# Reputation, Contract Renegotiation and Price Rigidity 

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#### Abstract

This paper shows that reputation concerns can explain the reluctance of sellers to initiate contract renegotiation, which can lead to price stickiness and breakdown of ex-post efficient trade. Using a novel audit methodology, we find that small businesses in India do not charge higher prices when faced with cost shocks or increases in bargaining power. Instead they either fill the order without a price increase or forgo it altogether. However, when customers offer higher prices, sellers are significantly more likely to accept the order. The reluctance to renegotiate increases with prior interactions and when reputation costs are more important.


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## 1. Introduction

A large literature in economics suggests that prices and contract terms are often remarkably sticky, even when producers face significant shocks to their costs. These apparent price rigidities can have implications for allocative efficiency and aggregate welfare as proposed in Neo Keynesian Models (see, for example, Weiss, 1993; Blinder et al., 1998). Understanding the micro-economic drivers of price adjustment, or the lack thereof, is important in formulating equilibrium models of price rigidities. Some of the most notable rationales for price stickiness that have been proposed are menu costs, the fixed costs of posting new prices (see Mankiw, 1985), long term contracts between buyers and sellers (see Carlton, 1987 or Barro, 1977) or imperfect competition or search costs (see Blanchard and Kiyotaki, 1987 or Blanchard and Gali, 2006).

In this paper we propose a complementary channel to explain price stickiness, which relies on the reputational concerns of firms. If some dimension of the quality of goods or services that a seller provides is unobservable, a seller might signal her superior quality by keeping prices low, even in the face of a price shock or increase in bargaining power. The key idea is that a high-quality seller places more weight on the continuation value of her customer relationships. In contrast, a lower quality seller is more interested in extracting rents in the short term since there is a lower likelihood of repeat transactions once the buyer is able to observe the quality of the delivered goods or services. This can lead to price stickiness in equilibrium if firms fear that buyers perceive any price change as a sign that the seller is of low quality and trying to extract short term rents. ${ }^{1}$

[^1]Despite the importance of understanding the reasons for the observed price rigidity, there is little empirical evidence on whether reputation concerns affect the behavior of sellers when renegotiating contracts in a real-world setting. This paper aims to contribute to this debate in two ways. First, we provide empirical evidence on the relevance of reputation concerns as a source of contract rigidity. Secondly, we develop a theoretical framework to understand the properties of economic environments to which this channel applies. Examining whether the main assumptions hold in each specific context allows us to better assess the external validity of the results.

We conducted an audit study with tailoring stores in Chennai, a city in Southern India, to analyze if sellers feel constrained in their ability to renegotiate prices due to reputation concerns and rather allow breakdown of ex post efficient trade. We sent trained auditors acting as customers to place orders for a garment to be tailored. To induce a situation where there is an increased likelihood of renegotiation by the seller, we varied the visits across three dimensions: (1) the bargaining power of and potential cost to the tailor, (2) the direction of who initiates the renegotiation, and (3) the level of reputational concerns faced by the tailor. To vary the bargaining power and the costs to the tailor (dimension 1) we introduced urgency for the buyer: When placing the tailoring order, auditors either conveyed upfront an urgent need for the garment to be stitched within one day (upfront urgency) ${ }^{2}$, or, alternatively, the auditor initially placed a normal order but then returned to the store the same day to ask for expedited stitching within one day due to an unforeseen emergency (in-between urgency). ${ }^{3}$

[^2]Introducing urgency affects the tailors in two ways. First, the costs to meet the urgency (both upfront and in-between) might be higher, as tailors might have to rearrange their schedules or have their employees work overtime to fill the request. Second, in the treatment with in-between urgency, the bargaining power of the tailor is higher because she has the cloth for the order and could refuse to return it (claiming that it has already been cut). ${ }^{4}$ One would expect that tailors, on average, would be more likely to increase the price when faced with the in-between urgency as compared to an upfront urgency. However, if tailors are concerned that renegotiating the price could hurt their reputation, since the customer may not be able to see the additional costs the tailor may have to incur to fulfill the order, they may rather forgo the transaction than ask for a higher price.

Due to the nature of the experimental setup, the shock to the contract here is induced by the shopper. But the same logic extends to a situation with systematic shocks to input costs but where buyers have some uncertainty about the cost structure of the sellers. Here our model would predict that price stickiness arises if sellers want to signal their long-term focus by not responding to short-term price fluctuations.

We find that when faced with an in-between urgency, tailors, on average, did not initiate a renegotiation and instead either agreed to fill the urgent order with no price increase (in $46 \%$ of the cases), or told the auditor that they could not complete the order and returned the cloth (in $50 \%$ of the cases). Tailors have an option in the in-between urgency case to say that the cloth has already been cut, which would allow them to keep the order without any change. But we find that very few tailors exercised this option (only in around $4 \%$ of the cases). As a result, tailors, on average, charged the same price

[^3]for in-between urgency as compared to upfront urgency. We also do not find any significant difference in the acceptance rate across in-between urgency cases and upfront urgency cases. ${ }^{5}$ Thus, tailors in general accepted the urgent order without any price increase or refused it altogether. ${ }^{6}$

A concern could be that the reluctance of tailors to initiate a renegotiation is due to tight capacity constraints (i.e., high outside reservation values). To examine this, we add a second treatment arm: If the tailor refused to meet the urgency, the auditor initiated the renegotiation by offering the tailor twice the original price for filling the urgent order. If, indeed, tight capacity constraints were driving the results, the higher price proposed by the auditor should not matter. However, we find that a significantly larger fraction of tailors were willing to fill the urgent order if the auditor offers more money. Of the $54 \%$ of tailors that initially refused to fill the request, $25 \%$ were subsequently willing to do the job. The impact of the auditor offering extra money was equally as high for upfront urgency as for in-between urgency. Interestingly, even in the case where tailors agreed to do the work for additional money, they usually did not accept the entire $100 \%$ price increase but, on average, suggested that they need only $40 \%$ more.

We also find that offering extra money only increased acceptance for tailors who were not very capacity constrained. Thus, for tailors who are not extremely constrained, the results suggest that unless a customer initiates a renegotiation, there is a breakdown of

[^4]trade. These results are consistent with the theories of reputational concerns suggesting that tailors forgo mutually beneficial trade for fear of being seen as taking advantage of their customers. This interpretation is also supported by anecdotal evidence gathered during the visits. For instance, in one of the visits, the tailor told the auditor "if I ask an extra amount my name will get spoiled". ${ }^{7}$ Note that the channel of reputation concerns could be partly attributed to fairness norms as one could imagine that these norms evolve as a way to mitigate opportunistic behavior and facilitate trade (Nowak et al., 2000). ${ }^{8}$

To further examine the importance of reputation concerns for the tailor's behavior, we included out-of-state auditors who clearly stated that they were only in town for a one-time event. The reputational effects should be smaller for these out-of-state customers as they are less likely to interact with the tailor again in the future and have limited social networks within the city. ${ }^{9}$ In this (third) treatment, we find that tailors were more likely to initiate a renegotiation in the in-between urgency case for out-of-state auditors compared to local auditors. We also find that tailors were more likely to renege on the delivery of the urgent order that they had initially accepted for out-of-state auditors.

Finally, we analyze the impact of repeat interactions between the tailor and the auditor. The idea is to test whether, in situations where the tailor has a higher (perceived) continuation value, they are less likely to initiate a price renegotiation. We sent auditors who first complete a normal order and then return for a second visit to place an order

[^5]with in-between urgency. We find that during the repeat visits, tailors were significantly less likely to initiate renegotiation and more likely to fill the urgent request without charging additional money.

An important question that arises is whether the breakdown of trade is inefficient. One could imagine, that the cost of finding another tailor is very low and thus it could be efficient to never renegotiate. A second concern might be that tailors do not initiate a renegotiation since the market equilibrium is such that customers with a real urgency know that they have to offer more money (signaling equilibrium), and thus there might not be a distortion from the first best. Alternatively, tailors could be reluctant to initiate a renegotiation if they think their offer is unlikely to be accepted, as the reservation value of customers for urgent orders is low (Myerson and Sattherthwaite, 1983; Keniston, 2011). ${ }^{10}$ To examine these explanations we conducted a test of the supply side by partnering with a number of tailors who helped us audit actual customer visits. The evidence from these tests does not lend support to the alternative explanations since the cost of finding a new tailor is very high and buyers never initiated a higher price even if they have a true urgency.

To understand, the generalizability of the results, we formalize the idea that reputation concerns lead to contract rigidity using a simple dynamic model. The model features competitive sellers interacting repeatedly with buyers. Some sellers (likely most) are patient, but some are myopic and only care about short-term profits. In equilibrium, patient sellers endogenously provide higher-quality services to their customers than

[^6]impatient sellers in order to get buyers to come back in the future. Since the long run quality of the service is difficult to observe upfront, it is in the interest of patient sellers to signal this information to buyers. ${ }^{11}$ By not taking advantage of the buyer when she could, the patient seller might signal that she is in the location for the long run or that her service is so pleasant the buyer will always want to come back. We show that these incentives imply that patient sellers do not take advantage of buyers who offer an extra payment when requesting an adjustment (e.g., urgent delivery). Instead, they fulfill the request for free if it is not too costly, and forgo the order otherwise. The model suggests that our results may extend beyond the tailoring industry in Chennai to other markets of monopolistic competition in which product quality is difficult to observe and determined by sellers with long-run horizons who can also keep track of individual buyers over time. For example, services industries populated by small businesses are likely to satisfy these conditions.

In sum, the results suggest that reputational concerns can have a first order effect on renegotiations and are an important source of contract rigidity. Thus, reputational concerns could be an important source of price stickiness that is observed in the data, especially for service industries (Bils and Klenow, 2004). The results also point to higher prevalence of contract rigidities when reputational mechanisms play an important role in contracting. For instance, in developing countries where contracts are often incomplete

[^7]either due to weak enforcement or large transaction costs of litigation relative to the size of small business transactions. ${ }^{12}$

The rest of the paper is structured as follows. Section 2 discusses the related literature. Section 3 develops a theoretical framework linking the seller's reputational concerns to contract rigidity. Section 4 discusses the empirical setup. Section 5 describes the methodology of randomization. Section 6 describes the data. Section 7 presents the empirical results. Section 8 uses the model to discuss the external validity of the results. Section 9 concludes.

## 2. Related Literature

Our paper contributes to several strands of the literature on incomplete contracting (Hart and Moore, 1988; Tirole, 1986; Aghion et al., 1994; Williamson, 1985). By examining the renegotiation process and outcomes, we highlight the frictions that arise during renegotiation. This is the first field experiment to show that there is a breakdown in ex post trade due to inefficiencies in the renegotiation process. Our analysis supports several recent theories that highlight the ex post inefficiencies in renegotiation (Fehr and Schmidt, 1999; Hart and Moore, 2008; Hart, 2009; Herweg and Schmidt, 2012). On the empirical side, we relate to the literature on the role of reputation and norms for contracting (Crocker and Reynolds, 1993; Banerjee and Duflo, 2000; McMillan and Woodruff, 1999; List, 2006; Macchiavello and Morjaria, 2014).

