

Unpacking the Pink Tax: How Gender-Based Pricing Influences Consumer Perceptions

Master's Thesis



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e.g.	For example (Latin: <i>exempli gratia</i>)
et al.	And others (Latin: <i>et alii/alia</i>)
p.	Page
pp.	Pages
NYCDCA	New York City Department of Consumer Affairs
GAO	United States Government Accountability Office

Abstract

In present days, women still encounter various economic challenges, including gender-based pricing disparities, also known as the pink tax. This paper explores consumer perceptions of fairness regarding gendered pricing in consumer goods, focusing on razors. Through a survey-based analysis with 118 participants, this thesis investigates how consumers perceive gender-based pricing in scenarios with differentiated and undifferentiated products, considering the influence of prior knowledge about the pink tax. The results reveal that consumers, particularly women, perceive gender-based pricing as unfair, and prior knowledge of the pink tax exacerbates this perception. Yet, there is no significant difference in perceived price fairness between the differentiated and undifferentiated product scenarios. Drawing from these insights, this paper offers practical and managerial implications. It suggests that there is still a need for more awareness and education on the topic to empower consumers to make informed decisions. Furthermore, it also suggests that managers review both their pricing policies as well as product design choices, aligning with expectations of fairness to ensure trust and loyalty among consumers and, in turn, profits.

Keywords: Pink Tax, Gender-based Price Discrimination, Price Fairness, Consumer Perception, Gender Differences

1. Introduction

In today's world, women still face many economic and social obstacles in their everyday lives that their male counterparts do not. Globally, women still earn less, accumulate less wealth, and hold fewer leadership positions than men (World Economic Forum 2022, pp. 5–7). Although the gender pay gap in the United States has narrowed as female workers increasingly entered higher-earning traditionally male jobs, it seems unlikely to vanish entirely in the following years (Blau and Kahn 2000, pp. 96–97). Nevertheless, while topics such as the gender wage gap have been well-documented, other, more subtle financial burdens on women remain less well-known and researched (Guittar et al. 2022, p. 2). Some topics, such as the so-called tampon tax, referring to the practice of taxing menstrual hygiene products and classing them as non-essential products, gained public awareness and, subsequently, legislative interest (Crawford and Waldman 2018, p. 439). For example, public pressure led the United Kingdom to abolish the value-added tax on women's sanitary products entirely (HM Treasury 2021). This demonstrates that public awareness of these topics can be an essential step in improving gender equality. Additionally, it shows that the prices of consumer goods seem to play a significant role in the financial burden women suffer. Thus, given the socially sensitive nature of gender disparities, such topics warrant further investigation.

One such topic that has gained increasing academic interest in recent years is the so-called pink tax, referring to the phenomenon that women are charged higher prices than men for similar goods (Guittar et al. 2022, p. 1). According to the literature, pricing is one of the most important tools of the marketing mix, with an undeniable impact on the financial results of a company (Hinterhuber 2004, p. 765). Furthermore, scholars have already shown that not only the prices themselves but also how consumers perceive the fairness of prices influences their purchase decisions, which can, in turn, impact a firm's profits, underscoring the economic

impact of fair prices (Campbell 1999, p. 187; Maxwell 2002, p. 191). From a strategic marketing perspective, acknowledging the importance of consumer perceptions on firms' profits makes it crucial for marketing managers to unravel the intricacies of consumer perspectives on the pink tax. Hence, it is essential, from both a gender equality and economic standpoint, to delve into consumers' perceptions of the pink tax.

Therefore, this paper seeks to investigate consumer responses, namely the perceived fairness of gendered pricing in scenarios with gendered products. For this purpose, this study aims to empirically test how consumers perceive price fairness in differentiated versus undifferentiated product scenarios. The objective is to answer the following research questions: (1) How do consumers perceive the fairness of both differentiated and undifferentiated gender-based product pricing? (2) Do men or women perceive gender-based pricing as more unfair? (3) Does prior knowledge about the pink tax influence the sense of price fairness?

To answer these questions, this thesis proceeds as follows: The following section will present insights into the recent research through an extensive literature review. The first subchapter will examine existing literature on price discrimination, followed by a chapter on gender based-pricing and pink tax as well as perceived price fairness. The next chapter will outline the development of the hypotheses and present the research model. Afterward, the paper will present the methodological approach and survey design, covering both the procedure and the measures in subchapters. The following chapter will be on the empirical analysis and results, delving into the preliminary data analysis, the descriptive statistics, and the hypothesis testing. Lastly, there will be a discussion covering a summary of the findings, the practical and managerial implications, as well as the limitations of the study and avenues for possible future research.

2. Literature Review

In the following subchapters, this paper will first focus on price discrimination, covering first-, second-, and third-degree price discrimination and providing examples. Then, it will cover the topic of gender-based pricing and pink tax, defining the phenomena and providing an overview of the recent research. In this chapter, the paper will also give a short insight into the possible explanations and implications of gendered pricing. The last chapter of this section will cover the topic of perceived price fairness, define what it encompasses, and relate it to gender and gendered pricing.

2.1. *Price Discrimination*

According to research, price discrimination is one of the most prevalent and simultaneously beneficial marketing tactics a firm can employ (Varian 1989, p. 598). Although it is a common economic phenomenon, there are still varying definitions for price discrimination, with the conventional one being that it refers to two goods sold at varying prices to different consumers (Varian 1989, p. 598). However, this definition is lacking due to two reasons; first, price discrimination could still exist even if all consumers pay the same price, and second, different prices for different consumers could be due to varying costs such as transportation costs (Phlips 1983, pp. 5–6). Therefore, this paper will focus on the definition by Stigler (1987, p. 210), who defined price discrimination most prominently "[...] as the sale of two or more similar goods at prices that are in different ratios to marginal cost". Consequently, price discrimination occurs when prices vary between customer segments in a way that is not explainable by varying marginal costs (Stole 2007, p. 2224). This definition aligns with the perspective that the central idea of price discrimination is maximizing the seller's profits by exploiting the buyer's heterogeneity in willingness to pay (Wu et al. 2012, p. 106). Nonetheless, even this relatively narrow definition leaves room for many different forms of price discrimination, such as the

classic first-, second-, and third-degree discrimination or other forms like intertemporal price discrimination and product bundling, which this paper will not explore further (Stole 2007, p. 2225).

First-degree price discrimination, also known as perfect price discrimination or person-specific pricing in more recent literature, occurs when a seller charges different prices for each unit of a good in a manner that the charged price corresponds to the maximum willingness to pay of each buyer (Varian 1989, p. 600; Waldfogel 2015, p. 569). Hence, in theory, employing first-degree price discrimination allows the sellers to capture all consumer surplus and is, therefore, excessively beneficial for them (Stole 2007, p. 2229). Nevertheless, this form of pricing is rare in practice and often only discussed in theory to serve as an intellectual benchmark (Waldfogel 2015, p. 569). One example in literature is the use of bargaining to reduce prices (Phlips 1988, p. 137). Nonetheless, it is essential to bear in mind that perfect price discrimination is nearly impossible as it is challenging to accurately determine the maximum price a consumer would be willing to pay, especially in the conventional brick-and-mortar context (Salman and El Ayou 2019, p. 33).

Contrary to first-degree price discrimination, second-degree price discrimination means that prices do not differ across consumers but depend on the number of units of a good that a consumer buys (Varian 1989, p. 600). Therefore, it is also known as indirect or non-linear pricing (Stole 2007, p. 2262). Consequently, non-linear prices refer to prices that are quantity-dependent (Phlips 1988, p. 139). A well-known example would be quantity discounts or premia, such as discounts for bulk buying (Varian 1989, p. 600). Although there is limited empirical research on quantity discounts, one study examined quantity discounts based on package size and found that this kind of price discrimination could contribute significantly to retailer profitability (Khan and Jain 2005, p. 516). Generally speaking, quantity premiums and discounts can have different qualitative effects; while premiums push consumption down in the

spectrum of the buyer, discounts push consumption up in the same spectrum (Spence 1977, p. 17). Nevertheless, Spence (1977, p. 17) also points out that buyers can easily undermine quantity premiums by repeated purchasing of smaller quantities, and discounts can be rendered ineffective by resale.

Whereas second-degree price discrimination can be observed regularly, third-degree price discrimination is said to be the most typical form (Cowan 2012, p. 333). It occurs when different consumers pay different prices, yet each product unit costs the consumer a constant amount (Varian 1989, p. 600). To enact third-degree price differentiation, a firm typically uses an exogenous signal to classify consumers into different markets and subsequently charge prices that differ across these markets (Cowan 2012, p. 333). To segment their customers in this way, firms typically rely on observable consumer attributes (Wu et al. 2012, p. 107). Notably, these segmentations can either comply with accepted social norms or consumers can perceive them as discriminatory because they go against social norms (Wu et al. 2012, p. 107). If price discrimination goes against social norms, firms that violate fairness concerns can risk adverse reactions from consumers (Okada 2014, p. 701). Regarding the ethics of this practice, the literature argues that while price discrimination is not unethical in itself, price discrimination as a way to express dislike for a class of individuals is (Elegido 2011, p. 639). The same paper states that where price discrimination is morally neutral, cases with adverse distributional effects or worsening the standing of vulnerable groups should be further investigated (Elegido 2011, p. 639). Prominent examples of common third-degree price discrimination include student discounts or discounts offered to senior citizens (Holmes 1989, p. 244). Notably, these discounts are probably not provided due to altruism but to maximize profits by offering a low price to capture a market with high demand elasticity (Holmes 1989, p. 244).

In summary, while first-degree price discrimination is rarely observable and often used as a theoretical concept, second-degree price discrimination is a more common practice in pricing, referring to charging different prices depending on quantities. Third-degree price discrimination is the most prevalent form of price discrimination, allowing firms to capture demand by charging different consumer segments different prices. However, it might also encapsulate some risks for firms that go against social norms.

2.2. Gender-Based-Pricing and Pink Tax

One prominent albeit controversial form of third-degree price discrimination is discrimination based on gender, meaning that men and women are charged different prices, with the differential reflecting the elasticity of demand of each gender (Liston-Heyes and Neokleous 2000, p. 110). Literature often references this phenomenon as the pink tax (Guittar et al. 2022, p. 1). The name is reminiscent of the so-called tampon tax, a name that draws attention to the additional costs women incur due to the taxing of menstrual hygiene products as a non-essential good (Crawford and Waldman 2018, p. 439). Although the name pink tax seems to hint towards a government tax, the term primarily refers to the additional costs that women are said to incur for goods marketed explicitly to women, even though these goods are either homogeneous or very similar to products for men (Salman and El Ayou 2019, p. 32). Before the term established itself in the literature, there were also references to a female or a gender tax. Yet, the term pink tax probably prevailed due to the common use of pink colors in marketing products to female consumers (Jacobsen 2017, pp. 241–42).

There already is extensive literature on gender differences in pricing disadvantaging women, for cars (Ayres 1991, p. 817; Ayres and Siegelman 1995, p. 304), car repairs (Busse, Israeli, and Zettelmeyer 2017, p. 75), mortgages (Cheng, Lin, and Liu 2011, p. 423), loans (Alesina, Lotti, and Mistrulli 2013, p. 45), or services such as hair dressing and dry cleaning (Duesterhaus et al. 2011, p. 181; Liston-Heyes and Neokleous 2000, p. 112). Several studies

have also shown that there are many instances where similar products cost more, depending on whether they target women or men (Bessendorf 2015, p. 5; Duesterhaus et al. 2011, p. 175; Guittar et al. 2022, p. 1; United States Government Accountability Office 2018, p. 11). For example, Guittar et al. (2022, p.14) found that women pay more for goods such as deodorants and lotions. One of the most extensive studies on the pink tax to date by the New York City Department of Consumer Affairs (NYCDCA) reported that products targeted at women cost 7% more than those for men, with personal care products showing the highest differences in prices, where women did not only pay 13% more on average, but the products were also more expensive for them 56% of the time (Bessendorf 2015, pp. 5–6). Consequently, the NYCDCA found that women pay, on average, more for hair care, razor cartridges, razors, lotion, deodorant, and body lotion (Bessendorf 2015, p. 11). The United States Government Accountability Office (GAO), using Nielsen data, also found that women paid on average more for underarm and body deodorant, shaving cremes, designer perfume, and body sprays (United States Government Accountability Office 2018, p. 11).

Despite these findings, it is vital to bear in mind that it is often virtually impossible to prove that these findings are, in fact, price discrimination, as this would require detailed information on the costs that the producers incur (Duesterhaus et al. 2011, p. 178). Furthermore, many of these studies also found instances in which men paid more, contradicted each other, or came to different results for different products (Bessendorf 2015, p. 5; Duesterhaus et al. 2011, p. 175; Guittar et al. 2022, p. 1; United States Government Accountability Office 2018, p. 11). To exemplify, Duesterhaus et al. (2011, p. 184) and Guittar et al. (2022, p.14) both found no significant price difference between women and men for razors, yet other authors showed that women pay more for razors (Bessendorf 2015, p. 11; Chang and Lipner 2021, p. 494; Maloney 2016, p. 2) and the GAO reported that while there are no significant price discrepancies for disposable razors, men pay more for non-disposable razors (United States Government

Accountability Office 2018, p. 11). Moreover, a very recent study found that while personal care products are, on average, 10.6% more expensive for women than for men, the price differences shrink for substantially similar products (Moshary, Tuchman, and Vajravelu 2023, p. 11). Hence, the authors challenged whether a pink tax even exists or rather something which they coin as a “pink gap,” as they found little price differences in an apples-to-apples comparison of products (Moshary, Tuchman, and Vajravelu 2023, pp. 11–12). This is also interesting, as it begs the question of whether there might be not only a difference in the pricing of differentiated versus undifferentiated products but also in consumers’ responses to the pricing. However, there is still a gap in research regarding the consumer response to differentiated versus undifferentiated products in the context of gendered pricing.

Nonetheless, the question of why there are any price differences between products for men and women remains. An explanation for the price discrepancies might be that the products and services for women may cost the producers more, leading firms to employ cost-based pricing and arrive at a higher price for women (Hinterhuber 2008, p. 42). Therefore, one argument could be that gender-based price differences are due to higher advertising or manufacturing costs. However, as some authors pointed out, without corporate-level data on production and marketing costs, it is nearly impossible to determine whether or to what extent a pink tax is due to actual costs (Guittar et al. 2022, p. 5). This argument is also called into question by the findings of the Joint Economic Committee of the United States Congress, which showed that even everyday products that only vary by color, such as pens, are more expensive when they target women (Maloney 2016, p. 2). The NYCDCA study also reported that while personal care products for men and women often differ in ingredients, these differences are typically not a significant driver of costs (Bessendorf 2015, p. 34). Instead, the study pointed out that according to experts, the research and development process is typically the major cost factor of these products, which should not translate to higher costs solely for female consumers

(Bessendorf 2015, p. 34). Hence, research cannot provide a unanimous answer as to whether the price discrepancies are due to costs, yet there seems to be some evidence against it.

