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Reducing the Hypothetical Bias in Measuring Willingness to Pay for Mobile Communication Products

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Abstract: Willingness to pay (WTP) measurements often contain a hypothetical bias (HB) when participants' responses result from 'fictitious' survey scenarios rather than actual purchasing behavior or field studies. This discrepancy usually leads to inaccurate WTP values, which affect pricing strategies. Our quantitative online survey with German consumers (N = 215) examines the HB of WTP for different mobile phone plans as an example of a widespread consumer good. The aim is to focus on the correlation between hypothetical and actual WTP and the influence of socio-demographic factors on the HB. We used the Certainty Approach to correct hypothetical WTP data to reflect actual payment behavior. The findings show that hypothetical WTP values are generally higher than current expenditure, which demonstrates that HB significantly affects WTP measurements in the context of mobile communications products. The applied Certainty Approach successfully reduced this discrepancy. We found a moderate negative correlation between actual WTP and the extent of the HB, indicating that higher actual WTP is associated with lower bias. Moreover, socio-demographic factors such as age and income do not significantly influence the HB. This study suggests pricing strategies should consider HB-adjusted WTP values to avoid management decisions based on inflated hypothetical data.

Keywords: willingness to pay; hypothetical bias; certainty approach; pricing strategies; mobile communications products; quantitative online survey; Germany

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1. Introduction

Pricing and willingness to pay (WTP) function as overarching economic topics that are highly relevant across different industry, product, and service contexts. Studies dealing with the measurement of WTP often face the problem that the stated WTP data collected in hypothetical survey situations deviate from the actual payment behavior of consumers in real-world scenarios [1–3]. Researchers define this phenomenon as hypothetical bias (HB), which occurs when respondents answer differently than they behave [4]. In the context of WTP research, HB appears when hypothetical WTP values determined in 'fictitious' survey scenarios (e.g., surveys) deviate from actual WTP [1,5,6]. This behavior can be subconscious, since estimating one's own potential WTP for a specific product or service can be a cognitively challenging task [3,7], or it can be strategically motivated, e.g., for reasons of prestige or so-called social desirability [2,4,8–12]. The case of conscious manipulation is described as strategic bias [13]. Consumers often tend to (subconsciously) overestimate their WTP [4,14,15]. Schmidt and Bijmolt [16] quantify the average overestimation at 21 percent.

Researchers have developed various methods to identify, quantify, and reduce HB. These include ex ante and ex post approaches [1,4,17] depending on whether the technique

prevents HB or adjusts responses after data collection [13] (more details in Section 2). The risk of HB is that it can result in misleading data and incorrect pricing strategies or market decisions.

Compared to existing studies, this research provides clear quantitative evidence for the extent of HB, specifically in mobile communication services—a familiar but relatively underexplored category of consumer products in the context of HB research. In addition, the study helps to systematically analyze the influence of socio-demographic factors such as gender, income, and age on the extent of HB. By applying the Certainty Approach (and conducting additional robustness checks) for the certainty threshold $\geq$8, the study enhances the validity of the HB correction method. The findings highlight the context dependency of HB and emphasize the need for tailored adjustment and correction methods in pricing research, particularly for price-sensitive consumer segments. Thus, this paper mainly contributes to consumer research, where pricing decisions are crucial. The results are relevant to both business and economists, as the study addresses a critical problem in pricing strategies by focusing on the impact of HB on the determination of WTP.

