

What drives digital marketers toward using generative AI: An investigation of the factors influencing adoption of ChatGPT and direction for future research

Md. Soleman Mollik¹, Mohammad Faruk², Md. Masudur Rahman^{3*}

¹Bangladesh University of Professionals, Bangladesh

²Gopalganj Science and Technology University, Bangladesh

³University of Dhaka, Bangladesh

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*Corresponding author:

masudurrahman@du.ac.bd

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Abstract

Generative artificial intelligence (AI) is revolutionizing digital marketing by enabling content creation, customer engagement, and strategic decision-making at unprecedented speed and scale. Yet, despite its transformative potential, research on the factors driving marketers' adoption of generative AI tools such as ChatGPT remains scarce, particularly in emerging economies. Against this backdrop, this study aims to investigate the determinants influencing digital marketers' adoption of ChatGPT and chart directions for future research. Quantitative research design was employed, drawing on constructs from the TAM and the UTAUT, while incorporating contextual variables such as industry influence, organizational culture, and perceived credibility. Data were collected from 500 digital marketers in Bangladesh using convenience sampling and analyzed using PLS-SEM. The findings reveal that performance expectancy, awareness, effort expectancy, and industry influence significantly shape attitudes toward ChatGPT, whereas organizational culture does not play a significant role. Attitude and perceived credibility emerged as the strongest predictors of actual usage, underscoring the centrality of favorable perceptions and trust in adoption behavior. The chapter makes threefold contributions. Academically, it extends adoption models by highlighting contextual variables in the adoption of AI. Practically, it offers guidance for marketers and organizations to build trust and showcase performance benefits. At the policy level, it calls for regulatory frameworks ensuring credibility and responsible use. Collectively, the study enriches understanding of generative AI adoption and lays a foundation for future research in this rapidly evolving field.

Introduction

Digital marketing has undergone significant changes over the past decade, driven by the rapid advancement of technology and the increasing ubiquity of the internet (Kumar et al., 2024). Since customers have become more digitally savvy (Agarwal et al., 2024) and businesses have been striving to meet their evolving expectations, the need for innovative tools and strategies is a must. Among all the innovations, artificial intelligence (AI) has emerged as a game-changer in offering new ways to enhance marketing effectiveness and improve customers' expectations (Bilal et al., 2024). One of the most significant advancements in AI includes the development of immense models, for instance, OpenAI's ChatGPT (Kumar et al., 2024).

Artificial intelligence is revolutionizing society, business, and health (Acar, 2024). AI is termed as the capacity of a system to precisely comprehend external information, learn from that source, and then apply that learning to perform specific tasks and objectives through flexible modifications. Over time, AI has revolutionized numerous sectors, for instance, education (Baig &

Yadegaridehkordi, 2024), health (Haleem et al., 2024), business (Agarwal et al., 2024), and so on. Digital marketing is a blessing born from AI (Mollik et al., 2024). Digital marketing platforms are being updated continuously with AI and social media contributions (Hossain & Mollik, 2022).

However, AI has some controversies in digital marketing that it (AI) might generate ethical concerns, lower cost-effectiveness, lessen transparency, and scale limited adaptability (Bilal et al., 2024). AI has conceived some merits as well from the digital marketing perspective, including personalized targeting, automation, improved customer services and experiences, big data analysis, predictive analysis, optimization, content creation, and competitive analytics (Gkikas & Theodoridis, 2022). Adjusting and conveying customers' and businesses' core contents, AI alliance upgrades the satisfaction of both parties in digital marketing. To boost a balanced and successful digital marketing experience, customer engagement, business preparation, and ethical considerations are always crucial.

Digital marketers, adopting AI, require constant efforts to sustain the privacy and security of the target customers. Though the ChatGPT can ensure customized services, it also breeds some shortcomings in sundry areas with its features (Cong-Lem et al., 2024). Businesses can exploit forthcoming progress from using ChatGPT by removing all constraints of AI. Since its debut, ChatGPT has drawn inflated interest from businesses (Cao & Zhai, 2023), and academics (Bin-Nashwan et al., 2023) in the online community.

The integration of AI into digital marketing functions has reshaped the industry (Agarwal et al., 2024), enabling digital marketers to test a large volume of data (Bag et al., 2022), and foresee consumer behavior (AlQershi et al., 2024). Generative AI is another version of AI affecting business in various sides (Chui et al., 2022). From the Generative AI, tools like ChatGPT, which offer sophisticated features to let marketers create personalized messages, optimize ad targeting, and generate creative content on a massive scale, are leading the way in this change (Carvalho & Ivanov, 2024). The shift to AI-driven marketing is more than just a fad. It's a necessity for businesses to remain competitive in a crowded and complex digital marketplace.

Since AI has become increasingly entrenched in digital marketing practices, understanding what drives marketers to adopt these technologies remains crucial. Despite a growing body of research on AI in businesses, marketing, science, and other fields, the specific factors influencing the adoption and usage of ChatGPT by digital marketers remain unexplored. Marketers and other business wings of different countries have been using ChatGPT in their wider business operations, for instance, in the South Asian Perspective, especially in Malaysia (AlQershi et al., 2024), India (Sudan et al., 2024), Pakistan (Ullah et al., 2024), and China (Jiang, 2024) and scaled business values from a myriad of branches. Thus, they have recommended using ChatGPT for business purposes. However, in Bangladesh, no research has been found focusing on the drivers affecting digital marketers to use ChatGPT in their business functions. This shortage of knowledge instigates the authors to conduct the present study to identify the factors influencing digital marketers to use ChatGPT in their business organizations.

