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# Principals and their Car Dealers; what do Targets tell about their Relation?

**Jan Bouwens**
**Eddy Cardinaels**
**Jingwen Zhang**

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***Jan Bouwens***[1]

*Harvard Business School and*

*Tilburg University CentER for Economic Research,*

*j.bouwens@uvt.nl*

***Eddy Cardinaels***

*Tilburg University CentER for Economic Research,*

*KU Leuven,*

*e.cardinaels@uvt.nl*

***Jingwen Zhang***

*Tilburg University CentER for Economic Research,*

*j.zhang_2@uvt.nl*

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[1]Corresponding author. This study received generous support from the Thomas Henry Carroll-Ford Foundation at Harvard Business School.

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## Abstract

In this study we describe target setting and target achievements for a car dealership. Car dealers are eligible to a discount on the purchase price conditional on them achieving the sales targets set by the franchisor. We show that car dealers (franchisees) who exclusively deal in cars of the brand offered by the franchisor receive easier targets and are more likely to exert effort in achieving their targets compared to dealers who also acquire brands outside of the franchise network. As a consequence the exclusive dealers receive a relatively bigger cut of the total amount of discounts that dealers are offered conditional on them achieving sales targets set by the franchisor. We explain these results in terms of how much franchisors and franchisees believe that their relations will last or will be intensified in the future. We leverage on relational-contracts theory to develop our predictions and interpret our findings.

# I. Introduction

In this paper we examine how target setting affects the relations within a franchise organization. We study a setting where the franchisor contracts with two types of franchisees. The first type of franchisee exclusively sells cars of the brand the franchisor offers to them (exclusive franchisee), while the second type of franchisee sells cars offered by the franchisor and other suppliers (nonexclusive franchisee). In the paper we test whether the franchisor treats the two types of franchisees differently in terms of the targets they set for each dealer type and whether franchisees respond differently to targets conditional on their type.

Our enquiry is motivated by relational-contracts theory. According to this theory the cooperation between parties is a function of the *de facto* contracts these parties are engaged in (Gibbons and Henderson, 2012a). These contracts come about from a chain of interactions between parties. The effort required to meet the expectations of each party cannot or only partly be captured in a formal contract. This is true when, for instance, a set of unpredictable contingencies determine what the best distribution of effort is over activities each party must choose from. For each interaction the parties must trust the other party to honor their commitment in meeting the expectations of the other party and vice versa. By their very nature these contracts preclude the parties from upholding their implicit agreements in court. Over time the parties may start to implicitly trust the other party doing the right thing. As this trust grows over time with these interactions it is very hard for all parties involved to create a relational contract. While this can be considered the downside of these relations, the upside is that such relations are difficult to copy by other parties once trust is instilled in the relation. As a consequence, two competing firms may look exactly the same except that one firm has built a sophisticated mutual understanding as to what comprises their contract, while the other firm is waiting in the wings

for such particular contract to emerge. The latter faces potentially a bigger challenge than the first in assuring that coordination occurs between all parties included in the relational contract. We feel that this underlying idea of relational-contracts theory can help us explain why seemingly similar firms (franchisees) may perform markedly different (Gibbons and Henderson, 2012a). In this study we argue that in the extent that trust has not inculcated in the relational contract, parties will hold back in how much they are willing to share the benefits that accrue from their cooperation. As a consequence the total benefits available are smaller than would have been the case, had the relational contract been more firmly fixed.

A challenge for studying the functioning of relational contracts empirically is that it is difficult to find firms that lend themselves for a comparison. Firms in the same industry may look similar at a superficial level, but often differ a lot when studied more in depth. We study the phenomenon in one organization which offers two different formal contracts to parties. In our franchise organization franchisees either exclusively sell car brands from the franchisor, or they sell brands from the franchisor along with other brands from other manufactures. In other aspects these units are very much comparable. This setting offers us the opportunity to identify conditions where parties involved in a business exert effort to build their relations. The treatment variable we use for this identification is the type of franchisee: exclusive or nonexclusive dealers. We measure whether this type of dealer is associated with notable difference in how franchisors and franchisees treat each other in terms of target setting (franchisor) and target achievement (franchisee).

