
Students' Willingness to Pay for Access to ChatGPT

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Abstract:

Purpose: This study aims to investigate the socioeconomic determinants of students' WTP for ChatGPT, under the assumption that all its versions require payment. Specifically, the research explores how factors such as gender, age, place of residence, employment status, income, savings, and the use of ChatGPT for commercial purposes influence the amount students are willing to pay.

Design/Methodology/Approach: The research employs a diagnostic survey method, utilizing an original question-naire to collect data from a diverse student population. The study's design allows for the analysis of various demographic and socioeconomic variables in relation to WTP, providing a comprehensive understanding of the factors at play.

Findings: The results show that while a significant number of students are unwilling to pay for ChatGPT, those who are willing to pay generally prefer lower price points. There are notable relationships between WTP and all examined variables, with gender and the commercial use of ChatGPT being particularly influential. These findings suggest the need for targeted pricing strategies that consider diverse user groups and their financial capacities.

Practical Implications: The study offers practical insights into developing effective pricing strategies for AI tools like ChatGPT, based on an understanding of the socioeconomic factors influencing users' WTP. These strategies are essential for enhancing market penetration, aligning with consumer financial abilities, and promoting broader adoption of the tool.

Originality/Value: This research contributes to the existing literature by exploring the economic valuation of AI tools from a pricing perspective, an area that remains underexplored. It provides new insights into students' WTP for AI, addressing a critical gap in the understanding of consumer behavior in the digital age.

Keywords: Willingness to Pay (WTP), ChatGPT, Pricing Strategies, Artificial Intelligence (AI), Socioeconomic Factors.

JEL Codes: A1, D4, M31.

Paper type: Research article.

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1. Introduction

The rapid advancement of artificial intelligence (AI) has transformed various industries, with significant implications for pricing strategies in the market. One notable AI tool is ChatGPT, a language model designed to assist users in generating human-like text. Understanding the willingness to pay (WTP) for such a tool is crucial, as it offers insights into perceived value and helps shape effective pricing strategies.

In sectors where personalized interactions and customer service are critical, AI tools like ChatGPT can enhance user experiences and streamline operations. Despite the growing use of AI in these contexts, there remains a significant research gap regarding the specific factors influencing WTP for these tools, especially from a pricing perspective.

This study aims to address this gap by examining the socioeconomic factors that determine consumers' WTP for ChatGPT, assuming all its versions require payment. By focusing on these determinants, the research seeks to inform the development of pricing strategies that align with consumer financial capabilities and preferences. Such strategies are vital for maximizing market penetration and ensuring that the product reaches a broad audience.

The research employs a diagnostic survey method, utilizing an original questionnaire to gather data from a diverse group of students.

2. Literature review

Willingness to pay (WTP) is the maximum amount of money an individual is willing to spend on a product or service (Biehn and Zawada, 2017; He *et al.*, 2024). It plays a special role in shaping pricing strategies. Companies must measure WTP to arrive at an optimal pricing decision and maximize profits (Beja, 2014).

Many factors influence WTP. These factors are multifaceted and encompass economic, social, psychological, and cultural dimensions.

Economic factors include household income, agency (whether the purchaser is spending their own money or money provided by someone else) (Dixit *et al.*, 2014), market values (Panahinejad *et al.*, 2022), and value uncertainty (Bouma and Koetse, 2019). Social factors that determine WTP may include social desirability bias, the need for social approval, perceived social norms (Börger, 2013), and social influence to promote expected payment (Yang *et al.*, 2022).

Social factors may also encompass demographic features such as gender, age, or education (Hajek *et al.*, 2020; Kenebayeva, 2014). Psychological factors include perceived fairness of a price or fear of price increases (Dixit *et al.*, 2014). Cultural

factors influencing WTP, depending on the research area, may concern cultural differences (Liu *et al.*, 2013), leisure value, and monetary value derived from the retail atmosphere (Boonchai *et al.*, 2021).

There is little research on WTP for AI tools. In this context, researchers have focused on economic, psychological, and ethical factors. Economic factors play a significant role in determining WTP for AI tools. Research indicates that the perceived effectiveness and economic benefits of AI tools influence the willingness to adopt them (Sarafanov *et al.*, 2024; Skjeret *et al.*, 2023). Psychological factors, such as user trust and attitudes towards AI, impact the WTP for AI tools (Frank *et al.*, 2023). Many authors pay attention to ethical aspects related to the WTP for AI tools (Jedličková, 2024; Kuleshov, 2020).

