


THE EFFECT OF CHATGPT ON BUSINESS SUCCESS

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ARTICLE INFO	ABSTRACT
<p>Article history:</p> <p>Received 01 September 2023</p> <p>Accepted 14 December 2023</p>	<p>Objective: To investigate the role of ChatGPT in Business Success, and to identify the effectiveness of adopting and strategizing ChatGPT.</p> <p>Theoretical Reference: This study is grounded in the theoretical frameworks of artificial intelligence, ChatGPT, Chatbot, and Technology, focusing on their roles in business success.</p> <p>Method: A mono-method quantitative research was adopted, with a deductive approach, and ontology of objectivism. The data was collected using a survey, and the time horizon is cross-sectional.</p> <p>Results and Conclusion: This study found that companies should strategize the use of ChatGPT, and user satisfaction should be prioritized. Customization should be promoted while using ChatGPT, and proactive decision-making is a must.</p> <p>Research Implications: The findings offer valuable insights for companies who want to survive in a fast-changing business environment. Strategically adopting ChatGPT has the potential to enhance business operations, customer satisfaction, and overall success in the increasingly digital and AI-integrated business landscape.</p> <p>Originality/Value: This study contributes to the business success and prosperity, thereby providing a unique perspective.</p> <p>Doi: https://doi.org/10.26668/businessreview/2023.v8i12.4134</p>
<p>Keywords:</p> <p>ChatGPT; Success; Business; Artificial Intelligence; Chatbot.</p> <div data-bbox="172 947 480 1193">  </div>	

O EFEITO DO CHATGPT NO SUCESSO DOS NEGÓCIOS

RESUMO

Objetivo: investigar o papel do ChatGPT no sucesso dos negócios e identificar a eficácia da adoção e da estratégia do ChatGPT.

Referência Teórica: Este estudo baseia-se nos quadros teóricos de inteligência artificial, ChatGPT, Chatbot e Tecnologia, concentrando-se em seus papéis no sucesso dos negócios.

Método: Foi adotada uma pesquisa quantitativa mono-método, com uma abordagem dedutiva, e ontologia do objetivismo. Os dados foram coletados por meio de uma pesquisa e o horizonte de tempo é transversal.

Resultados e Conclusão: Este estudo descobriu que as empresas devem elaborar estratégias para o uso do ChatGPT, e a satisfação do usuário deve ser priorizada. A personalização deve ser promovida ao usar o ChatGPT, e a tomada de decisões proativa é uma necessidade.

Implicações da Pesquisa: as descobertas oferecem informações valiosas para empresas que desejam sobreviver em um ambiente de negócios em rápida mudança. Adotar estrategicamente o ChatGPT tem o potencial de melhorar as operações de negócios, a satisfação do cliente e o sucesso geral no cenário de negócios cada vez mais digital e integrado à IA.

Originalidade/Valor: este estudo contribui para o sucesso e a prosperidade do negócio, proporcionando assim uma perspectiva única.

Palavras-chave: ChatGPT, Sucesso, Negócios, Inteligência Artificial, Chatbot.

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EL EFECTO DE CHATGPT EN EL ÉXITO EMPRESARIAL

RESUMEN

Objetivo: Investigar el papel de ChatGPT en el éxito empresarial, e identificar la eficacia de adoptar y diseñar estrategias de ChatGPT.

Referencia Teórica: Este estudio se basa en los marcos teóricos de inteligencia artificial, ChatGPT, Chatbot y Tecnología, centrándose en sus roles en el éxito empresarial.

Método: Se adoptó una investigación cuantitativa mono-método, con enfoque deductivo, y ontología del objetivismo. Los datos se recolectaron mediante una encuesta, y el horizonte temporal es transversal.

Resultados y Conclusión: Este estudio encontró que las empresas deben diseñar estrategias para el uso de ChatGPT, y la satisfacción del usuario debe ser priorizada. La personalización debe promoverse mientras se utiliza ChatGPT, y la toma de decisiones proactiva es una necesidad.

Implicaciones de la investigación: Los hallazgos ofrecen información valiosa para las empresas que quieren sobrevivir en un entorno empresarial en rápida evolución. Adoptar estratégicamente ChatGPT tiene el potencial de mejorar las operaciones comerciales, la satisfacción del cliente y el éxito general en el panorama empresarial cada vez más digital e integrado con IA.