[^8]We also add to the literature that examines the importance of fairness norms in price-setting behavior by firms (Okun, 1981; Kahneman et al., 1986; Fehr and Schmidt, 1999; Rottenberg, 2005). These papers suggest that fairness considerations by individuals in a marketplace can lead to the reluctance of firms to adjust prices, which in turn could lead to frictions in market clearing. ${ }^{13}$ Given the findings that sellers are reluctant to initiate a renegotiation, especially in case of repeat clients, the results are not consistent with the presence of a blanket norm that sellers never renegotiate. However, the results are consistent with the idea that sellers may be concerned about violation of fairness norms, which in turn has reputational effects.

We also contribute to a growing experimental literature that studies contracting and bargaining in laboratory settings (see, for example, Fehr, Hart, and Zehnder, 2009 and 2011; Hoppe and Schmitz, 2011; Bartling and Schmidt, 2013). In particular, Bartling and Schmidt (2013) are close in spirit to our paper since both papers document that a majority of contracting parties are reluctant to initiate a price renegotiation. Our results suggest that these frictions documented in laboratory settings have first order effects in real contracting situations. ${ }^{14}$

Finally, our model is related to Allen (1984) who shows that competitive firms can charge above their marginal cost if price reduction destroys a firm's incentives to produce high-quality goods. Our equilibrium also has this property, but our central focus is on how sellers' reputation-building incentives affect their response to buyers' preference shocks.

[^9]
## 3. Theoretical Framework

We start by providing a reputation-based model that formalizes how reputation concerns of sellers lead to contract rigidity. It will be helpful in guiding the discussion of empirical findings and assessing the external validity of the results.

The market consists of a measure $[0,1]$ of competing sellers and a measure $[0,1]^{2}$ of buyers interacting repeatedly. Each seller $i$ is patient $\left(\theta_{i}=H\right)$ with probability $q$ and impatient $\left(\theta_{i}=L\right)$ with probability $1-q$. The rate of time preference of the patient and impatient seller is $\beta \in(0,1)$ and 0 , respectively. That is, an impatient seller only values current profits, whereas a patient seller values both current profits and future interactions with the buyer.

At the beginning of each period, each seller decides on the price, $p_{i}$, she quotes to sell the product to potential buyers. ${ }^{15}$ Given the set of prices $\left\{p_{i}, i \in[0,1]\right\}$ quoted by the sellers, each buyer decides which seller to go to (if any). After the buyer transacts with the seller but before the delivery of the product, she incurs a hidden effort cost $e_{i} \in$ $\{0, e\}$. If the seller "works" $\left(e_{i}=e\right)$, she delivers a high-quality product with probability one. If the seller "shirks" $\left(e_{i}=0\right)$, she delivers a high-quality product with probability $\lambda \in(0,1)$. The buyer gets utility $u_{H}$ (zero) from consuming a high-quality (low-quality) product. Product quality is privately observed by the buyer upon consumption. At the end of the period, each buyer leaves the market with probability $1-\alpha \in(0,1)$, in which case she gets replaced by a new buyer. ${ }^{16}$ The last piece of the setup is the possibility of unexpected preference shocks. Specifically, after the buyer and the seller transact but

[^10]prior to the moral hazard stage, the buyer gets an urgency shock with probability $\delta \in$ $(0,1)$. In this case, she needs the seller to fulfill an urgent request, which costs the seller $c \in\left(0, \lambda u_{H}\right)$. If the seller fulfills the request, the buyer gets a payoff of $u \in\left\{0, u_{H}\right\} .{ }^{17}$ Otherwise, the buyer gets zero. The buyer without the urgency shock does not value urgency. After the buyer expresses an urgent request, the seller takes one of three actions. First, she can accommodate the urgent request for free, in which case the original price $p_{i}$ is paid. Second, she can make a take-it-or-leave-it offer to the buyer, asking for a higher price of $p_{i}^{\prime}>p_{i}$ of the seller's choice. Finally, the seller can forgo the transaction entirely. We assume that the seller is a monopolist at this stage: Because of the urgency shock, the buyer has no time to search for another seller.

We look for equilibria in which all sellers quote the same price $p$. Because of our focus on reputation, we are interested in equilibria in which patient sellers incur effort. ${ }^{18}$ We also impose a belief restriction that if a seller asks the buyer with an urgent request for a higher price $p_{i}^{\prime}$, the buyer updates her belief the same way regardless of price $p_{i}^{\prime}>$ $p_{i}$. In what follows, we refer to equilibria with these properties as equilibria. To have interesting equilibrium properties, we impose a parametric restriction that $u_{H} \in(\underline{u}, \bar{u})$, where $\underline{u}$ and $\bar{u}$ are defined in the appendix. It implies that a buyer with an urgency shock prefers to buy the product from an impatient seller instead of forgoing the transaction and that a patient seller's potential payoff from a current transaction is not too big relative to the value of reputation.

### 3.1. Model without Urgency Shocks

[^11]To get a better feeling of the mechanics of the model, consider first the benchmark case in which there are no urgency shocks, $\delta=0$ :

Proposition 1. There is an equilibrium in which all sellers quote the same price $p^{*}=e \frac{1-\lambda \beta \alpha}{\beta \alpha-\lambda \beta \alpha}$ every period. A patient seller incurs effort. An impatient seller does not incur effort. If the buyer gets a low-quality product, she switches to a randomly-drawn new seller next period. If the buyer gets a high-quality product, she goes to the same seller next period. ${ }^{19}$

Intuitively, since an impatient seller does not value future interactions, she will not incur effort. In contrast, a patient seller incurs effort if she expects to get sufficient future rents. The equilibrium price $p^{*}$ is just high enough to give these incentives. Since in equilibrium only patient sellers incur effort, a buyer prefers to match with a patient seller, and thus leaves a seller if she gets a low-quality product.

### 3.2. Model with Urgency Shocks

Next, suppose that each buyer gets an urgency shock with probability $\delta>0$. We construct an equilibrium in which patient sellers never charge extra from buyers for the fear of being perceived impatient:

Proposition 2. There is an equilibrium in which all sellers quote the same price $p^{* *}$ every period, where $p^{* *}$ is defined in the appendix. If a buyer gets an urgency shock, an impatient seller makes an offer to fulfill the request for price $p^{\prime}=\lambda u_{H}>p^{* *}$. A patient seller fulfills it for the same price $p^{* *}$, if $c \leq p^{* *}-e$, and forgoes the transaction, if $c \geq p^{* *}-e$. If a buyer gets a low-quality product or is asked to pay a higher price for

[^12]the urgent request, she switches to a randomly-drawn new seller next period. Otherwise, she goes to the same seller next period.

Since only patient sellers incur effort, a seller is interested in signaling to a buyer that she is a patient type. The original quoted price is not a credible signal of the seller's patience, because any higher price can be mimicked by an impatient seller and any lower price does not give the seller incentives to incur effort. However, she can signal her patience by leaving money on the table and not taking advantage of the buyer when she gets an urgency shock. This signal is credible, because an impatient seller values current profits more (relative to future profits) than a patient seller. If it is cheap to fulfill an urgent request, then signaling takes the form of not renegotiating the price. If it is expensive to fulfill it, then signaling takes the form of forgoing the transaction entirely. If a buyer's willingness to pay is quite high $\left(u_{H}>c+e\right)$, this results in ex-post inefficiency: reputational incentives not to be perceived greedy result in no trade.

## 4. Description of Experimental SetUp

The field experiment was conducted in Chennai, the largest city in the South Indian state of Tamil Nadu with over 4.5 million inhabitants. To conduct the study, we hired auditors who visited tailoring shops and placed orders under different scenarios. We chose the tailoring industry to conduct our study for a number of reasons. First, there are a large number of similar-sized establishments located in the same region, which minimizes the impact of location-specific shocks on our results. Consistent with the model, competitive pressure within the industry has also forced prices to converge to a similar range for standard stitched items, facilitating comparison of the deals offered.

Also, tailors do not post a fixed price schedule, as the price of stitching a garment and the time taken to complete the order can vary significantly based on the specifications of the customer. Finally, we wanted an industry where first-time customers could place stitching orders without a prior history of interactions.

### 4.1. First Experiment: Field Audits

We hired auditors who were familiar with the process of bargaining and who also had prior experience placing stitching orders in tailoring shops. We verified that the auditors were not affiliated with the tailoring industry in order to avoid any potential familiarity with the tailors. We selected auditors who were between the ages of 25 and 35 from typical middle-class backgrounds. Common profiles included recent graduates, part-time employees, and housewives. Once the auditors were hired, they were given training to explain the setup of the experiment, the details of the tailoring industry, and their particular assignment. The auditors were paid a fixed fee per visit to the tailoring unit that is above the market rate. They were also told that if they deviated from the script, they would not be hired for further visits. The auditors were given the information that they are part of a study to understand the market structure and functioning of the tailoring industry. However, auditors were not told the expected outcome of the study in order to avoid any "demand effects" in their behavior. Auditors were given the name and address of the shops they would visit, a cloth to be stitched for each order, and money to complete the order.

Each tailoring visit varied across three primary dimensions: the type of urgency introduced, whether extra money is offered, and the stated locality of the auditor. In each visit there were two different types of urgency possible: "upfront," where the auditor
mentions the need for urgent delivery directly after confirming standard delivery terms, and "in-between," where the auditor places an order for standard delivery, then returns a short time later to express their urgent delivery need. Similarly, there were two different possible monetary offers made with each visit. In the first scenario, "no money," the auditor does not offer any additional money when stating the urgent delivery requirement, but any offer made by the tailor will be accepted. In the second scenario, "extra money," the auditor offers double the initial stitching charge if the tailor initially refuses the urgency. For the locality variation, an auditor either introduces himself or herself to the tailor as recently having moved to the specific neighborhood in which the tailoring shop is located, or as visiting Chennai from out-of-town to attend a specific event.

Approximately half of the auditors placed orders for a woman's blouse, while the other half ordered a man's shirt. Note that the value of the cloth is at least three times the stitching charges, thus the risk of the auditor holding up the tailor is negligible. The urgency was kept at a pre-determined level of 1.5 to 2 days from the time of placing the initial order. For example, the urgent delivery deadline for an order placed by 11am in the morning would be 6 pm on the following day. These specific urgency levels were determined after conducting a number of pilot interviews with tailors. For the tailors, the average time to stitch the requested items was 2 hours. Our aim was to mimic a common transaction that was neither odd enough to draw suspicion nor too easy to stitch so that the urgency requirement became negligible.

All auditors were provided training and a detailed script that specified the negotiation rules they were asked to follow while placing the order and collecting the
finished product. The visit to each tailor can be summarized as follows. First, the auditor enters the tailor shop and confirms she is talking to the owner/master tailor and that the shop will stitch the particular item selected for the particular visit. During this time, the auditor mentions the locality from where he or she comes. After the introduction, the auditor mentions the need to get an item stitched and inquires about the rate. Once both the stitching rate and delivery days have been provided, the urgency variations are introduced. In the standard visit, the auditor now informs the tailor about the urgent delivery requirement. Under the no money variation, the auditor will wait to see how the tailor responds. If the tailor rejects the urgency, the auditor will exit the store. However, if the tailor counters the urgency request by asking for an extra payment, the auditor will accept, provide the measurements for the garment, and proceed with the order. The same applies if the tailor accepts the urgency without any additional payment request. The extra money scenarios vary in that, at the time of mentioning the urgency, the auditor offers to pay double the initial stitching charge. In the extra money scenario, the auditor still waits to see if the tailor voluntarily asks for extra payment before offering additional money. In the repeat visit treatment, the auditor places a stitching order for standard delivery in the first visit. Once the transaction is completed and the order is collected, the auditor returns for a second visit during which she places an order with an in-between urgency, without offering extra money.

