Association for Information Systems

AIS Electronic Library (AISeL)

Rising like a Phoenix: Emerging from the Pandemic and Reshaping Human Endeavors with Digital Technologies ICIS 2023

Human Technology Interaction

Dec 11th, 12:00 AM

Why Users Accept Discriminatory Pricing: The Roles of AI Agent's Presence and Explanation

XIAO PENG
Zhejiang University, pengxiao@zju.edu.cn

Xixian Peng
Zhejiang University, pengxx@zju.edu.cn

David (Jingjun) Xu
City University of Hong Kong, davidxu@cityu.edu.hk

Follow this and additional works at: https://aisel.aisnet.org/icis2023

Recommended Citation

PENG, XIAO; Peng, Xixian; and Xu, David (Jingjun), "Why Users Accept Discriminatory Pricing: The Roles of AI Agent's Presence and Explanation" (2023). *Rising like a Phoenix: Emerging from the Pandemic and Reshaping Human Endeavors with Digital Technologies ICIS 2023*. 6.
https://aisel.aisnet.org/icis2023/hti/hti/6

This material is brought to you by the International Conference on Information Systems (ICIS) at AIS Electronic Library (AISeL). It has been accepted for inclusion in Rising like a Phoenix: Emerging from the Pandemic and Reshaping Human Endeavors with Digital Technologies ICIS 2023 by an authorized administrator of AIS Electronic Library (AISeL). For more information, please contact elibrary@aisnet.org.

Why Users Accept Discriminatory Pricing: The Roles of AI Agent's Presence and Explanation

Completed Research Paper

Xiao Peng
Zhejiang University
City University of Hong Kong
pengxiao@zju.edu.cn

Xixian Peng
Zhejiang University
pengxx@zju.edu.cn

David (Jingjun) Xu
City University of Hong Kong
davidxu@cityu.edu.hk

Abstract

Discriminatory pricing practices have raised consumers' negative reactions. This study investigates how AI agent's presence and the use of explanations impact consumers' acceptance of discriminatory pricing. A scenario-based experiment revealed that AI agent's presence negatively moderates the negative relationship between offer unfavorability and offer acceptance, which is mediated by perceived justice and invasion of privacy. Moreover, this research indicated that for unfavored price, environment-based explanation is more effective than user-based explanation and the positive effect of AI agent's presence on offer acceptance is more pronounced when providing user-based explanations. This study contributes to price management literature and AI decision literature by illustrating how the AI agent's presence asymmetrically shapes consumers' perceptions of offer outcomes, enriching our understanding of consumer responses to AI. The findings have implications for firms managing discriminatory pricing, offering insights into optimal AI agents and explanation utilization for enhancing customer experience and business performance.

Keywords: Discriminatory pricing, AI agent, explanation, justice, invasion of privacy, mediated moderation

Introduction

Discriminatory pricing, also known as price discrimination, is the practice of charging different prices for the same product or service to different customers or groups of customers (Seele et al., 2021), and it has become increasingly popular as businesses leverage advancements in machine learning algorithms and AI technology (Chowdhry, 2016). This approach involves analyzing a customer's past purchasing behavior, demographics, and other factors to determine a price point that the customer is likely to accept. For example, Uber uses machine learning algorithms to estimate ride elasticity and manage price concessions (Newcomer, 2017). As part of its dynamic pricing strategies aimed at increasing revenue, Uber personalizes the pricing that charges customers what Uber believes they are willing to pay. However, these strategies have led to negative outcomes, with some customers complaining about receiving higher prices due to low battery levels on their phones (Chowdhry, 2016). In addition, discriminatory pricing practices have raised concerns among consumers regarding justice (Li & Jain, 2016) and privacy invasion (Allender et al., 2021), which

can ultimately influence their purchase behaviors. Consequently, businesses and researchers have shifted their focus to managing discriminatory price offers (Allender et al., 2021; Murphy, 2016). In the current research, we extend this research stream by focusing on the role of artificial intelligence (AI) agents and explanations of discriminatory pricing.

In recent times, many companies have undergone a technological transformation that involves the use of AI agents to manage products and provide services directly to customers. The adoption of AI agents in consumer domains has become widespread, encompassing both in-person services and online transactions (Davenport et al., 2020; Huang & Rust, 2018). The domains in which AI agents have been adopted include traditional retailing (Mende et al., 2019), ride-sharing (Garvey et al., 2023), medical care (Longoni et al., 2019), and financial sales (Luo et al., 2019). Companies have adopted AI agents due to their advanced competence and efficiency in collecting and processing information (Kumar et al., 2016). Prior research has investigated the effects of AI agent's presence within different contexts, yielding both negative and positive influences. For instance, Luo et al. (2019) found that the presence of AI in structured outbound sales calls contributed to a 79.7% decrease in purchase rates. However, Hohenstein and Jung (2020) found that deploying AI to generate smart replies within unsuccessful customer communication settings bolstered perceived trust, as the AI served as a moral crumple zone that mitigated the responsibility attributed to the human counterpart. Interestingly, the impact of AI agent's presence can also vary within the same contexts, depending on the specific outcomes experienced by consumers. A recent study has shown that consumers tend to exhibit less positive reactions when a favorable decision (e.g., application acceptance) is reached by an AI; however, this disparity diminishes when the decision is unfavorable (e.g., application rejection) (Yalcin et al., 2022).

The increasing adoption of AI agents raises the possibility that customers' responses to discriminatory price offers would vary if the pricing is managed by AI agents, given the recent findings that people have less desire to punish when facing algorithm discrimination than human discrimination (Bonezzi & Ostinelli, 2021). However, previous literature has rarely explored the impact of AI agent's presence on price management in discriminatory pricing. Such investigations could provide valuable insights for companies applying discriminatory pricing strategies on how to best utilize AI agents to enhance the customer experience and improve their overall business performance. The inconsistent findings of AI agent's presence in previous literature (Hohenstein & Jung, 2020; Luo et al., 2019) are hard to apply to understand its role in discriminatory pricing setting. Therefore, more research is necessary to better understand how consumers react when an AI agent is involved in providing discriminatory pricing. Accordingly, we first focus on how the presence of AI agent influences consumers' responses to discriminatory prices with varying degrees of offer unfavorability (the degree to which the price offer of a product or service is higher than the price of similar products or services purchased by others in the reference group). Specifically, we propose that AI disclosure might yield more positive outcomes when consumers receive a unfavored price compared to a favored price.

Besides, providing explanations, especially for the prices higher than others (Li & Jain, 2016), is another widely adopted approach used by companies to manage discriminatory price offers. Although previous literature has consistently found that providing explanations is generally useful (Mao & Benbasat, 2000), there are someimportant limitations. Little attention has been paid to examine the effectiveness of different types of explanations. Based on the attribution theory (Folkes, 1984), explanations can be classified as user-based and environment-based. Adopting in the context of discriminatory pricing, a user-based explanation, pertaining to internal and controllable attributions, posits that platforms identify consumers as high-value clientele and levy higher prices for enhanced quality. Conversely, an environment-based explanation, connected to external and uncontrollable attributions, posits that prices are influenced by market supply and demand. Previous research has shown that attributing a price increase to external, uncontrollable factors can increase consumers' acceptance of the price (Vaidyanathan & Aggarwal, 2003). Therefore, we assume that in discriminatory pricing, providing an environment-based explanation for high prices may increase consumers' acceptance of higher prices rather than providing a user-based explanation.

Furthermore, we aim to explore the interaction effects between explanations and the AI agent's presence, which is also important but missing from previous literature. Due to the lack of autonomous goals and intentions in AI agents (Wojciszke et al., 2009), providing explanations for high-than-others prices through AI agents may be perceived as more objective and neutral. Therefore, we speculate that using AI agents to provide price explanations may be more effective in increasing consumers' acceptance of high-than-others

prices. Moreover, as a prior study has shown that the effectiveness of persuasive messages delivered by AI agents is highly dependent on the type of message content (Kim & Duhachek, 2020), we are also interested in exploring which type of explanation is more appropriate and effective for an AI agent to provide. Therefore, the present study aims to fill this gap by investigating how AI agent's presence and explanation types interactively affect persuasive effectiveness and consumers' offer acceptance in the context of discriminatory pricing. Our research model is summarized in Figure 1.