Originalidad/Valor: Este estudio contribuye al éxito empresarial y a la prosperidad, aportando así una perspectiva única.

Palabras clave: ChatGPT, Éxito, Negocios, Inteligencia Artificial, Chatbot.

INTRODUCTION

Background on Artificial Intelligence in Business

According to Haan (2023), a growing number of businesses are adopting artificial intelligence (AI) to reduce time and cost and to increase efficiency. This also has the potential to improve performance and customer service, leading to greater business success and customer satisfaction. Most business owners believe that AI will have a positive impact on their business within the next 12 months.

In today's fast-changing business environment, AI is establishing new methods for business operations and competition.

Coursera (2023) explored the advantages and challenges of artificial intelligence, defining AI as computer machines that can perform tasks that were previously solely done by human beings. These include, but are not limited to, analytical tasks, decision-making, and problem-solving. AI also includes machine learning and natural language processing. Machine learning uses diverse algorithms to improve user experience and develop models that enable the diverse outcomes of AI systems.

According to Weitzman (2023), the AI market is expected to reach US\$200 billion by 2024. Companies are using artificial intelligence, AI-powered chatbots, voice assistants, and natural language processing to ensure that customer service is provided 24/7 to increase customer satisfaction.

As co-founder, president, and head of AI at Speechify, a leading text-to-speech application Tyler Weitzman identified four ways AI may transform businesses:

1. Automated operations
2. Informed decision making
3. Productivity enhancement
4. Recruitment and talent sourcing

Artificial intelligence is a complex topic as it traverses different disciplines and decades. It is in high demand in the current global business world. The potential benefits of ChatGPT and artificial intelligence range from the ease of content development, customized customer service, process optimization, and initiating radical change (Haan, 2023).

Rise of Chatbots

Cromwell et al. (2023) explored the diverse ways that the AI chatbot, ChatGPT, can be used across different industries. Potential uses include data analysis, explanation of visuals, and the innovation and development of larger value for businesses and industries, among others. The rise of chatbots is changing economies, industries, and society and this advancement requires a new mindset. Upskilling is very important, specifically in the skill of *emergent thinking*. It includes making decisions and innovating without fully understanding the problem(s) faced or the criteria for success. Numerous companies were found to be integrating ChatGPT into their products, services, and processes.

Caldarini et al. (2022) conducted a detailed literature review of the recent advancements in chatbots, the intelligent computer systems aiming to automate tasks and provide guidance and support. The researchers collected publications from different databases based on chosen key terms and grouped them into four clusters based on the different phases of chatbots: *design, implementation, application, and evaluation methods*. The findings of the review indicated that AI chatbots are not able to simulate human speech and that there is a lack of learned AI models. A gap still exists between the market needs and the availability and types of chatbots. Huge resources are required for large models, as well as tremendous training efforts.

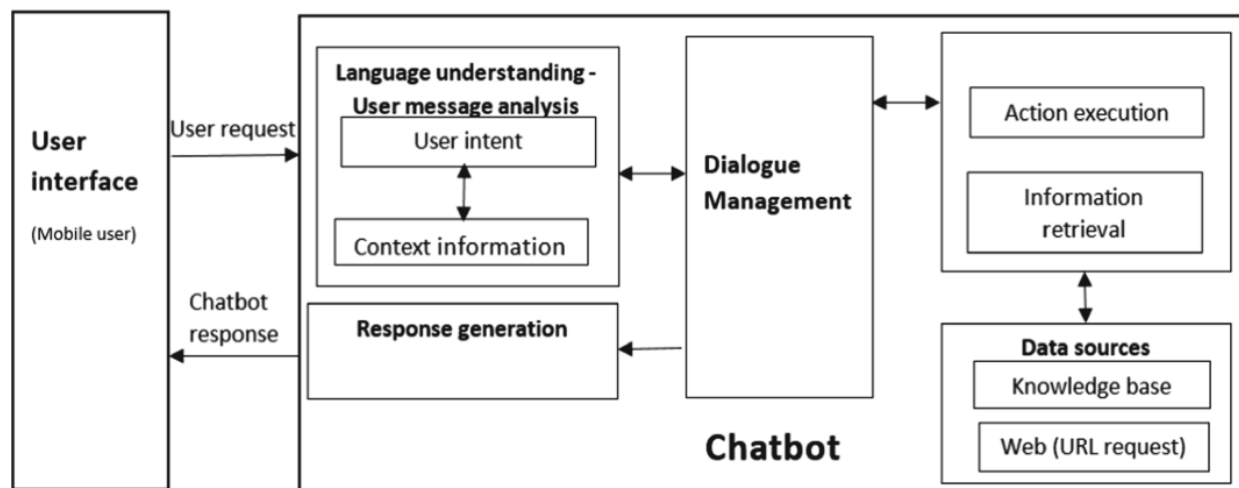
Additionally, there is not currently a universal system for chatbot evaluation and information regarding advancements in language models adopted in training these chatbots is scarce. Significant evaluation of the data used to train different AI models is needed.

