Transitioning to dynamic prices: Should pricing authority remain with the company or be delegated to the service employees instead?

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ABSTRACT

Dynamic pricing is typically implemented via pricing algorithms that react to varying levels of supply and demand. Some companies, such as Uber, also vary prices for different offers, such as standard cars or limousines for a ride. However, companies usually do not proceed to the next logical step and delegate pricing authority to their employees. This is astonishing as service employees often vary in service quality, possess unique business knowledge, hold close relationships with customers, and influence the overall customer experience. The authors investigate the consequences of delegating pricing authority to employees. They also investigate the responses of customers who face a situation where their firm transitions from fixed to dynamic prices set by the firm (control group) or service employees (treatment group). The findings demonstrate that the actual dynamic price paid affects customers’ distributive fairness perceptions, which influence their behavioral responses. The authors find support for pricing authority (firm vs. employee) acting as a second-stage moderator. The results provide supporting evidence for the stylized fact that firms keep the pricing authority with the company and do not delegate it to service employees instead.

1. Introduction

Dynamic pricing is a pricing strategy that uses price variations to align demand and supply over time (Elmaghraby and Keskinocak 2003). Ideally, companies implementing dynamic pricing monetize customers’ high willingness to pay during peak times and increase demand during off-peak times by lowering prices (Kimes and Wirtz, 2003).

Well-known ridesharing platforms such as Uber and Lyft have long relied on corporate algorithms for what they call “surge” or “prime time” pricing (i.e., dynamic price increases). However, drivers have sometimes tried to influence prices indirectly by (collectively) turning their driver apps on or off to affect supply (and hence, prices) (Schroeder, Storch, Marszal, and Timme, 2020). In January 2020, in an attempt to prevent drivers from being reclassified as employees (instead of independent drivers), Uber started an interesting experiment allowing drivers in California to see ride destinations before picking up passengers and to drivers (Said, 2020; Uber, 2020). However, according to Said (2021), about a year later, “Uber is acknowledging that the move has hurt business and is considering axing its visible destinations and price-naming policies.” While it seems that drivers well adopted and enjoyed the new features, the overall impact for Uber turned out to be negative since many potential passengers ended up not finding a Uber ride (Said, 2021). This experiment shows that a change in pricing authority can substantially influence financial outcomes and “employee” and customer outcomes. However, corporate pricing authorities can also harm their profitability. For instance, Airbnb’s corporate “smart pricing” algorithm is said to underprice properties so that hosts must intervene and adjust prices to secure their revenues manually (e.g., Airbnb Community, 2017).

Thus, whether the company – providing, for instance, a dynamic pricing algorithm – or the individuals offering the respective service – should be responsible for the dynamic price paid is unclear. Thus far, corporate solutions still represent the industry standard in the service sector. They promote a consistent price image and either attenuate or avoid competition among service-providing employees (including freelancers and independent contractors) within a company. However, delegating pricing authority to service-providing employees remains an exception, even though it allows firms to give employees responsibility and flexibility (Chan and Lam, 2011) and to leverage their unique business insights. Why do we not observe a shift in the pricing authority

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from the company to the service-providing employees?

To explore this question, we focus on the beauty service industry that meets the conditions that enable the dynamic pricing – such as fixed capacities, perishable inventory, and fluctuating demand (cf. Kimes, 1989). However, as pricing strategies are difficult and costly to change (Ellickson, Misra, and Nair, 2012), a transition from fixed to dynamic pricing must be planned and executed carefully. This is mainly because it is a priori unclear how customers will react to such a disruption of the status quo (Kahneman, Knetisch, and Thaler, 1986a) and how loyalty toward service-providing employees and companies are affected (cf. Palmatier, Scheer, and Steenkamp, 2007) depending on who holds the pricing authority.

The argumentation above leads us to the following two research questions (RQ):

(1) How does transitioning from fixed to dynamic prices influence customers’ behavioral responses, including repurchase intentions and tipping behavior?

(2) Are companies better off keeping the pricing authority at the central corporate level, or should they delegate pricing authority to the service-providing employees?

To calibrate our main experiment’s price levels and ranges, we first conducted an exploratory survey of hairstylists. In the main online pricing experiment, we investigated the responses of customers who face a situation where the service provider transitions from fixed prices to dynamic prices contingent on the two types of pricing authority (firm and employee). The results (N = 451) reveal that customer reaction are dependent on the first price they have to pay after the transition to dynamic prices. More specifically, (1) the higher the dynamic price a customer has to pay, the more adverse the customer’s distributive fairness perceptions, influencing repurchase intentions for service employees and companies. Thus, it is crucial for service employees and companies that customers perceive the outcome of a transaction as fair. (2) While employees with pricing authority are adversely affected by customers’ reactions to dynamic prices that are perceived unfair, we find that customers reward the company when pricing authority remains at the corporate level, and the dynamic price they have to pay is perceived as fair. Therefore, our results (i.e., avoiding adverse reactions when employees set prices and leveraging positive reactions when prices are determined at the corporate level) explain the dominant industry practice of keeping the pricing authority at the corporate level and not at the service employee level.

2. Literature review

2.1. Dynamic pricing and related concepts

According to Elmaghraby and Keskinocak (2003, p. 1288), dynamic pricing describes a situation where “the seller dynamically changes prices over time (intertemporal prices) based on factors such as time of sale, demand information, and supply availability.” Thus, dynamic pricing focuses on the timing component of price differentiation (e.g., Varian, 1989) and contains revenue (or yield) management as a sub-strategy (Kimes, 1989). While Kannan and Kopalle (2001) and Haws and Bearden (2006) extend this definition to include price variations over consumers, situations, and products, we focus on the timing component.

Dynamic pricing research can be divided into two broad studies streams. The first study stream focuses on price optimization, such as strategic customer behavior and learning (e.g., Jing, 2011; Levin, McGill, and Nediak, 2009; Ban and Keskin, 2021; Huang, Luo, and Xia, 2019). The second study stream focuses on understanding customer perceptions of and reactions to dynamic pricing (e.g., Haws and Bearden, 2006; Weisstein, Monroe, and Kukar-Kinney, 2013; Abrate, Quinton and Pera, 2021).

Optimal dynamic prices often do not trigger positive reactions, as reflected in the negative media coverage of dynamic pricing (e.g., Amazon’s price tests in 2000; Uber’s surge fares after terror attacks in 2017). One reason for this is that customers perceive dynamic pricing as violating social rules (Garbarino and Maxwell, 2010). Dynamic pricing adversely influences customers’ benevolence trust in companies (Garbarino and Lee, 2003) and customers’ fairness perceptions (Haws and Bearden, 2006). Nevertheless, companies can use contextual factors (Haws and Bearden, 2006) and framing techniques (Weisstein, Monroe, and Kukar-Kinney, 2013) to mitigate customers’ (adverse) reactions.