Another possible explanation might be that women are generally willing to pay more for some products or services because they value them more than men, pointing towards the assumption that the sellers employ value-based pricing. In accordance with this, some research pointed out that, in general, men and women might not only want different products but could also differ in their ways of thinking about obtaining these (Mitchell and Walsh 2004, p. 331). Other authors have also argued that the decision to buy one product rather than another is often more about the chosen product reflecting the consumer's identity rather than simply comparing prices or other differences (Duesterhaus et al. 2011, p. 184). Therefore, women might accept a pink tax if they believe paying more for these products or services is customary and if they attach a higher value or need to gendered products or services (Duesterhaus et al. 2011, p. 187). Regarding the perceived value of gendered products, literature on gender-based pricing is still lacking. However, it provides some theories regarding the influence of the social construct of gender. Gendered products often offer a way in which women do gender or perform femininity (Duesterhaus et al. 2011, p. 187). When women buy a lotion with a floral fragrance and extra moisturizing properties to beautify their bodies, the product is not only bought for its use-value but also for what it represents (Duesterhaus et al. 2011, pp. 184–85).

Furthermore, for women, beauty and performing gender are essential, as beauty can affect their prospects in education, employment, and marriage (Kwan and Trautner 2009, p. 52). The findings from the NYCDCA study underscore this argument as they reported the highest discrepancies in prices between men and women in the personal care category, which is closely associated with traditional beliefs about femininity (Bessendorf 2015, p. 5). All of this shows that the perceived value and, consequently, the price of gendered products might be due to societal expectations that women conform to female beauty standards and women's desire to

do so (Duesterhaus et al. 2011, p. 184). This is underscored by the prevalence of marketing similar products differently to the genders, indicating that these goods somehow fulfill the wants and needs of consumers (Duesterhaus et al. 2011, p. 184). Although many authors have theorized why there are price discrepancies, there is still little empirical research to answer this question.

One of the most obvious implications of higher prices for products and services marketed toward women is that women pay, on average, more than their male counterparts over time, resulting in a considerable financial burden (Guittar et al. 2022, p. 2). As scholars have shown that the pink tax is distinctly prominent in personal care products, which are also purchased more frequently than most other consumer goods, this price discrimination is considered especially detrimental for women (Guittar et al. 2022, p. 2). Whereas the cost of individual price differences may seem insignificant, the cumulative cost can still be significant, especially to those with a lower income (Duesterhaus et al. 2011, p. 185). Besides increasing women's financial burden, gendered pricing might also contribute to gender inequality by reinforcing stereotypical thinking about men and women (Duesterhaus et al. 2011, p. 175). Scholars believe that it furthers believes that men and women are fundamentally different and that masculinity is the norm while women are inherently more difficult (Duesterhaus et al. 2011, p. 188). Consequently, pricing based on gender could be one way in which gender inequality is reinforced in everyday life, furthering gender distinction (Duesterhaus et al. 2011, p. 188).

In summary, numerous studies over the last years could show significant price differences depending on gender, generally affecting women, especially in the personal care sector. However, gender-based pricing or a pink tax does not seem to be pervasive across all categories and products. Literature also does not offer one clear answer to the question of why gender-based price differences persist. Yet, there are some attempts to explain the phenomenon, ranging from cost-based explanations to value-based answers with a prominent focus on the

social construct of gender and beauty. Regarding the implications of gendered pricing, literature has shown that if gender-based pricing disproportionately disadvantages women, it will also lead to a disproportionate financial burden for women while possibly reinforcing gender stereotypes. Nevertheless, the question remains of how consumers perceive the fairness of gender-based pricing.

2.3. *Perceived Price Fairness*

Ever since the seminal articles on price fairness by Kahneman, Knetsch, and R. Thaler (1986, p. 285; 1986, p. 728), there has been a significant surge in research regarding price fairness within the field of marketing. Literature has since defined the perceived price (un)fairness as “[...] a consumer’s subjective sense of a price as right, just, or legitimate versus wrong, unjust, or illegitimate” (Campbell 2007, p. 261). Price comparisons can be both explicit, for example, when consumers compare prices or price ranges, and implicit, when senior citizens perceive a price as unfair due to their limited income (Xia, Monroe, and Cox 2004, p. 2). In this context, it is also important to note that research has argued that fairness and unfairness might be distinct conceptual constructs (Xia, Monroe, and Cox 2004, p. 1). While ideas of unfairness are more defined and tangible, and people seem to recognize what is unfair when they see it, those of fairness are often more challenging to articulate (Xia, Monroe, and Cox 2004, p. 1). Notably, the reactions to fair or unfair prices are primarily emotional and occur swiftly and automatically (Maxwell 2008, p. 501). When a person experiences fair treatment, the brain rewards them and elicits positive feelings, while unfair treatment can evoke emotions like anger or disgust (Maxwell 2008, p. 501). However, generally speaking, the price that a consumer expects is also the price that said consumer would perceive as fair (Maxwell 2008, p. 502).

Research has shown that price fairness influences purchase decisions (Maxwell 2002, p. 191). Hence, price changes perceived as unfair can lead to lower shopping intentions and, thus, lower a firm's profits (Campbell 1999, p. 187). Furthermore, behavioral pricing literature

has repeatedly shown that the perceived motive for price changes can influence the consumer's judgments of price fairness (Campbell 1999, p. 187; Homburg, Hoyer, and Koschate 2005, p. 36). Prices that are in violation of social norms or that cannot be justified lead to accusations of unfair prices and subsequently affect buyers' attitudes toward the seller and willingness to purchase (Maxwell 2002, p. 191). This means that inconsistent and untransparent prices do not align with social norms of equity and equality and, thus, would be considered unfair (Maxwell et al. 2009, p. 509). Moreover, judgment on price fairness is inherently subjective; consequently, this judgment tends to be influenced by the buyer's self-interest, as they aim to optimize their outcome (Xia, Monroe, and Cox 2004, p. 2). Therefore, when inequality favors the buyer, the sense of price unfairness is typically less pronounced than when it works to the buyer's detriment (Xia, Monroe, and Cox 2004, p. 2). On the same note, in a study without price, research showed that consumers judged both advantageous and disadvantageous inequality as unfair but saw the latter tended to as more unfair (Ordóñez, Connolly, and Coughlan 2000, p. 329).

Furthermore, while there has been some research concerning gender differences in response to unfair prices, it seems that this area requires further research. One idea is that women should be more sensitive to unfair prices due to their gender role of traditionally being the family member responsible for shopping (Maxwell et al. 2009, p. 509). In an experiment testing the responses of women and men to personally and socially unfair prices, American women indeed reacted more negatively to unfair prices than men (Maxwell et al. 2009, p. 514). However, conversely, the same study also found that men reacted just as negatively as women to price unfairness in Germany and South Korea (Maxwell et al. 2009, p. 508). Therefore, Maxwell et al. (2009, p. 508) argued that the reaction to unfair prices is influenced more by nurture than nature, meaning that environmental factors and upbringing seem to be more important than the possible innate characteristics associated with gender. Another study

assessed the perceived price fairness and subsequent repurchase intentions of both men and women in a demand-based pricing scenario (Beldona and Namasivayam 2006, p. 89). The study reported that female participants perceived less fairness than males in demand-based pricing in both the discount and surplus scenarios of the study (Beldona and Namasivayam 2006, p. 102).

In regard to the perceived price fairness of gendered pricing, the literature is still lacking, and gaps remain. Nevertheless, some researchers have pointed out that women could be used to being underpaid and overcharged, as women relate to stereotypes and regularly experience discrimination in their economic transactions (Ferrell et al. 2018, p. 1026). Hence, Ferrell et al. (2018, p. 1026) speculated that the wage gap and the fact that women pay more for various products and services could make female consumers numb to this kind of price discrimination. In experiments, they showed that female consumers expected to spend more for services that they believed to require more effort, such as services at a hair salon (Ferrell et al. 2018, p. 1026). However, women did not expect to pay higher prices for services they perceived to be the same regardless of gender (Ferrell et al. 2018, p. 1026). When the authors confronted women with gendered pricing that is hard to justify, such as higher prices for the dry cleaning of simple shirts, they responded with anger, shock, and outrage using terms like "sexism," "unfair," "ridiculous," and "absurd" (Ferrell et al. 2018, p. 1028).

Notably, men expected gendered pricing in both justifiable and non-justifiable instances, suggesting that men embrace gender-based pricing more (Ferrell et al. 2018, p. 1026). However, whether these findings apply to pricing outside of the service sector remains unclear. Generally speaking, most people would perceive gender discrimination, and therefore gendered price discrimination, as going against social norms and unfair (Okada 2014, p. 712). Following this line of argument, both genders should, if they are aware of gendered pricing, perceive it as unfair as it goes against social norms of equality (Maxwell et al. 2009, p. 509). Fittingly, a smaller study focused on differently priced and colored pens, as well as razors, also found that

female consumers perceive the pink tax as unfair, especially if they are knowledgeable about gendered pricing (Stevens and Shanahan 2017, pp. 573–74). However, the study also reported that women might still be willing to accept higher prices if it allows them to signal their femineity (Stevens and Shanahan 2017, p. 575). There is also no research on how consumers perceive the price fairness of differentiated versus undifferentiated products in the context of gendered pricing.

To summarize, on the one hand, there is an extensive body of literature on price fairness, defining the concept and showing the possible adverse effects of unfair prices. However, on the other hand, the literature regarding gender and the perceived price fairness of gendered pricing is still limited.

3. Hypotheses Development and Research Model (Empirical Research)

This section will outline the development of the hypotheses and present the research model. The hypotheses are developed based on the literature review on gender-based pricing and perceived price fairness. This study focuses on two products with different levels of differentiation to investigate how consumers perceive price fairness in a gendered pricing scenario. While the products, namely razors, in the undifferentiated scenario will be virtually the same, only differing by color, the razors in the differentiated scenario will vary substantially. In both scenarios, the pink razor targeted at women will be more expensive. Most people expect two virtually identical products, except for the color, to be priced the same. Based on the existing research, the price should be perceived as unfair if this expectation is violated (Maxwell 2008, p. 502). Furthermore, it could be seen as going against social norms of equality to charge men and women different prices for the same product, thus leading people to perceive the pricing as unfair (Maxwell et al. 2009, p. 509; Okada 2014, p. 712). Following this logic, the

pricing in the differentiated scenario may also be seen as unfair if the products are similar enough for people to expect the same price. However, as the razors differ substantially, it is still likely that consumers perceive the pricing as fairer than in undifferentiated scenarios. This is in line with the findings of prior research, which showed that while female consumers expected to pay more for services requiring more effort, they did not expect to pay more for services perceived to be the same regardless of gender (Ferrell et al. 2018, p. 1026). Thus, this paper proposes the following hypothesis.

H1: Gender-based pricing in the undifferentiated scenario has a more substantial negative effect on perceived price fairness than in the differentiated scenario.

Based on the previous research on pink tax in the personal care sector, women pay, on average, more for products, which could lead them to expect gender-based pricing as they routinely experience it (Ferrell et al. 2018, p. 1018). This is in keeping with the ideas expressed by researchers arguing that women might expect a pink tax if they believe paying more for these products is customary or if they attach a higher value to gendered products (Duesterhaus et al. 2011, p. 187). As mentioned in Chapter 2.2, there are theories regarding the influence of the social constructs of gender pointing towards women indeed attaching a higher value to gendered products and, hence, expecting to pay more for them (Duesterhaus et al. 2011, pp. 184–85). Furthermore, the existing literature on perceived price fairness showed that, generally, the price that consumers, in our case women, expect is also the price that they perceive as fair (Maxwell 2008, p. 502). Consequently, all of this could lead to the assumption that women should perceive gender-based pricing as fairer than men. However, there is also strong evidence that women would perceive the pricing as more unfair. First, Xia, Monroe, and Cox (2004, p. 2) and Ordóñez, Connolly, and Coughlan (2009, p. 509) both showed that people judge disadvantageous inequality as more unfair than advantageous inequality. As women experience higher prices and thus disadvantageous inequality in both scenarios, they should perceive the

pricing as more unfair. As women experience higher prices and thus disadvantageous inequality in both scenarios, they should perceive the pricing as more unfair. This fits the notion expressed by Xia, Monroe, and Cox (2004, p. 1) that unfairness is easier to recognize than fairness, suggesting that women might perceive the unfairness of being charged a higher price easier than rationalizing the possible fairness of said price due to a possible higher value related to gender norms. Second, Maxwell et al. (2009, p. 508), Ferrell et al. (2018, p. 1028) as well as Beldona and Namasivayam (2006, p. 89) showed in experiments that in some instances, women reacted more negatively to unfair prices than men. Ferrell et al. (2018, p. 1025) also found no support for their hypothesis that women expect gender-based pricing more than men, instead noting that men expected gender-based pricing more. Assuming that expectations will be similar for products and services and considering that perceived price fairness is closely linked to price expectations, this also supports the idea that women should perceive gender-based pricing as less fair. Lastly, a small study focused on colored pens, as well as razors, provided evidence that female consumers perceive the pink tax as more unfair, although some might accept higher prices to signal their femininity (Stevens and Shanahan 2017, pp. 573–75). Considering all reviewed literature, it seems that there is contradicting evidence. Nonetheless, as there seems to be more evidence for it, this paper proposes the following hypothesis.

H2: Women perceive gender-based pricing as more unfair than men.

As explored in the section above, literature provides evidence for and against the notion that women should generally perceive gender-based pricing as more unfair than men. Nonetheless, suppose the assumptions hold that people perceive the pricing in the undifferentiated scenario as more unfair and women perceive gender-based pricing as more unfair. In that case, gender might influence the relationship between the scenario and the perceived price fairness. This would also make sense in the context of the literature reviewed for hypotheses 1 and 2. Furthermore, it would be in line with the findings of Ferrell et al. (2018,

p. 1025), which showed that women have lower expectations of gender-based pricing for services where there is no substantial gender-based difference. If these findings are applicable to products instead of services, it would follow that women would have lower expectations and, hence, perceive the fairness of gendered pricing lower in the undifferentiated scenario. Thus, this paper posits the following hypothesis.

H3: Women perceive gender-based pricing in the undifferentiated scenario as more unfair than men.

Lastly, there might also be an influence on the relationship between the scenario and the perceived price fairness depending on the consumer's knowledge of the pink tax. Although the literature is still sparse, when it comes to the knowledge of the pink tax, one small study found female consumers perceive the pink tax as especially unfair if they are knowledgeable about the pink tax (Stevens and Shanahan 2017, pp. 573–74). This would also make sense in the context of the findings of Maxwell (2008, p. 501), as the knowledge of the phenomenon could lead to a swift judgement of unfairness due to the negative connotation of the pink tax. Therefore, this paper proposes the following last hypothesis.

H4: Participants with higher knowledge of pink tax perceive gender-based pricing in the undifferentiated scenario as more unfair.

Figure 1 provides an overview summarizing all proposed hypotheses in the research model.

[Insert Figure 1 about here]

4. Methodological Approach (Survey Design)

The following subchapters will introduce the methodological background of this thesis, delving into the design of the conducted survey. The next chapter will provide a description of the study

procedure and explain the method of data collection. The subsequent chapter will outline the scales and items used to measure the relevant constructs and variables.