Recently, the use of chatbots has increased in industries across the globe. Adamopoulou and Moussiades (2020) conducted a literature review of chatbot technology to understand the

main drivers behind the increasing use of chatbots, as well as their usefulness and attractiveness. They found that chatbot technology aims to minimize human–human interactions and that chatbots have greater coverage than humans and can reach a broader audience. Chatbots increase the efficiency of customer service departments; it is possible that with future advancements, individuals will not be able to differentiate between chatbot and human customer service agents.

According to Bansal and Khan (2018), chatbots are examples of AI and represent a clear example of an intelligent human–computer interaction that uses natural language processing to understand both text and voice input from humans. Chatbots have the capacity to understand some aspects of the human being.

Figure 1.2. General Chatbot Architecture



Source: (Adamopoulou and Moussiades, 2020).

Aim and Scope of the Article

This article aims to study the role of ChatGPT in business success, in light of the unprecedented significant growth in artificial intelligence solutions and the tremendous competition between global technological leaders (e.g., Google, Amazon, Microsoft, OpenAI, etc.) in advancing AI.

As of late September 2023, just one year after the introduction of ChatGPT, numerous advancements and investments in ChatGPT and other similar applications and solutions are apparent in the global market.

This study will cover a range of business functions and services that are affected by AI, such as customer service, marketing, sales, internal operations, data analysis, cost reduction, and innovation. The researcher will conduct a quantitative study to achieve the research

objectives, adding value by expanding the knowledge in the fields of management, artificial intelligence, and business success.

THEORETICAL REFERENTIAL

Introduction to ChatGPT and Chatbots

According to Ayinde et al. (2023), ChatGPT is a game changer for organizational practices; its success is related to the improved access to data and information it provides. However, the use of ChatGPT comes with socio-economic and legal challenges like job displacement and labor market impacts, privacy of the data and security, bias and fairness, intellectual property and copyright issues, liability and accountability, and digital divide and accessibility. Business operations and decision-making processes are widely improved by leveraging the potential of ChatGPT when understanding its potential implications.

Jenneboer et al. (2022) studied the influence of chatbots on customer loyalty. In the present environment, customers want to be able to reach a company anytime, from anywhere. Companies are trying to make chatbots seem more “human” by changing the language style to improve customer satisfaction and experience. The researchers found a positive correlation between the use of chatbots and customer loyalty as the result of an improved customer experience, though customers did raise the issue of data privacy. (Shakuntala, & Ramantoko, 2023) found that user-generated Social media interactions play a key role in the purchase decision.

Chatbots in the education industry have been studied by researchers such as Jia (2004), who found that many individuals aimed to interact with chatbots and were interested in the artificial intelligence system.

(Elessa, 2023) found that the adoption of E-Accounting is correlated with information security and recommended the continuous development of accounting professionals in gaining skills in electronic work environments.

The book written by Osterwalder et al. (2014) serves as an important guide on how to create products and services that satisfy customers’ wants and needs better than those of competitors. It defines value proposition as the benefits customers expect from a company’s products and services.

The book uses visuals to explain how value proposition should be used in business, covering the following four topics:

1. How to understand customer segments, their characteristics, and their problems and benefits.

2. How to design a value proposition that satisfies the content presented in the first point.
3. How to empirically test the value proposition and gather feedback.
4. How value proposition and business models can be aligned together to minimize costs and maximize revenues.