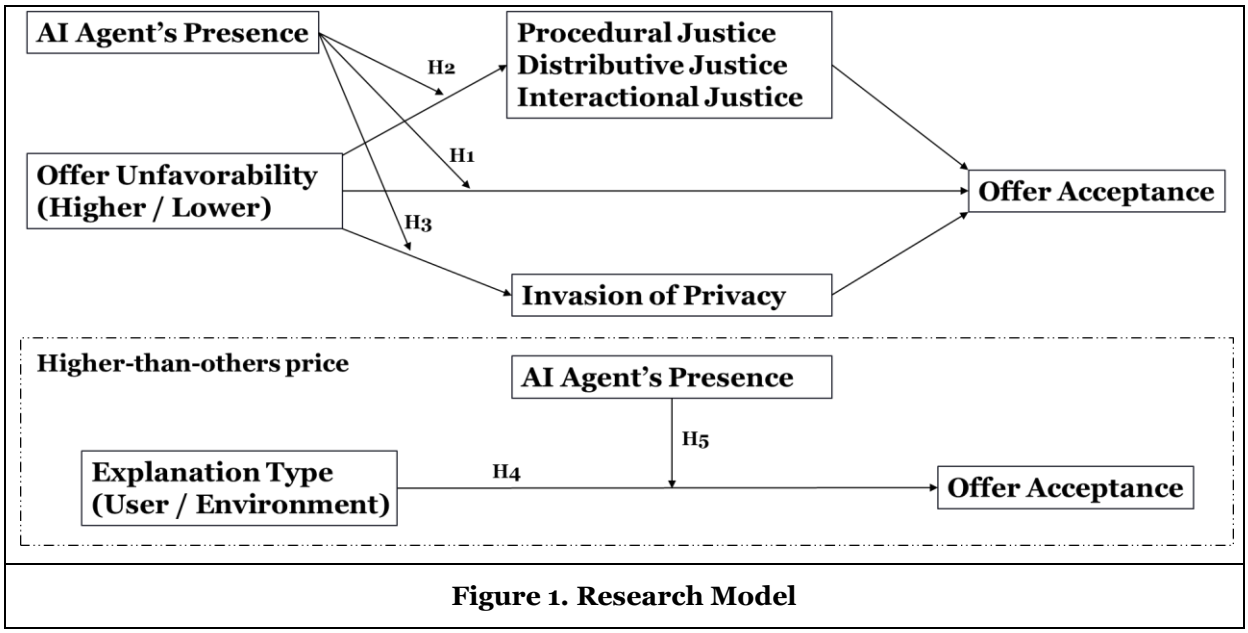

Figure 1. Research Model

Our research makes contributions in several ways. First, this study contributes to price management literature by examining the impact of AI agent's presence on user acceptance of discriminatory pricing through the lens of justice and invasion of privacy. Second, this study indicates that AI agent's presence asymmetrically alters consumers' perceptions of offer outcomes, thereby expanding the literature on consumer reactions towards AI (Huang and Rust, 2018; Longoni and Cian, 2022; Srinivasan and Sarial-Abi, 2021). According to the literature on AI decision-making, consumers tend to decline their engagement or have negative reaction when AI agents manage transactions (e.g., due to the AI agent's perceived lack of knowledge and empathy (Luo et al., 2019), lack of consideration of uniqueness (Yalcin et al., 2022) or lack of mental and emotional attributes (Longoni et al., 2019). However, we reveal the moderating role of AI agent's presence, that is, how AI presence interacts with offer unfavorability to improve or impair consumers' justice perception, privacy invasion perception, and offer acceptance. Third, this study addresses a research gap by investigating the impact of different types of explanations and AI agent's presence on persuasive effectiveness in the context of discriminatory pricing. Specifically, the study contributes to the literature by examining the persuasive effectiveness of user-based and environment-based explanations, as well as the influence of AI agent's presence on the effectiveness of these explanations. This research fills a gap in the existing literature on the topic. Finally, our research findings have important implications for firms using AI agents to manage discriminatory pricing. Our results suggest that selectively disclosing certain discrepancies through AI agents can be beneficial in improving consumers' perceptions of justice and privacy invasion, and ultimately increasing offer acceptance. By understanding the moderating role of AI agent's presence and the persuasive effectiveness of different types of explanations, managers can make more informed decisions regarding when and how to use AI agents in discriminatory pricing strategies.

Theoretical Background and Hypotheses

Equity theory suggests that people's perception and response to pricing is largely influenced by the relative level of prices or the social comparative level of prices (Viglia & Abrate, 2014). In this study, we define offer unfavorability as the degree to which the price offer of a product or service is higher than the price of similar

products or services purchased by others in the reference group. It is evident that the offer unfavorability of a discriminatory price offer may negatively impact offer acceptance.

However, this study proposes that AI agent's presence moderates this effect. Our proposition is supported by previous research findings, which suggest that consumers perceive AI differently depending on the outcomes they receive. For instance, Garvey (2022) discovered that consumers are more likely to accept a worse-than-expected product offer from an AI agent than from a human agent, and to accept a better-than-expected product offer from a human agent than from an AI agent. Similarly, Yalcin et al. (2022) found that participants' attitudes towards a favorable outcome were significantly less positive in the algorithm decision condition compared to the unspecified condition. However, there was no significant difference in participants' attitudes towards an unfavorable outcome based on the type of decision maker. Prior study also indicated that people have less desire to punish when facing algorithm discrimination than human discrimination (Bonezzi & Ostinelli, 2021). Based on findings from previous literature, AI agent's presence has more positive impacts on unfavored outcomes compared to favored outcomes.

In the context of discriminatory pricing scenarios, we posit that the presence of an AI agent may increase the acceptance of higher-than-others price offers while exerting less effect on the acceptance of lower-than-others price offers. Considering higher-than-other prices, in the absence of an AI agent, prior research indicates that consumers confronted with higher-than-others prices may perceive discriminatory pricing as a manifestation of companies' pursuit of profit maximization for their own benefit (Hufnagel et al., 2022). However, with the presence of an AI agent, consumers might attribute the price disparity with others to the computation of an algorithm processing extensive data, as opposed to stemming from the company's self-serving motives (Garvey et al., 2023). This perception arises because AI is considered devoid of subjective intention and motivation, thus precluding it from being evaluated as a moral agent acting with deliberation (Wojciszke et al., 2009). The absence of subjective intention renders it less probable for consumers to deduce selfish intentions from the pricing decision (Garvey et al., 2023), which consequently enhances the acceptance of the price offer (Tsiros et al., 2004). Conversely, in the case of lower-than-others price offers, consumers reap financial benefits from discriminatory pricing, resulting in a high level of acceptance that is unlikely to be influenced by the presence of an AI agent. When considering these aspects together, the presence of an AI agent has the effect of increasing the acceptance of higher-than-others price offers, while it has less effect on the acceptance of lower-than-others price offers. Consequently, the adverse impact of unfavorable offers on acceptance is mitigated by the presence of an AI agent. Hence, we put forth the following hypothesis:

H1: AI agent's presence negatively moderates the negative relationship between offer unfavorability and offer acceptance.

There are two potential mechanisms that may elucidate how AI agent's presence moderates the negative association between offer unfavorability and offer acceptance. The first is through the mediation of perceived justice, while the second is through the mediation effect of perceived invasion of privacy. The selection of perceived justice and perceived invasion of privacy as the primary mechanisms is substantiated by their inherent relevance to the role of AI agents, and the psychological factors shaping consumers' decision-making. According to equity theory, individuals are more likely to accept outcomes they perceive as just and equitable. The presence of an AI agent introduces an element of impartiality and objectivity, which could mitigate the negative impact of an unfavorable offer. In addition, the presence of an AI agent can potentially reshape consumers' decision-making, leading consumers to evaluate the trade-off between privacy concerns and offer acceptance. So we reckon that the integration of both justice and privacy invasion provides a comprehensive explanation for the observed moderation effects, acknowledging the multifaceted nature of decision-making in AI-involved transaction.

Perceived justice is a critical factor in shaping consumers' perceptions and attitudes towards discriminatory pricing offers. Justice refers to the principle of treating everyone fairly or equally (Leventhal, 1980). According to justice theory, justice has three dimensions - procedural justice, distributive justice, and interactional justice (Blodgett et al., 1997; Skarlicki & Folger, 1997). Previous research has shown that people evaluate justice not only based on decision results but also by judging the procedures in the decision-making process and their interactions with decision-makers (Skarlicki & Folger, 1997). Our research focuses on these three dimensions of justice to explore the similarities and differences in their effects. According to equity theory, price differences can influence people's perceived justice, which, in turn, affects their offer acceptance. Consumers evaluate the fairness of the offer based on their perceptions of procedural justice

(fairness of the process used to determine the offer), distributive justice (fairness of the outcome), and interactive justice (fairness of the interaction with the seller). When the price is unfavorable, the consumer's perception of procedural justice, distributive justice, and interactional justice is lower, resulting in a lower offer acceptance.

Previous research has suggested that due to the lack of autonomous goals and intentions, AI agents are generally perceived as unbiased and objective, thereby avoiding potential user biases or discrimination (Wojciszke et al., 2009). This perception of AI behavior without subjective intention and self-awareness can increase the perceived justice (Bigman et al., 2020). Specifically, higher-than-others price offers are more likely to arouse consumers' inference about subjective and selfish intention,and in such situations, the presence of an AI agent can increase consumers' perceived justice, leading to higher offer acceptance. However, for lower-than-others price offers, the presence of an AI agent may not significantly impact perceived justice. When taken together, the presence of an AI agent enhances the perceived justice of higher-than-others price offers, while it has less impact on the perceived justice of lower-than-others price offers. Hence, the negative effect of offer unfavorability on perceived justice is attenuated by the presence of an AI agent. Furthermore, the interaction effect of AI agent's presence and offer unfavorability on perceived justice could further impact consumers' offer acceptance. Therefore, we propose the following hypothesis:

H2: AI agent's presence negatively moderates the negative relationship between offer unfavorability and offer acceptance by the mediation of perceived (procedural/distributive/interactional) justice.

