



TO PAY OR NOT TO PAY? INVESTIGATING STUDENTS' WILLINGNESS TO PAY FOR CHATGPT

Dominika Kuberska

Faculty of Economic Sciences
University of Warmia and Mazury in Olsztyn
ORCID: <https://orcid.org/0000-0001-7100-1017>
e-mail: dominika.kuberska@uwm.edu.pl

Klaudia Ruszczyk

Graduate of the Faculty of Economic Sciences
University of Warmia and Mazury in Olsztyn
ORCID: <https://orcid.org/0009-0006-2379-0342>
e-mail: klaudia.ruszczyk@student.uwm.edu.pl

JEL Classification: A22, I23, O33, L86.

Key words: ChatGPT, artificial intelligence, students, education.

Abstract

Artificial intelligence (AI) is developing at a dynamic pace, playing an increasingly significant role across various sectors, including education. One widely used AI-based tool is ChatGPT, available in both a free version and a subscription-based variant offering extended functionalities. However, while the rapid adoption of such tools by students is well-documented, there remains a significant gap in the literature concerning the economic behaviours governing this new market, particularly regarding the price sensitivity of student users and the factors influencing their decision to convert from free to paid tiers. The existence of a paid version of this tool prompted a study which investigated students' willingness to incur costs in exchange for additional features, as well as their reactions to potential price changes. The aim of this article is to determine the willingness of economics students to purchase the subscription version of ChatGPT and to analyse their responses to possible price modifications. Moreover, the study addresses the relationship between the perceived quality of the content generated by the tool and students' willingness to pay for the premium version. A quantitative research approach was employed, based on an online survey (CAWI), in which 342 undergraduate and graduate students participated. The questionnaire included items concerning the frequency of ChatGPT usage, the evaluation of the quality of generated content, and the willingness to purchase the paid version under various pricing scenarios. Statistical methods were

applied for data analysis, including measures of central tendency and correlation tests. The results indicate that ChatGPT is widely used among students – 94.4% of respondents reported using the tool, with the majority (88.9%) opting for the free version. The frequency of usage varied. Price sensitivity analysis revealed that a 25% increase in the price of the cheapest subscription would not significantly affect the decisions of most current paid users. However, a 50% price increase would result in 36.1% of them cancelling their subscription, while a 75% increase would lead to a reduction in the number of subscribers by more than half. Conversely, a 25% price decrease in the cheapest paid version would encourage 16.8% of free users to subscribe; a 50% reduction would increase this share to 42.3%, and a 75% reduction could persuade up to 70% of respondents to purchase the subscription. The article also presents the results of a Spearman's rank correlation analysis, examining the relationship between the perceived quality of ChatGPT's output and the willingness to purchase the paid version in the event of a price reduction. No significant evidence was found to suggest that individuals who rate the quality of ChatGPT responses more highly are more inclined to subscribe to the paid version if the price decreases.

PLACIĆ CZY NIE PLACIĆ? BADANIE GOTOWOŚCI STUDENTÓW DO PŁATNEJ SUBSKRYPCJI CHATGPT

Dominika Kuberska

Wydział Nauk Ekonomicznych
Uniwersytet Warmińsko-Mazurski w Olsztynie

Klaudia Ruszczyk

Absolwentka Wydziału Nauk Ekonomicznych
Uniwersytet Warmińsko-Mazurski w Olsztynie

Kody JEL: A22, I23, O33, L86.

Słowa kluczowe: ChatGPT, sztuczna inteligencja, studenci, edukacja.

A b s t r a k t

Sztuczna inteligencja (SI) rozwija się w dynamicznym tempie, odgrywając coraz większą rolę w różnych obszarach, w tym w sektorze edukacji. Jednym z powszechnie stosowanych narzędzi opartych na SI jest ChatGPT, dostępny zarówno w wersji bezpłatnej, jak i subskrypcyjnej, oferującej rozszerzone funkcje. Szybkie upowszechnianie się takich narzędzi wśród studentów jest dobrze udokumentowane, w literaturze jednak wciąż istnieje znacząca luka dotycząca zachowań ekonomicznych występujących na tym nowym rynku, szczególnie w odniesieniu do wrażliwości cenowej użytkowników-studentów oraz czynników wpływających na ich decyzję o przejściu z wersji bezpłatnej na płatną. Występowanie płatnego wariantu tego narzędzia było przesłanką do przeprowadzenia badań dotyczących identyfikacji skłonności studentów do ponoszenia kosztów w zamian za dodatkowe funkcje tego narzędzia oraz ich reakcji na ewentualne zmiany ceny. Celem artykułu jest określenie gotowości studentów kierunków ekonomicznych do zakupu subskrypcyjnej wersji ChatGPT oraz analiza ich reakcji na potencjalne zmiany jego ceny. W artykule odniesiono się ponadto do kwestii relacji między oceną jakości treści generowanych przez to narzędzie a skłonnością studentów do wykupienia jego wersji premium. W badaniu zastosowano metodę ilościową, opierając się na ankiecie internetowej (CAWI), w której udział wzięło 342 studentów