Furthermore, the authors intend to figure out the recent trends of ChatGPT usage in Bangladeshi business perspectives, especially in digital marketing, through this study. The application of ChatGPT has been shown in education (Niloy et al., 2024) and health (Ferdush et al., 2024) sectors in Bangladesh, whereas the digital marketing sector remains a virgin till now. This study aims to bridge that research gap through a concrete investigation of motivation, challenges, and outcomes associated with the application of ChatGPT in digital marketing.

Despite the increasing appeal of ChatGPT and other AI technologies used in businesses, there is still a scarcity of empirical research regarding the factors driving the adoption and usage of these products by digital marketers in Bangladesh. Comprehending these variables is crucial for practitioners and scholars alike, as it can guide the creation of AI solutions that are more efficacious, assist marketers in making well-informed decisions about the adoption of technology, and pinpoint domains that require additional investigation. Furthermore, as AI continues to evolve, it's important to discover not only the current state of adoption but also the future directions for this research in this arena.

While current literature has shed light on AI adoption in general, minor studies have zoomed in especially on ChatGPT and its exclusive capabilities and challenges in the context of digital marketing. Still, there is an urgency for conducting research inquiring into the specific factors driving

digital marketers to adopt and use ChatGPT, including technological, organizational, and individual-level influences in Bangladesh. Additionally, understanding how these specific factors interact and impact marketing outcomes can supply valuable insights for theory, practice, and policy implications.

This study primarily aims to explore the factors influencing the adoption and usage of ChatGPT by digital marketers in the current business environment. Exclusively, this research has the following objectives:

1. To identify the key drivers affecting digital marketers to adopt and use ChatGPT in designing their market offerings.
2. To explore how digital marketers are presently using ChatGPT and the resulting outcomes they are achieving.
3. To provide academicians and researchers with future research directions on AI tool adoption, focusing on the evolving role of ChatGPT and similar technologies.

Aligning with the aim and objectives, this study has designed relevant questions to extract the findings that fulfill the research gap. The questions of the study are proposed below:

1. What are the key drivers affecting digital marketers to adopt and use ChatGPT in designing their market offerings?
2. How are digital marketers presently using ChatGPT and the resulting outcomes they are achieving?
3. What could be the future research directions for academicians and researchers on AI tool adoption, focusing on the evolving role of ChatGPT and similar technologies?

In summary, this research offers several novel contributions compared to prior studies on artificial intelligence adoption. This study extends prior AI adoption research that largely examined general technologies and intention-based models (Venkatesh et al., 2003; Dwivedi et al., 2023). Unlike earlier studies focusing on developed economies or broad AI tools, this research uniquely investigates ChatGPT adoption by digital marketers in Bangladesh. It integrates technological, organizational, and individual drivers while examining actual usage practices, marketing outcomes, and future research directions, thereby offering context-specific, practice-oriented, and forward-looking contributions to the emerging generative AI literature.

The rest of this paper is arranged as follows. Section 2 mirrors literature. The theoretical aspects are shown in Section 3, followed by the methodology in Section 4. The Section 5 pictures result from crucial analysis. Section 6 exhibits analysis and discussions. Finally, this study wraps up with a summary of findings, acknowledged limitations, and recommendations for further research to address the limitations in Section 7.

Literature Review and Hypotheses Development

The acronym “GPT” in ChatGPT stands for “generative pre-trained transformer.” This leading-edge AI model is available in different variants, namely GPT-3.5 and GPT-4 (Yuan et al., 2024). ChatGPT is incredibly proficient in comprehending and producing natural language responses, since it makes use of deep learning techniques and a large dataset to produce human-like text (Liu et al., 2023). ChatGPT has been rendered feasible by OpenAI’s advancements in artificial intelligence (AI), particularly in the field of natural language processing (NLP) (Behera et al., 2024). ChatGPT has started to be used in multiple sectors, including education (Mahmud et al., 2024), business (Guler et al., 2024), health (Li et al., 2024), etc. Exactly in this way, the adoption and usage of advanced AI tools like ChatGPT in digital marketing have garnered momentous consideration for their potential to revolutionize marketing strategies (Akter et al., 2023). Though a few studies (Acar, 2024; Akter et al., 2023) have focused on integrating ChatGPT in digital business, no studies have yet centered on revealing the factors influencing digital marketers to adopt and utilize ChatGPT in their business operations.

Recently, there has been a lot of interest in adopting ChatGPT, which leverages theoretical frameworks like TAM (Salloum et al., 2024) and UTAUT (Lai et al., 2024) in education, business, healthcare services, online tourism sectors, and e-commerce. Service researchers believe that the successful application of AI in service delivery depends on how well customers adopt AI (Agarwal et

al., 2024). In this perspective, TAM is found as an eminent model of technology acceptance to trigger a person's motives in offering and receiving technology-led service (Hampel et al., 2024). The TAM is simple to expand or adapt, which makes it useful in a variety of study domains (Ali & Warraich, 2024).

Prior studies posited mainly four constructs, namely perceived usefulness (PU), perceived ease of use (PEU), attitude toward use (ATT), and behavioral intention to use (BI) in a wide array of contexts (Chua & Yu, 2024). Moreover, sometimes the scholars added extra variables like trust to TAM or shaved other variable(s) from TAM to adapt their model. Hence, TAM has an adaptation opportunity to fit the model conforming to the study. However, pioneering studies recommended additions in terms of industry influence (IndI), perceived credibility (PC), effort expectancy, awareness, and marketers' attitude. Consequently, this study has embodied adapted constructs, for instance, awareness, performance expectancy, effort expectancy, organizational culture (OC), industry influence, and perceived credibility to construct the attitude towards ChatGPT, resulting in the use of intention by digital marketers.

