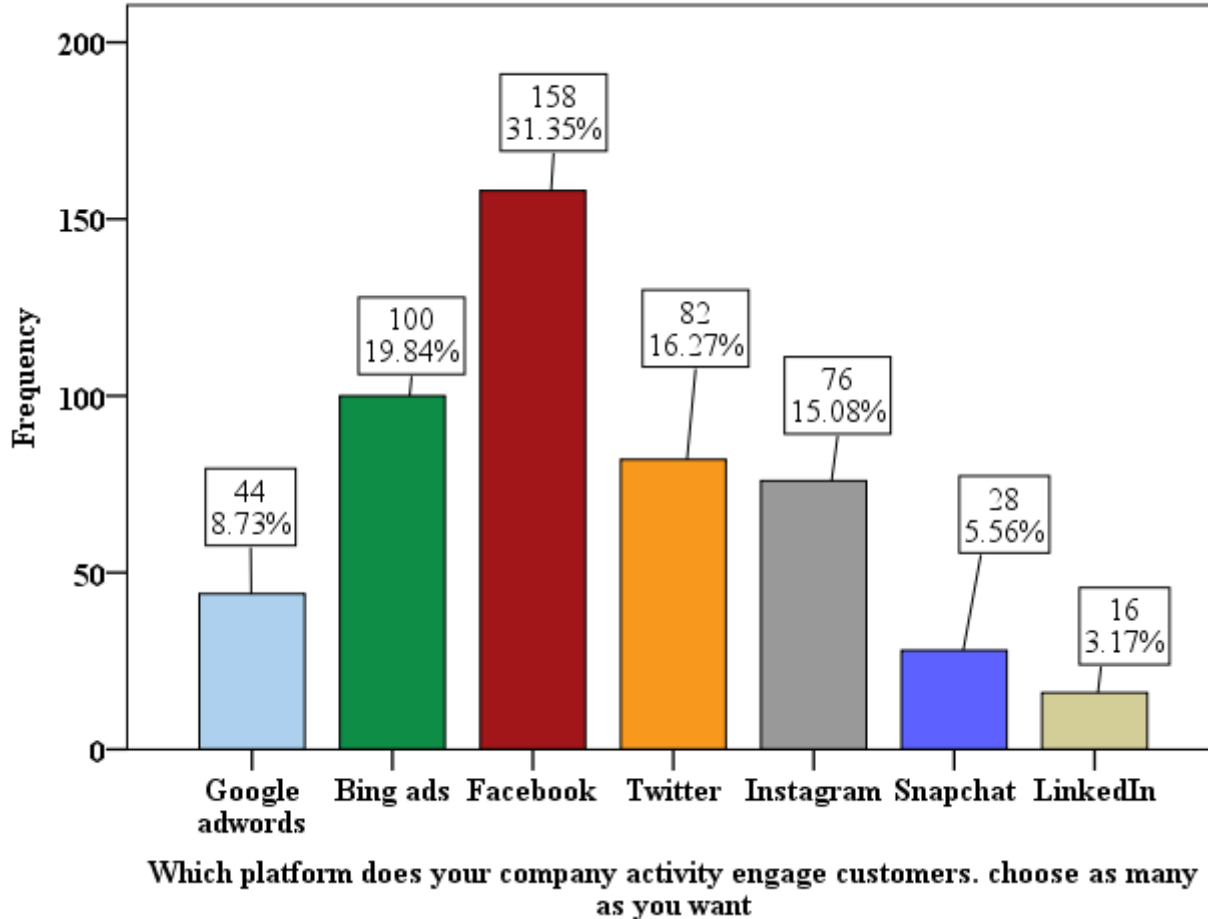
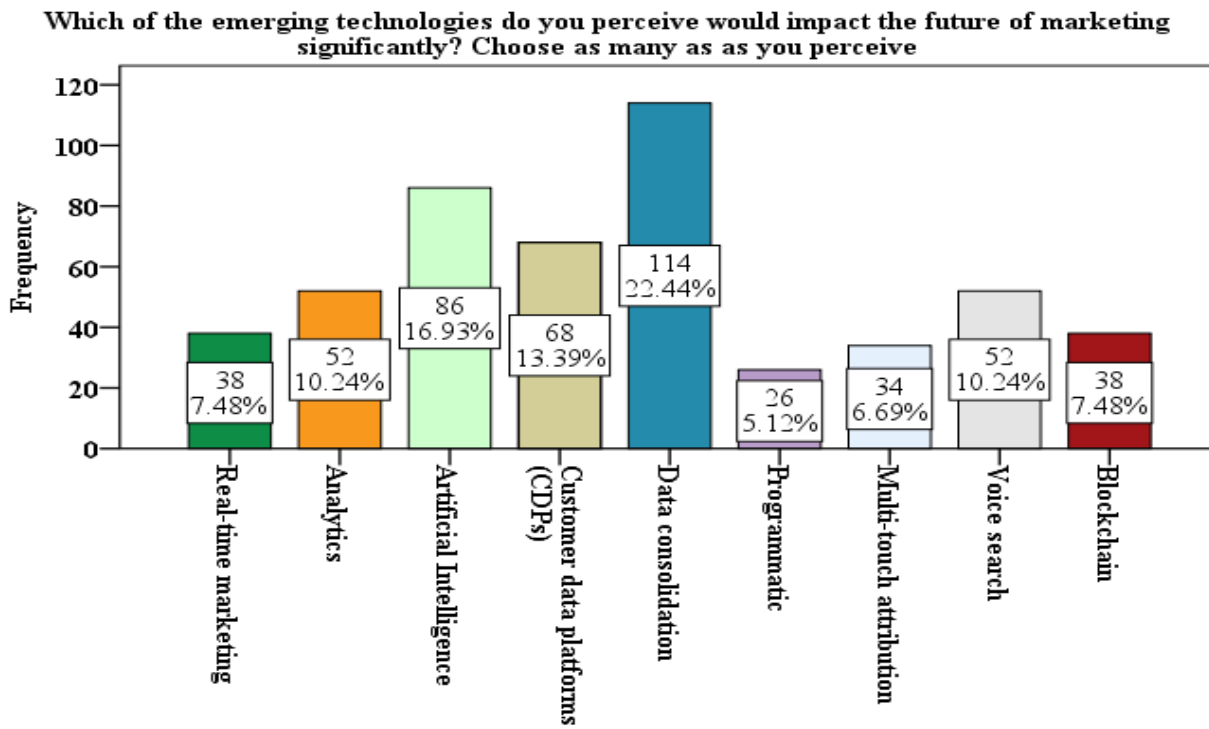