4.1. Procedure

To measure the constructs of interest, an online questionnaire was developed on the online platform www.soscisurvey.de (SoSci Survey GmbH 2023). See Appendix C for an overview of the questionnaire. The survey recruited participants through a snowball sampling technique. To distribute the survey, it was initially posted on social media channels such as Instagram and simultaneously sent out via email and WhatsApp. The instructions asked potential participants to fill out the questionnaire and forward it to others in their social circles. The survey was offered in German and English to increase the possible pool of participants. The initial welcome message of the survey emphasized the voluntariness of participation, anonymity, and confidentiality of gathered and stored data. This was to reduce social desirability bias, motivate the potential participants to provide authentic answers and reduce common method variance (Podsakoff, MacKenzie, and Podsakoff 2012, pp. 550–53). In the next step, the survey assigned the participants randomly to one of two scenarios. The first scenario, or undifferentiated scenario, consisted of two virtually indifferent single-use razors that varied only by color. The second, or differentiated scenario, included two different multi-use razors. The second, or differentiated scenario, included two different multi-use razors. While the blue version was a standard multi-use razor, the pink version had a more stylish design and included gel padding. Participants were presented with pictures of the razors without a price from their assigned scenario and asked to imagine that they needed a new razor and see the aforementioned options online. The scenario description was as short and simple as possible to keep participants' motivation high (Podsakoff, MacKenzie, and Podsakoff 2012, p. 563). Then, the survey asked participants whether they would prefer the pink or the blue version of the razor from their scenario. Afterward, the respondents indicated if they had heard of the phenomenon of the pink

tax before. If they indicated yes, they had to indicate their degree of agreement with the statements designed to measure their knowledge of the pink tax. However, if the participants chose no, they were directly funneled into the next part of the survey. In the following part, the participants saw the same scenario as before; however, this time, a price was added. In each scenario, the price of the blue razor was equivalent to the price in the dm online shop in October 2023. The survey manipulated the prices of the pink versions of the razors to be approximately 25% higher than the blue version. To ensure participants' awareness of the pricing, as a manipulation check and to control for careless responses, they had to indicate which razor has the highest price (Meade and Craig 2012, p. 437). In the following question, they had to indicate which razor they would prefer in light of the prices. Afterward, they had to indicate how much they agreed with statements regarding price fairness. In the following part of the questionnaire, the survey included demographic questions regarding gender, age, place of residence, educational level, and employment status. Lastly, the participants were thanked and dismissed.

4.2. Measures

This paper coded the type of *scenario* as a binary variable. The undifferentiated scenario, with the razors only varying by color, was coded as “1,” and the differentiated scenario was coded as “2”. Furthermore, gender was also a binary variable where “1” represents the female participants and “2” represents the male participants. The constructs in the research model, such as knowledge of pink tax and perceived price fairness, were assessed using Likert-type scales consisting of three statements. The survey instructed participants to express their level of agreement with these statements on a 5-point scale, ranging from 1 (“strongly disagree”) to 5 (“strongly agree”). This paper adapted the perceived price fairness scale from items used in previous studies (Bearden, Carlson, and Hardesty 2003, p. 365; Homburg, Totzek, and Krämer 2014, p. 1121). Due to the lack of empirical studies concerned with the knowledge of pink tax in previous research, a new measurement scale was devised based on researcher introspection.

The final variable for knowledge of pink tax consists of the response to the initial question about whether participants had heard previously about the phenomenon (yes/no) as well as the response to the 5-point scale questions. This paper coded answers of participants responding to the initial question with "no" as "0" and combined this with the means of the responses from the Likert-type scales ranging from 1-5.

The assessment of the internal reliability of the scale items reveals that all are above the reference value of 0.7 for Cronbach's alpha, above which a scale is considered reliable (Hair et al. 2013, p. 125). For *perceived price fairness*, the Cronbach's alpha is very high ($\alpha = 0.92$), and for *knowledge of pink tax* the Cronbach's alpha ($\alpha = 0.99$) is also very high. This indicates high internal consistency of the scale and suggests that the measurement instrument is reliable. To assess the level of *gender conformity*, this paper combined the responses to the question of which razor the participants would prefer with and without the price with their gender. It also coded female (male) participants choosing the blue (pink) razor in both instances as "1". Consequently, a "2" was assigned to female (male) participants choosing first or second the pink (blue) razor and then switching to the blue (pink) razor. Moreover, the thesis coded women (men) opting for the pink (blue) razor in both instances as "3".

5. Empirical Analysis and Results

The following subchapters will present the results of multiple statistical procedures conducted with the statistical software R (R Core Team 2022). This includes a preliminary data analysis, descriptive statistics, and the testing of the hypotheses developed in Chapter 3.

5.1. Preliminary Data Analysis

The initial sample consisted of 127 survey responses collected between October 18, 2023, and November 08, 2023. The thesis excluded three participants because they did not finish the

survey, four more due to them failing the manipulation check, and two more as they did not indicate their gender. This resulted in an actual sample of 118 participants. Of these participants, 57 were in the undifferentiated scenario with the single-use razors, while 61 were in the differentiated scenario. Table 1 provides the demographic description of the final sample.

[Insert Table 1 about here]

In the sample, 63.6% of the respondents identified as female, 36.4% as male, and 0% as other, suggesting that women are overrepresented. Nonetheless, the final sample was characterized by a wide range of ages, with the mean age being 34.7 (SD = 15.12). Most participants indicated their age to be between 18 and 24 (35.8%) or 25 and 34 (30%). In terms of countries of origin, participants reported a total of 8 different countries, yet most of the participants stemmed from Germany (78.8%). Regarding education, many participants indicated that they had finished a vocational university, a university of applied sciences, or a university degree (49.2%). Finally, 61% of the participants reported that they were currently employed, while 33% said that they were still students.

5.2. Descriptive Statistics

The successive analysis of the descriptive statistics offers a first insight into the relationships between variables. A first look at the means of the variables knowledge of pink tax and perceived price fairness in the two different scenarios for both men and women, as provided in Table 2, shows some noteworthy differences.

[Insert Table 2 about here]

While the overall mean of *knowledge of pink tax* is relatively low (mean = 1.44, SD = 1.94), the mean value is higher for women (mean = 1.96) and significantly lower for men (mean = 0.53). This is congruent with the finding that only 36.4 % of the participants indicated that they had previously heard of the phenomenon of pink tax in the initial filter question regarding knowledge of pink tax, and only 13.95% of those were men. Consequently, this suggests that

while few people have heard about the phenomenon, women are more knowledgeable about the pink tax overall.

Regarding the *perceived price fairness*, the overall mean was 2.61 (SD = 1.22), suggesting that most people found the pricing only slightly unfair. Interestingly, when looking at the means, the scenario with the undifferentiated razors was only perceived as marginally less fair than the differentiated scenario. The fairness means of women were relatively similar to each other in both scenarios and a little lower than the overall mean. The means of men, however, were only similar to the overall mean in the undifferentiated scenario (mean = 2.80) but significantly higher in the differentiated scenario (mean = 3.50). This suggests that while female respondents perceived both scenarios as rather unfair, male respondents only felt like the undifferentiated scenario was slightly unfair and perceived the pricing of the differentiated razor as fair. Table 3 provides further insights into the other variables and their correlations.

[Insert Table 3 about here]

The observed correlation between *scenario* and *perceived price fairness* reveals a weak positive relationship (0.16). This indicates that participants perceived the differentiated scenario as fairer than hypothesized. Nonetheless, the correlation is not statistically significant ($p > 0.05$). There are also no other statistically significant correlations between the *scenario* and the other variables. The significant positive correlation (0.36, $p < 0.05$) between *gender* and *perceived price fairness* suggests that men have higher *perceived price fairness*, which provisionally supports hypothesis 2. There is also a significant strong negative correlation between *knowledge of the pink tax* and *perceived price fairness* (-0.49, $p < 0.01$), indicating that participants with more awareness of the pink tax tend to view gender-based pricing as less fair. Furthermore, *knowledge of the pink tax* is also significantly negatively correlated to *gender* (-0.35, $p < 0.05$), which supports the aforementioned notion that women might have a higher knowledge of the pink tax than men.

Lastly, there is *gender conformity* with a mean of 2.53 (SD = 0.62), which has significant positive correlations with both *gender* (0.51, $p < 0.01$) and *perceived price fairness* (0.42, $p < 0.01$). Consequently, this implies that men tend to conform more strongly to their gendered razors, and participants with higher gender conformity tend to perceive the prices of the razors as fairer. Interestingly, over 91% of the participants chose razors that aligned with their gender while being confronted with only razors without prices. This indicates that without a price, both genders primarily selected their respective gendered products. After being given the prices, the percentage of people choosing their gendered razor dropped to 66.95%. Notably, for male participants, the percentage stayed at 100%, meaning that none of them chose a pink razor in either scenario. This is relatively unsurprising when taking into account that the blue razor is cheaper in both scenarios. Looking only at women, initially, 86.67% of women chose their gendered product. However, when confronted with the pricing, only 48% of women opted for the pink razor. Consequently, 41.33% of women decided to switch from the pink razor to the blue razor. Interestingly, there is also a weak to moderate significant relationship between *gender conformity* and *knowledge of pink tax* (-0.24, $p < 0.05$), implying that participants who conform more to gender norms are, on average, less likely to have awareness or knowledge of pink tax.

5.3. Hypotheses Testing

This chapter will present the testing of the hypotheses which Chapter 3 initially developed. Hypothesis 1 suggests that gender-based pricing in the undifferentiated scenario has a stronger negative effect on perceived price fairness than in the differentiated scenario. To test this hypothesis and to explore the impact of the scenario on perceived price fairness, this thesis performed a Welch Two Sample t-test first, comparing the means of the perceived fairness between the scenarios. The result yields a t-value of -1.75 with a corresponding p-value of 0.08 > 0.05 , suggesting a marginally insignificant difference in perceived fairness between the

scenarios. The negative t-value sign indicates that the mean perceived price fairness in the undifferentiated scenario is indeed lower than in the differentiated one; the bar plot in Figure 2 also shows this.

[Insert Figure 2 about here]

A multiple linear regression model, Model 1.1 in Table 4, was constructed to further investigate and control for potential confounding variables.

[Insert Table 4 about here]

Model 1.1 included scenario and perceived price fairness as well as gender, age, education, and employment status as control variables. The model shows a R^2 of 0.22 and an adjusted R^2 of 0.18, implying that the model explains 18 % of the variance in perceived price fairness, which suggests a moderate model fit. The regression output reveals that the overall model is statistically significant ($F(5, 112) = 6.251, p < 0.01$). However, the specific effect of the scenario on perceived fairness is not statistically significant ($0.31, p = 0.13 > 0.05$). Thus, hypothesis 1 cannot be supported. Yet, notably, the effect of gender is significant ($0.77, p < 0.01$), indicating that women, on average, perceived gender-based pricing as less fair than men. Additionally, education emerged as a significant predictor, suggesting that individuals with higher education levels tended to perceive the pricing as less fair.

To test hypothesis 2, which proposes that women perceive gender-based pricing as more unfair than men, a Welch Two Sample t-test was conducted to investigate whether there is a significant difference in perceived fairness between men and women. The result of the test reveals a statistically significant difference in mean fairness scores between the two genders ($t = -4.24, p < 0.01$). The negative t-value indicates that, on average, female participants perceived gender-based pricing as more unfair (mean = 2.28) compared to male participants (mean = 3.19). Consequently, this finding substantiates hypothesis 2. Figure 3 visualizes this further.

[Insert Figure 3 about here]

Nonetheless, a regression was conducted, the results of which are shown in Model 1.2 in Table 4. The model reveals a R^2 of 0.20 and an adjusted R^2 of 0.17. Additionally, the regression model shows a statistically significant F-statistic ($F(4, 113) = 7.161, p < 0.01$). The model also indicates that gender has a statistically significant effect on perceived fairness (0.78, $p < 0.01$). The positive coefficient suggests that women, compared to men, have indeed lower perceived fairness scores, supporting hypothesis 2.

Hypothesis 3 puts forth the notion that women perceive gender-based pricing in the undifferentiated scenario as more unfair than men. Initially, to investigate the idea that gender moderates the relationship between perceived fairness and scenario two Welch Two Sample t-tests were conducted separately for each scenario. The tests showed that in the undifferentiated scenario, women reported significantly lower fairness scores than men ($t = -4.27, p < 0.01$). Yet, in the differentiated scenario, the difference in fairness scores between genders was not statistically significant ($t = -1.79, p = 0.08 > 0.05$). Figure 4 shows an interaction plot to visualize the relationship between gender, scenario, and perceived price fairness.

[Insert Figure 4 about here]

Next, this thesis employed a regression analysis with the variables scenario, gender, and their interaction term. Model 1.3 in Table 4 shows the results of this analysis. Model 1.3 shows a marginally higher R^2 of 0.24 and an adjusted R^2 of 0.20 than the last two models, and hence, a better model fit. Furthermore, the regression model shows a statistically significant F-statistic ($F(6, 111) = 5.767, p < 0.01$). Examining the coefficients, the positive estimate for the interaction term (0.71) suggests that, on average, men show higher perceived fairness scores than women in the unjustified pricing scenario. However, it is crucial to note that the interaction term is not statistically significant ($p = 0.10 > 0.05$). Hence, hypothesis 3 cannot be supported.

The last hypothesis suggested that participants with higher knowledge of pink tax perceive gender-based pricing in the undifferentiated scenario as more unfair. This thesis

conducted a regression analysis to explore if knowledge of the pink tax moderates the relationship between perceived price fairness and scenario. Model 1.4 in Table 4 shows the results. It reveals the highest R² of 0.33 and an adjusted R² of 0.29 of all the models. Moreover, it has a statistically significant F-statistic ($F(7, 110) = 7.79, p < 0.01$). Examining the coefficients, the negative interaction term (-0.16) indicates that the unjustified scenario is associated with lower perceived fairness among participants with higher knowledge of the pink tax. However, upon closer examination of the coefficients, the interaction term is again not significant ($p = 0.12 > 0.05$). This suggests that, while the overall relationship between knowledge of pink tax and perceived price fairness might be significant, the specific interaction effect with the scenario is not, and thus, hypothesis 4 cannot be supported. In conclusion, there was only support for hypothesis 2, while hypotheses 1, 3, and 4 cannot be supported. For an overview, please refer to Table 5.

[Insert Table 5 about here]

6. Discussion

The next subchapter will critically evaluate this paper's findings and give potential explanations for the study outcomes. The following chapter will outline practical and managerial implications. Lastly, the paper will present the limitations of this study and areas of future research.

6.1. *Critical Evaluation of Findings*

This paper linked the concept of perceived price fairness with gendered pricing in two scenarios with varying degrees of product differentiation and investigated the relationship through a survey-based study. The first research question was how consumers perceive the fairness of differentiated and undifferentiated gender-based product pricing. The second research question

was whether men or women perceive gender-based pricing as more unfair. Lastly, the third question was whether prior knowledge about the pink tax influences the sense of price fairness.

