



The Evolving Position of Artificial Intelligence in Digital Marketing: A Qualitative Study of SMEs in Indonesia

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Abstract. The following is a qualitative research that employs multiple methods to analyze and describe the position of artificial intelligence in the field of digital marketing, utilizing Indonesian SMEs as study cases for reference. The emergence of artificial intelligence powered software such as ChatGPT transformed societal norms. The goal of this research is to determine how such transformation could impact the marketing field, and what key roles would artificial intelligence play in digital marketing. To achieve this goal, three study cases have been employed to study the application of artificial intelligence in different settings: startups, banking sector, and general usage in Indonesia. For further evidence, anecdotal evidence and interviews have been taken into account. An interview has been conducted with a consultant, and another with a local business owner. Other researches have been considered through literature review, and data has been collected to suggest that artificial intelligence has become a key aspect of digital marketing, and that its role will become further cemented with the passing of time.

Keywords: Artificial Intelligence, Digital Marketing, Startup, Qualitative Research, Evolving Position

1 Introduction

Industrial revolutions throughout time were driven by the advancements of technology. This can be shown by subsequent innovations from the first wheel in history, to steam powered engines, to the internet and cloud data. In modern times, one such innovation is the programming of artificial intelligence, a turning point that is soon to change how society behaves. There already is software that utilizes artificial intelligence for more complex tasks, including ChatGPT, a chatbot capable of following a conversation, Midjourney, A.I. that can generate images from text prompts, and many more. With such technology being accessible to the public, businesses must make use of artificial intelligence to gain a competitive advantage. One method of doing so is by implementing its use for digital marketing purposes.

To understand how artificial intelligence plays a role in digital marketing, a primary research question and a primary objective were defined to determine the scope and direction of this research:

1. RQ: What is the current use of software that utilizes artificial intelligence in digital marketing?
2. RO: To identify the role and position that artificial intelligence holds for digital marketers

With these parameters having been set, the methodology for the research could then be determined.

2 Methods

For this research to be done efficiently, the Research Onion, by Saunders et al. [1] has been implemented as a basis of the research approach. This research is based on *interpretivism* due to its emphasis on subjectivity, because the position of artificial intelligence and marketing as a whole is subjective. This is also an *inductive* research, in which discussions are resulted from observations, and not pre-determined theories [2]. Due to the topic's subjectivity and lack of quantitative data, the research follows a *qualitative* approach, using *multiple methods* including *case studies* and *interviews*. Lastly, this research follows a *cross-sectional time horizon*, in which data is collected in a single time period (2019 to 2023), rather than historically throughout multiple periods.

To ensure validity as well as reliability, a set of criteria have been used as reference, defined by Whittemore et al., [3]. Firstly, *credibility* has been ensured such that the original authors' and interviewees' thoughts and expressions have accurately been represented. Secondly, to ensure *authenticity*, multiple credible sources have been included, within the time frame and limitations of this research. Thirdly, the *criticality and objectivity* of this research is ensured through the inclusion of multiple perspectives, reducing as much bias as possible. Fourthly, this research is written in third person to ensure the authors' *integrity and self-criticality*. Fifthly, straightforwardness has been employed as often as possible to ensure the *explicitness* of this research. Sixthly, this research ensures *thoroughness* by ensuring that every point is thoroughly explained. Lastly, *congruence* is considered by taking note of whether data collected agrees with recent studies.

Ethical consideration is also considered in this research. To ensure ethical conduct, the researcher has undertaken the following points: Participants have been formally consulted at least 7 days prior to the interviews, interviewees choose the time and method of the interviews, privacy is ensured for the interviewees in that the interviews are only shared to consented parties, interviewees have the ability to withdraw anytime from the interview, interviewees' rights were formally informed, professionalism and objectivity are maintained throughout the interview process, no results or data will be altered, and lastly, participants are shown appreciation for their participation.

