ChatGPT's creative augmentation and its efficiency in the creative process towards agency practitioners' satisfaction

Nur Balqis Muhamad Riza[1*], Ahlam Abdul Aziz2[2], Wardatul Hayat Adnan[3], Shazleen Mohamed[4]

[1,2,3,4]*Faculty of Mass Communication and Media Studies, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia*

ARTICLE INFO

ABSTRACT

This research presents the main issues of ChatGPT creative augmentation and its impact towards creative process efficiency and agency practitioners' satisfaction. ChatGPT has become widely recognised as a leading AI chatbot, attracting the interest of agency practitioners with its capabilities in ideation, language translation, and generating photos and writing. Initially, this research aims to determine how effectively ChatGPT enhances creativity and efficiency in advertising agencies' creative processes and how this affects the satisfaction of agency practitioners. Therefore, this study aims to identify the impact of ChatGPT's creative augmentation and its efficiency in the creative process among agency practitioners' satisfaction. This quantitative research employs non-probability sampling, specifically utilising purposive sampling techniques to select the respondents that are currently working with advertising agencies. The respondents consisted of copywriter, graphic designer, art director and creative director. Besides that, the instruments were constructed using Google Forms, consisting of five (5) sections. The forms were disseminated to respondents through online communication platforms such as WhatsApp, Instagram and E-mail. Moreover, this research utilises descriptive and inferential data analysis to examine the correlations between the variables. Furthermore, the findings indicate that while agency practitioners acknowledge the benefits of employing ChatGPT for creative tasks, it is crucial to recognise that it is not yet regarded as a full replacement for human creativity. Respondents further illustrate that ChatGPT serves as an effective digital instrument capable of aiding practitioners in reducing their workload. Furthermore, this study holds a practical implication towards agency practitioners to foster better understanding about human-AI collaboration in creative endeavours. However, the limited availability of respondents and the brief data collection period have constrained the researcher's ability to compile an inclusive dataset.

[1*] Corresponding author. *E-mail address*: 2023244078@student.uitm.edu.my

1. INTRODUCTION

Artificial Intelligence, otherwise known as AI has been integrated into our daily lives. One of the prominent platforms of chatbots is ChatGPT. Released by OpenAI in November 2022, ChatGPT has quickly gained popularity, reaching one million users in just five days (Firat, 2023). Besides that, ChatGPT is under the ownership of OpenAI, an AI research lab established in 2015 by Sam Altman, Elon Musk, and notable individuals like Peter Theil, Ilya Sutskever, Jessica Livingston, Reid Hoffman, Greg Brockman, Wojciech Zaremba, and John Schulman (Sood, 2023). According to a report from UBS, ChatGPT reached over 100 million monthly active users by the end of January 2023, only two months after its release (Wu et al., 2023). This illustrates that ChatGPT is no longer a sudden exposure during this era of digitalisation.

Furthermore, ChatGPT, created by OpenAI, is a publicly available tool utilising GPT language model technology (Lund & Wang, 2023; Kirmani, 2022). ChatGPT is also a model that represents a cutting-edge advancement in natural language processing, fundamentally altering the landscape by proficiently generating text that emulates human-like qualities, thereby opening avenues for novel forms of interaction between humans and artificial intelligence (Roumeliotis & Tselikas, 2023). In addition, past research by Choudhury and Shamzare (2023) agrees that ChatGPT has become popular because of its capability to produce responses that resemble those of humans. Thus, ChatGPT has garnered interest from users mainly due to its features designed to help people with small tasks.

On the other hand, the popularity of ChatGPT comes from its quick, educational, and apparently "smart" answers to inquiries (Zhu et al., 2023). Past research, Zhong et al. (2023) also admit that ChatGPT demonstrates substantial enhancements in performance and exhibits state-of-the-art (SOTA) results compared to other models in specific tasks like CoLA, SST-2, and RTE. In essence, the development of ChatGPT also was driven by the aim of creating a sophisticated and proficient AI language model that can help with a variety of tasks like data analysis, data translation, and text generation (Nazir & Wang, 2023). This indicates that ChatGPT's performance and functions are the factors that contribute to its widespread utilisation. Additionally, recent data by Statista (2024) indicates a growing adoption of AI in Malaysian advertising, with businesses increasingly leveraging AI tools for targeted marketing, customer analysis, and campaign optimisation. Key statistics reveal high AI awareness among Malaysians (approximately 84%), with 79% having used AI previously and 62% utilising it within the last six months.

This is due to the ChatGPT attributions that have their own methods of navigation. According to Atlas (2023), an extensive variety of tutorials and guides can be accessed, offering detailed step-by-step guidance on constructing models and applications using ChatGPT and similar language models. Moreover, in past research, Basheer (2024) stated that the initial and most important step in using ChatGPT effectively is to offer concise and clear instructions. Therefore, users must comprehend the type of input they want to receive. Furthermore, ChatGPT also has been incorporated into several work fields such as education, law, and healthcare (Kim et al., 2024). Besides that, past research by Osadchaya et al. (2024) also agree that ChatGPT has attracted significant attention from advertisers due to substantial amounts of high-quality text in a fast and efficient manner.

Practitioners in the field of advertising have recognised the presence of ChatGPT and expressed interest in experimenting with it, especially given its status as a well-known chatbot. According to Huh et al. (2023), AI has transformed the media and advertising industry and caught the interest of advertising professionals and researchers. Nevertheless, past research on the utilisation of AI tools in the advertising industry commonly highlights AI integration in multiple stages of the advertising process such as consumer insights, advertisement creation, media planning, and evaluation, which enhance both efficiency and effectiveness (Tahoun & Taher, 2021). Apart from that, most research highlights AI applications in digital marketing which encompass advanced search engines, personalised content delivery, fraud prevention, and predictive

customer service (Antre, 2023). This indicates the integration of AI in creative work has not been explored thoroughly. Thus, this study intends to analyse the impact of ChatGPT's creative augmentation on agency practitioners' creative process and satisfaction.

