

**HOW TO PROMOTE LONG-TERM APPROPRIATION IN BUYER-SELLER
NEGOTIATIONS? THE ROLE OF BARGAINING EXPERIENCE**

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ABSTRACT

Scholars currently debate on how companies deal with tensions between short- and long-term value appropriation. We contribute to this debate by theorizing and providing detailed evidence on how sellers' bargaining experience leads to a lower propensity to appropriate gains in single exchanges and fosters long-run gains via recurring interactions with buyers. We benefit from proprietary data from a franchisor of dental clinics targeting medium to low-income clients, where value appropriation is particularly difficult because buyers are constrained in their willingness to pay for high-quality services. Our results show that seller bargaining experience is associated with price discounts in individual transactions, and that this effect is higher in the case of more constrained buyers. Further, a reduced short-term appropriation increases the flow of revenues in future transactions especially when fewer sellers are competing for similar clients, consequently increasing the appropriation of long-term gains emanating from recurring interactions. We thus contribute with a clear mechanism explaining how managers may be incentivized to relinquish short-term gains in favor of relational value in the long run.

KEYWORDS: value appropriation, intertemporal incentives, contextual constraints.

1. INTRODUCTION

The mechanisms through which firms achieve sustained rents are central to strategy research (Chatain & Plaksenkova, 2019; Garcia-Castro & Aguilera, 2015). Extant debates focus on critical dilemmas that managers face due to tradeoffs between short- and long-term appropriation (Lieberman, Balasubramanian & Garcia-Castro, 2018) and on how *short-termism* induce managers to excessively focus on immediate gains instead of building conditions to enhance long-term value creation (e.g., Lavery, 1996; Marginson & McAulay, 2008). For instance, to increase revenues in individual transactions, managers may aggressively bargain with clients, reduce service quality, and neglect potential gains that could emerge via recurring interactions with more engaged buyers. Accordingly, studies have confirmed a negative association between short-termism and sustained rents (Flammer & Bansal, 2017; Flammer, Hond & Minor, 2019; Slawinski & Bansal, 2015).

However, little is known about the mechanisms shifting managerial orientation towards an emphasis on long-term appropriation. In this paper, we propose a key determinant: *bargaining experience*. We submit that experience allows managers to accumulate knowledge that are helpful to assess opportunities and relinquish gains in the short term in favor of potential value emanating from future transactions. Our mechanism, therefore, rests on how experience increases the sellers' ability to build and benefit from relational exchanges (e.g. Elfenbein & Zenger, 2017; Lazzarini, Miller & Zenger, 2008) and promotes appropriation abilities by altering intertemporal incentives in recurring interactions (Lieberman, Balasubramanian & Garcia-Castro, 2018). We also propose that experience is particularly critical in economically constrained markets (Kern & Gospel, 2020; Lazzarini, 2020), as buyers might have income limitations to afford higher prices in individual transactions. Therefore, experienced sellers might increase value

appropriation via rents emanating from serial exchanges instead of gains in spot negotiations. Yet, such long-term value requires an expectation of continuity (Poppo, Zhou & Ryu, 2008), with a sufficiently high likelihood that sellers will interact with the same buyer. Thus, we also hypothesize that an increase in seller competition will weaken the benefits of lowering short-term gains to promote long-term appropriation, as it will reduce the likelihood that buyers and sellers will meet in future negotiations.

To test our hypotheses, we rely on unique data from around 140,000 negotiations in a franchisor of dental services complemented with individual-level employment data. Our detailed data allow us to examine both listed and final prices, which gauges the value that the transacting agents can appropriate in each transaction. In the seller's perspective, a final price that is lower than the listed price is a *discount* and represents lower short-term appropriation. We also benefit from a quasi-experimental setting. After entering the franchise unit and receiving a free clinical assessment from a dentist, buyers wait in a queue and are assigned to the next available representative seller to negotiate dental treatment prices. Neither buyers nor sellers choose with whom they would like to negotiate, thus mitigating concerns that, for instance, more experienced sellers will choose their customers. However, the same customers can return in the future and be assigned to the same previous seller. In our setting, representative sellers receive payments contingent on the outcomes of the deal, which creates strong appropriation incentives in the transaction.

Our analysis shows that bargaining experience helps sellers reconcile intertemporal appropriation incentives. We find that accumulated experience increases the likelihood that sellers will propose price discounts. Sellers with more than 300 finalized sales provide discounts that are 50% higher than the average discount offered. We also find that this effect tends to be larger when sellers face income-constrained

buyers, which suggests that experienced sellers are better able to take into account the constraints that limit their ability to appropriate gains in spot exchanges. We then show that higher discounts increase the gains that sellers can reap in future transactions, by increasing the likelihood that the same client will return to the same clinic. However, this effect is moderated by the extent of seller competition. Because, as argued before, sellers do not directly choose the clients that arrive at a clinic in a given period, the likelihood that they will meet the same client is reduced if the number of available sellers increases.

Our paper contributes to the literature on strategic value appropriation by proposing a precise mechanism through which managers can adjust intertemporal incentives to reduce the potential negative effect of short-termism (Flammer & Bansal, 2017; Flammer, Hond & Minor, 2019; Slawinski & Bansal, 2015). By suggesting that appropriation abilities developed through accumulated bargaining experience help transacting agents to deal with the inherent tradeoffs between short-term and long-term appropriation, our theorizing offers a determinant of value appropriation not only in single transactions but also in repeated exchanges (e.g., Lieberman, Balasubramanian & Garcia-Castro, 2018). Furthermore, we examine how the effect of bargaining experience on value appropriation is influenced by demand-side constraints and supply-side competition, thus informing the burgeoning literature on the interplay between appropriation and setting constraints (Kern & Gospel, 2020; Lazzarini, 2020). Overall, our results demonstrate the importance of examining the dynamic effects of appropriation and how heterogeneous individual and contextual factors may influence the ability to capture value beyond single short-term exchanges.

2. THEORY AND HYPOTHESES

Although the strategy literature recognizes that the value created in a buyer-supplier relationship is equal to the difference between the buyer's willingness-to-pay and supply

costs, while prices dictate the appropriation of the total value (Brandenburger & Stuart, 1996), a remaining question is whether transacting agents will emphasize gains in short-term exchanges (i.e., *static appropriation*) or instead try to capture higher value in the long-term via a string of sequential transactions (i.e., *dynamic appropriation*) (Lieberman, Balasubramanian & Garcia-Castro, 2018).

At a more fundamental level, static or dynamic appropriation is an intertemporal choice problem, as managers may be tempted to pursue immediate gain at the expense of actions that would lead to value capture in the long term (Kern & Gospel, 2020; Slawinski & Bansal, 2015). Accordingly, scholars have debated on how agents manage the inherent tensions between short- and long-term appropriation incentives (Marginson & McAulay, 2008). Yet, missing in this debate is the identification of individual features that can reconcile intertemporal incentives. Addressing this void, our theorizing focuses on individual bargaining experience as a determinant of individual appropriation ability affecting short- and long-term strategies.

2.1. Bargaining Experience and Short- and Long-Term Appropriation

Following previous work, we conceptualize *bargaining experience* as individual level accumulated expertise in negotiations (e.g. Bennett, 2013, Obloj & Sengul, 2012). Indeed, learning through negotiations is an important appropriation ability influencing sustained appropriation (Grennan, 2014). Learning effects arise from general and firm-specific expertise (Molloy & Barney, 2015). As experienced individuals better understand the overall negotiation setting (Barney, 2018), they might appropriate a higher share of the profits that they generate. Also, learning makes individuals more efficient at conducting firm-specific daily tasks (Obloj & Sengul, 2012). Accordingly, Bennett (2013) shows that inexperienced sellers at auto dealerships usually reassign difficult deals to their most experienced peers.