Investigated studies provide insights into the factors influencing user acceptance and the potential benefits of ChatGPT in various domains (Kong, 2023; Abdalla, 2024; Jo, 2024; Hassan, 2023; Strzelecki, 2024). The willingness to use ChatGPT is influenced by factors such as technology risk perception, expectation confirmation, social influence, and usage context (Kong, 2023; Li and Zhang, 2023). Research has explored determinants of subscription intentions for paid versions of ChatGPT in business settings, highlighting the significance of system quality, service quality, and perceived intelligence (Jo, 2024).

For students, ChatGPT offers personalized learning environments, individualized tutoring, and support (Hassan, 2023; Karakose and Tülübas, 2023). There is no direct research regarding the WTP for ChatGPT among students. One can only learn that the willingness to utilize ChatGPT varies across different user demographics, such as college students, office workers, and healthcare professionals (Jo, 2024; Alghamdi and Alhasawi, 2024; Abdalla, 2024).

The study on the factors influencing students' use of ChatGPT reveals that performance expectancy and facilitating conditions significantly influence students' intentions to use ChatGPT (Alshammari and Alshammari, 2024). Finally, the study by Arthur *et al.* (2024) has shown the role of gender, age, and experience in predicting students' behavioral intention and usage of ChatGPT.

Unfortunately, none of the studies directly address the WTP for ChatGPT among students or other groups of respondents. However, based on the factors influencing users' willingness to use ChatGPT, it can be inferred that WTP may be influenced by similar economic, social, psychological, and cultural factors.

Therefore, while the specific WTP is not directly addressed, the factors influencing users' intention to use ChatGPT can provide insights into the WTP for the service. This research fills the gap regarding the WTP for ChatGPT by focusing on socioeconomic factors.

3. Research Methods

The aim of the research was to determine students' WTP for access to ChatGPT. The main research question formulated was: *Do socioeconomic characteristics (gender, age, place of residence, paid work, income, savings, and use of ChatGPT for commercial purposes) influence the maximum average monthly fees that respondents would be willing to pay to use ChatGPT, assuming that all versions of ChatGPT are paid?*

The analysis of the collected research material and scientific issues formed the basis for verifying the following research hypothesis:

H1: It is hypothesized that gender, age, place of residence, paid work, income, savings, and use of ChatGPT for commercial purposes are associated with the maximum average monthly fee that respondents would be willing to pay for using ChatGPT.

The research method used to verify the hypothesis was a diagnostic survey method using an original survey questionnaire. The questionnaire consisted of 11 closed questions (see appendix). The study was conducted in the IIQ of 2023 among students of the Pedagogical University of Krakow (Poland).

A total of 489 questionnaires were collected, and after selection, the sample size was 424. In the academic year 2022/2023, 15,606 students were enrolled at the mentioned university (Szlubowska, 2023), which implies a maximum error of 5% at the 95% confidence level. Table 1 presents the basic characteristics of the research sample.

Table 1. Characteristics of the research sample

Features	Class	Number of observations	% observations
Gender	woman	304	71.70
	man	120	28.30
Age	19 years	68	16/04
	Twenty years	160	37.74
	21 years	102	24/06
	22 years	34	8.02
	23 years	16	3.77
	24 or more	44	10.38
Place of residence	Village	150	35.38
	County town	46	10.85
	City-municipality	62	14.62
	Provincial	166	39.15
Paid work	No	162	38.21
	I don't want to say	28	6.60
	Yes	234	55.19
Use of ChatGPT for	No	248	58.49

commercial purposes	I don't know	20	4.72
	Yes	156	36.79
Income	I don't want to say	36	8.49
	lack	50	11.79
	up to PLN 500	34	8.02
	PLN 501-1000	44	10.38
	PLN 1,001-1,500	68	16.04
	PLN 1,501-2,500	64	15.09
	PLN 2,501-3,500	50	11.79
	PLN 3,501-5,000	50	11.79
	over PLN 5,000	28	6.60
Average monthly savings	lack	92	21.70
	up to PLN 300	130	30.66
	PLN 301-800	96	22.64
	PLN 801-1,500	60	14.15
	PLN 1,501-2,500	20	4.72
	over PLN 2,500	26	6.13

Source: Own study.