Advantages and Challenges of ChatGPT

According to McRae et al. (2023), many executives are adopting AI to attract and retain qualified employees. The future of work will be a significantly smaller number of employees in the workplace. Generative AI and human resources will coexist together in the future of work.

Raj et al. (2023) studied the advantages of utilizing ChatGPT, finding a positive relationship between its use and the effectiveness of customer service. It also increased operational efficiency, allowing HR to focus on strategic items, instead of wasting time on activities that can be automated. ChatGPT should be trained on data related to the company's ecosystem, otherwise, it will provide errors in the answers.

Eysenbach (2023) investigated the role of ChatGPT and generative AI in medical education and studied the importance of correct prompting, producing a report about the limitations and abilities of ChatGPT in medical education. These limitations range from ethical, to academic, pedagogical, etc.

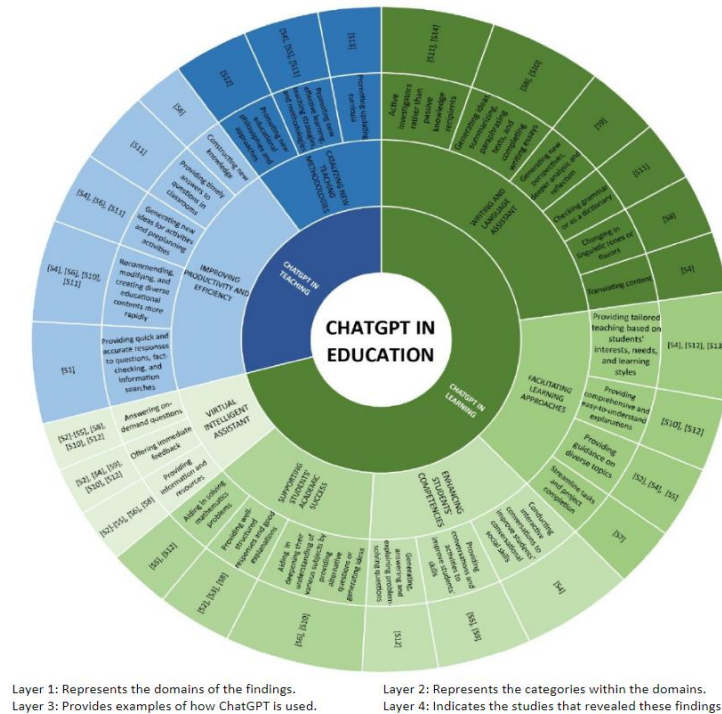
ChatGPT may play a pivotal role in advancing the learning community. Karthikeyan (2023) conducted a literature review investigating the positive and negative implications of ChatGPT in education and concluded that while ChatGPT will help talented people who will benefit from the additional information resulting from using ChatGPT.

Albadarin et al. (2023) conducted a systematic literature review on ChatGPT in education, with the goal of understanding how learners and professors presently use ChatGPT given its latest advancements. The researchers found that ChatGPT was effective in helping students learn as it is considered a visual assistant. ChatGPT has also enhanced students' competencies and success. At the same time, overusing ChatGPT may have a negative impact on learners, their innovative abilities, and their efforts to collaborate.

For instructors, ChatGPT has helped improve teaching materials, methods, and organization, making teachers more productive and efficient. They are adopting modern methodologies centered on artificial intelligence and technology. The researchers

recommended the implementation of training programs and support, and the main findings are summarized in Figure 2.3.

Figure 2.3. Main Findings of Albadarin et al.'s Literature Review



Source: (Albadarin et al., 2023).

Crawford et al. (2023) studied the concept of ethical ChatGPT and the necessity of leadership practices in the higher education industry, following the introduction of ChatGPT in November 2022. The researchers questioned the authenticity of learners' submissions and called for the establishment of an environment that supports learners.

METHODOLOGY

The current study tackles the effect of ChatGPT on business success. The researcher developed a questionnaire composed of fifteen items. Survey Monkey was used to distribute the questionnaire and collect responses from diverse respondents.