Awareness (AW)

Awareness refers to the extent to which digital marketers are knowledgeable about the existence, capabilities, use cases, benefits, and limitations of generative AI tools (Dwivedi et al., 2023). Awareness plays a crucial role in the primary adoption of new technologies (Gulzar et al., 2024). It is the first stage in the product or service adoption process where the potential users must be well-informed about the existence, benefits, and pitfalls of a technology before they evaluate its value (Behera et al., 2024). Scholars (Balakrishnan et al., 2024) commented that awareness triggers potential users to accept technological services, which performs significantly in making technology-prone businesses successful. Thus, awareness is part and parcel of digital business sectors. In the context of ChatGPT, awareness pertains to the degree of familiarity that digital marketers have with the functions and applications of the technology in the marketing domain. The authors assume that digital marketers will adopt ChatGPT in their functional domains, provided they are more aware of the complete know-how of the ground of AI, especially ChatGPT. Therefore, this study proposes the following hypothesis:

H1: Awareness has a positive influence on digital marketers to use ChatGPT.

Effort expectancy (EE)

Effort expectancy (EE) refers to the extent to which users believe a certain technology will be effortless and easy to use (Ledesma-Chaves et al., 2024). Effort expectancy is a significant factor in determining user adoption (Khan et al., 2024). Additionally, EE facilitates digital service adoption in the context of electronic health records or telemedicine (Al-Momani et al., 2024), e-learning platforms (Thi Uyen Nguyen et al., 2024), mobile and online banking (Ali et al., 2024), retail and e-commerce (Lopes et al., 2024), and online travel agencies (Mollik et al., 2024). Consequently, scholars (Klaic et al., 2024) found EE as the significant factor in regulating new technology acceptance and building users' positive attitudes and intentions toward modern technologies. Above all, EE can enhance the possibility of accepting new technologies for designing digital business services. The above literature reviews forecast that if digital marketers appoint ChatGPT in their business domains with EE, they are more likely to adopt this technology successfully. In relation to these statements, the following hypothesis is drawn:

H2: Effort expectancy has a positive influence on digital marketers to use ChatGPT.

Performance expectancy (PE)

Performance expectancy (PE) is the degree to which a user believes a certain piece of technology will enhance their job performance (Jackson & Allen, 2024). Few studies have brought to light that using TAM can be effective in studying digital banking adoption, and they have found that PE has a direct influence on the adoption of digital banking services in Algeria (Latreche et al., 2024) and India (Bashir & Madhavaiah, 2015). Other studies commented that the higher the PE, the more likely users are to adopt and continuously use the technology (Gupta et al., 2024). Digital marketers in Bangladesh

may employ ChatGPT if they think it could aid them with significant marketing challenges. Respecting the above statements and findings, this study nominates the following hypothesis:
H3: Performance expectancy has a positive influence on digital marketers to use ChatGPT.

Organizational culture (OC)

Organizational culture encompasses a set of shared values, beliefs, and practices within an organization (Abdelwahed et al., 2024), and they impact the behavior of its members (Alshuhumi et al., 2024). In Bangladeshi businesses, the use of AI and digital marketing is evolving. Delving into former studies shows that an innovative and tech-friendly organizational culture encourages the adoption of new technologies like ChatGPT (Jo & Bang, 2023). Companies that prioritize innovation, continuous improvement, and technological agility are more likely to experiment with AI-driven marketing campaigns (Kulkov et al., 2024). Conversely, organizations resistant to change or with a rigid hierarchy may be much slower to adopt AI technologies. Therefore, a culture that supports digital innovation will significantly shape the adoption and usage of ChatGPT in marketing practices. In line with these reviews, this study recommends the following hypothesis:
H4: Organizational culture has a positive influence on digital marketers to use ChatGPT.

Industry influence (IndI)

Industry influence (IndI) stands for the external pressure or trends within a specific sector affecting technology adoption (Adu Gyamfi et al., 2022). Peer adoption (Gupta & Yang, 2024), competitive pressure (Chen et al., 2024), and evolving industry standards (Wilendra et al., 2024) can affect marketers' decisions to adopt advanced technologies like ChatGPT. Scholars indicate that adopting new technology by industry leaders or competitors creates a ripple effect and encourages others to follow suit (Shakeel et al., 2024). For digital marketers, the growing use of AI-driven tools in neighboring markets, alongside industry trends, could accelerate the adoption of ChatGPT as they seek to stay competitive over time. In light of these findings and comments, this study posits the following hypothesis:

H5: Industry influence has a positive influence on digital marketers to use ChatGPT.

Perceived credibility (PC)

Perceived credibility refers to the degree to which digital marketers believe that ChatGPT is a trustworthy, reliable, accurate, and unbiased generative AI tool that produces high-quality outputs while safeguarding data privacy and ethical standards (Dwivedi et al., 2023). Perceived credibility (PC) is found to have a strong impact on determining the usage intention of users of any technology (Cho et al., 2023). PC can be measured with trustworthiness and authenticity of the information provided by the generative AI (Kumar et al., 2024). This study perceives that PC would influence digital marketers to adopt ChatGPT. Thus, the study posits that:

H6: Perceived credibility positively influences digital marketers to use ChatGPT.