Figure 2 Digital platforms firms engage their customers.

Additionally, the study explored some emerging technologies that participants believe have the potential to alter marketing activities in the future. Given that, participants were privileged to choose several options. From the list provided in Figure 3, data consolidation emerged as one that can hugely affect the future of marketing (114, 22.44%). Additionally, artificial Intelligence appeared as the next emerging technology that would affect marketing (86, 16.93%). Voice search and analytics came next with 52, 10.24%. The least technology considered by participants to influence the future of marketing is programmatic (26, 5.12%).



Which of the emerging technologies do you perceive would impact the future of ...

Figure 3 Emerging technologies that could influence marketing in the future

IV. RESULTS PRESENTATION

The study used partial least squares structural equation modelling (PLS-SEM) to analyze the collated data (Hair, 2021). The PLS-SEM is an appropriate approach when dealing with a small sample size (Hair et al., 2019). The model was evaluated using the SmartPLS 4.0 with a bootstrap re-sampling approach (5000 sub-samples randomly generated) (Shmueli et al., 2019).

3.4 Common method variance (CMV) bias

The CMV bias occurs when data gathered is influenced by a single source, which mostly leads to over-representing certain factors. It overestimates the relationships in a measurement model. To minimize the possibility of CMV bias, the study followed the recommendations provided by Podsakoff et al. (2012) during the questionnaire design and administration. The single factor test developed by Harman was used to evaluate the CMB. A multi-factor structure was found using the exploratory factor analysis (EFA), with the first factor responsible for 18% of the sample's variation. The argument on CMV was extended, relying on the SmartPLS inner collinearity appraisal function. Table 3 revealed that the inner variance inflation factor (VIF) values were below the 3.3-point cutoff (Petter 2007). These findings collectively imply that CMV is not a widespread problem in the data.

3.5 Measurement Model Assessment

We evaluated the reliability, convergent validity, and discriminant validity of the model's main variables (Hair Jr et al., 2014). All the factor loadings in Table 3 are greater than the threshold of 0.7 (Hair Jr et al., 2014), so they were all maintained. Table 3 shows the evaluation of Composite reliability, Cronbach alpha, and AVE. The composite reliability and Cronbach alpha values exceeded the threshold of 0.7 (Hair et al., 2011; Hooper et al., 2008). Relative to the convergent validity, the average variance extracted (AVE) values exceeded the threshold of 0.5 (Fornell & Larcker, 1981)

Table 3 Convergent reliability

Constructs	Notations	Factor loadings (λ)	Composite reliability (CR)	Cronbach Alpha (α)	Average Variance Extracted (AVE)	VIF
	AI1	0.914				2.362

Artificial Intelligence (AI)	AI2	0.810	0.909	0.874	0.667	2.146
	AI3	0.781				1.842
	AI4	0.811				1.995
	AI5	0.759				1.782
Content Marketing (CM)	CM1	0.828	0.820	0.784	0.603	1.233
	CM2	0.738				1.410
	CM3	0.760				1.420
Social Media Marketing (SMM)	SMM1	0.822	0.845	0.725	0.645	1.496
	SMM2	0.780				1.398
	SMM3	0.806				1.399
Email Marketing (EM)	EM1	0.778	0.851	0.737	0.656	1.376
	EM2	0.830				1.532
	EM3	0.820				1.511
Pay-Per-Click Advertising (PPC)	PPC1	0.871	0.853	0.755	0.743	1.311
	PPC2	0.853				1.311
Search Engine Optimization Marketing (SEO)	SEO1	0.824	0.841	0.717	0.638	1.462
	SEO2	0.796				1.443
	SEO3	0.776				1.334

Additionally, the discriminant validity was ascertained by comparing the square root of the AVE for each construct with correlations among the latent variables (Fornell & Larcker, 1981). From Table 4, the output indicates strong evidence of discriminant validity.