Yet, these positive effects of bargaining experience should have distinct consequences for short-term and long-term appropriation. The literature on short-termism recognizes that an excessive on immediate appropriation might hamper long-term appropriation and sustained rents (Flammer & Bansal, 2017; Flammer, Hond & Minor, 2019; Slawinski & Bansal, 2015). As transacting agents learn throughout negotiations, they are exposed to multiple sequential transactions and will better understand and manage tensions between short- and long-term incentives (Lieberman et al., 2018). We further propose that bargaining experience might reconcile intertemporal incentives as experienced sellers better understand the importance of long-term channels influencing appropriation between time periods.

Experienced sellers may be better able to perceive the gains from sustaining repeated interactions with their buyers. By leveraging relational ties with their clients (Kale, Singh & Perlmutter, 2000), bargaining experience helps sellers to understand the importance of convincing buyers that their relationship is truly valuable. Indeed, uncertainty about the value that can be created in a given exchange might render negotiations ineffective (Halac, 2012). For instance, experienced individuals might sustain valuable relationship as they develop their reputation (Banerjee & Duflo, 2000) and better coordinate their relationships (Gil & Marion, 2013). Lower seller appropriation in a spot transaction should increase the short-term gains of the buyers, therefore increasing their propensity to return for future exchanges as they perceives such relationship as valuable. Finally, experienced sellers should reduce their appropriation in a short-term dimension when first bargaining with a buyer, diminishing the short-termism as by valuing relational ties. So, we first hypothesize:

[H1] Seller bargaining experience reduces sellers' short-term appropriation.

We also argue that bargaining experience should increase sellers' understanding of *constraints* that affect their ability to reap short-term value. Specifically, we focus on buyers' income constraints (Halme, Lindeman & Linna, 2012; Kern & Gospel, 2020; Lazzarini, 2020), which are particularly relevant in the case of firms targeting clients at the bottom of the pyramid (Prahalad, 2006; Prahalad & Hart, 2002). Value appropriation limitations are likely to arise when transacting agents face resource constraints and vulnerabilities that can prevent them from potential benefits generated by the negotiation (Karnani, 2007; Lazzarini, 2020; Peredo & Chrisman, 2006).

Because these buyers have severe income constraints, sellers might be unable to push for higher prices that ultimately reduce the likelihood of closing the deal. Bargaining experience would enable sellers to perceive an increase in the severity of buyers' income constraints. As these buyers would have an even lower likelihood to close initial deals by full prices, experienced sellers should reduce their own appropriation with the prospect of not only closing a spot deal but also stimulating recurring exchanges. The more elastic demand present in such constrained markets implies that experienced sellers might relinquish higher gains in the short run to trigger and benefit from future interactions with constrained buyers. In other words, we predict that the effect of bargaining experience should increase when sellers face income-constrained buyers:

[H2] The effect of seller bargaining experience on short-term appropriation (as described in H1) is enhanced in settings with more income-constrained buyers.

2.2. How Lower Short-Term Appropriation May Promote Value Capture in the Long-Term

A key part of our argument involves managing a tradeoff between short- and long-term appropriation – a process that, we argued, benefits from improved seller experience. We thus now theorize that reduced short-term appropriation leads to higher appropriation

in the long run. Specifically, experienced sellers would elicit further interactions, potentially increasing future revenues through repeated exchanges (Elfenbein & Zenger, 2017; Lazzarini, Miller & Zenger, 2008).

As sellers strategically do not appropriate the most as possible in the short-term, buyers should follow on recurring interactions if they perceive discounts as a positive signal of sellers' commitment to nurture repeated interactions (Kale, Singh & Perlmutter, 2000). Along these lines, the marketing literature has already highlighted that discounts increase customer loyalty (Wieseke, Alavi & Habel, 2014), with relational mechanisms influencing the dynamics of negotiated prices (Kale, Singh & Perlmutter, 2000). Hence, as experienced sellers reduce their appropriation in spot negotiations to stimulate future exchanges, buyers are expected to respond by increasing their willingness to return if they believe they will be able to keep capturing a higher share of the value created in the exchange.

Indeed, prior work has shown that positive exchange signals or “gifts” elicit a reciprocity effect and stimulate further cooperative behavior (Falk, 2007; Falk, Fehr, & Fischbacher, 2008). For instance, workers who receive unexpected bonuses and above-market wages usually cooperate more and exert higher effort at their jobs (Gilchrist, Luca, & Malhotra, 2016; Gneezy & List, 2006). In a negotiation context, we propose lower short-term appropriation—for instance, price discounts and a less aggressive approach in the bargaining process—might be also considered as a form of gift. Sellers would propose discounts as they expect customers to reciprocate with future interactions and long-term revenues.

It is also possible that buyers, observing a less aggressive orientation of sellers in the bargaining process, may expect that the same behavior will be observed in future exchanges—the so-called “shadow of the future” effect (Axelrod & Hamilton; 1981,

Poppo, Zhou & Ryu, 2008). In the language of repeated games, both buyers and sellers may arrive at an equilibrium where they expect lower short-term gains in favor of future cooperative value (Abreu, 1988; Gil & Marion, 2013). Thus, we hypothesize:

[H3] The lower the seller appropriation in the short-term, the higher the seller appropriation in the long-term.

This repeated exchange mechanism, however, requires that there is a high probability that sellers will meet the same buyers in future exchanges. We thus suggest that the link between short- and long-term appropriation should diminish in the presence of increased seller competition among sellers. If a seller faces several alternative providers of the same product or service, the likelihood of securing relational ties in the long-term with a particular buyer is diminished. Therefore, we highlight that sellers not only face demand-side (or buyer-side) constraints, as previously hypothesized, but also supply-side (or simply seller-side) constraints (Kern & Gospel, 2020). Because there is lower probability of repeated ties when there are higher market alternatives, we expect that the effect predicted by H3 should be reduced when there is an increase in seller competition. This logic leads to our last hypothesis:

[H4] The effect of short-term on long-term appropriation (as described in H3) is diminished when there is higher seller competition.

Figure 1 outlines our hypothesized mechanisms. In a nutshell, we have argued that sellers' bargaining experience reduces their short-term appropriation (H1). This effect is moderated by buyers' constraints, measured by their income (H2). Yet, reduced appropriation in the short-term increases appropriation in the long-term (H3), an effect that is negatively moderated by seller competition (H4).

[Figure 1 about here]

3. DATA AND METHOD

3.1. Empirical Setting

We had access to a proprietary dataset that contains detailed information on a franchisor of dental clinics focused on but not limited to low-income clients. In our context, the negotiating buyers are heterogeneously constrained in terms of their income. The bottom quartile of buyers' sample has a median monthly income of fewer than 200 dollars, which corresponds to less than the local minimum wage. Value appropriation in this setting is particularly relevant as in low-income and middle-income countries dentistry is often unavailable, unaffordable, and inappropriate for most of these populations (Watt et al., 2019). Access barriers are not restricted to complex dental procedures, but extend to basic oral health (Glied & Neidell, 2010; Gallego et al, 2017).

It is important to highlight that the dental clinics we analyze are for-profit units focusing on increasing revenues and profitability—that is, they do not have a general mission to promote social benefits beyond the provision of affordable dental services (which could otherwise be an alternative mechanism explaining the reconciliation of short- and long-term incentives). All units follow the same operational proceeding and work upon negotiated prices, relying on representative sellers for enhancing value appropriation. These sellers receive payments contingent on the outcomes of the deal, which creates strong appropriation incentives in the transaction. The franchisees have records for all negotiations – accepted or rejected – and register the agreed prices for the accepted deals.