1.1 Research objectives

    (i)   To identify the impact of ChatGPT's creative augmentation among agency practitioners

    (ii) To identify the level of creative efficiency among agency practitioners in utilising ChatGPT's augmentation

    (iii) To identify the level of satisfaction towards ChatGPT's augmentation

    (iv) To examine the relationship between ChatGPT's creative augmentation and creative process efficiency among agency practitioners

    (v) To determine the relationship between ChatGPT's creative augmentation towards agency practitioners' satisfaction

2. LITERATURE REVIEW

2.1 ChatGPT's creative augmentation

Creativity is one of the factors that are crucial for every agency practitioner's routine, particularly when they are dealing with clients. Creativity is a crucial concept that is commonly used in various academic disciplines, policy frameworks, and practical applications (Henriksen et al., 2020; Collins 2019). In addition, past research by Islam and Islam (2024) argues that ChatGPT is capable of generating, editing, and working together with users on creative and technical writing projects, like composing music, writing scripts for movies, and adjusting to a user's writing style. This indicates that ChatGPT is able to assist humans by providing effective feedback based on the users' requirements.

Furthermore, creativity is a subjective argument as it depends on the time and context given (Rosengren et al., 2020). According to Poon et al. (2020), creativity is the skill of coming up with fresh ideas that can be transformed into innovative new products. Besides, Cropley (2021) also suggests that creativity involves finding solutions and meeting needs through creating innovative and beneficial outcomes - essentially, creativity is the abilities, procedures, and surroundings that aid in producing fresh and beneficial goods. This shows that the term 'creativity' is often associated with brand-new, latest, and contemporary characteristics. Nevertheless, as technology comes forward, agency practitioners have been exposed to AI integration in their creative process.

Additionally, the existence of Artificial Intelligence (AI) applications has indirectly shifted the angle of creativity. According to Wang (2023), there is an increasing opportunity in utilising AI for artistic endeavours. Furthermore, a past study conducted by Shukla (2023) discovered that AI algorithms that are generative can enhance human creativity by inspiring, creating new ideas, and aiding in the creative process. Notably, ChatGPT demonstrates exceptional proficiency in artistic endeavours, including expressive writing (Klimekon, 2024). In a summary, agencies can benefit from AI in improving efficiency and creating innovative content like advertisements or advertisement concepts (Fui-Hoon Nah et al., 2023). Thus, this indicates that AI creative augmentation has provided agency practitioners with opportunities to enhance their ideas without the hindrance of creative barriers**.**

2.2   Creative process efficiency among agency practitioners

The efficiency of the creative process has always been a crucial element among creative teams in advertising agencies. Past research by Rosengren et al. (2020) illustrates how creativity plays a crucial role in marketing and is frequently seen as the core of the advertising sector. This indicates that Artificial Intelligence played a significant role in changing the angle of creativity procedure among these practitioners. On the other hand, in a study conducted by Anantrasirichai and Bull (2021), the authors conclude that AI will be used more extensively as a tool or collaborative assistant in completing various stages of the creative process. Past research by Khurana et al. (2023) also mentioned that the increase of AI usage in agencies is to improve work processes. This indicates that most organisations have been integrating AI as one of the mechanisms to assist work operations. Moving forward, creative agencies usually employ a group of experts who possess a variety of skills, including copywriting, graphic design, art direction, and creative direction (Jiamsirikarn & Prayong, 2023). Thus, these positions will determine their role in the creative process which consists of brainstorming sessions, copywriting, and graphic design procedures.

Brainstorming session among Agency Practitioners

Brainstorming is a key element of the Design Thinking Process; serving as a channel for creativity and effective problem-solving. Besides, Design Thinking techniques are commonly used in advertising agencies to fuel the strategic and creative aspects of campaigns daily (Palomo-Dominguez, 2021). Brainstorming is vital because due to past research, Auerhammer et al. (2021) argue that engaging in these DT exercises can help boost creativity and innovation, address cognitive biases, and impact the culture of a company. In addition, past research by Schmidt et al. (2023) mentioned how it is anticipated that the collaboration between humans and machines will enhance and expedite the brainstorming process by utilising the unique strengths of each. Hence, this demonstrates that AI adaptation contributes to the efficiency of brainstorming among the practitioners.

Copywriting in Creative Process among Agency Practitioners

Copywriting plays a vital role in both content marketing and the overall success of a brand's marketing and advertising strategy (Kartsivadze, 2022). Besides that, past research by Agustiningsih (2021) indicates that crafting an effective advertising message necessitates innovation, especially in the realm of writing copy. Therefore, choosing the right words with a specific intention is what defines success in copywriting since these words were crafted to evoke emotions, ideas, or behaviours (Soegoto et al., 2022). However, past research by Antar (2023) stated that artificial intelligence can be a helpful tool for humans in creative writing, but ultimately it may assist in the process without producing the highest quality of work. Traditionally, copywriting has been an entirely human endeavour; nonetheless, recent advancements in AI technology suggest that this may be transforming (Sobottka et al. 2024). Hence, this suggests that the presence of ChatGPT alone does not constitute a definitive solution for effective copywriting as its role and influence within the field are expected to evolve over time.

Graphic Design in Creative Process among Agency Practitioners

Graphic design plays a crucial role in the creative process by transforming ideas into reality. According to Alahira et al. (2024), graphic design, typically linked to beauty and communication, connects with sustainability by its ability to communicate messages, impact behaviours, and influence perceptions. Nevertheless, the existence of ChatGPT has indirectly impacted the designing process. Past research by Schmidt et al. (2024) stated that the use of LLMs in the design process is the ability to supplement and substitute human input. Besides that, these AI applications now provide more opportunities to obtain better-quality images and logos (Dehman, 2023). Apart from that, past research by Ji (2024) resulted that the creative process has been redefined due to the evolving role of graphic designers as collaborators with AI algorithms, rather than solely as individual creators. Therefore, this demonstrates that AI implementation has impacted the efficiency of the graphic design process in general.