We follow this second stream of study to improve our understanding of customers’ fairness perceptions and behavioral reactions to dynamic pricing. Simultaneously, we introduce a new angle by focusing on pricing authority (service employee vs. company) and how it affects customers’ responses to the introduction of dynamic pricing.

2.2. Fairness

Fairness research distinguishes three types of fairness: distributive, procedural, and interactional fairness, focusing on different aspects of a transaction (e.g., Seiders and Berry, 1998). While distributive fairness focuses on the outcome of a transaction (e.g., Seiders and Berry, 1998), procedural fairness focuses on the process used to determine that outcome (e.g., Van den Bos et al., 1997). Interactional fairness focuses on whether a customer is treated with respect during a transaction (e.g., Bies and Moag, 1986; Colquitt, 2001).

Our focus lies on distributive fairness, which customers evaluate by comparing their input-output ratio to the input-output ratio of a reference transaction (cf. equity theory; Adams, 1965). In marketing, (distributive) fairness study often concentrates on the input, namely on price and the concept of price fairness (e.g., Bolton, Warlop, and Alba, 2003; Campbell, 1999). An explanation for this is that the output, i.e., the good or service customers receive in exchange for the price paid, is kept constant. To evaluate price fairness, customers compare the price they have to pay to one or more reference prices, which can be prices paid at other stores, prices paid by other customers, or prices paid at a different point in time (e.g., Haws and Bearden, 2006). From a fairness perspective, equity plays an important role; customers do not want to be disadvantaged. Even being advantaged does not trigger positive emotions (e.g., Darke and Dahl, 2003; Gelbrich, 2011; Weisstein, Monroe, and Kukar-Kinney, 2013; Xia and Monroe, 2010). Although customers might enjoy paying less than others (Gelbrich, 2011), they do not consider an advantageous outcome fair (Xia and Monroe, 2010). We follow Maysor and von Wagenheim (2013) by focusing on distributive fairness, as previous studies have emphasized the importance of outcomes over other fairness dimensions in shaping customers’ fairness perceptions (e.g., Finkel, 2000; Van den Bos et al., 1997). Controlling procedural and interactional fairness allows us to incorporate their impact on distributive fairness and customers’ behavioral responses.

2.3. The dual entitlement principle

According to the dual entitlement principle, both parties in a transaction are entitled to a fair transaction (e.g., Kahneman, Knetisch, and Thaler, 1986b). The seller is entitled to realize a “normal” profit, and the buyer is entitled to pay a “normal” price. A reference transaction determines the common standard of what is considered normal. Depending on the context and available information, customers can draw on prices paid in the past or prices paid by comparable others to evaluate a current transaction against the reference transaction (e.g., Cox, 2001; Darke and Dahl, 2003; Kahneman, Knetisch, and Thaler, 1986b). To maintain their reference profit, sellers are allowed to raise prices in response to increasing costs, particularly when the reason for increasing costs is not under the seller’s influence (Vaidyanathan and Aggarwal, 2003), and the costs can be directly ascribed to the goods sold (Bolton and Alba, 2006; Bolton, Warlop, and Alba, 2003). Price increases are commonly perceived as unfair owing to non-cost-related reasons (e.g., Kahneman, Knetisch, and Thaler, 1986a). For instance, Lu et al. (2019) illustrate that...
price increases due to demand are perceived as unfair and exploitative, as they violate customers’ entitlement to paying the reference price.

We follow the study on the dual entitlement principle. We suggest that the dynamic price paid can trigger distributive (un)fairness perceptions and enrich this perspective by investigating the influence of pricing authority on the link between distributive fairness and customers’ behavioral responses. While service employees are typically responsible (and blamed) for the process and the interaction of a transaction, the company is typically responsible (and blamed) for the outcome (McColl-Kennedy, Sparks, and Nguyen, 2011). A transition from fixed to dynamic prices offers the opportunity to assign these responsibilities newly. The pricing authority either remains with the company or is delegated to the respective service-providing employees.

3. Conceptual framework and research hypotheses

At the core of our conceptual framework – as depicted in Fig. 1 – is the assumption that the actual price that customers have to pay after the transition to dynamic prices influences their perception of distributive fairness, which influences their repurchase intentions and tipping behavior. In the following, we provide arguments for the specific role of pricing authority – either at the service employee or company level. More specifically, we propose that pricing authority acts as a second-stage moderator, influencing distributive fairness on customers’ behavioral responses.

3.1. The link between dynamic price paid, distributive fairness, and behavior

The concept of distributive fairness builds on the dual entitlement principle and describes whether the outcome of a transaction is fair (e.g., Seiders and Berry, 1998; Lastner et al., 2019). Van den Bos et al. (1997) stress the importance of distributive fairness when the outcomes of others are known, as customers use others’ outcomes to evaluate their outcomes. Thus, we propose that perceived distributive fairness mediates the relationship between the dynamic price paid and customers’ behavioral responses.

There have been extensive studies on the antecedents and consequences of distributive fairness. For instance, Lee and Griffith (2019) highlight the influence of social comparison standards (and deviations from the same) on distributive fairness, whereas Mayser and von Wangenheim (2013) emphasize the importance of preference for equity in determining distributive fairness. Additionally, studies focusing on the consequences of distributive fairness have emphasized its effect on trust, job performance, and opportunistic behaviors in the workplace (Ramaswami and Singh, 2003), relationship quality (Kumar, Scheer, and Steenkamp, 1995), satisfaction (Maxham and Netemeyer, 2002), and emotional and behavioral responses to (non) preferred treatments such as anger, word-of-mouth, and re-patronage (Mayser and von Wangenheim, 2013). Schmidt, Bornschein, and Maier (2020) show that by giving up privacy, consumers receive lower prices, leading to a higher level of perceived fairness (when the company retains the pricing authority).

Following this line of study, we link distributive fairness to customers’ behavioral responses, namely, to repurchase intentions for the company and service employees when a company transitions from fixed to dynamic prices. Our proposed conceptualization aligns with Lu et al. (2019), who find that dynamic pricing is perceived as unfair and exploitative, independent of a company’s market power. We argue that customers might feel that distributive fairness is not honored and dynamic prices violate their entitlement to a “normal” transaction. Consequently, this should lower customer repurchase intentions for both companies and service employees. We treat company and service employees as different entities as customers can be loyal to the service employee, the company, or divide their loyalty (Palmatier, Scheer, and Steenkamp, 2007), which is particularly important when a service employee decides to leave the company. Therefore, we propose the following hypotheses, which describe the transition from fixed to dynamic prices:

H1a: The higher the dynamic price a customer has to pay, the lower the customer’s repurchase intention for the company. This effect is mediated by customers’ perceptions of distributive fairness.

H1b: The higher the dynamic price a customer has to pay, the lower the customer’s repurchase intentions for the service employee. This effect is mediated by customers’ perceptions of distributive fairness.