In the research, qualitative features were assessed. The analysis of the collected data has its own specificity, requiring the use of appropriate statistical tools for comparisons. For variables measured on rank and nominal scales, frequencies and structure indicator values (percentages) were calculated and presented in charts or tables.

For multiple-choice questions, multiple dichotomies were calculated and presented in frequency tables as structure indices. Pearson's χ^2 independence tests with the NW correction were used to verify whether there are connections between the maximum average monthly fee that respondents would be willing to pay for using ChatGPT and the metric data. This analysis aimed to verify the hypothesis that two qualitative features in the population are independent.

H0: Features X and Y are independent.

H1: Features X and Y are dependent.

The most frequently used tool for this purpose is the Pearson Chi-square test with the NW correction (small numbers in the analyzed subsets). It involves comparing the observed frequencies with the expected frequencies under the null hypothesis (that there is no relationship between these two variables). As previously stated, the χ^2 statistic tests whether two variables are related. However, besides checking for a relationship between the variables, it is also important to assess the strength of this relationship. Since the Pearson Chi-square value does not measure the strength of the relationship, measures such as Cramer's V coefficients were used. A significance level of 0.05 was adopted for all analyses. The analysis was performed using the Statistica v.13 package and an Excel spreadsheet.

To summarize the methodological aspects, some positive and negative aspects of the research method used can be identified. Among the positives, it should be noted that the methodological tools, particularly the designed questionnaire, were effective in gathering comprehensive and relevant data. The questionnaire's structure allowed for consistent responses, contributing to the reliability of the results.

On the other hand, various unforeseen organizational and methodological challenges emerged during the study. These included issues such as the availability of participants, timing of data collection, and logistical constraints, which could introduce potential biases and complications in the research process.

4. Results

The analysis of the research results began with univariate statistics, presented as counts and structure indicators (percentage values) for the entire sample, as shown in Table 2.

Table 2. Characteristics of the distribution of the examined feature

Features	Class	Number of observations	% observations
How much on average would you be willing to pay per month to use ChatGPT (assuming all versions are paid)?	I don't know	46	10.85
	I would not be willing to pay for this tool	152	35.85
	up to PLN 10 / month	128	30.19
	up to PLN 20 / month	62	14.62
	up to PLN 30 / month	10	2.36
	up to PLN 50 / month	12	2.83
	more than PLN 50 / month	14	3.30

Source: Own study.

Respondents were asked about the maximum amount they would be willing to pay per month, on average, for using ChatGPT, assuming all its versions require payment. Every third student surveyed indicated they would not be willing to pay for using ChatGPT (35.8%).

Meanwhile, 30.19% of students declared they could pay up to PLN 10 per month, and 14.62% stated they could pay up to PLN 20 per month. Below is an analysis of the relationships between selected demographic characteristics and the maximum monthly fee respondents would be willing to pay for using ChatGPT.

Gender vs. Maximum Monthly Fee Students are Willing to Pay for Using ChatGPT: The first determinant studied is gender. Table 3 shows the relationship between gender and the maximum monthly fee respondents would be willing to pay for using ChatGPT (assuming that all its versions are paid).

Table 3. Summary bipartite table: observed frequencies. Gender vs How much would you be willing to pay on average per month to use ChatGPT (assuming all versions are paid)?

How much on average would you be willing to pay per month to use ChatGPT (assuming all versions are paid)?	Gender		Together
	woman	man	
I don't know	38	8	46
%columns	12.50%	6.78%	
PLN 0 (I'd rather not use it than pay even PLN 1)	116	36	152
%columns	38.16%	30.51%	
up to PLN 10 / month	100	26	126
%columns	32.89%	22.03%	
up to PLN 20 / month	36	26	62
%columns	11.84%	22.03%	
up to PLN 30 / month	4	6	10
%columns	1.32%	5.08%	
up to PLN 50 / month	4	8	12
%columns	1.32%	6.78%	
more than PLN 50 / month	6	8	14
%columns	1.97%	6.78%	
Overall	304	118	422

χ^2 NW=33,23; df=6; p=0,00003; V_c=0,28

Source: Own study.