2.3   Agency practitioners' satisfaction in utilising ChatGPT

Agency practitioners have shown a growing satisfaction in utilising ChatGPT for various professional applications, reflecting its impact on efficiency and client engagement. There exists a conceptual disparity between the perceived benefits anticipated from the development of a specific technology and the behavioural beliefs that link engagement in a particular activity to a desired outcome (Lee et al., 2023). This behavioural belief occurs as ChatGPT has proven its capability to produce imaginative and informative answers backed by multiple sources of data aside from providing accurate and cutting-edge information (Yao, 2023). Additionally, AI can assist businesses in operating more efficiently by automating repetitive tasks, allowing human employees to concentrate on higher-level and strategic tasks (Armanr et al., 2023). Thus, past research by Mazurek and Małagocka (2021) agrees that practitioners are highly satisfied as they experience a decrease in routine duties and are able to create more tailored and impactful campaigns. Furthermore, a recent study by Skujve et al. (2023) resulted in some user interactions with ChatGPT had beneficial creative implications as highlighted on how engaging with the model could enhance inspiration, facilitate idea generation, and support various creative endeavours. Thus, this suggests that ChatGPT facilitates a positive experience for agency practitioners when engaging in creativity-driven tasks.
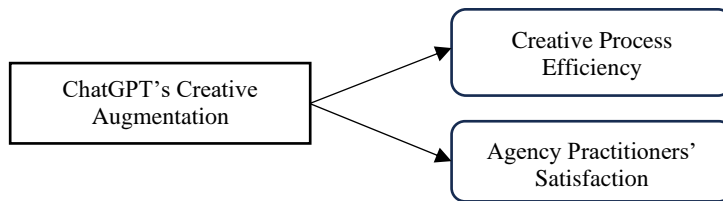
2.4   Conceptual framework

Fig. 1. Conceptual framework

The conceptual framework above illustrates how ChatGPT's creative augmentation affects the creative process efficiency and agency practitioners' satisfaction. According to Figure 1, the researcher must focus on ChatGPT's creative augmentation as the independent variable and its effects on the creative process efficiency and agency practitioners' satisfaction. Furthermore, the *Information System (IS) Success Model* by Delone & McLean will clarify the connection among the three factors in this research (ChatGPT's Creative Augmentation, Creative Process Efficiency, and Agency Practitioners Efficiency).

2.5   IS success model by Delone and Mclean

This Delone & McLean (D&M) novel model indicated that it was based on the computational hypothesis of communication; the models acknowledged distinct categories of information: *semantic level* (message transmission ability), *technological level* (system efficiency, accuracy), and *effective level* (impact on the recipient) towards its users (Zaineldeen et al., 2020). Besides that, the IS success model is significant for technology utilisation as it is widely embraced in IS literature, demonstrating its broad relevance (Lin et al., 2021). Past research by Seliana et al. (2020) elaborates that the D&M Model is comprised of six variables: Information Quality, System Quality, Service Quality, Users, User Satisfaction, and Net Benefits. Based on the figure above, this research adopts three (3) main variables: *information quality* (ChatGPT's Creative Augmentation), *net benefits* (Creative Process Efficiency), and *user satisfaction* (Agency Practitioners' Satisfaction). Therefore, if technology aligns with the specific tasks it is intended to assist with, it is likely to lead to better performance (Spies et al., 2020). Hence, this research employs this model due to its strong relevance to the adoption of new technologies and their impact on individuals' task completion, efficiency, and satisfaction.

3.   METHODOLOGY

```
┌─────────────────────────────────────┐
│           Research Design            │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│         Design Methodology           │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│           Sample Selection           │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│             Instruments              │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│       Data Collection Procedures     │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐
│             Data Analysis            │
└─────────────────────────────────────┘
```
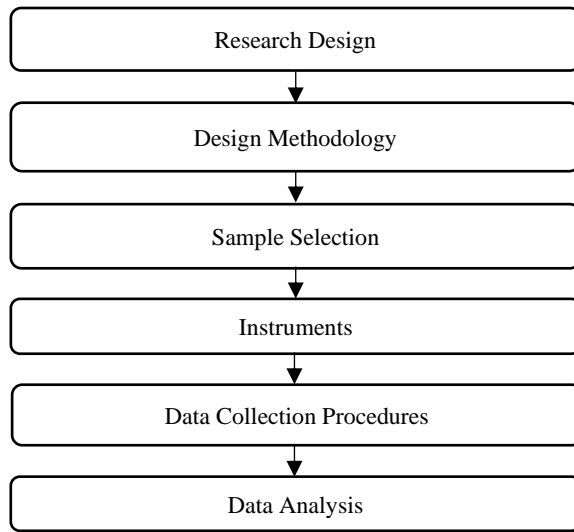
Fig. 2. Research Design Flowchart

This part will present a brief explanation of the study's methodology, data collection process, sample selection, instruments, data collection procedures, and data analysis. This research aims to understand the impact of ChatGPT creative augmentation on efficiency and agency practitioners' satisfaction. The research utilised quantitative methods for collecting and analysing data. The researchers chose the respondents by utilising a purposive sampling method, which is a non-probability sampling technique. This study utilises purposive sampling to recruit participants from creative team departments within advertising agencies in Kuala Lumpur, given their limited accessibility and the absence of publicly available population data. This is because many people working in the creative industry, such as copywriters and designers, are self-employed or freelancers rather than full-time employees of companies (Abraham et al., 2021).

Therefore, for a rough estimation of the population, a total of 1,330 individuals have registered themselves as creative practitioners: Copywriter (329 users), Graphic Designer (331 users), Art Director (332 users), and Creative Director (338 users) working in Kuala Lumpur, based on LinkedIn data. LinkedIn is a professional networking platform that serves as a key resource for career development, and employment opportunities and provides valuable data for HR analytics while also offering insights into industry trends and workforce composition through user-generated data (Katole, 2024). Hence, the sample size was 148 respondents based on Krejci and Morgan's table. As no comprehensive official numbers exist for creative professionals in advertising agencies, purposive sampling was chosen as the sampling method. The utilisation of purposive sampling ensures the inclusion of individuals with direct experience and expertise relevant to the study, thereby strengthening the validity of the findings. Respondents were selected based on *two (2) main criteria*:

      (i)   working in an agency, and

      (ii) part of the creative team department

To implement purposive sampling, the researcher first identified potential participants by filtering LinkedIn profiles based on specific job titles relevant to the study, such as Copywriter, Graphic Designer, Art Director, and Creative Director. Given the fragmented nature of job titles within the creative industry, this approach ensured that only professionals actively working in advertising agencies were considered. Once

identified, potential respondents were recruited through direct outreach via LinkedIn, WhatsApp, and e-mail. In addition, the researcher personally distributed the survey questionnaire that was converted on Google Forms to individuals who were confirmed to be part of a creative team within an agency, ensuring alignment with the study's inclusion criteria. This targeted method strengthened the study's validity by securing responses from participants with direct experience in ChatGPT's role in creative augmentation.