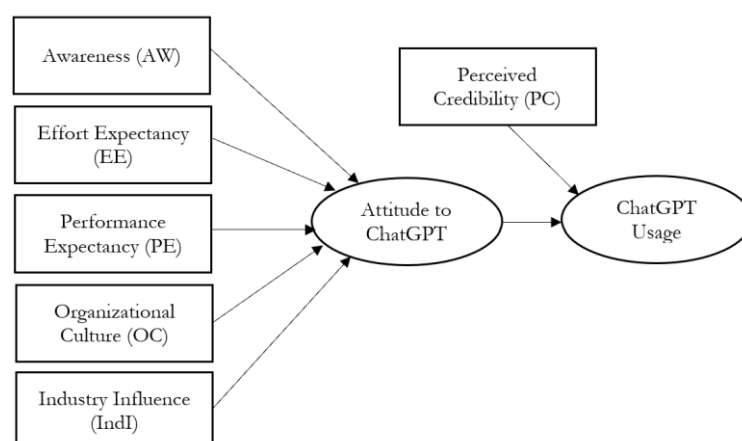


Figure 1. Proposed Research Framework

Research Methods

This study adopts a quantitative research approach to systematically investigate the factors influencing the adoption of ChatGPT among digital marketers. A quantitative approach is appropriate because the research aims to test hypothesized relationships between constructs such as performance expectancy, effort expectancy, organizational culture, industry influence, awareness, and perceived credibility on attitudes and usage of ChatGPT. Quantitative methods also enable generalizability of findings by analyzing data collected from a larger sample size using statistical models (Mohajan, 2020).

The research employs a cross-sectional survey design. This survey is particularly suitable for professionals dispersed across multiple organizations and regions (Toyon, 2021). The design supports hypothesis testing through SEM, enabling the validation of causal relationships between independent and dependent constructs.

The population of this study comprises all digital marketers who utilize AI in their professional practices. This study used a convenience sampling technique to collect data from 500 digital marketers who are active on professional networks, social media, and industry associations. This method is frequently applied in technology adoption research where the population is specialized, and probability-based sampling is logistically difficult (Etikan et al., 2016). This number is consistent with recommendations for PLS-SEM analysis, where the minimum sample size should be at least ten times the largest number of structural paths directed at a construct (Hair et al., 2021).

The survey instrument consisted of structured questionnaires with validated measurement items adapted from prior studies in technology adoption and digital marketing literature. Constructs such as PE, EE, and Attitude were adapted from the unified theory of acceptance and use of technology (UTAUT) framework (Venkatesh et al., 2003). PC and AW items were adopted and modified from previous studies on AI adoption (Singh et al., 2023). All items were measured using a five-point Likert scale (1 = strongly disagree, 5 = strongly agree), which provides consistency and reliability in capturing attitudinal data.

Before full-scale data collection, the questionnaire underwent pre-testing with 30 respondents comprising digital marketers and academic experts. The pre-test helped refine wording, ensure clarity, and confirm the logical flow of the survey. Reliability and validity of the constructs were assessed using Cronbach's Alpha and composite reliability during the pilot study. Based on feedback, minor modifications were made to improve item clarity and alignment with industry terminology. Ethical standards and guidelines (Bell et al., 2022) were maintained throughout the study.

The collected data were analyzed by PLS-SEM since it's suitable for handling complex models with multiple constructs and flexibility with non-normal data distributions (Hair Jr & Sarstedt, 2021). The analysis involved two stages: (1) assessment of the measurement model to examine reliability, convergent validity, and discriminant validity, and (2) assessment of the structural model to evaluate path coefficients, R^2 values, and predictive relevance (Q^2). Bootstrapping with 5,000 resamples was performed to assess the significance of path coefficients.

Results and Discussion

Demographic profile of the respondents

The demography of the sample (Table 1) indicates that the majority of the respondents were males (64%), while females comprised 36%. Two-thirds of the participants were students. The majority of the respondents were young professionals, over two-thirds aged between 21 and 30 years, reflecting a digitally active working population. Educationally, most participants had graduate qualifications (39.6%), followed by bachelor's degree holders (57.2%), which suggests a highly educated sample.

In terms of job experience, most respondents (up to 1–5 years) have been in the field for a bit and were early-working or mid-level marketers. The majority of participants worked in digital marketing agencies and corporate businesses, startups, and freelance roles. Furthermore, participants indicated that they are highly/totally familiar with digital tools and often or always use AI tools, which points to their relevance when exploring the adoption of generative AI.

Table 1. Demographic Information of Respondents

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	320	64.0
	Female	180	36.0
Age	Below 21 years old	42	8.4
	21–25 years old	168	33.6
	26–30 years old	156	31.2
	31–35 years old	92	18.4
	Above 35 years old	42	8.4
Educational Level	Bachelor's degree	286	57.2
	Master's degree	198	39.6
	Others	16	3.2
Work Experience	Less than 1 year	74	14.8
	1–3 years	188	37.6
	4–5 years	136	27.2
	More than 5 years	102	20.4
Employment Type	Digital marketing agency	182	36.4
	Corporate organization	148	29.6
	Startup/SME	96	19.2
	Freelancer	74	14.8
Familiarity with Digital Tools	Moderate	96	19.2
	High	228	45.6
	Very high	176	35.2
Frequency of Using AI Tools	Occasionally	112	22.4
	Frequently	238	47.6
	Regularly	150	30.0

Source: Authors' creation

Evaluation of the measurement model

The validity testing using outer loadings indicates how effectively each indicator measures the relevant construct. Generally, outer loading values above 0.7 are considered good, while those below 0.6 are deemed weak (Table 2). For the construct attitude (ATT), all indicators demonstrate strong results, with values above 0.8. In the case of awareness (AW), two indicators, AW1 and AW3, show good validity, while AW2 falls below the expected threshold.