studiów licencjackich i magisterskich. Kwestionariusz obejmował pytania dotyczące częstotliwości korzystania z ChatGPT, oceny jakości generowanych treści oraz gotowości do zakupu płatnej wersji w różnych scenariuszach cenowych. W analizie danych wykorzystano metody statystyczne, w tym miary tendencji centralnej oraz testy korelacyjne. W toku przeprowadzonych badań ustalono, że ChatGPT jest powszechnie wykorzystywany przez studentów – 94,4% badanych deklaruje korzystanie z tego narzędzia, a większość z nich (88,9%) wybiera wersję darmową. Regularność użytkowania jest zróżnicowana. Po przeprowadzonej analizie wrażliwości cenowej stwierdzono, że podwyżka kosztu najtańszej subskrypcji o 25% nie wpłynęłaby znacząco na decyzje większości użytkowników płatnej wersji, wzrost ceny o 50% skutkowałby jednak rezygnacją 36,1% z nich, a podwyżka o 75% spowodowałaby spadek liczby subskrybentów o ponad połowę. Z kolei spadek ceny najtańszej płatnej wersji o 25% zachęciłby do subskrypcji 16,8% użytkowników wersji darmowej, obniżka o 50% natomiast zwiększyłaby ten odsetek do 42,3%, a redukcja ceny o 75% mogłaby przekonać do zakupu 70% badanych. Artykuł zawiera również wyniki przeprowadzonej analizy korelacji rang Spearmana, za pomocą której badano zależność między oceną jakości treści generowanych przez ChatGPT a skłonnością do zakupu płatnej subskrypcji w przypadku spadku jej ceny. Nie zidentyfikowano przesłanek do stwierdzenia, że osoby, które wyżej oceniają jakość odpowiedzi generowanych przez ChatGPT, są bardziej skłonne do zakupu płatnych wersji tego narzędzia w przypadku spadku jego ceny.

Introduction

Artificial intelligence is revolutionizing contemporary approaches to education by introducing innovative methods of teaching and learning (Farazouli *et al.*, 2023). Through the personalization of educational experiences, access to authentic language materials, and real-time feedback, AI enhances the learning process, contributing to the creation of a more inclusive and effective educational environment (Mohamed, 2024). The growing importance of AI-based tools is reflected in the rapidly expanding market of subscription models, encompassing not only streaming services or software, but also modern educational technologies (Stavropoulos, 2023; Cobzaru & Tugui, 2024).

One example of this trend toward subscription-based models is the paid version of the popular language model – ChatGPT, developed by OpenAI (Andarsari & Suryadi, 2024). However, the introduction of fees for access to more advanced technology raises questions about users' willingness to pay in exchange for enhanced functionality. This decision depends not only on the technological capabilities of the tool but also on individual user preferences and their readiness to invest in digital products and services.

Understanding the factors influencing the decision to opt for paid access to ChatGPT is crucial from the perspective of both technology providers and the academic community. This article aims to determine the willingness of economics students to purchase the subscription version of ChatGPT and to analyse their responses to possible price modifications. Moreover, the study addresses the relationship between the perceived quality of the content generated by the tool and students' willingness to pay for the premium version. The study's findings

may offer valuable insights into the perceived value of artificial intelligence in education and the decision-making mechanisms of young users of emerging technologies.

The central problem this research addresses is the need to understand the characteristics of higher education students' willingness to pay (WTP) for premium generative AI services. As these tools become more sophisticated and their financial models mature, comprehending the value proposition from the student's perspective is paramount for developers, educators, and policymakers alike. Despite the explosion of academic interest in generative AI, a significant gap exists in the literature concerning the economic dimensions of its adoption by students. A burgeoning body of research has begun to explore students' intentions to use AI. These studies have successfully identified key motivating factors for adoption, including the desire to automate routine tasks, save time, and compensate for a lack of experience. The existing literature can explain why a student might want to use a premium tool, but it offers little insight into whether they are able and willing to pay for it (Lupa-Wójcik, 2024).

The transition of generative AI tools like ChatGPT from free services to subscription-based models necessitates a shift in analytical perspective. To understand the dynamics of this new market, this study is grounded in fundamental principles of consumer decision-making theory, primarily the concept of willingness to pay. WTP is a core economic metric that defines the maximum price a consumer is willing to spend for a product or service of a given quality. It serves as a direct measure of the perceived value a user assigns to the enhanced functionalities of a premium tool. By applying this concept, the student is framed not just as a learner, but as a rational economic actor who conducts a cost-benefit analysis before making a purchasing decision. Building upon this foundation, the study also touches upon price elasticity, which measures how demand for a service responds to changes in its price. According to the classical law of demand, an increase in price typically leads to a decrease in demand. This study uses these economic principles to investigate students' sensitivity to various pricing scenarios, providing a nuanced understanding of the decision-making mechanisms at play.