We propose that in terms of establishing their relational contract, the franchisor treats these nonexclusive dealers differently compared to exclusive dealers. The reason for these different treatments is in the fact that franchisors are less sure as to how loyal these nonexclusive dealers

are to the network vis-à-vis the exclusive dealers. This stands to reason because the nonexclusive dealers have the opportunity to replace the current franchisor altogether or partly by directing away effort from the franchisor's brand at the benefit of the other brand. That is, nonexclusive dealers can direct effort to the activity for which they expect the highest profit. That may be the brand of the franchise we focus on, or the brand of a competing franchisor.

We also aim at contributing to the target setting literature in that we identify conditions where it is likely that the parties involved will be treated differently in terms of the target they face. While the target setting literature has focused on target ratcheting (e.g., Leone and Rock, 2002 and Bouwens and Kroos, 2011), only recently studies start to investigate the determinants that would lead firms to ease the targets (e.g., Indjejikian et. al. 2014a). Indjejikian et al. (2014a) argue that firms may decide to mute target ratcheting in an attempt to signal to the other party that they can trust the principal in honoring his willingness to share the proceeds from high performance. That is, they may still ratchet targets, but not to such an extent that gives rise to a situation which Aranda et al. (2014) describe as the "perverse incentive effect where managers mute their effort or misreport their performance to have a lower future target." Where Leone and Rock (2002) and Bouwens and Kroos (2011) document such perverse effects, Indjejikian et al. (2014b) demonstrate that targets of high performers are ratcheted to a lesser extent than the targets of low performers. In our case, we demonstrate that exclusive dealers receive easier targets than nonexclusive dealers. This result suggests that principals who expect their relation with agents to last are more likely to commit to an informal contract in which the agent can trust their principal in allowing them to extract a rent from increased performance (and effort) levels without having to fear that the principal reaps these benefits exclusively by setting very high targets (Baron and Besanko, 1984; Indjejikian, 2014a). We also demonstrate that when facing an equally difficult

target nonexclusive dealers are less likely than exclusive dealers to achieve their target level or above target performance. These latter results indicate that franchisees direct their effort to activities they believe are most beneficial to them despite the fact that the franchisor explicitly communicates to the franchisee how important it is for the brand that targets are achieved. In other words, nonexclusive dealers seem not to trust the franchisor in ultimately offering larger benefits at some later point in time that would make good for losses incurred now had the franchisee foregone proceeds that accrue from selling other brands in the current period.

## II. Literature review

We study agents who are employed in a hybrid (franchise) organization (Menard, 2012). This hybrid setting adds a specific characteristic to the principal-agent relation in that the agent may consider outside options more frequently than in a situation where a principal and the agent have concluded a labor contract. Below we discern between two types of agents, agents who exclusively sell a product their principal provides for (exclusive agent) and agents who sell both the product of the principal and brands that are provided for by other firms (nonexclusive agents).

In the setting we study, agents can increase their income by selling more of the products they put on offer, and through a discount on the product they purchase from their principal(s). Whether they earn this discount is conditional on the agent achieving the target his principals sets.

### Setting targets

In the target setting literature it is argued and found that principals ratchet targets to assure that agents actively seek for new avenues to increase profitability. However, the downside of ratcheting is that agents know that their target will be ratcheted if they show performance improvements. In an attempt to mute the level of target ratcheting agents are motivated to show

less performance improvements than they can achieve. This perverse effect is emprircally demonstared by Leone and Rock (2002) and Bouwens and Kroos (2011). Indjejikian et. al (2014a) argue that in order to prevent that these perverse effects of such target ratcheting occur, principals can commit to a target updating scheme that allows the agent to keep some of the rents created through their (high) effort. They find that in order to assure that agents who are already performing well keep on doing so, the principal sets less challenging targets for these agents compared to agents that still have to achieve these high levels of performance.