The bargaining process for the in-between visit was exactly the same except rather than mentioning the urgency need on the initial visit, the auditor would instead place the order for standard delivery and then return to the shop 45 to 60 minutes later to inform the tailor of the urgent delivery requirement.

Note that in all the aforementioned treatments, the negotiation can also be terminated or prolonged at any point by the tailor. There were some cases where the tailor terminated the order before the auditor introduced the urgency by saying that she is not taking any new orders.

To monitor auditor performance and detect deviations from the script, one of the auditors' assigned visits was to a tailor acting as our representative (the auditors were never informed of this). Furthermore, in some of the other visits, our representatives visited the tailoring unit at the same time as the auditor and observed the bargaining process. Directly following each visit/renegotiation, the auditor was asked to fill out a detailed exit survey that asks about the outcome of the negotiation. The auditor also goes back to the tailor to collect delivery at the agreed upon time and pays the outstanding part of the bill.

### 4.2. Experiment with Tailoring Shops

As an additional experimental setup to understand real customer behavior, we also conducted a number of treatments in which we partnered with a tailor who assisted us in auditing actual customer visits. For this process, we selected four tailors (two male shops and two female shops) at four locations throughout Chennai. These locations were selected based on the following characteristics: middle income neighborhoods, with a regular inflow of customers; proximity of the shop to a major transit point such as a bus stand or railway station; and a standard delivery stitching charge on par with the average rate charged by tailors across Chennai.

In each shop, we instructed our auditor to act as one of the tailors' employees. When a customer entered the store, the auditor observed the interaction between the
customer and the tailor. For new customers, the auditor observed the entire interaction to determine whether urgent delivery is required. If so, the tailor executed one of the two treatments. For the first treatment, the tailor would initially refuse the urgent request but call the customer back and agree to do the urgent delivery with extra money equal to approximately $10 \%$ of the standard delivery stitching charge. In the second treatment, the tailor would refuse the urgency and not call the customer back. This was done to test whether the customer would respond to the rejection by offering to pay extra. Note that the tailors we partnered with only agreed to do these interventions for new customers and not their regular clients.

Each day, we randomly assigned the order in which the tailor treats new customers with urgency. Once the treatment is completed, we observe the delivery details for all new customers whose urgency request was accepted by the tailor. Since we do not have control over the speed and frequency at which real customers with an urgent need come into these stores, we fixed the number of urgent visits we wanted to observe upfront. We conducted the experiment until that number was reached, which took about 1.5 months.

## 5. Randomization for Audit Study

The randomization involved matching 44 auditors ( 22 female and 22 male) with 221 tailor shops. Each auditor was assigned to visit 20 to 28 tailors, with each tailor visited an average of five times and experiencing a range of treatment types. In total, there were nine standard treatments, which were categorized by variations across the following variables: type of urgency, customer nativity, extra payment offer, and repeat
relationship. Among these standard treatments, the randomization imposed that approximately half of the visits would introduce upfront urgency while the remaining visits were conducted with in-between urgency. We then randomly assigned variation across the remaining variables.

To achieve the variation in visit characteristics while maintaining a similar script across auditors, the randomization was executed in the following way. First, the tailors were assigned to different types of visits. We also randomized the sequence of the visits. Then, auditors and tailors were randomly assigned to one another in a constrained manner. One auditor and one tailor were randomly drawn from the pool of available candidates and then checked to ensure that the auditor had not been previously assigned to visit a different tailor in that same location group or had already visited the tailor. The result of this randomization is that the 44 auditors were each assigned to visit 20 to 28 tailors, and each tailor had a range of treatment types assigned. Note that there was little clustering of tailors within a neighborhood so that we did not have any significant competition between tailors. The main dimensions of variation are threefold:
(1) The auditor's "nativity" is assigned as "local" or "out-of-state," where the auditor would state that he or she came to Chennai from a nearby state to attend an event.
(2) The auditor's stated "reason for urgency" was assigned from one of the following: a relative's marriage, engagement, other religious ceremony, or sudden out-of-town travel for an official event. The goal was to select commonly used justifications for urgency, yet maintain enough variation
such that tailors weren't facing repeated interactions with auditors with similar urgency needs, which may have raised suspicion.
(3) The auditor's offer for getting urgent delivery was either no money offered or an offer of extra money.

Throughout this process, all characteristics were assigned randomly, in either an unconstrained, constrained, or stratified manner. The only aspect of the randomization that was not strictly randomly assigned was the relative timing of the visits, although there was still a great deal of randomly induced variation in this variable. For the most part, visits to different tailors by the same auditor were made in a random order, based on the randomly assigned characteristics of the visits.

## 6. Data Description

In total, 44 auditors conducted 1085 visits to 221 different tailoring shops. The summary statistics presented in Panel A of Table 1 show that the average number of visits per tailor was 4.9 , with a standard deviation of 1.56 . The average order price was Rs. 81.17. The average number of visits per auditor was 24.66, with a standard deviation of 1.39. Panel B of Table 1 reports the results from the visits conducted when the tailor acted as the auditor. In total, we worked with four tailors who received an average of 21.5 customers with urgent delivery requirements during the course of the study. The average order price per tailor was Rs. 225 as some of the customers placed orders of multiple items.

In Table 2, we report the detailed price structure of the bargaining outcomes by segmenting the visits by the treatment group. The overall mean initial price for standard
delivery was Rs. 81.87. The mean initial price across different treatment groups ranged from Rs. 81 to Rs. 84. As an initial check on the validity of the randomization process, we find no statistically significant differences in the mean figure quoted across the various treatment groups. The extra urgency payment figures show the amount beyond the standard delivery price that the tailor and auditor agreed upon to complete the transaction with the urgent deadline. We code the extra urgency payment as zero in the cases where the tailor accepted the urgency and did not ask for additional money. We find that the average extra urgency payment across different treatment groups ranged from Rs. 1 to Rs 8. For the treatments where the auditor offered no extra money, the extra urgency payment is a result of the tailor demanding additional money to fulfill the order. We find that the extra urgency payment was very similar across the different treatment groups where the auditor offered no extra money (between Rs. 1 and Rs. 2). Not surprisingly, we also find that the extra urgency payment was higher for the treatments where the auditor offered extra money for the urgent order (between Rs. 3 and Rs. 8).

## 7. Audit Study Results: Tailors' Willingness to Renegotiate

### 7.1. Summary Statistics

Table 3 reports summary statistics across the different treatment groups, including: acceptance rates, whether the tailors themselves asked for extra money, whether the tailor returned the cloth if the in-between urgency was not accepted, quality of stitching, and delay in delivery.

Column 2 reports the overall acceptance rates for each treatment, which range from $42 \%$ to $64 \%$. We find that the overall acceptance rate of tailors in treatments where
the auditors offer extra money is higher than the treatments where the auditor offers no extra money. In the cases where a local auditor does not offer additional money-upfront urgency, no money and in-between urgency, no money-the overall acceptance rates are $42 \%$ and $44 \%$, respectively. When extra money is offered, the acceptance rates increase to $57 \%$ and $58 \%$ for upfront urgency and in-between urgency, respectively. We find a similar trend in the cases with out-of-state auditors. When comparing treatment groups across different types of urgency, we do not find differences in acceptance rates based on whether it is an upfront urgency versus an in-between urgency. We also find that the acceptance rate is substantially higher for repeat visits (in-between urgency, no money) at 60\%.

To determine the percentage increase in acceptance due to the extra money offer, we first compute the acceptance percentage for urgent delivery before the auditor offers extra money. Recall that in the treatments where the auditor offers extra money, the auditor first reveals the urgency and waits to see if the tailor accepts the urgency without an additional charge. The auditor only offers extra money for the urgency after the tailor declines to fulfill the order without an additional charge. As shown in Column 3, the acceptance percentage of the urgent delivery before the auditor offers extra money is very similar across comparable treatment groups. The acceptance rate is between $42 \%$ and $44 \%$ for local auditors, while that for out-of-state auditors is between $46 \%$ and $51 \%$. Column 4 reports the percentage increase in the acceptance rates when extra money is offered. For the case of upfront urgency, when extra money is offered, we find that the acceptance rate increases from $44 \%$ to $57 \%$. There is a $30 \%$ increase in the acceptance
rate when extra money is offered. We find a similar pattern for the other treatment groups.

We also examine the percentage of visits where the tailors themselves ask for extra money as soon as the urgency is mentioned (and consequently before the auditor has a chance to offer). Column 5 reports these results. We find that the fraction of visits where tailors themselves ask for extra money for the urgency is very small (between $1 \%$ and $8 \%$ ).

The final three columns of Table 3 look at differences in service outcomes across the treatment groups. Interestingly, we find that in a large fraction of the visits, tailors return the cloth when they refuse an urgent order. While in the upfront urgency case this is not relevant, in the case of the in-between urgency treatment, the tailor can choose to say that the cloth is cut and therefore cannot be returned. This way the tailor does not have to forgo the order and the customer has to stick to the initial contracted terms. ${ }^{20}$ However, as seen in Column 6, very few tailors exercise this option. ${ }^{21}$ We also find the quality rating of the finished product, which was conducted by two external tailors hired to provide ratings on a 1 to 5 scale ( 5 indicating an order stitched to the highest quality), is very similar across treatment groups (Column 7). Likewise, there is little variation in the mean delay in delivery beyond the agreed upon time (conditional on the tailor delivering the order), which ranged from 0.15 to 0.35 hours, depending on the treatment group (Column 8).

### 7.2. Analysis of Accepting the Order

[^13]We further examine whether there are significant differences in contracting and bargaining outcomes once we account for auditor- and tailor-specific differences using a regression framework. In Table 4, we use different measures of the outcome from the bargaining process as dependent variables and regress these on indicator variables for the different treatment cells (in-between or upfront urgency, extra money offered, out-ofstate auditors, and repeat visits). We include tailor and auditor fixed effects in all regressions and control for the number of days required to fulfill a normal order stated by the tailor in order to account for tailors who are busier upfront. Columns 1 and 2 of Table 4 show whether there are significant differences across treatment cells in the initial price quoted by the tailor. This is the price stated by the tailor before the auditor mentions any urgency. We would expect to find no difference in the initial price across treatment cells, since, at this point, the tailor has not been exposed to differences in auditor behavior yet. As can be seen from Columns 1 and 2, we do not find any significant differences in the initial price across upfront and in-between urgency cases, or afterwards, when extra money was offered to the tailor. This is important because it confirms that our auditors did not involuntarily behave differently across treatments. There are also no significant differences in the initial price that tailors ask from local versus out-of-state customers (auditors) or for repeat visits. This suggests that tailors perceive the market as competitive. In Columns 3-6, we look at the likelihood of a tailor initiating a renegotiation and the acceptance rate of the urgent order immediately after the auditor reveals the urgency. As previously stated, the urgency could increase the potential costs of the tailor, as she might need to incur additional costs to meet the urgency. Furthermore, in the in-between urgency case, the tailor has the cloth and can refuse to
return it to the customer. As such, the tailor has additional bargaining power, which should increase the likelihood of the tailor initiating a renegotiation and demanding a higher price, as compared to the upfront urgency.