To address the research aims, a quantitative approach was adopted using primary data collected through a structured online questionnaire. The instrument included sections on demographic characteristics, usage frequency, perceived quality of ChatGPT responses, and students' declared readiness to use either the free or paid versions depending on price changes.

The novelty and principal contribution of this research are twofold. First, it is among the initial empirical investigations to analyse WTP of higher education students for premium generative AI tools, directly addressing a critical gap in the current literature. Second, by providing empirical data on the economic valuation of these tools by students, this study offers evidence on the potential for an AI-driven digital and affordability divide in higher education.

The remainder of this article is organized as follows. The next section provides a comprehensive review of the theoretical foundations underpinning this study. The following section details the research design and methodology. It is followed by a section which presents the empirical findings from the data analysis. The last section summarizes and concludes the results of the study, acknowledges its limitations, and proposes future research directions.

Literature Review

Artificial intelligence has gained the status of one of the key directions in the development of modern technologies (Zayoud *et al.*, 2023), exerting a significant impact on various areas of life such as business (Arman & Lamiyar, 2023), healthcare (Rahman *et al.*, 2024), and education (Baidoo-Anu & Ansah, 2023). It is commonly defined as the ability of machines and computers to think and act in a way that resembles the human mind (Bankar & Lihitkar, 2023). Its development focuses on creating systems that not only analyse and interpret data but also mimic human cognitive processes (Gocen & Aydemir, 2020). A notable advancement in this field is generative artificial intelligence, which – unlike traditional analytical models – not only processes information but also creates new content, ranging from texts and code to images, in response to given prompts (Chan & Tsi, 2024). This field has evolved over decades, and its dynamic growth has been made possible by increasing computational power, access to vast datasets, and continual improvements in machine learning algorithms. These advances allow for increasingly sophisticated content generation and broaden the scope of applications for this cutting-edge technology across different sectors (Strzelecki & ElArabawy, 2024).

A breakthrough moment in the widespread adoption of AI in this form was the release of ChatGPT in November 2022. This AI system is based on an autoregressive language model with over 175 billion parameters, pre-trained on extensive datasets including books, articles, and websites. Its advanced capabilities in generating text, understanding natural language, and maintaining coherent conversation across a wide range of topics surprised many users, attracting a broad audience and generating widespread interest (Kamalov *et al.*, 2023; Chan & Hu, 2023).

One area in which ChatGPT has proven particularly useful is education. The use of this language model in higher education has drawn special attention, as the tool can support learning in multiple ways – from generating texts and code to aiding in academic research and assisting with essays, assignments, and academic projects. It allows students to obtain consistent and contextually appropriate responses to their queries, serving as an effective support tool in academic work. However, its growing popularity also poses challenges for higher education institutions that require in-depth analysis (Abbas *et al.*, 2024).

An important issue related to the development of ChatGPT is OpenAI's introduction of paid versions. These versions aim to improve user experience by providing access to additional features such as faster response times, priority access during peak usage, and the ability to use the latest large language model – GPT-4 (Hackett, 2023). Despite the availability of a free version, some users opt for a subscription, prompting an analysis of the factors influencing such decisions.

These consumer choices can be better understood through economic theories describing mechanisms for evaluating benefits and costs. In consumer decision-making economics, the concept of willingness to pay plays a key role. It refers to the maximum amount a user is willing to pay for a service or product of a given quality (Wertenbroch & Skiera, 2002). Research into the willingness to purchase the premium version of ChatGPT has been conducted by, among others, Jo (2024). Based on this author's conclusions, it can be stated that the willingness to buy the paid version of this language model is influenced by multiple factors, including the perceived usefulness of the tool, user satisfaction, and perceived risk. Although users who find ChatGPT more useful tend to be more satisfied with its use, perceived utility does not always translate into a willingness to pay for the advanced version. Price elasticity, perceived value, availability of alternatives, and personal traits such as technological innovativeness have a greater impact on the purchasing decision. Additionally, gender, age, and the financial context of users (in the cited study, two groups with different disposable budgets – office workers and students – participated) also play a significant role in willingness to subscribe to the paid version.

In connection with the issue of price and its influence on consumer readiness to purchase the paid version of an AI model, the concept of price elasticity deserves mention. This term refers to the percentage change in demand resulting from a 1% change in price (Fibich *et al.*, 2005). According to the classical law of demand, an increase in the price of a service should lead to a decrease in demand (Milewski & Kwiatkowski, 2018). However, in the case of digital tools such as ChatGPT, user responses to price changes may be more complex and depend on a variety of factors. Users may exhibit different levels of price sensitivity depending on their educational and professional needs, as well as their overall satisfaction with the tool. In the context of ChatGPT, the analysis of willingness to purchase a subscription becomes even more relevant when considering price changes that may affect user decisions.