Perceived invasion of privacy is also an important consideration in discriminatory pricing. Perceived invasion of privacy refers to the perception that personal data has been used without permission or in a way that violates privacy norms. In this research, our primary attention is directed towards evaluating consumers' sense of privacy invasion. This perception is shaped by both the price offer presented and the presence of an AI agent, rather than their initial sensitivity to privacy concerns. The price difference can be attributed to businesses using consumers' personal information to maximize profits by charging different prices based on a customer's willingness to pay (Seele et al., 2021). In accordance with cost-benefit theory, individuals engage in a comparative assessment of costs and benefits to maximize their own interests (Drèze & Stern, 1987). In the context of discriminatory pricing, cost-benefit theory can be used to explain how offer unfavorability influences customers' perceptions of privacy invasion. When customers feel that they are getting a good deal or a special discount, they have more willingness to compromise a certain level of privacy in exchange for perceived benefits or better offers. In this situation, their perceived invasion of privacy is lower. Conversely, when the price offer is unfavorable, the perceived invasion of privacy is higher (Borgesius & Poort, 2017). And the perception of privacy invasion may arouse consumers' reactance and reject the offer (Tucker, 2014). If individuals feel that their privacy has been invaded during the discriminatory pricing process, they may be less likely to accept the discriminatory price offer. Therefore, when the price is unfavorable, consumers are inclined to have a higher perceived invasion of privacy, thus having lower offer acceptance.

The presence of an AI agent may increase consumers' perceived invasion of privacy. When the AI agent is present, consumers may feel that the AI agent is constantly monitoring their behavior and collecting data, which can make them feel uncomfortable and vulnerable (Seele et al., 2021). Because AI has a strong ability to analyze a large amount of data and carry on discriminatory pricing (Kumar et al., 2016). The presence of an AI agent and the powerful capabilities they possess can cause customers to perceive a higher level of privacy invasion. Moreover, customers may have concerns about how their personal information is being used and shared by the AI agent. They may worry that their data is being sold to third-party companies or used for targeted advertising, which can further erode their trust in the AI agent and the company providing the product or service.

We proposes that the extent of perceived invasion of privacy caused by the presence of an AI agent is lesspronounced when a product or service is offered at a higher-than-others price. This is due to the phenomenon of the ceiling effect, in which higher-than-others prices elicit consumers' high perceived invasion of privacy, making it difficult for the presence of an AI agent to further increase this perception. However, in the case of lower-than-others price, the presence of an AI agent can significantly increase consumers' perceived invasion of privacy. When considering these factors collectively, the presence of an AI agent intensifies the perceived invasion of privacy in the context of lower-than-others price offers, while it has less impact on the perceived invasion of privacy of higher-than-others price offers. This implies that

the presence of an AI agent narrows the differences in perceived invasion of privacy between higher-than-others prices and lower-than-others prices. In other words, the positive influence of offer unfavorability on perceived invasion of privacy is attenuated by the presence of an AI agent. Moreover, this interaction effect of AI agent's presence and offer unfavorability on invasion of privacy augments the probability of consumers accepting higher-than-others prices offers. Hence, we put forth the following hypothesis:

H3: AI agent's presence negatively moderates the negative relationship between offer unfavorability and offer acceptance by the mediation of perceived invasion of privacy.

In the following discussion, we explore ways to provide explanations that can improve offer acceptance in situations where prices are higher than others. Our focus is on two key aspects: the type of explanation provided, and the interaction effect of explanation type and AI agent's presence.

This study concentrates on two categories of explanations—user-based and environment-based—that stem from attribution theory (Folkes, 1984). A user-based explanation, pertaining to internal and controllable attributions, posits that platforms identify consumers as high-value clientele and levy higher prices for enhanced quality. Conversely, an environment-based explanation, connected to external and uncontrollable attributions, posits that prices are influenced by market supply and demand. According to attribution theory (Chung & Petrick, 2013), consumers tend to make causal attributions for price differences, and these attributions can influence their acceptance of price offer. Previous research has provided empirical evidence to support that price increases may be perceived as less fair if consumers attribute them to internal causes or believe that companies have control over the price changes (Vaidyanathan & Aggarwal, 2003). Therefore, we assume that in discriminatory pricing, providing an environment-based explanation for high-than-others prices rather than a user-based explanation may increase consumers' offer acceptance.

From the perspective of perceived justice, user-based explanations that attribute a price increase to a customer's own past behavior or characteristics can make the increase seem unfair. The customer will perceive the price change as less justifiable. In contrast, environment-based explanations that point to neutral external causes will allow the customer to still view the company and their pricing as fair, leading to greater acceptance. When people view a company's decisions and policies as just and fair, they are more willing to engage in transactions with them. From the perspective of perceived invasion of privacy, when a price increase is explained based on information about the individual customer or their past behavior (user-based explanations), it can make the customer feel like their privacy has been invaded. The company seems to be monitoring and using their personal information in a way that makes them uncomfortable. This increased perceived invasion of privacy will make customers less likely to accept the offer. In contrast, an environment-based explanation that points to external factors like increased costs or demand will not raise the same privacy concerns and will not reduce acceptance. In addition, providing a user-based explanation for a price increase may also trigger psychological reactance in customers - a desire to resist what they perceive as an unwanted influence on their choice or behavior (Tucker, 2014). By implying the increase is due to the customer's own past behavior, it can seem like an attempt to manipulate the customer and restrict their options. This will motivate the customer to restore their sense of freedom by rejecting the offer. Environment-based explanations do not activate this same reactance and desire to resist. Based on this reasoning, the discriminatory pricing will likely have the most success in gaining customer acceptance when price increases are framed around external causes (environment-based explanation) rather than information about the individual customer (user-based explanation). We put forth the following hypothesis:

H4: Consumers are more likely to accept a higher-than-others price offer when provided with an environment-based explanation rather than a user-based explanation.

Our proposition is that the presence of an AI agent will improve the effectiveness of user-based explanations, but not that of environment-based explanations. This is because environment-based explanations attribute the price increase to external factors, which are unlikely to be viewed as unfair regardless of whether they are provided by an AI agent or not. Conversely, the presence of an AI agent can enhance the acceptance of higher-than-others price offers when accompanied by a user-based explanation, as it can provide personalized and relevant information that justifies the higher price based on the user's needs and preferences. Consequently, compared to a user-based explanation alone, the presence of an AI agent can increase the likelihood of users accepting such offers.

There are a few possible reasons. The presence of an AI agent may increase consumers' perceived personalization. First, an AI that provides a user-based explanation may be viewed as highly personalized

to the customer and their needs (Yoon & Lee, 2021). Despite the downsides of a user-based explanation, some customers will appreciate what they believe is a customized offer and recommendation tailored specifically for them by an intelligent system. This perception of an individualized experience increases acceptance of the higher-than-others price. From the perspective of perceived competence, an AI agent may be viewed as more competent and data-driven in its decision making compared to a generic written explanation (Sætra, 2022). Customers assume the AI has sophisticated technology and algorithms behind its pricing recommendations, even if the explanation itself is not ideal. This perception of competence leads to greater trust and willingness to accept the offer. In addition, some level of social influence may also be at work, where customers feel inclined to accept a recommendation provided by an AI agent they perceive as authoritative or trustworthy (Cialdini & Goldstein, 2004). Although the content of the explanation itself still raises concerns, the social pressure to follow the advice of an apparently sophisticated system leads to greater offer acceptance. Based on this reasoning, we propose the following hypothesis:

H5: The effect of AI agent's presence on consumers' offer acceptance is more pronounced for user-based explanations than for environment-based explanations.

Research Method

We designed a 2 (AI agent's presence: without/with) * 3 (lower-than-others price/higher-than-others price with user-based explanation/higher-than-others price with environment-based explanation) between-subjects experiment. We conducted power analysis using the G power version 3 (Faul et al., 2007) and the following specifications: effect size = 0.25, significant level = 0.05, statistical power =0.85. The required sample size was 146 participants. Accordingly, we recruited 152 participants from Prolific and randomly assigned participants to one of the experimental conditions. The experimental process is shown in the Figure 2.