Looking at the results, we do not find any significant differences in the likelihood of acceptance across in-between and upfront urgency. Tailors are equally likely to accept the urgency without demanding additional money for both in-between and upfront urgency. ${ }^{22}$ We find that the acceptance rate for repeat visits is significantly higher and that tailors are 14 percentage points more likely to accept an urgent order (in-between urgency) in a repeat visit without any additional money. The acceptance rate is significantly higher for out-of-state auditors, and the coefficient is positive (7.8\%) and significant at the $5 \%$ level. However, as discussed later, when we adjust for whether tailors actually deliver the urgent order (tailors sometimes renege on the order), we do not find significant differences in the acceptance rate for out-of-state auditors. In fact, tailors are more likely to renege on delivery for out-of-state auditors. This suggests that tailors keep the option value of not losing the order, as the costs of reneging on delivery for out-of-state auditors are lower. When interacting the out-of-state auditor dummy with the inbetween urgency treatment dummy in Column 4, the coefficient on the interaction term is negative and close to zero. In Columns 3 and 4, we also find that tailors who state a higher number of days for the delivery of a normal order are less likely to accept the urgent order.

[^14]We then examine whether tailors independently ask for additional money from the auditors once they state the urgency, but importantly, before the auditor offers extra money. In Columns 5 and 6 , we do not find any significant difference in the likelihood of the tailor demanding additional money between the upfront and the in-between urgency cases. Given that in the in-between urgency treatment tailors have higher bargaining power, one would have expected the likelihood of tailors demanding money to be higher. This suggests that tailors do not use the additional bargaining power in the in-between urgency case to extract surplus from the customers. However, in Column 6, we see that tailors are more likely to demand additional money from out-of-state auditors in the inbetween urgency treatments. We also find that tailors are less likely to demand additional money from auditors during the repeat visits.

Overall, the results in Table 4 suggest that tailors are reluctant to initiate a renegotiation. On average, tailors either fulfill the urgent order without demanding additional money or forgo the order. We also find that the acceptance rate of urgent orders for repeat customers is higher, suggesting that tailors have the ability to fulfill urgent orders. This raises the important question of whether tailors forgo the urgent order instead of demanding additional money due to a fear of being seen as price-gouging, which could lead to a loss of reputation. Alternatively, a concern could be that the reluctance of tailors to initiate a renegotiation is due to tight capacity constraints (i.e., high outside reservation values-parameter $c$ in the model).

To examine if tailors turn down the urgent order independent of who proposes the price increase, we add a second treatment arm. Auditors offer extra money (double the
initial price) in case the tailor refuses to fulfill the urgent order. ${ }^{23}$ If capacity constraints or high disutility from working overtime are the main reasons the tailors turn down orders, then auditors offering a higher price should not significantly affect the acceptance rate. However, if concerns about price gouging constrain the tailor from proposing a higher price, then the proactive offer from the auditors should lead to higher acceptance rates.

In Table 5, we see the acceptance rate of urgent orders is higher when the auditor offers the tailor additional money for the urgency. In Columns 1 and 2, we create a dummy variable for the ultimate acceptance rate of a treatment after all the steps have been completed. For example, in an in-between urgency case, this variable takes the value of one if the tailor ultimately accepts the order with expedited delivery. We see in Column 1 that the acceptance rate for the urgent order is significantly higher, by $10 \%$, when the auditor offers extra money. As before, we find similar results for out-of-state auditors and repeat visits. In Column 2, we add interaction terms for in-between urgency and out-of-state auditors, and in-between urgency and extra money, and find that the estimated coefficients on both interaction terms are close to zero and insignificant. This suggests that there is no differential effect of offering extra money in the upfront or the in-between urgency case. This also suggests that even in the case of upfront urgency, tailors do not initiate a price renegotiation; instead, they turn down the request unless the customer voluntarily offers a higher price. Overall, these results suggest that capacity constraints or extreme preferences against overtime work cannot be the sole driver for the

[^15]tailors' reluctance to renegotiate. Rather, if the auditor initiates the offer to renegotiate, the tailors are happy to fulfill the urgent delivery with a $12 \%$ higher likelihood. ${ }^{24}$

In Columns 3 and 4, we repeat the same regression setup but use the total price contracted for the completion of the order as a dependent variable. The total price contracted is the sum of the initial price plus the extra payment for urgency. The sample is limited to those treatments in which urgent orders (either upfront or in-between) are accepted. This reduces the sample size to almost half. Not surprisingly, in Column 3, we see that the total price contracted is higher for the treatments in which extra money is offered. The magnitude is almost Rs. 8, which is equivalent to a $10 \%$ higher price. As discussed before, we do not find significant differences in the total price contracted between out-of-state and local auditors and neither for upfront versus in-between urgency nor repeat visits. These (non-) results are driven by the reluctance of the tailors to initiate renegotiation themselves. We also find that the total price contracted is higher for tailors that state a higher number for the initial delivery days.

Finally, in Columns 5 and 6, we look separately at the extra payment amount (above and beyond the initial price) demanded by tailors across different treatment conditions. Note that the payment to the tailors does not mechanically increase when auditors offer the tailor additional money in the "extra money" treatment, since usually, tailors do not accept the entire amount offered. Instead, they, on average, take only a $40 \%$ upcharge, even though they are offered more. In line with what we saw before, Columns 5 and 6 show that the extra payment for urgency is significantly more for the treatments

[^16]where the auditor offers extra money. But there are no significant differences in the amount of extra payment between upfront and in-between urgency. There are also no significant differences between out-of-state and local auditors. The finding that tailors do not take the entire extra amount offered by the auditor but instead take a smaller amount is consistent with the idea that tailors do not want to be seen as price gouging. Thus, if customers in the marketplace consider it "unfair" when tailors ask for higher price to meet an urgency, then such fairness considerations could effectively translate into reluctance by tailors to initiate price renegotiations and extract a large amount of surplus.

To further examine the role of capacity constraints (high reservation value), we create a measure of the level of capacity constraints based of the number of delivery days stated by a tailor for a normal order. We rank a tailor in three categories: highly capacity constrained, normal, and slack. Based on this categorization, we first examine the likelihood of a tailor accepting the order without any additional charge. In Table 6, Column 1, we find that tailors are more likely to accept the order without any additional charge if they are less capacity constrained. In comparison to the highly constrained category, tailors whose business is slack are $33 \%$ more likely to accept the urgent order without any additional money. For the normal category, the likelihood of acceptance is $20 \%$ higher. The difference in the acceptance rates between the normal and the slack category is significant at $10 \%$. Examining the effect of an extra money offer on acceptance rates, in Column 2, we find that an extra money offer makes a significant difference in the acceptance rates only for tailors with normal delivery times. These results again suggest that tailors who are not extremely constrained forgo the urgent order and are less willing to renegotiate prices to meet the order unless the customer initiates
the renegotiation. ${ }^{25}$ In Column 3, we examine if the tailors themselves demand additional money before the auditor offers, based on the level of capacity constraints. We do not find any significant differences across the various categories.

### 7.3. Do Tailors Deliver the Urgent Order?

While we examine the acceptance rate of the orders, in our sample there are cases where the tailor accepts the urgent order initially but does not deliver ex post. Table 7, Column 1, examines the likelihood of delivery on treatment dummies. We find that tailors are more likely to fail to meet their commitments for out-of-state auditors. One possible reason could be that tailors keep the option value of not losing the order, as reputation costs of reneging on delivery for out-of-state auditors is lower. We also find that tailors are more likely to deliver on the urgent order when the auditor offers an additional payment (extra money treatment). In Columns 2 and 3, we again repeat the regressions of acceptance of the urgent order (reported in Tables 4 and 5), adjusting for whether the tailor actually made the delivery. As seen in Columns 2 and 3, we find results similar to those previously reported with one noticeable difference: Once we adjust for final delivery, we do not find any significant difference in the initial acceptance rate for out-of-state auditors.

Overall, the results suggest that tailors are reluctant to initiate renegotiations and are willing to either forgo an order or accept the urgency without negotiating, rather than demand a higher price. Tailors do not exploit their increased bargaining power to extract surplus in the in-between urgency case. However, when the auditor offers a higher price

[^17]for the urgency, tailors are willing to fulfill the order for an extra payment. These results suggest that there is often a breakdown in trade. For out-of-state auditors, tailors are more likely to initiate a price renegotiation and ask for more money in cases with in-between urgency. They are also more likely to renege on their commitment to deliver the urgent order for out-of-state auditors. For repeat visits, tailors are more likely to accept the urgent order without any additional payment. They are also less likely to initiate price renegotiation. Taken together, these results are consistent with tailors' objective of not being seen as price gouging. ${ }^{26} \mathrm{We}$ also report some qualitative evidence that corroborates this interpretation. For instance, in a conversation with one of the auditors (details provided in the appendix), the tailor stated that asking for extra money would hurt his "name".

### 7.4. Is the Breakdown of Trade Inefficient?

While the results above suggest that there is a breakdown of trade, the important question that arises is whether the breakdown is inefficient. If customers could easily find another tailor who can meet the urgent order if the existing tailor cannot do it, then there might not be any inefficiencies caused by the breakdown of trade. Alternatively, if actual customers in the marketplace knew to offer additional money to the tailor whenever they have an urgent demand, then there might not be a distortion from the first best outcome. ${ }^{27}$

To test these alternative hypotheses, we partnered with four tailors who assisted us in auditing actual customer visits as outlined in Section 4.2. Table 8 reports the results

[^18]from these interventions. We find that customers in general (in the marketplace) first ask for the terms of the standard contract before expressing their urgency. ${ }^{28}$ From Table 8 (Row 1), we can see that customers never offered a higher price out of their own volition. Out of 43 incidents where the customer came into the shop to request the expedited stitching of a garment, none proposed to pay a higher price once the tailor refused to fill the order (without an upcharge). This result suggests that customer-initiated renegotiations are not the norm. These results rule out an equilibrium where customers always offer extra money in order to signal that they have a truly urgent order. ${ }^{29}$

In Row 2 of Table 8, we see that a large majority of the customers who have an urgent need were willing to pay the additional charge. Only 5 out of 41 customers declined to pay the extra charge. The finding that most of the customers agreed to pay additional money for the urgent order suggests that their reservation value is not very low. ${ }^{30}$ In addition, the finding that customers paid the additional money suggests that there are search costs of finding another tailor. If there were no search costs, it would be unlikely that customers would pay the additional money. To obtain a rough estimate of the cost incurred by the customer to find another tailor, we do a back-of-the-envelope calculation.. Given that tailors are not concentrated in the same neighborhood, the customer has to bear the transportation costs of going to another tailor, typically approximately Rs. 40 to commute by rickshaw. In addition to this, there is the cost of the

[^19]hassle to find another tailor who is likely to accept the urgent order. Given that we observe that the probability of a tailor accepting the urgent order without additional money is 0.5 , the customer, on average, would have to visit two tailors to get the urgent order accepted. In effect, the customer, on average, spends an additional amount of Rs. $40(50 \%$ of the initial stitching charge). Thus, the amount spent is higher than the average additional money charged by the tailor to accept the urgent order. Note that the $10 \%$ additional money charged by the tailors with whom we partnered was sufficient to cover the additional costs required to meet the urgent order. However, as noted previously, the tailors with whom we partnered also stated that they would have normally refused the urgent order rather than ask for additional money, as it would hurt their "name".