We examine the extent of HB in a quantitative online survey measuring the WTP of German consumers for mobile phone plans and the influence of socio-demographic factors on HB. We use the practical example of mobile phone plans as a widespread every day (partly digital) consumer good. The mobile industry is a dynamic, innovative, and highly competitive market [18,19]. Mobile plans represent a specific consumer product with which the study participants are familiar but where consumer decision-making is difficult due to complex pricing structures (e.g., pre- vs. postpaid plans, one-time payments for devices or provision costs, etc.). Moreover, mobile plans are an example of a continuous service, which usually includes a contract [18]. Telecommunications products are quite similar across providers, making it difficult to differentiate their portfolios, resulting in fierce price competition [18]. The German mobile communications market, consisting of several large network operators and providers, is mainly characterized by high market saturation and, consequently, predatory competition [20]. Above all, our previous interviews with mobile industry experts [21] revealed that many had limited knowledge of the concept of HB and its impact on WTP valuations. This lack of knowledge can affect the accuracy of market research and pricing strategies, as mobile providers may not consider discrepancies between survey responses and actual purchasing behavior. In recent years, major developments have intensified these challenges; the expansion of 5G networks, the increasing reliance on mobile data services, and the growing role of subscription-based models have changed consumer expectations and behavior. Consequently, accurately capturing and adjusting WTP measures has become even more critical to avoid overestimations caused by HB. This study addresses a critical research gap by quantifying HB in different consumer segments, focusing on the evolving mobile communications sector, which contributes to more reliable pricing.

This paper aims to answer the following research questions (RQs) that all refer to mobile communications products in the German market: (RQ 1) Is there an HB in the measurement of WTP? (RQ 2) Does HB correlate with actual WTP? (RQ 3) Do socio-demographic factors influence the HB?

2. Research Background

WTP describes the maximum price consumers will pay for a defined product or service [22,23]. Researchers apply a wide range of methods to determine WTP, which can be categorized into revealed (e.g., market data) and stated preferences (e.g., surveys), whereby the latter can be further divided into direct (e.g., Van Westendorp Method = Price Sensitivity Meter) and indirect (e.g., discrete-choice analysis), as well as into hypothetical

and incentive aligned methods [22]. Figure 1 shows an overview of frequently used methods to measure WTP, whereby direct price inquiries (68 percent) and market data analyses (59 percent) are by far the most common [23].

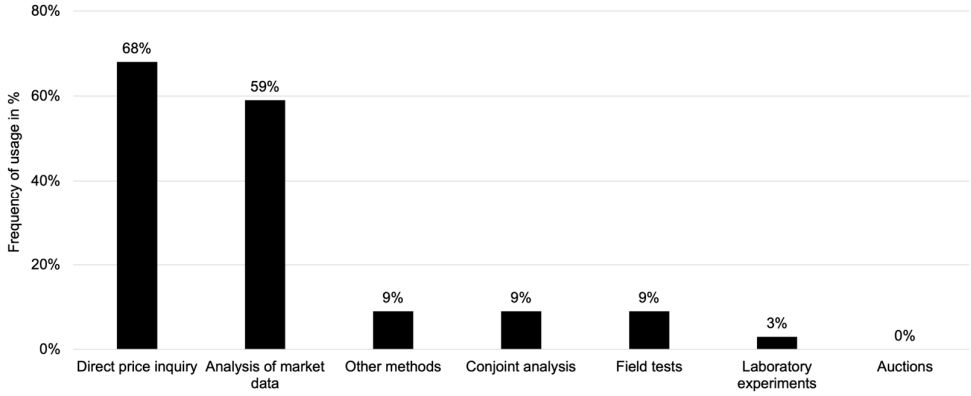

Figure 1. Frequency of methods used to determine WTP (based on [23]; newly illustrated).

There is an intense debate among researchers about which method provides low HB [10,16,24,25]. Some conclude that the HB in direct methods is higher [25], and others show a higher HB in indirect methods [23]. Previous studies have also examined different factors that influence HB. For example, the product category or novelty can affect the strength of HB [6,26]. Furthermore, researchers intensively discuss strategies to reduce HB, which can be divided into ex ante and ex post approaches, depending on whether the technique prevents HB in advance or adjusts responses after data collection [13]. Widespread examples are the so-called Cheap Talk Script (=ex ante) and the Certainty Approach (=ex post), while the latter proves to be more reliable [27]. (Alternative ex ante and ex post methods can be found in [4,17] but are not discussed further in this study.) Cheap Talk Scripts aim to sensitize participants to the phenomenon of the HB prior to the survey, including a request to honestly state their WTP values as they would in an actual payment decision scenario [5,15,28–37]. The Certainty Approach can adjust WTP data by assessing the certainty of consumers' answers. Thus, the participants rate the confidence of their stated WTP on a scale of 1 to 10. Subsequently, only responses with a certainty of $\geq$8 are considered adjusted WTP values [5,31,32,37,38]. The Certainty Approach has emerged as one of the most effective strategies to mitigate HB in stated WTP [39], as demonstrated by a recent meta-analysis [27]. The studies show that certainty adjustments significantly reduce HB, particularly when higher recoding thresholds are applied, resulting in more realistic WTP values. Bobinac [38] suggested that certainty scores, which are commonly used to adjust hypothetical WTP estimates, correlate with household income, indicating potential limitations in the reliability of the Certainty Approach and thus requiring further empirical investigation into the dynamics between response uncertainty, HB, and the influence of socio-demographic data. Beck et al. [40] also emphasize the need for continued investigation of certainty measures to develop the theory further and to address the lack of a coherent theoretical basis, especially in market scenarios where respondents are familiar with the choice alternatives, as the limited literature available concentrates mainly on the valuation of public goods. Therefore, we decided to focus on a familiar consumer good.