Relational-contracts theory suggests that a different mechanism may drive the target setting decisions of principals (Gibbons and Henderson, 2012a). Based on this literature we argue that principals are less cautious to impose more difficult targets on non-exclusive agents than on exclusive agents. The reason is that the firm has fewer incentives to invest into the relation with nonexclusive agents than in the relation with exclusive agents.

The forces at hand are in the first place that the nonexclusive agents can resort to other brands to improve their wealth (Li and Dant, 1997). This force would suggest that the principal wants to direct the attention of the nonexclusive agents to the firm's brand. The principal could accomplish this by setting targets that are relatively easy to achieve. However, the principal does not know how attractive the other brands are in terms of their effort/profitability ratio making it uncertain whether easing the targets would be helpful to entice the non-exclusive agent to focus on the firm's brand. In addition, exceeding (easy) targets entails an obligation for the firm to pay a bonus in the form of a discount on the purchase price the principal delivers to the agent; the firm, therefore, has to make a cost benefit trade-off over all the agents to decide on how to set targets optimally. A third factor impacting the target setting decision has to do with the nature of the relation the principal and the agent have. Nonexclusive agents signal to the firm that they are

*de facto* not committed to the firm's brand. Given this signal, the principal will consider how much she wants to invest in the relationship with the agent (Fein and Anderson, 1997).

Baron and Besanko (1984) and Levin (2003) argue that agency costs in a principal-agent relation can decrease if the principal is willing to commit to a long term stationary contract. Such a contract would under risk neutral conditions entail in the extreme that the principal commits to a fixed target whatever performance improvements an agent earns. This begs the question, who is the firm most likely to offer such a contract, the nonexclusive agent or the exclusive agent? If such a contract is offered to a nonexclusive agent the firm runs the risk of investing in an agent that may resort to other brands or may even decide to end the relation with the firm altogether. The reason is that the firm cannot work out in advance how much better their deal is compared to the reservation income (of complete or partly switching to the other brand) of the agent. As a consequence investing in the relation may entail that the agent reaps the benefit over one period to then switch to another brand or to even discontinue the contract with the principal altogether. Gibbons and Henderson (2012b) show analytically that under such conditions the principal will not trust the agent to cooperate with the principal in period 2. As a consequence the agent will not be offered such a contract. The costs for an exclusive agent to discontinue its relation with the current principal are arguably higher (Fein and Anderson 1997). It is therefore in expectation more beneficial for the franchisor to invest in the relation with exclusive agents than to invest in relations with nonexclusive agents. Also the fact that an exclusive agent is willing to limit its portfolio to the brand of the franchisor provides a strong credible signal indicating that he is committed to live up to the expectations of the principal (Fein and Anderson, 1997).

From the perspective of the exclusive agent, it may be argued that the stronger commitment of exclusive franchisees leads them to work harder which, in turn, would allow the principal to set

more difficult targets for exclusive agents than for nonexclusive agents in order to reap the full benefits of the relation. However, doing so would provide the exclusive dealer with the incentive to become a nonexclusive agent because this would open the opportunity to redirect effort from one brand to the other when this is more profitable to the agent. In addition such a decision would counter the idea of the principal's willingness to honor its commitment to share benefits that accrue from consistently achieving high levels of performance. As long as the principal can commit to keep compensating the agent for additional sales, the mutual understanding will lead the agent to keep putting in high levels of effort in an attempt to achieve high levels of performance (Baron and Besanko, 1984). Relational contracts vest themselves in the extent that principals refrain from taking full advantage of the other party (Morgan and Hunt, 1994).

