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Exploring the Acceptance of ChatGPT as a Learning Tool among Academicians: A Qualitative Study

MUAADH MUKRED*
Sunway University, Malaysia

UMI ASMA' MOKHTAR
BURKAN HAWASH
Universiti Kebangsaan Malaysia

ABSTRACT

This qualitative study aims to examine the ChatGPT acceptance as a learning tool for academics by identifying factors influencing its acceptance and adoption. In academia, an exciting development is the significant attention directed toward ChatGPT, an AI-based conversational agent, as a potential learning. Nevertheless, more knowledge and information are needed concerning the determinants of its acceptance and use among academics. This study answers the need by conducting semi-structured interviews with ten academics from different disciplines and academic levels, selected through purposive sampling. Following the interview sessions, the interviews were transcribed and analysed using thematic analysis to highlight major themes and patterns. Based on the findings obtained, the academics displayed positive attitudes towards adopting ChatGPT as a learning tool, which holds the potential to resolve challenges faced during the system's teaching and learning process. The significant factors influencing ChatGPT acceptance and use are perceived usefulness, ease of use, credibility, and compatibility with the current teaching and learning methods. Additionally, the prior experience of academics with using AI-based tools and their proficiency in their use have a key role in their ChatGPT acceptance and adoption. The significant contribution of this study to literature is related to the adoption of AI-based tools in the field of academics and the determination of the factors that influence ChatGPT adoption and use for learning. Practically, the study also contributes to educational institutions and developers by providing a guideline for effective ChatGPT design and implementation for optimum potential and enhancement of the teaching and learning experience within academia.

Keywords: *ChatGPT, technology adoption, learning tools, technology and education, qualitative approach.*

INTRODUCTION

The dynamic developments in Artificial Intelligence (AI) have paved the way for prospects throughout different domains, including education (Lund & Wang, 2023). In academia, there has been a notable increase in the focus on ChatGPT as a prospective learning tool because it is an AI-based conversational agent. In this regard, OpenAIs ChatGPT comprises a model using a neural network to produce responses similar to human language when text-based inputs are presented. The system is a conversational agent capable of addressing questions, providing explanations, and engaging in in-depth discussions covering extensive topics and subjects (Lund & Wang, 2023; Tlili et al., 2023).

*Correspondence author: muaadhm@sunway.edu.my
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Academic use of ChatGPT garners several benefits, the first being the capability of ChatGPT to provide personalised and adaptive learning experiences with tailor-made responses to individual users' learning requirements and preferences (Kasneci et al., 2023). Another potential benefit is the enhancement of teaching and learning effectiveness through timely and accurate responses, henceforth, minimising the time and effort instructors must provide when sending learners' feedback (Michos, Schmitz, & Petko, 2023). Moreover, ChatGPT facilitates collaborative learning surroundings that allow learners to participate in discussions and debates with their peers and the conversational agent. These interactions are geared toward promoting and acquiring critical thinking skills and knowledge exchange in learning circles (Cotton, Cotton, & Shipway, 2023).

Regardless of the numerous benefits it offers, ChatGPT still faces challenges in its implementation in academic settings, with the first being the perceived lack of credibility and reliability that users relate with AI-based tools, thus, promoting both resistance and scepticism among academicians (Dwivedi et al., 2023). Additionally, ChatGPT incorporation into teaching and learning practices requires technical competence and, thus, another impediment to its adoption and use (Kasneci et al., 2023). Such effective incorporation into educational frameworks may depend on a required degree of technical skills and infrastructure, which impedes academics as some lack such proficiencies or their workplace has minimal resources (Kasneci et al., 2023). Still, another barrier is the ethical concerns from using ChatGPT, specifically regarding AI's effect on interpersonal dynamics and social relationships among the individuals in the learning context (Ray, 2023).

Studies remain scarce in current literature dedicated to ChatGPT adoption and use as an educational tool in academia (Ivanov & Soliman, 2023; Michos et al., 2023). Thus, this study examines ChatGPT adoption in the academic community as a learning tool and determines the factors that influence such adoption. The study is expected to contribute to literature extension regarding ChatGPT adoption in academic learning and to the factors that influence such adoption, clarifying to the educational entities and developers of the related IT on the potential pros and cons of the system. The findings can guide ChatGPT's effective design and implementation for an improved academic learning experience.

Therefore, this study is also developed in the following sections; Section 2 contains a review of the literature concerning AI-based tools in education, with a specific focus on ChatGPT as a learning tool, and Section 3 explains the adopted research methodology, with detailed information on the selection of participants, collection of data, and analysis of data and the concerned procedures. Section 4 provides the findings obtained, followed by a discussion in Section 5 and an elucidation of their implications and significance in the academic use of ChatGPT in Section 6. The paper is concluded in Section 7 by providing recommendations for future studies and conclusions.