3.2. Data and Measures

Our analyses draw on proprietary data, government census and interviews with the management team of dental clinics, sellers and dentists. First, the unique data from the dental clinics allow us to examine buyer-seller interactions and final agreed prices. We rely on 4 franchisees units from the State of Minas Gerais, from 2014 to 2018, comprising

around 140,000 negotiations between 76 sellers and almost 20,000 buyers. Second, we are able to track buyers' characteristics, as we manage to match buyers to a government labor census covering individual-level employment data – the Brazilian *Relação Anual de Informações Sociais*. It consists of a longitudinal matched worker-firm database with information on workers' features that are key to our approach (as income and job occupation). Third, we complement these datasets with qualitative evidence from interviews.

Our dataset is particularly well suited to test our hypothesis for three main reasons. First, we were granted access to fine-grained data on accepted and reject deals, covering the agreed prices for accepted deals and allowing us to measure value appropriation between the firm and their targeted buyers. Second, the focal firm implements a standard operational proceeding for all franchisees, which is important for isolating the end negotiation for further analyses. Third, as buyers are heterogeneously constrained, it allows us to investigate the contextual constraints measured according to buyers' income. Essentially, the detailed data from government labor census covers all formal employment in Brazil but misses the informal sector. However, prior research has already shown that there is no wage-formality gap in the country once conditioned on age, location, and education (Gerard, Lagos, Severnini & Card, 2018).

Dependent variables. Our dependent variables vary for our short-term and long-term analyses. First, we consider the focal negotiations for our short-term analyses. Then, we rely on a measure of value appropriation proxied by the *discount* offered in that focal deal. We prefer to use discounts instead of prices in our specifications in order to control for potential changes in the cost of the service—which would then affect price levels. We compute our measure based on the discount given in each specific deal, as the firms offer more than 300 different dental procedures, from esthetics to emergency treatments, and

records a baseline list price for all procedures at each period. Specifically, we created the variable *Discount* measured as the difference between the baseline list price and the agreed price. We deflate the prices to have comparable measures across periods (from 2014 to 2018). Finally, as a considerable portion of procedures is paid through installments, we rely on the net present value for the negotiated price considering the standard interest rate of the country in the period of the negotiation (on a monthly basis). Hence, our final specification considers the logarithm of the ratio between the baseline prices and the agreed prices ($\ln(\text{Discount})$).

Second, to measure long-term appropriation, we create a variable labeled as *FutureRevenues*, measuring the flow of future sales a seller generates with a particular buyer – which is given by the sum of future sales (considering deflated prices). As sellers have payments contingent to their successful deals, higher revenues in a foreseeable future translate to higher sellers' long-term appropriation (Gil & Marion, 2013). To compute this measure, we track the revenues that a particular buyer generates in future deals with a given seller after their first interaction. In other words, for each observation—a spot exchange—we gauge not only sellers' decision to reduce their short-term appropriation (via higher discounts) but also the future sales that the seller triggers with the same buyer.

Independent variables. Our measure coding seller bargaining experience (*BargainingExperience*) follows Obloj & Sengul (2012) and gauges the cumulative sales of the franchisee's representative sellers. Cumulative sales are a good and established proxy for experience as they reflect both exposure over time as well as learning by doing (Benkard, 2000). Additionally, we consider the squared term for sellers' bargaining experience – as learning curves could be concave, once in each period individuals learn a proportion of what is left to learn (Adler & Clark, 1991). We also performed robustness

checks considering simple “time clock” variables, measured by a simple monthly count, which takes the value of 1 for the first month of the employee.

Moreover, we use a dummy (*ConstrainedBuyer*) indicating buyers who are severely constrained to investigate the moderator hypotheses for income constraints. For our main specification, buyers who are among the poorest 25% of our sample are set as the most constrained – they receive less than the minimum wage according to the national constitution. As robustness checks, we test for different thresholds and consider subsample analyses for negotiations covering buyers from different income ranges.

Control variables. We highlight that buyers may also be heterogeneous according to their bargaining experience – as these appropriation abilities are transacting agents’ resources, who are either sellers or buyers. On the buyers’ side, Kray and Haselhuhn (2007) already noticed the importance of agent beliefs and the uncertainty concerning the malleability of negotiation. In sum, while sellers have a good degree of certainty about the malleability of the negotiation upfront, for buyers we admit heterogeneities in their knowledge about plausible prices to be negotiated in given retail. Hence, as an important control variable for negotiation outcomes, we rely as a proxy for buyers’ bargaining experience a binary variable related to the job position of the individual, observing whether she works on job occupations that demand negotiation skills – as salesforce or performing procurement functions. Additionally, as a way to take into account buyers’ individual traits, we control for wage, age, gender (male or female), ethnicity (white or non-white), schooling (lower than high school, high school degree or college degree), all gathered from the government labor census. We also track if the buyer is negotiating on her behalf or if she is a third-party negotiator for the customer (usually their children or couple). Bowles, Babcock and McGinn (2005) show that whether subjects are negotiating for themselves or others matters for the negotiation outcomes –

particularly, women's performance tends to improve when negotiating for someone else as opposed to for themselves. Besides, as we have addresses for both focal firm and buyer, we also know if the buyer is likely to be traveling during his appointment.

At the sellers' individual features, unfortunately, the clinics do not record their national identification number, so it is not possible to match with information from the government labor census. Still, we control for sellers' past performance measured by their generated revenue (both during the month until that day and on the last day). We also control for the number of procedures approved together in the same treatment for the focal buyer in a specific negotiation. As sellers bargain several procedures within the same consultation (as pointed by the dentist who performed the free evaluation), they could provide discounts in some procedures once the buyer closes more deals, thus influencing profit margin. In addition, we considered the ratio of buyers to sellers in that given day (as a proxy for demand munificence), to control for sellers' capacity constraints in the presence of demand fluctuations (Chatain & Eizenberg, 2015). In our context, it is measured as the number of buyers that each representative seller encounters in a given day. Lastly, we observe the number of other closed procedures by the seller on that day apart from the focal negotiation (a proxy for her performance and the ability of closing deals). At the transaction level, we have information about the specific procedure (300 within 10 specializations), payment method (cash or credit card) and a dummy variable for aesthetics procedures. We are also able to control for the number of repeated exchanges the buyer had with a clinic (on different days, regarding different treatments). Finally, we add controls for the week of the month, that could be important both for sellers (as their performance indicators are computed by month) and buyers (as usually, Brazilians receive their monthly wages once at the beginning of the month) and the focal firms' lifetime (monthly time clock variable).

Table 1 presents the descriptive statistics of our dataset, while Table 2 outlines the correlation matrix. As our main interest is in investigating value appropriation, we focus on presenting the statistics concerning the accepted deals.

[Table 1 about here]

[Table 2 about here]

We supplemented these quantitative data with qualitative evidence. Such complementary information came from 10 interviews conducted by one of the authors during November and December 2019. Interviewees covered 3 top management franchisor employees, 3 dentists and 4 sellers.

3.3. Empirical Strategy and Estimation Methods

Our empirical strategy is twofold. First, we take advantage of a quasi-random assignment of buyers to sellers to implement our analyses on the determinants of short-term appropriation. In our setting, after entering the franchise unit and receiving a free clinical assessment from a dentist, buyers wait in a queue and are assigned to the next available representative seller. As neither buyers nor sellers choose with whom they would like to negotiate, we have an appealing setting for analyzing causality. The responsible dentist for the evaluation pass on the information on the services the buyers need (and/or may seek in case of esthetics, for instance) and the seller bargain with the buyer for a deal. Upon approval, further consultations and exams are charged and scheduled. The buyers' journey according to the firms' standard proceeding is schemed in Figure 2, representing how the empirical setting is suitable for the conceptual background.