3. Methodology

The research design consists of two steps. First, we analyzed current product portfolios by collecting 65 mobile postpaid plans of 13 mobile communications providers in the German market (as of June 2023). We included mobile network operators (MNOs = operating

their own infrastructure), mobile virtual network operators (MVNOs = service providers without significant infrastructure), and sub-brands. The portfolios usually range from XS to XL products (= five product categories) to address different target groups, respectively, customer segments, varying in terms of data volume (in gigabyte = GB), price (in Euros/month), and price per GB and mobile technology (4G/LTE vs. 5G). We labeled XS to XL products as A to E to keep objectivity within the questionnaire.

In the second step, we conducted a quantitative online survey with mobile customers in Germany (N = 215) in June 2023 to measure hypothetical WTP and current expenditure. We recruited the study participants through the university network (= convenient sample) and implemented the Certainty Approach (ex post method) to assess the confidence in the respondents' answers and thus to adjust hypothetical WTP values by reducing HB. This enhances the accuracy of the results, providing a more realistic reflection of consumer behavior. Thus, the questionnaire captured both participants' hypothetical WTP and their self-reported current monthly expenditure on mobile phone plans, as well as a Certainty Approach. According to the stated average current expenditure per month for mobile phone usage (based on five proposed price ranges resulting from the portfolio analysis in step 1), we initially categorized the study participants into five different product/customer groups (see above XS to XL, respectively, A to E). Then, through corresponding separate questionnaire sections, we presented a plan appropriate to the current expenditure of the individual study participant and asked about the maximum amount the participant would be willing to pay for the proposed product. Accordingly, we applied a direct price inquiry based on predefined price ranges derived from current market offers. Therefore, we created five different mobile plans based on existing market offerings in advance to cover the range of products currently available on the German market. This product proposal consisted of information about the mobile technology (4G/LTE vs. 5G), the amount of included data volume (ranging from 5 GB up to unlimited), and the monthly price (ranging from EUR $\leq$ 6.99 to EUR $\geq$ 45.00 and more). To reduce the complexity of product variations and ensure that the mobile plans are comparable, we offered all presented products without device subsidy (e.g., smartphone), with a standardized contract duration of 24 months and a phone and SMS flat included. Subsequently, the Certainty Approach was implemented to measure how certain it was that the respondent would pay the stated amount in an actual purchase scenario (ranging from a scale of 1 = very unsure to 10 = very sure). In the following, the respondents had to state in concrete numbers what they currently pay for their monthly mobile usage. At the end of the questionnaire, we collected socio-demographic data such as gender, age, or personal monthly net income in Euros. In this way, we searched for potential influences of socio-demographic factors on HB to understand how diverse customer groups may be affected. The complete questionnaire is presented in Appendix A.1 (as an English translation of the original German text).

The data analysis process includes descriptive statistics, correlation, and regression analyses using SPSS Statistics software (version 29.0.2.0). To validate the stability of the observed HB, we conducted an additional robustness check using the Certainty Approach. Specifically, we excluded responses with a certainty rating below 8 and recomputed the mean values for stated and actual WTP, as well as the average deviation. We also calculated the correlation between actual WTP and HB for this subsample (n = 128). This robustness check allows us to examine whether the level of response certainty affects the main results.