RELATED WORKS ON AI-BASED TOOLS FOR EDUCATION

In this section of the paper, relevant studies on ChatGPT used as a learning tool are reviewed based on the students' and lecturers' points of view. To begin with, the students perceive large language models to illustrate versatile applications for learning, with one such application developed from customising learning content. This may be exemplified by leveraging large language models to produce interactive educational materials like quizzes and flashcards,

promoting student learning and engagement improvement (Gabajiwala, Mehta, Singh, & Koshy, 2022). According to Cotton et al. (2023) study, using ChatGPT as an AI tool in academia would provide advantages like improved learning engagement and easy accessibility to learning content. Nonetheless, the same study also mentioned academic integrity and plagiarism concerns. In this regard, examining the opportunities and challenges stemming from ChatGPT incorporation into academia calls for strategies institutions can have to maintain their ethical and responsible use. The authors concluded by stating that AI use in education poses risks and rewards, and universities can minimise concerns about its use by adopting proactive and ethical strategies and methods.

In addition to the above study, the qualitative study conducted by Yan (2023) examined the students' behaviours and reflections about ChatGPT in their writing classrooms and found its potential contribution to L2 (second language) writing pedagogy, providing efficient writing process strategies. On the other hand, the study cautioned against the effect of the tool on the integrity of academia and educational equity, with the authors advising the need to implement regulatory policies and pedagogical guidance for proper use, which calls for re-evaluating plagiarism in the face of the dynamically changing technological landscape. As a whole, the study's contribution lies in providing knowledge on the potential incorporation of ChatGPT in L2 learning and identifying future advances of studies concerning AI-powered tools in education.

Also, Ji, Han, and Ko (2023) presented five significant applications of conversational AI during instructional activities, including the use of large language models as conversational partners (in writing or speaking). Such an approach was mentioned by El Shazly (2021) as covering task-oriented dialogues that are directed towards practising language with the inclusion of pronunciation exercises. Going back to Ji et al. (2023), the authors examined conversational AI in feedback provision and in analysing and evaluating vocabulary practice sessions among primary school students. Moreover, Lin and Mubarok (2021) noted that chatbots controlled through mind maps had a high level of efficaciousness in enabling students' language learning via scaffolding – and this even went beyond the conventional AI chatbots effectiveness.

Moving on to the lecturers' perspective, Polak, Schiavo, and Zancanaro (2022) recent study involved a mixed method study based on focus group and survey with European lecturers. Based on the findings, the lecturers had a positive attitude towards AI in education and are inclined towards integrating AI-related content into their teaching processes. Also, the study showed that teachers with only fundamental digital skills had low AI-related skills. In the Nigerian context, Ayanwale, Sanusi, Adelana, Aruleba, and Oyelere (2022) stressed the key role of teachers' inclination and readiness toward promoting AI-based technologies in their teaching processes. Aligned with this are the findings reported by Choi, Jang, and Kim (2023) in the South Korean context, whereby teachers showed that constructivist advocates among teachers were more willing to incorporate AI-based educational tools than their transmissive-oriented counterparts.

More importantly, teachers' acceptance and adoption of AI-based tools was affected by several factors, including perceived usefulness, ease of use, and trust. Chocarro, Cortinas, and Marcos-Matás (2023) showed that teachers' attitudes toward chatbot inclusion in teaching were optimistic because they are easy to use and useful.

Henceforth, considering the convergence between the perspectives of teachers on the general AI application in education and their attitudes towards chatbots, AI integration into the education context becomes crucial, which calls for the active cooperation of community players and their expertise to guarantee that a well-informed and effective AI implementation approach is followed in the education field (Kasneci et al., 2023; Yan, 2023).

METHODOLOGY

This section is allocated to the methodology followed by this study. It starts with the data collection strategy and is followed by the data analysis technique.

a. Data Collection

This study adopted the interview as the qualitative data collection instrument based on its extensive use in studies examining technology adoption and its ability to explore the contextual environment comprehensively (Braun & Clarke, 2023; Pope, Ziebland, & Mays, 2000).

Additionally, qualitative research techniques have been developed to bring about the in-depth examination of social and cultural happenings in social sciences based on the Myers and Avison (2002) study. These methods significantly contribute to understanding the social and cultural dimensions of the environment, enabling the gathering of insights into an individual's perceptions and behaviours using observations and interview methods (Glaser, Strauss, & Strutzel, 1968).

According to Brenner (2012), the interview method is appropriate for encapsulating the interviewees' experiences, wherein open-ended questions are used to obtain detailed responses, after which such responses are documented and analysed (Creswell & Creswell, 2017). The interview format boosts the free-sharing of ideas from the participants based on their personal experiences, which allows for accurate comprehension of the examined phenomenon, with pronounced distinction from the quantitative method.