[Figure 2 about here]

Our empirical setting is particularly well suited to investigate value appropriation as it isolates the end negotiation for further analyses. Once the franchisor implements a fixed operational proceeding for all focal firms, there is no strategic move affecting the

bargaining outcomes apart from the negotiating dyad characteristics. As both agreed prices and odds for accepting the deal are endogenously determined, an ideal analysis would correct the selections problems concerning the accepted deals. Recall that we only observe the negotiated prices once the deal is accepted – as the contract is generated and the payment is done. Hence, for the rejected negotiations, there is no agreed price. However, it would be impractical to find instruments – usually adopted to avoid such selection issues (Heckman, 1979) – as the bargaining outcomes are given simultaneously and the transacting agents do not follow some predefined process (Brandenburger & Stuart, 2007; Gans & Ryall, 2017). In addition, several important features for analyzing value appropriation – apart from the price itself – are only available for accepted deals, as the payment method and the number of installments.

Thereby, we first detail our short-term analyses and narrow our sample to the cases where we potentially have value creation (accepted deals). The dependent variable *Discount* gauges the division of rents in each spot negotiation. Based on the transactions with a deal, we use the discount as a dependent variable and clustered OLS regressions at the focal firms' level. Thus, we estimate the following model:

$$Discount_{ijk} = \alpha_0 + \beta_1 BargainingExperience_j + \beta_2 ConstrainedBuyer_i + \beta_3 BargainingExperience_j * ConstrainedBuyer_i + \beta_4 Controls + \epsilon_{ijk}, \quad (1)$$

where *Discount_{ijk}* represents the agreed discount concerning the negotiating dyad between buyer *i* and seller *j*, regarding the transaction *k*, and *BargainingExperience_j* is our main independent variable, following our methodology section. Besides, we add *ConstrainedBuyer_i* representing the role of contextual constraints, that in our context is the interaction between the buyers' income constraints and sellers' bargaining experience (as we investigate H2). So, the equation considers additional controls on the characteristic vectors of the buyer, the seller, the potential transaction, and ϵ_{ijk} is the stochastic term.

We use the logarithm form for $\ln(\text{Discount})_{ijk}$ as our main variable instead of the negotiated prices themselves, aiming to avoid biases due to changes in procedures costs. The rational of value capture works analogously when focusing on discount, however in opposite manner. Simply put, sellers with higher bargaining experience should reduce their own short-term appropriation; therefore, they close deals with higher discounts (i.e., lower agreed prices).

For our analyses of long-term appropriation effects, we investigate whether a lower short-term appropriation promotes higher value capture for sellers in the long run. Formally, we estimate the following model:

$$\begin{aligned} \text{FutureRevenues}_i = & \alpha_1 + \beta_5 \text{Discount}_{ijk} + \beta_6 \text{ConstrainedBuyer}_i + \\ & + \beta_7 \text{Discount}_{ijk} * \text{ConstrainedBuyer}_i + \beta_8 \text{Controls} + \epsilon_{ijk}, \quad (2) \end{aligned}$$

where FutureRevenues_i represents all the upcoming revenues concerning the buyer i , and the remaining follows equation (1). Further, the variable measuring buyers' constraints helps identify whether this effect is enhanced for constrained buyers, which would provide additional support to our prior predictions. As low and high seller competition may imply distinct negotiation schemes, we employ split sample regressions considering the median of competing sellers per month working simultaneously to test the effect of seller competition (H4).

4. RESULTS AND ANALYSES

4.1. Short-Term Appropriation

All the following OLS regressions implement standard errors clustered at the focal firms' level. Our main regressions considering the short-term analyses are presented in Table 3, with the results considering the appropriation abilities and contextual constraints as we model in equation (1). Specification 1 considers the full sample, meanwhile specification

2 considers only the first negotiations for that particular buyer and specification 3 corresponds to the repeated exchange subsample analyses.

We hypothesized that bargaining experience would reduce the respective sellers' short-term value appropriation (H1). As we model the discount offered as our dependent variable, we expect a positive effect – that is, higher discounts meaning lower appropriation for sellers. We found support for our predictions. The estimated coefficient for sellers' bargaining experience is significant for every specification. Considering only the sample with the first interactions (column 2), the sellers' bargaining experience coefficient is significant at the usual 5% level ($\beta_1 = 0.0260$, $p < 0.05$). We recall that such specification is preferred to investigate the short-term effect on appropriation, as we further argue sellers may reduce their appropriation, particularly at the first interaction to secure long-term profitability through recurring interactions. One standard deviation of sellers' bargaining experience (around more than 300 accumulated sales or 7 working months) leads to an extra average discount of 2.54% of the baseline price (around 50% more than the average discount offered by all sellers).

As for H2, we hypothesized that income constraints would moderate the negative effect of sellers' bargaining experience on their appropriation. We also found support for this hypothesis. Still considering the sample with the first seller-buyer interactions (column 2), the coefficient of interaction between *BargainingExperience_j* and *ConstrainedBuyer_i* is strongly significant and positive ($\beta_3 = 0.00457$, $p < 0.01$). Thus, experienced sellers seem to provide discounts particularly when bargaining with the poorest.

[Table 3 about here]

Finally, our qualitative evidence corroborates with our findings. The interviewed sellers argue that buyers make use of both installment payments and recurring purchases in order to afford for all needed procedures. As stated by one employed seller:

Several buyers are too poor. They cannot afford most procedures, and we try to provide them credit through installment payment in order to convince them. Besides, they oftentimes come back for the remaining services they could not afford at first.

Moreover, sellers argue that the half lower-income buyers do particularly follow this pattern, probably because such buyers do not manage to pay for most procedures that they need at their first visit. Another seller states:

The poorest buyers cannot afford all the services they need. At least not upfront. Some buyers are not that poor, but the half poorest usually pay through installments and became loyal customers.

Bargaining Experience and The Interplay between Short- and Long-Term Appropriation

We now present our analyses of how short-term appropriation influences the seller ability to capture value in the long term. The main hypothesized mechanisms refer to reduced short-term appropriation leading to long-term profitability (H3). We tracked the future revenues a particular buyer would generate to the firm after their first negotiation. Hence, we observe whether discounts provided at the first deal elicit successful recurring interactions and further sales. Our main regressions considering the long-term predictions are presented in Table 4, with the results considering the interplay of short- and long-term as we model in equation (2). Specification 1 considers the full sample, meanwhile specification 2 and 3 represent each the subsamples of fewer or more competing sellers (divided according to the median value of sellers at a particular month/clinic, which is 8).

These subsample analyses help us to determine whether effects depend on sellers' competition, as predicted in H4 (the "shadow of the future" effect).

[Table 4 about here]

Again, we found support for both our main long-term hypothesis (H3). Specification 1 shows that higher discounts (i.e., lower sellers' short-term appropriation,) positively influences future revenues with a particular buyer ($\beta_5 = 3.416$, $p < 0.01$). Moreover, we observe that the effect is particularly important for the most constrained population, providing additional support for our hypothesized mechanism that experienced sellers consider income constraints when bargaining with buyers ($\beta_7 = 23.39$, $p < 0.1$). Future revenues surpass the discounts offered at the beginning by a large amount, especially when sellers negotiate with constrained buyers. These future revenues correspond to 3 times the magnitude of initial discounts, and such magnitude tends to increase with further recurring interactions. Results are overall the same if we add sellers', buyers' and negotiations' features as additional controls. These findings corroborate with our rational regarding experienced sellers reducing appropriation particularly when they perceive that buyers are more vulnerable.