Data and Methods

This study focuses on the use of ChatGPT as a learning support tool among economics students at a university in northeastern Poland. The primary aim is to determine the willingness of economics students to purchase the subscription

version of ChatGPT and to analyse their responses to possible price modifications. Additionally, the study addresses the relationship between the perceived quality of the content generated by the tool and students' willingness to pay for the premium version.

To achieve these aims, a quantitative approach was employed, involving the collection of primary data using a structured survey questionnaire. The study was conducted between the second and fourth quarters of 2024 and included both undergraduate and graduate students.

The data collection process was based on the Computer-Assisted Web Interviewing technique, which ensured broad accessibility and convenience for respondents. Participation in the study was voluntary and anonymous. To ensure content validity, the questionnaire was pre-tested on a small group of students ($N = 10$) before full deployment. Based on the feedback received, necessary adjustments were made to improve clarity and comprehensibility.

The questionnaire consisted of several sections covering demographic characteristics, frequency and purpose of ChatGPT usage, assessment of the quality of generated content, and declared willingness to use either the free or paid versions of ChatGPT depending on pricing changes. Where appropriate, a five-point Likert scale was used to measure students' attitudes toward various aspects of ChatGPT usage (ranging from "strongly disagree" to "strongly agree").

The final dataset included responses from 342 students. The sample consisted of 209 women and 133 men. In terms of age, 320 participants were between 18 and 25 years old, while 22 belonged to other age groups. Regarding the level of study, 306 respondents were enrolled in undergraduate programs. The participants came from various residential backgrounds: 121 lived in rural areas, 60 in small towns (up to 20,000 inhabitants), 60 in medium-sized towns (20,000-100,000 inhabitants), and 101 in large cities (over 100,000 inhabitants).

Data analysis was conducted using descriptive statistical methods with IBM SPSS Statistics (macOS version). Given the nature of the scales used – an ordinal scale for the independent variable (assessment of ChatGPT response quality on a scale from 0 to 10) and a Likert scale for the dependent variables (willingness to purchase the paid version under various discount scenarios) – the nonparametric Spearman's rank correlation coefficient (ρ) was applied. The coefficient allows for the determination of the degree of monotonic association between two ordinal or continuous variables, without assuming a normal distribution of the data. The analysis was carried out separately for each of the three subscription price reduction scenarios: 25%, 50%, and 75%. In each case, the strength and direction of the relationship between quality assessment and willingness to purchase were examined.

The study was designed in accordance with ethical standards, ensuring voluntary participation (respondents could withdraw at any time without consequences), informed consent, and strict confidentiality and anonymity of the data.

The following section of the article, which presents the results of the conducted study, focuses on determining the degree of student willingness to purchase the paid version of ChatGPT under various pricing scenarios, including both price reductions and increases. Additionally, it examines whether users who rate the relevance of ChatGPT’s responses more highly are more inclined to invest in the premium subscription. Conducting research on these aspects serves to better understand user decision-making mechanisms and the factors driving demand for paid AI-based services.

Results

The first issue addressed through the conducted survey was to determine what proportion of the surveyed students use ChatGPT in their studies. The vast majority of respondents (94.4%) confirmed that they use ChatGPT, while 5.6% declared otherwise. The responses obtained through the study provide evidence that, in the current academic environment, generative artificial intelligence is widely utilized by students as a learning aid. With the rapid advancement of AI technologies, tools based on language models – such as ChatGPT – have become increasingly popular among university students.

The study also revealed that respondents varied in terms of how frequently they used ChatGPT for their academic work in higher education (see Fig. 1).

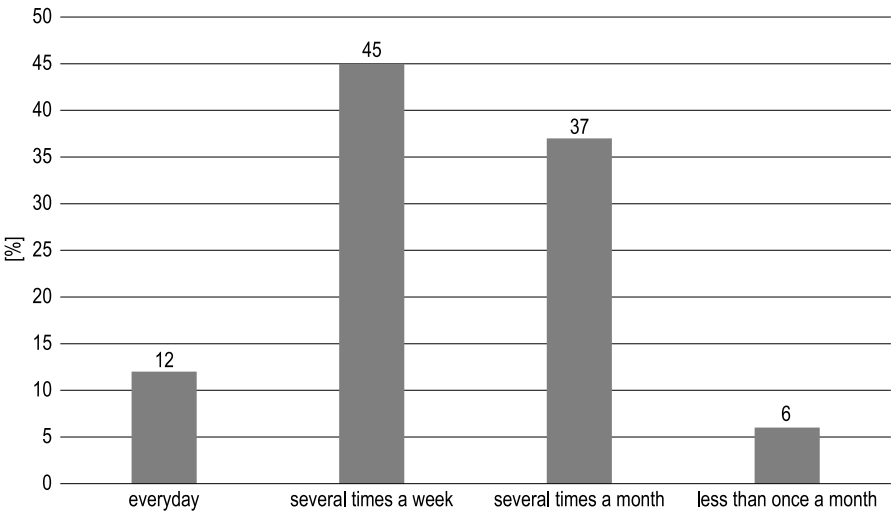


Fig. 1. Frequency of ChatGPT usage (N = 323)

Source: own elaboration.