Although the mean perceived fairness of the undifferentiated scenario was slightly lower than that of the differentiated scenario, the analysis of the first hypothesis revealed that said hypothesis could not be supported. Consequently, the notion that gender-based pricing in the undifferentiated scenario has a stronger negative effect on perceived price fairness than in the differentiated scenario could not be supported. Possibly, this could be due to the differentiated scenario containing two razors that are too similar. As previously discussed, if the razors are too similar, participants might see it as going against social norms of equality to charge men and women different prices, thus leading them to perceive the pricing as unfair (Maxwell et al. 2009, p. 509; Okada 2014, p. 712). Another possible explanation could be that price expectations for non-disposable razors differ from those for single-use razors. For example, the GAO reported no significant price discrepancies between men and women for disposable razors but higher prices for men's non-disposable razors (United States Government Accountability Office 2018, p. 11). Hence, there is the possibility that consumers' expectations were also violated in the non-disposable or differentiated scenario based on their previous experience with razor prices, even though the products were more differentiated. However, as mentioned in Chapter 2.2, the literature on gendered pricing of razors is often contradictory, making it hard to draw inferences about the expected prices, and therefore, this explanation is questionable. Other possible explanations are that the sample was simply too small, that women were overrepresented, or both since women perceived both scenarios as relatively similarly unfair while men did indeed perceive the differentiated scenario as fairer. Nonetheless, the perceived price fairness means of both genders showed that, on average, the participant perceived the gendered pricing in both scenarios as unfair, albeit only slightly. This suggests, in keeping with the ideas expressed by Maxwell et al. (2009, p. 509), that consumers could

perceive price discrimination based on gender as going against social norms and thus as unfair. Consequently, the answer to the first research question is that consumers perceive the gender-based pricing of both differentiated and undifferentiated scenarios as slightly unfair. Yet, there is no significant difference in perceived price fairness between the two scenarios.

The analysis of hypothesis 2 showed that women do indeed, as hypothesized, perceive gender-based pricing as more unfair than men. This is in keeping with the findings of Xia, Monroe, and Cox (2004, p. 2) and Ordóñez, Connolly, and Coughlan (2009, p. 509), as female consumers experienced a disadvantageous inequality while the men experienced an advantageous one, which might have led the women to perceive the prices as more unfair. It is also possible that, consistent with the findings of authors such as Beldona and Namasivayam (2006, p. 89), female consumers generally react more negatively to unfair prices than male consumers. Of course, it is also possible that a combination of both reasons or even a completely different reasoning plays into this. Furthermore, a considerable number of studies hinted at a contradictory outcome to the one hypothesized. Therefore, the findings of this study could question the ideas put forth by researchers such as Ferrell et al. (2018, p. 1018) and Duesterhaus et al. (2011, pp. 184-85), who argued that women might expect a pink tax due to them being used to overpay for products or due to them attaching a higher value to gendered products. Possibly, both notions could still hold, but female consumers might simply perceive the price discrimination as unfair even though they already expected it and /or attached a higher value to the product in question. Although expected, it is still noteworthy that the men in this study perceived the pink tax as fairer than women. This underscored the previously mentioned notion that advantageous inequality is judged more favorably than disadvantageous inequality (Ordóñez, Connolly, and Coughlan 2000, p. 509; Xia, Monroe, and Cox 2004, p. 2). It is also interesting in comparison to the study by Ferrell et al. (2018, pp. 1025-28) of the pink tax in the service sector, which initially hypothesized that women expected gender-based pricing more

but found that men expected it more. To conclude, although the underlying reasons are still unclear, this study could answer the second research question as it showed that women perceive gender-based pricing as more unfair than men.

Analyzing the third hypothesis showed that while women overall had lower perceived fairness scores than men, they did not perceive gender-based pricing in the undifferentiated scenario as significantly more unfair than men. Thus, hypothesis 3 was not supported. This was unsurprising as hypothesis 1 could already not be supported. Looking closer at the fairness scores shows that women perceived both scenarios as unfair while men perceived the undifferentiated as unfair and the differentiated scenario as fair. There could be a multitude of reasons for this. First, differentiation could be irrelevant in the face of disadvantageous inequality. Whether there might be more reason for a higher price due to differentiation, such as a gel cushion on the pink razor, a higher price for a similar product led to a similar perceived unfairness for female consumers. Second, as mentioned above, it is also possible that the chosen razors were not heterogeneous enough. Furthermore, there is the possibility that price expectations for non-disposable and disposable razors differ from the hypothesized expectations. For example, if female consumers expected higher prices for disposable razors but not for non-disposable razors, it could explain why they perceived the differentiated scenario as unfair. Yet, this is only speculation, and it is further questionable as it does not explain why men perceived the differentiated scenario as fair.

The analysis of hypothesis 4 revealed that the hypothesis that participants with higher knowledge of pink tax perceive gender-based pricing in the undifferentiated scenario as more unfair could not be supported. Since analyzing hypothesis 1 already revealed no significant correlation between the scenario and the perceived price fairness, it is unsurprising that hypothesis 4 could not be supported. However, the descriptive statistics analysis showed a strong negative correlation between knowledge of the pink tax and perceived price fairness,

showing that participants with prior knowledge of the pink tax view gender-based pricing as less fair. This suggests that, while knowledge of the pink tax does not seem to moderate the relationship between scenario and perceived fairness, knowledge seems to impact perceived fairness. Furthermore, this also matches the findings of the study by Stevens and Shanahan (2017, pp. 573-74), which showed that female consumers perceive the pink tax as especially unfair if they are knowledgeable about the pink tax. It is also plausible that prior knowledge of the phenomenon makes consumers more aware of the unfairness of different prices for equivalent or similar products. Therefore, this paper answered the third question, as prior knowledge about the pink tax negatively influences the sense of price fairness.

In conclusion, while only one postulated relation was significant, this paper was able to detect interesting tendencies and answer the previously established research questions. Previously, there was little research conducted to understand the consumer responses to the pink tax, particularly the response to gendered pricing for personal care products. This study closes this deficiency in research by empirically testing consumer responses to gendered pricing in razors. Furthermore, the study's findings enable drawing several practical as well as managerial implications.

6.2. *Practical and Managerial Implications*

From a gender equality standpoint, the finding that knowledge about the pink tax significantly influences the perceived price fairness is noteworthy. In this study, female participants with higher knowledge of pink tax chose the cheaper, blue version of the razors more often. This suggests that if advocacy groups educated female consumers on the phenomenon, women could consciously decide to go against gender conformity norms and effectively lessen their potential financial burden. Furthermore, as seen in the case of the tampon tax mentioned in the introduction, public awareness is often the first step towards societal change. Societal norms and cultural attitudes towards gender often play a role in perpetuating gender-based pricing

disparities. By challenging entrenched gender stereotypes and promoting cultural shifts towards gender equality, society could create an environment that fosters fairer and more inclusive consumer markets. Hence, one practical implication from a social responsibility and ethical perspective is to push for more awareness and education on the topic. Companies, industry associations, and advocacy groups could collaborate on educational initiatives to raise awareness about gender-based pricing issues and to empower consumers to make informed decisions. Moreover, the findings of this study could also provide insights for policymakers or regulators trying to address gender-based issues. The learnings from this study could support policy initiatives aimed at promoting price transparency, fairness, and gender equality in consumer markets.

This study also shows that consumers perceive the pink tax or gender-based pricing in products, at least in razors, as unfair. As previous research suggested, this can have negative influences on company profits (Campbell 1999, p. 187). Therefore, one implication for managers is that they should review their pricing strategies and avoid the pink tax to ensure they align with consumer expectations of fairness. While price discrimination might offer short-term profit maximization, the findings of this study suggest that consumers are sensitive to fairness in pricing in the context of gender-based pricing, which in turn can lead to lower profits. As Kahneman et al. (1986a, p. 728) wrote, “[...] fair behavior is instrumental to the maximization of long-run profits”. Another implication is that managers should consider adopting transparent pricing practices and avoiding discriminatory pricing strategies such as the pink tax to build long-term brand loyalty. Pricing transparency can, for example, involve providing clear and comprehensive information about pricing structures, in turn allowing consumers to make informed purchasing decisions. Building trust and loyalty among consumers requires companies to demonstrate a commitment to fairness and equality. Hence,

managers can enhance trust and credibility while mitigating perceptions of unfairness by openly disclosing pricing factors and rationale.

Moreover, managers could also consider implementing gender-neutral pricing strategies, which represent a proactive approach to combat gender-based pricing. Gender-neutral pricing involves standardizing prices across gender categories for comparable products or services, thereby eliminating differential pricing based on gender. This would allow companies to demonstrate their commitment to fairness and equality while also fostering inclusivity and promoting consumer trust. Managers could even go one step further and proactively take a public stance against gender-based pricing to improve the company's public image. By pursuing an ethical brand positioning, managers could show a commitment to fairness and social responsibility, allowing their companies to attract and retain customers who value ethical business practices.

This study also shows that even if products are not entirely homogeneous, meaning that they are differentiated, female consumers still perceive the pricing as unjust. Therefore, one implication for managers is that slightly differentiating products to hide gender-based price discrimination is not enough to counteract negative perceptions. Managers can use this information to review their product design and pricing strategies to ensure they align with expectations of fairness. Additionally, managers could even take proactive measures to challenge and redefine gender stereotypes in product design. Through diversifying product offerings and marketing strategies, companies could avoid reinforcing traditional gender norms and preferences. For example, offering a range of product options that cater to diverse consumer preferences beyond traditional gender binaries can help dismantle gender-based pricing disparities while also promoting inclusivity.

In conclusion, the findings of this study offer actionable implications for policymakers and advocacy groups seeking to address gender-based pricing disparities and promote fairness

in consumer markets, as well as insights for managers seeking to improve brand relations and profitability.

6.3. *Limitations and Future Research*

As with any research effort, this study is subject to several limitations, offering possibilities for future research. First, this thesis used the non-probability snowball sampling method to acquire participants for this study. While this method offers the advantage of being both time- and cost-efficient, the resulting sample cannot be considered representative of the whole population, and thus, the results are also hardly generalizable (Etikan 2016, p. 4). A closer look at the sample characteristics reveals that women are overrepresented, which could have had a significant effect on the results of this study as the answers of female and male respondents differed substantially. Furthermore, most of the participants were German. Especially considering the aforementioned findings of Maxwell et al. (2009, p. 508), which demonstrated that participants from different countries reacted differently to unfair prices. Hence, future research should investigate the findings of this study in a more diverse group of participants while using a different sample method to achieve a better representation of the actual population. Future research could also build on this, as well as the cross-country study of Maxwell et al. (2009, p. 508), and investigate whether consumers from different countries also react differently to gendered pricing.

Second, the analyzed data in this study only consisted of self-reported responses, which are inherently susceptible to social desirability bias as well as careless responses (Curran 2016, p. 4; Fisher 1993, p. 303). To mitigate these effects, the survey communicated the anonymity of the study and removed participants who failed the manipulation check from the final sample. Nonetheless, this thesis cannot commit the biases of self-reported responses completely. Furthermore, asking participants whether they had heard of the pink tax phenomenon before asking for the perceived price fairness could have given the study participants a clue about the

goal of the survey and thereby distorted their response. Since a relatively low percentage of the participants had heard about the pink tax before, this effect might be negatable. Still, future research should try to assess this more subtly. Since this study took place in a controlled experimental environment in the form of an online questionnaire, the generalizability is also limited. As consumers might perceive both pricing and product differentiation differently when confronted with a simple scenario online instead of in-store, consumer behavior in naturalistic settings could provide valuable insights. Future research could incorporate field experiments or observational studies to validate the experimental findings of this study in real market contexts.

Another limitation that offers avenues for future research is the product choice. As this study only focused on the product category of razors, the generalizability of the findings is, of course, confined. Future research could replicate this study and evaluate whether different products or even services lead to different outcomes. Furthermore, the chosen single-use and multiple-use razors may not have been heterogeneous enough to adequately test whether consumers perceive differentiated products as fairer than undifferentiated products in the context of the pink tax. Hence, future studies should compare the perceived price fairness of more heterogeneous products. On a similar note, the choice of using products from a known private label brand, namely Balea of the drugstore dm, is another possible limitation. Brands inevitably influence the consumer's perception of a product; therefore, the findings of this study might differ if the products were displayed with a different brand or without any (Keller and Lehmann 2006, p. 740). To circumvent this influence, future research could investigate the consumer responses to pink tax either with multiple brands or by removing any branding.

Further limitations lie within the scales and items chosen to measure the consumer response to gender pricing. While this thesis adapted some of them from existing literature and previous studies, results might differ if it chose different scales for perceived price fairness and knowledge of pink tax or if it included other aspects of fairness. Future research could also

shine a light on emotional consumer responses such as anger or sadness to the pink tax. Another possible avenue would be to build on this, as well as the research by Ferrell et al. (2018, p. 1015), and investigate the attitudes related to gender-based price discrimination for products instead of services for both men and women. This might also help to understand the reasons behind the perceived unfairness of the price differences.

As this study mostly focused on exploring whether consumers perceive gender-based pricing as unfair, further research could delve deeper into the reasons why this might be the case. Future research could tackle the question of the expectations of both men and women towards gender-based pricing, to improve the understanding of why and when consumers might perceive prices as unfair. On a similar note, it would also be interesting to explore whether women attach a higher value to gendered products and if they are willing to pay more for such goods. Also, while this study explored some possible ramifications of gender-based pricing in theory, it is still unclear whether and how this affects consumer attitudes and purchasing behavior in reality. Therefore, future research could explore the consequences and possible negative effects for firms employing gender-based price discrimination.

Notwithstanding its limitations, this thesis offered new insights into consumer responses, namely the perceived price fairness of gender-based pricing and multiple avenues for future research.¹

¹ The AI tool *Grammarly* was used for the grammatical check of this paper.

Tables

Table 1: Demographic Characteristics of the Study Participants

		Frequency	
		<i>n</i>	%
Gender	Female	75	0.64
	Male	43	0.36
	Other	0	0.00
Age ^a	<18	2	0.02
	18-24	41	0.35
	25-34	36	0.31
	35-44	6	0.05
	45-54	7	0.06
	55-64	23	0.19
	>65	3	0.03
Nationality	German	93	0.79
	Other	25	0.21
Education	Finished school with no qualifications	0	0.00
	Still in school	2	0.02
	Junior high school diploma	3	0.03
	High school diploma	5	0.04
	Completed apprenticeship	20	0.17
	Vocational baccalaureate diploma	10	0.08
	Higher education entrance qualification	15	0.13
	University degree	58	0.49
	Other degree	5	0.04
Employment status	Employed	72	0.61
	Unemployed	0	0.00
	Retired	4	0.03
	Homemaker	3	0.03
	Student	39	0.33

Note: ^ain years

Table 2: Means of Knowledge of Pink Tax and Perceived Price Fairness

Variable	Overall Sample			Undifferentiated Scenario			Differentiated Scenario		
	Mean	Gender		Mean	Gender		Mean	Gender	
		F	M		F	M		F	M
Knowledge of Pink Tax	1.44	1.96	0.53	1.66	2.39	0.21	1.22	1.50	0.79
Perceived Price Fairness	2.61	2.28	3.19	2.41	2.22	2.79	2.8	2.34	3.5

Note: F = Female, M = Male

Table 3: Means, Standard Deviations, Correlations, and Cronbach's alphas.

<i>Variable</i>	<i>M</i>	<i>SD</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
1. Gender ^a	1.36	0.48	-				
2. Scenario ^b	1.52	0.50	.06	-			
3. Knowledge of Pink Tax	1.44	1.94	-.35*	-.11	<i>0.99</i>		
4. Perceived Price Fairness	2.61	1.22	.36*	.16	-.49**	<i>0.92</i>	
5. Gender Conformity	2.53	0.62	.51**	-.02	-.24*	.42**	-

Note: M and SD are used to represent mean and standard deviation, respectively. * indicates $p < .05$. ** indicates $p < .01$. Cronbach's alpha provided in italics and bold on the diagonal.