A series of survey questions were created to gather information on the ChatGPT creative augmentation towards the efficiency of the creative process and agency practitioners' satisfaction. Before being utilised in the pilot study, this instrument was subjected to a thorough review, assessment, and required amendments. This procedure was carried out to make sure that the questions were well-prepared to avoid any redundancy. Furthermore, this survey questionnaire consists of *five (5) sections.* Section A consists of information on the respondents' demographic segmentation. Section B evaluates the impact of ChatGPT creative augmentation among agency practitioners, Section C discusses ChatGPT creative augmentation's impact on creative process efficiency, and Section D deliberates on the agency practitioners' satisfaction.

4.   DATA ANALYSIS AND RESULTS

This study utilised descriptive and inferential statistics to examine the impact of ChatGPT's creative augmentation on agency practitioners' satisfaction. Furthermore, SPSS software version 29 was employed to conduct an identification class interval to determine the level of impact and efficiency, as well as Pearson correlation to determine the relationship between ChatGPT's creative augmentation towards creative process efficiency and agency practitioners' satisfaction. A pilot test was conducted before the main analysis to validate the research instruments and ensure their reliability before distribution. Despite facing time constraints, the methodology has been carefully designed to provide comprehensive insights within the assigned timeframe.

4.1   Respondents based on occupation

Table 1. Frequency Distribution of respondents based on occupation (*n*=50)

Occupations	Frequency	Percentage
Copywriter	21	42.0
Graphic Designer	15	30.0
Art Director	10	20.0
Creative Director	4	8.0
Total	**50**	**100**

Table 1 shows that the majority of the respondents (42%) were Copywriters. This is followed by Graphic Designer (30%) and Art Director (20%) and another 8% were Creative Director. These findings suggest that the outcomes of this study may lean more towards creative writing, given the significant representation of Copywriters compared to other roles.

4.2   The impact of ChatGPT's creative augmentation towards agency practitioners

Table 2. The Impact of ChatGPT Creative Augmentation towards Agency Practitioners

Impact	Frequency	Percentage
High	12	24.0
Moderate	36	72.0
Low	2	4.0
Total	**50**	**100**

Table 2 indicates that most (72%) agency practitioners are moderately impacted by ChatGPT Creative Augmentation. 24% of agency practitioners show a higher impact of utilising ChatGPT creative augmentation. Nonetheless, a small percentage (4%) of agency practitioners exhibit a low impact of ChatGPT creative augmentation. In general, most agency practitioners were moderately impacted by ChatGPT creative augmentation due to its lack of creative elements as this chatbot runs on training data.

4.3   The level of creative process efficiency in utilising ChatGPT's augmentation

Table 3. The level of Creative Process Efficiency in utilizing ChatGPT's augmentation

Level	Frequency	Percentage
High	14	28.0
Moderate	33	66.0
Low	3	6.0
Total	**50**	**100**

Table 3 demonstrates that most agency practitioners (66%) believe that the efficiency in utilising the creative process was on a moderate level. Meanwhile, 28% of agency practitioners admit that the creative process efficiency was on a higher level. On the other hand, a small percentage (6%) of agency practitioners exhibit a low impact of ChatGPT creative augmentation. Therefore, most agency practitioners demonstrate that ChatGPT functions do not highly meet their standard of task efficiency as it extensively functions as creative assistance instead of reducing operational workload.

4.4   The level of satisfaction towards ChatGPT's augmentation

Table 4. Level of satisfaction towards ChatGPT's augmentation

Level	Frequency	Percentage
High	10	20.0
Moderate	34	68.0
Low	6	12.0
Total	**50**	**100**

Table 4 demonstrates that most agency practitioners (68%) are moderately satisfied with utilising ChatGPT. Meanwhile, 20% of agency practitioners were highly satisfied with the utilisation of ChatGPT in completing their task. Nonetheless, 12% of agency practitioners were not satisfied with integrating

ChatGPT as an assistance to complete their task requirements. Therefore, this shows that most agency practitioners were not fully satisfied with utilising ChatGPT, particularly involving generating ideas, photos quality, and many more.

4.5   Relationship between ChatGPT creative augmentation and creative process efficiency

Table 5. Relationship between ChatGPT's Creative Augmentation and Creative Process Efficiency

Variable	Creative Process Efficiency	
	r value	p value
ChatGPT's Creative Augmentation	.782	<.001

**. Correlation is significant at the 0.01 level (2-tailed).

Findings from Table 5 indicate there is a significant relationship and strong relationship between ChatGPT's creative augmentation towards the efficiency of the creative process among agency practitioners (r = 0.782, p< 0.05). In conclusion, there is a relationship between the creative augmentation capabilities of ChatGPT and its ability to facilitate and enhance the creative process. This relationship underscores the potential of ChatGPT to serve as a valuable tool in various creative endeavours, providing support and inspiration that can lead to more innovative and effective outcomes.

4.6   Relationship between ChatGPT's creative augmentation and agency practitioners' satisfaction

Table 6. ChatGPT's creative augmentation and Agency Practitioners' Satisfaction

Variable	Agency Practitioners' Satisfaction	
	r value	p value
ChatGPT's Creative Augmentation	.732	<.001

**. Correlation is significant at the 0.01 level (2-tailed).

The results from Table 6 show a strong and significant relationship between the use of ChatGPT for creative augmentation towards agency practitioners' satisfaction (r = 0.732, p< 0.05). In summary, there is a relationship between ChatGPT's creative augmentation and its capacity to meet the needs of agency practitioners. This dynamic has resulted in a positive experience for these practitioners, highlighting ChatGPT's potential as a valuable tool in the creative industry. Besides that, ChatGPT's capacity to improve the creative process and offer personalised assistance to highlight its importance in promoting innovation and satisfaction among respondents.