3.2. The moderating role of pricing authority

According to attribution theory (Weiner, 1985; for a review, see Folkes, 1988), customers make causal inferences about observations that affect their emotional and behavioral responses. The three dimensions commonly used to describe and classify causal attributions are the locus of causality (i.e., who is responsible for the dynamic prices), controlability (i.e., can the responsible entity control the dynamic prices), and temporal stability (i.e., is the cause of the dynamic prices stable, such as a transition to a new pricing scheme) (e.g., Weiner, 1985, 2010). While Gelbrich (2011) stresses the importance of locus of causality in determining customers’ emotional and behavioral responses, Pallas, Bolton, and Lobschat (2018) identify a company-related locus of causality as the strongest driver of blame attributions when customers face price surcharges. As the (social) distance between customers and employees as opposed to customers and companies differs, the construal-level theory may also provide theoretical explanations for the moderating role of pricing authority (see, e.g., Wakefield and Wakefield, 2018, who find that social distance influences price sensitivity).

Studies on the influence of pricing authority on fairness perceptions
of dynamic pricing have focused on whether the buyer had a voice in the pricing process, as is the case with price discovery formats such as auctions (Haws and Bearden, 2006). Haws and Bearden (2006) show buyers attribute auction prices to themselves rather than the buyer, thus perceiving them as fairer than posted dynamic prices. In contrast, our focus lies on the pricing authority within the company.

McColl-Kennedy, Sparks, and Nguyen (2011) investigate whom customers blame after an unsatisfying service encounter and distinguish between distributive, procedural, and interactional fairness. As employees are typically responsible for interaction and procedure, customers attribute fairness concerns relating these dimensions to employees while attributing distributive fairness concerns to the company, which is commonly responsible for the outcome (McColl-Kennedy, Sparks, and Nguyen, 2011). However, generally, customers should direct their reactions to those responsible for a situation (Xia, Monroe, and Cox, 2004).

Yang and Aggarwal (2019) illustrate that customers expect more communal behavior from smaller companies than larger companies. Therefore, we expect customers to penalize service employees for violating their expectations when customers have to pay a price they perceive as unfair. Based on this argument, this should result in lower repurchase intentions for service employees, lower intentions to tip, and lower tipping amounts when they hold the pricing authority (instead of the company). We extend this perspective by proposing that when companies keep the pricing authority when transitioning to dynamic prices, they can excel customer expectations when setting dynamic prices that are perceived as a fair outcome. We propose that this leads customers to reward companies. This results in higher repurchase intentions for the company when it holds the pricing authority (as opposed to the service employee). Thus, when transitioning from fixed to dynamic prices, we propose the following:

$H2a$: The positive effect of increasing perceived distributive fairness on repurchase intentions for the company is higher when the pricing authority is with the company than when the pricing authority is with the service employee.

$H2b$: The adverse effect of decreasing perceived distributive fairness on repurchase intentions for the service employee is stronger when the pricing authority is with the service employee than with the company.

While repurchase intentions reflect future behavior, whether and if so, how much to tip is an immediate response to the treatment customers receive during a service encounter. Tipping behavior can reflect customers’ compliance with existing social norms and their gratitude toward a service employee (Azar 2011; Lynn, Zinkhan, and Harris, 1993). Thus, when companies transition from fixed to dynamic prices, customers can perceive this as a violation of distributive fairness and their entitlement to a “normal” transaction. Consequently, customers should neither feel obliged to display gratitude nor stick to the social norm of tipping a service employee when the service employee has the pricing authority. Therefore, we propose the following hypothesis, describing a transition from fixed to dynamic prices:

$H3a$: The adverse effect of decreasing perceived distributive fairness on the decision to tip the service employee is stronger when the pricing authority is with the service employee than with the company.

For customers who decide to tip the service employee, we additionally hypothesize:

$H3b$: The adverse effect of decreasing perceived distributive fairness on the tipping amount is stronger when pricing authority is with the service employee than when the pricing authority is with the company.

4. Research setting

4.1. Dynamic pricing in the beauty service industry

The setting of our study is the beauty service industry, with hair services in particular. Hair services generated $20 billion in the U.S. alone in 2018 (First Research, 2019). However, the market is highly fragmented; the 50 largest players account for only 15% of the industry revenues (First Research, 2019), and approximately 30% of the hairdressers are self-employed (Professional Beauty Association, 2014) working from home, as mobile hairdressers, or renting a chair in a salon. In most industrialized countries (e.g., the U.S., the U.K., Germany, and Switzerland), the job of a hairstylist is ranked among the lowest-paying jobs (e.g., Bundesamt für Statistik, 2019; Gehalt.de, 2018; Statista, 2019; Suneson, 2019), even though customers are outstandingly loyal (e.g., 74% of the U.K. customers state that they are in a relationship with a salon; Direct Line for Business 2017).

Online booking systems that allow for price variation depending on salon service and proficiency of the requested service employee are on the rise, particularly for larger salon chains (e.g., Regis, Sassoon, Toni & Guy). Online appointment booking platforms such as Treatwell (2020) enable all salons, independent of their size, to offer online booking of appointments to their customers. The prices customers find online depend on the kind of beauty service booked and can further incorporate the level of proficiency of the service employee, the time of the appointment (e.g., Saturday vs. Tuesday: off-peak pricing), and the time of the booking (e.g., last-minute discounts); thus, Treatwell offers salons the opportunity to cut prices dynamically.

4.2. Exploratory survey among hairdressers

To determine a reasonable dynamic price range for our online customer experiment and gain additional insights into the beauty service industry, we conducted a survey among hairdressers in a major Swiss city. Within seven days, we went to 29 hair salons in person. We asked whether salon owners and service employees were willing to participate in a survey on salon reorganization and (dynamic) pricing. As an incentive, survey participants received a voucher (20 Swiss francs, i.e., CHF) from a European online fashion retailer and could receive a summary of the survey results. Twelve respondents completed the survey (58% female, $M_{age} = 35$ years, response rate = 41%). Among them, eight respondents were identified as salon managers, two as instructors, and four as employees (multiple answers possible). On average, respondents had 16 years of work experience in the beauty industry. Respondents indicated that (on average) 80% of their customers are loyal (returning) customers and that approximately 65% of their customers are women.

We asked respondents to imagine setting their prices dynamically depending on demand (i.e., high, regular, low). We were interested in the price they would ask for standard service (i.e., ladies “wash, cut, and blow-dry”). The average price for a “wash, cut, and blow-dry” service for women with medium-length hair was CHF 116.20. When asked to determine dynamic price levels, the average price respondents would set equivalent to CHF 114.30 at times of steady demand, CHF 120.10 at times of high demand, and CHF 106.70 at times of low demand. We later used these results to calibrate the dynamic prices used in our customer survey.

5. Experimental study

5.1. Experimental design

To test our conceptual framework, we conducted an online customer experiment in Switzerland via a European panel provider ($N = 451$, $M_{age} = 39.9$ years, 100% female) using 3 (dynamic price paid: high vs. medium vs. low) × 2 (pricing authority: service employee vs. company) between-subjects design. In contrast to preceding studies (cf. Garbarino and Lee, 2003; Haws and Bearden, 2006), we revealed the dynamic nature of the prices upfront and confronted respondents with multiple dynamic prices at a time to increase the ecological validity of the experimental setting.