Furthermore, interviews can be carried out through different ways, such as telephone, focus groups, email or face-to-face interviews (Creswell & Creswell, 2017), and regardless of the time and cost entailed, face-to-face interviews are deemed to have a higher level of effectiveness and are thus the most extensive qualitative data collection method utilised. Likewise, this study employs semi-structured interviews to collect qualitative data, where the participants receive the interview questions and send their responses through Voice over Internet Protocol (VoIP) applications. This method was used to gain an extensive explanation of the answers. In the current study, semi-structured interviews appeared to be the most appropriate in determining the answers to the research questions following Gill et al. (2008) recommendation.

A review of ChatGPT adoption studies in developing countries was first carried out to obtain data on the phenomenon. A set of 15 open-ended questions was developed, drawing inspiration from past related works and existing literature. Therefore, this approach allowed this study to explore a wide range of dimensions associated to ChatGPT use, encompassing influencing factors, its benefits and potential risks. This was followed by interviews with ten experts concerning adopting ChatGPT in educational institutions. As mentioned, interviews were facilitated through VoIP apps (MS Team) among the selected interviewees. Participants in the study were provided with a structured timeline of six weeks to formulate and submit their responses. This duration struck a balance between allowing participants sufficient time to craft

thoughtful answers and ensuring a timely collection of data. The study itself spanned from March 2023 to May 2023. The interviewees' profile is detailed in Table 1.

Table 1: Experts' profile

No	Affiliation	Major of Study
1	Universiti Kebangsaan Malaysia	Information Science and Technology
2	King Saud University	Computer Science
3	Prince Sattam Bin Abdulaziz University	Software Engineering
4	University of Al-Mustansiriyah	Computer Networks
5	Sana'a Community College	Computer Engineering
6	University of Petra	Business Analytics and Information Systems
7	University of Misurata	Information Science
8	Universiti Teknologi Malaysia	Computer Science
9	Universiti Putra Malaysia	Computer Science
10	Universiti Utara Malaysia	Management and Business Administration

b. Data Analysis

This study employed a thematic analysis approach to delve into the perspectives of ten experts regarding the integration of ChatGPT in educational settings. Thematic analysis is suitable since the number of pages is small (Baker & Lewis, 2013). The analysis aimed to shed light on six core themes: perceived usefulness, ease of use, social influence, training and support, perceived risks, and perceived benefits. This study followed the criteria proposed by Nowell, Norris, White, and Moules (2017). Figure 1 shows the phases of the thematic analysis and the details of actions are presented in Table 2.