The question, then, is why tailors do not ask for additional money. While we find that customers in the market agreed to pay the additional money demanded by the tailor to meet the urgency, we also find that they complain. Thus, even though, they accept to pay the additional money, they complain as to why the tailor is demanding more money. ${ }^{31}$ For instance one of the customer who accepted to pay the additional charge stated angrily ".... why you are charging me extra." This suggests that customers might feel aggrieved when the tailor asks for extra money and could feel reluctant to return to that tailor in the future. In sum, the results suggest that the reluctance of tailors to initiate renegotiation and ask for higher prices, even in the case of shocks, stems from the fear of antagonizing customers.

## 8. Discussion of External Validity

[^20]Since we randomize the assignment of auditors and treatments, our setting has strong internal validity. However, as in other experimental settings, there can be questions about how the findings extend to other settings since we focus on a specific industry and geography. To shed light on the external validity of our findings, it is useful to go back to the theoretical framework we outlined in Section 3.

It is clear that having sellers with long horizons interacting repeatedly with the same set of buyers is central to our results. In addition, the model suggests that three other conditions are needed for similar implications. First, there must be uncertainty about the quality of the seller's product or services, which in our context leads the seller to invest in building a reputation for high quality. This is also related to the time preference of the seller; a myopic seller might cut corners since she does not value the continuation value of the relationship. Consequently, we do not expect our results to apply in markets where the quality of products and services is perfectly known. Second, the market must be competitive but not overly so, ensuring that sellers care sufficiently about reputation. If a seller's rents were always zero, even a high-quality seller would not have incentives to invest in reputation. If the market were monopolistic, the seller would have limited concerns about reputation, since buyers have no other choice. Finally, the seller must have the ability to verify that the customer truly needs a contract (e.g., urgency) adjustment and does not ask for these favors frivolously.

Taken together, we expect our results to extend to markets of monopolistic competition in which product quality is not easy to verify and is determined by the sellers with a long-run horizon that can keep track of individual buyers over time. For example,
many services markets in which a typical vendor is a small business satisfy these conditions.

It is worth noting that while reputational concerns lead to the breakdown of ex post efficient trade, they create two positive effects. First, they encourage sellers to produce higher-quality products to keep their customers happy. Second, by allowing sellers to signal their type by leaving money on the table, additional information is generated that leads to a more efficient allocation of buyers to sellers. In the tailoring application, a repeat buyer figures out if she interacts with a lower-quality seller by observing whether she price gouges her at contract renegotiation. In contrast, figuring out the seller's quality by observing the quality of the product could have required a long history of transactions.

## 9. Conclusion

Our results suggest that contracting parties are willing to allow the breakdown of ex post efficient trade due to reputational concerns. Tailors do not use the increase in their bargaining power to demand a higher price, but either try to fill the urgent order with no additional upcharge if they have the capacity, or return the cloth to the customer and allow a breakdown of trade. But if the customer initiates the renegotiation and offers a higher price, a large fraction of tailors are happy to fill the urgent order.

Overall, our findings suggest that the reputation concerns on the side of sellers has first-order effects on the level and dynamics of price changes and price stickiness. Even in an environment where price negotiation is common, sellers show significant price stickiness in order to signal their superior quality. In future research, it will be important
to understand how sellers' reputations are formed and how this affects the sellers' willingness to pass on changes in input costs to consumers. For example, one could ask why breakdown of trade is seen as having less of a negative impact on the seller's reputation than an increase in prices, when the former would allow sellers and buyers to benefit from the gains that arise from trade.

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## Appendix: Proofs for the Model

## Proof of Proposition 1.

Consider, first, the impatient seller. Since this seller values only this period's payoff and the price $p$ she gets from the buyer is independent of the quality of the product (since it cannot be contracted upon), the impatient seller does not incur effort. Since the patient seller incurs effort, the buyer does not come back to the same seller if she gets a low-quality product, but rather prefers to draw a new seller from the pool.

Second, consider the patient seller. By the one-shot deviation principle, it is sufficient to consider a single deviation of the seller from incurring effort as shirking. If the seller incurs effort, the high-quality product is produced with probability one and the buyer updates her belief about the seller's patience upwards. Consequently, in the next period, the buyer is better off coming back to the same seller than going to a new seller. If the seller does not incur effort and produces a low-quality product, the buyer updates her belief that the seller is impatient and thus goes to a different seller next period. It follows that the seller is better off incurring effort if and only if:
$\frac{\beta \alpha(p-e)}{1-\beta \alpha} \geq e+\lambda \frac{\beta \alpha(p-e)}{1-\beta \alpha}$.
This inequality means that the continuation payoff from getting the customer next period with probability $\alpha$ (i.e., if the buyer remains in the market) exceeds saving on the cost of effort and getting the customer next period with probability $\lambda \alpha$. We can re-write it as

$$
\begin{equation*}
p \geq e \frac{1-\lambda \beta \alpha}{\beta \alpha-\lambda \beta \alpha} \equiv p^{*} \tag{1}
\end{equation*}
$$

Intuitively, the price needs to be relatively high to yield the seller sufficient profits from future interactions with the buyer.

Finally, it remains to solve for $p$. Any $p$ below $p^{*}$ violates the incentive constraint of the patient seller. Consider any $p$ above $p^{*}$. Note that $p>p^{*}$ that is not too high can be supported as an equilibrium price if a deviation to any price below it is perceived by buyers as coming from an impatient seller with a sufficiently high probability. However, such off-equilibrium belief violates the Grossman and Perry (1986) notion of credible
updating. ${ }^{32}$ To see this, suppose that all sellers quote price $p>p^{*}$, and consider a deviation of one seller to a marginally lower price $p-\varepsilon$. According to Grossman and Perry (1986), credible updating by a buyer would be to believe that this deviation comes from a patient seller with probability equal to the buyer's pre-offer belief that the seller is patient (i.e., $q$ if the buyer has no history of interactions with the seller). Indeed, under these beliefs, all mass $\alpha$ of new buyers goes to the deviating seller, which implies that both types of the seller are better off quoting price $p-\varepsilon$ instead of $p$. Since a fraction of patient sellers in the market is $q$, the credible belief is that the deviation comes from a patient seller with probability $q$. Therefore, for any price $p>p^{*}$, a seller is better off deviating to a marginally lower price and the equilibrium price (which satisfies credible updating of beliefs) must be given by $p^{*}$. At this price, no seller benefits from undercutting it: Since the incentive compatibility constraint of the seller is violated, the buyer will believe that the seller will produce a low-quality product. Since $u_{H}$ is high enough, no buyer will switch to this deviating seller, so the deviation would be suboptimal. Similarly, deviation by a seller to a marginally higher price is suboptimal if a buyer believes that it comes from an impatient seller: ${ }^{33}$ No buyer goes to this seller in this case.

## Proof of Proposition 2.

First, we show that this strategy profile is an equilibrium. Consider a buyer with an urgency need. First, consider an impatient seller. Since she is a local monopolist at this point and cares only about this current payoff, her optimal strategy is to charge the buyer's maximum willingness to pay. Since this offer reveals that the seller is impatient, the buyer's maximum willingness to pay is $p^{\prime}=\lambda u_{H}$.

Second, consider a patient seller. Suppose that a buyer with an urgency shock perceives that both an offer to fulfill the urgency need for free and forgoing the order come from a patient seller. Therefore, a patient seller's continuation payoff is the same

[^21]for both these actions. It follows that a patient seller is better off fulfilling a request for original price $p$ if and only if $p-e-c \geq 0$, i.e., if the gains from fulfilling the urgent order are positive to the seller. A deviation to charging the buyer $p^{\prime}$ is suboptimal if and only if: ${ }^{34}$
\[

$$
\begin{equation*}
[p-e-c]_{+}+\frac{\beta \alpha}{1-\beta \alpha}\left((1-\delta)(p-e)+\rho[p-e-c]_{+}\right) \geq p^{\prime} \tag{2}
\end{equation*}
$$

\]

where $[x]_{+}$denotes $\max \{x, 0\}$.
Finally, consider the initial price $p$. As in the case of $\delta=0$, an impatient seller does not incur effort. A patient seller incurs effort if and only if $p$ satisfies

$$
(1-\lambda) \frac{\beta \alpha}{1-\beta \alpha}\left((1-\delta)(p-e)+\delta[p-e-c]_{+}\right) \geq e .
$$

The left-hand side of the inequality captures the seller's gain in the continuation value of future interactions with the same buyer from incurring effort today. The right-hand side is the cost of effort. Applying the same argument as in the proof of Proposition 1, we conclude that $p^{* *}$ at which the inequality binds is indeed an equilibrium price. Specifically,

$$
\begin{equation*}
p^{* *}=\min \left\{\delta c+p^{*}, e \frac{1-\beta \alpha(\lambda+\delta-\lambda \delta)}{\beta \alpha(1-\lambda)(1-\delta)}\right\} \tag{3}
\end{equation*}
$$

Plugging price $p^{* *}$ into $c \leq p-e$, we obtain that it holds if and only if $c \leq e \frac{1-\beta \alpha}{\beta \alpha(1-\lambda)(1-\delta)}$.

If this inequality is satisfied $p^{* *}$ is given by the first expression in (3). Otherwise, it is given by the second expression.

We can plug $p^{* *}$ and $p^{\prime}$ into (2) to simplify it to $u_{H} \leq \bar{u}$, where
$\bar{u}=\frac{e}{\lambda(1-\lambda)} \max \left\{1, \frac{1}{\beta \alpha}-c \frac{(1-\delta)(1-\lambda)}{e}\right\}$.
Condition that a buyer with an urgency need is better off buying from an impatient seller than not buying at all $\left(\lambda u_{H}>p^{* *}\right)$ simplifies to $u_{H}>\underline{u}$, where
$\underline{u}=\frac{1}{\lambda} \min \left\{\delta c+e \frac{1-\lambda \beta \alpha}{\beta \alpha(1-\lambda)}, e \frac{1-\beta \alpha(\lambda+\delta-\lambda \delta)}{\beta \alpha(1-\lambda)(1-\delta)}\right\}$.

[^22]A sufficient condition for set $(\underline{u}, \bar{u})$ to be non-empty is $\beta \alpha>\frac{1}{1+\lambda(1-\delta)}$.
By the same argument as in the proof of Proposition 1 (we omit it for brevity), price $p^{* *}$ can be the only equilibrium price (in the equilibrium class we consider) with the property that belief updating of buyers after the deviation to a different price at the initial stage satisfies the Grossman and Perry (1986) notion of credible updating.