At the beginning of our experiment, we included screening questions to ensure that respondents were in the market for this type of service:
5.2. Main analyses and results

To test our conceptual framework, we conducted a set of moderated mediation analyses (N = 451; PROCESS Model 14; 10,000 bootstrapped samples; Hayes, 2013) with the dynamic price paid as an independent variable, distributive fairness as a mediator, and pricing authority (1 = service employee, 0 = company) as a moderator. As dependent variables, we analyzed (1) customers’ repurchase intentions for the company (Model 1), (2) customers’ repurchase intentions for the service employee (Model 2), (3) customers’ tipping decisions (logistic regression: 1 = yes, 0 = no, Model 3), and (4) customers’ tipping amount (only if tipping decision is yes, N = 305, Model 4). As control variables, we included procedural fairness, expected interactional fairness, and customers’ external and internal attribution of the dynamic price paid (i.e., locus of causality: hair salon/hairstylist vs. customer) (cf. Table A1 in the Appendix).

It is unnecessary to account for correlations between the error terms of the separate regression models through seemingly unrelated explanations in practice. Respondents then chose the day of their appointment and selected between three available time slots offered at three different prices (low vs. medium vs. high; equivalent to CHF 90, 110, and 130). We used the results of our exploratory survey to set price levels in our customer experiment. Notably, we used the average upward price adjustment (those who increased prices under high demand) and applied it in both directions (symmetry). However, only one time slot matched respondents’ time preferences (4pm. or later). Thus, we simulated a typical dynamic pricing booking procedure while randomly assigning respondents to low, medium, or high dynamic prices. We also informed respondents that customers never had to pay more than $130 at the hair salon (pricing authority: company) or their hairstylist (pricing authority: service employee).

After they completed the booking procedure, respondents had to indicate who was responsible for the price paid (hair salon or hairstylist) and whether there were other time slots available at their hairstylist on the day of the appointment. These two questions served as manipulation checks (we filtered out all respondents who failed to answer them correctly).

The experiment concluded with a questionnaire. Respondents had to answer questions on the booking and pricing procedure (e.g., procedural fairness, distributive fairness, expected interactional fairness), repurchase intentions, and tipping behavior. We also asked respondents for their attribution of the dynamic price paid (i.e., locus of causality), hair salons’ and hairstylists’ entitlement to a profit, who they thought benefited from the new pricing mechanism, and their attitude toward similar pricing mechanisms in the service industry. Finally, the questionnaire concluded with a set of personal questions. We provide additional information on the questionnaire in the Appendix.

Table 2
Results of the Moderated Mediation Analyses With Distributive Fairness as Outcome

<table>
<thead>
<tr>
<th>Outcome: Distributive fairness (mediator)</th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Models 1–3 (all customers)</td>
<td>Model 4 (if customer tipped)</td>
<td></td>
</tr>
<tr>
<td>Coefficient</td>
<td>SE</td>
<td>p</td>
</tr>
<tr>
<td>Constant</td>
<td>1.701</td>
<td>0.444</td>
</tr>
<tr>
<td>Dynamic price paid</td>
<td>−0.013</td>
<td>0.003</td>
</tr>
<tr>
<td>Procedural fairness</td>
<td>0.625</td>
<td>0.034</td>
</tr>
<tr>
<td>Interactional fairness</td>
<td>0.081</td>
<td>0.042</td>
</tr>
<tr>
<td>External attribution</td>
<td>0.031</td>
<td>0.033</td>
</tr>
<tr>
<td>Internal attribution</td>
<td>0.149</td>
<td>0.038</td>
</tr>
<tr>
<td>Model summary</td>
<td>N = 451</td>
<td>R² = 0.637</td>
</tr>
</tbody>
</table>

Notes: The results of the underlying regression of distributive fairness (mediator) on the dynamic price paid (independent variable) and the set of control variables remain the same for Models 1 to 3 (N = 451) as our moderated mediation models only differ in the dependent variables (cf. Table 3). *p < .05; **p < .01; ***p < .001.
regression, as we include the same set of predictors in our regression analyses (Zellner, 1962, p. 351). Thus, we use separate regressions and present the results in Table 2 (outcome = mediator) and Table 3 (outcome = dependent variable). Additional manipulation checks. To ensure that respondents understood the pricing authority manipulation, we asked them to attribute the dynamic price paid to service employees and companies and assess their respective entitlement to a profit. When we compared the attribution of the dynamic price paid to companies and service employees, we found significant differences depending on who holds the pricing authority (attribution to company: Mcompany = 4.83, SDcompany = 1.43, t(447.63) = −8.621, p < .001; attribution to service employee: Mcompany = 5.27, SDemployee = 1.46, t(441.25) = 14.913, p < .001). Thus, respondents correctly attribute the dynamic price paid to the authority in charge. We see similar results when analyzing companies’ and service employees’ entitlement to a profit (company’s entitlement: Mcompany = 4.95, SDcompany = 1.52, Memployee = 4.83, SDemployee = 1.43, t(447.63) = −3.724, p < .001; service employee’s entitlement: Mcompany = 5.12, SDcompany = 1.62, Memployee = 5.44, SDemployee = 1.42, t(441.45) = 2.204, p < .001. Thus, from a customer’s point of view, the entity that holds the pricing authority is also entitled to make a profit.

Distributive fairness. The results show that customers’ distributive fairness was adversely affected when they had to pay higher dynamic prices after the transition (cf. Table 2) (b = −0.013, SE = 0.003, p < .01). A CHF 1 increase in the dynamic price paid lowered distributive fairness perceptions by 0.013 scale points (i.e., the difference of CHF 40 between low and high dynamic price impacts perceived distributive fairness by 0.52 scale points), delivering initial support for H1a and H1b.

As our moderated mediation models only differ in the dependent variables, the results of the underlying regression of distributive fairness (mediator) on the dynamic price paid (independent variable) and the set of control variables remain the same for Models 1 to 3 (N = 451). The results for Model 4 (N = 305) are qualitatively very similar and are therefore not discussed in detail (see also Table 2).