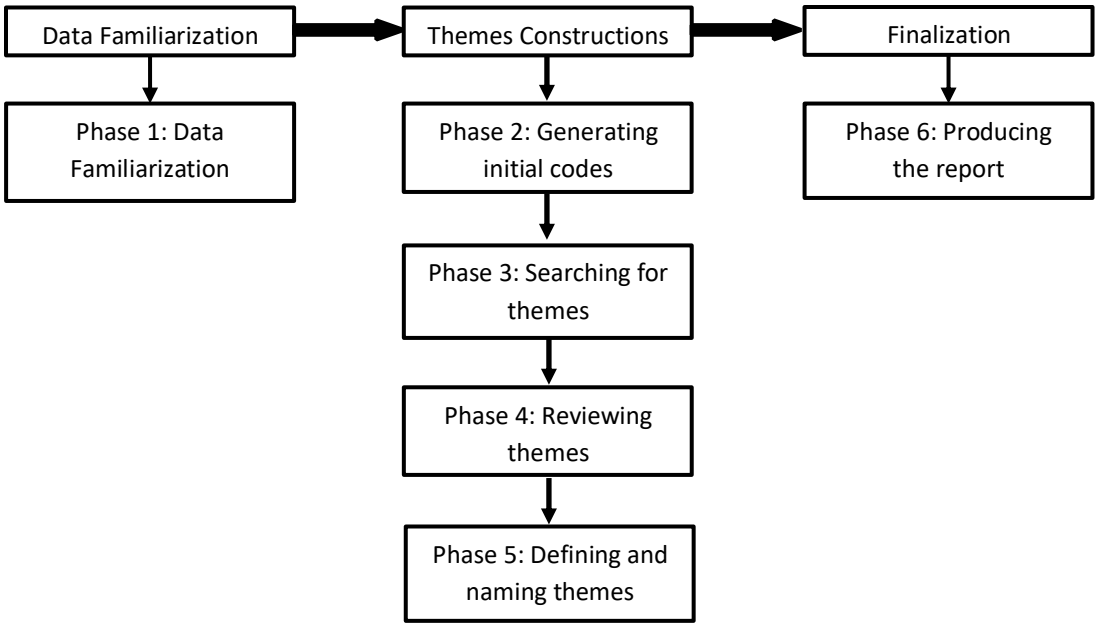

Figure 1: Thematic analysis framework

Table 2: Details of thematic analysis actions

Phases of Thematic Analysis	Actions
Phase 1: Data Familiarization	1. Transcribe recorded responses from interviews and data collection sessions. 2. Familiarise with collected data to understand experts' viewpoints.
Phase 2: Generating initial codes	3. Open Coding: Identify and label key concepts or ideas related to each theme. 4. Code Categorization: Categorise and classify codes with similarities. 5. Generate Initial Codes: Detect patterns, links, and relationships among codes.
Phase 3: Searching for themes	6. Form Significant Groupings: Identify sub-themes within overall subjects. 7. Example: Theme of Perceived Risks: Categories like privacy issues, bias, technical limits, legal, and ethical issues. 8. Reflexive and Iterative Process: Continuously review and refine themes and categories based on data.
Phase 4: Reviewing themes	9. Ensure Comprehensive Understanding: Capture the breadth and depth of experts' perspectives.
Phase 5: Defining and naming themes	10. Interpret Findings: Draw insightful conclusions based on identified themes. 11. Highlight Key Points and Quotes: Support analysis and provide an understanding of experts' views.
Phase 6: Producing the report	12. Write the analysis report

To conduct the thematic analysis, this study followed a systematic procedure where we carefully transcribed the recorded responses of the ten experts during interviews and data collection sessions. This allowed the study to familiarise the researchers with the collected data and gain a comprehensive understanding of the viewpoints shared by the involved experts. Next, we embarked on an open coding process, meticulously identifying and labelling key concepts or ideas related to each theme across the dataset. The coding process creates an understandable well-defined response. Therefore, the study categorised and classified codes that had similarities after we generated the first codes. This entailed detecting patterns, links, and relationships among the codes, which resulted in significant groupings or sub-themes inside each overall subject. For example, within the theme of perceived risks, we identified categories such as privacy issues, bias, technical limits, and legal and ethical issues all of which stemmed from the experts' observations.

Throughout the analysis, this study remained reflexive and iterative, continuously reviewing and refining the themes and categories based on the data. Also, the study aimed to ensure that our identified themes captured the breadth and depth of the experts' perspectives, providing a comprehensive understanding of their views.

Upon completing the thematic analysis, the study interpreted the findings, drawing insightful conclusions based on the identified themes. Also, this study highlighted key points, quotes, and trends within each theme, supporting the analysis and offering a comprehensive understanding of the experts' views on adopting ChatGPT in educational environments.

FINDINGS

Data obtained was exposed to thematic analysis to obtain answers to the research questions. Based on Braun and Clarke (2006), thematic analysis entails steps to be taken sequentially, including data transcription, familiarity with data, initial codes generation, themes identification, thematic report generation, defining and labelling themes, and lastly, identified themes review

and refining. All the used themes were extracted from the interview but also based on the literature review.
The six major themes highlighted in this study are presented in Table 3.

Table 3: Qualitative themes and definitions

No.	Theme	Definition
1	Perceived usefulness	The individual's subjective assessment of how beneficial the ChatGPT is in meeting their specific needs or tasks.
2	Ease of use	The perceived level of user-friendliness and simplicity in interacting with the ChatGPT.
3	Social influence	the impact and influence of other individuals or social factors on an individual's acceptance and use of the ChatGPT.
4	Training and support	the provision of guidance, resources, and assistance to users in effectively utilizing and understanding the capabilities and functionalities of the ChatGPT
5	Perceived risks	The subjective assessment of potential negative consequences, uncertainties, or concerns associated with the use of the ChatGPT.
6	Perceived benefits	The subjective assessment of the positive outcomes, advantages, and value that users attribute to the ChatGPT.

Figure 2 shows the themes and the correlation between the ChatGPT and the several factors discussed in the study.