## Table 1: Sample Description

Table 1 reports summary statistics for the visits conducted during the experiment. Panel A presents the results from the first experiment where auditors operated as customers of the tailor shops. Average number of visits refers to the visits received per tailor and conducted per auditor. For each tailor, this figure is analogous to the number of treatments. The average order price per treatment is the mean initial price quoted for standard delivery.

Panel B presents the summary statistics from the visits conducted where the tailor acted as the auditor. "Urgent customers" are those that ask the tailor for expedited stitching of a garment.

## Panel A: Auditor as Customers

| Group | Obs. | Avg. no. of <br> visits | Median no. of <br> visits | Avg. price per <br> order (Rs) |
| :--- | :---: | :---: | :---: | :---: |
| Tailors | 221 | 4.91 | 5 | 81.17 |
| Auditors |  | $(1.56)$ |  | $(26.55)$ |
|  | 44 | 24.66 | 25 | 81.97 |
|  |  | $(1.39)$ |  | $(22.91)$ |

Panel B: Auditor as Tailor

| Group | Obs. | Avg. no. of <br> urgent <br> customers | Median no. of <br> urgent <br> customers | Avg. order <br> price per tailor <br> (Rs) |
| :--- | :---: | :---: | :---: | :---: |
| Tailors | 4 | 21.5 <br> $(14.55)$ | 19 | 225.68 |

## Table 2: Payment Descriptives

Table 2 reports summary statistics about the price structure of the negotiations for visits conducted in Experiment 1, where the auditors take on the role of the customer. Initial Price refers to the price quoted by the tailor for standard (non-urgent) delivery. Extra Money Paid is the amount beyond the standard delivery price agreed upon to complete the urgent delivery. Each row describes one treatment arm, for a detailed description of the treatment arms please refer to Section 4 in the main text. Upfront urgency denotes a treatment arm where the auditor asks for expedited delivery from the beginning, while for in-between urgency they ask for expedited delivery only after the order has been placed. Local versus out-of-state refers to treatment arms where the auditor is either from Chennai or from another Indian state. "Extra money" signifies that the auditor offered additional money for urgent delivery, while "no money" means that the auditor did not offer additional money. Repeat refers to visits conducted where the urgency was introduced only after the auditor first completed an order for standard delivery.

| Treatment |  | Initial Price |  | Extra Money Paid |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Obs. | Mean | Std. Dev. | Mean | Std. Dev. |
|  | (1) | (2) | (3) | (4) | (5) |
| Upfront urgency, no money, local | 153 | 80.6 | 27.6 | 1.8 | 7.6 |
| In-between urgency, no money, local | 149 | 83.2 | 28.2 | 0.3 | 2.0 |
| Upfront urgency, extra money, local | 101 | 82.8 | 30.9 | 4.2 | 12.4 |
| In-between urgency, extra money, local | 100 | 83.5 | 29.4 | 5.1 | 14.4 |
| Upfront urgency, no money, out of state | 148 | 81.3 | 27.2 | 1.4 | 6.1 |
| In-between urgency, no money, out of state | 148 | 80.7 | 28.4 | 1.1 | 5.0 |
| Upfront urgency, extra money, out of state | 73 | 80.9 | 26.4 | 3.2 | 10.9 |
| In-between urgency, extra money, out of state | 78 | 83.1 | 27.1 | 7.9 | 20.1 |
| In-between urgency, no money, repeat visit | 135 | 83.8 | 29.2 | 0.3 | 2.3 |

## Table 3: Acceptance Rates and Other Outcomes

Table 3 reports acceptance rates and other outcome measures for the treatment groups. Overall Acceptance is the percentage of tailors who accept the urgent order (after all the treatment interventions have been conducted). Urgency Accepted Before Extra Money is the percentage of tailors who accept the urgent order before the auditor has the chance to offer an extra urgency payment. Urgency Accepted After Extra Money is the percentage of tailors accepting the urgent order only after the auditor offers an extra payment. Tailor Asked For Extra Money is the percentage of tailors who preempt the auditor's offer by asking for an extra urgency payment immediately themselves. Repeat refers to visits conducted where the urgency was introduced only after the auditor first completed an order for standard delivery. Percent Returning Cloth When Rejecting Urgency measures the percentage of tailors who return the stitching material when rejecting the auditor's urgency requirement under in-between treatments. Mean Quality Rating represents the mean rating assigned to the finished product as assessed by two external tailors on a scale of 1 (lowest) to 5 (highest). Mean Delay is the number of hours beyond the agreed upon urgent delivery time that the final product was ready to be collected.

|  | $(1)$ | $(2)$ | $(3)$ | $(4)$ | $(5)$ | $(6)$ | (7) | (8) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Treatment | Total | Overall <br> Obs. | Urgency <br> Acceptance <br> Becepted <br> Extra <br> Money | Urgency <br> Accepted <br> After <br> Extra <br> Money | Asked For <br> Extra <br> Money | \% Returning <br> Cloth When <br> Rejecting <br> Urgency | Mean <br> Quality <br> Rating | Mean <br> Delay <br> (Hours) |
| Upfront urgency, no money, local | 153 | $42 \%$ | $42 \%$ | -- | $7 \%$ | -- | 3.38 | 0.15 |
| In-between urgency, no money, local | 149 | $44 \%$ | $44 \%$ | -- | $2 \%$ | $98 \%$ | 3.48 | 0.34 |
| Upfront urgency, extra money, local | 101 | $57 \%$ | $44 \%$ | $13 \%$ | $5 \%$ | -- | 3.51 | 0.21 |
| In-between urgency, extra money, local | 100 | $58 \%$ | $43 \%$ | $15 \%$ | $6 \%$ | $95 \%$ | 3.24 | 0.23 |
| Upfront urgency, no money, out of state | 148 | $51 \%$ | $51 \%$ | -- | $6 \%$ | -- | 3.51 | 0.25 |
| In-between urgency, no money, out of | 148 | $49 \%$ | $49 \%$ | -- | $5 \%$ | $93 \%$ | 3.54 | 0.24 |
| state |  | $55 \%$ | $47 \%$ | $8 \%$ | $3 \%$ | -- | 3.67 | 0.35 |
| Upfront urgency, extra money, out of <br> state <br> In-between urgency, extra money, out of <br> state | 73 | 78 | $64 \%$ | $46 \%$ | $18 \%$ | $8 \%$ | $100 \%$ | 3.54 |
| In-between urgency, no money, repeat <br> visit | 135 | $60 \%$ | $60 \%$ | -- | $1 \%$ | $96 \%$ | 3.39 | 0.23 |

Table 4: OLS Regression of Initial Price, Urgency Acceptance Before Money was Offered and whether Tailor Asked for Money
Table 4 reports results from an OLS regression of initial price, urgency acceptance before money was offered, and whether the tailor asked for money on a group of dummies representing the variations in the treatment groups. Initial Price refers to the price quoted by the tailor for nonurgent delivery. Urgency Accepted Before Money is a dummy variable that takes the value of one when the tailor accepts the urgent order before the auditor has the chance to offer an extra urgency payment. Tailor Asked for Extra Money is a dummy variable that takes the value of one for tailors who preempt the auditor's offer by asking for an extra urgency payment immediately themselves. In-between is a dummy that takes the value of one if the auditor returned to the tailoring shop to introduce the urgency and zero if the auditor introduced the urgency upfront. Out of State is a dummy that takes the value of one if the auditor introduces herself as visiting from another state and takes a value of zero if the auditor instead mentions that she recently moved to the area. Extra is a dummy that takes the value of one if the auditor offers double the initial stitching charge to complete the urgent order and zero otherwise. Initial Delivery Days is the number of days stated by the tailor to complete the order under standard delivery terms. Repeat is a dummy that takes a value of one for visits conducted where the urgency was introduced only after the auditor first completed an order for standard delivery. Note that the outcome varibles in all these regressions are captured before the auditor makes an extra money offer. Robust standard errors for all coefficients are reported in parentheses. The symbols $* * *, * *, *$ indicate significance levels of $1 \%, 5 \%$, and $10 \%$, respectively.

|  | Initial Price Quoted | Initial Price Quoted | Urgency Accepted Before Money | Urgency Accepted Before Money | Tailor Asked For Extra Money | Tailor Asked For Extra Money |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| In-between | $\begin{gathered} 0.093 \\ (0.510) \end{gathered}$ | $\begin{gathered} 0.290 \\ (0.755) \end{gathered}$ | $\begin{array}{r} -0.0005 \\ (0.028) \end{array}$ | $\begin{gathered} 0.008 \\ (0.040) \end{gathered}$ | $\begin{aligned} & -0.006 \\ & (0.013) \end{aligned}$ | $\begin{gathered} -0.029 \\ (0.018) \end{gathered}$ |
| Out of State | $\begin{gathered} 0.571 \\ (0.563) \end{gathered}$ | $\begin{gathered} 0.780 \\ (0.834) \end{gathered}$ | $\begin{aligned} & 0.069 * * \\ & (0.032) \end{aligned}$ | $\begin{gathered} 0.077 * \\ (0.043) \end{gathered}$ | $\begin{gathered} 0.002 \\ (0.016) \end{gathered}$ | $\begin{aligned} & -0.022 \\ & (0.021) \end{aligned}$ |
| In-between *Out of State |  | $\begin{gathered} -0.422 \\ (1.107) \end{gathered}$ |  | $\begin{aligned} & -0.017 \\ & (0.060) \end{aligned}$ |  | $\begin{aligned} & 0.049 * \\ & (0.027) \end{aligned}$ |
| Extra | $\begin{aligned} & 0.480 \\ & (0.613) \end{aligned}$ | $\begin{gathered} 0.483 \\ (0.615) \end{gathered}$ | $\begin{aligned} & -0.037 \\ & (0.032) \end{aligned}$ | $\begin{aligned} & -0.037 \\ & (0.032) \end{aligned}$ | $\begin{aligned} & -0.007 \\ & (0.014) \end{aligned}$ | $\begin{aligned} & -0.007 \\ & (0.014) \end{aligned}$ |
| Initial Delivery days | $\begin{aligned} & -0.020 \\ & (0.120) \end{aligned}$ | $\begin{aligned} & -0.021 \\ & (0.120) \end{aligned}$ | $\begin{aligned} & -0.023^{* * *} \\ & (0.005) \end{aligned}$ | $\begin{aligned} & -0.023 * * * \\ & (0.005) \end{aligned}$ | $\begin{gathered} 0.0002 \\ (0.002) \end{gathered}$ | $\begin{aligned} & 0.0003 \\ & (0.002) \end{aligned}$ |
| Initial Price |  |  | $\begin{gathered} 0.002 \\ (0.002) \end{gathered}$ | $\begin{aligned} & 0.002 \\ & (0.002) \end{aligned}$ | $\begin{aligned} & -0.002 * \\ & (0.0008) \end{aligned}$ | $\begin{aligned} & -0.002 * \\ & (0.0008) \end{aligned}$ |
| Repeat | $\begin{gathered} 0.516 \\ (0.762) \end{gathered}$ | $\begin{gathered} 0.414 \\ (0.807) \end{gathered}$ | $\begin{aligned} & 0.146 * * * \\ & (0.048) \end{aligned}$ | $\begin{aligned} & 0.142 * * * \\ & (0.051) \end{aligned}$ | $\begin{aligned} & -0.051^{* * *} \\ & (0.020) \end{aligned}$ | $\begin{aligned} & -0.039^{*} \\ & (0.020) \end{aligned}$ |
| Adj. $\mathrm{R}^{2}$ | 0.929 | 0.929 | 0.292 | 0.292 | 0.248 | 0.251 |
| Auditor Fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Tailor Fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Number of Obs. | 1041 | 1041 | 1041 | 1041 | 1041 | 1041 |