Repurchase intentions of the company. Model 1 (in Table 3) contains the results of the regression of repurchase intentions for the company on the dynamic price paid (independent variable), distributive fairness (mediator), pricing authority (moderator), and the control variables. The results show that distributive fairness mediates the effect of dynamic prices paid on repurchase intentions and the effect of distributive fairness is moderated by pricing authority as the index of moderated mediation is significant (b = 0.0027, SE = 0.001, CI95 [0.0006, 0.0055]; without control variables: b = 0.0039, SE = 0.003, CI95 [0.0001, 0.0082]) (in line with H1a and H2a). When the pricing authority is with the company, a CHF 1 increase in the dynamic price paid lowers repurchase intentions for the company by 0.0054 scale points (i.e., 0.216 scale points for the difference between a low dynamic price of CHF 90 and a high dynamic price of CHF 130) as a result of lower distributive fairness produced by the dynamic price increase (b = −0.0054, SE = 0.002, CI95 [−0.0085, −0.0027]). In contrast, when the pricing authority is with the service employee, a CHF 1 increase in the dynamic price paid lowers repurchase intentions for the company by 0.0026 scale points (i.e., 0.104 scale points for the difference between low and high dynamic prices) as a result of lower distributive fairness produced by the dynamic price increase (b = −0.0026, SE = 0.001, CI95 [−0.0055, −0.0002]). Thus, when the company has pricing authority, the conditional indirect effect of the dynamic price paid on repurchase intentions for the company via distributive fairness is more negative than when the service employee has the pricing authority. The index of moderated mediation describes the difference in these two conditional indirect effects (b = 0.0027, SE = 0.001, CI95 [0.0006, 0.0055]); thus, how a shift in pricing authority from the company to the service employee affects the indirect effect of the dynamic price paid on repurchase intentions for the company. The results further show that the effect is fully mediated by distributive fairness since we do not find evidence of a direct effect (control path) of the dynamic price paid on repurchase intentions for the company (b = 0.002, SE = 0.004, p = .655).

We provide a graphical illustration of the moderating effect of pricing authority in Fig. 2 (setting all other variables to their sample means). To identify regions of significance, we apply the Johnson-
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Neyman approach. Panel A of Fig. 2 illustrates that the positive effect of higher distributive fairness (above 4.54 on the seven-point Likert scale) on repurchase intentions for the company significantly varies with pricing authority and that this effect is more beneficial if pricing authority is with the company. However, when distributive fairness is below the threshold, the pricing authority loses its effect on the company’s repurchase intentions.

**Repurchase intentions for the service employee.** Model 2 (in Table 3) contains the results of the respective regression of repurchase intentions for the service employee. We find evidence for an indirect effect via distributive fairness that is moderated by pricing authority as the index of moderated mediation is significant ($b = -0.0026$, $SE = 0.001$, $CI_{95} [-0.0051, -0.0006]$; without control variables: $b = -0.0071$, $SE = 0.003$, $CI_{95} [-0.0127, -0.0025]$) (in line with H1b and H2b), but not for the direct effect of dynamic price paid on repurchase intentions for the service employee ($b = -0.004$, $SE = 0.004$, $p = .273$). When the employee has the pricing authority, the conditional indirect effect of the dynamic price paid on repurchase intentions for the service employee via distributive fairness is more negative ($b = -0.0050$, $SE = 0.002$, $CI_{95} [-0.0082, -0.0023]$) than when the company has the pricing authority ($b = -0.0024$, $SE = 0.001$, $CI_{95} [-0.0050, -0.0003]$).

Panel B illustrates that pricing authority moderates the effects of low levels of distributive fairness (below 3.79 on the 7-point Likert scale) on repurchase intentions for the employee; i.e., repurchase intentions for the service employee suffer more when the service employee sets prices that are perceived as unfair compared to when the company sets the same prices. In contrast, for higher levels of distributive fairness, repurchase intentions for the service employee are not significantly affected by pricing authority.

**Tipping decision.** Model 3 (in Table 3) contains the results of the

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Fig. 2. How pricing authority impacts the effect of distributive fairness on repurchase intentions and tipping behavior. Notes: Shaded areas indicate regions of significance (Panel A: above 4.54; Panel B: below 3.79; Panel C: below 3.97; Panel D: below 3.89). All variables have been set to their sample means for plotting (Panel A to C: dynamic price paid = CHF 110.04; procedural fairness = 4.40; interactional fairness = 5.66; external attribution = 4.21; internal attribution = 4.20; Panel D: dynamic price paid = CHF 108.10; procedural fairness = 4.77; interactional fairness = 5.86; external attribution = 4.22; internal attribution = 4.44).
Table 4
Results of the (conditional) direct and indirect effects.

<table>
<thead>
<tr>
<th>Model 1</th>
<th>Repurchase intentions for the company (DV)</th>
<th>The direct effect of the dynamic price paid on the DV</th>
<th>Effect of the dynamic price paid on distributive fairness</th>
<th>Conditional indirect effect of the dynamic price paid on the DV through distributive fairness (mediator)</th>
<th>Effect of distributive fairness on the DV controlling for pricing authority</th>
<th>Conditional indirect effect of distributive fairness on the DV (CI95</th>
<th>Index of moderated mediation (difference between 2 indirect effects through pricing authority)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.002</td>
<td>−0.013***</td>
<td>0.004</td>
<td>0.204***</td>
<td>−0.0026*</td>
<td>0.0027*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(−0.006, 0.010)</td>
<td>(−0.019, −0.007)</td>
<td>(0.057, 0.351)</td>
<td>[−0.0055, −0.0002]</td>
<td>[0.0096, 0.0055]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pricing authority (1 − employee)</td>
<td>0.415***</td>
<td>−0.0054***</td>
<td>−0.0006</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0 − company)</td>
<td></td>
<td></td>
<td>[0.277, 0.552]</td>
<td>[−0.0085, −0.0027]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 2</td>
<td>Repurchase intentions for the service employee (DV)</td>
<td>−0.004</td>
<td>−0.013***</td>
<td>0.084***</td>
<td>−0.0050***</td>
<td>−0.0026*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(−0.011, 0.003)</td>
<td>(−0.019, −0.007)</td>
<td>(0.246, 0.521)</td>
<td>[−0.0082, −0.0023]</td>
<td>[−0.0051, −0.0006]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pricing authority (1 − employee)</td>
<td>0.184*</td>
<td>−0.0024*</td>
<td>−0.0003</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0 − company)</td>
<td></td>
<td></td>
<td>[0.055, 0.313]</td>
<td>[−0.0050, 0.0003]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 3</td>
<td>Tipping decision (yes vs. no) (DV)</td>
<td>−0.017*</td>
<td>−0.013***</td>
<td>0.330*</td>
<td>−0.0043</td>
<td>−0.0038*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(−0.031, −0.004)</td>
<td>(−0.019, −0.007)</td>
<td>(0.061, 0.599)</td>
<td>[−0.0094, −0.0006]</td>
<td>[−0.0090, −0.0001]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pricing authority (1 − employee)</td>
<td>0.033</td>
<td>−0.0004</td>
<td>−0.0004</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0 − company)</td>
<td></td>
<td></td>
<td>[−0.210, 0.275]</td>
<td>[−0.0038, 0.0028]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 4</td>
<td>Tipping amount (if customer tipped) (DV)</td>
<td>−0.009*</td>
<td>−0.012**</td>
<td>0.297***</td>
<td>−0.0034*</td>
<td>−0.0022*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(−0.015, −0.002)</td>
<td>(−0.019, −0.004)</td>
<td>(0.166, 0.428)</td>
<td>[−0.0066, −0.0010]</td>
<td>[−0.0051, −0.0002]</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pricing authority (1 − employee)</td>
<td>0.106</td>
<td>−0.0012</td>
<td>−0.0012</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0 − company)</td>
<td></td>
<td></td>
<td>[−0.006, 0.219]</td>
<td>[−0.0031, 0.0001]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: * p < .05; ** p < .01; *** p < .001. The 95% confidence intervals [] for the index of moderated mediation are based on 10,000 bootstrap samples.