Table 4 Discriminant validity (Fornell-Larcker criterion)

Constructs	AI	CM	EM	PPC	SEO	SMM
Artificial Intelligence (AI)	0.817					
Content marketing (CM)	0.418	0.777				
Email marketing (EM)	0.338	0.511	0.810			
Pay-per-click advertising (PPC)	0.303	0.236	0.372	0.826		
Search engine optimization marketing (SEO)	0.236	0.117	0.259	0.422	0.799	
Social media marketing (SMM)	0.108	0.207	0.348	0.324	0.470	0.803

3.6 Structural Model Assessment and Hypotheses Testing

The structural model was assessed using the standardized path coefficients (β), in this case, the original sample (Table 5), significance level (t-statistics), and R-squared estimates. The path loadings, which are considered standardized regression coefficients, show how strongly the independent and dependent variables are related (Shmueli et al., 2019). As shown in Table 5 and Figure 4, all hypothesized relationships are supported and accepted (H1-H5). Artificial intelligence -> Content Marketing: β -value = 0.718, and t-value = 24.054. Artificial Intelligence -> Social Media Marketing: β -value = 0.608, and t-value = 11.053. Artificial Intelligence -> Email Marketing: β -value = 0.638, and t-value = 12.264. Artificial intelligence -> Pay-per-click advertising: β -value = 0.503, and t-value = 8.486. Artificial Intelligence -> Search Engine Optimization Marketing: β -value = 0.636, and t-value = 12.492.

Furthermore, to establish the R^2 of endogenous constructs, researchers postulate estimating the size of each path, i.e., (f^2) (Henseler 2015). If an exogenous variable has a large impact on the endogenous variable, it is determined by the f^2 value. According to Cohen (1988), an f^2 value between 0.05-0.15 indicates a minor influence, 0.15-0.35 indicates a medium effect and more than 0.35 indicates a bigger effect. According to the results in Figure 4, artificial Intelligence has a stronger effect on content marketing (0.515),

social media marketing (0.369), email marketing (0.407), and search engine optimization marketing (0.404) but a medium effect on pay-per-click advertising (0.253), respectively.

Table 5 Paths coefficients

Paths	Original sample (O)	Sample Mean (M)	Standard deviation (STDEV)	T-statistics (IO/STDEV)	P-values
Artificial intelligence -> Content Marketing	0.718	0.719	0.030	24.045	0.000
Artificial Intelligence -> Social Media Marketing	0.608	0.608	0.055	11.053	0.000
Artificial Intelligence -> Email Marketing	0.638	0.639	0.052	12.264	0.000
Artificial intelligence -> Pay-per-click advertising	0.503	0.504	0.059	8.486	0.000
Artificial Intelligence -> Search Engine Optimization Marketing	0.636	0.636	0.051	12.492	0.000