The analysis of the results presented in Table 3 provided grounds for rejecting the null hypothesis of independence between the analyzed variables and accepting the alternative hypothesis that the variables are dependent. It can therefore be stated that the respondents' gender was statistically significantly associated ($p = 0.00003$, $VC = 0.28$) with the maximum monthly fee they would be willing to pay for using ChatGPT. The analysis shows that a higher percentage of men were willing to pay a higher fee compared to women.

Age vs. Maximum Monthly Fee Students are Willing to Pay for Using ChatGPT:

The second determinant is age. Table 4 presents the relationship between age and the maximum monthly fee respondents would be willing to pay.

Table 4. Summary bipartite table: observed frequencies. Age vs How much would you be willing to pay on average per month to use ChatGPT (assuming all versions are paid)?

How much on average would you be willing to pay per month to use ChatGPT (assuming all versions are paid)?	Age [years]						Together
	19	20	21	22	23	≥24	
I don't know	6	16	16	6	0	2	46
%columns	8.82%	10.00%	16.00%	17.65%	0.00%	4.55%	
I would not be willing to pay for this tool	34	60	30	6	6	16	152

%columns	50.00%	37.50%	30.00%	17.65%	37.50%	36.36%	
up to PLN 10 / month	22	46	34	6	10	8	126
%columns	32.35%	28.75%	34.00%	17.65%	62.50%	18.18%	
up to PLN 20 / month	6	24	14	6	0	12	62
%columns	8.82%	15.00%	14.00%	17.65%	0.00%	27.27%	
up to PLN 30 / month	0	6	0	4	0	0	10
%columns	0.00%	3.75%	0.00%	11.76%	0.00%	0.00%	
up to PLN 50 / month	0	4	4	2	0	2	12
%columns	0.00%	2.50%	4.00%	5.88%	0.00%	4.55%	
more than PLN 50 / month	0	4	2	4	0	4	14
%columns	0.00%	2.50%	2.00%	11.76%	0.00%	9.09%	
Overall	68	160	100	34	16	44	422
χ^2 NW=76,36; df=30; p=0,00001; $V_C=0,19$							

Source: Own study.

The analysis of the results in Table 4 provided grounds for rejecting the null hypothesis of independence between the analyzed variables and accepting the alternative hypothesis that the variables are dependent. It can therefore be stated that the respondents' age was statistically significantly associated ($p = 0.00001$, $VC = 0.19$) with the maximum monthly fee they would be willing to pay for using ChatGPT. The analysis indicated that with increasing age, the percentage of individuals willing to spend more on this AI tool increased.

Place of Residence vs. Maximum Monthly Fee Students are Willing to Pay for Using ChatGPT:

Another determinant is the place of residence. Table 5 presents the relationship between the place of residence and the maximum monthly fee respondents would be willing to pay for using ChatGPT, assuming that all its versions are paid.

Table 5. Summary bipartite table: observed frequencies. Place of residence vs How much on average would you be willing to pay per month to use ChatGPT (assuming that all its versions are paid)?

How much on average would you be willing to pay per month to use ChatGPT (assuming all versions are paid)?	Place of residence				Together
	Village	County town	City-municipality	Provincial city	
I don't know	24	4	8	10	46
%columns	16.00%	8.70%	12.90%	6.10%	
I would not be willing to pay for this tool	58	14	18	62	152
%columns	38.67%	30.43%	29.03%	37.80%	
up to PLN 10 / month	34	18	26	48	126
%columns	22.67%	39.13%	41.94%	29.27%	
up to PLN 20 / month	18	8	8	28	62
%columns	12.00%	17.39%	12.90%	17.07%	

up to PLN 30 / month	8	0	0	2	10
%columns	5.33%	0.00%	0.00%	1.22%	
up to PLN 50 / month	4	0	0	8	12
%columns	2.67%	0.00%	0.00%	4.88%	
more than PLN 50 / month	4	2	2	6	14
%columns	2.67%	4.35%	3.23%	3.66%	
Overall	150	46	62	164	422

$\chi^2_{NW}=36.77$; $df=18$; $p=0.0056$; $V_C=0.16$

Source: Own study.