The above forces would suggest that it is more likely for the principal to invest in the relation with agents that exclusively commit to the firm's brand than to invest in the relation with agents who can resort to other brands either partly or entirely.

We summarize our expectation in the following hypothesis:

*Hypothesis 1:* The franchisor sets more challenging targets for nonexclusive dealers than for exclusive dealers

The response to targets

According to the target setting literature agents will protect themselves against target ratcheting (Milgrom and Roberts, 1992). Empirical evidence speaks to this idea by demonstrating that agents who perform well either manage earnings (e.g., Leone and Rock) or manage real earnings even (Bouwens and Kroos, 2011) downwards in order to reduce target ratcheting. These

outcomes are predicted under the assumption that the contract is continued. However, what will agents do if they can choose to partly or totally discontinue the relation with the principal?

We expect nonexclusive agents to respond differently to difficult targets than exclusive agents. Nonexclusive agents can relatively inexpensively resort to alternative income sources and are therefore more likely to give up on meeting/exceeding a difficult target than are exclusive agents. Exclusive agents cannot resort to an alternative profit source; their income potential is fully tight to the brand offered by the principal. If we assume that it is equally difficult for both types of agents to achieve the target, non-linearity in the effort-sales function will likely feature an inflection point where it becomes more profitable for the nonexclusive agent to switch to the other brand. Such an inflection point does not exist for the exclusive agent. The latter has no choice other than to keep selling the brand offered by the principal.

A second force leading to differing effort levels is that exclusive agents care about making sure that their relation with the principal is confirmed. One way to signal that the agent casre about the relation is by achieving the desired level of performance, i.e. by meeting/exceeding the target the principal sets. Failure to meet that expectation not only entails missing out on a variable compensation (i.e., a discount on the purchase price), it will also impinge on the relation with the principal. In the extent to which the agent fails to meet the target the firm sets, it will alienate the principal from the agent because the agent presents himself as a less trustworthy (Gibbons and Henderson, 2012a and b). Such alienation may involve that the principal shows no consideration with the agent's adverse performance in any way. This is likely to be more of a concern to the exclusive agent than it is to the agent who can switch to other brands.

In sum, we expect that nonexclusive agents care less about whether they achieve their target than exclusive agents. This lead to the following hypothesis:

*Hypothesis 2a:* Nonexclusive agents are less likely than exclusive agents to achieve an equally difficult target.

Agents must decide how much effort they are willing to exert in order to increase their income. When the target is met, further exceeding the target entails two income sources to the agent: (1) sales minus the gross purchase price and (2) the discount on the purchase price. Hence, once the agent meets the targets he is incentivized to keep increasing the number of products sold. At first glance there seems to be little reason to assume that exclusive agents will behave different than nonexclusive agents in terms of exceeding targets. However, arguably as the market for the franchisor's brand approaches its level of saturation, it becomes increasingly attractive for the nonexclusive agent to switch to another brand. In addition and related to this argument there is the target ratcheting argument. Nonexclusive agents are in a better position to taper off performance in an attempt to mute target ratcheting than exclusive agents because the nonexclusive agents can switch to the other brand.

However, even with these forces present the exclusive agent may still fear that his next-period target will be set too high. In an attempt to keep targets at achievable levels he can mute his effort in the current period too to make sure that his current achievement will not exceed the achievement that he will be able to incur over the next period. Bouwens and Kroos (2011) demonstrate that very well performing store managers mute their effort to put a hold on how much they exceed their target over an accounting period. In doing so, these agents successfully protect themselves against a principal setting unachievable targets for the next period. Indjejikian

et al. (2014b) on the other hand find that high-performing agents do not need to fear target updates that are beyond reach. Firms seem to be able to commit themselves such that agents can trust their principal in setting targets that allow them to keep extracting rents from higher levels of performance (Baron and Besanko, 1984; Indjejikian et al. 2014a). If agents, can expect that their principal commits to offer higher compensation to agents who are loyal to the brand (by easing the target updating), the exclusive agent may be more willing to continue to provide higher effort levels. This leads to the following hypothesis:

*Hypothesis 2b:* For an equally difficult target nonexclusive agents exceed their target to a lesser extent than exclusive agents.