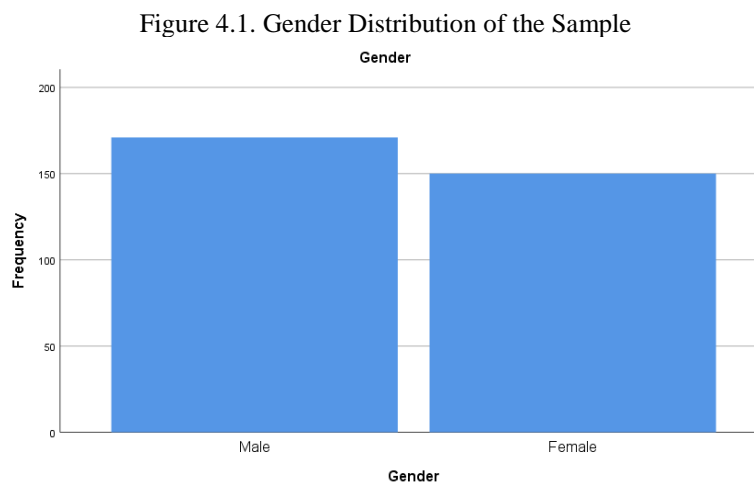
The researcher adopted a mono-method quantitative research method using a deductive approach and an objectivist ontological view. A survey - available in the appendix at the end of this article - was used for the collection of primary data using SurveyMonkey.com, with a cross-sectional time horizon.

In total, 321 completed questionnaires were received, and the collected data were coded and statistically analyzed using SPSS, starting with descriptive analysis, followed by reliability analysis, factor analysis, and multiple regression analysis.

RESULTS AND DISCUSSION

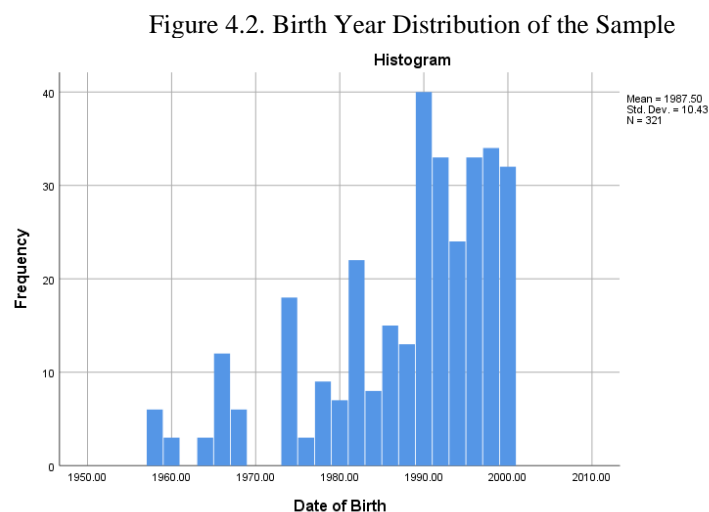
Major Characteristics of the Sample

Out of the 321 respondents, 171 were male (53.3%), and 150 were female (46.7%), as shown in Figure 4.1.



Source: Collected data by SPSS.

Birth years in the sample ranged from 1950 to 2000, while the average year of birth was 1987 (standard deviation of 10.43). The median birth year was 1990. A complete distribution of birth years can be found in Figure 4.2.



Source: Collected data by SPSS.

Table 4.1 shows that 18 out of 321 respondents hold a Professional degree (MD, JD, etc.) (5.6%), 91 hold a doctoral degree (30.8%), 96 hold a master’s degree (29.9%), 99 hold a bachelor’s degree (30.8%), and 9 of respondents hold a high school diploma (2.8%).

Table 4.1. Education Level of the Selected Sample

Educational Level		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School	9	2.8	2.8	2.8
	Bachelor	99	30.8	30.8	33.6
	Master	96	29.9	29.9	63.6
	Doctoral	99	30.8	30.8	94.4
	Professional Degree (MD, JD, etc.)	18	5.6	5.6	100.0
	Total	321	100.0	100.0	

Source: Collected data by SPSS.

Factor Analysis and Construct Validation

Factor analysis was conducted using SPSS to establish construct validity and make sure that the survey measures what it is intended to measure.

The researcher constructed a questionnaire composed of fifteen statements, including several questions using a 5-point Likert scale as well as open-ended questions and questions covering demographic characteristics. The instrument was pilot tested before the data collection phase to ensure its reliability and validity. Pilot testing can help identify any ambiguity within the instrument, assess items’ relevance, refine them, and evaluate the questionnaire’s length and technical functionality.