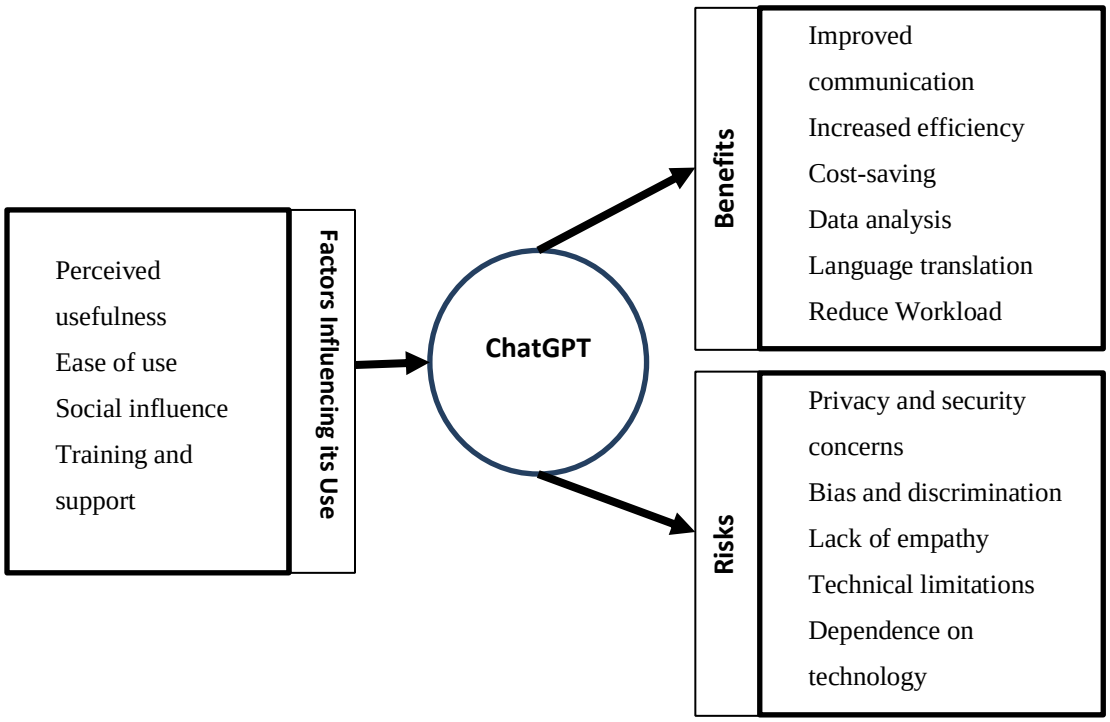

Figure 2: ChatGPT factors, benefits and risks

The next subsections explain each theme with the corresponding major findings and outcomes.

c. Perceived Usefulness

Usefulness is an important factor in adoption and use of technology in education (Jaffery, Annuar, & Raj, 2020). One of the factors examined for its effect on the adoption of ChatGPT in this study is perceived usefulness. Most of the participants from the institutions were of the consensus of its significance even at the initial phases. They noted that users took their time familiarising themselves with the system in the initial implementation phase and were sceptical of its task completion effectiveness.

According to the Experts 1,2,3,4,5, and 10, ChatGPT has the potential to be extensively adopted in institutions for the benefit of lecturers and students because the system's perceived usefulness enhances productivity in many ways.

Moreover, the Experts 6,7,8, and 9 predicted that the system would motivate users and increase their task completion efficiency. The system's time and effort-saving contribution was also mentioned. Accordingly, the expert stated,

> *"Students and lecturers' feedback are encouraged to enhance work processes and promote technology adoption".*

Meanwhile, the Expert 3,5,8,9 and 10 mentioned the use of workshops and meetings to promote users' positive attitudes toward the performance expectancy of the system,

> *"Some of the most effective strategies for enhancing staff attitudes towards ChatGPT use our meetings and workshops".*

Positive views and feedback were obtained from the interviewees on the future potential of ChatGPT, linking the system's perceived usefulness to task performance and easy completion.

d. Perceived Ease of Use

Technology use should afford several benefits and its easy-to-use nature (Venkatesh, Thong, & Xu, 2012; Venkatesh, Morris, Davis, & Davis, 2003). The experts stressed the need to use ChatGPT in educational institutions and its ease of use in bringing about such use and adoption. They indicated that ChatGPT's ease of use and contribution to simplifying work processes for task completion should be explained to users. According to the Experts 1,2,3,5,6,7,8 and 9:

> *"Ease of use of ChatGPT is the most important factor in its adoption, and such use should be possible even without previous knowledge".*

This was also reflected in Expert 3's statement,

> *"Adopting ChatGPT is important, and for such achievement, its use of use needs to be ensured for high acceptance and use level".*

Qualitative data analysis showed that ChatGPT is viewed as a valuable tool for facilitating the completion of tasks while providing several other advantages. The responses resonated with the positive views concerning the system's future potential.

e. Social Influence

In human behaviour and decision-making, social influence has been, time and again, found to have an influencing role (Lee & Wu, 2018). Transcripts of data obtained from the experts in this study were analysed, and the findings showed the recognition of social factors in their influence of ChatGPT in educational entities, including those from co-workers, friends, and managers. This also includes the perception of attitudes and actions towards Information System (IS) usage. Based on the feedback from Experts 7,8,9 and 10 on the role of friends and instructors in forming perceptions of ChatGPT adoption;

> *"The influence of peers is important, specifically when their feedback and recommendations are positive. These play a key role in forming adoption and acceptance attitudes and perceptions among all stakeholders".*

Experts 3 and Expert 4 also stated,

> *"External organisations are consulted for workshops, training, and lectures, leveraging the role of social influence in promoting the adoption of ChatGPT among all those concerned".*

Notably, there was general acceptance of the importance of social influence in adopting ChatGPT. They mentioned that social support from friends in promoting acceptance and use of ChatGPT has a significant role.