## Table 5: OLS Regressions of Urgent Order Acceptance, Total Price and Extra Money on Treatment Dummies

Table 5 reports results from an OLS regression of overall acceptance of urgent order, total price paid and extra money paid on a group of dummies representing the variations in the treatment groups. Overall Acceptance is a dummy that takes the value of one if the tailor accepts the urgent order (this includes acceptance of the order after the extra money offer). Total Price Paid is the total amount paid by the auditor to complete the urgent order (initial price + extra money paid for urgency). Extra Money Paid only includes the extra amount paid beyond the initial price for the urgent order. Note that in columns 3-6, we only include visits where the urgent order was accepted. In-between is a dummy that takes the value of one if the auditor returned to the tailoring shop to introduce the urgency and zero if the auditor introduced the urgency upfront. Out of State is a dummy that takes the value of one if the auditor introduces herself as visiting from another state and takes a value of zero if the auditor instead mentions that she recently moved to the area. Extra is a dummy that takes the value of one if the auditor offers double the initial stitching charge to complete the urgent order and zero otherwise. Initial Delivery Days is the number of days stated by the tailor to complete the order under standard delivery terms. Repeat is a dummy that takes a value of one for visits conducted where the urgency was introduced only after the auditor first completed an order for standard delivery. Robust standard errors for all coefficients are reported in parentheses. The symbols $* * *, * *, *$ indicate significance levels of $1 \%, 5 \%$, and $10 \%$, respectively

|  | Overall Acceptance | Overall Acceptance | Total Price Paid | Total Price Paid | Extra money Paid | Extra money Paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
| In-between | $\begin{gathered} 0.015 \\ (0.028) \end{gathered}$ | $\begin{gathered} 0.019 \\ (0.050) \end{gathered}$ | $\begin{gathered} 3.182 \\ (2.144) \end{gathered}$ | $\begin{gathered} 0.863 \\ (4.178) \end{gathered}$ | $\begin{gathered} 0.809 \\ (1.123) \end{gathered}$ | $\begin{gathered} -2.279 \\ (1.718) \end{gathered}$ |
| Extra | $\begin{aligned} & 0.108^{* * *} \\ & (0.031) \end{aligned}$ | $\begin{aligned} & 0.119 * * \\ & (0.057) \end{aligned}$ | $\begin{aligned} & 8.383 * * * \\ & (2.093) \end{aligned}$ | $\begin{aligned} & 7.738 * * \\ & (3.589) \end{aligned}$ | $\begin{aligned} & 5.565 * * * \\ & (1.432) \end{aligned}$ | $\begin{aligned} & 4.188^{*} \\ & (2.157) \end{aligned}$ |
| Out of State | $\begin{aligned} & 0.066^{* *} \\ & (0.032) \end{aligned}$ | $\begin{gathered} 0.087^{*} \\ (0.052) \end{gathered}$ | $\begin{gathered} 1.723 \\ (2.235) \end{gathered}$ | $\begin{gathered} -3.254 \\ (4.696) \end{gathered}$ | $\begin{gathered} 0.277 \\ (1.329) \end{gathered}$ | $\begin{aligned} & -0.070 \\ & (2.050) \end{aligned}$ |
| In-between * Extra |  | $\begin{aligned} & -0.001 \\ & (0.080) \end{aligned}$ |  | $\begin{aligned} & -5.223 \\ & (5.501) \end{aligned}$ |  | $\begin{aligned} & 2.803 \\ & (2.777) \end{aligned}$ |
| In-between * Out of State |  | $\begin{aligned} & -0.027 \\ & (0.072) \end{aligned}$ |  | $\begin{aligned} & 4.815 \\ & (5.692) \end{aligned}$ |  | $\begin{aligned} & 0.956 \\ & (2.339) \end{aligned}$ |
| Extra*Out of State |  | $\begin{aligned} & -0.055 \\ & (0.095) \end{aligned}$ |  | $\begin{aligned} & 0.818 \\ & (6.913) \end{aligned}$ |  | $\begin{aligned} & -5.028 \\ & (3.584) \end{aligned}$ |
| In-between * Extra *Out of State |  | $\begin{gathered} 0.061 \\ (0.130) \end{gathered}$ |  | $\begin{aligned} & 11.903 \\ & (8.755) \end{aligned}$ |  | $\begin{gathered} 8.353 \\ (5.192) \end{gathered}$ |
| Initial Delivery days | $\begin{aligned} & -0.026^{* * *} \\ & (0.005) \end{aligned}$ | $\begin{aligned} & -0.026^{* * *} \\ & (0.005) \end{aligned}$ | $\begin{aligned} & 1.295^{* *} \\ & (0.621) \end{aligned}$ | $\begin{aligned} & 1.343 * * \\ & (0.592) \end{aligned}$ | $\begin{aligned} & 1.194^{* *} \\ & (0.576) \end{aligned}$ | $\begin{aligned} & 1.165^{* *} \\ & (0.538) \end{aligned}$ |
| Initial Price | $\begin{gathered} 0.001 \\ (0.002) \end{gathered}$ | $\begin{aligned} & 0.001 \\ & (0.002) \end{aligned}$ |  |  | $\begin{aligned} & -0.140 \\ & (0.132) \end{aligned}$ | $\begin{gathered} -0.113 \\ (0.134) \end{gathered}$ |
| Repeat | $\begin{aligned} & 0.125^{* * *} \\ & (0.048) \end{aligned}$ | $\begin{aligned} & 0.128 * * * \\ & (0.054) \end{aligned}$ | $\begin{gathered} 2.228 \\ (2.901) \end{gathered}$ | $\begin{gathered} 2.157 \\ (3.413) \end{gathered}$ | $\begin{gathered} -2.407 \\ (1.774) \end{gathered}$ | $\begin{gathered} -0.650 \\ (1.757) \end{gathered}$ |
| Adj. $\mathrm{R}^{2}$ | 0.308 | 0.304 | 0.703 | 0.709 | 0.324 | 0.344 |
| Auditor Fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Tailor Fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Number of Obs. | 1041 | 1041 | 557 | 557 | 557 | 557 |

Table 6: Does the Behavior of Tailors Differ Based on the Level of Capacity Constraints?
Table 6 reports results from an OLS regression of overall acceptance of urgent order, urgency acceptance before money was offered and whether the tailor asked for money on a variables that categorize the capacity constraints of the tailor and interactions with the treatment where extra money is offered by the auditor. Urgency Accepted Before Money is a dummy variable that takes the value of one when the tailor accepts the urgent order before the auditor has the chance to offer an extra urgency payment. Overall Acceptance is a dummy that takes the value of one if the tailor accepts the urgent order (this includes acceptance of the order after the extra money offer). Tailor Asked for Extra Money is a dummy variable that takes the value of one for tailors who preempt the auditor's offer by asking for an extra urgency payment immediately themselves. Extra is a dummy that takes the value of one if the auditor offers double the initial stitching charge to complete the urgent order and zero otherwise. Note that the regressions include all the variables and interactions reported in the corresponding specifications in Table 4 and 5, but only selected variables are reported. The highly capacity constrained category (the omitted category) consists of tailors who are above the $90^{\text {th }}$ percentile in terms of delivery days stated for a normal order (delivery days greater than 10). The slack category corresponds to tailors who are below the $10^{\text {th }}$ percentile in terms of delivery days stated for a normal order. The normal category corresponds to the range in-between the highly constrained and slack category. Robust standard errors for all coefficients are reported in parentheses. The symbols ${ }^{* * *, * *, * \text { indicate significance levels of }}$ $1 \%, 5 \%$, and $10 \%$, respectively.

|  | Urgency <br> Accepted <br> Before <br> Money | Overall <br> Acceptance | Tailor <br> Asked For Extra <br> Money |
| :--- | :---: | :---: | :---: |
| Normal | $(1)$ | $(2)$ | $(3)$ |
|  | $0.215^{* * *}$ | $0.202^{* * *}$ | 0.005 |
| Slack | $(0.063)$ | $(0.078)$ | $(0.184)$ |
|  | $0.324^{* * *}$ | $0.334^{* * *}$ | -0.010 |
| Extra | $(0.078)$ | $(0.092)$ | $(0.028)$ |
|  | -0.034 | -0.049 | -0.007 |
| Extra*Slack | $(0.032)$ | $(0.130)$ | $(0.014)$ |
|  |  | 0.097 |  |
| Extra*Normal |  | $(0.130)$ |  |
|  |  | $0.197 *$ |  |
| Adj. R ${ }^{2}$ |  | $(0.110)$ |  |
| Auditor Fixed effects | 0.284 | 0.308 |  |
| Tailor Fixed effects | Yes | Yes |  |
| Number of Obs. | Yes | Yes | Yes |

Table 7: Do Tailors Deliver the Urgent Order Ex Post?
Table 7 reports results from an OLS regression of delivery, urgency acceptance before money after adjusting for orders that were accepted but not delivered ex post and overall acceptance of the urgent order after adjusting for orders that were accepted but not delivered ex post, on a group of dummies representing the variations in the treatment groups. Delivery is a dummy that takes the value of one if the tailor delivered the urgent order ex post (for all orders which were accepted). Urgency Accepted Before Money Adjusted is a dummy variable that takes the value of one when the tailor accepts the urgent order before the auditor has the chance to offer an extra urgency payment and delivers the order ex post. Overall Acceptance Adjusted is a dummy that takes the value of one if the tailor accepts the urgent order and delivers the order ex post (this includes acceptance of the order after the extra money offer). In-between is a dummy that takes the value of one if the auditor returned to the tailoring shop to introduce the urgency and zero if the auditor introduced the urgency upfront. Out of State is a dummy that takes the value of one if the auditor introduces herself as visiting from another state and takes a value of zero if the auditor instead mentions that she recently moved to the area. Extra is a dummy that takes the value of one if the auditor offers double the initial stitching charge to complete the urgent order and zero otherwise. Initial Delivery Days is the number of days stated by the tailor to complete the order under standard delivery terms. Initial Price refers to the price quoted by the tailor for non-urgent delivery. Repeat is a dummy that takes a value of one for visits conducted where the urgency was introduced only after the auditor first completed an order for standard delivery. Robust standard errors for all coefficients are reported in parentheses. The symbols $* * *, * *,{ }^{*}$ indicate significance levels of $1 \%, 5 \%$, and $10 \%$, respectively.