***Path coefficient bootstrapping. T Statistic > 1.96 for 5%; p<.005

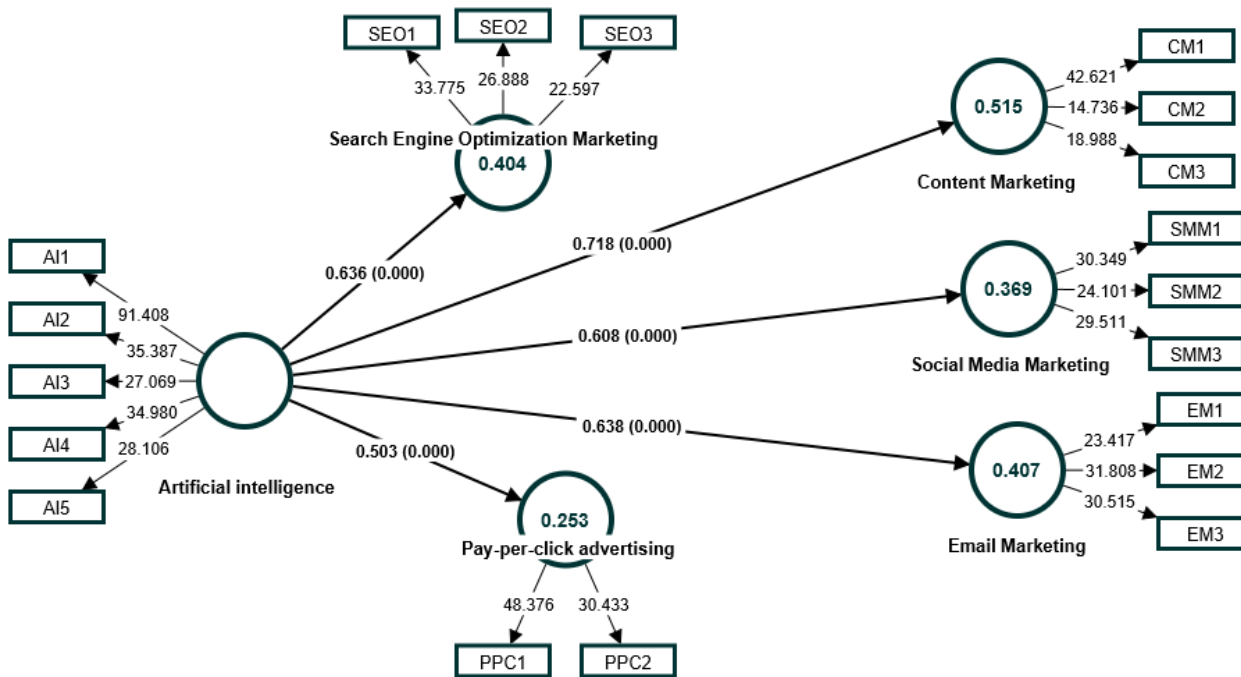


Figure 4 PLS analysis

V. DISCUSSIONS

This study aims to ascertain the effect of artificial Intelligence on digital marketing. Given that methods such as content marketing, social media marketing, email marketing, pay-per-click advertising, and search engine optimization marketing broadly constitute digital marketing, the study opted to determine the effect of artificial Intelligence on the mentioned methods of digital marketing.

Content marketing has emerged as one important strategic marketing where firms create and distribute valuable, relevant, consistent content to attract an audience. With the advent of artificial Intelligence, Sitecentre (2023) believes AI has revolutionized content marketing. The outcome of this study postulates artificial Intelligence significantly and positively influences content marketing ($\beta = 0.718$, $t = 24.054$, $p = 0.000$). According to Mazzini (2023), AI marketing tools are software or platforms that assist in creating automated content, building content strategy, and personalizing content. Staff (2020) indicates that AI is in to remove the need for content marketers as it makes progress towards undertaking certain marketing tasks better than humans undertake.

AI has been determined to be crucial as marketers leverage AI in social media to create content for social media distribution, manage the distribution and engage across different channels (Albinali & Hamdan, 2021). The outcome of this study indicates that AI positively and significantly influences social media marketing ($\beta = 0.608$, $t = 11.053$, $p = 0.000$). This result is consistent with Albinali & Hamdan (2021), which ascertained the implementation of AI in social media marketing and its retrospective effect on consumer behavior. Given the billions of people using social media every day, it is believed that they use a verity of platforms, making it challenging to process large volumes of data (Coursera, 2023). Given that social media sites such as Facebook, Instagram, and Twitter use artificial Intelligence to help process volumes of data to improve marketing content through their understanding of the data processed by AI (Kaput, 2021).

Additionally, Kimp (2023) indicates that companies make consumers on their email lists aware of their new products, discounts, and other essential services. Since the inception of artificial Intelligence, Kenton et al. (2023) indicate that it has unleashed the potential of email marketing through email personalization, email segmentation, email content creation, and scheduling emails. The study touts the potential positive effect of AI on email marketing. The outcome of this study is in tandem with this observation, as artificial Intelligence positively and significantly influences email marketing ($\beta = 0.638$, $t = 12.264$, $p = 0.000$). AI has been discovered to create mail contents that convert and makes company emails noticed by their audience. This reinforces the positive effects of AI on digital marketing, specifically email marketing (Ameen et al., 2021).

Over the years, companies have adopted pay-per-click digital advertising, where the advertiser pays a fee each time one of their ads is clicked (Design & Development, 2023). It is believed that when PPC is working appropriately, the fee is trivial, given that a click is worth more than what a firm pay for (Bhan, 2023). With the emergence of artificial Intelligence, it has been determined that various brands use Chatbots to make their PPC campaigns more engaging, minimize bounce rates, and enhance conversations (Marr, 2022). The outcome of this study reinforces the argument on the positive effect of artificial Intelligence on pay-per-click advertising (0.638 , $t = 12.264$, $p = 0.000$). The study's conclusion is in line with Localiq (2022), which defined the primary benefits of AI to PPC as including exceptional data processing power, the ability to accurately predict quality scores and click-through rates; identify bids that are likely to get the highest amount of traffic; saving time and manpower in managing PPC campaigns.

As a digital marketing strategy, search engine optimization has been determined to be a tool to optimize websites and webpages, thereby improving the visibility of organizations where customers find the product or service of a firm on a search engine (such as Google or Bing) (Kavyashree, 2023). Presently, digital marketers have leveraged AI for search engine optimization success (Ameen et al., 2021). This study determined the positive effect of artificial Intelligence on SEO marketing (0.636 , $t = 12.492$, $p = 0.000$), giving credence to the initial position on the positive effects of AI on search engine optimization marketing. According to Kavyashree (2023), AI has become a core aspect of major search engine algorithms, which means if appreciate AI and its impact on search engines; they can boost their SEO using AI. More so, AI serves as a tool for excellent data analysis, which is key to designing an effective SEO strategy (Prentice et al., 2020).

VI. CONCLUSIONS AND IMPLICATIONS

Summarily, the study has proved that artificial Intelligence significantly influences digital marketing after establishing the positive effect of AI on six dimensions of digital marketing. Given the outcome, the study positions that AI affects content marketing, social media marketing, email marketing, pay-per-click advertising, and search engine optimization marketing.