f. Training and Support

Based on the experts' feedback, qualified trainers from the institutions rather than external trainers and consultants are preferred when it comes to training and support. Specifically, Experts 2,3,4,5 and 6 commented that user's involvement as workshop trainers is valuable as they have a better understanding of the tasks in the institution than their external counterparts. They stated,

> *"Training facilitates the advanced use of ChatGPT and is thus quite useful".*

The findings revealed the willingness of the employees to adopt ChatGPT, which bodes well for system implementation success and enhanced delivery of education. Senior managers in the education sector are recommended to develop an extensive strategy for enhancing the computer program skills of employees, particularly when it comes to ChatGPT. In addition, senior managers must resolve the training programs' inefficiencies, enhance employee support, promote system awareness, facilitate easy access to information, boost information sharing, and

determine the top employees capable of contributing to system implementation success. When neglected, these considerations may hinder the realisation of the required changes.

g. Perceived Benefits

The institutions can reap innumerable benefits from adopting ChatGPT as a learning method, among which is the flexibility of overcoming limitations in relation to learning time and effort. ChatGPT would improve communication (Sallam, 2023), as it is raised by all experts who asserted that:

> *"ChatGPT enables efficient user communication through its conversational interface, allowing for seamless interaction. It can comprehend and promptly address inquiries, delivering precise and pertinent information. This improves communication between educators, administrators, and students, fostering heightened collaboration and comprehension".*

This tool of ChatGPT also plays a significant role in increasing efficiency, as evidenced by previous works such as Surameery and Shakor (2023) and Sallam (2023). In this regard, experts also were in the same line. The Experts 2,3,4,7,9 and 10 asserted:

> *"ChatGPT enhances operational efficiency and process optimization by automating specific tasks and offering immediate responses. This automation minimises the requirement for manual data retrieval, simplifies administrative procedures, and facilitates expedited decision-making. Consequently, educational institutions can allocate resources more efficiently, concentrating on activities of greater significance and value".*

The significance of using ChatGPT in different learning and teaching activities was underscored by Expert 1 when he stressed its purpose in education. The experts said:

> *"ChatGPT has the potential to play a key role in facilitating cost-effectiveness, timesaving, and mitigated workload for the educational institutions' educators and administrators. It can produce information important to streamlining administration procedures and bringing about effective decision-making".*

The above was also reflected in the statements provided by Experts 1,3, 4,6,7,8 and 9:

> *"ChatGPT is crucial based on its effect on and contribution towards achieving objectives, enhanced performance, productivity, and overall competitiveness".*

The translation is another benefit of using ChatGPT (Kohnke, Moorhouse, & Zou, 2023; Lund & Wang, 2023). This is highlighted by experts 1,3,4,5,7 and 9, who mentioned:

> *"The language translation abilities of ChatGPT have the potential to overcome language barriers in educational settings. It enables effective communication*

between individuals who speak different languages, granting them access to educational resources and promoting inclusivity in the learning environment".

ChatGPT can also help educators by reducing the workload (Farrokhnia, Banihashem, Noroozi, & Wals, 2023; Panda & Kaur, 2023). The qualitative findings confirm this claim, and experts 2,4,5,6,7, 9, and 10 were in mutual agreement as they mentioned:

"By being capable of managing diverse tasks and providing assistance in various areas, ChatGPT has the potential to lighten the workload of educators and administrators. It can aid in administrative duties, offer guidance to students, and deliver personalised learning experiences. This alleviation of workload enables educators to concentrate on teaching and mentoring, ultimately enhancing the quality of education".

Cascella, Montomoli, Bellini, and Bignami (2023), Ali and Djalilian (2023), and Dahmen et al. (2023) raised the ability of ChatGPT to analyse data. In this regard, experts were also in mutual agreement with the novel ability of ChatGPT in the analysis as a benefit. Expert 1,2,3,6,7 and 8 asserted that:

"With the capacity to examine substantial amounts of data, extract valuable insights, and generate meaningful reports, ChatGPT offers educational institutions the opportunity to utilise this capability. They can harness ChatGPT's analytical abilities to gather information on student performance, recognize patterns, and employ data-driven decision-making to enhance teaching methods, design curriculum, and allocate resources more effectively".

h. Perceived Risks

ChatGPT adoption in the learning environment requires addressing perceived risks for use effectiveness (Dwivedi et al., 2023; Kasneci et al., 2023). One concern posed by ChatGPT adoption is the maintenance of the quality of information and feedback, while another is the risk of replacing human instructors with AI ones and minimising the interaction of users in their process of learning (Ivanov & Soliman, 2023; Lund & Wang, 2023; Ray, 2023; Tlili et al., 2023).

In order to minimise such risks, comprehensive policies and guidelines for suitable ChatGPT use and implementation need to be in place and go beyond legal and regulatory considerations. They also need to comply with the current established ethical and professional standards. The experts stated that;

"There needs to be a policy in place to ensure the compliance of ChatGPT with the legal and regulatory requirements so that potential risks are mitigated".