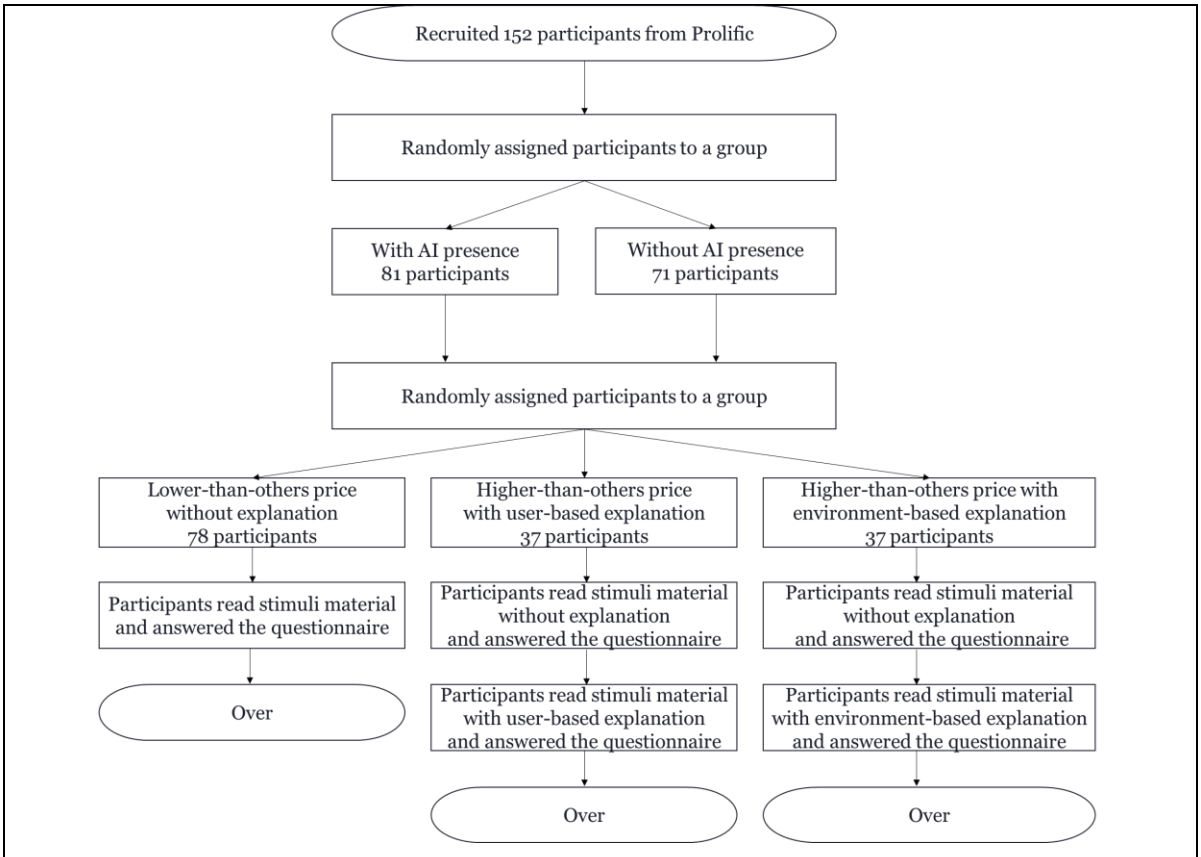

Figure 2. Experimental Process

After participants completed the consent form and provided personal information, they were randomly assigned to either the AI agent's presence or AI agent's absence condition. Under the condition of AI agent's presence, a robot image was presented, as shown in Figure 3. In the absence of AI condition, there was no image of AI. Then, they were instructed to read the stimuli material describing a scenario of requesting a ride on Uber. Specifically, participants read a text explaining that Uber's agent determines the price offer of each ride that a user requests. We have adapted the agent description and agent image from previous study (Garvey et al., 2023). Next, participants read a scenario and evaluate the offer provided by Uber agent. The scenario describes that the Uber agent offered a colleague $20 of a ride from the company to the restaurant, while the participant received an offer of $18 or $22 from the Uber agent for the same ride. When providing a price offer, the Uber agent provided the following standard message available to all subjects, "The basic charges depend on the travel time and distance, as well as the operation, supervision and safety maintenance costs of the city. Your price is [$22 (higher-than-others price)] (or [$18 (lower-than-others price)])." Then we asked the participants how they felt about the Uber agent and the price offer.

Next, participants in the higher-than-others price offer condition (those offered with 22 dollars) did additional tasks. They read the same scenario again, but this time Uber agent provided an explanation for the price offer. We designed two types of explanations. [User-based explanation] I recognize you as a high-value customer based on our database. To save you more valuable time, I set an appropriate price for you to ensure that the driver responds to your ride request in a shorter time. [Environment-based explanation] In busy hours, the number of passengers may exceed the number of available drivers. To make the supply and demand of the platform return to balance, I set an appropriate price to ensure that more drivers respond to passengers' ride requests. Here are the stimuli materials for explanations with the presence of an AI agent (see Figure 3).

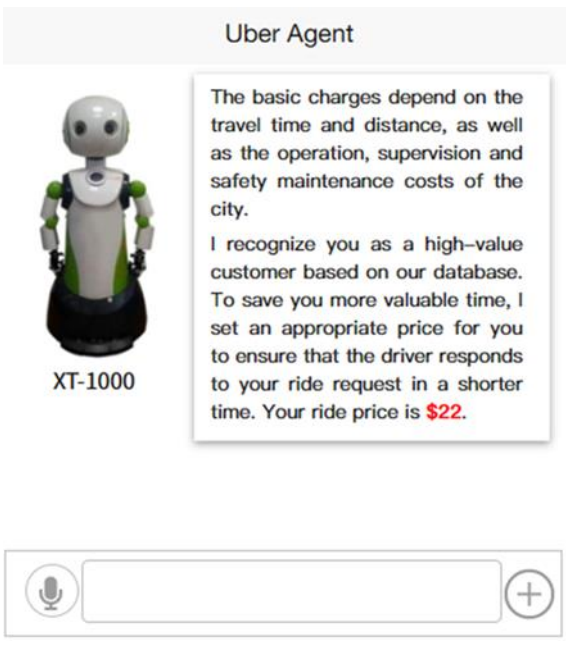

Figure 3a. User-based Explanation

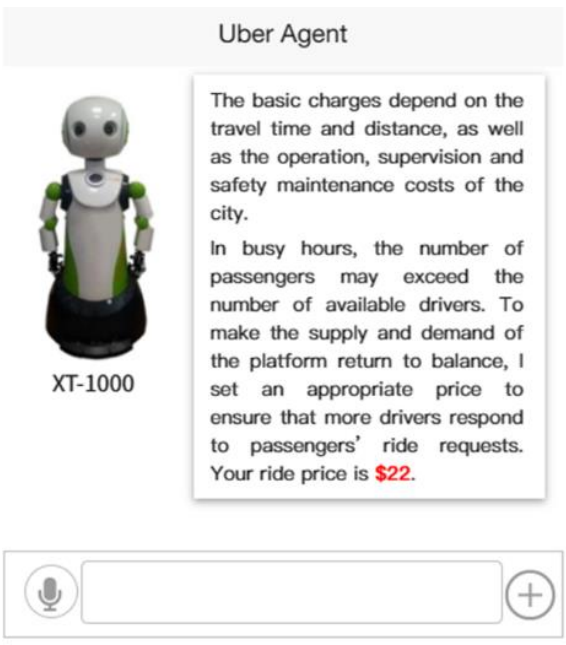

Figure 3b. Environment-based Explanation

Figure 3. User-based Explanation and Environment-based Explanation with AI Presence

Results

Assessment of Measurement Model

We used items adapted from previous studies to measure constructs. Each item is measured by a seven-point Likert scale (1 = "Strongly disagree," and 7 = Strongly agree"). Table 1 presents the evaluation results

of the measurement model. To assess the reliability of the measurement model, Cronbach's alpha (CA) values were calculated for each construct. The values ranged from 0.902 to 0.939, exceeding the recommended threshold of 0.8, indicating a high level of internal consistency (Straub, 1989). Additionally, the composite reliability (CR) values for each construct ranged from 0.938 to 0.961, exceeding the recommended threshold of 0.7, further affirming the internal consistency of the measurement model. Final scores were calculated by averaging the sum of the items related to each scale.

Constructs	Items Sample	CA	CR	AVE
Procedural Justice (Chung & Petrick, 2015)	The Uber agent's pricing decision processes and procedures were reasonable/fair/acceptable.	0.939	0.96	0.892
Distributive Justice (Chung & Petrick, 2015)	My ride price was fair/acceptable/clearly understandable.	0.922	0.95	0.865
Interactional Justice (Niehoff & Moorman, 1993)	The Uber agent treats me with kindness and consideration/respect and dignity.	0.934	0.95	0.752
Invasion of Privacy (Fusilier & Hoyer, 1980)	Uber's use of my personal information in pricing is an invasion of privacy.	0.902	0.94	0.835
Offer Acceptance (Garvey et al., 2023)	I would accept the price offer./I am satisfied with the offer provided to me.	0.912	0.95	0.852

Table 1. Assessment of Measurement Model

To assess the convergent validity of the measurement model, the average variance extracted (AVE) values for each construct were calculated. The AVE values exceeded the recommended threshold of 0.5, ranging from 0.625 to 0.864, and all factor loadings (FL) were greater than 0.7, indicating a high level of convergent validity (MacKenzie et al., 2011). To assess the discriminant validity of the measurement model, the Fornell-Larcker criterion was employed (Fornell & Larcker, 1981). The square root of the AVE value for each construct was compared to the correlation value between the construct and other constructs. Results in Table 2 indicate that the square root of the AVE value for each construct exceeded the correlation value with other constructs, providing evidence of discriminant validity.

In summary, the evaluation results of the measurement model indicate high levels of reliability, convergent validity, and discriminant validity. These results provide a strong basis for subsequent data analysis and contribute to the overall rigor of the study.