Furthermore, we investigate whether this behavior would depend on the sellers' competition (H4). Again, we conclude that the uncertainty regarding future interactions seems to diminish the effect of discounts on future revenues. In the subsample with fewer competing sellers (column 2 of Table 4), the coefficient of $Discount_{ijk}$ is higher than in the subsample involving a higher number of competing sellers (column 3). The estimated coefficients are significantly different from each other according to t-tests of coefficient comparison ($p < 0.001$). We also observe that the buyers' constraint itself is a strong predictor reducing future revenues, once vulnerable buyers have limitations to purchase such dental services. These results are consistent with our proposed mechanism that the

positive future gains from lower short-term appropriation increase when there is a higher likelihood that sellers will meet the same buyers in the future – which is more likely when there is lower seller competition.

The top management employees all state that the dental clinics are profitable mainly due to most complex procedures, that, however, are upfront unaffordable to middle- and low-end buyers. Corroborating to their view, both dentists and sellers interviewed confirm that the poorest seek the most urgent demands at first, further coming back for more complex and expensive procedures in repeated interactions. As stated by the former franchisor CEO:

What we sell are services, and complex procedures are where we make money. If we sell anything cheap, it is so that we can sell more services like implants and prostheses, even if providing discounts.

Therefore, as experienced sellers enable constrained buyers to cover all their needs and more complex at a pace reasonable for their budget, they promote a strategy that is long-term profitable for their clinics and themselves (as they have contingent wages on revenues).

Additional Robustness Checks

We conduct a set of empirical exercises to obtain greater confidence in our short-term results. First, we provide an alternative test using a propensity score matching method as robustness to the sellers' bargaining experience variable. The challenge in our setting is that the "treatment" is not binary, as the cumulated sales are a continuous measure. Following Paik, Kang and Seamans (2019), we assign a cutoff value for bargaining experience to assign sellers as "experienced" (treated) and "inexperienced" (control). We use as cutoff the median value of the accumulated sales (234 sales), which provide us with similar estimates as using as the cutoff the median number of working

months, which is 10 months. Moreover, we conduct subsample analyses according to buyers' income instead of considering the contextual constraint as moderators. Table 5 outlines the results. Specification 1 considers the full sample of first interactions and we rely on the contextual constraints to moderate the effect of bargaining experience. Specifications 2, 3 4 and 5 cover the subsamples according to income quartiles. As expected, we lose significance for our hypothesized coefficient once the average treatment effect lumps together all positive effects from higher orders of bargaining experience. Besides, we do not add the squared term of their accumulated sales as a control, once in this specification, the sellers' bargaining experience is considered as a binary variable – what disregard the learning curve characteristics.

[Table 5 about here]

Nevertheless, we still find support for our proposed hypothesis. Experienced sellers may lower their short-term appropriation (H1), particularly when bargaining with the poorest (H2). Specification 1 shows the statistically significant coefficient for the moderator estimator ($\beta_3 = 0.0096$, $p < 0.1$). Moreover, the subsample analyses show that experienced sellers reduce their appropriation with all buyers apart from the less constrained quartile (with $p < 0.05$ for the three lowest quartiles), again providing overall support to our hypotheses. We highlight that subsample analyses considering our regular measure for sellers' bargaining experience provide us similar results.

Another concern relates to the potential gaming behavior of sellers. One could argue that sellers could reduce prices of specific procedures as a bait in order to sell other procedures in the same negotiation event. To investigate it, we run an analysis considering as our dependent variable the offered discount for the whole package of procedures agreed instead of individual procedures (for this specification we may not use procedures fixed effects). Results remain the same, not supporting such an alternative explanation. Our

results are also robust to misspecification of our dependent and independent variables. Regarding our measures for short-term appropriation, results are maintained whether using other specifications for discount (rates or absolute discounts instead of $\ln(\text{Discount})$) or price variables directly (then inverting the interpretation for appropriation: higher prices mean higher appropriation for the seller). For our measure of sellers' bargaining experience, we may use a time clock variable instead of accumulated sales and results are also maintained. For buyers' bargaining experience, we may use different categories of job occupations demanding negotiation skills and our findings are maintained.

We also conducted a set of supplementary empirical analyses using the available data on denied deals and recurring interactions to further explore the robustness of our long-term predictions and the interplay between short- and long-term. First, we investigate the probability of acceptance, such that $P(\text{deal}_{ijk})$ represents the probability of deal between buyer i and seller j , regarding the transaction k ($\text{deal}_{ijk} = 1$ in case of accepted treatment and $\text{deal}_{ijk} = 0$ in case of rejected treatment). Besides, we check the probability of recurring interactions, where $P(\text{return}_i)$ represents the probability of return for buyer i ($\text{return}_i = 1$ in case of future recurring interaction with at the clinic and $\text{return}_i = 0$ in case of no future recurring interaction). As we need further hypotheses concerning the functional form of the cumulative distribution function, we estimate both these specifications using a logit model (Angrist and Pischke, 2010).

Table 6 presents the results for the probability of closing a deal. An alternative explanation for our is that experienced sellers do not appropriate more value through long-term orientation but, instead, by simply selling more procedures on the short-term – providing discounts could then be just a manner to close more deals at the short-term. Interestingly, however, we see that experienced sellers not only provide higher discounts

(as shown before) but also close fewer deals, particularly with constrained buyers (results are strongly significant for all quartiles). Therefore, their short-term appropriation is reduced both due to pricing and quantity sold, providing additional evidence that they perform a less aggressive selling behavior when bargaining with targeted buyers. Moreover, deeper analyses show that the accepted deals are usually simpler and less expensive than the rejected ones. So, if experienced sellers are reducing prices to close deals, they are not able to succeed in selling the services that provide them with higher margins – at least in the short-term. Arguably, the interviews confirm that margins for cheaper services are not high enough, such that focusing on these services at lower prices is not sustainable for the firm.

[Table 6 about here]

Lastly, we analyze the probability of recurring interactions to investigate the robustness of our long-term predictions. Table 7 outlines the results. We repeat our subsample analyses regarding the sellers' competition, as for our long-term investigation. Indeed, results suggest that experienced sellers can elicit repeated exchange, particularly with constrained buyers. Specification 1 shows us that sellers' bargaining experience influences the probability of recurring interaction, even more when bargaining with the most vulnerable (as we see through the moderator effect with income constraint). However, the effects of the subsample analyses are somewhat mixed. We would expect that these effects were enhanced for the subsample of fewer competing sellers (Specification 2). Nevertheless, experienced sellers seem to increase odds of buyer return in general, not particularly the poorest. Arguably, such behavior of experienced sellers is pervasive to negotiations overall. First, because relational ties are profitable to sellers no matter buyers' income constraints. Second, sellers may not easily distinguish the even more constrained buyers. Finally, we see that sellers' bargaining experience seems to

reduce the odds of buyers' recurring interactions when sellers face more competition (Specification 3). This is not surprising, once the shadow of the future might influence sellers to capture the most value through sales in the short-term (once they have lower expectations for further interactions). In this sense, we argue that the income constraint may only reduce such a main negative effect. Overall, these robustness checks support our long-term predictions.

[Table 7 about here]

5. DISCUSSIONS AND CONCLUSION

The mechanisms that allow companies to create and appropriate value in recurring interactions with their multiple and heterogeneous customers is a current debate in the strategic management literature (e.g., Chatain & Plaksenkova, 2019; Lieberman et al., 2017; Lieberman et al., 2018). A critical dilemma involves dealing with pressure to increase short-term profits and the consequences of such behavior on the ability to appropriate rents in the long run. Yet, the question of whether appropriation abilities may influence the temporal dynamics of appropriation remains relatively understudied—as well as the mechanisms that may promote a reconciliation of short- and long-term appropriation demands.

