Generative AI Impact on Marketing Agency

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Abstract: **Background:** By the end of 2022, a disruptive generative AI product, ChatGPT, was launched and impressed in both the B2C and B2B business field. Among the industries impacted, sales and marketing were identified as one of the most affected by McKinsey. This article focuses on marketing agencies and individual marketers, whose core business revolves around marketing campaigns. **Problem Definition:** In this paper, the fundamental capabilities of generative AI and its current applications in the marketing industry have been assessed. Furthermore, by considering both macro and micro-level factors and incorporating the influence of consumer perceptions on generative AI development, conclusions have been drawn regarding the impact of generative AI on marketing agencies. **Methodology/results:** First, this paper summarizes amount of literature and establishes that while the concept of AI has a long history, it is still in its early stages from a technical perspective. Its impact on the marketing industry is therefore worthy to take attention. This paper's analysis includes both qualitative and quantitative aspects. The macro-market analysis using the PEST framework indicates that the development environment is complex. Consumer-side surveys show that consumers' open attitudes are driving choices made by marketing agency clients. Ultimately, conclusions are drawn regarding the extent of the impact of generative AI products on marketers.

Keywords: generative AI, digital marketing, marketing agency

1. INTRODUCTION

Since the generative AI tools as ChatGPT emerged in the market early in 2023, it brought extensive discussions across various industries, especially in digital marketing sector [1]. Numerous technical enterprises have face to the challenge and launched their own generative AI products. This range of products spans from Baidu's WenXinYiYan and Huawei's Panggu Great Model to Amazon's 100-million-dollar inverstment in a Generative Innovation Center, and Google's new version of its search engine incorporating generative AI [2]. Each of these actions signifies the importance of generative AI.

Simultaneously, the generative AI technology impacts various other sectors as well. A report from McKinsey highlights that customer operations, marketing and sales, software engineering, and research and development are the four domains experiencing the most substantial influence from generative AI [3]. As a marketer whose business is highly related to marketing and sales, it is unavoidable to understand how generative AI reshapes business operations and to seek for effectively respond to these changes [4].

This paper conducts a comprehensive analysis of the possibility of executing a marketing campaign utilizing generative AI. The analysis will combine both an examination of external factors and an evaluation from the consumer perspective through a mix methodology of qualitative and quantitative method. The objective is to clarify the question of whether prominent marketing agencies such as Ogilvy and BlueFocus may rapidly lose their competitive in this B2B market segment, especially those business of creating promotional materials for enterprises.

In previous academic research, a focus on the correlation between AI and marketing began to emerge after 1990s, with a more concentrated presence of research related to generative AI or AIGC appearing after 2018 [5]. Many scholars have conducted analyses related to generative AI and advertising, or have focused on B2B marketing (as the basic operating model of marketing agencies also falls under B2B marketing), or technology applications. The methodologies employed in these papers encompass various approaches, including literature review-based analyses, experimental methods, qualitative analysis, etc

In conclusion, there is a certain research gap on possibility of replacing agencies' "marketing operations (such as production of text, posters, videos, etc.)" by generative AI. Meanwhile, the lack of research on perception of end-consumers towards the content generated by generative AI exists. This paper is crucial for analysis of correlation between marketing agency-a role hard to be ignored in marketing industry-and generative AI, through the following research methods: literature review, qualitative analysis and quantitative analysis.

The rest of this paper is organized as follows. Section 2 discusses the related literature and highlights. Section 3 uses a combination of qualitative analysis and quantitative analysis through the PEST model and a survey. Section 4 output basic insights and conclusions.

2. REVIEW

The public have been closely following the release of ChatGPT and the trend of generative AI. They claim that these intelligent tools can potentially replacing basic marketing tasks [6]. In this context, this section seeks to some fundamental knowledge between AI and marketers/marketing agencies.

This paper will conduct a comprehensive literature review, including the following directions: the evolution from AI to generative AI; AI application in marketing; barriers of implementation; AI application in marketing agencies; summary of the advantages and risks associated with using generative AI.