According to respondents, 45% use the tool several times a week, while 12% use it daily. These results indicate that students are (relatively) regular users of ChatGPT. Nearly 4 out of 10 individuals use the tool several times a month.

The quality of tools used by learners – both actual and perceived – can influence students' academic performance. Therefore, an important aspect of user behaviour in relation to ChatGPT is how they evaluate the content generated by artificial intelligence (see Fig. 2).

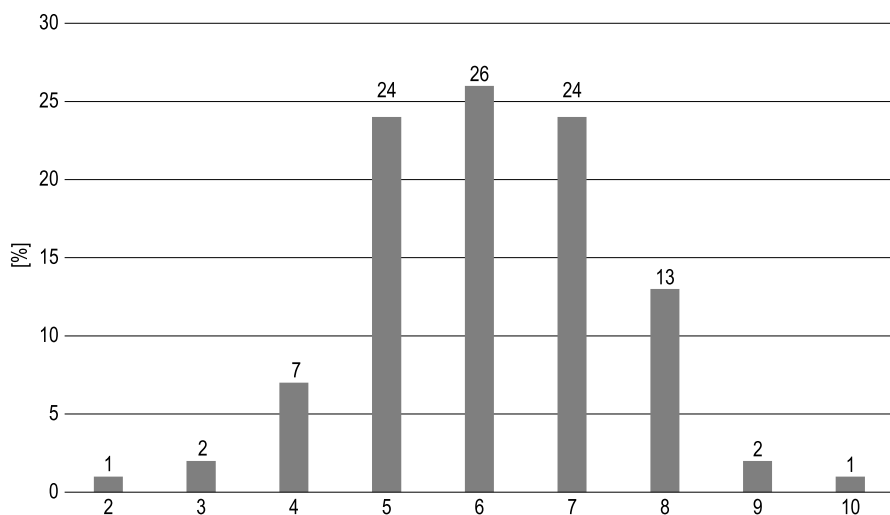


Fig. 2. Perceived quality of ChatGPT-generated content according to users ($N = 323$)
Source: own elaboration.

The results regarding the perceived quality of content generated by ChatGPT indicate a key factor influencing students' decisions to use the tool. Although detailed data on quality assessment were collected, further analysis is required to fully interpret the findings.

ChatGPT offers a range of features that vary depending on the version used. The free version provides users with fewer capabilities compared to the paid versions. Among the students who use ChatGPT ($N = 323$), 88.9% reported using the free version, while 11.1% indicated they use a paid version. This demonstrates the significantly higher popularity of the free tool among students. This may be attributed to both financial constraints commonly faced by this user group and the perception that the basic features offered by the free version are sufficient for meeting their academic needs.

In addition to identifying the proportion of students using paid versions of ChatGPT, the survey included a series of questions referring to the concept of price sensitivity – specifically, how changes in the tool's price may potentially influence decisions about its continued use, whether to remain with the current

version or switch from free to paid and vice versa. Thus, the study drew on the concept of willingness to pay, which concerns the maximum amount a user is willing to pay for a given good or service. In the context of this study, WTP may depend, among other factors, on the value that students perceive ChatGPT to provide in support of their education.

For students using the paid version of ChatGPT, three price increase scenarios were examined to determine the likely user response if the cost of access were to rise by 25%, 50%, or 75% (see Tab. 1).

Table 1

Price sensitivity of paid ChatGPT users ($N = 36$)

Option	Price increase by 25%		Price increase by 50%		Price increase by 75%	
	No	%	No	%	No	%
Strongly disagree	–	–	3	8.3	12	33.3
Disagree	1	2.8	4	11.1	5	13.9
Rather disagree	2	5.6	6	16.7	4	11.1
Hard to say	9	25.0	9	25.0	5	13.9
Rather agree	8	22.2	6	16.7	3	8.3
Agree	9	25.0	3	8.3	3	8.3
Strongly agree	7	19.4	5	13.9	4	11.1

Source: own elaboration.

Among users of the paid version ($N = 36$), responses varied depending on the extent of the price increase. A 25% price increase would be acceptable to 66.6% of respondents, while 8.4% stated they would no longer use the paid version under such circumstances. In the case of a 50% price increase, acceptance drops: 38.9% of students would still choose to subscribe, whereas 36.1% reported they would discontinue their subscription. With a 75% increase in price, 58.3% of respondents indicated they would not use the paid version of ChatGPT, highlighting a considerable sensitivity to price hikes among students.

The second part of the sample – those who do not currently use the paid versions of ChatGPT – were asked to indicate how they would respond to a reduction in the price of the most affordable paid version of ChatGPT (see Tab. 2).