The number of returned questionnaires was 321 out of 375 distributed questionnaires. All returned questionnaires were usable and included in the analysis.

Factor analysis is a data reduction technique used to test the validity of questionnaires through the two following methods:

- Extraction method: Principal axis factoring
- Exploratory rotation method: Oblique rotation

To assess the suitability for factor analysis, the researcher performed Bartlett’s test of sphericity and the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy. A significant Bartlett’s test result ($p < 0.05$) indicates that the correlation matrix is not an identity matrix. A KMO value greater than 0.6 is generally considered acceptable. Results of the tests are shown in Table 4.2. The calculated KMO of 0.698 was above the recommended level of 0.6. The result of the Bartlett’s test was significant (Chi-Square = 779.523, $p = 0.00$), indicating that there are adequate correlations between the valid items, allowing for the use of factor analysis as shown in Table 4.3.

The factor solution produced three easy-to-label dimensions that accounted for 0.698 of the total variance. The first factor, labeled “ChatGPT Endorsement and Satisfaction,” accounted for 29.939% of the total variance and is defined by five statements (items) with factor loadings ranging from 0.540 to 0.857. The second factor, “ChatGPT Impact and Evaluation,” accounted for 14.448% of the total variance and is defined by two statements with factor loadings ranging from 0.514 to 0.719. The third factor, “Educational Influence and Sectoral Contrast,” accounted for 12.162% of the total variance and is defined by two statements with factor loadings ranging from -0.666 to 0.735.

Table 4.2. KMO and Bartlett's Test Results

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.698	
Bartlett's Test of Sphericity	Approx. Chi-Square	779.523
	df	45
	Sig.	.000

Source: Collected data by SPSS.

Table 4.3. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.994	29.939	29.939	2.994	29.939	29.939	2.815	28.146	28.146
2	1.445	14.448	44.387	1.445	14.448	44.387	1.614	16.136	44.281
3	1.216	12.162	56.549	1.216	12.162	56.549	1.227	12.267	56.549
4	.975	9.749	66.298						
5	.939	9.395	75.693						
6	.766	7.661	83.354						
7	.634	6.336	89.690						
8	.467	4.672	94.362						
9	.326	3.257	97.619						
10	.238	2.381	100.000						

Extraction Method: Principal Component Analysis.

Source: Collected data by SPSS.

Elaboration of Variables

Based on the results of the previously performed factor analysis, three factors were identified:

1. ChatGPT Endorsement and Satisfaction
2. ChatGPT Impact and Evaluation

3. Educational Influence and Sectoral Contrast

These factors derive from different items of the questionnaire, each with specific factor loadings.

Multiple Regression Analysis

The primary interest of the research is to understand the effect of ChatGPT on business success. To do so, a regression of the dependent variable “ChatGPT Success” was conducted on the following independent variables:

- ChatGPT Operations
- ChatGPT Customer Service
- ChatGPT Technical Issues
- ChatGPT Recommendation
- ChatGPT and Sectors
- ChatGPT and Genders
- ChatGPT and age groups
- ChatGPT and educational levels

The regression summary is presented in Table 4.4. The resulting R-value of 0.691 suggests a moderately strong positive relationship between the set of independent variables and the dependent variable. Approximately 47.7% of the variance in the dependent variable is explained by the independent variables in the model. This is a relatively significant proportion, indicating that the model has a good level of explanatory power. The adjusted r-square value is close to the r-square value, which is a good sign. It means that most of the independent variables included in the model contribute to explaining the variance in the dependent variable.

The regression equation is highly significant ($F = 35.585$, $p = 0.000$). Tables 4.4, 4.5, and 4.6 show that there is a good fit, and the independent variables are good predictors of the dependent variable “ChatGPT Success.”

The model indicates that factors like the extent of ChatGPT use, comparison to traditional customer service channels, likelihood to recommend ChatGPT, and educational level significantly influence how effective ChatGPT is perceived in business success. Gender also emerges as a significant predictor but with a negative influence. Technical issues and industry/sector show minor influence on ChatGPT Success, but their effects are not statistically significant in this model.

The model does a good job of explaining the variability in the perceived effectiveness of ChatGPT (as seen from the R-squared value in the model summary). The coefficients provide insights into the direction and strength of relationships between each predictor and the outcome variable.