2.1. The evolution from AI to generative AI

AI, as a technology with a history over 70 years, has fully explored in marketing field. Most researchers agree that the initial concept emerged in the 1940s to 1950s [7]. Generally, as mentioned by Han, defining AI can be relatively complex [8]. AI learns from various forms of content such as voice, images, and text to mimic human behaviors and responses [4]. Through mechanical AI, Thinking AI, and Feeling AI, it is possible to automate repetitive and routine tasks, provide decision-making support, and facilitate two-way interactions involving humans [9].

However, technology is continually evolving. The recent significant disruption in technology is the introduction of generative AI into the market. Generative AI can create articles, poetry, and even computer programs, which was challenging to achieve with previous AI technologies in high quality [2].

According to a report by McKinsey in 2023, the value growth brought by generative AI is concentrated in four industries, marketing and sales is one of them. It also implies that these sectors are the most heavily influenced by generative AI [3]. Consequently, research into the development of generative AI within the marketing industry is of utmost importance.

2.2. AI application in marketing

As new technologies emerge, companies and consumers communication methodology have significant changed [10]. What changes has generative AI brought about? According to ChatGPT itself, it can engage in marketing in the following ways: 1. Human-like content creation; 2. Language translation; 3. Conversational agents which provide personalized customer support; 4. Creative design based on textual or conceptual prompts; 5. Large-volume-data analysis which is more intelligent than human analysts; 6. Personalization by understanding user preferences and behaviors; 7. Prototyping and idea generation from product design to architecture [11].

Overall, there is consensus that a lot of tasks can be applied with AI in the marketing industry, and generative AI even have better performance than humans in certain tasks [7].

2.3. Barriers of AI technology

AI is not a panacea. Many scholars have predicted its application barriers, including fundamental output errors such as fabricated fake content, wrong logic, factual inaccuracies, and a lack of ethical standards, etc [12].

As a company, marketing agencies also have challenges in adopting AI technology. For instance, some practitioners may lack the motivation to learn AI-related tools, or they may resist new technologies out of fear. The complexity of real-world business operations is also be greater than anticipated, potentially affecting the implementation of AI technology. Additionally, high data security requirements, either due to the nature of the business or client needs, could limit the use of generative AI [5].

In summary, there is still uncertainty in the practical application of AI technology in real-world work scenarios.

2.4. AI application in Marketing Agencies

There have been reports stating that marketing agency's employees have said that they deeply feel "overwhelmed" by AI in their work. Some of them believe that AI's capabilities have surpassed those of over 99% of practitioners in the industry [13].

Marketing agencies' core activities can get support by generative AI tools like ChatGPT. These supports include building marketing campaigns, content marketing, content design, chatbot-based services, enhancing customer experiences, providing keyword suggestions, conducting marketing research, and facilitating brand comparisons [14]. Generative AI can be applied across different stages, from marketing research to marketing strategy (STP) and ultimately to marketing action stages [5]. Since generative AI can assist with a great portion of these tasks and is expected to reduce labor costs, it challenges marketers in the current business model of marketing agencies.

2.5. Advantages and Risks

Certainly, the advantages of generative AI are evident, such as enabling marketers to quickly target and engage with their audience, mimicking human behavior while improving efficiency, and reducing costs [4]. However, there are also many concerning factors of using generative AI.

According to ChatGPT's own summary of generative AI and other scholars' idea, it has the following drawbacks: inconsistency in quality and accuracy, ethical bias, a lack of common sense, concerns about originality and creativity, complexity, and limitations to specific tasks, among others [4, 14]. Moreover, scholars. also pointed out that generative AI also brings risks related to transparency and explainability, legal concerns, job displacement, and the impact on culture and personal values [14].

In summary, using generative AI tools to output marketing campaigns does have an impact on marketing agencies, but it is necessary to consider both the advantages and disadvantages. The specific extent and aspects of this impact will depend on how businesses choose to adapt and utilize these technologies.

3. ANALYSIS

In this analysis section, this paper undertakes a methodology with comprehensive qualitative analysis and quantitative analysis. Based on the research foundation of in the literature review section, and primary and secondary data collected, this paper conducts a macro external environment analysis through PEST model and a micro analysis through a survey of end-consumer's perception.