This study contributes to the existing literature in the following ways. First, the study developed a model that determines AI as an antecedent of the dimensions of digital marketing. This study pioneer considering the effect of AI on the dimensions of digital marketing in a single study. More so, it has empirically proven that artificial Intelligence is a positive determinant of content marketing, social media marketing, email marketing, pay-per-click advertising, and search engine optimization marketing. Second, the study maximizes the accumulated knowledge in the area of research and the field of artificial intelligence-marketing relationship. The study is also rare in that it explored the Artificial Intelligence effect on digital marketing components from a developing perspective. In the current business atmosphere that is saturated with artificial Intelligence, our results show that content marketing is hugely affected by artificial Intelligence among the components of digital marketing, and pay-per-click advertising is the least affected by Artificial Intelligence.

Given the relevance of artificial Intelligence, marketers must incorporate artificial Intelligence to analyze and optimize their marketing campaigns with a greater level of accuracy and efficiency. Marketers can rely on AI to personalize marketing messages based on customers' behavior, preferences, and past purchases. This would also enable digital marketers to offer personalized recommendations, content, and promotions to the right audience at the right time. This personalized approach can improve customer engagement and lead to higher conversion rates. More so, AI algorithms can help marketers analyze a large amount of data to identify patterns, trends, and insights. This allows digital marketers to predict customer behavior, anticipate their needs, and create more effective marketing strategies.

Additionally, AI can automate routine tasks such as email marketing, social media posts, and ad optimization. This reduces the workload on digital marketers and frees up time for more creative and strategic work. Furthermore, an AI-powered Chatbot can handle customer queries and provide personalized recommendations in real-time. This helps to improve customer satisfaction and reduce

response times. Lastly, AI can help to generate content such as product descriptions, blog posts, and social media posts. While not yet at a level where it can replace human-created content, AI can assist with tasks such as generating headlines, summaries, and captions.

VII. LIMITATIONS AND SUGGESTIONS FOR FUTURE STUDIES

This study, like any other, has some limitations. First, the sample size of the study is small to be able to generalize the outcome. An expansion of the sample size may produce a different result. Given that, future researchers can adopt the model and expand the sample size to encourage generalizability. Our study focused on AI-digital marketing methods. We encourage future researchers to conduct a study on the impact of Artificial Intelligence impact on consumer buying behavior using digital marketing as a mediating construct. Our study relied on salespersons to unravel the effect of AI on digital marketing. Future studies could investigate retailers and industries.

REFERENCES

- Accenture. (2016). *Consumers Welcome Personalized Offerings but Businesses Are Struggling to Deliver, Finds Accenture Interactive Personalization Research*. <https://Newsroom.Accenture.Com/News/Consumers-Welcome-Personalized-Offerings-but-Businesses-Are-Struggling-to-Deliver-Finds-Accenture-Interactive-Personalization-Research.Htm>.
- Albinali, A. E., & Hamdan, A. (2021). *The Implementation of Artificial Intelligence in Social Media Marketing and Its Impact on Consumer Behavior: Evidence from Bahrain* (Vol. 194).
- Al-Zyoud, M. F. (2018). Does social media marketing enhance impulse purchasing among female customers case study of Jordanian female shoppers. *Journal of Business & Retail Management Research*, 13(02). <https://doi.org/10.24052/JBRMR/V13IS02/ART-13>
- Ameen, N., Tarhini, A., Reppel, A., & Anand, A. (2021). Customer experiences in the age of artificial Intelligence. *Computers in Human Behavior*, 114, 106548. <https://doi.org/10.1016/j.chb.2020.106548>
- Anandvardhan. (2021). Role of Artificial Intelligence in Social Media Marketing. *International Journal of Business Analytics & Intelligence*, 9((1 & 2)), 34–40.
- Bawm, L. Z., & Deb Nath, P. R. (2014). A Conceptual Model for Effective Email Marketing. *17th International Conference on Computer and Information Technology (ICCIT)*.
- Bhan, M. (2023). *How AI SEO Tools Are Changing the Future of Search*. <https://Builtin.Com/Marketing/Ai-Tools-Search-Future>.
- Chintalapati, S., & Pandey, S. K. (2022). Artificial Intelligence in marketing: A systematic literature review. *International Journal of Market Research*, 64(1), 38–68. <https://doi.org/10.1177/14707853211018428>
- Chung, M., Ko, E., Joung, H., & Kim, S. J. (2020). Chatbot e-service and customer satisfaction regarding luxury brands. *Journal of Business Research*, 117, 587–595. <https://doi.org/10.1016/j.jbusres.2018.10.004>
- Coursera. (2023). *What Is Digital Marketing? Types, Skills, and Careers*. <https://Www.Coursera.Org/Articles/Digital-Marketing?IsNewUser=true>.
- De Bruyn, A., Viswanathan, V., Beh, Y. S., Brock, J. K.-U., & von Wangenheim, F. (2020). Artificial Intelligence and Marketing: Pitfalls and Opportunities. *Journal of Interactive Marketing*, 51, 91–105. <https://doi.org/10.1016/j.intmar.2020.04.007>
- Deloitte. (2022). *Fueling the AI transformation: Four key actions powering widespread value from AI, right now*.
- Designbeep. (2023). *How Artificial Intelligence Can Improve Your Pay-Per-Click Ad Strategy*. <https://Designbeep.Com/2023/02/02/How-Artificial-Intelligence-Can-Improve-Your-Pay-per-Click-Ad-Strategy>.
- Design & Development. (2023). *How Artificial Intelligence Can Improve Your Pay-Per-Click Ad Strategy*. <https://Designbeep.Com/2023/02/02/How-Artificial-Intelligence-Can-Improve-Your-Pay-per-Click-Ad-Strategy>.
- Devang, V., Chintan, S., Gunjan, T., & Krupa, R. (2019). Applications of Artificial Intelligence in Marketing. *Annals of Dunarea de Jos University of Galati. Fascicle I. Economics and Applied Informatics*, 25(1), 28–36. <https://doi.org/10.35219/eai158404094>
- Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., Duan, Y., Dwivedi, R., Edwards, J., Eirug, A., Galanos, V., Ilavarasan, P. V., Janssen, M., Jones, P., Kar, A. K., Kizgin, H., Kronemann, B., Lal, B., Lucini, B., ... Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 57, 101994. <https://doi.org/10.1016/j.ijinfomgt.2019.08.002>
- Econsultancy. (2019, April). *Data suggests marketers might be overestimating the sway of microinfluencers*. <https://Econsultancy.Com/Data-Suggests-Marketers-Might-Be-Overestimating-the-Sway-of-Microinfluencers/>.
- EraInnovator. (2020). *Artificial Intelligence (AI) Email Marketing*. <https://Erainnovator.Com/Ai-Email-Marketing/>.
- Fjell, K. (2010). Online advertising: Pay-per-view versus pay-per-click with market power. *Journal of Revenue and Pricing Management*, 9(3), 198–203. <https://doi.org/10.1057/rpm.2010.5>
- Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, 18(3), 382. <https://doi.org/10.2307/3150980>
- Gartner, K. C. (2019, January). *Gartner Survey Shows 37 Percent of Organizations Have Implemented AI in Some Form*. <https://Www.Gartner.Com/En/Newsroom/Press-Releases/2019-01-21-Gartner-Survey-Shows-37-Percent-of-Organizations->