5.   DISCUSSIONS AND STUDY IMPLICATIONS

5.1   Findings

This section outlines the findings discussions and study implications for future research. The primary objective of this research was to analyse the impact of ChatGPT's creative augmentation and its capability to facilitate the efficiency of the creative process as well as to promote agency practitioners' satisfaction. The first research objective aimed to determine how agency practitioners perceive the impact of ChatGPT's creative augmentation as a valuable tool that is able to assist creative tasks. The findings suggest that most practitioners believe that the utilisation of ChatGPT's creative augmentation was valuable, however, it does not fully meet the standard criteria as a creative endeavour. This finding aligns with prior research by Stevenson et al. (2022) that argues although these models are capable of generating human-like text and offering valuable support in academic writing, they typically do not meet the standards of human creativity.

This notion also aligns with the prior study by Liu et al. (2024), which stated that although ChatGPT can temporarily enhance creative performance, this effect diminishes once the tool is no longer accessible, which indicates that the practitioners recognise its value in enhancing creativity but do not see it as a complete substitute for human creative effort.

The second objective aimed to examine the efficiency level of the creative process in integrating ChatGPT's creative augmentation for creative-driven tasks. The finding demonstrates that a recent study by Klimekon (2024) on AI as artistic endeavours, does not fully align with the respondents' belief as the majority do not perceive ChatGPT's creative augmentation can help to substitute their creativity. A prior study by Zhu and Zou (2023) also argues that although access to ChatGPT can enhance user satisfaction and self-efficacy, it may adversely impact creative performance among individuals with higher creative potential. Meanwhile, other research by Ivcevic and Grandinetti (2024), also argues that the potential of AI to enhance human creativity across different levels, ranging from every day to eminent creativity, is increasingly being investigated; with AI regarded as a tool for co-creation rather than a substitute for human creativity. This suggests that while the utilisation of ChatGPT as a writing tool is indispensable, it cannot fully replicate human creative ideas, as effective content generation still relies on human creativity to formulate meaningful prompts.

Meanwhile, the third objective addresses the level of agency practitioners' satisfaction with incorporating ChatGPT. Based on the findings, agency practitioners exhibit an average positive experience in utilising ChatGPT when completing the creative task requirements. This finding is consistent with a recent study by Armanr et al. (2023), which demonstrated that AI could alleviate workload by handling repetitive and minor tasks. This notion also has been highlighted by Mazurek and Małagocka (2021) and Skujve et al. (2023), who suggested that ChatGPT enhances practitioners' satisfaction by reducing routine tasks and supporting creativity, as it fosters inspiration, idea generation, and more impactful work. It also demonstrates that ChatGPT not only alleviates routine tasks but also contributes to more meaningful creative output, ultimately increasing practitioner satisfaction. Thus, this assistance enables practitioners to concentrate more on other critical tasks.

Lastly, the fourth objective aimed to explore the significant relationship between ChatGPT's creative augmentation and creative process efficiency (r = .782, p< 0.05). The findings illustrate that there is a strong relationship between the utilisation of ChatGPT creative augmentation towards the creative process efficiency:brainstorming, copywriting, and graphic design. Thus, this portrays that past research by Schmidt et al. (2023) relatively aligns as it specifically mentioned that the collaboration between humans and machines will enhance and accelerate the brainstorming process by leveraging the unique strengths of both. Additionally, this finding also intercorrelation with a study by Ji (2024) in the context of AI utilisation and graphic design; and Sobottka et al. (2023) in the context of the copywriting process. These findings indicate a similar conclusion where AI becomes a crucial tool in operational process due to its capabilities to reduce workload.

Finally, the last objective of this study was to explore the significant relationship between ChatGPT's creative augmentation towards agency practitioners' satisfaction. The finding indicates that ChatGPT creative augmentation has a strong relationship towards the practitioners' satisfaction (r = .732, p< 0.05) as the majority believes that the platforms might have the potential to assist their creative requirements, as it is less time-consuming and always available when needed. Nonetheless, this indicates that the creative augmentation provided by ChatGPT significantly influences the satisfaction of agency practitioners, particularly in utilising this platform for creativity-driven tasks.

5.2   Study Implications

Apart from that, this study's implications are useful for upcoming research as technological advancements evolve from time to time. The research results indicate that most agency practitioners utilise ChatGPT for creative driven-task and share positive experiences in utilising this platform. Initially, ChatGPT's refined ideas and recommendations are capable of boosting creative productivity, which indicates that AI technology can greatly enhance human creativity, resulting in more innovative and efficient outcomes. Besides, this indicates that the creative industry may benefit by incorporating AI technologies to simplify their creative process, reduce the time allocated for brainstorming, and improve overall efficiency. Moreover, practitioners exhibit positive experiences and satisfaction emphasise on the possibility of AI tools in enhancing job satisfaction and promoting an engaging and supportive workplace. On the other hand, this study also can be useful for agency practitioners' practical implications due to the development of AI integration in creative settings.

6.   LIMITATIONS AND FUTURE SUGGESTIONS

The primary limitation of this study was the time constraints and the absence of publicly available population data. Moreover, the lack of respondents' availability and the short amount of data collection period have restricted the researcher's ability to gather an inclusive dataset. Nevertheless, this study still contributes a great insight for the practitioners and advertising agencies to acknowledge the presence of AI as a digital tool in improving the marketing and communication strategies within organisations. Additionally, due to the influence of technological advancements, it is advisable for future research to undertake a preventive study to monitor the evolving impact over time. Besides, qualitative studies can be employed to explore agency practitioners' experience, satisfaction, and perceptions while integrating ChatGPT or other AI tools to enhance their creative process efficiency. The upcoming research can address the concerns of ethical and creative implications, as well as developing a comprehensive training program in understanding AI utilisation in the creative industry to foster a better understanding of human-AI collaboration. Hence, this will aid agency practitioners in assessing its underlying impact and potential on the job market.