3.1. PEST Analysis

3.1.1. Political

Generative AI, such as ChatGPT, represents advanced technology that has rapid developed. The swift pace of its emergence has made many industries nervous [4]. However, questions and concerns have quickly arisen, particularly from a political perspective.

3.1.1.1. Legal restriction

In March, Italy suspended ChatGPT and accused OpenAI of "illegally collecting personal data [15]." Italy's actions are not isolated incidents. In the United States, the nonprofit organization Center for Artificial Intelligence and Digital Policy (CAIDP) has also requested that the Federal Trade Commission (FTC) investigate whether OpenAI has violated consumer protection regulations and has urged a ban on further releases of GPT-4 [16].

All the actions from different entities have highlighted an absence of regulations. In the short term, the use and commercialization of generative AI are indeed restricted. However, it is still a positive consideration from a long-term perspective, which ensures the technology/product's sustainable development and gives certain industries time to prepare for the AIGC disruption.

3.1.1.2. Data usage

The misuse of user data is one of the primary reasons for its prohibition of local policies. Experts from various fields also express concerns about data security and data utilization, encompassing the following aspects:

● Compliance with Local Laws Regarding Data Sources: Even though OpenAI state that they "will not intentionally collect personal information from children under 13 years of age [11]," there is no clear age verification process during their use. Many regions have similar laws about using children's data.

● Legality of Data Usage: ChatGPT needs to record data from user's interactions. As stated in the FAQ section of the OpenAI website [11], these collected data can be used in future versions of OpenAI's model. This means that in upgraded versions, previous information between individuals and ChatGPT may appear in the conversations of other users.

● Concern Reliability of Data: Galactica from Meta which is introduced for research purposes got complaint and was taken offline within three days due to the accuracy of responses [17] It is risky for people using the output generated by AI.

3.1.1.3. Copyright Issues

The basic database used for generative AI is from the interaction between numerous individuals and the product. Therefore, defining the originality of products generated using data provided by other real "individuals" is challenging. Normally, AI cannot be treated as"author". Moreover, when copyright disputes arise, it's unclear whether companies like OpenAI, which provide generative AI products, can be named as litigants.

Currently, there are significant gaps in the policy field. In the short term, this blank space is not conducive to the rapid development of generative AI. Moreover, the concerns raised by various stakeholders can lead to negative perceptions by generative AI among users, such as clients of marketing agencies and their end customers. Therefore, the impact of generative AI to marketers is not that terrible in current situation.

3.1.2. Economic

Figure 1: Real GDP Growth

According to the GDP data collected and the chart above about 'real GDP growth (Annual percent change)', it is evident that the global economy experienced a significant negative growth in 2020. IMF's forecasts indicate a continued slowdown in GDP growth from 2022 onwards [18]. The global economic recovery has been sluggish, and this macroeconomic environment has directly impacted businesses across various industries. As the result, there is a demand for cost reduction in value-added services for companies, such as digitalization and marketing services. Many companies prefer to use generative AI due to its high ROI, enabling them to accomplish a greater range of tasks [4]. Marketing agencies thus face a dual pressure from external customer demands and internal operational needs.

Considering the various economic factors above, there is a significant demand for generative AI in the market, which will strongly drive its development. However, considering the comprehensive impact of economic downturns and the fact that generative AI is still in its early stages of research and development, substantial financial investment is required. Meeting this funding requirement may prove challenging after COVID-19, and the development process may proceed more slowly than initially anticipate.

3.1.3. Sociocultural

Since the emergence of new technology, people have expressed both excitement and concern. Ethical issues have been a longstanding concern, and some have also raised worries about the potential for job displacement [19].

3.1.3.1. Ethics Concern

With the purpose of exploring the ethical principles of generative AI, some researchers asked the well-known moral dilemma of "trolley problem" to ChatGPT. The research findings revealed that 80% of the respondents were influenced by ChatGPT's statements and made corresponding choices [20].