Have#:~:Text=The%20deployment%20of%20AI%20has%20tripled%20in%20the,Enterprises%20are%20more%20willing%20to%20implement%20the%20technologies.

- Gartner, S. M. (2020, January). *Gartner Predicts 69% of Routine Work Currently Done by Managers will Be Fully Automated by 2024*. <https://www.gartner.com/en/newsroom/press-releases/2020-01-23-gartner-predicts-69-of-routine-work-currently-done-b>.
- Gkikas, D. C., & Theodoridis, P. K. (2019a). *Artificial Intelligence (AI) Impact on Digital Marketing Research* (pp. 1251–1259). https://doi.org/10.1007/978-3-030-12453-3_143
- Gkikas, D. C., & Theodoridis, P. K. (2019b). *Artificial Intelligence (AI) Impact on Digital Marketing Research* (pp. 1251–1259). https://doi.org/10.1007/978-3-030-12453-3_143
- Hair, J. F., Jr. (2021). Next-generation prediction metrics for composite-based PLS-SEM. *Industrial Management & Data Systems*, 121(1), 5–11.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152. <https://doi.org/10.2753/MTP1069-6679190202>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, G. V. (2014). Partial least squares structural equation modeling (PLS-SEM): an emerging tool in business research. *Eur Bus Rev*, 26(2), 106–121.
- Hartemo, M. (2022). Conversions on the rise – modernizing email marketing practices by utilizing volunteered data. *Journal of Research in Interactive Marketing*, 16(4), 585–600. <https://doi.org/10.1108/JRIM-03-2021-0090>
- Hooper, D., Coughlan, J. P., & Mullen, M. R. (2008). Structural equation modelling: guidelines for determining model fit. *Electronic Journal of Business Research Methods*, 6(1), 53–60.
- Huang, M.-H., & Rust, R. T. (2022). A Framework for Collaborative Artificial Intelligence in Marketing. *Journal of Retailing*, 98(2), 209–223. <https://doi.org/10.1016/j.jretai.2021.03.001>
- JOHNSON, T. (2020). *The Impact of AI on Email Marketing*. <https://tinuiti.com/blog/lifecycle-marketing/the-impact-of-ai-on-email-marketing/>.
- Kaplan, A., & Haenlein, M. (2020). Rulers of the world, unite! The challenges and opportunities of artificial intelligence. *Business Horizons*, 63(1), 37–50. <https://doi.org/10.1016/j.bushor.2019.09.003>
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business Horizons*, 53(1), 59–68. <https://doi.org/10.1016/j.bushor.2009.09.003>
- Kaput, M. (2021). *Artificial Intelligence In Content Marketing*. <https://www.marketingaiinstitute.com/blog/ai-for-content-marketing/>.
- Kavyashree, K. (2023). Impact of Artificial Intelligence on Consumer Behaviour: An Empirical Study in the Retail Sector in Mangalore City. *EPRA International Journal of Research & Development (IJRD)*.
- Kenton, W., Rhinehart, C., & Clarine, S. (2023). *What Is Social Media Optimization (SMO), and Why Is It Important?* <https://www.investopedia.com/terms/s/social-media-optimization-smo.asp#:~:Text=Social%20media%20optimization%20%28SMO%29%20is%20the%20use%20of,With%20customers%2C%20and%20mitigate%20potential%20damaging%20news.%20>
- Kessinger, J. (2022, June). *AI in Social Media Marketing: How Artificial Intelligence is Transforming the Practice*. <https://www.hushly.com/blog/ai-in-social-media-marketing/>.
- Khan, M. F., & Jan, A. (2019). A Measure of Social Media Marketing: Scale Development and Validation. *Jindal Journal of Business Research*, 8(2), 158–168. <https://doi.org/10.1177/2278682119850285>
- Khan, S. I. (2022). Impact of artificial intelligence on consumer buying behaviors. *International Journal of Health Sciences*, 8121–8129. <https://doi.org/10.53730/ijhs.v6nS2.7025>
- Khraim, H. S., & Alkrableih, A. A. (2015). The Effect of Using Pay Per Click Advertisement on Online Advertisement Effectiveness and Attracting Customers in E-marketing Companies in Jordan. *International Journal of Marketing Studies*, 7(1). <https://doi.org/10.5539/ijms.v7n1p180>
- Kimp. (2023). *AI In Email Marketing: 5 Benefits + Tools You Should Know*. <https://www.kimp.io/ai-in-email-marketing/>.
- Kushwaha, B. P. (2020). SEARCH ENGINE MARKETING A NEW WAY OF MARKETING IN DIGITAL AG. *Scientific Journals in Palaeontology and Egyptology*, 17(6), 2053–2065.
- Li, J. (Justin), Bonn, M. A., & Ye, B. H. (2019). Hotel employee's artificial intelligence and robotics awareness and its impact on turnover intention: The moderating roles of perceived organizational support and competitive psychological climate. *Tourism Management*, 73, 172–181. <https://doi.org/10.1016/j.tourman.2019.02.006>
- Localiq. (2022). What Is PPC? Learn the Basics of Pay-Per-Click (PPC) Marketing. <https://www.wordstream.com/ppc>.
- Lopes, R. A., Porto, I., & Casais, B. (2022). DIGITAL CONTENT MARKETING: CONCEPTUAL REVIEW AND RECOMMENDATIONS FOR PRACTITIONERS. *Academy of Strategic Management Journal*, 21(2), 1-17.
- Luo, X., Qin, M. S., Fang, Z., & Qu, Z. (2021). Artificial Intelligence Coaches for Sales Agents: Caveats and Solutions. *Journal of Marketing*, 85(2), 14–32. <https://doi.org/10.1177/0022242920956676>