^aCoded 1 = Female, 2 = Male; ^bCoded 1 = Undifferentiated, 2 = Differentiated

Table 4: Estimation Results for Perceived Price Fairness

Variable	Model			
	1.1	1.2	1.3	1.4
Intercept	3.08** (0.78)	3.55** (0.72)	3.42** (0.80)	2.96** (0.79)
Scenario ^a	0.31 (0.20)		0.05 (0.25)	0.46 (0.24)
Gender ^b	0.77** (0.22)	0.78** (0.22)	-0.33 (0.69)	0.55* (0.22)
Knowledge				0.01 (0.16)
Age	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	-0.00 (0.01)
Education	-0.17** (0.08)	-0.17* (0.08)	-0.17* (0.08)	-0.10 (0.72)
Employment status	-0.04* (0.06)	-0.05 (0.06)	-0.04 (0.06)	-0.05 (0.06)
Scenario* Gender			0.71 (0.42)	
Scenario* Knowledge				-0.16 (0.10)
R ²	0.22	0.20	0.24	0.33

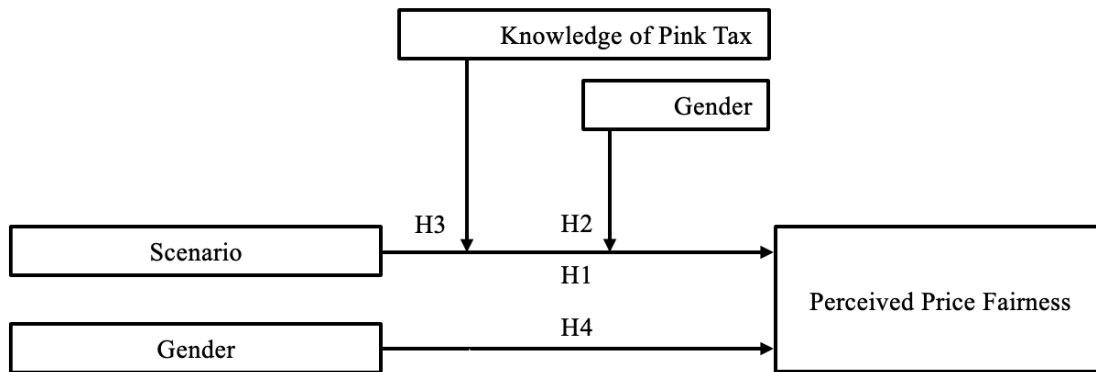
Note: Standard errors for the point estimates are reported in parentheses. * indicates $p < .05$. ** indicates $p < .01$. ^aCoded 1 = Female, 2 = Male; ^bCoded 1 = Undifferentiated, 2 = Differentiated

Table 5: Summary of Hypothesis Testing

H	Relationship	Result
H1	Gender-based pricing in the undifferentiated scenario has a stronger negative effect on perceived price fairness than in the differentiated scenario.	Not supported
H2	Women perceive gender-based pricing as more unfair than men.	Supported
H3	Women perceive gender-based pricing in the undifferentiated scenario as more unfair than men.	Not Supported
H4	Participants with higher knowledge of pink tax, perceive gender-based pricing in the undifferentiated scenario as more unfair.	Not Supported

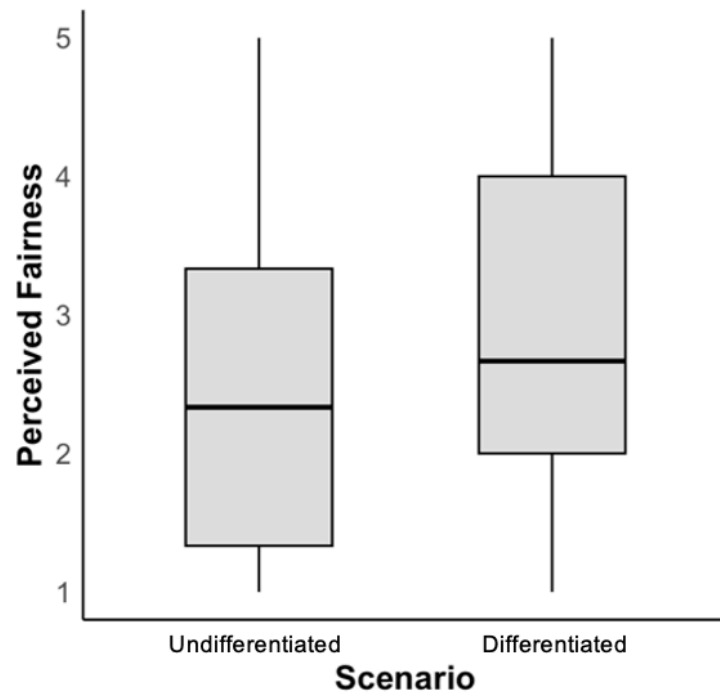
Figures

Figure 1: Research Model



Source: Author's own work (2023)

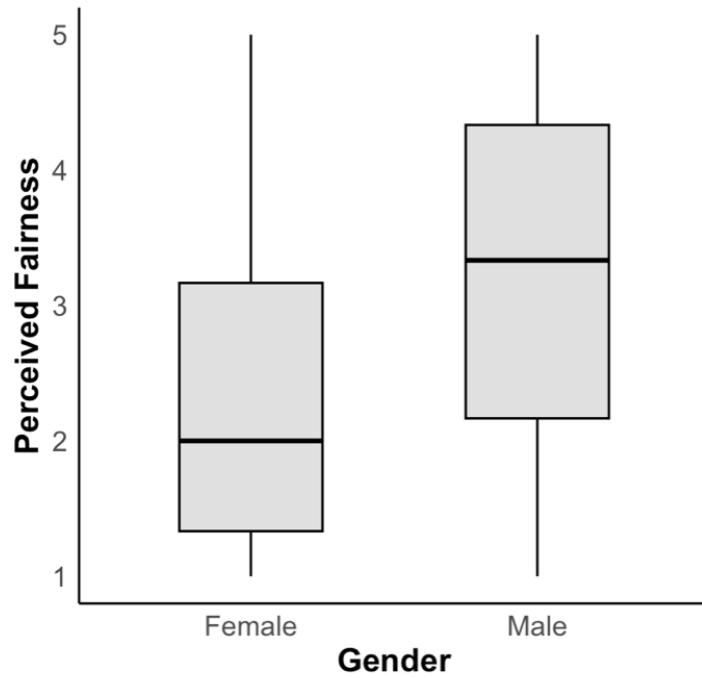
Figure 2: Bar Plot for Hypothesis 1



Note: Interaction diagram was conducted using the statistical software R.

Source: Author's own work (2023)

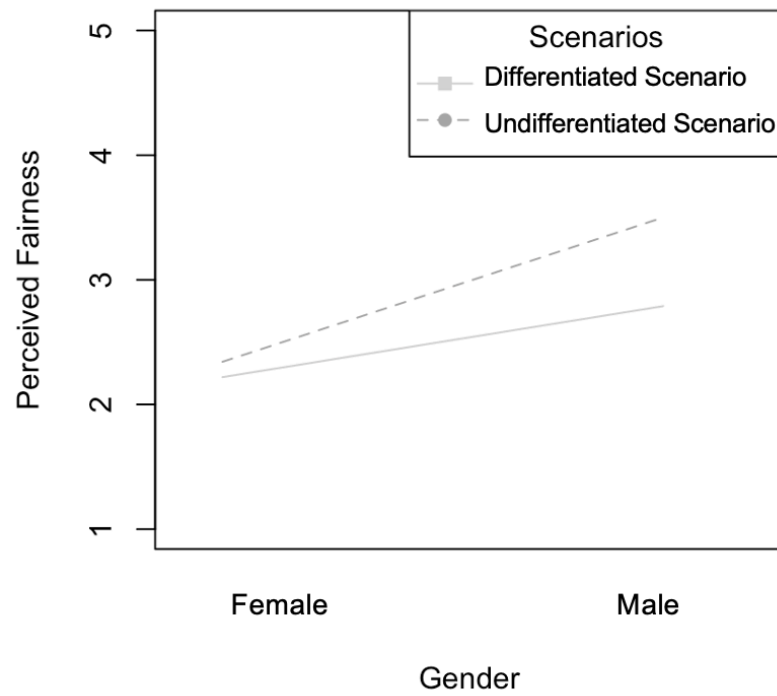
Figure 3: Bar Plot for Hypothesis 2



Note: Interaction diagram was conducted using the statistical software R.

Source: Author's own work (2023)

Figure 4: Bar Plot for Hypothesis 3



Note: Interaction diagram was conducted using the statistical software R.

Source: Author's own work (2023)

Appendices

Appendix A: Literature Review Table*

*Table might contain direct citations

Author/s (Year) [Journal]	Research Focus	Theoretical Background	Industry (Product/Service Type)	Sample	Method/Analysis	Main Findings	Limitations
Guittar, Grauerholz, Kidder, Daye and McLaughlin [Gender Issues] (2022)	<ul style="list-style-type: none"> - Analyzed whether the pink tax exists across a wide variety of personal care products - Examine gendered factors that can obscure gendered price discrepancies 	<ul style="list-style-type: none"> - Price discrimination - Price discrepancies - Product differentiation - Pink tax - Gender differentiation 	<ul style="list-style-type: none"> - Personal care (Bar soaps, liquid soaps, lotions, deodorants, shaving gels/creams, razors, cartridges, body sprays and shampoos/conditioners) 	<ul style="list-style-type: none"> - n=3282 products from Nielsen Data 	<ul style="list-style-type: none"> - Series of independent samples t-tests to analyze price disparities by gender - Pearson Chi-square tests, independent-sample t-tests and multiple regression analyses to determine whether price differences exist by product 	<ul style="list-style-type: none"> - Their findings suggest that gender pricing is not pervasive across products <ul style="list-style-type: none"> - Women pay more for deodorants/antiperspirants and lotions than men, while men tend to pay more for shaving creams/gels than women - The analysis reveals the proliferation of gender differentiation for products that makes price comparisons for the average consumer difficult 	<ul style="list-style-type: none"> - Unable to conduct side-by-side comparisons of identical products due to the excessive differentiation - Unable to explore how race or social class shape or to intersect with marketing - Only focused on the U.S.
Kricheli-Katz, Tamar, and Tali Regev [Science advances] (2016)	<ul style="list-style-type: none"> - The study explored whether women behave differently as sellers and buyers than men do and, when they behave similarly, whether women are paid less for the same product being sold 	<ul style="list-style-type: none"> - Gender discrimination - Gender behavior differences 	<ul style="list-style-type: none"> - eBay: 420 most popular products - Experiment in a controlled setting: Gift cards 	<ul style="list-style-type: none"> - Data on n=420 most popular products on eBay between 2009 and 2012 - Experiment in a controlled setting with n=116 participants 	<ul style="list-style-type: none"> - Multinomial logistic regression model, OLS regression models, controlling for the type of product being sold, its condition, year, and seller's reputation and experience, OLS model predicting the final price in auctions 	<ul style="list-style-type: none"> - Women sellers received a smaller number of bids and lower final prices than did equally qualified men sellers of the exact same product - The gap varied depending on the type of product - An additional off-eBay experiment showed that, in a controlled setting, people are willing to pay less for money-value gift cards when they are sold by women rather than men 	<ul style="list-style-type: none"> - Only focused on the U.S.

<p>Duesterhaus, Megan, et al. [Gender Issues] (2011)</p>	<p>- The study examined gender-based disparities in the cost of goods and services in the personal care industry</p>	<p>- Price disparities - Doing Gender</p>	<p>- Personal care (Hair salons, dry cleaners, deodorant, shaving gel/cream, razors, and scented body sprays)</p>	<p>- n=100 hair salons and dry cleaners - n=538 products</p>	<p>- Independent samples t-test to compare the price per purchase, ounces/ number of items per purchase, and the price per ounce/item for women and men for the products and services, ANOVA to evaluate the relationship between salons at different price points, follow-up tests using Tukey HSD to evaluate pairwise differences among the means</p>	<p>-The research suggests that although the differences are not uniform across types of services or products, women do tend to pay more than men for deodorant, haircuts, and dry-cleaning</p>	<p>- Did not control for production and marketing costs, or elasticity of supply and demand - Only examined a limited number of personal care products - Only focused on the U.S.</p>
<p>Liston-Heyes, Catherine, and Elena Neokleous [Journal of Consumer Policy] (2000)</p>	<p>- Determined the scale and scope of gender-based price differentials in UK hairdressing and established whether these are due to price discrimination or some other factor specific to the industry</p>	<p>- Price discrimination - Statistical discrimination</p>	<p>- Personal care (Hair salons)</p>	<p>- 150 unisex hair salons- 90 people</p>	<p>- 90 face-to-face interviews with members of the general public using a structured questionnaire- 150 structured telephone interviews with representatives of unisex hairdressing establishments</p>	<p>- Some women pay more than men for a haircut with no apparent cost differences - Price differentials might reflect expected differences in the average costs of men's and women's haircuts, pointing to statistical discrimination</p>	<p>- Only focused on the UK</p>
<p>United States Government Accountability Office (2020)</p>	<p>- Examined, how prices compared for selected goods and services marketed to men and women, and potential reasons for any price differences</p>	<p>- Price discrepancies - Third-degree price discrimination</p>	<p>- Personal care (underarm deodorants, body deodorants, shaving creme, shaving gel, disposable razors, non-deposable razors, razor blades, designer perfume, mass market perfume, body sprays)</p>	<p>- Nielsen retail price scanner FY 2016, which includes information on total volume sold and dollar sales for items purchased at 228 retailers (Data captures 82% of all U.S. sales) - Manually collected listed prices for 16 pairs of selected personal care products from four different retailer websites in 2018</p>	<p>- Multivariate regression model to estimate the effect of gender on the price of a product while controlling for other factors that may also affect the product's price</p>	<p>- Firms differentiate many consumer products to appeal separately to men and women by slightly altering product attributes like color or scent - Prices were higher for women's deodorants, shaving crème, perfume, and body spray - Men paid more for Shaving gel and non-disposable razors - Could not determine the extent to which the gender-based price differences we observed may be attributed to gender bias as opposed to other factors</p>	<p>- Only focused on the U.S. - Did not include complete data on costs, such as advertising and packaging, or consumers' willingness to pay - unable to determine the extent to which consumers actually paid these prices and in what volume the products were sold, and our results are not generalizable to the broader universe of prices for these products sold at other times or by other online retailers</p>