4. Results

Before presenting the key findings, the socio-demographic characteristics of the sample are summarized to provide context for interpreting the findings. The final convenient sample comprises 65 percent female participants. About 38 percent of the sample is between 15

and 25 years old. Accordingly, female and young participants are overrepresented. Table 1 presents the distribution of gender, age, and income level among the study participants in detail.

Table 1. Socio-demographic characteristics of the survey sample (N = 215).

Variable	Category	n (%)
Gender	Female	141 (65.6%)
	Male	73 (34.0%)
	Diverse	1 (0.5%)
Age	15–25 years	81 (37.2%)
	26–35 years	43 (19.7%)
	36–45 years	21 (9.6%)
	46–55 years	33 (15.1%)
	56–65 years	29 (13.3%)
	66–75 years	4 (1.8%)
	Older than 75 years	3 (1.4%)
	No response	1 (0.5%)
Income	Less than EUR 500	17 (7.8%)
	EUR 500–999	28 (12.8%)
	EUR 1000–1249	20 (9.2%)
	EUR 1250–1499	12 (5.5%)
	EUR 1500–1749	12 (5.5%)
	EUR 1750–1999	18 (8.3%)
	EUR 2000–2499	27 (12.4%)
	EUR 2500–2999	21 (9.6%)
	EUR 3000–3499	15 (6.9%)
	EUR 3500 or more	23 (10.6%)
	No response	22 (10.1%)

Note. Due to rounding and missing answers, the percentages may not add up to 100.

The study shows that the hypothetical WTP values are, on average, 18 percent higher than the real WTP (= according to actual current expenditure) across different customer groups. This supports the existence of an HB, as consumers overestimate their WTP, which is consistent with previous studies (see Sections 1 and 2). Deviations in lower-cost plans were the greatest. We measured +31 percent for product A and +34 percent for product B, while higher actual WTP tends to lead to lower HB (deviation of −11 percent for product D and −28 percent for product E). This indicates that hypothetical WTP values of customers in the discount segment A/B, respectively XS/S, need more adjustment. In parallel, higher actual WTP values are associated with lower HB. In other words, the more consumers are willing to pay, the more accurate their stated WTP values are, i.e., the more realistic their self-assessment of WTP. This is proven by a moderate negative Pearson's correlation ($r = -0.417$; $p < 0.001$) between actual WTP and the degree of HB (which is consistent with [15]). Figure 2 shows the correlation between the average deviation in percent (between hypothetical and 'real' WTP data) and the average 'real' WTP in Euros (based on current expenditure) per product/customer segment. We found that socio-demographic factors (gender, age, income) do not significantly influence HB.

In the next step, we conducted a linear regression analysis to examine whether the deviation (in percent) between the 'real' and the hypothetical WTP is related to the level of real WTP (based on current expenditure). The deviation in percent is defined as the dependent variable, and the amount of the real WTP as the independent variable. The corresponding dot chart (Figure 3) shows a considerable scattering of data points at low levels of current expenditure (EUR < 20.00), with a particularly dense clustering of observations between EUR 5.00 and 15.00, suggesting greater variability or uncertainty among customer responses for smaller expenditure levels where purchase decisions might be more price-sensitive. For high WTP values (EUR > 60.00), the deviations are relatively

small, often close to 0 percent, indicating more accurate or consistent data for customers with higher expenditures and possibly more 'stable' usage patterns. The regression line exhibits a slight negative slope (−0.01), indicating that the deviation decreases slightly as the 'real' WTP pay (= current expenditure) increases. Although a statistically significant ($p < 0.001$) negative relationship exists, the relatively low explanatory power ($R^2 = 0.174$) of the regression model suggests that conclusions regarding factors influencing HB should be made with caution and consider the possible presence of unobserved influencing variables.