The analysis of the results in Table 5 provided grounds for rejecting the null hypothesis of independence between the analyzed variables and accepting the alternative hypothesis that the variables are dependent. It can therefore be stated that the respondents' place of residence was statistically significantly associated ($p = 0.0056$, $VC = 0.16$) with the maximum monthly fee they would be willing to pay for using ChatGPT.

Paid Work vs. Maximum Monthly Fee Students are Willing to Pay for Using ChatGPT:

Paid work is also an important determinant. Table 6 presents the relationship between paid work and the maximum monthly fee respondents would be willing to pay for using ChatGPT, assuming that all its versions are paid.

Table 6. Summary bipartite table: observed frequencies. Paid work vs How much would you be willing to pay on average per month to use ChatGPT (assuming all versions are paid)?

How much on average would you be willing to pay per month to use ChatGPT (assuming all versions are paid)?	Do you work for pay?			Together
	No	I don't want to say	Yes	
I don't know	12	4	30	46
%columns	7.41%	14.29%	12.93%	
I would not be willing to pay for this tool	62	10	80	152
%columns	38.27%	35.71%	34.48%	
up to PLN 10 / month	46	6	74	126
%columns	28.40%	21.43%	31.90%	
up to PLN 20 / month	32	4	26	62
%columns	19.75%	14.29%	11.21%	
up to PLN 30 / month	6	2	2	10
%columns	3.70%	7.14%	0.86%	
up to PLN 50 / month	2	2	8	12
%columns	1.23%	7.14%	3.45%	

more than PLN 50 / month	2	0	12	14
%columns	1.23%	0.00%	5.17%	
Overall	162	28	232	422
χ^2 NW=25.19; df=12; p=0.014; V _C =0.17				

Source: Own study.

The analysis of the results in Table 6 provided grounds for rejecting the null hypothesis of independence between the analyzed variables and accepting the alternative hypothesis that the variables are dependent. It can therefore be stated that the respondents' paid work was statistically significantly associated ($p = 0.014$, $VC = 0.17$) with the maximum monthly fee they would be willing to pay for using ChatGPT.

Respondents' Income vs. Maximum Monthly Fee Students are Willing to Pay for Using ChatGPT:

In addition to paid work, the respondents' income is also an important determinant. Table 7 presents the relationship between income and the maximum monthly fee respondents would be willing to pay for using ChatGPT (assuming that all its versions are paid).

Table 7. Summary bipartite table: observed frequencies. Respondents' income vs. How much on average per month would you be willing to pay for using ChatGPT (assuming that all its versions are paid)?

How much on average would you be willing to pay per month to use ChatGPT (assuming all versions are paid)?	Your average monthly disposable income (the funds you have for your own needs, including housing, food, etc.)									Together
	I don't want to say	lack	up to PLN 500	PLN 501-1000	PLN 1,001-1,500	PLN 1,501-2,500	PLN 2,501-3,500	PLN 3,501-5,000	>PLN 5,000	
I don't know	4	6	2	4	6	4	10	10	0	46
%columns	11.11%	12.00%	6.25%	9.09%	8.82%	6.25%	20.00%	20.00%	0.00%	
I would not be willing to pay for this tool	12	20	16	16	30	24	16	14	4	152
%columns	33.33%	40.00%	50.00%	36.36%	44.12%	37.50%	32.00%	28.00%	14.29%	
up to PLN 10 / month	10	14	10	14	20	24	16	14	4	126
%columns	27.78%	28.00%	31.25%	31.82%	29.41%	37.50%	32.00%	28.00%	14.29%	
up to PLN 20 / month	6	6	4	8	10	6	6	6	10	62
%columns	16.67%	12.00%	12.50%	18.18%	14.71%	9.38%	12.00%	12.00%	35.71%	
up to PLN 30 / month	2	4	0	0	2	0	0	2	0	10
%columns	5.56%	8.00%	0.00%	0.00%	2.94%	0.00%	0.00%	4.00%	0.00%	
up to PLN 50 / month	2	0	0	2	0	4	0	2	2	12

%columns	5.56%	0.00%	0.00%	4.55%	0.00%	6.25%	0.00%	4.00%	7.14%	
more than PLN 50 / month	0	0	0	0	0	2	2	2	8	14
%columns	0.00%	0.00%	0.00%	0.00%	0.00%	3.13%	4.00%	4.00%	28.57%	
Overall	36	50	32	44	68	64	50	50	28	422
χ^2 NW=104.67; df=48; p<0.00001; V _C =0.22										

Source: Own study.