Ayres, Ian [Harvard Law Review] (1991)	- Tested whether car dealerships systematically discriminate by offering lower prices	- Animus-based theories of discrimination - Statistical discrimination - Gender and Race discrimination - Price discrimination	- Automotive (Car dealers)	- 180 tests at 90 car dealerships in Chicago	- Testers of different races and genders entered new car dealerships separately and bargained to buy a new car, using a uniform negotiation strategy - Multivariate Regression analysis	- Car dealers systematically offered substantially better prices on identical cars to white men than to blacks and women	- Only focused on the U.S. (Study was only conducted in Chicago) - Only used six testers
Ayres, Ian, and Peter Siegelman [The American Economic Review] (1995)	- Tested whether car dealerships systematically discriminate by offering lower prices	- Animus-based theories of discrimination - Statistical discrimination - Gender and Race discrimination - Price discrimination	- Automotive (Car dealers)	- 306 tests at 153 car dealerships in Chicago	- Pairs of testers (one of whom was always a white male) were trained to bargain uniformly and then negotiated for the purchase of a new car - OLS and fixed-effects regression and F test	- Car dealers quoted significantly lower prices to white males than black or female test buyers using identical, scripted bargaining strategies - Car dealers also occasionally used racist or sexist language - Data also suggest that at least part of the observed disparate treatment of women and blacks is caused by dealers' inferences about consumer reservation prices	- Only focused on the U.S. (Study was only conducted in Chicago)
Chang, Michelle J., and Shari R. Lipner [International Journal of Women's Dermatology] (2021)	- Investigated gender-based price differences and marketing for razors	- Gendered pricing - Gendered marketing - Fitzpatrick skin type	- Personal care products (Razors)	- n=176 razors from Amazon, Walmart, and Target	- Two-tailed t-tests and Chi-Squared tests - Marketing images were categorized by Fitzpatrick skin type	- On average, women's four- and five-blade razors were more expensive than men's - Razor colors adhered to traditional gender stereotypes and disproportionately represented white and binary populations	- Sample sizes grouped by blade number were small - Size, design, packaging, and replacements were not analyzed - Assigning Fitzpatrick skin types is subjective - Only focused on the U.S.
Alesina, Alberto F., Francesca Lotti, and Paolo Emilio Mistrulli [Journal of the European Economic Association] (2013)	- Investigated whether women are discriminated against in credit markets in Italy	- Statistical discrimination - Taste discrimination - Taste-based discrimination	- Finance (Credit)	- n= 1.2 million loans to nearly 150 thousand firms for 12 quarters, from January 2004 to January 2007	- OLS analysis, Blinder-Oaxaca Decomposition and matching on propensity score	- Women in Italy pay more for credit than men, although they do not find any evidence that women borrowers are riskier than men - Male/female differential remains even after controlling for a large number of characteristics of the type of business, the borrower, and the structure of the credit market	- Only focused on Italy

Cheng, Ping, Zhenguo Lin, and Yingchun Liu [The Journal of Real Estate Finance and Economics] (2011)	<ul style="list-style-type: none"> - Found out whether women tend to pay higher interest rates than men on all mortgages, including both prime and subprime loans - If so, what is the nature of the gender disparity, and what factors may be attributed to such gender difference 	<ul style="list-style-type: none"> - Mortgages - Gender discrimination 	- Finance (Mortgages)	<ul style="list-style-type: none"> - n=1511 observed households that obtained a mortgage from the Survey of Consumer Finances (SCF) of U.S. families 	<ul style="list-style-type: none"> - Several regression analyses 	<ul style="list-style-type: none"> - Women, on average, pay more for mortgages than men - Disparity cannot be fully explained by traditional variables such as mortgage features, borrower characteristics, and market conditions 	<ul style="list-style-type: none"> - Only focused on the borrower side, not the lender perspective - Only focused on the U.S. - SCF data only reports interest rates on mortgages but contains no information about discount points
Anna Bessendorf for The New York Department of Consumer Affairs (2015)	<ul style="list-style-type: none"> - Determined the frequency and extent to which female consumers face higher prices than male consumers when buying similar products 	<ul style="list-style-type: none"> - Gender pricing 	<ul style="list-style-type: none"> - Toys and accessories (Bikes & scooters, general toys, backpacks, preschool toys, helmets & pads, arts & crafts) - Children's Clothing - Adult clothing - Personal care (Hair care, razors & cartridges, lotion, deodorant, body wash, shaving cream) - Senior care products (Supports & braces, canes, compression socks, adult diapers, personal urinals, digestive health) 	<ul style="list-style-type: none"> - n=794 products 	<ul style="list-style-type: none"> - Derived the average price for an item, then found the percent difference between the average total men's cost and women's cost - Also found median prices for each product type in all categories- Further analyzed costs by finding an average price of the high-end and low-end price ranges - Analyzed the incidence of higher prices 	<ul style="list-style-type: none"> - On average, across all five industries, they found that women's products cost 7% more - Women's products cost more 42 percent of the time- Personal care products had the largest price discrepancies 	<ul style="list-style-type: none"> - Only focused on the U.S. (Study was only conducted in New York) - Did not calculate the price per ounce or per item - Does not estimate an annual financial impact for women- Since men's and women's products are rarely completely identical, the comparison is often focused on similar products
Stevens, Jennifer L., and Kevin J. Shanahan [Creating Marketing Magic and Innovative Future Marketing Trends] (2017)	<ul style="list-style-type: none"> - The study wanted to understand why women are willing to pay a premium and how they perceive pink tax 	<ul style="list-style-type: none"> - Willingness to pay - Pink Tax 	<ul style="list-style-type: none"> - Personal care (Razors) - Office supplies (Pens) 	<ul style="list-style-type: none"> - Female survey participants 	<ul style="list-style-type: none"> - Survey via Qualtrics - Cronbach's alpha, exploratory factor analysis, Multiple linear regression, Linear regression 	<ul style="list-style-type: none"> - Women perceive pink taxes as unfair - The more knowledgeable a woman is about gendered pricing, the more likely she will be to view the pricing as unfair - Yet, if wishing to signal her femininity may be willing to still pay a premium 	<ul style="list-style-type: none"> - Not indicated how many survey participants took part - Structured abstract

Ferrell, O. C., et al. [Journal of Business Ethics] (2018)	- Explored consumer expectations and attitudes related to gender-based price discrimination	- Third-degree price discrimination - Price discrimination - Gender-based pricing	- Personal care (Hair salon and dry cleaning)	- Study 1: Questionnaire with n=266 participants - Study 2: n=122 responses	- In Study 1, two scenarios related to prices at hair salons and dry-cleaning services were manipulated to measure expectations and attitudes toward gender-based price discrimination and analyzed with OLS regression and independent sample t-tests - In Study 2, qualitative research was conducted to reveal the cognitions that men and women experience	- Women expect to pay higher prices when the service provided requires more time and effort, but women do not expect to pay higher prices when the provision of services is essentially the same - Also found that men expect gender-based pricing more than women - Higher-income is associated with more accepting attitudes toward gender-based pricing	- It was not possible to determine if respondents had experienced third-degree gender-based price discrimination - Only focused on the U.S.
Mitchell, Vincent-Wayne, and Gianfranco Walsh [Journal of Consumer Behaviour: An International Research Review] (2004)	- Explored male and female consumer decision-making styles using the Consumer styles inventory (CSI)	- Consumer styles inventory (CSI)	Not applicable	- n=358 German male and female shoppers	- Exploratory principal components analysis using a varimax rotation, then a two-tailed t-test to examine the differences in the mean values.	- Males and females want different products, and they are likely to have different ways of thinking about obtaining these	- Sample overrepresented 18–44-year-olds and those who were more educated - Only focused on Germany
Baker-Sperry, Lori, and Liz Grauerholz [Gender & society] (2003)	- Study of beauty's significance in children's fairy tales to provide insight into the dynamic relationship between gender, power, and culture, as well as the cultural and social significance of beauty to women's lives	- Gender Imagery - Feminine beauty ideal - (Normative) social control	Not applicable	- n=168 fairy tales from The Complete Fairy Tales of the Brothers Grimm	- Each tale was coded, and then simple descriptive statistics were computed to explore the extent to which a feminine beauty ideal is evident - Regression analyses	- The findings suggest that feminine beauty is a dominant theme in fairy tales - Fairy Tales convey this message in a particularly powerful way by drawing strong associations between beauty and goodness and rewards - The emphasis on a feminine beauty ideal may operate as a normative social control for girls and women	- They could not determine the extent to which messages concerning feminine beauty found in fairy tales have, in fact, been internalized or by whom - It is unclear whether contemporary children read fairy tales in the same way as their mothers or grandmothers did

Stokburger-Sauer, Nicola E., and Karin Teichmann [Journal of business research] (2013)	<ul style="list-style-type: none"> - Investigated consumers' luxury brand response (i.e., brand attitude and purchase intention) with a special focus on gender and the consumer's need for uniqueness - Analyze customers' value perceptions associated with luxury brands 	<ul style="list-style-type: none"> - Gender differences - Consumer behavior - Social gender roles - Social psychology 	Not applicable	<ul style="list-style-type: none"> - Study 1: n=557 participants - Study 2: n=350 participants - Study 3: n=300 participants 	<ul style="list-style-type: none"> - Two experimental studies and one survey study in three product categories (clothing, perfumes, and wristwatches) - Series of ANOVAs 	<ul style="list-style-type: none"> - Women have a more positive attitude toward and a higher purchase intention of luxury brands versus non-luxury brands than men - For female consumers, luxury brands provide more uniqueness, status, and hedonic value than non-luxury brands 	<ul style="list-style-type: none"> - Only focused on Germany - Study 2 used a pure student sample which caused problems of the external validity of the results - Studies only focused on certain product categories
Beldona, Srikanth and Karthik Namasivayam [Journal of Hospitality & Leisure Marketing] (2006)	<ul style="list-style-type: none"> - Examined gender differences in perceived price fairness and subsequent repurchase intentions 	<ul style="list-style-type: none"> - Demand-based pricing - Perceived fairness - Pricing - Revenue Management 	Hotels	<ul style="list-style-type: none"> - n=484 survey participants 	<ul style="list-style-type: none"> - Multivariate General Linear Models procedure in SPSS 	<ul style="list-style-type: none"> - Statistically significant differences where females perceived significantly lesser fairness across all pricing scenarios in both discount and surplus frames - When it came to repatronage intentions, gender differences were only partially supported 	<ul style="list-style-type: none"> - Only grad-students in sample - Cross-sectional study
Bearden, William O, Jay P Carlson, and David M Hardesty [Journal of Business Research] (2003)	<ul style="list-style-type: none"> - Explored the presence and absence of invoice price (IP) information (i.e., the cost to the seller) and the inclusion of offer fairness (OF) 	<ul style="list-style-type: none"> - Fairness - Invoice prices - Framing effects 	Not applicable	<ul style="list-style-type: none"> - Study 1: n=195 participants - Study 2: n=206 participants 	<ul style="list-style-type: none"> - Series of ANOVAs & MANOVA 	<ul style="list-style-type: none"> - Found evidence of the positive framing effects of invoice or cost information in retail price advertising - Specifically, higher promoted invoice prices increased transaction value, acquisition value, and perceived offer fairness 	<ul style="list-style-type: none"> - Nonprobability sample in a laboratory experiment
Blau, Francine D. and Lawrence M. Kahn [Journal of Economic Perspectives] (2000)	<ul style="list-style-type: none"> - Wrote about the gender pay gap in the United States considering both gender-specific factors, including gender differences in qualifications and discrimination, and overall wage structure, the rewards for skills and employment in particular sectors 	<ul style="list-style-type: none"> - Gender pay gap 	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> - Declining gender differentials in the U.S., and the more rapid closing of the gender pay gap in the U.S. than elsewhere, appear to be primarily due to gender-specific factors - The relatively large gender pay gap in the U.S. compared to a number of other advanced countries seems primarily attributable to the very high level of U.S. wage inequality 	Not applicable

Busse, Meghan R., Ayelet Israeli, and Florian Zettelmeyer [Journal of Marketing Research] (2017)	- Investigate whether sellers treat consumers differently on the basis of how well-informed consumers appear to be	- Gender -Price Knowledge	Auto Repairs	- n=4,603 price quote observations	- Implemented a large-scale field experiment in which callers request price quotes from automotive repair shops	<ul style="list-style-type: none"> - Sellers alter their initial price quotes depending on whether consumers appear to be correctly informed - Repair shops quote higher prices to callers who cite a higher benchmark price - Women are quoted higher prices than men when callers signal that they are uninformed about market prices -Gender differences disappear when callers mention a benchmark price for the repair 	<ul style="list-style-type: none"> - Only investigated a single type of repair - Only considered quoted prices and not prices paid
Campbell, Margaret C. [Journal of Marketing Research] (1999)	- Examined the influence of the inferred motive for a firm's price increase on perceptions of price unfairness	- Perceived price fairness	Not applicable	<ul style="list-style-type: none"> - Study 1: n=128 participants - Study 2: n=86 participants 	<ul style="list-style-type: none"> - ANOVA - ANCOVA 	<ul style="list-style-type: none"> - Inferred motive, as well as inferred relative profit, provides causal explanation of perceived price unfairness - When participants inferred that the firm had a negative motive for a price increase, the increase was perceived as significantly less fair - The firm's reputation can influence the inferred motive, thereby altering perceptions of price unfairness - Perceived unfairness leads to lower shopping intentions 	<ul style="list-style-type: none"> - Situation in both studies involved an auction of an extremely limited product - Examined only one type of product and one type of pricing situation
Campbell, Margaret C. [Journal of Marketing Research] (2007)	- Examined how the source of price change information influences the perceptions of price fairness	- Perceived price fairness	Not applicable	<ul style="list-style-type: none"> - Study 1: n=97 participants - Study 2: n=260 participants - Study 3: n=80 participants 	<ul style="list-style-type: none"> - 3 experiments - Series of ANOVAs 	<ul style="list-style-type: none"> - Three experiments showed that the source of price change information, whether human or nonhuman, moderates the effect of price change on perceptions of price fairness 	<ul style="list-style-type: none"> - Fairness was measured before the affect and inference of motive mediators
Cowan, Simon [The Journal of Industrial Economics] (2012)	- Considered the effects of monopoly third-degree price discrimination on aggregate consumer surplus	- Third-degree price discrimination	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> - Discrimination is likely to reduce surplus (relative to that obtained with a uniform price), but surplus can rise under reasonable conditions - If the ratio of the passthrough coefficient to the price elasticity at the uniform price is higher in the market with the higher price elasticity then surplus is larger with discrimination 	Not applicable
Crawford, Bridget J. and Emily Gold Waldman [University of Richmond Law Review] (2018)	- Explored the constitutionality of the tampon tax and argues that it is an impermissible form of gender discrimination under the Equal Protection Clause	- Tampon tax	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> - Menstrual hygiene products are a unique proxy for female sex, and therefore any disadvantageous tax classification of these products amounts to a facial classification on the basis of sex 	Not applicable

Curran, Paul G. [Journal of Experimental Social Psychology] (2016)	- Explored methods for the detection of carelessly invalid responses in survey data	- Careless responding - Insufficient effort responding - Data cleaning - Invalid response	Not applicable	Not applicable	Not applicable	- Showed a number of ways to screen survey data for careless or invalid responders	Not applicable
Elegido, Juan M. [Business Ethics Quarterly] (2011)	- Explored the ethics of price discrimination	- Price discrimination - Ethics	Not applicable	Not applicable	Not applicable	- Article showed i) that there are many situations in which it is necessary to engage in differential pricing in order to make the provision of a product possible; and ii) that in many such situations, the seller does not obtain an above-average rate of return - Concludes that price discrimination is not inherently unfair	Not applicable
Etikan, Ilker [American Journal of Theoretical and Applied Statistics] (2016)	- Studied and compared the two nonprobability sampling techniques namely, Convenience Sampling and Purposive Sampling	- Convenience Sampling - Purposive Sampling	Not applicable	Not applicable	Not applicable	- Nonprobability sampling has a lot of limitations due to the subjective nature in choosing the sample and thus it is not good representative of the population, but it is useful especially when randomization is impossible like when the population is very large - Both convenience sampling and purposive sampling share some limitations which include nonrandom selection of participants	Not applicable
Fisher, Robert J. [Journal of Consumer Research] (1993)	- Article reported on three studies that examine indirect questioning as a technique to reduce social desirability bias on self-report measures	- Social Desirability Bias	Not applicable	- Study 1: n=184 participants - Study 2: n=352 participants	- Series of t-tests - Regression analysis - ANOVA	- Pattern of results indicates that indirect questioning reduces social desirability bias on variables subject to social influence and has no significant effect on socially neutral variable	- The three studies only used student samples
Hinterhuber, Andreas [Industrial Marketing Management] (2004)	- Presented a comprehensive framework for pricing decisions which considers all relevant dimensions and elements for profitable and sustainable pricing decisions	- Pricing strategies	Not applicable	Not applicable	Not applicable	- After taking a company's objectives into consideration, it is suggested to use the tools of economic value analysis, cost-volume profit analysis, and competitive analysis to reflect the customer, company, and competitor perspective relevant for all strategic decisions to determine ranges of profitable prices	Not applicable