Table 2. Construct Reliability and Validity

Latent Constructs	Items	Outer Loadings	P-Values	VIFs	Cronbach's Alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Attitude (ATT)	ATT1	0.885	0.000	2.020	0.826	0.830	0.896	0.742
	ATT2	0.855	0.000	1.860				
	ATT3	0.843	0.000	1.782				
Awareness (AW)	AW1	0.901	0.000	2.252	0.757	0.840	0.859	0.677
	AW2	0.622	0.000	1.223				
	AW3	0.912	0.000	2.224				
Effort Expectancy (EE)	EE1	0.811	0.000	1.727	0.798	0.824	0.867	0.622
	EE2	0.680	0.000	1.380				
	EE3	0.843	0.000	1.725				
	EE4	0.810	0.000	1.722				
Industry Influence (IndI)	IndI1	0.875	0.000	1.764	0.732	0.860	0.838	0.642
	IndI2	0.912	0.000	1.772				
	IndI3	0.572	0.000	1.235				
Organizational Culture (OC)	OC1	0.837	0.000	1.758	0.743	0.813	0.831	0.568
	OC2	0.854	0.000	1.975				

	OC3	0.819	0.000	1.527				
	OC4	0.411	0.000	1.153				
Perceived Credibility (PC)	PC1	0.867	0.000	2.083	0.809	0.812	0.887	0.723
	PC2	0.853	0.000	1.769				
	PC3	0.830	0.000	1.641				
Performance Expectancy (PE)	PE1	0.793	0.000	1.977	0.837	0.840	0.884	0.605
	PE2	0.782	0.000	1.825				
	PE3	0.794	0.000	1.834				
	PE4	0.764	0.000	2.242				
	PE5	0.755	0.000	2.132				
Usage of ChatGPT (USE)	USE1	0.868	0.000	2.152	0.837	0.847	0.891	0.672
	USE2	0.813	0.000	1.797				
	USE3	0.832	0.000	1.921				
	USE4	0.762	0.000	1.614				

Source: Authors' creation

The construct effort expectancy (EE) presents mixed results; although some indicators like EE1 and EE3 have strong values, the indicator EE2 is below 0.7 and may need to be revisited. Regarding industry influence (IndI), two indicators show good results, but IndI3 is weak with a value below 0.6. Similarly, the construct organizational culture (OC) exhibits mixed results, with OC4 being particularly low. For the construct perceived credibility (PC), all indicators show good validity, while performance expectancy (PE) is within an acceptable range, although PE5 is the lowest. Finally, all indicators in the construct usage of ChatGPT (USE) demonstrate good validity.

The PLS output on composite reliability (Table 3) indicates that all variables in the model exhibit good internal consistency, with composite reliability values exceeding 0.7, which is considered the minimum acceptable threshold for reliability. For instance, attitude (ATT) records a value of 0.830, supported by a t-statistic of 29.258 and a significant p-value of 0.000, demonstrating that this construct is reliable. Awareness (AW) has a composite reliability value of 0.840 and a t-statistic of 26.706, while effort expectancy (EE) achieves a value of 0.824 with a t-statistic of 26.184, both indicating high consistency.

Table 3. Composite Reliability

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Attitude (ATT)	0.830	0.828	0.028	29.258	0.000
Awareness (AW)	0.840	0.841	0.031	26.706	0.000
Effort Expectancy (EE)	0.824	0.826	0.031	26.184	0.000
Industry Influence (IndI)	0.860	0.858	0.036	23.882	0.000
Organizational Culture (OC)	0.813	0.809	0.038	21.513	0.000
Perceived Credibility (PC)	0.812	0.813	0.029	28.176	0.000
Performance Expectancy (PE)	0.840	0.840	0.023	35.821	0.000
Usage of ChatGPT (USE)	0.847	0.846	0.025	33.974	0.000

Source: Authors' creation

Industry influence (IndI) registers the highest value at 0.860, followed by organizational culture (OC) at 0.813 and perceived credibility (PC) at 0.812. Performance expectancy (PE) shows excellent strength with a value of 0.840 and a t-statistic of 35.821, while usage of ChatGPT (USE) has a value of 0.847 and a t-statistic of 33.974. These results indicate that all constructs examined have high reliability and can be trusted to effectively explain the phenomena being studied.

Model fit analysis (Table 4) shows that the saturated model shows a better fit compared to the estimated model. The SRMR (standardized root mean square residual) for the saturated model is 0.078, while the estimated model shows a value of 0.081. A lower SRMR indicates a more

accurate model fit, indicating that the saturated model is more in line with the data. The d_ULS (unweighted least squares distance) for the saturated model is 2.615, while the estimated model has a higher value of 2.875. This indicates that the estimated model has a greater distance from the data, reflecting a worse fit. In terms of d_G (geodesic distance), the saturated model again outperforms the estimated model, with values of 1.228 and 1.266, respectively.