A 25% reduction in the price of the most affordable paid version of ChatGPT would receive a positive response from 16.8% of students, while the majority (64%) stated that it would not change their decision regarding the use of the paid version. More substantial price reductions would lead to a noticeable increase in interest – if the price were reduced by 50%, 42.3% of students would be willing to use the paid version, while a 75% reduction would increase the number of potential subscribers to 70%.

Table 2

Price sensitivity of free ChatGPT users ($N = 286$)

Option	Price decrease by 25%		Price decrease by 50%		Price decrease by 75%	
	No	%	No	%	No	%
Strongly disagree	76	26.6	46	16.1	26	9.1
Disagree	50	17.5	28	9.8	12	4.2
Rather disagree	57	19.9	49	17.1	16	5.6
Hard to say	55	19.2	42	14.7	32	11.2
Rather agree	34	11.9	60	21.0	46	16.1
Agree	8	2.8	45	15.7	42	14.7
Strongly agree	6	2.1	16	5.6	112	39.2

Source: own elaboration.

The next stage of the study involved testing the following hypothesis: “students who rate the quality of ChatGPT responses more highly are more likely to purchase the paid version of the tool in the event of a price reduction”. The independent variable – ChatGPT quality rating – was measured on an ordinal scale from 0 to 10. The dependent variable was the willingness to purchase the paid version of the tool under three price reduction scenarios: 25%, 50%, and 75%. Each scenario was rated using a 7-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Since all variables were ordinal in nature, Spearman’s rank correlation (ρ) was applied to assess the strength and direction of the monotonic relationship between variables. The analysis was carried out separately for each of the three price reduction scenarios. Table 3 presents the results of the Spearman’s rank correlation between the quality assessment and the willingness to purchase the paid version of ChatGPT, depending on the level of price reduction.

Table 3

Spearman’s rank correlation (ρ) between perceived quality of ChatGPT responses and willingness to purchase the paid version depending on the level of price reduction

Price reduction scenario [%]	Spearman’s rho (ρ)	p -value (Sig. 2-tailed)	Statistical significance
25	−0.006	0.916	no
50	0.007	0.907	no
75	0.098	0.098	no

Source: own elaboration.

In none of the cases was a statistically significant correlation found between the perceived quality of ChatGPT-generated responses and the willingness to purchase the paid version of the tool. The correlation coefficients were very

low – close to zero – indicating a lack of a meaningful monotonic relationship between the variables under analysis. The highest, though still statistically insignificant, correlation was observed in the scenario with the largest price reduction (75%), where $\rho = 0.098$ and $p = 0.098$. In the other two scenarios, the correlations were near zero and entirely non-significant ($p > 0.90$).

Based on the conducted analysis, the research hypothesis – that higher ratings of the quality of ChatGPT responses would be associated with a greater willingness of students to purchase the paid version in the event of a price reduction – was not confirmed. Within the examined sample ($N = 286$), no significant relationship was found between perceived quality and willingness to subscribe, regardless of the proposed discount level.

Possible explanations for this result may include factors unrelated to quality perception, such as individual preferences, needs, financial constraints, or even lack of awareness of the paid version. The findings suggest that perceived quality alone may not be a sufficient motivator for purchase, even when substantial discounts are offered.

Summary and Conclusions

The aim of the research, the results of which are presented in this article, was to determine the willingness of economics students to purchase the subscription version of ChatGPT and to analyse their responses to possible price modifications. Moreover, the study addresses the relationship between the perceived quality of the content generated by the tool and students' willingness to pay for the premium version. Data was collected through a survey using a non-random sampling method, involving 342 students from a single higher education institution located in Poland. The obtained data and analytical results suggest that the development of artificial intelligence has led to a change in the conditions of studying and an evolution in the types of tools used by students for learning. Nearly 95% of respondents declared using ChatGPT to complete tasks related to their university studies. This indicates that artificial intelligence has become a widely used educational aid. Its popularity is also evidenced by the fact that 57% of students pose queries to ChatGPT daily or several times a week, while nearly 40% use the tool several times a month.

The perceived quality of content generated by ChatGPT, rated on a scale from 0 to 10, is as follows: 10% of respondents gave ratings below 5, 50% chose the middle values of the scale (5 or 6), and 40% rated the quality above 6, with only 3% selecting the highest ratings (9 or 10).

A key theme of the study was to identify the behaviours of participants regarding the choice between the free and paid versions of ChatGPT and their potential reactions in the event of price changes for the cheapest paid version.

Most respondents (88.9%) use the free version, which – given the current price of the lowest-tier paid version – indicates a low level of willingness to pay. This may be due to significant financial barriers or a lack of belief in the added value offered by premium features.