Hinterhuber, Andreas [Journal of Business Strategy] (2008)	- Investigated customer value-based pricing and why cost-based pricing is still not more commonly used	- Pricing strategies	Not applicable	- n=126 managers	- In qualitative research, the phenomenon of implementation of value-based strategies with groups of business executives participating in pricing workshops explored - Cluster analysis to summarize the results of quantitative research stage	- Five main obstacles to the implementation of value-based pricing strategies have been identified: deficits in value assessment; deficits in value communication; lack of effective market segmentation; deficits in sales force management; and lack of support from senior management	Not applicable
Holmes, Thomas J. [The American Economic Review] (1989)	- Explored the effects of third-degree price discrimination in oligopolies through theoretical models	- Price discrimination	Not applicable	Not applicable	Not applicable	- Discrimination decreases the price set in the weak market because its higher cross-price elasticity outweighs its lower industry elasticity of demand	Not applicable
Homburg, Christian, Wayne D. Hoyer, and Nicole Koschate [Journal of the Academy of Marketing Science] (2005)	- Investigated the effects of price increases at an individual level	- Pricing - Fairness - Customer Satisfaction	Not applicable	- Study 1: n=80 students - Study 2: n=80 students - Study 3: n=174 students	- ANOVAs	- As satisfaction increases, the negative impact of the magnitude of a price increase is weakened - Satisfaction moderates the impact of perceived motive fairness - The level of satisfaction can influence the valence of the perceived motives in response to a price increase	- In first and second study the dependent variable (i.e., repurchase intentions) was measured with a single-item
Homburg, Christian, Dirk Totzek, and Melanie Krämer [Journal of Business Research] (2014)	- Examined perceptions about price complexity	- Price Fairness - Pricing	Not applicable	- Study 1: n=485 students - Study 2: n=176 participants	- ANOVAs	- Customers tend to prefer simple prices - Perceived price complexity negatively affects customer perceptions of price fairness and influences product choice because customers negatively evaluate the transparency of the firm's pricing practices and infer higher total prices	- Participants evaluated a fictional firm in the experimental studies - Only data from Germany
Jacobsen, Kenneth A. [California Western Law Review] (2017)	- Reviewed studies and legislation in the U.S. in the context of the pink tax	- Pink Tax	Not applicable	Not applicable	Not applicable	- Existing laws in the U.S. are not adequate to protect consumers - Coordinated consumer education would be a helpful next step	Not applicable

Kahneman, Daniel, Jack L. Knetsch, and Richard Thaler [<i>The American Economic Review</i>] (1986)	<ul style="list-style-type: none"> - Investigated fairness as a constraint on profit seeking - Dual entitlement: Fairness considerations constrain profit maximizing firms 	- Fairness	Not applicable	Not applicable	<ul style="list-style-type: none"> - Community standards of fairness for the setting of prices and wages were elicited by telephone surveys 	<ul style="list-style-type: none"> - In customer or labor markets, it is acceptable for a firm to raise prices (or cut wages) when profits are threatened and to maintain prices when costs diminish - It is unfair to exploit shifts in demand by raising prices or cutting wages 	Not applicable
Kahneman, Daniel, Jack L. Knetsch, and Richard H. Thaler [<i>The Journal of Business</i>] (1986)	<ul style="list-style-type: none"> - Explored whether it is useful to complicate the model of the profit-seeking firm by considering the preferences that people have for being treated fairly and for treating others fairly 	- Fairness	Not applicable	<ul style="list-style-type: none"> - Study 1: n=161 students - Study 2: n=975 responses - Study 3: unspecified number of telephone interviews 	<ul style="list-style-type: none"> - Descriptive statistics 	<ul style="list-style-type: none"> - The three experiments demonstrated that willingness to enforce fairness is common - People care about being treated fairly and treating others fairly - They are willing to resist unfair firms even at a positive cost - They have systematic implicit rules that specify which actions of firms are considered unfair <p>Yet, fairness rules are not describable by the standard economic model</p>	Not applicable
Kwan, Samantha and Mary Nell Trautner [<i>Sociology Compass</i>] (2009)	<ul style="list-style-type: none"> - The authors explored the beauty work practices that people perform through a literature review - They examined the cultural context in which beauty work occurs and the gender dimensions of beauty work 	<ul style="list-style-type: none"> - Gender - Beauty work 	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> - Physical attractiveness is associated with a number of positive outcomes, including employment benefits such as hiring, wages, and promotion, and is correlated with social and personal rewards such as work satisfaction, positive perceptions of others, and higher self-esteem - Individuals perform various forms of beauty work, thus reproducing and strengthening a social system that privileges youth and attractiveness 	Not applicable
Maxwell, Sarah [<i>Journal of Economic Psychology</i>] (2002)	<ul style="list-style-type: none"> - Tested the effect of rule-based price through two experiments 	- Price Fairness	Not applicable	<ul style="list-style-type: none"> - Study 1: 204 students - Study 2: 296 students 	<ul style="list-style-type: none"> - Structural equation modeling using a covariance matrix and maximum likelihood estimation - Confirmatory factor analysis 	<ul style="list-style-type: none"> - In the first study, perceived rule-based price fairness is shown to influence the inferred fairness of the seller's pricing process, which affects buyers' attitudes toward the seller and willingness to purchase - In the second study, consumers are provided information as to whether the seller has followed a rule-based pricing process - Results indicated that the knowledge of how a price has been determined has a significant effect on how the price is perceived 	<ul style="list-style-type: none"> - Interaction of rule-based social fairness and economic fairness was not tested - Only undergraduate students in sample - Only used a scenario-based experiment

Maxwell, Sarah [Journal of Product & Brand Management] (2008)	<ul style="list-style-type: none"> - Summarized the current research in disciplines outside marketing that applies to price fairness: research by behavioral economists, primate behavior researchers and social neuroscientists 	<ul style="list-style-type: none"> - Price Fairness - Behavioral economics 	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> - Research outside marketing indicates that a fair price is a preference - It has social utility that is independent of the economic utility of a low price - Consumers can actually harm themselves to punish what they perceive to be an unfair price - Fair prices trigger the reward center of the mind, stimulating happiness - The research also indicates that the response to a fair or unfair price is emotional 	Not applicable
Maxwell, Sarah, Sanghyun Lee, Sabine Anselstetter, Lucette B. Comer, and Nicholas Maxwell [Journal of Consumer Marketing] (2009)	<ul style="list-style-type: none"> - Researched whether there is a difference in how men and women respond to unfair prices and, if so, whether this gender difference extends across national cultures - Investigated whether the difference is due to nature or to nurture? 	<ul style="list-style-type: none"> - Behavioral economics (ultimatum game) - Role models - Psychology - National differences (Hofstede) 	Not applicable	<ul style="list-style-type: none"> - n=390 undergraduates in Germany, South Korea, and the USA 	<ul style="list-style-type: none"> - Survey-based analysis - Scenario in two parts: The first part presented a sudden price increase, which was designed to be viewed as personally unfair; the second part presented the seller giving a false reason for the increase, which was designed to be viewed as socially unfair 	<ul style="list-style-type: none"> - Response to price unfairness is due more to nurture than to nature - Although American females tend to be more sensitive than men to price unfairness, there is little or no difference between men and women in Germany and South Korea: both sexes there react negatively to an unfair price, particularly when the seller has acted unjustly 	<ul style="list-style-type: none"> - Sample of university students who might be less conscious of household economics since many are supported by parents and they are highly educated which might not reflect the thinking of the less well educated
Meade, Adam W. and S. Bartholomew Craig [Psychological Methods] (2012)	<ul style="list-style-type: none"> - Examined several methods for identifying careless responses, including special items designed to detect careless response, response consistency indices formed from responses to typical survey items, multivariate outlier analysis, response time, and self-reported diligence 	<ul style="list-style-type: none"> - Types of problematic response - MMPI-2 - Factors affecting careless responding 	- Not applicable	<ul style="list-style-type: none"> - n=438 composed primarily of students enrolled in introductory psychology courses at a large university in the south-eastern United State 	<ul style="list-style-type: none"> - Survey with random assignment to one of three conditions (anonymous, identified, stern warning) - Measurement of response time, outlier analysis, bogus items, consistency indices, and response patterns 	<ul style="list-style-type: none"> - There are two distinct patterns of careless response (random and nonrandom) and different indices are needed to identify these different response patterns - Approximately 10%–12% of undergraduates completing a lengthy survey for course credit were identified as careless responders - The nature of the data strongly influenced the efficacy of the indices to identify careless responses 	<ul style="list-style-type: none"> - Respondent population might not be representable - Lack of incorporation of explicit instructed response items - Self-report measures were used - Participants might not have heeded the features highlighting to alert the respondent that the study was at a close and that candid responses were necessary

Okada, Tomohisa [The Manchester School] (2014)	- Studied monopolistic third-degree price discrimination, incorporating consumers' fairness concerns	- (Third-degree) price discrimination - Fairness (loss aversion, inequality aversion)	- Not applicable	- Not applicable	- Model in which a monopolist produces a single final product that is offered to two segmented groups - Equilibrium analysis - Welfare analysis	- Show that consumers' concerns regarding price inequalities may deter discriminatory pricing by monopolists - A strong aversion to unfair pricing may improve social welfare compared with the situation in which consumers do not perceive price discrimination as unfair - Conversely, if the disutility from price inequality is not sufficiently large, social welfare decreases	- Model is reduced to the standard case if consumers are not aware of price discrimination
Ordóñez, Lisa D., Terry Connolly, and Richard Coughlan [Journal of Behavioral Decision Making] (2000)	- Examined the effects of two referents (salaries offered to other comparable individuals) on ratings of salary satisfaction and fairness	- Integrated reference point model (adaption level theory) - Separated reference point model (frequency model) - Pay evaluation Prospect theory (loss aversion)	- Not applicable	- n=30 students from the MBA program at the University of Arizona	- Subjects were presented with a series of scenarios that described a salary offer made to a hypothetical MBA graduate and provided information about the salary offers made to either one or two other similar graduates - For each scenario, subjects judged how fair the focal graduate would feel the offer to be, and how satisfied he or she would be with it. - 4x3x4 within-subject design	- Satisfaction ratings displayed asymmetric effects of comparisons: the pain associated with receiving a salary lower than another MBA is greater than the pleasure associated with a salary higher than the other student by the same amount - Fairness ratings showed a different pattern of asymmetric effects of discrepancies from the reference salaries: the focal graduate's salary was judged somewhat less fair when others received lower offers, and much less fair when others received higher offers - The asymmetric effects occurred for both reference points, suggesting that the focal salary was compared separately to each of the referents rather than to a single reference point formed by prior integration of the referents	- Small sample
Phlips, Louis [Journal of Economic Surveys] (1988)	- Explanation of price discrimination and introduction of recent developments	- Price discrimination (first-degree, second-degree, and third-degree)	- Not applicable	- Not applicable	- Not applicable	- Cons of price discrimination: - Small customers are discriminated against (they lose their entire consumer surplus) and even second-best Ramsey pricing is distorted since too much weight is given to the structure of reservation prices - For third-degree price discrimination a move from single price to discriminating monopoly at best keeps total output constant and reduces welfare - Pros of price discrimination - Nonlinear price schedules are Pareto-superior, both from an aggregate and from an individual point of view	- Not applicable

						<ul style="list-style-type: none"> - The profit-maximizing schedule implies that the high demanders (the rich) purchase the efficient quantity or quality and get the benefits of cost savings without delay - For third-degree price discrimination it opens new markets and thus increases production, consumption, and welfare 	
Podsakoff, Philip M., Scott B. MacKenzie, and Nathan P. Podsakoff [Annual Review of Psychology] (2012)	<ul style="list-style-type: none"> - Explored the current state of knowledge about method biases by inspecting the meaning of the term, reviewing evidence of effects, evaluating the procedural and statistical remedies that have been used to control method biases and providing recommendations for minimizing method bias 	- Method bias	- Not applicable	- Not applicable	- Not applicable	<ul style="list-style-type: none"> - The evidence shows that method biases can significantly influence item validities and reliabilities as well as the covariation between latent constructs - Researchers must be knowledgeable about the ways to control method biases that might be present in their studies - Recommendations for decreasing method bias include implementing procedures that ensure that respondents can answer the questions asked, decreasing the difficulty of responding accurately, increasing the difficulty of responding stylistically, and following up with appropriate statistical remedies 	- Some relevant issues might be missing
Salman, Doaa and Sarahbi El Ayoubi [Proceedings of Business and Economic Studies] (2019)	<ul style="list-style-type: none"> - Analyzed the effects of the pink tax through commodities being sold in the city of New York in the States 	- Gender-based price discrimination	- Consumer goods	- Used data from Bessendorf, Anna (2015)	- Revised and presented the data from Bessendorf, Anna (2015)	<ul style="list-style-type: none"> - Personal care products have the highest percentage difference amongst both gender 	- No new data
Spence, Michael [Journal of Public Economics] (1977)	<ul style="list-style-type: none"> - Investigated nonlinear prices and welfare - Build on Weitzman's welfare criterion by including the income redistribution effects of using the price system 	- Not applicable	- Not applicable	- Not applicable	<ul style="list-style-type: none"> - Theoretical formulas and models developed 	<ul style="list-style-type: none"> - Quantity premiums and discounts have two distinct qualitative effects - Discounts push consumption up in the spectrum of consumers, defined by their valuation of the good - Premiums push consumption down in the same spectrum. But discounts also raise revenues while premiums depress revenues 	- Only theoretical, no experimental evidence