Also, efficient and official policy should be comprehended as well as cost-effective, covering the entire ChatGPT functions and rules as based on the statement provided by all expert,

> *"Regarding the ChatGPT-related risks, it is important to promote awareness among the users concerning the governing policy in that it should be clear and actionable for risk mitigation effectiveness".*

ChatGPT has some privacy and security concerns (Arslan, 2023). The experts support this and asserted that:

> *"Utilising ChatGPT involves managing sensitive data, which can potentially give rise to concerns regarding privacy and security. It is imperative to establish protective measures to safeguard user information and guarantee secure interactions with the system".*

The experts were also in line with the previous works that mentioned ChatGPT as an AI tool that might have bias and discrimination (Ray, 2023). The experts 1,2,3 and 5 asserted:

> *"Similar to other AI systems, ChatGPT is vulnerable to biases that may exist within its training data. Acknowledging and tackling these biases to prevent discriminatory outcomes and ensure fairness in the system's responses and decision-making processes".*

ChatGPT lacks empathy (Sallam, 2023), which can affect the quality of user interactions. This was highlighted by all experts who mentioned:

> *"Due to its absence of human-like empathy and emotional intelligence, ChatGPT may encounter challenges in delivering interactions of the same quality as human counterparts. It is crucial to recognize this limitation and explore avenues to offer support and empathy to users, especially in sensitive or emotional circumstances".*

As a new technology, ChatGPT has technical limitations (Ray, 2023), and experts confirm this in the qualitative findings. The experts 1,4, and 5 mentioned:

> *"ChatGPT possesses specific technical constraints, including its incapacity to handle intricate or nuanced queries and the possibility of producing inaccurate or misleading responses. It is essential to recognize these limitations and provide users with proper education regarding the system's capabilities to manage their expectations effectively".*

ChatGPT is dependent on technology and other AI technologies that may lead to a reduced reliance on human instructors and limited human interaction in the learning process (Adiguzel, Kaya, & Cansu, 2023; Verma, 2023). The experts raised this concern as one of the perceived risks by ChatGPT adoption in education. In this regard, the experts said:

> *"Excessive dependence on ChatGPT and other AI technologies has the potential to diminish reliance on human instructors and restrict interpersonal interactions in the learning process. Striking a balance is crucial to ensure that technology complements rather than substitutes human expertise and interpersonal connections".*

Another concern raised by the experts is the legal and ethical issues consistent with previous researchers (Ray, 2023; Sallam, 2023; Yu, 2023). The experts 2,3,4,6,7,9 and 10 mentioned:

> *"When implementing ChatGPT, adhering to legal and regulatory mandates concerning data protection, privacy, and ethical considerations is imperative. To tackle potential legal and ethical concerns, it is necessary to develop comprehensive policies and guidelines that promote responsible and ethical use of the technology, addressing any associated issues that may arise".*

The responses from the experts showed the requirement for governance and guidance of ChatGPT, specifically in terms of its implementation and adoption. Users' need to have a positive perception of the policy as this will guide them in effectively completing their day-to-day tasks. Essentially, implementing such a policy would ensure that ChatGPT adoption goes seamlessly and successfully.

DISCUSSION

This study mainly aimed to examine the ChatGPT adoption and implementation in education as a learning tool among academics. Accordingly, the study highlighted several influencing factors of ChatGPT adoption, including perceived usefulness, ease of use, social influence, training and support, perceived risks, and perceived benefits.

To begin with, perceived usefulness is one of the significant variables examined for its effect on ChatGPT, as a learning tool in education. The study participants validated its usefulness in assisting with research, answering complex questions, and presenting instant feedback of students' performance. They were convinced that ChatGPT saves time and enhances work efficiency.

Moving on to ease of use, its influence on the adoption of ChatGPT was also well stated by the participants, who found it simple and intuitive as a learning platform with an easy-to-use interface. Regarding another influencing variable of ChatGPT adoption, social influence, according to the participants, plays a vital role in that peers and colleagues formed the final perceptions of users concerning the use of ChatGPT based on their positive experiences.

The study also highlighted the importance of training and support in ChatGPT adoption and implementation. Based on the experts' opinions and feedback, sufficient training and support is needed for ChatGPT use effectiveness, and training resources should be made available and reinforced by support developed by ChatGPT developers.

Also, perceived risks and benefits influence ChatGPT adoption as a learning tool among academics – more specifically, participants raised concerns regarding ChatGPT's reliability and accuracy as a learning tool and as a strategy that replaces human instructors with AI. The experts

highlighted several benefits of ChatGPT, including its ability to provide student performance feedback and help in research completion.