	PJ	DJ	IJ	IP	OA
Procedural Justice (PJ)	0.944				
Distributive Justice (DJ)	0.842	0.930			
Interactional Justice (IJ)	0.612	0.675	0.867		
Invasion of Privacy (IP)	-0.446	-0.469	-0.375	0.914	
Offer Acceptance (OA)	0.740	0.715	0.447	-0.403	0.923

Table 2. Construct Correlation Matrix and the Square root of AVE

Hypothesis Testing

To test hypotheses H1-H3, we used data collected from the first survey. To test hypothesis H1, we conducted a 2 (offer unfavorability: lower-than-others price/higher-than-others price) * 2 (AI agent's presence: without/with) analysis of variance (ANOVA) on the outcome variable. *Offer acceptance*. Results revealed a significant main effect of offer unfavorability ($F(1, 148) = 101.233$, $p < .001$), no main effect of AI agent's presence ($F(1, 148) = 1.090$, $p = .298$) and a significant two-way interaction effect ($F(1, 148) = 5.850$, $p = .017$). A series of contrast tests revealed that acceptance of lower-than-others price offer was not significantly different between AI agent's presence and AI agent's absence ($M_{without} = 5.974$, $SD = .846$; M_{with}

= 5.735, SD = .912; F(1, 76) = 1.444, p = .233). However, acceptance of higher-than-others price offer was significantly higher in the AI agent's presence condition ($M_{without}$ = 3.802, SD = 1.300; M_{with} = 4.405, SD = 1.184; F(1, 72) = 4.323, p = .041) (see Figure 4). Hypothesis H1, which predicts that the negative effect of offer unfavorability on offer acceptance is weakened by the presence of an AI agent, was supported.

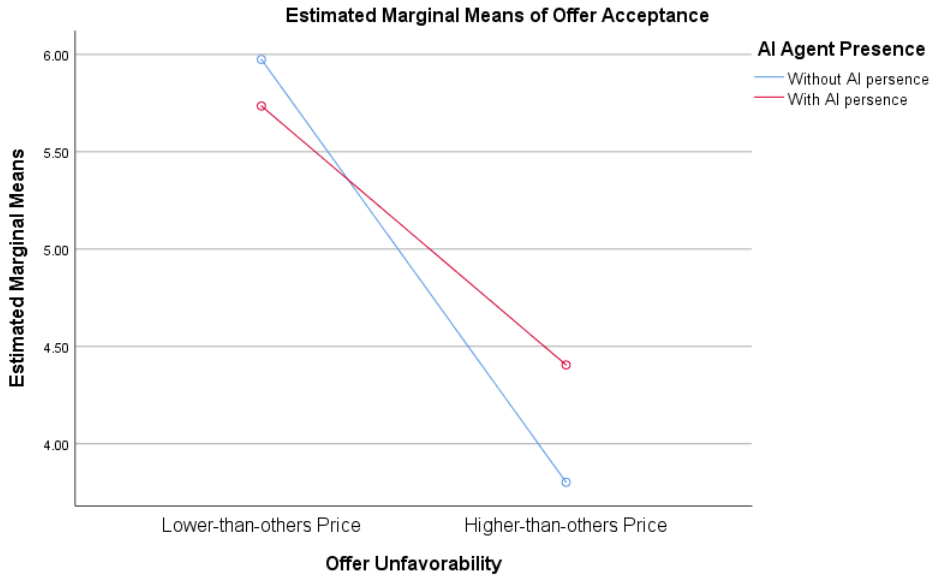

Figure 4. Offer Acceptance as a Function of Offer Unfavorability and AI Presence

To test hypotheses H2-H3, we firstly conducted a 2 (offer unfavorability: lower-than-others price/higher-than-others price) * 2 (AI agent's presence: without/with) multivariate analysis of variance on mediators.

Procedural justice. Results revealed a significant main effect of offer unfavorability (F(1, 148) = 40.641, p < .001), no main effect of AI agent's presence (F(1, 148) = .007, p = .935) and a significant two-way interaction effect (F(1, 148) = 13.095, p < .001, see Figure 5). A series of contrasts revealed that for lower-than-others price offer, procedural justice in the AI agent's presence condition was significantly lower than in the AI agent's absence condition ($M_{without}$ = 5.778, SD = .959; M_{with} = 5.000, SD = 1.320; F(1, 76) = 8.860, p = .004). However, for higher-than-others price offer, procedural justice in the AI agent's presence condition was significantly higher than in the AI agent's absence condition ($M_{without}$ = 3.677, SD = 1.455; M_{with} = 4.421, SD = 1.389; F(1, 72) = 4.993, p = .029). The negative effect of offer unfavorability on perceived procedural justice is significantly weakened by the presence of an AI agent.

Distributive justice. Results revealed a significant main effect of offer unfavorability (F(1, 148) = 26.061, p < .001), no main effect of AI agent's presence (F(1, 148) = .001, p = .937) and a significant two-way interaction effect (F(1, 148) = 8.328, p = .004, see Figure 6). A series of contrasts revealed that for lower-than-others price offer, distributive justice in the AI agent's presence condition was significantly lower than in the AI agent's absence condition ($M_{without}$ = 5.393, SD =1.131; M_{with} = 4.744, SD = 1.358; F(1, 76) = 5.266, p = .025). However, for higher-than-others price offer, distributive justice in the AI agent's presence condition was significantly higher than in the AI agent's absence condition ($M_{without}$ = 3.573, SD = 1.541; M_{with} = 4.238, SD = 1.534; F(1, 72) = 3.401, p = .069). The negative effect of offer unfavorability on perceived distributive justice is significantly weakened by the presence of an AI agent.

Interactional justice. Results revealed a significant main effect of offer unfavorability (F(1, 148) = 14.281, p < .001), a significant main effect of AI agent's presence (F(1, 148) = 6.822, p = .010) and no two-way interaction effect (F(1, 148) = 1.446, p = .231, see Figure 7). A series of contrasts revealed that for lower-than-others price offer, distributive justice in the AI agent's presence condition was significantly lower than in the AI agent's absence condition ($M_{without}$ = 5.013, SD =1.107; M_{with} = 4.209, SD = 1.395; F(1, 76) = 7.938, p = .006). However, for higher-than-others price offer, interactional justice in AI agent's presence condition was not significantly different from AI agent's absence condition ($M_{without}$ = 3.964, SD = 1.339; M_{with} = 3.667,

SD = 1.315; F(1, 72) = 911, p = .343). The negative effect of offer unfavorability on perceived interactional justice is insignificantly weakened by the presence of an AI agent.

Invasion of privacy. Results revealed a significant main effect of offer unfavorability (F(1, 148) = 8.765, p = .004), a significant main effect of AI agent's presence (F(1, 148) = 3.492, p = .064) and a significant two-way interaction effect (F(1, 148) = 7.379, p = .004, see Figure 8). A series of contrasts revealed that for lower-than-others price offer, invasion of privacy in the AI agent's presence condition was significantly higher than in the AI agent's absence condition ($M_{without}$ = 5.559, SD =1.076; M_{with} = 6.385, SD = 1.051; F(1, 76) = 11.752, p = .001). However, for higher-than-others price offer, invasion of privacy in AI agent's presence condition was not significantly different from AI agent's absence condition ($M_{without}$ = 6.581, SD = 1.105; M_{with} = 6.429, SD = 1.176; F(1, 72) = .322, p = .572). The positive effect of offer unfavorability on perceived invasion of privacy is significantly weakened by the presence of an AI agent.

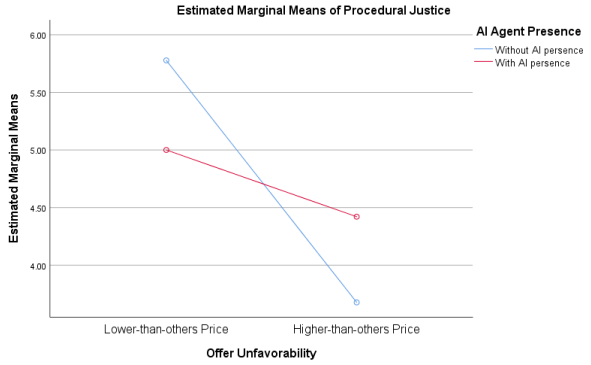

Figure 5. Procedural Justice as a Function of Offer Unfavorability and AI Presence

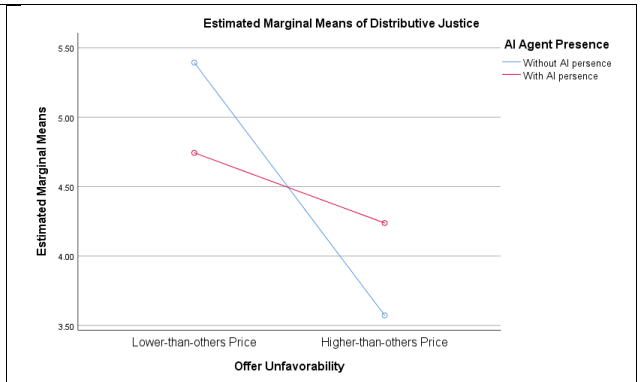

Figure 6. Distributive Justice as a Function of Offer Unfavorability and AI Presence

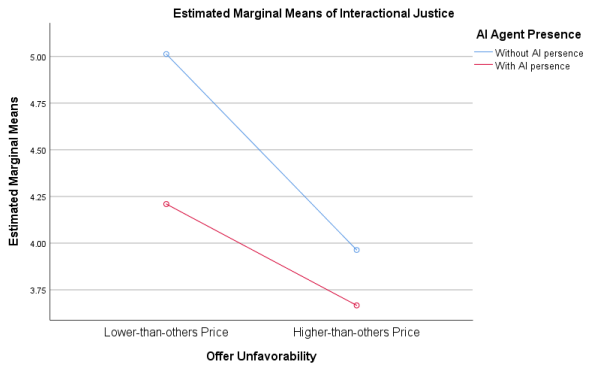

Figure 7. Interactional Justice as a Function of Offer Unfavorability and AI Presence