3 Results and Discussion

To lead this research, three case studies have been included for contextual understanding and further analysis. The following are the case studies used, in order (titles have been rephrased to avoid plagiarism issues):

1. Use of artificial intelligence for digital startups in Indonesia [4]
2. The banking sector's use of artificial intelligence in Indonesia [5]
3. Implementing artificial intelligence in Indonesia [6]

3.1 Case Study 1

This research describes how artificial intelligence is used for marketing purposes, in the context of Indonesian digital startups. Data collection by surveying is done to analyze the usage of artificial intelligence in these digital startups and to understand the decisions behind them. The results show that a majority of startups understand the potential of artificial intelligence but believe that they do not possess the knowledge nor resources to efficiently operate such technology. It is then recommended by the author that startups should utilize artificial intelligence in order to expand their business. This can be done by creating teams focused on artificial intelligence usage, employing artificial intelligence for specific requirements, and working together with artificial intelligence developers.

To go further into detail, the data in this study shows that 14.8% of the participants already implement artificial intelligence within business operations, whereas 52.5% do not plan on implementing it in the near future. The reason for not implementing artificial intelligence is due to a lack of knowledge and resources, as cited by 49.2%. There are also causes of concern regarding potentially high operational costs of artificial intelligence, cited by 45.9%. Despite this, there has been success in the implementation of artificial intelligence among digital startups. As an example, chatbots are among the most frequently used artificial intelligence, with a rate of 48.3% among startups who use artificial intelligence, with marketing analytics software following suit, with a usage rate of 27.6%, as well as natural language processors, with a usage rate of 26.2%. Among the startups that implement artificial intelligence, many of them demonstrate a significant improvement in their daily operations, 36.7% of which have reported faster response times, 25.0% have reported having more effective marketing campaigns, and 21.7% benefit from automating tasks that are repetitive. This research shows that the primary factors that drive the use of artificial intelligence are funding, access to subject experts, practical knowledge, and access to artificial intelligence software. 39.3% of the startups have shown reported that capital funds are the number one driver, with practical knowledge and access to experts being reported by 31.0%, and access to artificial intelligence software being reported by 27.6%.

3.2 Case Study 2

This research highlights the use of artificial intelligence in Indonesia's banking sector. The study shows that there are obstacles that hinder the Indonesian banking industry. These include a limit in infrastructure, financial inclusion, as well as a limited presence of banking services in rural areas. It is then suggested by the author that digitalization and artificial intelligence can solve or mitigate these challenges, which could result in better services and customer satisfaction. There are several methods in which artificial intelligence as well as big data could be utilized in banking, among which are systems of fraud detection, risk managing systems, CRM systems, and specialized marketing.

The author then draws examples from other countries and suggest methods of implementation in Indonesia. Such methods include having trusted partnerships between the tech industry, banks, and intermediators, in order to ensure the successful implementation of artificial intelligence. Despite a lack of empirical evidence, this case study provides a theoretical framework that gives a general understanding as to how artificial intelligence can be used in a specific sector.

3.3 Case Study 3

The final case study presents an overview of the utilization and potential of artificial intelligence within Indonesian context. The research discusses the worldwide repercussions of artificial intelligence in terms of development and economic growth, before limiting its scope from a global perspective to Indonesia. The research reveals a growing likelihood in artificial intelligence investment, with sectors such as transportation, finance, agriculture, healthcare, and banking being in the forefront where artificial intelligence can benefit the most. Notably, the research suggests that there are challenges that artificial intelligence must face in Indonesia, which includes a lack of experts, limited infrastructure, and a lack of political support. Despite this, initiatives from the government and private sectors are taken in order to face these challenges. There are many impacts that artificial intelligence can bring to the country, which can be beneficial, such as opening new job prospects, but also detrimental, as there are concerns for job displacement in sectors that are heavily invested in manual labor. As such, the author suggests that the government and educational institutions invest upon artificial intelligence knowledge, which would foster a new skillset in the workforce. An example of artificial intelligence benefits are the ability to improve diagnosis, develop medicines, manage risks, detect frauds, improve CRM, increase harvesting efficiency, etc. Despite the current limitations of artificial intelligence within the country, the author forecasts further investments and development, and that this technology will prosper in the future.

3.4 Interview 1: Kaliber Asia

To validate the data from the case studies, anecdotal evidence have been collected through two interviews. The first is with a marketing consultant working for Kaliber Asia, a Singaporean consulting firm with a branch in Jakarta. The following dictates important points from the interview.