- Maloney, H. (2023). *How AI is Impacting Pay-Per-Click Advertising?* <https://Blog.Contactpoint.Com.Au/2023/02/How-Ai-Is-Impacting-Pay-per-Click-Advertising/>.
- Manjula, S. (2021). THE IMPACT OF ARTIFICIAL INTELLIGENCE CONSUMER BUYING BEHAVIORS. *International Journal of Creative Research Thoughts (IJCRT)*, 9(9), 105–109.
- MarketsandMarkets. (2023). *AI in Social Media Market worth \$2,197.1 Million by 2023*. <https://Www.Marketsandmarkets.Com/PressReleases/Ai-in-Social-Media.Asp>.
- Marr, B. (2022). *Artificial Intelligence And The Future Of Marketing*. <https://Www.Forbes.Com/Sites/Bernardmarr/2022/09/09/Artificial-Intelligence-and-the-Future-of-Marketing/?Sh=38900dee697f>.
- Martin, N. (2019). *Why Utilizing Data In Your Digital Marketing Strategy Is So Essential*. <https://Www.Forbes.Com/Sites/Nicolemartin1/2019/10/22/Why-Utilizing-Data-in-Your-Digital-Marketing-Strategy-Is-so-Essential/?Sh=69e8cf4d5253>.
- Mazzini, C. (2023). *Five Ways AI Is Changing The Game Of Content Marketing*. <https://Www.Forbes.Com/Sites/Forbesagencycouncil/2020/03/20/Five-Ways-Ai-Is-Changing-the-Game-of-Content-Marketing/?Sh=74646a765592>.
- Murphy, J., Gretzel, U., & Pesonen, J. (2019). Marketing robot services in hospitality and tourism: the role of anthropomorphism. *Journal of Travel & Tourism Marketing*, 36(7), 784–795. <https://doi.org/10.1080/10548408.2019.1571983>
- Mussa, M. H. (2020). The impact of Artificial Intelligence on Consumer Behaviors An Applied Study on the Online Retailing Sector in Egypt. *Scientific Journal for Economic & Commerce*, 293–318.
- Nair, K., & Gupta, R. (2021). Application of AI technology in modern digital marketing environment. *World Journal of Entrepreneurship, Management and Sustainable Development, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/WJEMSD-08-2020-0099>
- Olson, E. M., Olson, K. M., Czaplewski, A. J., & Key, T. M. (2021). Business strategy and the management of digital marketing. *Business Horizons*, 64(2), 285–293. <https://doi.org/10.1016/j.bushor.2020.12.004>
- Omar, A. M., & Atteya, N. (2020). The Impact of Digital Marketing on Consumer Buying Decision Process in the Egyptian Market. *International Journal of Business and Management*, 15(7), 120. <https://doi.org/10.5539/ijbm.v15n7p120>
- Payani, A. (2023). *Embracing The Future: How AI Is Revolutionizing Marketing And Sales*. <https://Www.Forbes.Com/Sites/Forbesbusinesscouncil/2023/03/08/Embracing-the-Future-How-Ai-Is-Revolutionizing-Marketing-and-Sales/?Sh=769abd30bcc2>.
- Piñeiro-Otero, T., & Martínez-Rolán, X. (2016). *Understanding Digital Marketing—Basics and Actions* (pp. 37–74). https://doi.org/10.1007/978-3-319-28281-7_2
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of Method Bias in Social Science Research and Recommendations on How to Control It. *Annual Review of Psychology*, 63(1), 539–569. <https://doi.org/10.1146/annurev-psych-120710-100452>
- Prentice, C., Dominique Lopes, S., & Wang, X. (2020). The impact of artificial Intelligence and employee service quality on customer satisfaction and loyalty. *Journal of Hospitality Marketing & Management*, 29(7), 739–756. <https://doi.org/10.1080/19368623.2020.1722304>