We propose that bargaining experience acts a form of appropriation ability to deal with temporal and contextual dilemmas. Our findings provide detailed evidence on how sellers' bargaining experience leads to a lower propensity to appropriate gains in single exchanges and fosters long-run gains via recurring interactions with buyers. In a nutshell, we show that experienced sellers provide price discounts in individual transactions, and that this effect is higher in the case of bargaining with more constrained buyers. Further, a reduced short-term appropriation increases the flow of revenues in future transactions especially when fewer sellers are competing for similar buyers, consequently increasing

the appropriation of long-term gains emanating from recurring interactions. These findings have implications for theory and practice.

5.1. Implications for the Strategy Literature

Our paper makes several contributions to the literature on strategic value appropriation. First, by showing that experienced sellers differently deploy their appropriation abilities to enhance long-term appropriation, we contribute to the literature investigating mechanisms that can adjust intertemporal incentives and reduce the pervasive effects of short-termism (Flammer & Bansal, 2017; Flammer, Hond & Minor, 2019; Slawinski & Bansal, 2015). That is, appropriation ability may help transacting agents to deal with the inherent tradeoffs between short-term appropriation and transactions that may be repeated in the long run.

Second, by assessing a rich and unusual dataset of proprietary data regarding bargaining outcomes, we operationalize internal mechanisms of value appropriation affecting individual outcomes (e.g., Lieberman, Balasubramanian & Garcia-Castro, 2018). We confirm the role of bargaining experience as a critical factor influencing appropriation ability (Bennett, 2013; Gans & Ryall, 2017; Grennan, 2014). Particularly, we demonstrate the importance of assessing the effect of appropriation ability in recurring interactions (e.g. Elfenbein & Zenger, 2017). Our study sheds light on the role of appropriation ability not only in single transactions but also in repeated exchanges.

Third, our work demonstrates the importance of incorporating critical market constraints in the analysis of how individual-level ability affects value appropriation (Kern & Gospel, 2020; Tantalò & Priem, 2016; Lazzarini, 2020). To do so, we examined whether the effect of experience may be influenced by constraints such as demand-side income limitations and supply-side competition. We suggest that experienced sellers may perceive income constraints, further adapting the negotiation scheme towards low-income

buyers. Particularly when facing constrained buyers, such bargaining experience may enable sellers as gatekeepers in balancing multi-actor demands (Eccles, Ioannou & Serafeim, 2014). Yet, such behavior depends on supply features, as sellers' competition.

5.2. Implications for Practice

Our findings have several implications for managerial audiences and practitioners. In the pursuit of sustained rents, managers should consider the intertemporal choice problem faced both by their employees and potential buyers. Critical individual features might help firms generate long-term profits as they navigate through the inherent market constraints posed both by supply and demand sides. We have shown that sellers' daily working experience is a key ingredient in affecting both short-term and potentially long-term value creation and appropriation. Hence, managers should not underestimate the importance of employees with profit-generating responsibility, including but not limited to sellers. Moreover, managers might promote such behavior considering the tradeoffs involved in short- and long-term appropriation. For instance, the implementation of employees' evaluation based on long-term metrics for appropriation instead of focal negotiation outcomes might reduce employees' short-termism. Besides, experienced sellers could tutor the newly employed regarding their negotiation scheme and long-term orientation.

Apart from valuing such dynamic appropriation abilities, managers could also focus on identifying their potential market constraints, given both by demand and supply sides. On the one hand, demand-side constraints might arise due to buyers' limitations. Therefore, inclusive businesses with inherent constraints due to their targeted audience could particularly benefit from the results of the present research. On the other hand, supply-side constraints might arise due to sellers' limitations. In our context, we highlight sellers' competition as a constraint for profitable long-term seller-buyer relationship. To

mitigate such concerns, for example, managers could raise sellers' commissions if a buyer they negotiated with returns for further procedures, even if then negotiating with another seller. Yet, supply constraints might also depend on several other firms' and individuals' features. Finally, although these constraints can limit value creation and further appropriation, there are mechanisms – such as our proposed relational mechanisms through recurring interactions – that can make room for extra value creation and valuable appropriation for all stakeholders.

5.3.Limitations and Opportunities for Future Research

In our context, bargaining experience is considered as a key ingredient of appropriation ability. Although we have investigated how experienced sellers differently deploy their own individual appropriation abilities according to the timeframe (Lieberman et al., 2018), mechanisms that facilitate learning of the negotiation context should be deeper understood. Our analyses were also restricted to a tight timeframe: “short-term” referred to negotiations occurring at a first interaction, while “long-term” was measured as future exchanges occurring after 4 years the most. Future research could focus on identifying heterogeneous appropriation abilities and their influence on bargaining outcomes throughout time and distinct temporal windows.

Further, our analyses were limited to the simplest but perhaps more important buyer-imposed constraint: their income constraints. Yet, there are several other constraining mechanisms imposed by myriad structural conditions, as constrained buyers may face geographical limitations and several other barriers such as poor access to product information (Karnani, 2007; Lazzarini, 2020). On the other hand, seller-imposed constraints go beyond sellers' competition. In fact, any other features undermining the expectation of continuity (Poppo, Zhou & Ryu, 2008) or hampering relational ties (Kale, Singh & Perlmutter, 2000) might deviate from the proposed gift exchange structure

(Gilchrist, Luca, & Malhotra, 2016). Other mechanisms enforcing or prohibiting recurring interactions could be investigated.

Finally, future research could try to disentangle the involved relational mechanisms and especially the behavioral dynamics at play, taking into account individual and negotiating dyad features. For instance, prior studies have shown that women who try to incorporate a more aggressive behavior into their negotiation repertoires fail to achieve economic benefits and jeopardize their relationships (Kulik & Olekalns, 2012). Scholars might better understand the signals (beyond price discounts) that sellers can send to buyers in the negotiation, investigating individuals' conceptions and misconceptions.

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FIGURES AND TABLES

FIGURE 1

Conceptual Framework: Bargaining Experience and The Interplay of Short- and Long-Term Appropriation