CONTRIBUTION

This qualitative research makes a substantial contribution to the existing body of knowledge by investigating the extent to which academics have adopted and used ChatGPT. The study's findings are insightful since they were gleaned via semi-structured interviews with ten experts from a wide range of fields and academic levels. Based on a review of interview data, this study gives valuable information about how ChatGPT is used as a learning tool. The findings revealed the interest among academics to use the ChatGPT technology in their institutions, and they believe that Chat GPT proves its ability to tackle several issues in teaching and learning.

Another contribution of this study is identifying the critical factors that would affect the acceptance and adoption of ChatGPT as a learning tool. It revealed how people accept and use ChatGPT. The study comes up with critical factors such as the tool's usefulness and how it is thought to be, how easy it is to use, how necessary training and help are, and how well ChatGPT fits in with other ways of teaching and learning. The developers and educational institutions that could employ ChatGPT to enhance their teaching and learning approaches must grasp these factors for optimal results.

In addition to the factors influencing the acceptance and adoption of ChatGPT, this study also identified the perceived benefits and risks that might be linked with using ChatGPT. By doing so, the research casts light on the potential benefits that ChatGPT brings to the educational landscape as well as the potential risks and obstacles that must be addressed for its successful implementation. The study came up with several benefits that experts confirmed and also highlighted the serious risks to increasing the awareness among the policymakers and education beneficiaries on ChatGPT use and acceptance. It provides a nuanced comprehension of the potential ramifications and considerations of using ChatGPT as a practical learning tool. The study offers a balanced perspective on using ChatGPT as a learning tool by acknowledging both prospective benefits and risks. This insight is useful for educators and institutions contemplating the adoption of AI-based tools in the classroom.

By considering and underlining the significance of previous experience and expertise in utilising AI-based tools for the acceptability and adoption of ChatGPT among academics, this research builds up a comprehensive roadmap for education stakeholders. It is crucial to acknowledge the role that individuals' familiarity and competency with technology play in promoting successful integration and use of ChatGPT as a learning tool.

CONCLUSION

The study findings are expected to contribute valuable insights into the ChatGPT adoption and implementation in educational institutions as a learning tool. ChatGPT can be an effective tool in academic teaching and learning processes and practices. The relevant factors include perceived usefulness, ease of use, social influence, training and support, perceived risks, and perceived benefits – all these factors form the level of adoption and implementation of ChatGPTs in educational institutions among academics. According to the interviewed experts, ChatGPT is useful in supporting research, determining the answers to complex questions, and providing instant student performance feedback. The system’s user-friendly interface and the positive

social influence from peers also formed the perceptions towards its adoption. Moreover, with training, support, and sufficient resources and assistance, the adoption of ChatGPT is ensured. In this regard, developers need to list the factors that are priorities to be fulfilled to enhance the adoption level of the system. A user-friendly system fitted with a reliable platform, supported by training and support, would be readily and easily accepted. Added to the above, a reliable and accurate system that promotes its benefits can minimise risks and maximise acceptance. The study extends the literature on factors that influence AI-based tool adoption, particularly ChatGPT, in education. Furthermore, , it offers educational institutions and IT developers' knowledge on how to optimise the potential of ChatGPT in improving learning among academics. With technological advances, AI-based tools (e.g., ChatGPT) can potentially transform learning and teaching processes and methods in education. The study recommends future research to enhance ChatGPT functionality and effectiveness for integration success in the same context. This would involve the collaboration between academics and developers towards enabling the full potential of ChatGPT as a learning tool to benefit all the stakeholders in the education field.

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BIODATA

Dr. Muaadh Mukred currently works as a lecturer at the Department of Business Analytics at Sunway Business School; he is also an associated fellow at the Cyber Security Center at the Information Science and Technology faculty, University Kebangsaan Malaysia (UKM), Malaysia. Muaadh has been a post-doctoral researcher at the Cyber Security Research Center in the Information Science and Technology Faculty. His research interests span various areas, such as information systems, human-computer interactions, and big data analytics. Email: muaadhm@sunway.edu.my

Dr. Umi Asma' Mokhtar is a senior lecturer at Universiti Kebangsaan Malaysia, specialising in information science. Her research focuses on electronic records management, function-based classification, and information policy. She received the Oliver Wendell Holmes Travel Award and currently she is a co-researcher for the InterPARES Trust project in Malaysia. Email: umimokhtar@ukm.edu.my

Dr. Burkan Hawash is a Ph.D. graduate from Universiti Kebangsaan Malaysia with expertise in information system management, electronic records management, and information security. With over 15 years of experience in the Oil and Gas sector, including 10 years at TOTAL E&P as Telecom Supervisor, Burkan is skilled in data analysis using SmartPLS, SPSS, and R Programming. He holds a Master's Degree in information security management and a Bachelor's degree in telecommunication engineering, with a keen interest in archives, records management, digital transformation, and research. Email: burkan.hawash@yahoo.com

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