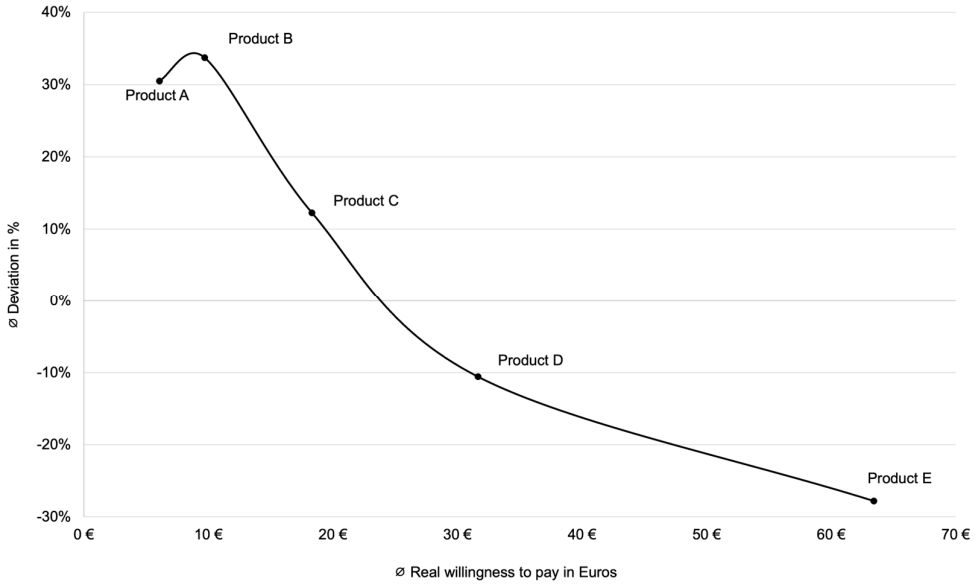

Figure 2. Correlation between the average deviation in percent and the average 'real' WTP (based on current expenditure) per product/customer segment.

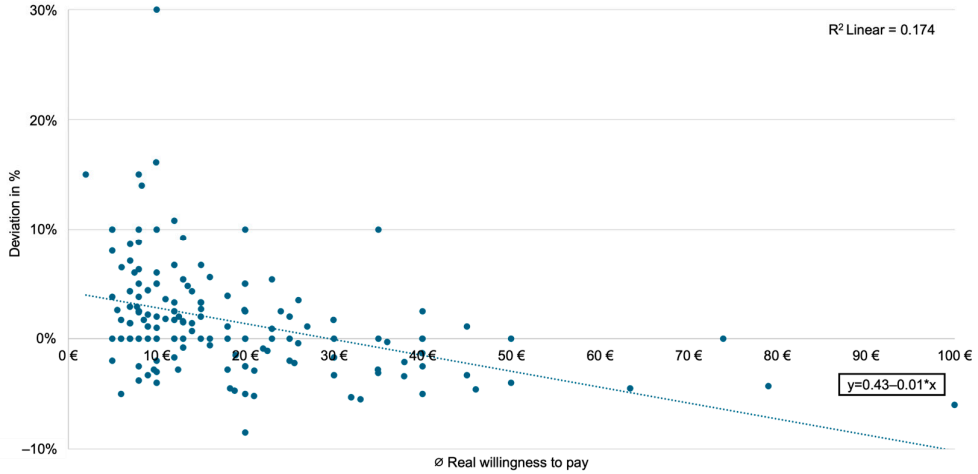

Figure 3. Scatter plot and regression line illustrating the relationship between the average deviation (in percent) and the average 'real' WTP (based on current expenditure) per product/customer segment.

By applying the Certainty Approach, we were able to adjust the hypothetical WTP values closer to the real values (= actual current expenditure). Accordingly, the Certainty Approach proved to be an effective method to mitigate HB. This applies above all to low-cost plans and hardly affects customer group E. Figure 4 illustrates the comparison of the average hypothetical WTP (= blue bars), the adjusted average hypothetical WTP using the Certainty Approach with a threshold value of ≥8 (= orange bars), and the average 'real' WTP (= green bars). Especially for the product categories A, B, and C, the adjusted