The analysis of the results in Table 7 provided grounds for rejecting the null hypothesis of independence between the analyzed variables and accepting the alternative hypothesis that the variables are dependent. It can therefore be stated that the respondents' income is associated with the maximum monthly fee they would be willing to pay for using ChatGPT (V_C = 0.22). It was found that among the highest earners, the percentage of those willing to spend more on ChatGPT was higher than among those with lower incomes.

Savings vs. Maximum Monthly Fee Students are Willing to Pay for Using ChatGPT: There is also a significant relationship between savings and the maximum monthly fee respondents would be willing to pay for using ChatGPT (assuming that all its versions are paid). The data in this regard are presented in Table 8.

Table 8. Savings vs How much would you be willing to pay on average per month to use ChatGPT (assuming all versions are paid)?

How much on average would you be willing to pay per month to use ChatGPT (assuming all versions are paid)?	Your average monthly savings (what is left after taking into account all expenses)						Together
	lack	Up to PLN 300	301- PLN 800	801- PLN 1,500	1501- PLN 2,500	Above PLN 2,500	
I don't know	10	6	20	4	4	2	46
%columns	11.11%	4.62%	20.83%	6.67%	20.00%	7.69%	
I would not be willing to pay for this tool	36	54	30	24	4	4	152
%columns	40.00%	41.54%	31.25%	40.00%	20.00%	15.38%	
up to PLN 10 / month	26	48	26	14	8	4	126
%columns	28.89%	36.92%	27.08%	23.33%	40.00%	15.38%	
up to PLN 20 / month	12	18	14	8	4	6	62
%columns	13.33%	13.85%	14.58%	13.33%	20.00%	23.08%	
up to PLN 30 / month	2	2	4	2	0	0	10
%columns	2.22%	1.54%	4.17%	3.33%	0.00%	0.00%	
up to PLN 50 / month	4	0	2	0	0	6	12
%columns	4.44%	0.00%	2.08%	0.00%	0.00%	23.08%	
more than PLN 50 / month	0	2	0	8	0	4	14
%columns	0.00%	1.54%	0.00%	13.33%	0.00%	15.38%	
Overall	90	130	96	60	20	26	422
χ^2 NW=93.99; df=30; p<0.00001; V _C =0.23							

Source: Own study.

The analysis of the results in Table 8 provided grounds for rejecting the null hypothesis of independence between the analyzed variables and accepting the alternative hypothesis that the variables are dependent ($VC = 0.23$). It can therefore be stated that the respondents' savings are associated with the maximum monthly fee they would be willing to pay for using ChatGPT.

Use of ChatGPT for Commercial Purposes vs. Maximum Monthly Fee Students are Willing to Pay for Using this AI Tool:

An important determinant may also be the use of ChatGPT for commercial purposes in relation to the maximum monthly fee respondents would be willing to pay for this AI tool. The data in this regard are presented in Table 9.

Table 9. Summary bipartite table: observed frequencies Commercial use of ChatGPT vs. How much on average per month would you be willing to pay to use ChatGPT (assuming all versions are paid)?

How much on average would you be willing to pay per month to use ChatGPT (assuming all versions are paid)?	Use of ChatGPT for commercial purposes			Together
	No	I don't know	Yes	
I don't know	24	2	20	46
%columns	9.68%	10.00%	12.99%	
I would not be willing to pay for this tool	102	14	36	152
%columns	41.13%	70.00%	23.38%	
up to PLN 10 / month	76	0	50	126
%columns	30.65%	0.00%	32.47%	
up to PLN 20 / month	36	2	24	62
%columns	14.52%	10.00%	15.58%	
up to PLN 30 / month	4	0	6	10
%columns	1.61%	0.00%	3.90%	
up to PLN 50 / month	6	0	6	12
%columns	2.42%	0.00%	3.90%	
more than PLN 50 / month	0	2	12	14
%columns	0.00%	10.00%	7.79%	
Overall	248	20	154	422
χ^2 NW=57.88; df=12; p<0.00001; VC=0.24				

Source: Own study.