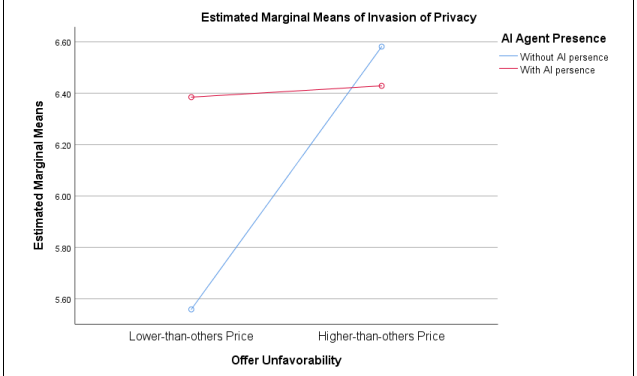

Figure 8. Invasion of Privacy as a Function of Offer Unfavorability and AI Presence

Mediated moderation analysis. To assess the underlying process, we then conducted a mediated moderation analysis using a PROCESS model 8 (Hayes, 2017) with offer acceptance as the dependent variable, offer unfavorability (0 = lower-than-others price, 1 = higher-than-others price) as the independent variable, AI agent's presence (0 = without, 1 = with) as the moderator, as well as mediators like procedural justice, distributive justice, interactional justice and invasion of privacy. This analysis revealed that the interaction effect of offer unfavorability and AI agent's presence is significant without mediators (ρ =-.842, 95% confidence interval: [-1.530, -.154]) but insignificant with mediators (ρ =-.098, 95% confidence interval: [-.433, .630]). The index of mediated moderation for procedural justice, distributive justice and invasion of privacy did not include 0 (indirect effect for procedural justice = -.493, 95% confidence interval: [-.888, -.186]; indirect effect for distributive justice = -.364, 95% confidence interval: [-.785, -.081]; indirect effect for invasion of privacy = -.142; 95% confidence interval: [-.343, -.015], see Figure 9). However, the

index of mediated moderation for interactional justice included 0 (indirect effect for interactional justice = -.064, 95% confidence interval: [-.046, .221]. These indicates that the moderation effect of AI agent's presence is mediated by procedural justice, distributive justice and invasion of privacy but not interactional justice. Thus, H2 is partially supported and H3 is fully supported.

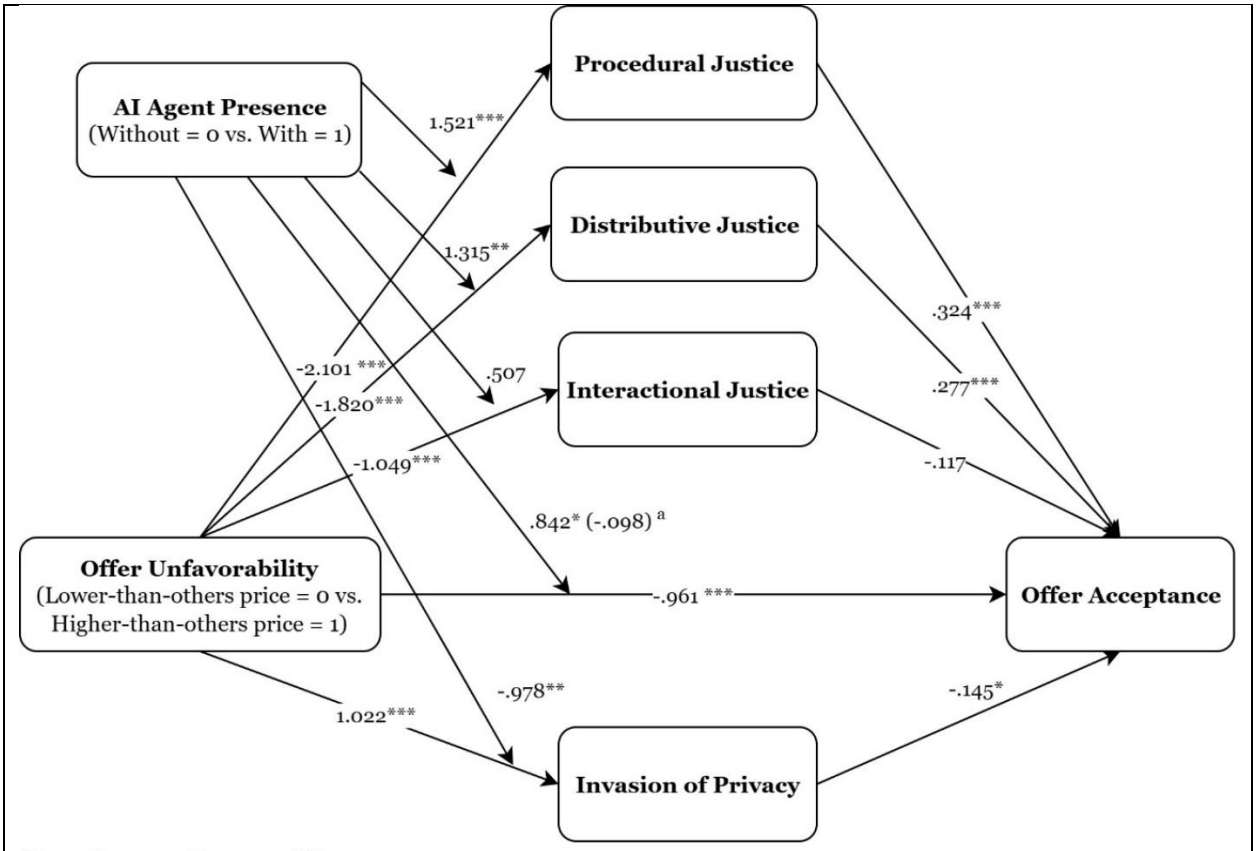

Figure 9. Results of Mediated Moderation Model

To test hypotheses H4-H5 which focus on the condition of higher-than-others price offer, we used data collected from the second survey to conduct a 2 (Explanation type: user-based/environment based) * 2 (AI agent's presence: without/with) ANOVA. Results revealed a significant main effect of AI agent's presence ($F(1, 70) = 6.038$, $p = .016$), a significant main effect of explanation type ($F(1, 70) = 3.721$, $p = .058$), and a significant two-way interaction effect ($F(1, 70) = 5.657$, $p = .020$). Specifically, the offer acceptance in the condition of AI agent's presence is significantly higher than in the condition of AI agent's absence ($M_{without} = 3.990$, SD =.266; $M_{with} = 4.857$, SD = .232, $p = .016$). The offer acceptance in the condition of environment-based explanation is significantly higher than in the condition of user-based explanation ($M_{environment} = 4.764$, SD =.250; $M_{user} = 4.083$, SD = .250, $p = .058$). Hypothesis H4, which predicts that consumers are more likely to accept a higher-than-others price offer when provided with an environment-based explanation compared to a user-based explanation, was supported. To understand the interaction effect, we conducted a series of contrasts. Results revealed that offer acceptance of price offer with user-based explanations was significantly higher in the AI agent's presence condition than in the AI agent's absence condition ($M_{without} = 3.500$, SD = 1.355; $M_{with} = 4.492$, SD = 1.294; $F(1, 35) = 5.126$, $p = .030$, see Figure 10). However, offer acceptance of price offer with environment-based explanations was not significantly different between AI agent's presence and AI agent's absence ($M_{without} = 4.104$, SD = 1.209; $M_{with} = 4.318$, SD = 1.088; $F(1, 35) = .317$, $p = .577$). These results indicate that the effect of AI agent's presence on consumers' offer acceptance of higher-than-others price offer is more pronounced for user-based explanations than for environment-based explanations. Hypothesis H5 was supported.

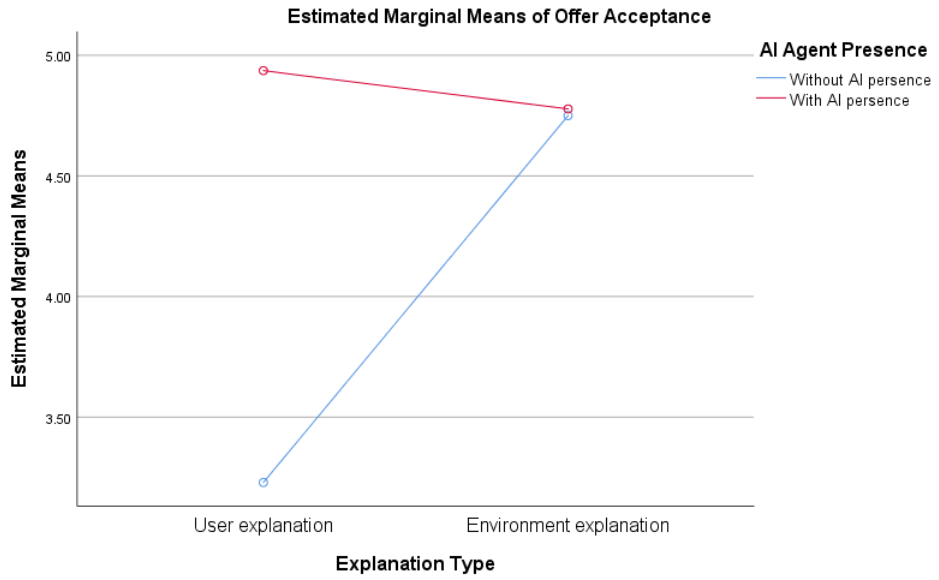

Figure 10. Offer Acceptance as a Function of Explanation Type and AI agent's presence