WTP values (orange bars) align more closely with the actual current expenditures (green bars) than the unadjusted hypothetical WTP (blue bars), suggesting that the Certainty Approach effectively reduces HB in these segments. Hypothetical WTP values (slightly) exceed actual WTP for lower product categories (A, B, C). Within higher groups (D/E), 'real' WTP (current expenditure) surpasses hypothetical data. This reversal in groups D and E indicates that customers with higher expenditures behave differently, possibly influenced by strategic considerations or reluctance to state high hypothetical payments. Maybe premium customers (XL) acted strategically (see Section 1) out of fear of raising market prices. To sum up, the Certainty Approach adjusts the data well and brings the WTP values closer to the current expenditure, but this is only the case for lower-priced plans. As shown in Figure 4, in product group E, the current expenditure is still clearly underestimated, even after certainty adjustment, highlighting that even the Certainty Approach has limitations in accurately adjusting WTP estimates for premium customer segments.

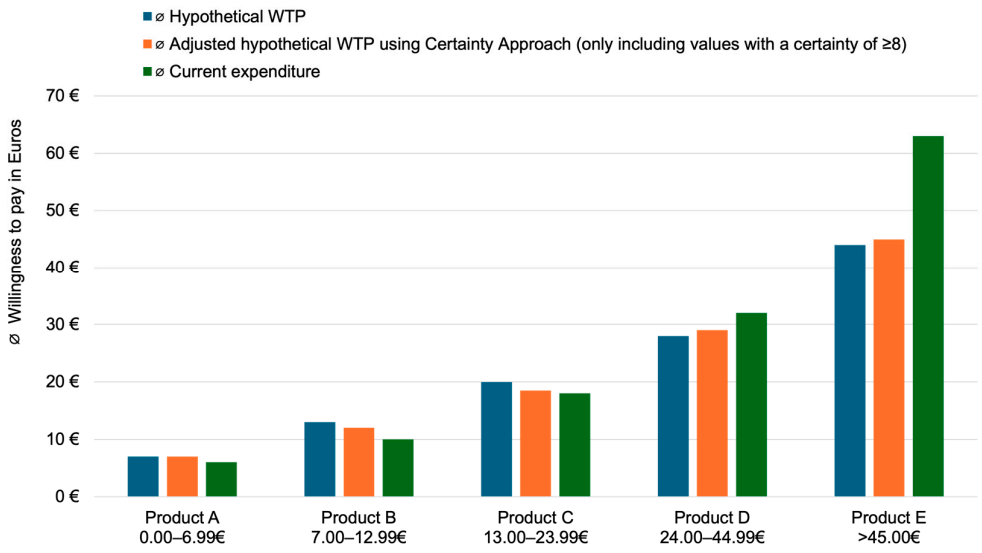

Figure 4. Comparison of the averages of hypothetical WTP, adjusted hypothetical WTP using the Certainty Approach (threshold ≥8), and 'real' WTP (based on current expenditure).

To test the robustness of the observed effect, we conducted an analysis based on the Certainty Approach using a conservative threshold of ≥8. Table A1 (Appendix B.1) presents the corresponding results. Even though the correlation between actual WTP and HB was no longer statistically significant in this subsample (n = 128; r = –0.055, $p = 0.540$), the direction of the relationship remained stable. This indicates that the observed bias is not solely driven by uncertain responses.

5. Discussion

This section discusses the theoretical contributions, practical and managerial implications, limitations, and future research directions of the present study. The findings extend the understanding of HB in WTP measurements, particularly in the underexplored sector of mobile communication services. Furthermore, the study offers practical recommendations for pricing strategies in complex and competitive markets and highlights avenues for future research, particularly in terms of refining methods for correcting HB and extending the applicability of the results to other sectors.

5.1. Theoretical Contributions

HB poses a significant challenge in reliably measuring WTP, even for products with which consumers are familiar in their everyday lives, such as mobile phone plans. We iden-

tified the presence of HB when examining WTP for mobile plans and found that it is even more pronounced in relative terms for low-price plans. The main theoretical contribution of this paper is the quantification of HB in the context of mobile communications products across different customer/product categories. Socio-demographics (gender, age, and income) do not significantly influence HB, which supports the reliability of our adjusted WTP estimates. Instead, we found a moderate negative correlation between actual WTP and the extent of HB. This means that as consumers' current expenditure increases, the accuracy of their self-reported WTP improves, which has implications for how WTP data should be interpreted. The findings thus contribute to a broader understanding of context dependency in HB and extend previous research by integrating different price segments and potential socio-demographic influencing factors.