Table 4. Model Fit

	Saturated Model	Estimated Model
SRMR	0.078	0.081
d_ULS	2.615	2.875
d_G	1.228	1.266
Chi-square	1820.194	1854.908
NFI	0.673	0.667

Source: Authors' creation

The chi-square statistic for the saturated model is 1820.194, as opposed to 1854.908 for the estimated model, indicating a larger deviation between the estimated model and the actual data. Finally, the NFI (normed fit index) also supports this finding, as the saturated model has a value of 0.673 compared to 0.667 for the estimated model. These results indicate that the saturated model is more effective in explaining the data, while the estimated model requires further refinement to improve its fitness.

HTMT findings (Table 5) reveals all inter-construct estimates below the conservative cut-off of 0.85, thereby demonstrating acceptable discriminant validity. This indicates that each construct—attitude, awareness, effort expectancy, industry influence, organizational culture, perceived credibility, performance expectancy, and usage of ChatGPT—represents a conceptually unique phenomenon.

Table 5. Heterotrait–Monotrait Ratio (HTMT)

Constructs	ATT	AW	EE	IndI	OC	PC	PE	USE
Attitude (ATT)	—							
Awareness (AW)	0.62	—						
Effort Expectancy (EE)	0.58	0.64	—					
Industry Influence (IndI)	0.55	0.61	0.59	—				
Organizational Culture (OC)	0.47	0.53	0.51	0.56	—			
Perceived Credibility (PC)	0.68	0.66	0.63	0.60	0.49	—		
Performance Expectancy (PE)	0.71	0.69	0.72	0.65	0.54	0.70	—	
Usage of ChatGPT (USE)	0.74	0.67	0.69	0.63	0.52	0.76	0.78	—

Source: Authors' creation

The largest value of HTMT occurs with performance expectancy and usage of ChatGPT (0.78), still below the recommended threshold, indicating a theoretically meaningful relationship not just construct overlap. In general, these results of the assessment of discriminant validity support that the measurement model possesses no issues of multicollinearity and is appropriate for further evaluation via structural model analysis.

Evaluation of structural model

From the path analysis (Table 6), it is evident that H1 (awareness has a positive relationship with attitude) is found to be statistically significant and supported, since the p-value is equal to 0.028, which is less than the 5% significance level. Similarly, effort expectancy (EE) is found to exert a statistically positive influence on forming attitude for ChatGPT since the $t = 2.166$ and $p = 0.030$, which in turn means that H2 is supported.

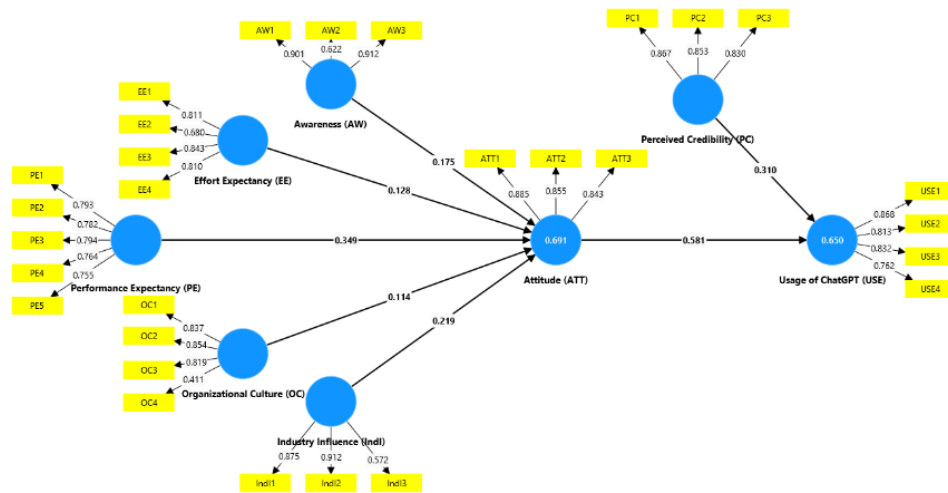


Figure 2. Structural Model Analysis

Table 6. Results of Path Coefficients, Hypothesis Testing, and Effect Size

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (STDEV)	P values
Awareness (AW) → Attitude (ATT)	0.175	0.171	0.080	2.193	0.028
Effort Expectancy (EE) → Attitude (ATT)	0.128	0.128	0.059	2.166	0.030
Industry Influence (IndI) → Attitude (ATT)	0.219	0.218	0.070	3.132	0.002
Organizational Culture (OC) → Attitude (ATT)	0.114	0.117	0.061	1.865	0.062
Perceived Credibility (PC) → Usage of ChatGPT (USE)	0.310	0.307	0.081	3.851	0.000
Performance Expectancy (PE) → Attitude (ATT)	0.349	0.349	0.079	4.423	0.000
Attitude (ATT) → Usage of ChatGPT (USE)	0.581	0.585	0.081	7.203	0.000

Source: Authors' creation

On the other hand, although organizational culture (OC) in Bangladeshi digital marketing agency does not support significantly usage of generative AI, since the p-value is equal to 0.062, which is higher than the standard 0.05 level, industry influence (IndI) is found to exert a good impact on the formation of positive attitude, henceforth H5 is supported by H4 is not supported. H3, which denotes performance expectancy (PE), has a positive influence on attitude and is found to be statistically significant at 5% significance level. This PE exerts the most influence on the formation of attitude ($\beta = 0.349$). Perceived credibility (PC) is also found to be statistically important since ($\beta = 0.310$, $t = 3.851$, $p = 0.000$).