respective logistic regression of customers’ decision to tip. We find evidence for both a direct effect of dynamic price paid on customers’ decision to tip (b = − 0.017, SE = 0.007, p < .05) and for an indirect effect that is moderated as the index of moderated mediation is significant (b = − 0.0038, SE = 0.002, CI95 [−0.0090, −0.0001]; without control variables: b = − 0.0083, SE = 0.004, CI95 [−0.0176, −0.0013]). When the service employee has the pricing authority, the conditional indirect effect of the dynamic price paid on customers’ tipping decision via distributive fairness is negative (b = − 0.0043, SE = 0.002, CI95 [−0.0094, −0.0006]). However, when the company has pricing authority, the conditional indirect effect is insignificant (b = − 0.0004, SE = 0.002, CI95 [−0.0038, 0.0028]) (in line with H3a).

Panel C of Fig. 2 shows that at low levels of distributive fairness (below 3.89 on the 7-point Likert scale), pricing authority significantly affects the tipping decision; i.e., if high dynamic prices are set by the service employee, the service employee is significantly less likely to be tipped as compared to the situation where the company sets high dynamic (unfair) prices. However, the pricing authority does not influence customers’ tipping decisions when distributive fairness is above the threshold.

Tipping amount. Model 4 (in Table 3) contains the regression results of the customers’ tipping amount. Again, we find evidence for both a direct effect of dynamic price paid on customers’ tipping amount (b = − 0.009, SE = 0.003, p < .05) and for an indirect effect via distributive fairness moderated by pricing authority as the index of moderated mediation is significant (b = − 0.0022, SE = 0.001, CI95 [−0.0051, −0.0002]; without control variables: b = − 0.0031, SE = 0.002, CI95 [−0.0071, −0.0020]). When the service employee has the pricing authority, the conditional indirect effect of the dynamic price paid on customers’ tipping amount via distributive fairness is negative (b = − 0.0034, SE = 0.001, CI95 [−0.0066, −0.0010]), whereas when the company has the pricing authority, the conditional indirect effect is insignificant (b = − 0.0012, SE = 0.001, CI95 [−0.0031, 0.0001]) (in line with H3b).

Panel D of Fig. 2 illustrates that at low levels of distributive fairness (below 3.89 on the 7-point Likert scale), pricing authority significantly affects the tipping amount; i.e., high (unfair) dynamic prices set by the employee harm tipping levels much more as compared to the situation when the same high dynamic prices are determined by the company. However, when distributive fairness is higher than 3.89, we do not find an effect of the pricing authority.

Control variables. The control variables included procedural fairness, (expected) interactional fairness, and customers’ internal and external attributes of the dynamic price paid (i.e., locus of causality; salon/hair stylist vs. customer). We find that procedural fairness is positively related to distributive fairness and repurchase intentions for company and service employees, whereas (expected) interactional fairness is positively related to repurchase intentions for company and service employees and customers’ decision to tip. We find no evidence that an external attribution of the dynamic price paid is related to our mediator
or one of our dependent variables. Nevertheless, an internal attribution of the dynamic price paid positively relates to distributive fairness and repurchase intentions for the service employees (cf. Tables 2 and 3).

**Effect sizes:** Table 4 shows the direct effects of the dynamic price paid on the corresponding dependent variables across our four models (Models 1–4), the effect of the dynamic price paid on distributive fairness, and the conditional indirect effects of the dynamic price paid on the corresponding dependent variables (Models 1–4) through distributive fairness (i.e., mediator) controlling for pricing authority (i.e., moderator). In brackets, we list the corresponding 95% confidence intervals. Table 4 shows a significant index of moderated mediation for both models of repurchase intention and the models capturing tipping behavior.

### 5.3. Discussion of the main analyses

The results of our main analyses provide supporting evidence for our study hypotheses. First, we link the dynamic price paid to a customer’s repurchase intentions for the company and the service employee. We show that both effects are mediated by distributive fairness perceptions of a transaction (H1a and H1b). Second, when pricing authority is with the company, we show that high distributive fairness increases the repurchase intentions for the company more than when the same prices are set by the employee (H2a). Third, when pricing authority is with the service employee, we show that low distributive fairness decreases repurchase intentions for the service employee more than when the same prices were set by the company (H2b). Fourth, we provide empirical evidence for the moderating effect of pricing authority on the link between distributive fairness and tipping behavior (intentions and amount (H3a and H3b)).

We conclude that customers punish service employees who set high dynamic prices more strongly (repurchase and tip intentions) than when the company sets the same prices. In contrast, customers react more positively (repurchase intentions) when the company sets low dynamic prices than when employees set the same prices. This is in line with the study by Yang and Aggarwal (2019), who show that customers expect more communal behavior from smaller companies than from larger companies. Our finding that the company is rewarded at higher levels of distributive fairness expands this line of research as companies might exceed expectations when distributive fairness is high.

Our results further show that procedural fairness is positively related to distributive fairness and repurchase intentions and that (expected) interactional fairness is positively related to repurchase intentions and the decision to tip a service employee.

### 5.4. Survey among salon owners and managers

We conducted a second exploratory study among hairstylists – focusing mainly on salon owners and managers, to compare their intuition about implementing dynamic pricing, i.e., at the company or service employee level.

To reach our target group, we performed a survey via the newsletters of two central employer associations of hairstylists in Germany and Austria. As an incentive for participation, survey participants were able to enter a raffle (three vouchers per country, each worth 50€) from a European fashion retailer. One hundred and four respondents completed the survey (65.4% female, 32.7% male, M_age = 46.0 years). Among the 104 respondents, 82 identified themselves as salon owners, 3 as salon managers, 2 as employed hairstylists, and 17 as freelancers.

We asked respondents whether they had ever thought about introducing dynamic pricing, whether they would implement dynamic pricing at the company or service employee level, and about their business objectives. We provide a summary of the questions and responses in Table 5. We find that, although respondents would like to boost their employees’ capacity utilization (M = 5.51, SD = 1.65) and provide them with more responsibilities (M = 5.21, SD = 1.61), respondents would rather implement dynamic pricing on a salon (M = 3.00, SD = 2.05) than on service employee level (M = 1.65, SD = 1.32) (t(103) = −5.84, p < .001). The results show that salon owners and hairstylists are rather skeptical of dynamic pricing. However, in line with the results of our consumer experiment, they would rather implement dynamic pricing on the company instead of the service employee level. Thus, while the experiment provides insights into the processes that influence customer reactions to the introduction of dynamic pricing, this additional survey among salon owners and managers confirms our general observation that dynamic pricing is implemented at a firm rather than at the employee level.