5.2. Practical and Managerial Implications

The findings provide clear, practical implications by highlighting the importance of considering and reducing the HB in WTP surveys to obtain accurate, reliable data and optimize pricing strategies. In this context, the applied Certainty Approach offers a promising, effective ex post solution by correcting the WTP data to mitigate the widespread phenomenon of HB. Accordingly, our findings are consistent with recent meta-analytic evidence suggesting that the Certainty Approach substantially reduces HB [27]. In addition, the robustness check using the Certainty Approach confirms that the observed HB is not solely driven by uncertain responses. Although the correlation between actual WTP and HB was no longer statistically significant when only responses with a certainty rating of $\geq$8 were included (likely due to the reduced sample size), the direction of the effect remained consistent (Appendix B.1 Table A1). This underscores the robustness of the observed HB and supports the use of certainty-adjusted WTP data. Although the adjusted data reflect actual payment behavior better, we could not eliminate HB. Nevertheless, the study provides valuable guidance for more precise pricing strategies. We suggest companies (in the mobile communication sector) to focus (only) on adjusted WTP data in their pricing models and to differentiate between customer segments in terms of HB. This can significantly enhance decision-making processes in the context of consumer behavior analysis by avoiding overestimating consumers' WTP and inflated pricing decisions.

The findings of this study are particularly beneficial for mobile communication providers, market research companies, and consultants in the field of pricing strategy. By providing evidence on the extent and drivers of HB in WTP assessments, the study contributes to improving the accuracy of survey-based pricing decisions. The study thus offers valuable insights not only for the telecommunications industry but also for the broader domain of behavioral pricing research. Furthermore, the results are also transferable to other sectors characterized by complex and subscription-based pricing structures, such as streaming services or digital platforms, where HB may similarly distort WTP measurements.

5.3. Limitations and Future Research Directions

Regarding limitations, the current data are based on a convenient sample (N = 215), which might not be large enough to generalize the findings to a broader population. We achieved a wide distribution across different income groups, but female and young survey participants are overrepresented. Secondly, the results are limited to the German mobile market and rely on self-reported data, which can introduce bias (e.g., current expenditure for mobile usage). Thirdly, the subsequent regression analysis revealed a weak relationship between the average deviation (in percent) and the average 'real' WTP, indicating that other factors beyond real WTP might significantly explain the measured deviations. Additionally, the study only focuses on the Certainty Approach as an ex post correction.

Future studies should further examine and refine techniques for identifying, measuring, and reducing (or even eliminating) HB, for example, compare/combine the Certainty Approach with alternative ex ante/ex post methods to reduce HB in (online) surveys. Although the Certainty Approach proved to be effective in reducing HB, the weaker and non-significant correlation at the threshold ($\geq$8) suggests that certainty-based adjustments might have limitations in consistently capturing the true relationship between actual WTP and HB. Future studies should explore the implications of different certainty thresholds more systematically and assess their validity. Further research should examine the impact of the HB across different socio-demographics/target groups (diverse gender, age, and income) and product categories to include a broader demographic representation to obtain generalizable results. In this context, additional variables could be explored, such as customer preferences, brand loyalty, or past experiences (with providers). Lastly, studies investigating HB in other industry contexts or product categories could be insightful.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The original contributions presented in this study are included in the article. Further inquiries can be directed to the corresponding author.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Appendix A.1 Questionnaire Design (Translated from German)

Willingness to pay for mobile communications products

Thank you for taking the time to participate in this survey about willingness to pay for mobile communication plans. Please note that this is a hypothetical scenario without real-world consequences. When entering price amounts, please use a period (.) instead of a comma (,). (Example: 1.99 instead of 1,99.) The survey is anonymous, and the provided data cannot be linked to individual participants.