7.   CONCLUSION

In conclusion, this study has explored the impact of ChatGPT's creative augmentation on the efficiency and satisfaction of agency practitioners within the advertising industry. The findings suggest that although agency practitioners recognise the value of utilising ChatGPT for creative tasks, it is important to note that it is not yet perceived as a complete substitute for human creativity. However, the moderate impact, efficiency, and satisfaction levels suggest that ChatGPT is currently serving as a useful assistant in the creative process, offering support and inspiration that can lead to more innovative outcomes. Furthermore, the positive correlation between ChatGPT's creative augmentation and both the efficiency of the creative process and practitioners' satisfaction underscores the potential of AI tools to enhance productivity and job satisfaction within the creative industry. Nevertheless, limitations such as time constraints in data collection emphasise the need for further research to comprehensively understand the evolving role of human-AI collaboration in a creative endeavour. Subsequently, this research offers valuable insights into the circumstances of AI adoption within the advertising industry. It suggests that while AI technologies like ChatGPT are advancing in augmenting creative processes, human creativity, and evaluation continue to play a significant role in the industry's operational process.

8.   ACKNOWLEDGEMENT

The authors want to thank everyone who took part and helped with this research. Additionally, they would like to express gratitude to the ESTEEM publication team for their review and publication of this paper.

9.   CONFLICT OF INTEREST STATEMENT

None declared.

10.   AUTHORS CONTRIBUTION

Nur Balqis Muhamad Rizal: wrote all sections of this paper, **Ahlam Abdul Aziz:** proofread all the content. Both authors contributed significant insight to improve and finally, approve the manuscript.

11.   REFERENCES

Abraham, K. G., Haltiwanger, J. C., Hou, C., Sandusky, K., & Spletzer, J. R. (2021). Reconciling survey and administrative measures of self-employment. *Journal of Labor Economics*, *39*(4), 825-860. https://doi.org/10.1086/712187

Alahira, J., Ninduwezuor-Ehiobu, N., Olu-lawal, K. A., Ani, E. C., & Ejibe, I. (2024). Eco Innovative Graphic Design Practices: Leveraging Fine Arts To Enhance Sustainability in Industrial Design. *Engineering Science & Technology Journal, 5*(3), 783-793. https://doi.org/10.51594/estj/v5i3.902

Agustiningsih, G. (2021). Application of copywriting elements in social media advertising drinking products now in creating consumer interest. *Jurnal Komunikasi dan Bisnis*, *9*(1), 55-67. http://jurnal.kwikkiangie.ac.id/index.php/JKB/article/view/678

Anantrasirichai, N., & Bull, D. (2022). Artificial intelligence in the creative industries: a review. *Artificial intelligence review, 55*(1), 589-656. https://doi.org/10.1007/S10462-021-10039-7

Antre, G. (2023). Application of AI Technology in Modern Digital Marketing. *IBMRD's Journal of Management & Research*, *12*(1), 60-66. https://doi.org/10.17697/ibmrd/2023/v12i1/172871

Atlas, S. (2023). ChatGPT for higher education and professional development: A guide to conversational AI. https://digitalcommons.uri.edu/cba_facpubs/548

Auernhammer, J., & Roth, B. (2021). The origin and evolution of Stanford University's design thinking: From product design to design thinking in innovation management. *Journal of Product Innovation Management, 38*(6), 623-644. https://doi.org/10.1111/jpim.12594

Basheer, S. (2024). *How to Use ChatGPT? [Top 10 Tips]*. Analytics Vidhya. https://www.analyticsvidhya.com/blog/2023/05/how-to-harness-the-full-potential-of-chatgpt-tips-prompts/

Choudhury, A., & Shamszare, H. (2023). Investigating the impact of user trust on the adoption and use of ChatGPT: Survey analysis. *Journal of Medical Internet Research*, *25*, e47184. https://www.jmir.org/2023/1/e47184/

Cropley, D. H. (2021). Creative products: Defining and measuring novel solutions In *Creativity and*

innovation (pp. 61-74). Routledge. https://doi.org/10.4324/9781003233930-6/CREATIVE-PRODUCTS-DAVIDCROPLEY

Dehman, H. (2023). Graphic design, Already Intelligent? Current possibilities of generative AI applications in graphic design. https://www.diva-portal.org/smash/record.jsf?pid=diva2:1797022

Firat, M. (2023). What ChatGPT means for universities: Perceptions of scholars and students. *Journal of Applied Learning and Teaching, 6*(1), 57-63. https://doi.org/10.37074/jalt.2023.6.1.22

Fui-Hoon Nah, F., Zheng, R., Cai, J., Siau, K., & Chen, L. (2023). Generative AI and ChatGPT: Applications, challenges, and AI-human collaboration. *Journal of Information Technology Case and Application Research, 25*(3), 277-304. https://doi.org/10.1080/15228053.2023.2233814

Henriksen, D., Creely, E., Henderson, M., & Mishra, P. (2021). Creativity and technology in teaching and learning: a literature review of the uneasy space of implementation. *Educational Technology Research and Development*, 1-18. https://doi.org/10.1007/s11423-020-09912-z

Huh, J., Nelson, M. R., & Russell, C. A. (2023). ChatGPT, AI advertising, and advertising research and education. *Journal of Advertising*, *52*(4), 477-482. https://doi.org/10.1080/00913367.2023.2227013

Islam, I., & Islam, M. N. (2024). Exploring the opportunities and challenges of ChatGPT in academia. *Discover Education*, *3*(1), 31. https://10.1007/S44217-024-00114-W

Ivcevic, Z., & Grandinetti, M. (2024). Artificial intelligence as a tool for creativity. *Journal of Creativity*, *34*(2), 100079. https://doi.org/10.1016/j.yjoc.2024.100079

Jiamsirikarn, J., & Prayong, P. (2022). *Creative working process in advertising agency: The Case Study of GGWP (Bangkok)* (No. 308233). Thammasat University. Journalism and Mass Communication. https://digital.library.tu.ac.th/tu_dc/digital/api/DownloadDigitalFile/dowload/193598

Kartsivadze, T. (2022). Copywriting In Social Media. *International Journal of Innovative Technologies in Economy*, (4 (40)). https://doi.org/10.31435/rsglobal_ijite/30122022/7924

Katole, M. R. S. (2024). LinkedIn Data Analysis and Predications of Recruitment Ratio using Power BI. *International Journal for Research in Applied Science and Engineering Technology*, *12*(10). https://doi.org/10.22214/ijraset.2024.64632

Khurana, M., & Kobiela, P. (2023). Professionals meet ChatGPT: A qualitative study on the perception of professional service workers' usage of ChatGPT to support their work tasks. https://www.diva-portal.org/smash/record.jsf?pid=diva2:1779130