### 6. General discussion

#### 6.1. Summary

Dynamic pricing offers companies the opportunity to align demand and supply by changing prices over time. If successfully implemented, companies strategically increase prices during peak times and decrease prices during off-peak times, potentially improving capacity utilization and maximizing revenues. However, transitioning from fixed to dynamic prices is a risky endeavor. Even though dynamic prices can be lower than fixed prices, customers might still react adversely, as they cannot always obtain the lowest price. Therefore, we investigate the influence of a regime change from fixed to dynamic prices on customers’ behavioral responses, including repurchase intentions and tipping behavior (RQ 1).

To do so, we choose the beauty service industry as a novel context that allows us to study the transition from fixed to dynamic prices. The beauty service industry provides a particularly interesting context, as quality (i.e., experience) depends on the service employee, and prices could be as well. Therefore, companies might consider granting pricing authority to their service employees instead of following the current...
industry practice of keeping pricing authority at the company level (e.g., Uber, Airbnb). However, it is a priori unclear whether companies should delegate pricing authority to their service-providing employees or whether they are better advised to keep pricing authority at the central corporate level (RQ 2).

We conducted two exploratory surveys among hairstylists and salon owners and an online experiment among customers to investigate our research questions. We find that the dynamic price paid influences distributive fairness, which in turn influences customers’ behavioral responses, such as repurchase intentions (for service employees and companies). We identify pricing authority as a second-stage moderator. Shifting pricing authority to the service employee harms (i) repurchase intentions for the service employee, (ii) tipping decisions, and (iii) tipping amount when customers perceive the dynamic price they have to pay as unfair (i.e., low distributive fairness). In contrast, when customers perceive the dynamic price, they have to pay as fair (i.e., high distributive fairness); keeping pricing authority at the company level positively impacts repurchase intentions for the company.

6.2. Theoretical contribution

Our study provides several theoretical contributions. First, as suggested by previous studies (Kimes and Wirtz, 2003; Palmatier, Scheer, and Steenkamp, 2007; Xia, Monroe, and Cox, 2004), we investigated the influence of personal relationships on customers’ responses to dynamic pricing by focusing on pricing authority. We offer a new perspective that is particularly relevant in service industries characterized by close interactions and a trust-based relationship between service employees and customers (Berry, 1995; Palmatier et al., 2006). Second, in line with the attribution theory (Weiner, 1985), our study illustrates that customers attribute the dynamic price paid to the entity holding the pricing authority and therefore direct their reactions (i.e., penalty or reward) toward the entity holding the pricing authority (cf. Xia, Monroe, and Cox, 2004). Third, we extend the study of Yang and Aggarwal (2019) on company size and communal behavior. Service employees usually possess little power, which is why customers expect communal behavior from them. This is in line with our observation that customers might penalize service employees via lower repurchase intentions and tipping behavior. We further extend this line of reasoning (Yang and Aggarwal, 2019) with our observation that customers even reward companies for unexpectedly positive behavior. Fourth, our study adds to a better understanding of the different fairness dimensions and highlights the vital role of distributive fairness (Mayer and von Wangenheim, 2013; Seiders and Berry, 1998). Particularly, we shed light on the link between the dynamic price paid, distributive fairness, and customers’ behavioral responses (repurchase intentions and tipping behavior), and control for the influence of procedural fairness and (expected) interactional fairness.

6.3. Managerial contribution

The current study provides actionable insights for marketing managers who consider transitioning from fixed to dynamic prices. Our findings emphasize the importance of perceived distributive fairness in driving customers’ behavioral responses to dynamic prices and show that customers’ internal (self) attribution of the dynamic price paid is positively related to distributive fairness. Companies have the opportunity to emphasize customers’ roles in the pricing process. For example, highlighting that customers can search for alternative appointments or suggest alternatives with lower prices could trigger an internal attribution of the dynamic price paid to the self, which alleviates potential adverse consequences. An alternative avenue for companies to promote distributive fairness could be implementing dynamic price cuts instead of dynamic prices. Treatwell – Europe’s largest online booking platform for beauty and hair salons – exemplifies this strategy as it provides its business customers with the opportunity to implement off-peak pricing and last-minute discounts (Treatwell, 2020).

Our findings provide evidence for the current industry practice of implementing dynamic pricing at the corporate level rather than at the service employee level, especially in service industries characterized by close interactions between service employees and customers (cf. Berry, 1995; Iacobucci and Ostrom, 1996). This stylized fact requires explanation since service employees could leverage their unique business insights and increase their flexibility with the respective pricing power. We find that shifting the pricing authority visibly to the service employees can be harmful. Many customers have a trusting relationship with their hairstylists, which might get affected when dynamic prices are introduced and customers are not flexible. Our results have shown that service employees fear lower repurchase intentions when distributive fairness is low and that they lose part of their income as customers are less willing to tip. Consequently, as dynamic pricing results in the punishment of service employees when customers do not perceive the dynamic price paid as fair, service employees should not put customers’ trust (cf. Garbarino and Lee, 2003) and the relationship with their customers (cf. Palmatier, Scheer, and Steenkamp, 2007) at risk by visibly taking on the pricing authority.

Our findings of the two exploratory surveys among hairstylists further support this view, as we found hairstylists to be very skeptical toward the introduction of dynamic prices. However, with repurchase intentions for the company, it does not matter who holds the pricing authority at low levels of distributive fairness, whereas companies are rewarded at high levels of distributive fairness.

6.4. Limitations and outlook for future research

This study used a scenario experiment to explore customers’ behavioral reactions when companies transition from fixed to dynamic pricing. We chose a setting in which respondents saw several available prices but had time constraints. Respondents could only choose one of the available appointments at its dynamic price. We did this to prevent respondents from using price as a knockout criterion in their decision-making. In real life, customers would face a trade-off between the appointment and the dynamic price paid (e.g., better date/time, worse price, and vice-versa). Therefore, we encourage future studies to focus more strongly on this trade-off to increase realism further. The specific choice set of prices when transitioning to dynamic prices can also be explored in future studies. The set of prices influences distributive fairness perceptions and repurchase intentions and can impact customers’ current and future price search activities (Yuan and Han, 2011). Additionally, we discussed who holds the pricing authority as part of our experiment. In practice, a company’s communication strategy might be subtler; customers thus make their inferences based on their perception of a situation. Future studies should consider this finding.