For this group, survey questions included three hypothetical price reduction scenarios (25%, 50%, and 75%), while those using the paid version answered questions with three price increase scenarios (25%, 50%, and 75%). In the first group, a 25% price drop would result in a positive reaction from 16.8% of students (who stated they would subscribe at this price point). At a 50% reduction, 42.3% indicated they would start using the paid version, and at a 75% drop, 70% expressed willingness to subscribe. Alternative scenarios were considered by current paid users. In this subgroup, a 25% price increase would lead 8.4% of them to cancel their subscription. At a 50% price increase, this figure would be 36.1%, and in the event of a 75% increase, 58.3% would stop using the paid version.

Statistical analysis did not confirm a hypothesized relationship between the perceived quality of ChatGPT-generated responses and the willingness to purchase the paid version at various discount levels (“students who rate the quality of ChatGPT responses more highly are more likely to purchase the paid version of the tool in the event of a price reduction”). In all three discount scenarios (25%, 50%, 75%), Spearman’s rank correlation coefficients were very low and did not reach statistical significance. The highest, albeit still insignificant, correlation ($\rho=0.098$; $p=0.098$) was observed in the largest price reduction scenario.

The results suggest that a positive perception of the quality of ChatGPT’s responses is not a sufficient motivating factor for purchasing the premium version of the tool, even with significant price reductions. It can be assumed that purchasing decisions are determined by other factors, such as individual needs, usage frequency, availability of alternatives, perceived added value of the paid version, or financial barriers.

The results of this study offer contributions to economic theory and practical application, providing critical insights into student consumer behaviour and informing stakeholders in the educational technology sector. The results challenge the applicability of traditional technology adoption models that weigh perceived usefulness (quality) as a primary driver for adoption. For practice, the results offer insights for key stakeholders. For AI developers, the data clearly indicates that the current pricing model is a significant barrier for the student market. This suggests that a tiered, lower-cost student subscription plan could increase market penetration and adoption. For university administrators and policymakers, the findings provide concrete evidence of an emerging AI affordability divide, where access to superior learning tools is dictated by students’ financial capacity. This strengthens the case for negotiating institutional licenses to ensure equitable access for all students, mitigating socioeconomic disparities in educational outcomes. Finally, for educators, the study underscores

the importance of recognizing that most students are likely using the less advanced, free versions of these tools, a critical consideration for assignment design and academic expectations.

These conclusions indicate a need for further research that includes a broader range of psychological, behavioural, and contextual variables that may influence consumer decisions regarding paid AI-based services. Future studies should involve a more diverse group of students – covering different fields of study and universities. It is also recommended to conduct mixed-method research, combining quantitative and qualitative approaches, including in-depth individual interviews or focus groups. Regarding research themes, it would be valuable to examine the effectiveness of AI use in relation to academic performance.

The conducted study is characterized by limitations in the sample selection, which was not fully representative of the entire population of students in Poland. Additionally, the data collection technique (CAWI) meant that respondents filled out the survey form independently, and some responses were declarative in nature. Therefore, it is important to consider the risk of subjective response bias, and no qualitative follow-up (such as interviews) was conducted to deepen the findings.

Translated by Dominika Kuberska

References

- Abbas, M., Jam, F.A., & Khan, T.I. (2024). Is it Harmful or Helpful? Examining the Causes and Consequences of Generative AI Usage Among University Students. *International Journal of Education Technology in Higher Education*, 21(10). <https://doi.org/10.1186/s41239-024-00444-7>.
- Andarsari, F., & Suryadi, N. (2024). Understand the Role of User-Generated Content on Purchase Intention of ChatGPT Premium in Undergraduate Student. *International Journal of Research in Business and Social Science*, 13(3), 97-108. <https://doi.org/10.20525/ijrbs.v13i3.3430>.
- Arman, M., & Lamiyar, U.R. (2023). Exploring the Implication of ChatGPT AI for Business: Efficiency and Challenges. *International Journal of Marketing and Digital Creative*, 1(2), 64-84. <https://doi.org/10.31098/ijmadic.v1i2.1872>.
- Baidoo-Anu, D., & Ansah, L.O. (2023). Education in the Era of Generative Artificial Intelligence (AI): Understanding the Potential Benefits of ChatGPT in Promoting Teaching and Learning. *SSRN*. Retrieved from <http://dx.doi.org/10.2139/ssrn.4337484> (1.05.2025).
- Bankar, R.S., & Lihitkar, S.R. (2023). Artificial Intelligence-Based Utility Tools for Research Communication: A Brief Overview. *Proceedings of National Conference*, Shivaji University, Kolhapur: Prarup Publication, 251-262. Retrieved from https://www.researchgate.net/profile/Ravindra-Bankar-2/publication/372954879_Artificial_Intelligence-Based_Utility_Tools_for_Research_Communication_A_Brief_Overview/links/64f0442cf850d430c36b0188/Artificial-Intelligence-Based-Utility-Tools-for-Research-Communication-A-Brief-Overview.pdf (1.05.2025).
- Chan, C.K.Y., & Hu, W. (2023). Students' Voices on Generative AI: Perceptions, Benefits, and Challenges in Higher Education. *International Journal of Educational Technology in Higher Education*, 20(43). <https://doi.org/10.1186/s41239-023-00411-8>.
- Chan, C.K.Y., & Tsi, L.H.Y. (2024). Will Generative AI Replace Teachers in Higher Education? A Study of Teacher and Student Perceptions. *Studies in Educational Evaluation*, 83, 101395. <https://doi.org/10.1016/j.stueduc.2024.101395>.