Table 4.4. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.691 ^a	.477	.464	.55334	.477	35.585	8	312	.000

Source: Collected data by SPSS.

a. Predictors: (Constant), Educational Level, Have you experienced any technical issues with ChatGPT?, Gender, Please indicate your industry/sector, How likely are you to recommend ChatGPT to other businesses?, How does ChatGPT compare to traditional customer service channels (e.g. phone, email) in terms of response time?, Date of Birth, Have you used ChatGPT specifically in your business operations?

Table 4.5. ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	87.163	8	10.895	35.585	.000 ^b
	Residual	95.528	312	.306		
	Total	182.692	320			

Source: Collected data by SPSS.

a. Dependent Variable: How effective do you think ChatGPT is in business success?

b. Predictors: (Constant), Educational Level, Have you experienced any technical issues with ChatGPT?, Gender, Please indicate your industry/sector:, How likely are you to recommend ChatGPT to other businesses?, How does ChatGPT compare to traditional customer service channels (e.g. phone, email) in terms of response time?, Date of Birth, Have you used ChatGPT specifically in your business operations?

Table 4.6. Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	8.591	7.080		1.213	.226	-5.340	22.521
	Have you used ChatGPT specifically in your business operations?	.262	.042	.315	6.194	.000	.179	.345
	How does ChatGPT compare to traditional customer service channels (e.g. phone, email) in terms of response time?	.050	.019	.122	2.690	.008	.013	.087
	Have you experienced any technical issues with ChatGPT?	.039	.035	.049	1.097	.274	-.031	.108
	How likely are you to recommend ChatGPT to other businesses?	.399	.052	.372	7.626	.000	.296	.502
	Please indicate your industry/sector:	-.033	.019	-.074	-1.712	.088	-.071	.005
	Gender	-.160	.066	-.106	-2.410	.017	-.291	-.029
	Date of Birth	-.004	.004	-.057	-1.176	.241	-.011	.003
	Educational Level	.125	.037	.161	3.409	.001	.053	.197

Source: Collected data by SPSS.

a. Dependent Variable: How effective do you think ChatGPT is in business success?

The equation for the multiple regression model in this study would be:

$$\text{ChatGPT Success} = 8.591 + 0.262(\text{ChatGPT Operations}) + 0.050(\text{ChatGPT Customer Service}) + 0.039(\text{ChatGPT Technical Issues}) + 0.399(\text{ChatGPT Recommendation}) - 0.033(\text{ChatGPT and Sectors}) - 0.160(\text{ChatGPT and Genders}) - 0.004(\text{ChatGPT and age groups}) + 0.125(\text{ChatGPT and educational levels}) + e$$

Interpretation of Results

This article explored the effect of ChatGPT on business success and employed a multifaceted analytical approach, utilizing multiple regression analysis and factor analysis to gain a comprehensive understanding of the variables influencing the perceived effectiveness of ChatGPT in business contexts.

Factor analysis was a principal step to establish construct validity, ensuring the questionnaire accurately measured the intended constructs. This analysis led to the identification of three distinct factors, “ChatGPT Endorsement and Satisfaction,” “ChatGPT Impact and Evaluation,” and “Educational Influence and Sectoral Contrast,” which collectively accounted for 69.8% of the total variance. Each factor, defined by a range of factor loadings, represented different dimensions of ChatGPT's impact in a business setting.

The robustness of the factor analysis was supported by a satisfactory KMO measure of 0.698 and a significant Bartlett's test result (Chi-Square = 779.523, $p = 0.00$), confirming the suitability of the data for this analysis.

The regression model showed a moderately strong positive correlation between a suite of independent variables—operations, customer service performance, technical issues, recommendation likelihood, sectoral and gender influence, age groups, and educational levels—and the dependent variable, “ChatGPT Success”. This correlation ($R = 0.691$) and the model's ability to explain around 47.7% of the variance in the dependent variable underscored the significance of these factors in shaping perceptions of ChatGPT's business success. Furthermore, the high statistical significance of the model ($F = 35.585$, $p < 0.000$) reinforced the reliability of these findings.

CONCLUSION

Through this study, the researcher aimed to explore the role of ChatGPT on business success. A quantitative methodology was adopted, and collected survey data were statistically analyzed in SPSS. Prior to data collection, a pilot test of the instrument was conducted.