Robustness Check

Participants' reaction in higher-than-others price condition was measured twice: no user/environment explanation was provided during the first time but provided during the second time. we utilized both the first-time and the second-time data to check the robustness of results. We conducted pairwise comparisons for different explanation types (user-based/ environment-based) on the first and the second measures of offer acceptance. A series of contrasts revealed that environment-based explanation significantly increased offer acceptance ($M_1 = 4.225$, SD = .209; $M_2 = 4.766$, SD = .263; $F(1, 72) = 6.549$, $p = .013$). However, user-based explanation did not significantly increase offer acceptance ($M_1 = 4.063$, SD = .209; $M_2 = 4.198$, SD = .263; $F(1, 72) = .409$, $p = .524$). These results show that environment-based explanation is more effective than user-based explanation for increasing offer acceptance, which provides more support to H4. Results of repeated measured ANOVA reveal that the interaction effect of AI agent's presence and explanation type is significant ($F(1, 70) = 4.614$, $p = .035$), which is consistent with prior results that the effect of AI agent's presence on consumers' offer acceptance of higher-than-others price offer is more pronounced for user-based explanations and provides more support to H5. The results presented above demonstrate the robustness of our findings.

Discussion

Results Summary

Our Analyses revealed several significant findings. First, the acceptance of higher-than-others price offer was significantly higher in the AI agent's presence condition, while acceptance of lower-than-others price offer did not differ for the conditions of AI agent's presence and AI agent absence. We also found that the moderation effect of AI agent's presence on offer acceptance was mediated by procedural justice, distributive justice, and invasion of privacy but not interactional justice. Furthermore, environment-based explanation was more effective than user-based explanation in increasing offer acceptance. Finally, providing an explanation with AI agent's presence significantly increased offer acceptance and this effect of AI agent's presence on offer acceptance was more pronounced for user-based explanations.

Contribution

This research makes significant contributions in several ways. First, it provides valuable contributions to the literature on consumer reactions towards AI in the context of discriminatory pricing. Specifically, our study highlights the moderating role of AI agent's presence, which refers to how the presence of AI agent interacts with offer unfavorability to improve or impair consumers' offer acceptance. This finding builds upon previous research on AI decision-making, which has shown that consumers tend to have negative reactions or decline their engagement when AI agents manage transactions (Dietvorst et al., 2018; Longoni et al., 2019). In contrast, we find that the presence of an AI agent can asymmetrically alter consumers' offer acceptance, expanding the literature on the impact of AI agents on consumer behavior.

Second, our study provides a theoretical contribution by shedding light on the mechanisms through which AI agents can impact consumers' offer acceptance. Our study provided evidence that the presence of an AI agent impacts consumers' perceived procedural justice, distributive justice, and invasion of privacy, which in turn affects consumers' willingness to accept a discriminatory price offer. Previous studies have shown that consumers tend to have negative reactions towards AI agents managing transactions due to perceived lack of knowledge and empathy (Luo et al., 2019), lack of benevolent intention (Garvey et al., 2023), lack of consideration of uniqueness (Yalcin et al., 2022) or lack of mental and emotional attributes (Longoni et al., 2019). However, we find that the presence of an AI agent can asymmetrically alter consumers' perceptions of justice and privacy invasion thus impacting consumers' offer acceptance. Our analysis about mechanisms provide a deeper understanding of the role of AI in discriminatory pricing.

Furthermore, the study contributes to the literature by examining the interaction effect of different types of explanations and the presence of an AI agent on persuasive effectiveness in the context of discriminatory pricing. Our results show that using AI agents to provide explanations may increase consumers' willingness to accept a higher-than-others price for a product or service. Moreover, our study contributes to the literature on discriminatory pricing by demonstrating that environment-based explanations are more effective than user-based explanations in convincing consumers to accept a higher price. This finding is consistent with the literature on attribution theory, which suggests that consumers are more likely to accept the external causes for higher price (Campbell, 1999). Our research also suggests that the presence of an AI agent may better enhance the persuasive effectiveness of user-based explanations. In conclusion, our study provides valuable insights into the impact of AI agents on consumers' offer acceptance and highlights the role of explanations in this process.

Managerial Implications

Our research provides valuable insights into the role of AI agents in managing discriminatory pricing and their impact on consumer behavior. The study suggests that the presence of an AI agent can asymmetrically alter consumers' perceptions of offer outcomes and affect their psychological processes related to justice perception, privacy invasion, and offer acceptance. Therefore, businesses should selectively disclose certain discrepancies by AI agents and determine when it is more appropriate for AI agents to be present. Specifically, businesses may be able to use AI agents to nudge consumers towards accepting an offer, especially if the price is higher than others. Platforms can strategically incorporate AI agents in their interfaces to enhance consumers' receptivity to such offers.

Recognizing the mediating effect of procedural and distributive justice on offer acceptance, platforms can focus on ensuring fairness and equitable treatment in their pricing mechanisms. Clear and transparent explanations of how prices are determined can contribute to a sense of fairness, encouraging consumers to accept offers. In addition, platforms should consider addressing users' privacy apprehensions when implementing AI-driven pricing strategies. Design interfaces that allow users to control the extent of information shared and explicitly communicate data protection measures.

Furthermore, the study highlights the importance of providing consumers with more explanations about prices to improve their offer acceptance. Businesses should consider the persuasive effectiveness of different types of explanations. This research reveals that in the context of discriminatory pricing, an environment-based explanation may be more effective than a user-based explanation in convincing consumers to accept the higher price. This study also suggests that the impact of an AI agent on consumers' offer acceptance may depend on the type of explanation provided. Hence, businesses should contemplate the kind of explanation that would likely connect with their intended consumers and adapt their

explanation strategies accordingly when dealing with AI agents. Overall, the findings of this study provide valuable insights for companies on how to best utilize AI agents to enhance the customer experience and improve their overall business performance.

Limitations and Future Research

There are potential limitations and areas for future research. This study examines the mechanisms by which the interaction effect of offer unfavorability and AI agent's presence influences offer acceptance through perceived justice and perceived invasion of privacy. However, the study does not investigate the mechanisms by which the interaction effect between explanation type and AI agent's presence affects offer acceptance when providing explanations. Further research is needed to investigate these mechanisms. In addition, future study can explore how the persuasive effectiveness of explanations may vary in the case of lower-than-others prices. Another limitation could be the generalizability of the findings to different contexts. The study centers on assessing how AI agents influence consumers' acceptance of discriminatory pricing concerning ride services, where there exists a slight price variance. Subsequent research endeavors could explore alternative contexts, such as airline tickets with large price discrepancies, to comprehensively investigate the implications of varying degrees of deviation from the reference price. To increase generalizability, future study can incorporate real-world data or conduct field experiments that can provide additional insights and validation to support our findings. Another limitation could be the lack of control over the AI agent's characteristics, such as its appearance or voice. These factors could potentially influence consumers' perceptions of the AI agent and their subsequent behavior. Future research could explore the impact of different AI agent characteristics on consumer behavior. For example, researchers could investigate whether the gender or ethnicity of the AI agent influences consumers' perceptions and behavior.

Conclusion

This research paper aims to investigate the impact of AI agents and explanations on consumers' acceptance of discriminatory pricing. The study examines how the interaction effect of offer unfavorability and AI agent's presence affects offer acceptance through the psychological processes related to justiceinvasion and privacy perception. Furthermore, the study investigates the persuasive effectiveness of user-based and environment-based explanations and the influence of AI agent's presence on their effectiveness.

This study suggests that the presence of AI agent can asymmetrically alter consumers' perceptions of offer outcomes, thereby expanding the literature on consumer reactions towards AI. The study also found that environment-based explanation was more effective than user-based explanation in increasing offer acceptance. Finally, the study found that the effect of AI agent's presence on offer acceptance was more pronounced for user-based explanations. The research findings have important implications for firms using AI agents to manage discriminatory pricing, and the results suggest that it is beneficial to selectively have AI agent's presence.

Overall, the study highlights the importance of considering the perceptions of justice and invasion of privacy in discriminatory pricing strategies and emphasizes the role of AI agent's presence and explanations in influencing consumers' acceptance of discriminatory pricing offers. The study's contributions have practical implications for businesses seeking to maximize revenue and customer satisfaction while maintaining ethical and fair practices.

Acknowledgments

This work was partially supported by the Strategic Research Grant at the City University of Hong Kong (Grant No. 7005473) and the Hong Kong Research Grant Council (Nos. CityU 11500421 and CityU 11500322).