Professor Chen Yunsong stated in an interview that generated content may often be ambiguous and or be inconsistent [21]. In simple terms, the algorithms used in generative AI lack the "judgment capability" and do not possess basic moral and emotional considerations like humans. Therefore, there is a possibility of moral biases, potentially influencing people's choices based on the content generated and leading them to engage in actions that may against societal moral ethics.

3.1.3.2. Unemployment Impact

In addition to ethical concerns, the impact on unemployment is also a matter. AI and related technologies have brought a significant change in the human resources market [22]. Recently, it said that some companies using AI to replace the work of outsourcing companies for tasks like original artwork and translation [23]. In addition, according to a report by Goldman Sachs, it is estimated that globally, 300 million jobs will be replaced by generative AI [24].

This kind of tools currently are more likely to replace specific "positions" rather than entire "industries". These positions often involve repetitive tasks, making them susceptible to automation [3].

From other perspective, since generative AI products require extensive data, foundational training, and subsequent adjustments, new job opportunities are generated at the same time. There has been estimated a significant surge in the number of AIGC-related positions in recent years [25]. Therefore, there is no need to worry about unemployment, if people continuously learn new skills. Lifelong learning and adaptability are the fundamental conditions against being replaced by machines.

3.1.4. Technological

Current technology is highly advanced, it can accomplish basic content generation, sometimes even outperforming humans. Technology constantly evolves to meet new demands. Generative AI, at its current level, relies on Natural Language Processing (NLP) but also involves other components like Image Recognition (IR), Speech Recognition (SR), Machine Learning (ML), Natural Language Generation (NLG), CNNs, and other technologies [26]. Furthermore, ChatGPT requires handling vast amounts of data, which demands high-capacity data processing [26,27]. To enable the smooth operation of AI application, software and advanced hardware is essential. These technologies are interrelated, making it challenging to achieve breakthroughs through the advancement of a single technology alone.

3.2. Quantitative analysis

This section assess how clients of marketing agencies might choose their marketing methods based on the perception of their end customers.

To achieve this purpose, content and features of existing promotional materials, including slogans, posters, and digital marketing campaign themes, are input into generative AI tools. The generative AI then produces marketing content within five iterations of fine-tuning to create the final content. These generative AI-generated products are presented alongside human-generated products to respondents, who are then asked to make choice.

Concerning the choice of tools, ChatGPT is recently the most popular and easily accessible product [28], making it the primary tool for this study. Additionally, Midjourney was also used as a supplementary tool to generate posters.

Concerning the selection of promoted item, products with high exposure in daily life are chosen, such as iPods, sunscreen, and an online Olympic-themed event. Using generative AI tools, the following content was generated for different products:

For iPods, three advertising slogans were created: 1. "1,000 songs in your pocket"; 2. "Music, a Time of Beauty, Surprises Accompanying Your Ears"; 3. "Music Universe, All in One Palm."

For sunscreen, three posters were generated as Table 2.

For the Olympic-themed online event, the following slogans were created: 1. "Passion is Golden"; 2. "Igniting the Olympic Dream, Embracing Passionate Spirit;" 3. "Soaring Dreams with 361°, Unstoppable Olympic Momentum."

The first content for each popup object is the original 'manual' content.

Figure 2: Posters generated by AI

During the survey, a total of 189 valid questionnaires were collected. Through their responses, the study made the following findings:

For the ranking of preferred promotional content, the results are as follows:

Among slogans, the most popular choice was the human-generated content. Then comes to the AI-generated contents.

Among posters and online Olympic-related campaigns, respondents picked human-generated product as the second one. One of the AI-production became the most popular.
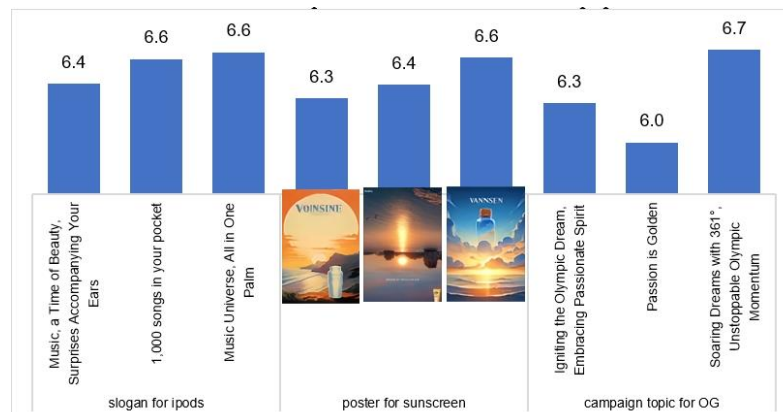