Critical discussion

Awareness (AW) → attitude (ATT)

The findings indicate that awareness significantly influences attitude toward ChatGPT adoption ($\beta = 0.175$, $p = 0.028$). This result aligns with prior studies that suggest awareness is a fundamental driver of technology adoption, as greater knowledge about a tool's potential increases favorable perceptions toward its usage (Aker et al., 2023). In digital marketing, awareness of generative AI's ability to enhance customer engagement and content creation likely strengthens marketers' attitudes toward adoption. However, compared to stronger predictors such as performance expectancy, the effect of awareness is relatively weaker. This suggests that while awareness initiates curiosity, it must be coupled with clear value delivery for sustainable adoption.

Effort expectancy (EE) → attitude (ATT)

Effort expectancy also showed a positive and significant relationship with attitude ($\beta = 0.128$, $p = 0.030$). This finding is consistent with the unified theory of acceptance and use of technology (UTAUT), which posits that ease of use enhances favorable attitudes toward technology

(Venkatesh et al., 2003). Previous research in AI adoption similarly reports that when users perceive a system as easy to use, their willingness to engage increases (Acar, 2024). Our findings support these arguments, implying that digital marketers view ChatGPT as an intuitive and user-friendly tool, reinforcing positive attitudes. The relatively small effect size, however, indicates that while ease of use matters, it is not the dominant factor in shaping attitudes, which may be because digital marketers are typically skilled at handling new digital platforms.

Industry influence (IndI) → attitude (ATT)

Industry influence demonstrated a significant effect on attitude ($\beta = 0.219$, $p = 0.002$). This aligns with studies showing that industry trends and peer influence shape individual and organizational decisions to adopt emerging technologies (Bilal et al., 2024). In the case of generative AI, marketers may be influenced by competitors' adoption of ChatGPT, industry best practices, and thought leadership from digital marketing communities. Our findings strengthen the argument that social and industry-level pressures drive adoption, suggesting that marketers do not evaluate ChatGPT adoption in isolation but in light of competitive positioning and professional norms.

Organizational culture (OC) → attitude (ATT)

The relationship between organizational culture and attitude was positive but statistically insignificant ($\beta = 0.114$, $p = 0.062$). This partially contradicts earlier studies that emphasized the importance of supportive organizational culture in driving digital transformation (Ali et al., 2024). One possible explanation is that digital marketers, especially freelancers or those in small firms, may rely more on individual decision-making rather than organizational norms when adopting generative AI. In contexts such as Bangladesh, where organizational support for AI adoption is still developing, individual awareness and industry influence may outweigh cultural enablers, leading to the weaker impact observed.

Performance expectancy (PE) → attitude (ATT)

Performance expectancy exhibited the strongest influence on attitude ($\beta = 0.349$, $p = 0.000$). This is consistent with prior studies highlighting that perceived usefulness or expected performance is a key determinant of positive attitudes toward technology adoption (Davis, 1989). For digital marketers, ChatGPT's ability to generate content efficiently, support campaign strategies, and reduce workload directly reinforces its perceived utility. Our findings confirm that performance-related benefits are central to forming favorable attitudes, making performance expectancy the most crucial determinant in generative AI adoption in marketing contexts.

Perceived credibility (PC) → usage of ChatGPT (USE)

Perceived credibility significantly influenced usage of ChatGPT ($\beta = 0.310$, $p = 0.000$). This result corroborates findings by Behera et al. (2024) and more recent AI adoption research that emphasize trust and reliability as vital for actual usage. Given that generative AI tools like ChatGPT face concerns regarding accuracy and bias, marketers are more likely to adopt them when they perceive information credibility to be high. Thus, credibility acts as a safeguard against risks of misinformation, making it a critical determinant of actual usage in marketing decision-making.

Attitude (ATT) → usage of ChatGPT (USE)

Finally, attitude emerged as the strongest predictor of ChatGPT usage ($\beta = 0.581$, $p = 0.000$). This finding is consistent with the technology acceptance model (TAM), which posits that attitudes strongly predict behavioral intentions and subsequent usage (Venkatesh et al., 2003). Our results confirm that when digital marketers form favorable attitudes toward ChatGPT—driven by performance expectancy, awareness, and industry influence—they are highly likely to integrate it into their work practices. This underscores the importance of shaping positive perceptions in driving generative AI adoption in the marketing domain.

Contributions of the research

This study advances the academic understanding of generative AI adoption by integrating constructs from TAM and UTAUT while adding contextual variables such as industry influence and organizational culture. By empirically testing the model with digital marketers in Bangladesh, it contributes to the growing body of literature on AI adoption in emerging markets, which is still underrepresented. The findings highlight that while traditional constructs like performance expectancy remain central, contextual factors such as industry influence play a crucial role, offering theoretical extensions to adoption frameworks. Additionally, the study reveals the limited role of organizational culture, opening avenues for further inquiry into individual versus organizational determinants of AI usage.

From a practitioner's perspective, the study provides actionable insights for digital marketers and organizations adopting ChatGPT. The results show that favorable attitudes, shaped primarily by performance expectancy and credibility, directly drive actual usage. This implies that marketers should focus on experimenting with AI to recognize its performance benefits, while organizations should invest in showcasing practical use cases to build confidence. Awareness campaigns, training sessions, and demonstrations of success stories can further reduce uncertainty and enhance adoption. The emphasis on industry influence suggests that marketers must keep pace with peers and competitors, highlighting the importance of benchmarking and knowledge-sharing within the digital marketing community.