References

Allender, W. J., Liaukonyte, J., Nasser, S., & Richards, T. J. (2021). Price Fairness and Strategic Obfuscation. *Marketing Science*, *40*(1), 122–146. https://doi.org/10.1287/mksc.2020.1244

Bigman, Y., Gray, K., Waytz, A., Arnestad, M., & Wilson, D. (2020). *Algorithmic discrimination causes less moral outrage than human discrimination*. https://doi.org/10.31234/osf.io/m3nrp

Blodgett, J. G., Hill, D. J., & Tax, S. S. (1997). The effects of distributive, procedural, and interactional justice on postcomplaint behavior. *Journal of Retailing*, *73*(2), 185–210. https://doi.org/10.1016/S0022-4359(97)90003-8

Bonezzi, A., & Ostinelli, M. (2021). Can algorithms legitimize discrimination? *Journal of Experimental Psychology: Applied*, *27*(2), 447. https://doi.org/10.1037/xap0000294

Borgesius, F. Z., & Poort, J. (2017). Online Price Discrimination and EU Data Privacy Law. *Journal of Consumer Policy*, *40*(3), 347–366. https://doi.org/10.1007/s10603-017-9354-z

Campbell, M. C. (1999). Perceptions of Price Unfairness: Antecedents and Consequences. *Journal of Marketing Research*, *36*(2), 187–199. https://doi.org/10.1177/002224379903600204

Chowdhry, A. (2016, May 25). Uber: Users Are More Likely To Pay Surge Pricing If Their Phone Battery Is Low. *Forbes*. https://www.forbes.com/sites/amitchowdhry/2016/05/25/uber-low-battery/

Chung, J. Y., & Petrick, J. F. (2013). Price Fairness of Airline Ancillary Fees: An Attributional Approach. *Journal of Travel Research*, *52*(2), 168–181. https://doi.org/10.1177/0047287512457261

Chung, J. Y., & Petrick, J. F. (2015). Measuring Price Fairness: Development of a Multidimensional Scale. *Journal of Travel & Tourism Marketing*, *32*(7), 907–922. https://doi.org/10.1080/10548408.2015.1063894

Cialdini, R. B., & Goldstein, N. J. (2004). Social Influence: Compliance and Conformity. *Annual Review of Psychology*, *55*(1), 591–621. https://doi.org/10.1146/annurev.psych.55.090902.142015

Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, *48*(1), 24–42. https://doi.org/10.1007/s11747-019-00696-0

Dietvorst, B. J., Simmons, J. P., & Massey, C. (2018). Overcoming algorithm aversion: People will use imperfect algorithms if they can (even slightly) modify them. *Management Science*, *64*(3), 1155–1170. https://doi.org/10.1287/mnsc.2016.2643

Drèze, J., & Stern, N. (1987). The theory of cost-benefit analysis. In *Handbook of public economics* (Vol. 2, pp. 909–989). Elsevier.

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*(2), 175–191. https://doi.org/10.3758/BF03193146

Folkes, V. S. (1984). Consumer reactions to product failure: An attributional approach. *Journal of Consumer Research*, *10*(4), 398–409. https://doi.org/10.1086/208978

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.2307/3151312

Fusilier, M. R., & Hoyer, W. D. (1980). Variables affecting perceptions of invasion of privacy in a personnel selection situation. *Journal of Applied Psychology*, *65*(5), 623–626. https://doi.org/10.1037/0021-9010.65.5.623

Garvey, A. M., Kim, T., & Duhachek, A. (2023). Bad News? Send an AI. Good News? Send a Human. *Journal of Marketing*, *87*(1), 10–25. https://doi.org/10.1177/00222429211066972

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.

Hohenstein, J., & Jung, M. (2020). AI as a moral crumple zone: The effects of AI-mediated communication on attribution and trust. *Computers in Human Behavior*, *106*, 106190. https://doi.org/10.1016/j.chb.2019.106190

Huang, M.-H., & Rust, R. T. (2018). Artificial Intelligence in Service. *Journal of Service Research*, *21*(2), 155–172. https://doi.org/10.1177/1094670517752459

Hufnagel, G., Schwaiger, M., & Weritz, L. (2022). Seeking the perfect price: Consumer responses to personalized price discrimination in e-commerce. *Journal of Business Research*, *143*, 346–365. https://doi.org/10.1016/j.jbusres.2021.10.002

Kim, T. W., & Duhachek, A. (2020). Artificial Intelligence and Persuasion: A Construal-Level Account. *Psychological Science*, *31*(4), 363–380. https://doi.org/10.1177/0956797620904985

Kumar, V., Dixit, A., Javalgi, R., & Dass, M. (2016). Research framework, strategies, and applications of intelligent agent technologies (IATs) in marketing. *Journal of the Academy of Marketing Science*, *44*(1), 24–45. https://doi.org/10.1007/s11747-015-0426-9

Leventhal, G. S. (1980). *What should be done with Equity theory. Advances in theory and Research*. New York, Plenum Press.

Li, K. J., & Jain, S. (2016). Behavior-Based Pricing: An Analysis of the Impact of Peer-Induced Fairness. *Management Science*, *62*(9), 2705–2721. https://doi.org/10.1287/mnsc.2015.2265

Longoni, C., Bonezzi, A., & Morewedge, C. K. (2019). Resistance to Medical Artificial Intelligence. *Journal of Consumer Research*, *46*(4), 629–650. https://doi.org/10.1093/jcr/ucz013

Luo, X., Tong, S., Fang, Z., & Qu, Z. (2019). Frontiers: Machines vs. humans: The impact of artificial intelligence chatbot disclosure on customer purchases. *Marketing Science*, *38*(6), 937–947. https://doi.org/10.1287/mksc.2019.1192

MacKenzie, S. B., Podsakoff, P. M., & Podsakoff, N. P. (2011). Construct measurement and validation procedures in MIS and behavioral research: Integrating new and existing techniques. *MIS Quarterly*, 293–334. https://doi.org/10.2307/23044045

Mao, J. Y., & Benbasat, I. (2000). The use of explanations in knowledge-based systems: Cognitive perspectives and a process-tracing analysis. *Journal of Management Information Systems*, *17*(2), 153–179. https://doi.org/10.1080/07421222.2000.11045646

Mende, M., Scott, M. L., van Doorn, J., Grewal, D., & Shanks, I. (2019). Service Robots Rising: How Humanoid Robots Influence Service Experiences and Elicit Compensatory Consumer Responses. *Journal of Marketing Research*, *56*(4), 535–556. https://doi.org/10.1177/0022243718822827

Murphy, D. (2016). *Uber to Make Surge Pricing Less Obvious*. Entrepreneur. https://www.entrepreneur.com/business-news/uber-to-make-surge-pricing-less-obvious/278096

Newcomer. (2017). Uber Starts Charging What It Thinks You're Willing to Pay. *Bloomberg*. https://www.bloomberg.com/news/articles/2017-05-19/uber-s-future-may-rely-on-predicting-how-much-you-re-willing-to-pay

Niehoff, B. P., & Moorman, R. H. (1993). Justice as a Mediator of the Relationship Between Methods of Monitoring and Organizational Citizenship Behavior. *Academy of Management Journal*, *36*(3), 527–556. https://doi.org/10.5465/256591

Sætra, H. S. (2022). Scaffolding Human Champions: AI as a More Competent Other. *Human Arenas*, 1–23. https://doi.org/10.1007/s42087-022-00304-8

Seele, P., Dierksmeier, C., Hofstetter, R., & Schultz, M. D. (2021). Mapping the ethicality of algorithmic pricing: A review of dynamic and personalized pricing. *Journal of Business Ethics*, *170*(4), 697–719. https://doi.org/10.1007/s10551-019-04371-w

Skarlicki, D. P., & Folger, R. (1997). Retaliation in the workplace: The roles of distributive, procedural, and interactional justice. *Journal of Applied Psychology*, *82*(3), 434. https://doi.org/10.1037/0021-9010.82.3.434

Straub, D. W. (1989). Validating instruments in MIS research. *MIS Quarterly*, 147–169. https://doi.org/10.2307/248922

Tsiros, M., Mittal, V., & Ross Jr, W. T. (2004). The role of attributions in customer satisfaction: A reexamination. *Journal of Consumer Research*, *31*(2), 476–483. https://doi.org/10.1086/422124

Tucker, C. E. (2014). Social Networks, Personalized Advertising, and Privacy Controls. *Journal of Marketing Research*, *51*(5), 546–562. https://doi.org/10.1509/jmr.10.0355

Vaidyanathan, R., & Aggarwal, P. (2003). Who is the fairest of them all? An attributional approach to price fairness perceptions. *Journal of Business Research*, *56*(6), 453–463. https://doi.org/10.1016/S0148-2963(01)00231-4

Viglia, G., & Abrate, G. (2014). How social comparison influences reference price formation in a service context. *Journal of Economic Psychology*, *45*, 168–180. https://doi.org/10.1016/j.joep.2014.09.003

Wojciszke, B., Abele, A. E., & Baryla, W. (2009). Two dimensions of interpersonal attitudes: Liking depends on communion, respect depends on agency. *European Journal of Social Psychology*, *39*(6), 973–990. https://doi.org/10.1002/ejsp.595

Yalcin, G., Lim, S., Puntoni, S., & van Osselaer, S. M. J. (2022). Thumbs Up or Down: Consumer Reactions to Decisions by Algorithms Versus Humans. *Journal of Marketing Research*, 002224372110700. https://doi.org/10.1177/00222437211070016

Yoon, N., & Lee, H.-K. (2021). AI recommendation service acceptance: Assessing the effects of perceived empathy and need for cognition. *Journal of Theoretical and Applied Electronic Commerce Research*, *16*(5), 1912–1928. https://doi.org/10.3390/jtaer16050107