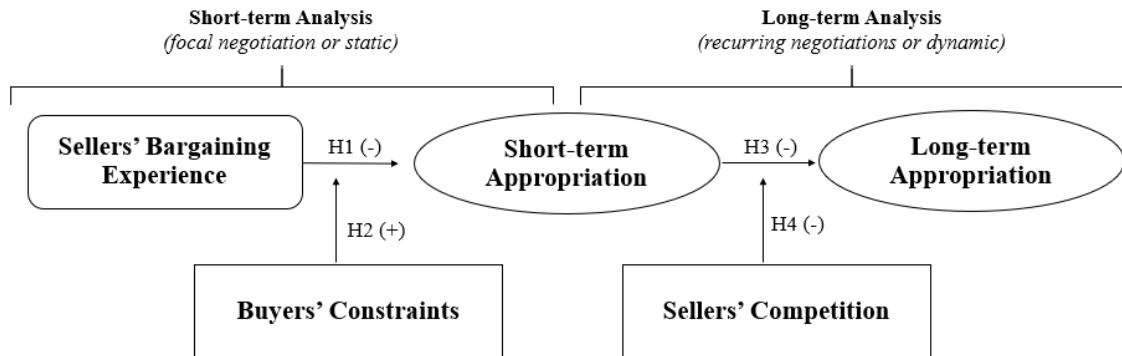


FIGURE 2

The Process of Negotiation and Sale within the Studied Dental Clinics

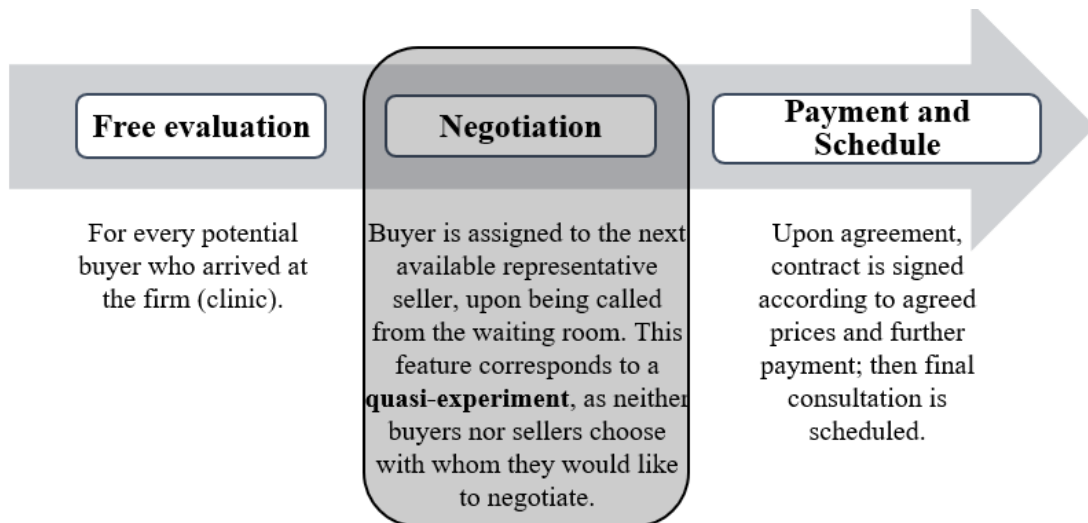


TABLE 1
Descriptive Statistics

Variables	Description	Mean	Std. Dev.	Min	Max
1.Discount	Measure of short-term appropriation: negotiated discount, considering final and baseline prices	13.90	0.09	13.68	15.29
2.Bargaining Experience	Measure of sellers' appropriation ability: the cumulative sales of the franchisee's representative sellers	307.55	299.41	1.00	1355.50
3.Buyer Experience		0.07	0.26	0.00	1.00
4.Buyer wage	Buyers' features: all gathered from the government labor census	2177.27	1388.71	292.58	6995.72
5.Buyer age		39.04	10.95	17.00	79.00
6.Buyer gender (male)		0.38	0.49	0.00	1.00
7.Buyer race (white)		0.20	0.40	0.00	1.00
8.Third party	Binary variable (other individual negotiating on behalf of the customer; 1=yes; 0=no)	0.11	0.31	0.00	1.00
9.Buyer travelling during appointment	Binary variable (whether buyer is out of his workplace city; 1=yes; 0=no)	0.35	0.48	0.00	1.00
10.Procedures approved in the bundle for the given buyer	# of procedures the negotiating seller approved in the bundle for that buyer	9.37	11.67	0.00	118.00
11.All procedures approved that day	# of procedures the negotiating seller approved that day (all negotiations)	17.12	14.96	0.00	105.00
12.NPV of procedures approved that day	Monetary value of all approved deals that given day	12670.99	12199.86	0.00	80614.35
13.NPV of procedures approved the day before	Monetary value of all approved deals the day before	1357.10	2017.00	0.00	25411.68
14.Demand Munificence	# of negotiations the seller had that day	24.38	13.07	1.00	133.00
15.Cash payment	Binary variable (1= cash; 0= otherwise)	0.17	0.38	0.00	1.00
16.Repeated Exchange	Binary variable (1=recurring interaction; 0= first interaction)	0.29	0.45	0.00	1.00
17.Aesthetics procedure	Binary variable (1=aesthetics procedure; 0=otherwise)	0.43	0.49	0.00	1.00
18.Firms' lifetime	# of months	23.00	13.33	1.00	52.00

TABLE 2
Correlation Matrix

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1.Ln(Discount)	1																	
2.Bargaining Exp.	0.0033	1																
3.Buyer Experience	-0.0032	0.0062	1															
4.Buyer wage	0.0409	0.0154	-0.1383	1														
5.Buyer age	0.0529	0.0485	-0.1207	0.2609	1													
6.Buyer gender (male)	0.0113	-0.0048	0.0086	0.0622	-0.0433	1												
7.Buyer race (white)	-0.0144	-0.0053	0.0879	-0.0605	-0.0811	0.0487	1											
8.Third party	-0.002	0.0418	0.0173	-0.0156	-0.0007	-0.0924	-0.0108	1										
9.Travelling	0.0253	0.0315	-0.1371	0.2862	0.1698	-0.0272	-0.1897	-0.0427	1									
10. Procedures [..]	0.312	0.0625	-0.0556	0.1306	0.1925	0.0267	0.0091	-0.0907	0.1212	1								
11.All procedures [...]	0.2157	0.1197	-0.0434	0.1117	0.1529	0.0265	-0.0087	-0.0497	0.1024	0.7356	1							
12.NPV of [..]	0.0825	0.1611	-0.0158	0.0361	0.0551	0.0302	-0.0049	0.0027	0.0247	0.1222	0.1842	1						
13.NPV of [...]	-0.0223	0.0393	0.0031	0.0008	0.0109	-0.0022	-0.0064	-0.0009	0.0101	-0.0022	0.0519	0.2113	1					
14.Demand Munificence	0.0924	0.1301	-0.0113	0.0854	0.0721	-0.0256	-0.0073	-0.0182	0.0625	0.2807	0.4494	0.1482	0.0656	1				
15.Cash payment	-0.1075	-0.0107	0.0245	-0.1128	-0.0804	0.041	-0.0128	0.0313	-0.0549	-0.241	-0.1837	-0.0161	-0.018	-0.0388	1			
16.Repeated Exchange	0.0372	0.054	-0.0041	0.0181	0.0178	-0.0452	-0.0097	0.0002	-0.0424	-0.1189	-0.1081	-0.0182	-0.0228	-0.0678	-0.0131	1		
17.Aesthetics Procedure	0.0176	0.0058	-0.0034	-0.0043	0.0579	0.0126	0.0023	0.0153	0.0202	0.02	0.0092	-0.018	-0.0116	-0.0126	-0.0235	0.0308	1	
18.Firms' lifetime	0.0263	0.1825	-0.0146	0.0305	0.0125	-0.0273	-0.001	0.0463	0.0561	0.084	0.032	-0.0695	-0.0304	-0.0821	-0.046	0.2026	0.0661	1

TABLE 3

The Determinants of Short-Term Appropriation: The Role of Bargaining Experience

OLS clustered at firms' level	(1)	(2)	(3)
DV: Ln(Discount)	Full sample	First interaction	Repeated interaction
Hypothesized Relationships			
(H1) Bargaining Experience	0.0302** (0.00534)	0.0260** (0.00467)	0.0376* (0.0131)
(H2) Bargaining Experience * Constrained Buyer	0.00221* (0.000839)	0.00457*** (0.000456)	-0.00299 (0.00248)
Bargaining Experience ²	-6.00e-08*** (1.70e-09)	-5.52e-08*** (2.07e-09)	-7.93e-08*** (5.00e-09)
Buyer Features			
Buyer Experience	0.00530* (0.00182)	0.00935** (0.00188)	-0.00699* (0.00230)
Constrained Buyer	-0.000358 (0.00101)	0.00168 (0.000946)	-0.00707* (0.00251)
Buyer Experience * Constrained Buyer	0.000340 (0.00300)	-0.00678 (0.00446)	0.0246*** (0.00279)
Negotiation context			
Repeated Exchange	0.00935*** (0.000954)		
Demand Munificence	0.000267** (5.06e-05)	0.000251*** (1.89e-05)	0.000356 (0.000210)
Additional buyers, sellers, and negotiation controls			
Sellers, procedures, and months FE			
Constant	13.83*** (0.0199)	13.83*** (0.0217)	13.83*** (0.0183)
Observations	59,352	42,445	16,907
R-squared	0.259	0.273	0.267

Notes: This table shows regression results where the dependent variables refer to short-term value appropriation. The discount specification, hypothesized (independent) regressors and control variables are all according to the methodology section and further detailed in Table 1. The specifications refer to the full sample (column 1) and are then segregated into subsample analyses covering either first interactions (column 2) or repeated exchanges (column 3). The table shows the estimated coefficients and robust standard errors in parenthesis, clustered by each focal firm (dental clinic). Significance levels are denoted as: *** for $p < 0.01$, ** for $p < 0.05$, and * for $p < 0.10$.