At the policy level, this study underscores the need for supportive frameworks that encourage responsible and credible adoption of generative AI tools. Since credibility significantly predicts usage, regulators and policymakers should prioritize guidelines around AI transparency, accountability, and accuracy to build trust among users. Policies that incentivize the ethical use of generative AI in marketing, while addressing risks such as misinformation and data privacy, will foster sustainable adoption. Furthermore, government and industry associations can play a role in building digital literacy programs and certifications that ensure marketers are equipped with the skills to use ChatGPT effectively and responsibly.

Beyond academia, practice, and policy, this study contributes to the broader discourse on the social and cultural implications of generative AI. By examining adoption in Bangladesh, the research sheds light on how emerging economies approach advanced technologies differently from developed contexts. It emphasizes the importance of individual agency and industry trends in shaping adoption, suggesting that generative AI can serve as a democratizing tool for marketers in resource-constrained settings. Additionally, the study provides a foundation for interdisciplinary collaborations, encouraging future research at the intersection of marketing, technology, sociology, and ethics.

Limitations and future research direction

Although this study provides important insights into the factors influencing ChatGPT adoption among digital marketers, some methodological constraints should be acknowledged. First, the study relied on convenience sampling, which may limit generalizability since respondents may not fully represent the broader population of digital marketers in Bangladesh or globally. Future studies could employ probability-based sampling techniques to enhance representativeness. Second, data were collected within a three-month period, which restricts the ability to observe longitudinal changes in adoption behavior. A longitudinal approach in future research could better capture how attitudes and usage evolve as generative AI technologies mature.

The research was conducted within the context of Bangladesh, where digital marketing practices and AI adoption are still emerging. While this provides valuable insights into an underexplored context, the findings may not fully apply to more technologically advanced markets where adoption drivers and barriers may differ. Future studies should therefore compare adoption across developed and developing economies to uncover contextual variations. Cross-cultural studies may reveal how cultural, regulatory, and infrastructural differences moderate the relationship between awareness, attitude, and actual usage.

While the model incorporated key constructs such as awareness, effort expectancy, performance expectancy, industry influence, organizational culture, and perceived credibility, other important variables may have been overlooked. For instance, factors such as perceived risk, data privacy concerns, hedonic motivation, and trust in AI governance could significantly influence adoption decisions. Future research should extend the model to include these dimensions. Additionally, this study employed a PLS-SEM approach; while appropriate for exploratory analysis, future research could apply multi-group analysis or advanced techniques such as hybrid SEM-neural network modeling to capture both linear and non-linear relationships more robustly.

From a practical perspective, the study examined adoption from the standpoint of individual digital marketers, but organizational-level adoption strategies were not deeply investigated. Future studies should explore how organizational policies, leadership support, and training programs shape generative AI adoption in marketing. From a theoretical standpoint, while this study draws on UTAUT and TAM perspectives, future research could integrate frameworks such as the technology-organization-environment (TOE) framework or institutional theory to capture broader institutional and environmental influences on adoption.

Future research should build on these findings by adopting broader methodological and contextual approaches. Since this study relied on cross-sectional data from Bangladesh using convenience sampling, future work should employ longitudinal designs to capture evolving perceptions of generative AI and compare adoption across different regions or industries. Cross-cultural and cross-country studies are particularly important, as cultural values, technological readiness, and regulatory environments may moderate adoption drivers in ways not captured here. Additionally, exploring industry-specific adoption—for example, in e-commerce, advertising, or customer analytics—could provide more nuanced insights into how ChatGPT transforms marketing practices.

Beyond methodological expansion, future studies should enrich the adoption model by integrating additional constructs such as perceived risk, privacy concerns, ethical considerations, and hedonic motivation, which are increasingly relevant in AI adoption contexts. Advanced analytical techniques, such as multi-group analysis or hybrid SEM-neural network approaches, could also provide deeper insights into complex adoption patterns. Moreover, organizational-level studies are needed to examine how leadership, training, and institutional policies influence generative AI adoption. These directions will help scholars and practitioners better understand the evolving role of ChatGPT and similar tools in shaping the future of digital marketing.

Conclusion and Implications

This study set out to investigate the factors influencing the adoption of ChatGPT among digital marketers, drawing on constructs from TAM and UTAUT while integrating contextual variables such as industry influence, organizational culture, and perceived credibility. The findings revealed that performance expectancy, industry influence, awareness, and effort expectancy significantly shape attitudes toward ChatGPT, while organizational culture exerted only a weak, nonsignificant effect. Attitude emerged as the strongest determinant of actual usage, alongside perceived credibility, highlighting that favorable perceptions and trust in the system are central to generative AI adoption.

The results contribute to both theory and practice by confirming the enduring relevance of traditional adoption drivers like performance expectancy while demonstrating the growing role of industry dynamics and credibility in shaping AI usage. For practitioners, the findings emphasize the importance of showcasing practical benefits and building trust to foster adoption. For policymakers, the results underline the need for transparent and ethical guidelines to strengthen confidence in generative AI applications.

Overall, the study enriches the understanding of generative AI adoption in an emerging economy context, where individual-level factors and industry influence appear more decisive than organizational culture. While the findings are limited by sampling and contextual constraints, they open pathways for future research to explore adoption in diverse cultural settings, incorporate additional constructs such as risk and ethical concerns, and examine organizational-level adoption

strategies. By doing so, future studies can provide deeper insights into how generative AI tools like ChatGPT reshape the marketing landscape and beyond.

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