- Cobzaru, P., & Tugui, A. (2024). The Subscription Economy and Its Contribution to the Global Economy. *Management Studies*, 12(3), 137-145. <https://doi.org/10.17265/2328-2185/2024.03.001>.
- Farazouli, A., Cerratto-Pargman, T., Bolander-Laksov, K., & McGrath, C. (2023). Hello GPT! Goodbye Home Examination? An Exploratory Study of AI Chatbots Impact on University Teachers' Assessment Practices. *Assessment & Evaluation in Higher Education*, 49(3), 363-375. <https://doi.org/10.1080/02602938.2023.2241676>.
- Fibich, G., Gavious, A., & Lowengart, O. (2005). The Dynamics of Price Elasticity of Demand in the Presence of Reference Price Effects. *Journal of the Academy of Marketing Science*, 33, 66-78. <https://doi.org/10.1177/0092070304267108>.
- Gocen, A., & Aydemir, F. (2020). Artificial Intelligence in Education and Schools. *Research on Education and Media*, 12(1), 13-21. <https://doi.org/10.2478/rem-2020-0003>.
- Hackett, C. (2023). OpenAI's ChatGPT Plus: An Electronic Resources Librarian's Review. *Journal of Electronic Resources Librarianship*, 35(4), 299-314. <https://doi.org/10.1080/1941126X.2023.2271373>.
- Jo, H. (2024). Uncovering the Reasons Behind Willingness to Pay for ChatGPT-4 Premium. *International Journal of Human-Computer Interaction*, 41(2), 994-1009. <https://doi.org/10.1080/10447318.2024.2307692>.
- Kamalov, F., Santandreu Calonge, D., & Gurrib, I. (2023). New Era of Artificial Intelligence in Education: Towards a Sustainable Multifaceted Revolution. *Sustainability*, 15(16), 12451. <https://doi.org/10.3390/su151612451>.
- Lupa-Wójcik, I. (2024). Students' Willingness to Pay for Access to ChatGPT. *European Research Studies Journal*, XXVII(3), 730-745. <https://doi.org/10.35808/ersj/3462>.
- Milewski, R., & Kwiatkowski, E. (2018). *Podstawy ekonomii*. Warszawa: Wydawnictwo Naukowe PWN.
- Mohamed, A.M. (2024). Exploring the Potential of an AI-Based Chatbot (ChatGPT) in Enhancing English as a Foreign Language (EFL) Teaching: Perceptions of EFL Faculty Members. *Education and Information Technologies*, 29, 3195-3217. <https://doi.org/10.1007/s10639-023-11917-z>.
- Rahman, Md.A., Victoros, E., Ernest, J., Davis, R., Shanjana, Y., & Islam, Md.R. (2024). Impact of Artificial Intelligence (AI) Technology in Healthcare Sector: A Critical Evaluation of Both Sides of the Coin. *Clinical Pathology*, 17, 1-5. <https://doi.org/10.1177/2632010X241226887>.
- Stavropoulos, A. (2023). *Assessing the Impact of Transitioning to a Freemium Subscription-Based Model on Public Sentiment and the Use of Large Language Models in Sentiment Analysis*. Rotterdam: Erasmus University Rotterdam. Retrieved from <hdl.handle.net/2105/66699> (1.05.2025).
- Strzelecki, A., & ElArabawy, S. (2024). Investigation of the Moderation Effect of Gender and Study Level on the Acceptance and Use of Generative AI by Higher Education Students: Comparative Evidence from Poland and Egypt. *British Journal of Educational Technology*, 55(3), 1209-1230. <https://doi.org/10.1111/bjet.13425>.
- Wertenbroch, K., & Skiera, B. (2002). Measuring Consumers' Willingness to Pay at the Point of Purchase. *Journal of Marketing Research*, 39(2), 228-241. Retrieved from: <http://www.jstor.org/stable/1558488> (1.05.2025).
- Zayoud, M., Oueida, S., Awad, P., & Ionescu, S. (2023). Impact of ChatGPT on Education: Challenges and Opportunities. *11th International Conference of Management and Industrial Engineering*, 11, 75-82. Retrieved from: https://www.researchgate.net/publication/376707722_IMPACT_OF_CHATGPT_ON_EDUCATION_CHALLENGES_AND_OPPORTUNITIES/link/65aad0def323f74ff1cf02e8/download?_tp=eyJjb250ZXh0Ijp7ImZpcnN0UGFnZSI6InB1YmxyY2F0aW9uIiwicGFnZSI6InB1YmxyY2F0aW9uIn19 (1.05.2025).