- Qin, X., & Jiang, Z. (2019). The Impact of AI on the Advertising Process: The Chinese Experience. *Journal of Advertising*, 48(4), 338–346. <https://doi.org/10.1080/00913367.2019.1652122>
- Rathore, Dr. B. (2021). FashionTransformation 4.0: Beyond Digitalization & Marketing in Fashion Industry. *Eduzone: International Peer Reviewed/Refereed Academic Multidisciplinary Journal*, 10(02), 54–59. <https://doi.org/10.56614/eiprmj.v10i2.234>
- Reimers, V., Chao, C.-W., & Gorman, S. (2016). Permission email marketing and its influence on online shopping. *Asia Pacific Journal of Marketing and Logistics*, 28(2). <https://doi.org/10.1108/APJML-03-2015-0037>
- Rodrigue, E. (2023). *6 Marketing AI Predictions to Watch in 2023*. <https://Blog.Hubspot.Com/Marketing/Ai-Predictions>.
- Salesforce. (2022). *New Report: Amid Tightening Budgets, 87% of Marketers Say Their Work Provides Greater Value Now*. <https://Www.Salesforce.Com/News/Stories/State-of-Marketing-for-2023/>.
- Salesmate. (2023). *The powerful impact of AI in email marketing landscape*. <https://Www.Salesmate.Io/Blog/Ai-in-Email-Marketing/#:~:Text=What%20is%20the%20impact%20of%20AI%20in%20email,Improving%20...%207%207.%20Provides%20email%20analytics%20>.
- Saura, J. R., Ribeiro-Soriano, D., & Palacios-Marqués, D. (2021). Setting B2B digital marketing in artificial intelligence-based CRMs: A review and directions for future research. *Industrial Marketing Management*, 98, 161–178. <https://doi.org/10.1016/j.indmarman.2021.08.006>
- Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J.-H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: guidelines for using PLSpredict. *European Journal of Marketing*, 53(11), 2322–2347. <https://doi.org/10.1108/EJM-02-2019-0189>
- Sitecentre. (2023). *The Role of AI in Content Marketing*. <https://Www.Linkedin.Com/Pulse/Role-Ai-Content-Marketing-Sitecentre>.
- Staff, R. (2020). *The Power of AI in Social Media Marketing*. <https://Www.Renderforest.Com/Blog/Ai-for-Social-Media-Marketing>.
- Stone, M., Aravopoulou, E., Ekinci, Y., Evans, G., Hobbs, M., Labib, A., Laughlin, P., Machtynger, J., & Machtynger, L. (2020). Artificial Intelligence (AI) in strategic marketing decision-making: a research agenda. *The Bottom Line*, 33(2), 183–200. <https://doi.org/10.1108/BL-03-2020-0022>
- Tinoco, A. (2023). *How to Supercharge Your SEO Strategy with AI SEO*. <https://Rockcontent.Com/Blog/Ai-SEO/#:~:Text=What%20can%20AI%20do%20for%20your%20SEO%20strategy%3F,Personalized%20as%20possible.%20...%203%203.%20Higher%20Ranks>.
- van Esch, P., & Stewart Black, J. (2021). Artificial Intelligence (AI): Revolutionizing Digital Marketing. *Australasian Marketing Journal*, 29(3), 199–203. <https://doi.org/10.1177/18393349211037684>

- Yu, Y. (2021). The Role and Influence of Artificial Intelligence on Advertising Industry. *Proceedings of the 2021 International Conference on Social Development and Media Communication (SDMC 2021)*, 190–194.
- Zaiceva, A. (2022). *The Future of AI in Digital Marketing* . <https://Setupad.Com/Blog/Artificial-Intelligence-in-Digital-Marketing/#:~:Text=AI%20Role%20in%20Digital%20Marketing%20With%20the%20help,And%20improve%20customer%20satisfaction%20by%20creating%20personalized%20content>.