Section I: Introduction

1. How much do you currently pay per month for your mobile plan?

- EUR 0.00–6.99
- EUR 7.00–12.99
- EUR 13.00–23.99
- EUR 24.00–44.99
- EUR 45.00 or more

Section II: Plan A to E [Assignment of respondents depending on answer to filter question 1]

Plan A

A2. How much would you be willing to pay per month for the following described plan?

- 5 GB data volume per month
- LTE
- 24-month contract period
- Unlimited calls and SMS included
- Without smartphone subsidy (smartphone is required)

Please enter the specific amount in Euros (gross).

A3. How certain are you that you would pay the amount indicated in a real purchase situation?

- Scale from 1 (Not sure at all) to 10 (Very sure)

A4. How much do you pay per month for your current mobile plan?

- Please enter the specific amount in Euros (gross).

Plan B

B2. How much would you be willing to pay per month for the following described plan?

- 12 GB data volume per month
- LTE
- 24-month contract period
- Unlimited calls and SMS included
- Without smartphone subsidy (smartphone is required)

Please enter the specific amount in Euros (gross).

B3. How certain are you that you would pay the amount indicated in a real purchase situation?

- Scale from 1 (Not sure at all) to 10 (Very sure)

B4. How much do you pay per month for your current mobile plan?

- Please enter the specific amount in Euros (gross).

Plan C

C2. How much would you be willing to pay per month for the following described plan?

- 20 GB data volume per month
- LTE
- 24-month contract period
- Unlimited calls and SMS included
- Without smartphone subsidy (smartphone is required)

Please enter the specific amount in Euros (gross).

C3. How certain are you that you would pay the amount indicated in a real purchase situation?

- Scale from 1 (Not sure at all) to 10 (Very sure)

C4. How much do you pay per month for your current mobile plan?

· Please enter the specific amount in Euros (gross).

Plan D

D2. How much would you be willing to pay per month for the following described plan?

- 50 GB data volume per month

- 5G
- 24-month contract period
- Unlimited calls and SMS included
- Without smartphone subsidy (smartphone is required)

Please enter the specific amount in Euros (gross).

D3. How certain are you that you would pay the amount indicated in a real purchase situation?

- Scale from 1 (Not sure at all) to 10 (Very sure)

D4. How much do you pay per month for your current mobile plan?

- Please enter the specific amount in Euros (gross).

Plan E

E2. How much would you be willing to pay per month for the following described plan?

- Unlimited data volume
- 5G
- 24-month contract period
- Unlimited calls and SMS included
- Without smartphone subsidy (smartphone is required)

Please enter the specific amount in Euros (gross).

E3. How certain are you that you would pay the amount indicated in a real purchase situation?

- Scale from 1 (Not sure at all) to 10 (Very sure)

E4. How much do you pay per month for your current mobile plan?

- Please enter the specific amount in Euros (gross).

Section III: Socio-demographic Data

5. What is your gender?

- Male
- Female
- Diverse

6. What is your age group? [Dropdown selection]

- 15–25 years
- 26–35 years
- 36–45 years
- 46–55 years
- 56–65 years
- 66–75 years

7. What is your average monthly net income (in Euros)?

- Less than EUR 500
- EUR 500 to less than 1000
- EUR 1000 to less than 1250
- EUR 1250 to less than 1500
- EUR 1500 to less than 1750
- EUR 1750 to less than 2000
- EUR 2000 to less than 2500
- EUR 2500 to less than 3000

- EUR 3000 to less than 3500
- EUR 3500 or more
- No response

Appendix B

Appendix B.1 Analyses

Table A1. Robustness Test—Certainty Approach (based on ≥8).

Metric	Full Sample (N = 215)	Certainty ≥8 (n = 128)
Mean hypothetical WTP (WTP_h)	EUR 17.80	EUR 18.07
Mean real WTP (WTP_r)	EUR 17.34	EUR 18.49
Mean relative deviation per respondent	0.32	0.28
Pearson correlation (WTP_r vs. HB)	r = –0.417 ($p < 0.001$)	r = –0.55 ($p = 0.540$)

Note: The mean individual relative deviation is based on respondent-level ratios and not directly comparable to differences in mean values.

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