|  | Delivery | Urgency Accepted Before Money Adjusted | Overall Acceptance Adjusted |
| :---: | :---: | :---: | :---: |
|  | (1) | (3) | (4) |
| In-between | $\begin{gathered} 0.019 \\ (0.023) \end{gathered}$ | $\begin{aligned} & 0.003 \\ & (0.029) \end{aligned}$ | $\begin{gathered} 0.018 \\ (0.029) \end{gathered}$ |
| Out of State | $\begin{aligned} & -0.075^{* * *} \\ & (0.026) \end{aligned}$ | $\begin{gathered} 0.029 \\ (0.033) \end{gathered}$ | $\begin{gathered} 0.028 \\ (0.043) \end{gathered}$ |
| Extra | $\begin{aligned} & 0.076^{* * *} \\ & (0.021) \end{aligned}$ | $\begin{gathered} 0.004 \\ (0.032) \end{gathered}$ | $\begin{aligned} & 0.142 * * * \\ & (0.031) \end{aligned}$ |
| Initial Delivery days | $\begin{aligned} & 0.003 \\ & (0.006) \end{aligned}$ | $\begin{aligned} & -0.022 * * * \\ & (0.005) \end{aligned}$ | $\begin{aligned} & -0.024^{* * *} \\ & (0.005) \end{aligned}$ |
| Initial Price | $\begin{aligned} & 0.0004 \\ & (0.002) \end{aligned}$ | $\begin{gathered} 0.001 \\ (0.002) \end{gathered}$ | $\begin{aligned} & 0.0002 \\ & (0.002) \end{aligned}$ |
| Repeat | $\begin{gathered} 0.025 \\ (0.031) \end{gathered}$ | $\begin{aligned} & 0.156^{* * *} \\ & (0.049) \end{aligned}$ | $\begin{aligned} & 0.136^{* * *} \\ & (0.049) \end{aligned}$ |
| Adj. $\mathrm{R}^{2}$ | 0.384 | 0.452 | 0.470 |
| Auditor Fixed effects | Yes | Yes | Yes |
| Tailor Fixed effects | Yes | Yes | Yes |
| Number of Obs. | 557 | 1041 | 1041 |

Table 8: Tailors as Auditors
Table 8 presents the results from the visits conducted where the tailor acted as the auditor. Refuse, Don't Ask for Extra Money refers to the treatment where the tailor refuses the urgency request and does not counter with an additional money offer. Refuse, Then Ask for Extra Money refers to the treatment where the tailor initially refuses the customer's urgent delivery requirement, then asks for a $10 \%$ additional charge to fulfill the urgent order. For the treatment Refuse, Don't Ask for Extra Money, Cust. Agrees is the number of observations where the customer offers the tailor extra money to meet the urgency demand. Cust. Leaves is the number of observations where the customer does not offer extra money to meet the urgency demand and leaves the store. For the treatment Refuse, Then Ask for Extra Money, Cust. Agrees is the number of observations where the customer accepts the tailor's offer and pays the additional charge and Cust. Leaves is the number of observations where the customer does not agree to pay the additional amount and leaves.

|  |  | No. Obs |  |
| :--- | :---: | :---: | :---: |
| Treatment | Total Obs. | Cust. Leaves | Cust. Agrees |
| Refuse, Don't Ask for Extra Money | 43 | 43 | 0 |
| Refuse, Then Ask for Extra Money | 41 | 5 | 36 |


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[^1]:    ${ }^{1}$ The literature on contracts as reference points also finds that buyers might not accept any renegotiation of contracts, but the channel is that customers feel "aggrieved" if asked to accept changes in their contract terms since they anchor on this original contract as fair, see Williamson, 1985; Hart and Moore, 2008; Hart, 2009; Hellwig and Schmidt, 2012.

[^2]:    ${ }^{2}$ Tailors do not post a fixed price schedule, as the price and delivery time depends on the stitching requirements of the customer, which makes it difficult for tailors to post standardized terms for urgency.
    ${ }^{3}$ The normal stitching time is one week, while the urgent request is to complete the order within one day.

[^3]:    ${ }^{4}$ It is not common practice for customers to ask the tailor to return the cut pieces or demand to see the cut pieces. Furthermore, other tailors do not accept the cut pieces. Note that it only takes the tailor a couple of minutes to cut the cloth into different pieces.

[^4]:    ${ }^{5}$ The results are not driven by any differences in the initial acceptance rate for in-between urgency.
    ${ }^{6}$ An alternative to our model might be an insurance motive, where sellers insure buyers against price changes. But this is unlikely to explain our results, since the costs of tailoring are not large enough that buyers would need to buy insurance upfront. In addition, we will show below that in repeat interactions where insurance would be most prevalent, sellers do not seem to be charging for insurance. We also want to highlight that it is difficult to argue that the results of our study are just driven by a (categorical) social norms, since some tailors do ask for money. And we also show that the incidence of charging more is highest in situations where the seller's reputation is less affected, which points to strategic behavior rather than a simple norm.

[^5]:    ${ }^{7}$ See appendix for the details. See also Tadelis (1999 and 2002).
    ${ }^{8}$ For instance, reputation concerns of being seen as price gouging carry weight if there is an underlying expectation or fairness norm that tailors should not take advantage of customers when they have a shock.
    ${ }^{9}$ A simple fairness norm never to take advantage of customers would not lead to significant differential behavior between out-of-state and in-state customers. Thus, a fairness norm explanation would hold even in a one-shot game where there are no dynamic incentives such as likelihood of repeat interaction/reputation.

[^6]:    ${ }^{10}$ By itself this does not preclude tailors from making an offer to the customer. This explanation needs to be coupled with a small cost of negotiating to make a tailor unwilling to make an offer that has a high probability of getting rejected. See Keniston (2011) for evidence of bargaining costs using a field experiment in India.

[^7]:    ${ }^{11}$ One can also imagine that there are unobservable quality differences on the product side that are difficult to communicate upfront, e.g., how durable the product is. And again, a high-quality seller would have interest to signal his long-run mentality to the buyer.

[^8]:    ${ }^{12}$ See also Guiso et al. (2004), Guiso et al. (2006) and Putnam (1983) for papers that emphasize the importance of social capital in sustaining trade and contracts in settings where legal enforcements of contracts are weak.

[^9]:    ${ }^{13}$ See also MacLeod (2007) for a discussion of social preferences in contracting.
    ${ }^{14}$ See List (2006) and Levitt and List (2007) for discussion on how laboratory experiments match to real world settings.

[^10]:    ${ }^{15}$ We use the term product for both goods and services.
    ${ }^{16}$ The assumptions that the measure of buyers is $[0,1]^{2}$ and that each buyer gets replaced by a new buyer with positive probability imply that each seller serves a continuum of buyers in equilibrium.

[^11]:    ${ }^{17}$ Assumption $c<\lambda u_{H}$ means that it is jointly optimal to fulfill the urgent request.
    ${ }^{18}$ There also exists an equilibrium in which no seller incurs effort. As a consequence of Bertrand competition, $p=0$. Since no seller incurs effort, her type and reputation are irrelevant.

[^12]:    ${ }^{19}$ There can be equilibria in which sellers charge prices higher than $p^{*}$. However, they are ruled out by requiring that belief updating of buyers satisfies the Grossman and Perry (1986) notion of credible updating (see the appendix).

[^13]:    ${ }^{20}$ The cost of the cloth is many times higher than the tailoring costs; therefore customers typically return to pick up the order.
    ${ }^{21}$ It is not common practice for customers to ask for the cut pieces. Furthermore, other tailors do not accept the cut pieces.

[^14]:    ${ }^{22}$ Also, in the in-between urgency case, tailors have already spent time taking the measurements of the customer. These costs are sunk and should not matter. However, if tailors take these costs into account in making their decision, they should be more likely to accept the order with in-between urgency than the order with upfront urgency (which we do not find in the data).

[^15]:    ${ }^{23}$ In the pilots, we also tried to just offer extra money (instead of double) to the tailor. We found similar effects for both treatments (though we could not formally test it, as we had very few observations). However, we focused on the double money treatment because we wanted to see if tailors extract the entire surplus. We also piloted the treatment where the auditor offers double money immediately after stating the urgency (without waiting for the tailor's response), but again did not find any major difference.

[^16]:    ${ }^{24}$ While one could argue that tailors are reluctant to initiate renegotiation because they find these clients annoying, this explanation is tough to reconcile with the finding that many tailors who have slack accept the urgent order without any additional charge. Also, we find that tailors do not extract the entire surplus when offered double money. Instead they take only a small fraction, consistent with the idea of leaving money on the table to preserve reputation.

[^17]:    ${ }^{25}$ One could argue that tailors are reluctant to initiate renegotiation with customers who have urgency, as these are annoying clients. However, this explanation is tough to reconcile with the finding that tailors who have slack agree to fulfill these orders without any additional price. In addition, we also find that tailors do not take the entire surplus when auditors offer extra money.

[^18]:    ${ }^{26}$ One could argue that tailors prefer fairness and therefore do not initiate price renegotiations and extract surplus from customers. Thus, even without any fear of price gouging, the fairness consideration could explain tailors' behavior. However, the finding that tailors are more likely to renege on delivery for out-ofstate auditors combined with the findings for repeat clients suggests that dynamic incentives for tailors not to be seen as price gouging play a role.
    ${ }^{27}$ It seems highly unlikely that tailors have a high cost of negotiating as tailors easily enter into negotiations about delivery time. See Keniston (2011) for an empirical estimation of bargaining costs.

[^19]:    ${ }^{28}$ As stated earlier, we also ran pilots where auditors state the urgency straight away; we did not find that this led to any noticeable difference in the tailors' behavior.
    ${ }^{29}$ Note that this does not rule out that some customers in the market offer additional money themselves. Tailors did say in the pre-pilot interviews that some customers offer additional money in case of urgency. Also, in the interventions where auditors offered double money, if these were completely out of the ordinary, it would have raised suspicion of the tailors. Especially, given that tailors had visits from different auditors offering additional money. However, we did not find this to be the case.
    ${ }^{30}$ We also tried a $40 \%$ additional money demand in a few pilot cases to see if there was any difference in customer uptake and found that most of the customers still agreed to pay. Thus, in general it does not seem that the reservation value of the customer is low.

[^20]:    ${ }^{31}$ This aggrievement could be driven by customer beliefs that it is "unfair" for tailors to demand additional money in case of urgency (see Kahneman et al., 1986 for survey-based evidence). Or alternatively, it could arise due to loss aversion as customers might anchor on the initial contract (Hellwig and Schmidt, 2012). These beliefs could also explain why customers themselves do not offer additional money.

[^21]:    ${ }^{32}$ Grossman and Perry's credibility notion requires that after observing a sender's off-equilibrium message $m$ (a seller's price in our case), the receiver (a buyer in our case) revises beliefs to a subset $K$ of types of the sender with the property that if the receiver takes the optimal action given his revised beliefs, then every type of the sender in $K$ is better off sending message $m$, while every type not in $K$ is worse off.
    ${ }^{33}$ This belief is credible according to Grossman and Perry (1986). It is easy to check that for this deviation set $K$ of types from their footnote 35 is empty, which implies that credibility puts no restrictions on belief for this deviation.

[^22]:    ${ }^{34}$ It is sufficient to consider deviations to $p^{\prime}$ since any other deviation is dominated by it and because it leads to the same beliefs of the buyer, and $p^{\prime}$ maximizes the one-period payoff of the seller.