Our booking scenario makes price differences fully transparent, hence, may specifically trigger distributive fairness perceptions. These perceptions may be different in other settings, such as booking a hotel room, where customers might not be aware of paying a higher price for the same room than other customers. For instance, Abrate, Nicolau, and Viglia (2019) show that additional revenues generated by increasing price variation (and limiting availability before demand is known) dominate adverse revenue effects owing to lower fairness perceptions. However, too high prices (or price ranges) may also jeopardize revenues in the long term, as higher prices lead to higher service quality expectations (resulting in disconfirmation). Recent studies by Abrate, Quinton, and Pera (2021) show that increasing prices paid for the same hotel room leads to a decrease of review ratings in terms of value for money and perceived quality. Consequently, lower ratings could negatively affect future bookings. Booking platforms such as booking.com or hotel websites are less transparent in selling the same hotel room at different prices. Therefore, future studies should compare revenue, review, and perceived fairness effects as price comparison sites increase the transparency of dynamic prices such as in our app setting, or when additional
social network information may trigger fairness perceptions (Ajorlou, Jadhabaie, and Khakhbad, 2016), especially in situations of conspicuous consumption (Rao and Schaefer, 2013). Furthermore, it would be interesting to learn whether fairness outcomes change when firms flexibly adapt their prices based on personal preferences (Ban and Keskin, 2021) or service (item) specific information (Huang, Luo, and Xia, 2019).

We treated repurchase intentions for service employees and companies as two independent constructs in our analyses. However, customers who no longer visit a hair salon no longer visit the hairstylist. Therefore, future studies could incorporate this nested structure into the design of the experimental questionnaire and analyses.

Based on the insights from our initial exploratory surveys among hairstylists, we chose to focus on loyal (returning) female customers. However, future studies should include new, less loyal, and male customers. We assume that less-loyal customers try to take advantage of potentially cheaper prices or switch salons quickly when unsatisfied. Similarly, new customers should react more positively to dynamic prices as they lack past price knowledge.

**CRediT authorship contribution statement**

Julia Wamsler: Data curation, Conceptualization, Formal analysis, Investigation, Writing – original draft, Methodology. Martin Natter: Writing – review & editing, Methodology, Conceptualization. René Algesheimer: Conceptualization, Formal analysis, Methodology, Writing – review & editing.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Survey items</th>
<th>Scale</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Distributive fairness</strong> (dynamic price paid)</td>
<td>The price I have to pay for a “wash, cut, and blow dry” service is fair. The price I have to pay for a “wash, cut, and blow dry” service is reasonable. (Xia and Monroe, 2004)</td>
<td>1 = Strongly disagree – 7 = Strongly agree</td>
<td>0.95</td>
</tr>
<tr>
<td><strong>Repurchase intentions</strong> company</td>
<td>I would arrange my next hairdressing appointment again at Cut, shine &amp; go [the company]. (Roggeveen, Tsiron, and Grewal, 2012; Zeithaml, Berry, and Parasuraman, 1996)</td>
<td>1 = Strongly disagree – 7 = Strongly agree</td>
<td>–</td>
</tr>
<tr>
<td><strong>Repurchase intentions</strong> service employee</td>
<td>I would arrange my next hairdressing appointment again with Sandra [name of the service employee]. (Roggeveen, Tsiron and Grewal, 2012; Zeithaml, Berry, and Parasuraman, 1996)</td>
<td>1 = Strongly disagree – 7 = Strongly agree</td>
<td>–</td>
</tr>
<tr>
<td><strong>Tipping decision</strong></td>
<td>Would you like to tip?</td>
<td>Yes or no</td>
<td>–</td>
</tr>
<tr>
<td><strong>Tipping amount</strong></td>
<td>How much would you tip compared to your last visit to the hairdresser?</td>
<td>1 = Less than at the last visit to the hairdresser – 7 = More than at the last visit to the hairdresser</td>
<td>–</td>
</tr>
<tr>
<td><strong>Procedural fairness</strong></td>
<td>The new pricing process is fair. The new pricing process is reasonable.</td>
<td>1 = Strongly disagree – 7 = Strongly agree</td>
<td>0.94</td>
</tr>
<tr>
<td>(Expected) interactional fairness</td>
<td>I think I will be treated politely during my hairdressing appointment.</td>
<td>1 = Strongly disagree – 7 = Strongly agree</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td>I think I will be treated respectfully during my hairdressing appointment.</td>
<td>(Colquitt, 2003)</td>
<td>–</td>
</tr>
<tr>
<td><strong>Attribution of the dynamic price paid</strong></td>
<td>How would you explain the price you have to pay for a “wash, cut, and blow dry” service? By reasons beyond my control. (external) By reasons I can influence. (internal) By the decision of my hairstylist Sandra [name of the service employee]. (manipulation check) By the decision of Cut, shine &amp; go [the company]. (manipulation check)</td>
<td>1 = Strongly disagree – 7 = Strongly agree</td>
<td>–</td>
</tr>
<tr>
<td><strong>Profit entitlement</strong></td>
<td>My hairstylist, Sandra [name of the service employee], is entitled to make a profit. Cut, shine &amp; go [the company] is entitled to make a profit. (manipulation check)</td>
<td>1 = Strongly disagree – 7 = Strongly agree</td>
<td>–</td>
</tr>
</tbody>
</table>

**Declaration of Competing Interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

**Acknowledgement**

We want to thank Stephan Brunner and Benno Burkhardt from A- BEAUTY for their insights into the Swiss hair and beauty industry and the Central Association of German Hairdressers (Zentralverband des Deutschen Friseurhandwerks) as well as the Austrian Federal Guild of Hairdressers (Bundessinnung der Friseure, Wirtschaftskammer Österreich) for their help in distributing our survey among hairstylists and salon owners. We are grateful to the anonymous reviewers and the guest editors for their useful comments and suggestions.

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**Appendix**

See Table A1.


Julia Wamsler received her PhD from the Department of Business Administration at the University of Zurich. In her thesis, she investigated digitally enabled pricing and promotion strategies across a variety of industries. The submitted paper is part of her dissertation project.

Martin Natter is Professor of Marketing at the University of Zurich at the Department of Business Administration. Pricing is his favorite marketing instrument. In his research, he investigates new pricing mechanisms, dynamic pricing, and especially participative pricing methods. His research has been published in Management Science, Marketing Science, Psychology & Marketing, Journal of Business Research, Journal of Retailing, International Journal of Research in Marketing (IJRM), and Journal of Marketing, among others. He is furthermore part of the review board of IJRM and a member of the Marketing Group Zurich.

Rene Algesheimer has been the Chair of Marketing and Market Research at the University of Zurich since 2009, director of the University Research Priority Program on Social Networks since 2013, and founder of The PiLK since 2016. His research interests lie in studying human values, consumer well-being and social (influence) processes for a sustainable living. He has conducted extensive basic and applied research on the consequences of (virtual) communities, social networks, social media and technology on companies and customers. Rene Algesheimer has published several articles on marketing-related issues in the discipline's leading international journals, including PNAS, Scientific Reports, Marketing Science, Network Science, Journal of Marketing Research, Journal of Marketing, Journal of Service Research, Public Opinion Quarterly or Harvard Business Review.