Waldfoegel, Joel [The Journal of Industrial Economics] (2015)	- Investigated first degree pricing and derived pricing functions that maximize revenue in the context of higher education	- Price discrimination	Not applicable	- Data from n=685 applications of one undisclosed university	- Developed pricing framework	- Current pricing generates far less than the revenue maximizing level, even among the schemes constrained to yield the current enrollment level - A uniform price chosen to target the current enrollment level would raise revenue	Not applicable
Wu, Chi-Cheng, Yi-Fen Liu, Ying-Ju Chen, and Chih-Jen Wang [Journal of Business Research] (2012)	- Explored consumers' perceived unfairness, negative emotions, internal reference price, and store choice under five common methods of price discrimination using two experimental studies	- Price discrimination	Not applicable	- Study 1: n=345 students - Study 2: n=351 students	- Two-way ANOVA	- Discriminating bases only influence perceived unfairness for advantaged consumers - Disadvantaged consumers, direct discrimination that complies with social norms evokes the weakest unfavorable responses, whereas direct discrimination against social norms triggers the highest perception of unfairness and negative emotions	- Study employed asymmetrical manipulations for direct discrimination complying with social norms
Xia, Lan, Kent B. Monroe, and Jennifer L. Cox [Journal of Marketing] (2004)	- The authors conceptually integrated the theoretical foundations of fairness perceptions and summarizes empirical findings on price fairness	- Price Fairness	Not applicable	Not applicable	Not applicable	- Implications for Pricing Managers: Decrease transaction similarity, anticipate reactions to price differences and provide relevant information, Damage Control When Perceptions of unfairness arise and manage customer relationships	Not applicable
Moshary, Sarah, Anna Tuchman, and Natasha Vajravelu [Marketing Science] (2023)	- Investigated gender-based price segmentation - Shed light on the form and magnitude of gender-based pricing for personal care products	-Price discrimination -Price segmentation - Pink tax	- Personal care products	- Products sold in 39,697 stores affiliated with 93 chain across the United States - Nielsen Retail Scanner data from 2015 to 2018	- Analysis of gender targeted, ingredients, price patterns, product differentiation - Measured price disparities by estimating the difference in the average price of men's versus women's products that are produced by the same manufacturer and sold at the same retail outlet, distinguishing whether this reflects second- or third-degree	- Gender segmentation is ubiquitous, as more than 80% of products sold are gendered - Segmentation involves product differentiation; there is little overlap in the formulations of men's and women's products within the same category - This differentiation sustains large price differences for men's and women's products made by the same manufacturer - In an apples-to-apples comparison of women's and men's products with similar ingredients, however, no evidence of a systematic price premium for women's goods was found: price differences are small,	- Findings do not speak to gender-based price discrimination in service industries - Findings pertain to average price differences - Definition of pink tax might not include all important factors

					price discrimination and controlling for different factors such as ingredients - Robustness check	and the women's variant is less expensive in three out of five categories	
Mitchell, Vincent-Wayne and Gianfranco Walsh [Journal of Consumer Behaviour] (2004)	-Furthered an understanding of how gender affects consumers' approaches to decision making based on Sproles and Kendall's (1986) consumer styles inventory (CSI)	- Male characteristics in decision-making - Male decision-making styles	- Not applicable	- n=358 German males and females	- Exploratory principal components analysis using a varimax rotation was used to summarize the items into an underlying set of male and female decision-making characteristics	- CSI has construct validity for females, but appears to be less valid for males - Although all seven German decision-making characteristics could be confirmed for females, only four could be confirmed for males, tentative support was found for five new male factors, namely satisfying, enjoyment-variety seeking, fashion-sale seeking, time restricted and economy seeking	- Some factors have poor reliabilities - Some items might appear to reflect one sex's orientation more than the other's - Sample over-represented 18-44 year olds and those who were more educated - The region from which the sample was drawn cannot really be considered representative of South and East Germany

Appendix B: Comparative Literature Table

Citation	Literature Stream			Source of Prices		Experiment	Secondary Data
	Price Discrimination	Perceived Price Fairness	Gender-based Pricing	Online	Offline		
This study	x	x	x	x		x	
(Liston-Heyes and Neokleous 2000)			x		x	x	
(Guittar et al. 2022)			x	x			x
(Jacobsen 2017)			x				x
(Ayres 1991)			x		x	x	
(Ayres and Siegelman 1995)			x		x	x	
(Busse, Israeli, and Zettelmeyer 2017)			x		x	x	
(Cheng, Lin, and Liu 2011)			x		x		x
(Alesina, Lotti, and Mistrulli 2013)			x		x		x
(Duesterhaus et al. 2011)			x	x	x	x	x
(United States Government			x	x	x		x

Accountability Office 2018)						
(Bessendorf 2015)		x	x	x		x
(Chang and Lipner 2021)		x	x	x		x
(Maloney 2016)		x	x		x	x
(Moshary, Tuchman, and Vajravelu 2023)		x	x			x
(Ferrell et al. 2018)		x		x	x	
(Stevens and Shanahan 2017)	x	x		x	x	
(Kahneman, Knetsch, and R. Thaler 1986)	x					
(Kahneman, Knetsch, and R. H. Thaler 1986)	x					
(Campbell 2007)	x				x	
(Xia, Monroe, and Cox 2004)	x					
(Maxwell 2008)	x					
(Maxwell 2002)	x				x	
(Campbell 1999)	x				x	
(Homburg, Hoyer, and Koschate 2005)	x				x	

(Maxwell et al. 2009)		x				x
(Ordóñez, Connolly, and Coughlan 2000)		x				x
(Beldona and Namasivayam 2006)		x				x
(Varian 1989)	x					
(Phlips 1983)	x					
(Stigler 1987)	x					
(Stole 2007)	x					
(Wu et al. 2012)	x					x
(Waldfogel 2015)	x					x
(Salman and El Ayoub 2019)	x		x			x
(Phlips 1988)	x					
(Khan and Jain 2005)	x					x
(Spence 1977)	x					
(Cowan 2012)	x					
(Okada 2014)	x					

(Elegido 2011)	x
(Holmes 1989)	x

Appendix C: Survey



Deutsch



English

B.Sc. Alessandra Biechteler, Universität Mannheim – 2023

Vorschau des Fragebogens "random"



0% ausgefüllt

Liebe Teilnehmerin, lieber Teilnehmer,

vielen Dank für Ihr Interesse an meiner Masterarbeit am Lehrstuhl für Quantitatives Marketing und Konsumentenverhalten an der Universität Mannheim.

Die Umfrage dauert etwa 5 Minuten. Ihre Teilnahme erfolgt freiwillig und Ihre Daten werden anonym erfasst und gespeichert. Ihre Antworten werden streng vertraulich behandelt und werden weder über den Rahmen dieser Forschung hinaus verwendet, noch Dritten offengelegt.

Bei Fragen oder Bedenken im Zusammenhang mit dieser Umfrage stehe ich Ihnen gerne per E-Mail zur Verfügung:
alessandra.biechteler@students.uni-mannheim.de.

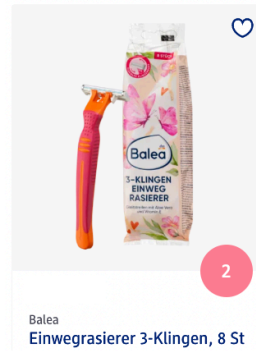
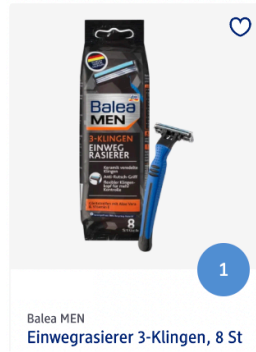
Vielen Dank für Ihre Unterstützung!

Alessandra Biechteler

Weiter

B.Sc. Alessandra Biechteler, Universität Mannheim – 2023

Bitte stellen Sie sich folgendes Szenario vor: Sie brauchen einen neuen Einwegrasierer und sehen die folgenden zwei Optionen online.



1. Würden Sie Rasierer 1 oder Rasierer 2 bevorzugen?

- ☐ Ich würde Rasierer 1 (blau) bevorzugen
- ☐ Ich würde Rasierer 2 (pink) bevorzugen

[Weiter](#)

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2. Haben Sie schon mal von dem Phänomen „Pink Tax“ gehört?

- ☐ Ja
- ☐ Nein

[Weiter](#)

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3. Unten finden Sie eine Reihe von Aussagen. Bitte geben Sie an, wie weit Sie den folgenden Aussagen zustimmen bzw. nicht zustimmen.

	Stimme überhaupt nicht zu	Stimme nicht zu	Stimme weder zu noch lehne ab	Stimme zu	Stimme voll und ganz zu
Ich bin vertraut mit dem Phänomen der „Pink Tax“	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich habe Kenntnisse über die „Pink Tax“	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich fühle mich gut über das „Pink Tax“ Phänomen informiert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Weiter](#)

Stellen Sie sich nun bitte vor, dass Sie das folgende Preisszenario für die beiden Rasierer sehen:



1,99 €
Balea MEN
Einwegrasierer 3-Klingen, 8 St



2,49 €
Balea
Einwegrasierer 3-Klingen, 8 St

4. Welcher der beiden Rasierer hat den höheren Preis?

- ☐ Rasierer 1 – der blaue Rasierer
- ☐ Rasierer 2 – der pinke Rasierer

5. Würden Sie jetzt Rasierer 1 oder Rasierer 2 bevorzugen?

- ☐ Ich würde Rasierer 1 (blau) bevorzugen
- ☐ Ich würde Rasierer 2 (pink) bevorzugen

6. Unten finden Sie eine Reihe von Aussagen. Bitte geben Sie an, wie weit Sie den folgenden Aussagen zustimmen bzw. nicht zustimmen.

	Stimme überhaupt nicht zu	Stimme nicht zu	Stimme weder zu noch lehne ab	Stimme zu	Stimme voll und ganz zu
Ich finde die Preise der Rasierer fair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich finde die Preise der Rasierer unfair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ich finde die Preise der Rasierer akzeptabel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Weiter

7. Abschließend möchten wir Sie noch um einige Angaben zu Ihrer Person bitten.Sie sind: Ihr Alter: Jahre**8. In welchem Land leben Sie derzeit?**Land: ☐ Keine Angabe**9. Welchen Bildungsabschluss haben Sie?**

Bitte wählen Sie den höchsten Bildungsabschluss, den Sie bisher erreicht haben.

- ☐ Schule beendet ohne Abschluss
- ☐ Noch Schüler
- ☐ Volks-, Hauptschulabschluss, Quali
- ☐ Mittlere Reife, Realschul- oder gleichwertiger Abschluss
- ☐ Abgeschlossene Lehre
- ☐ Fachabitur, Fachhochschulreife
- ☐ Abitur, Hochschulreife
- ☐ Fachhochschul-/Hochschulabschluss
- ☐ Anderer Abschluss, und zwar:

10. Sind Sie momentan erwerbstätig?

- ☐ Ja, ich bin erwerbstätig.
- ☐ Nein, ich bin arbeitslos.
- ☐ Nein, ich bin Rentner.
- ☐ Nein, ich bin Hausfrau oder Hausmann.
- ☐ Nein, ich bin Student.

[Weiter](#)



Sie haben das Ende der Umfrage erreicht.

Ich danke Ihnen herzlich für die Teilnahme an meiner Umfrage.

Das Ziel dieser Umfrage war es, Einblicke in die Wahrnehmung von geschlechtsspezifischer Preisgestaltung und der sogenannten 'Pink Tax' seitens der Verbraucher zu gewinnen. Die Studie zielt außerdem darauf ab, zu verstehen, wie verschiedene Preisgestaltungsszenarien das Verbraucherverhalten beeinflussen und ob die Wahrnehmung von Preisfairness je nach Geschlecht oder Kenntnissen über die 'Pink Tax' variiert.

Wenn Sie weitere Fragen zur Umfrage haben, stehe ich Ihnen gerne per E-Mail zur Verfügung: alessandra.biechteler@students.uni-mannheim.de.

Nochmals herzlichen Dank für Ihre Unterstützung!

B.Sc. Alessandra Biechteler, Universität Mannheim - 2023



0% completed

Dear participant,

Thank you for your interest in contributing to my master thesis at the Chair of Quantitative Marketing and Consumer Behavior at the University of Mannheim.

The survey is designed to take about 5 minutes. Your participation is completely voluntary, and your data will be gathered and stored anonymously. Your responses will be kept strictly confidential and will not be repurposed beyond the scope of this research, nor will they be disclosed to third parties.

In case of any questions or concerns regarding this survey, please do not hesitate to contact me via email: alessandra.biechteler@students.uni-mannheim.de.

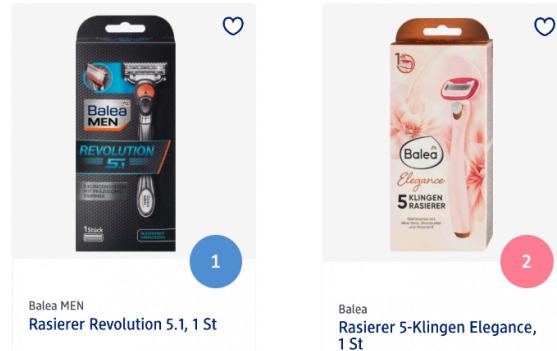
Thank you for your support!

Alessandra Biechteler

Next

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Please imagine the following scenario: You need a new disposable razor and see the following two options online.



1. Would you prefer razor 1 or razor 2?

- ☐ I would prefer razor 1 (blue)
- ☐ I would prefer razor 2 (pink)

[Next](#)

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2. Have you ever heard of the "Pink Tax" phenomenon?

- ☐ Yes
- ☐ No

[Next](#)


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3. Below you will find a series of statements. Please indicate to what extent you agree or disagree with the following statements.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I am familiar with the phenomenon "Pink Tax"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am knowledgeable about the "Pink Tax"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel informed about the "Pink Tax" phenomenon	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>


[Next](#)

Now please imagine that you see the following price scenario for the two razors:



1

4,49 €
Balea MEN
Rasierer Revolution 5.1, 1 St



2

5,59 €
Balea
Rasierer 5-Klingen Elegance,
1 St

4. Which of the two razors has the higher price?

- ☐ Razor 1 – the blue shaver
- ☐ Razor 2 – the pink shaver

5. Would you now prefer razor 1 or razor 2?

- ☐ I would prefer razor 1 (blue)
- ☐ I would prefer razor 2 (pink)

6. Below you will find a series of statements. Please indicate to what extent you agree or disagree with the following statements.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
I think the prices of the razors are fair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think the prices of the razors are unfair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think the prices of the razors are acceptable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Next

7. Finally, we'd like to ask you for some details about yourself.Your are: Your age: years old**8. Which is the country, you're currently living?**Country: ☐ No answer**9. What is your highest educational achievement?**

Please select the highest level of qualification you have obtained.

- ☐ Finished school with no qualifications
- ☐ Still in school
- ☐ Secondary school-leaving certificate/Junior High Diploma
- ☐ High school diploma/Intermediate/General Certificate of Secondary Education, secondary school-leaving certificate or equivalent
- ☐ Completed apprenticeship
- ☐ Vocational baccalaureate diploma, vocational secondary certification
- ☐ A-levels/International Baccalaureate/Higher education entrance qualification
- ☐ Vocational university/university of applied sciences/university degree
- ☐ Other degree:

10. Are you currently employed?

- ☐ Yes, I am employed.
- ☐ No, I am unemployed.
- ☐ No, I am retired.
- ☐ No, I am a homemaker.
- ☐ No, I am a student.

[Next](#)



You have reached the end of the survey.

I appreciate you taking the time to complete my survey.

The purpose of this survey was to gather insights into consumer perceptions of gendered pricing and pink tax. The study also aims to understand how pricing scenario types influence consumer behavior and whether price fairness perceptions vary based on gender or knowledge of the pink tax.

If you have any further questions regarding the survey, please feel free to contact me via email: alessandra.biechteler@students.uni-mannheim.de

Thank you again for your support!

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Affidavit

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Mannheim, February 16, 2024