Figure 3: Average Rating of marketing content

As shown in the Table3, the average score for every content is similar. Obviously, even if marketing content do not rank highly, their quality remains valuable in the view of consumers. On

the other hand, it can also be observed that the quality of generative AI is very close to that of human-generated content according to consumer judgment.

It's evident that consumers primarily prioritize the quality (32%), innovation (25%), and interactivity (25%) of marketing content (Table 4).

Additionally, most individuals can recognize AI-generated content. 66% of respondents scored 3 or higher when asked, "Can you identify AI-generated content?". When asked if they are willing to view content produced by generative AI, approximately 76% gave a score of 3 or higher, indicating a positive inclination. So, it is clear that even when respondents can identify AI-generated content, they are still inclined to choose that option.
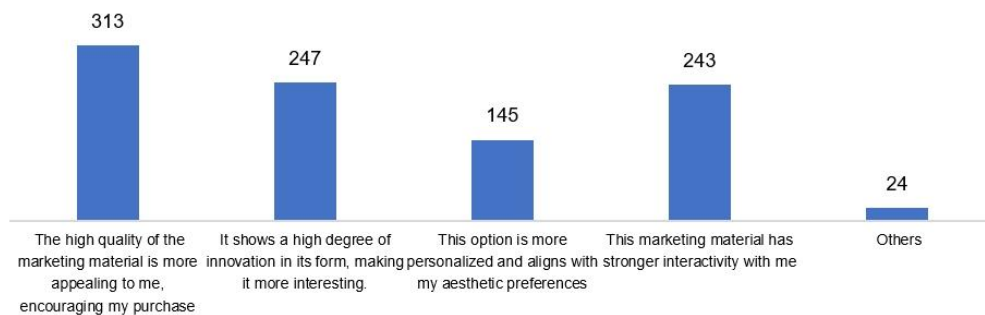
Figure 4: The factors influencing choices

Based on the analysis of the data and content presented, the following findings can be summarized:

1) Users tend to have a positive attitude towards high quality content generated by AI.

2) Even if the output of generative AI is not the most preferred by users, its quality is still acknowledged by consumers.

3) While consumers can distinguish between content created by humans and generative AI, this differentiation does not impact their choices.

In conclusion, the quality of marketing content directly influences consumer choices, rather than the method of production. Using generative AI for marketing content generation is feasible and acceptable to consumers.

However, in the context of the survey's design process, all creative ideas were pre-existing, and the output still relied on the original creativity from marketing agencies. Human involvement remains crucial, and this factor affects the quality and innovativeness of the content, which is also a key concern for consumers.

4. CONCLUSION

The content produced by generative AI, especially after fine-tuning, can be remarkably realistic and even surpass the quality of human-produced content in the marketing field. In comparison to marketing agencies, there is an advantage for utilizing generative AI to generate and applicate content or finish the marketing tasks. From the end-user's perspective, people generally have an open attitude towards marketing content generated by generative AI. This openness is favorable for marketers and other business roles who may use generative AI for marketing content production and push the development of new technology.

AI-generated products hold significant promise, both in terms of theoretical value and user acceptance. While short-term factors like economic constraints and policy gaps may impede the progress of generative AI, they are not long-term impact factors. Generative AI products still have the potential for sustained and healthy growth.

As of the current short-term situation, it is not feasible to completely replace all the tasks performed by marketing agencies. This limitation is primarily due to the inability to fully automate tasks and the relatively limited creativity or originality of AI. However, this is not to say that full automation cannot be achieved in the long term. Therefore, marketers or marketing agencies need to adapt their skills and learn how to leverage technology, seizing opportunities for job transformation to achieve long-term stability and personal development.

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