Klimenko, A. Y. (2024). Technological Change and Its Effect on Education. *J Edu Psyc Res, 6*(1), 01-18. https://www.opastpublishers.com/open-access-articles/technological-change-and-its-effect-oneeducation.pdf

Kim, Y., Lee, J., Kim, S., Park, J., & Kim, J. (2024, March). Understanding users' dissatisfaction with ChatGPT responses: Types, resolving tactics, and the effect of knowledge level. In *Proceedings of the 29th International Conference on Intelligent User Interfaces* (pp. 385-404). https://doi.org/10.1145/3640543.3645148

Lee, A. T., Ariffin, H. F., Akhir, I. M., & Devi, M. (2023). Key Drivers of Consumer Acceptance of Technology Use in Food Production: Synergy between Health Benefits and Psychological Factors. *ESTEEM Journal of Social Sciences and Humanities, 7*. https://ejssh.uitm.edu.my

Lin, P. Y., Liang, T. P., Huang, H. C., & Li, Y. W. (2021). Design quality, relationship intimacy and

continuance intention of mobile apps: An extension to the is success model. *Journal of Electronic Commerce Research*, *22*(4), 266-284. http://www.jecr.org/sites/default/files/2021vol22no4_Paper1.pdf

Liu, Q., Zhou, Y., Huang, J., & Li, G. (2024). When ChatGPT is gone: Creativity reverts and homogeneity persists. *arXiv preprint arXiv:2401.06816*. https://doi.org/10.48550/arXiv.2401.06816

Lund, B. D., & Wang, T. (2023). Chatting about ChatGPT: how may AI and GPT impact academia and libraries? *Library hi tech news*, *40*(3), 26-29. http://dx.doi.org/10.2139/ssrn.4333415

Nazir, A., & Wang, Z. (2023). A comprehensive survey of ChatGPT: Advancements, applications, prospects, and challenges. *Meta-radiology*, 100022. https://doi.org/10.1016/j.metrad.2023.100022

Osadchaya, E., Marder, B., Yule, J. A., Yau, A., Lavertu, L., Stylos, N., ... & AlRabiah, S. (2024). To ChatGPT, or not to ChatGPT: Navigating the paradoxes of generative AI in the advertising industry. *Business Horizons*. https://doi.org/10.1016/j.bushor.2024.05.002

Palomo-Domínguez, I. (2021). Design Thinking: An Innovative Educational Method in Advertising. *VADYBA*, *37*(2), 63-70. http://doi.org/10.38104/vadyba.2021.2.07

Poon, W. C., Mohamad, O., & Yusoff, W. F. W. (2020). Examining the antecedents of ambidextrous behaviours in promoting creativity among SMEs in Malaysia. *Global Business Review*, *21*(3), 645-662. https://doi.org/10.1177/0972150918779267

Rosengren, S., Eisend, M., Koslow, S., & Dahlen, M. (2020). A meta-analysis of when and how advertising creativity works. *Journal of Marketing*, *84*(6), 39-56. https://doi.org/10.1177/0022242920929288

Roumeliotis, K. I., & Tselikas, N. D. (2023). Chatgpt and open-ai models: A preliminary review. *Future Internet*, *15*(6), 192. https://doi.org/10.3390/fi15060192

Schmidt, A., Elagroudy, P., Draxler, F., Kreuter, F., & Welsch, R. (2024). Simulating the Human in HCD with ChatGPT: Redesigning Interaction Design with AI. *Interactions*, *31*(1), 24-31. https://www.springer.com/

Schmidt, L., Piazza, A., & Wiedenhöft, C. (2023). "Augmented Brainstorming with AI"– Research Approach for Identifying Design Criteria for Improved Collaborative Idea Generation Between Humans and AI. In *HHAI 2023: Augmenting Human Intellect* (pp. 410-412). IOS Press. https://doi.org/10.3233/FAIA230113

Seliana, N., Suroso, A. I., & Yuliati, L. N. (2020). Evaluation of e-learning implementation in the university using DeLone and McLean success model. *Jurnal Aplikasi Manajemen*, *18*(2), 345-352. https://doi.org/10.21776/ub.jam.2020.018.02.15

Shukla, S. (2023). Creative Computing and Harnessing the Power of Generative Artificial Intelligence. Journal Environmental Sciences And Technology, 2(1), 556-579. https://doi.org/10.5281/zenodo.10847103

Skjuve, M., Følstad, A., & Brandtzaeg, P. B. (2023, July). The user experience of ChatGPT: findings from a questionnaire study of early users. In *Proceedings of the 5th international conference on conversational user interfaces* (pp. 1-10). https://doi.org/10.1145/3571884.3597144

Sobottka, L., & Klopp, L. (2024). Satisfactory Performance of Text-Generative AI Compared to Human-Written Content for Websites in Digital Marketing. https://www.diva-portal.org/smash/record.jsf?pid=diva2:1867930

Soegoto, E. S., Mulyanto, M., Yuliawati, S., & Putri, A. V. (2022). Digitalization Through Creative Writing on social media. *International Journal of Research and Applied   Technology   (INJURATECH)*, *2*(1), 142-150. http://ojs.unikom.ac.id/index.php/injuratech/article/view/6783

Sood, D. (2024). Who Owns ChatGPT: Insights and Usage Tips. https://www.deepbrain.io/tech-and-ai-explained/who-owns-chat-gpt#

Spies, R., Grobbelaar, S., & Botha, A. (2020). A scoping review of the application of the task-technology fit theory. In *Conference on e-Business, e-Services and e-Society* (pp. 397-408). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-44999-5_33

Statista. (2024, November 5). *Awareness of artificial intelligence in Malaysia Q1 2020–Q4 2023*. Statista. https://www.statista.com/statistics/1327364/malaysia-awareness-of-artificial-intelligence/

Stevenson, C., Smal, I., Baas, M., Grasman, R., & van der Maas, H. (2022). Putting GPT-3's creativity to the (alternative uses) test. *arXiv preprint arXiv:2206.08932*.