TABLE 4**Reduced Short-Term Appropriation Promoting Value Capture in the Long-Term**

OLS clustered at firms' level	(1)	(2)	(3)
DV: Buyer's Future Revenue	Full sample	Fewer competing seller	More competing sellers
(H3) Discount (%)	3.416*** (0.537)	3.648*** (0.314)	2.348 (3.533)
Discount * Constrained Buyer	23.39* (8.179)	35.47** (10.99)	1.711 (5.812)
Constrained Buyer	-216.9** (67.19)	-240.4* (86.21)	-130.5 (30.30)
Sellers, procedures, and months FE	Y	Y	Y
Constant	452.2** (87.25)	1,264*** (56.45)	-51.94 (16.22)
Observations	42,445	20,555	21,890
R-squared	0.078	0.112	0.083

Notes: This table shows regression results where the dependent variables refer to long-term value appropriation, modeled as a buyers' future revenues as described in our methodology. The hypothesized (independent) regressors and control variables are all according to the methodology section and further detailed in Table 1. The specifications refer to the full sample and subsample analyses regarding sellers' competition. The table shows the estimated coefficients and robust standard errors in parenthesis, clustered by each focal firm (dental clinic). Significance levels are denoted as: *** for $p < 0.01$, ** for $p < 0.05$, and * for $p < 0.10$

TABLE 5

PSM and Income Subsample Analyses

PSM for Sellers' Bargaining Experience	(1)	(2)	(3)	(4)	(5)
DV: Ln(Discount)	Full sample	Lowest income quartile	2nd lowest	2nd highest	Highest income quartile
Hypothesized Relationships					
(H1) Bargaining Experience (T=1)	0.0157 (0.00746)	0.0217** (0.00386)	0.0260** (0.00584)	0.0206*** (0.00264)	0.0154 (0.0111)
(H2) Bargaining Experience * Constrained Buyer	0.00955* (0.00336)				
Buyer Features					
Buyer Experience	0.0106** (0.00254)	0.00868*** (0.00141)	0.00568 (0.00347)	0.0152 (0.0121)	0.0189 (0.0114)
Constrained Buyer	- 0.00295* (0.00100)				
Buyer Experience * Constrained Buyer	-0.00951 (0.00444)				
Buyer, sellers, and negotiation controls	Y	Y	Y	Y	Y
Sellers, procedures, and months FE	Y	Y	Y	Y	Y
Constant	13.82*** (0.0175)	13.79*** (0.0183)	13.86*** (0.0155)	13.85*** (0.0256)	13.90*** (0.0137)
Observations	38,242	9,622	9,623	9,479	9,518
R-squared	0.273	0.495	0.313	0.261	0.271

Notes: This table shows regression results where the dependent variables refer to short-term value appropriation and are modeled as a discount specification described in our methodology. The variable “Experienced sellers” is no longer measured by accumulated sales but as a binary variable (for treatment or control), following Paik, Kang and Seamans (2019). The remaining regressors and control variables are all according to the methodology section. The specifications refer to the full sample and subsample analyses regarding to income distribution. The table shows the estimated coefficients and robust standard errors in parenthesis, clustered by each focal firm (dental clinic). Significance levels are denoted as: *** for $p < 0.01$, ** for $p < 0.05$, and * for $p < 0.10$

TABLE 6
Probability of Closing a Deal

Logit model	(1)	(2)	(3)	(4)
DV: P(Deal)	Lowest income quartile	2nd lowest	2nd highest	Highest income quartile
Appropriation abilities				
Bargaining Experience	-0.674*** (0.0777)	-0.467*** (0.0846)	-0.677*** (0.0750)	-0.789*** (0.0760)
Buyer Experience	-0.282*** (0.0374)	-0.0211 (0.0541)	0.449*** (0.0605)	-0.629*** (0.0870)
Negotiation context				
Repeated exchange	0.837*** (0.0323)	0.650*** (0.0331)	0.706*** (0.0327)	0.623*** (0.0304)
Sellers' excess capacity	-0.0140*** (0.00127)	-0.0288*** (0.00128)	-0.0113*** (0.00118)	-0.0111*** (0.000992)
Buyer, sellers, and negotiation controls	Y	Y	Y	Y
Sellers, procedures, and months FE	Y	Y	Y	Y
Constant	5.887*** (1.475)	5.740*** (1.286)	2.315** (1.124)	-2.170*** (0.749)
Observations	34,531	34,507	34,516	34,480

Notes: This table shows logit regression results where the dependent variables refer to probability of closing a deal and are modeled as described in our robustness checks section. The hypothesized (independent) regressors and control variables are all according to the methodology section. Notice that these specifications do not include the contextual constraints (buyers' income constraints interactions) as the subsample analyses with different ranges for wage (according to the quartiles) aim to capture differences in the hypothesized variables coefficients (appropriation ability) through the subsamples. The table shows the estimated coefficients and robust standard errors in parenthesis. Significance levels are denoted as: *** for $p < 0.01$, ** for $p < 0.05$, and * for $p < 0.10$.

TABLE 7
Probability of Recurring Interactions

Logit model	(1) Full Sample	(2) Fewer competing sellers	(3) More competing sellers
DV: P(Buyers' Return)			
Appropriation Abilities			
Bargaining Experience	0.0649* (0.0366)	0.191*** (0.0661)	-0.153** (0.0712)
Buyer Experience	-0.334*** (0.0597)	-0.344*** (0.0856)	-0.268*** (0.0883)
Constrained Buyer	0.0797*** (0.0309)	0.196*** (0.0452)	-0.0180 (0.0448)
Bargaining Experience * Constrained Buyer	0.0779*** (0.0260)	0.0150 (0.0415)	0.115*** (0.0354)
Buyer Experience * Constrained Buyer	0.195** (0.0878)	-0.00714 (0.133)	0.197 (0.125)
Buyers, sellers, and negotiation controls	Y	Y	Y
Sellers, procedures, and months FE	Y	Y	Y
Constant	1.075*** (0.375)	1.714*** (0.414)	-0.863 (1.222)
Observations	42,385	20,464	21,811

Notes: This table shows logit regression results where the dependent variables refer to probability of recurring (repeated) interactions and are modeled as described in our robustness checks section. The hypothesized (independent) regressors and control variables are all according to the methodology section. We present subsample analyses regarding the sellers' competition, as Table 5. The table shows the estimated coefficients and robust standard errors in parenthesis. Significance levels are denoted as: *** for $p < 0.01$, ** for $p < 0.05$, and * for $p < 0.10$.