The interviewee believes that many workers in Indonesia view artificial intelligence as a threat to more traditional methods. Despite this, society tends to move farther from traditions into contemporary ideas, finding solutions to threats that come along the way. In the interviewee's perspective, artificial intelligence is, most times, used for content generation when it comes to marketing. That is, artificial intelligence is used to generate copywriting, logo making, etc. The interviewee mentions that due to the requirement of human input in marketing, artificial intelligence will never be capable of replacing marketers. This statement is backed by asking the following question, "Can artificial intelligence tell me if this picture is aesthetically pleasing?", to which they answer "no",

referring to the fact that artificial intelligence is incapable of feeling emotions. Furthermore, the interviewee states that artificial intelligence in marketing could create changes in responsibilities, as marketers would not have to be as creative, but rather focus on more logical approaches as content generation can be handled by artificial intelligence. On another note, big data analysis has a large impact in marketing. Lastly, the interviewee demonstrates their understanding that artificial intelligence needs existing data for learning and development, meaning that it is incapable of creating something out of nothing.

The results of this interview showcase the interviewee's theoretical and practical understanding regarding artificial intelligence, as well as their use in digital marketing. To gather further data, another interview has been conducted to provide a different perspective.

3.5 Interview 1: Marketing Startup

For this interview, an Indonesian startup entrepreneur has been selected to participate in this research. Their business model revolves around the use of social and digital media marketing, providing their services on a per client basis. With a difference in scale and background from the first interviewee, this interview provides a different take on how artificial intelligence is perceived in Indonesia. The following describes the key takeaways.

Firstly, the interviewee frequently utilizes artificial intelligence within digital marketing activities. This is demonstrated by their use of ChatGPT for copywriting. Using third party artificial intelligence software also proves useful in analyzing customer data, finding patterns that aid in forecasting consumer preferences. Furthermore, artificial intelligence is a major help in automating repetitive tasks, such as copywriting as well as generating posters and other visuals. The preferred platform of marketing for the interviewee is Meta, meaning Facebook and Instagram ads. Despite not being an expert in the field of artificial intelligence, the interviewee is able to rely on third party software, which is usually made user friendly and distributed on platforms such as Shopify.

3.6 Research Discussion and Comparisons

Data from the case studies and interviews reveal a lack of contradictions, showing that the data is agreeable. The first interview with the Kaliber Asia consultant highlights the use of artificial intelligence in content generation, similarly to the second interview with the marketing entrepreneur. The difference between the two interviewees being their understanding of artificial intelligence's inner workings. This can be explained by the case studies' suggestions that there exists a lack of professionals and experts of artificial intelligence in Indonesia (Indriasari et al., 2019; Yusriadi et al., 2023). It can also be theorized that employees of corporations or established consultant groups tend to have a better understanding of artificial intelligence, compared to those working with SMEs. As such, it can be concluded that the data collected during this research is in harmony, in spite of the use of varying sources.

To finalize this contribution, the research question will be answered from the data collected, “What is the current use of software that utilizes artificial intelligence in digital marketing?”. The three case studies reveal how artificial intelligence software has a tendency to be utilized in automation processes, within Indonesian context (Maulina et al., 2020). A key factor showcased in the first case study explaining the reason behind startups not implementing artificial intelligence is the lack of experts, and the lack of the employee’s understandings. In the second interview, Shopify has been said to provide users with artificial intelligence software which is user friendly and simple to use. This would benefit Indonesian startups and businesses as they lean towards the need for automation. Lastly, the first interviewee explicitly mentions that artificial intelligence is unable to fully replace the job of marketers, insisting that human input is still a requirement and that artificial intelligence is incapable of emotion based decision making.

4 Conclusion

In conclusion, the evolving position of artificial intelligence in digital marketing increases in importance with the passing of time. As such, the Indonesian government and educational institutions would have to adapt and provide education regarding artificial intelligence, as well as creating better infrastructure in anticipation. Currently, artificial intelligence is a tool utilized as a means to automate repetitive tasks for SMEs in Indonesia, at least for the few who have opted to implement such technology. With data suggesting that artificial intelligence is incapable of fully replacing the jobs of marketers, with their limits in emotional understandings, it can then be concluded that job opportunities for marketers is not under threat from this technological advancement, at least not within the next decade.

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