Tahoun, N., & Taher, A. (2023). Artificial intelligence as the new realm for online advertising. In *Marketing and Advertising in the Online-to-Offline (O2O) World* (pp. 66-83). IGI Global. https://doi.org/10.31124/advance.15139863

Wang, Y. (2023). Artificial Creativity-Ethical Reflections on AI's Role in Artistic Endeavors. *Authorea Preprints*. https://doi.org/10.36227/techrxiv.23897169.v1

Wu, T., He, S., Liu, J., Sun, S., Liu, K., Han, Q. L., & Tang, Y. (2023). A brief overview of ChatGPT: The history, status quo and potential future development. *IEEE/CAA Journal of Automatica Sinica*, *10*(5), 1122-1136. https://10.1109/JAS.2023.123618

Yao, B. (2023). Assessing the Viability and Effectiveness of Chatgpt Applications in the Customer Service Industry: A Study on Business Models and User Experience. *Highlights in Business, Economics and Management*, *21*, 843-851. https://drpress.org/ojs/index.php/HBEM/article/view/14785

Zaineldeen, S., Hongbo, L., & Koffi, A. L. (2020). Review of The DeLone and McLean Model of Information Systems Success' Background and it's An application in The Education Setting, and Association Linking with Technology Acceptance Model. *Int. J. Res. Soc. Sci*, *10*(09), 99-109. https://www.researchgate.net/publication/343994433

Zhong, Q., Ding, L., Liu, J., Du, B., & Tao, D. (2023). Can chatgpt understand too? a comparative study on chatgpt and fine-tuned bert. http://arxiv.org/abs/2302.10198

Zhu, F., & Zou, W. (2023). The Role of Generative AI in Human Creative Processes: Experimental Evidence. *Available at SSRN 4676053*. https://doi.org/10.2139/ssrn.4676053

Zhu, J. J., Jiang, J., Yang, M., & Ren, Z. J. (2023). ChatGPT and environmental research. *Environmental Science & Technology*, *57*(46), 17667-17670. https://doi.org/10.1021/acs.est.3c01818

12.   APPENDIX

A.   Survey Instruments

A.1.   Section A (Demographic)

Item	Description		
A1	Gender	(1)	Male
		(2)	Female
A2	Age	(1)	23 – 33 years old
		(2)	34 – 43 years old
		(3)	43 years old and above
A3	Ethnicity	(1)	Malay
		(2)	Chinese
		(3)	Indian
		(4)	Others
A4	Occupation	(1)	Copywriter
		(2)	Graphic Designer
		(3)	Art Director
		(4)	Creative Director
A5	Active user of ChatGPT	(1)	Yes
		(2)	No

A.2.   Section B (Creativity Augmentation)

Item	Description	Strongly Agree (5)	Agree (4)	Uncertain (3)	Disagree (2)	Strongly Disagree (1)
B1	ChatGPT refine my creative ideas					
B2	ChatGPT improved my creative expression					
B3	ChatGPT strengthen my creative writing quality					
B4	ChatGPT enhance my inspiration					
B5	ChatGPT increased my productivity					
B6	ChatGPT insights meets clients' creativity standards					
B7	ChatGPT reduce my designing workload					
B8	ChatGPT enhance my creative driven task					
B9	ChatGPT refine my creative vocabulary					
B10	ChatGPT broaden my creativity					

Strongly Agree (5), Agree (4), Uncertain (3), Disagree (2), Strongly Disagree (1)

A.3.   Section C (ChatGPT Efficiency)

Item	Description	Strongly Agree (5)	Agree (4)	Uncertain (3)	Disagree (2)	Strongly Disagree (1)

C1	I like using ChatGPT because it provides valuable insights	
C2	ChatGPT utilisation is efficient because of less time consuming	
C3	I like using ChatGPT because it is cost-effective	
C4	I like using ChatGPT because it provides a rapid response	
C5	ChatGPT is efficient because it able to adapt various creative style	
C6	ChatGPT utilisation is efficient because it overcome my creative blocks	
C7	I utilise ChatGPT because it maintains a consistent insight	
C8	I use ChatGPT because it is efficient for brainstorming	
C9	I utilise ChatGPT because it has improved my teamwork	
C10	ChatGPT is efficient because it is available whenever needed	

Strongly Agree (5), Agree (4), Uncertain (3), Disagree (2), Strongly Disagree (1)

A.4.   Section D (ChatGPT Satisfaction)

Item	Description	Strongly Agree (5)	Agree (4)	Uncertain (3)	Disagree (2)	Strongly Disagree (1)
D1	I find myself easier to develop ideas when utilising ChatGPT					
D2	I like how ChatGPT keep me productive in producing ideas					
D3	I am satisfied with ChatGPT refined ideas					
D4	ChatGPT utilisation has benefit in visualising my idea					
D5	I am satisfied with ChatGPT vocabulary suggestion					
D6	ChatGPT utilisation has reduce my workload					
D7	I am satisfied with ChatGPT immediate response					
D8	I am satisfied with my team cooperation when utilising ChatGPT					
D9	I am satisfied with ChatGPT photos quality					
D10	I am satisfied with ChatGPT utilisation because it gives more ideas based on the clients' needs					

Strongly Agree (5), Agree (4), Uncertain (3), Disagree (2), Strongly Disagree (1)

About the Authors

Nur Balqis Muhamad Rizal is a dedicated Master of Mass Communication student currently enrolled at UiTM Shah Alam. She previously earned her bachelor's degree in advertising, which laid a strong foundation for her advanced studies. She has a keen interest in technology communication, and she is passionate about exploring how digital tools and platforms can enhance media and communication strategies.

Associate Professor Dr. Ahlam Abdul Aziz completed her PhD at University Putra Malaysia in 2015, demonstrating how Facebook Pages improve organizational performance by addressing communication barriers. Since 2004, she has been a vital member of UiTM's Faculty of Communication and Media Studies, specializing in Organizational Communication and Quantitative Data Analysis.

Dr. Shazleen Mohamed completed her PhD on children's reception of television programs in Malaysia at UiTM's Faculty of Communication and Media Studies. She holds a Master's in Corporate Communication from UPM (2000) and a Bachelor's in mass communication from ITM (1997). Before graduation, she was an assistant producer at RTM and later worked at TV3 on the "Nona" program. In 2002, she joined UiTM as a full-time lecturer. With 21 years in education, her research interests include broadcasting, children and media, human communication, and corporate communication.