The analysis of the results in Table 9 provided grounds for rejecting the null hypothesis of independence between the analyzed variables and accepting the alternative hypothesis that the variables are dependent. It can be stated that the use of ChatGPT for commercial purposes was associated with the maximum monthly fee respondents would be willing to pay for using this AI tool ($VC = 0.24$).

It was found that among those using ChatGPT commercially, the percentage of those willing to pay more for using ChatGPT was higher than among those not using the application for commercial purposes.

5. Discussion

The findings of this study offer valuable insights into the willingness of students to pay for using ChatGPT, with a particular focus on various socioeconomic factors. This research provides a unique contribution to the literature by examining the willingness to pay (WTP) specifically for ChatGPT, an area that has not been directly addressed in previous studies.

The analysis revealed statistically significant relationships between WTP and various socioeconomic factors, including gender, age, place of residence, paid work, income, savings, and the use of ChatGPT for commercial purposes.

The statistical analysis utilized p-values and Cramér's V (VC) to measure the strength of association between variables. The significance levels for all tested relationships were below the typical threshold ($p < 0.05$), indicating strong evidence against the null hypothesis of independence between the variables. However, the strength of these associations varied, with Cramér's V values indicating mostly weak to moderate correlations (ranging from 0.16 to 0.28). This suggests that while demographic factors do influence WTP, other unexplored factors might also play a role.

One notable finding was the relatively stronger association between gender and WTP ($VC = 0.28$, $p = 0.00003$), where men showed a higher willingness to pay more for ChatGPT. This aligns with prior research suggesting gender differences in technology adoption and perceived value (Arthur et al., 2024). Additionally, age was found to have a weak but significant correlation with WTP ($VC = 0.19$, $p = 0.00001$), suggesting that older students might value the service more, potentially due to greater perceived utility or income stability.

The results of this study resonate with existing literature on WTP and its determinants. Previous research indicates that WTP is influenced by a myriad of economic, social, psychological, and cultural factors (Biehn and Zawada, 2017; He et al., 2024). For instance, household income and perceived value have been shown to significantly impact WTP (Bouma and Koetse, 2019; Panahinejad et al., 2022).

Findings corroborate these observations, with income and savings being positively associated with higher WTP for ChatGPT. This aligns with the notion that individuals with greater financial resources are more likely to allocate funds for perceived valuable services.

The lack of direct research on WTP for ChatGPT among students highlights a gap that this study addresses, focusing on socioeconomic determinants. The study's findings suggest that economic benefits and perceived effectiveness of AI tools, noted by Sarafanov et al. (2024) and Skjeret et al. (2023), could also play a role in determining WTP for ChatGPT.

Moreover, the influence of social and cultural factors on WTP, as highlighted in prior research (Meričková and Muthová, 2019; Börger, 2013), is indirectly supported by our findings. For instance, the study found a significant relationship between the use of ChatGPT for commercial purposes and WTP ($VC = 0.24$), indicating that perceived utility and potential economic benefits drive willingness to pay, consistent with the literature on WTP for public goods and services.

6. Conclusions

This study investigated the willingness to pay (WTP) for ChatGPT among students, focusing on various socioeconomic factors such as gender, age, place of residence, paid work, income, savings, and the use of ChatGPT for commercial purposes.

The findings revealed that while a significant portion of students were unwilling to pay for the service, those who were willing to pay generally preferred lower price ranges. Notably, the study found statistically significant relationships between WTP and all examined demographic variables, with gender and the use of ChatGPT for commercial purposes being particularly influential.

The implications of these findings are twofold. For practitioners, understanding the factors influencing WTP can aid in developing targeted pricing strategies that consider the financial capabilities and perceived value among different student demographics. Educational institutions and technology providers might consider tiered pricing models or subscription plans tailored to different user groups, potentially enhancing adoption and maximizing revenue.

However, the study has certain limitations. The sample was limited to students from a single university, which may not be representative of the broader student population. Additionally, the study's focus on socioeconomic factors excludes other potential influences on WTP, such as psychological and cultural factors. The use of a cross-sectional survey design also limits the ability to capture changes in WTP over time.

Future research should address these limitations by expanding the sample size and diversity to include students from various educational institutions and cultural backgrounds. Longitudinal studies could offer insights into how WTP evolves with increased exposure and familiarity with ChatGPT.

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