The findings showed a clear positive correlation between the independent variables and the dependent variable, “ChatGPT Success.” The results revealed the robustness and relevance of these factors in shaping the perception of ChatGPT's effectiveness in business.

Factor analysis further reinforced these insights, identifying three key dimensions: “ChatGPT Endorsement and Satisfaction,” “ChatGPT Impact and Evaluation,” and “Educational Influence and Sectoral Contrast,” which collectively accounted for a significant portion of the total variance.

This article provides a valuable reference for businesses aiming to benefit from this innovative technology. Strategically adopting ChatGPT has the potential to enhance business operations, customer satisfaction, and overall success in the increasingly digital and AI-integrated business landscape.

RECOMMENDATIONS

Businesses and stakeholders should strategically make use of ChatGPT to benefit from this growing technology in operations and customer service, where its impact is most significant. User satisfaction should be prioritized, as it aligns with the vital aspect of “ChatGPT Endorsement and Satisfaction.” Businesses should also promote and train users about ChatGPT's benefits to boost its adoption and success.

Due to demographic variations, there is a need to customize the application of ChatGPT and associated marketing strategies to suit different sectors, educational levels, and gender groups.

Businesses should be proactive in addressing technical issues and remain agile. Business strategies should be continually updated to align with the latest AI and ChatGPT developments. Future researchers should continue researching the use of ChatGPT and its constant evolution, in addition to potential use across sectors. The concerns of ethical and responsible use of ChatGPT should remain a priority in business, with a focus on user privacy and data security.

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APPENDIX

QUESTIONNAIRE

My name is Georges Youssef MAALOUF, and I am an Assistant Professor in Business Administration. My research is entitled “Effect of ChatGPT on Business Success.” The purpose of this study is to understand the extent to which Generative AI and ChatGPT influence the success of organizations in diverse sectors.

I would like to invite you to take part in responding to this questionnaire. It will take about 5–8 minutes to complete. All information collected in this research will remain confidential and anonymous.

Q1. Have you used ChatGPT specifically in your business operations?

- A. Yes, extensively
- B. Yes, to some extent
- C. No, but considering it
- D. No, not considering it
- E. Not applicable

Q2. How effective do you think ChatGPT is in business success?

- A. Very effective
- B. Somewhat effective
- C. Neutral
- D. Somewhat ineffective
- E. Very ineffective

Q3. In what areas, the most significant improvement in business operations may be seen because of using ChatGPT? (Select all that apply)

- A. Customer service
- B. Marketing and advertising
- C. Sales
- D. Product development
- E. Other (please specify)

Q4. How can we measure the success of using ChatGPT in business operations?

- A. Increased revenue
- B. Improved customer satisfaction
- C. Increased efficiency
- D. Improved product quality
- E. Other (please specify)

Q5. How does ChatGPT compare to traditional customer service channels (e.g., phone, email) in terms of response time?

- A. Faster
- B. Slower
- C. About the same
- D. Not sure
- E. N/A - I haven't used ChatGPT for customer service

Q6. Have you experienced any technical issues with ChatGPT?

- A. Yes
- B. No
- C. Not sure

Q7. How satisfied are you with the accuracy of ChatGPT's responses?

- A. Very satisfied
- B. Satisfied
- C. Neutral
- D. Dissatisfied
- E. Very dissatisfied

Q8. How satisfied are you with the overall performance of ChatGPT?

- A. Very satisfied
- B. Satisfied
- C. Neutral
- D. Dissatisfied
- E. Very dissatisfied

Q9. How likely are you to recommend ChatGPT to other businesses?

- A. Very likely
- B. Likely
- C. Neutral
- D. Unlikely
- E. Very unlikely

Q10. In your opinion, what are the potential risks or downsides of using ChatGPT for businesses?

Q11. In what ways can ChatGPT be improved to better serve the needs of businesses?

Q12. Please indicate your industry/sector:

- A. Retail
- B. Education
- C. Healthcare
- D. Manufacturing
- E. Hospitality
- F. Technology

Q13. Gender

- A. Male
- B. Female

Q14. Date of Birth (DD/MM/YYYY)

Q15. Educational Level:

- A. High School
- B. Bachelor
- C. Master
- D. Doctoral
- E. Professional Degree (MD, JD, etc.)
- F. Other