## III. Research setting

We examine our hypotheses using the data from a franchise organization, responsible for a network of car dealerships in a Western-European country. The franchisor is a national subsidiary of a car manufacturing firm with world-wide operations. The franchisor specifies retail and wholesale prices, sets incentive schemes for the franchisees and arranges marketing promotions for dealers in the network.

The sales network consists of franchisees who acquire their cars from the franchisor. The car dealers are separate private entities whose formal relation with the franchisor is based on the contract these two parties have agreed upon. In order to create a sufficiently dense dealership network the franchisor concludes contracts with franchisees that wish to deal exclusively in the franchisor's brand as well as with dealers that offer other brands next to the franchisor's brand.

All the dealers are represented in a council through which they can express their needs and advise the franchisor on their business operations and strategies. Franchisees make their own

pricing decisions within a price range set by the franchisor. Hence, dealers are enabled to quote different prices for the same car. Franchisees have full decision rights over their internal organization, over the staff they employ, and how much they wish to invest. They can also make dealer-specific advertisement decisions at their own discretion.

Over the sample period 2004-2012, the franchisees (i.e., dealerships) were spread equally over the domestic market. This is consistent with the policy of the franchisor. During the period, sales and revenues slightly increased from 2004 to 2008, and achieved the highest levels in 2011, but decreased dramatically in 2012. We reproduce the yearly composition of dealer network in Panel A of Table 1. The composition of these franchisees slightly changes over time with the percentage of exclusive dealerships slightly declining and the percentage of non-exclusive dealerships slightly increasing over time. Panel A of Table 1 further shows that nonexclusive dealers compared to exclusive dealers more often enter into the franchise network or end their relations with the franchise organization.

We conduct our empirical analyses using individual dealer-level performance data of all the dealers in the network. This set of data collectively comprises nearly 100% of the sales in the national market because all the sales of the brand are realized through this network.

The target-setting process

The franchisor sets the annual sales target for each dealer in December for the next budget year. Sales are nominated in number of cars, not in euros. The firm's accounting year coincides with the calendar year. The franchisor decides on the annual target for each dealer according to a calculation method developed by the national dealer organization. This method considers a mixture of relevant factors, such as historic sales performances of the dealers, the firm's

development strategies and expected local as well as nation-wide market conditions. According to the target updating scheme the firm deploys, the most objective information source to update a target is past sales performance of the dealer. The franchisor also uses its discretion to account for specific market conditions and the situation of the specific dealer. Therefore, these sales targets are based on objective as well as subjective information. What we are interested in is whether the franchisor takes the dealership types into account when he sets the new target. Once the annual target for each dealer is set, quarterly sales targets are determined and bonuses are rewarded on a quarterly basis. A simulated example about the target-setting process is given in Appendix 1.

While these targets are set for the year, they can still be adjusted provided that market conditions change dramatically. That is, the franchisor may alter the quarterly targets in the course of the current quarter. We do not have detailed information about these intra-year changes. What we have is the final quarterly and annual targets for each dealer over our sample period.

The incentive system

The franchisor offers three main incentives to their dealers: the difference between the advised consumer price and the purchase price; a bonus for meeting qualitative standards (based on qualitative measures) and a bonus for the volume (based on quantitative measures). The data we study in this paper is the volume bonus which car dealers receive conditional on them achieving a target volume of sales. In our sample, the volume bonus accounts for 25% - 30% of the dealer's total margin. For dealers to receive a quarterly bonus they need to meet their quarterly targets. The bonus takes the form of a discount on the invoice price of the cars franchisees acquire from the franchisor.

As shown in Panel B of Table 1, this target setting system does feature a 'steps schedule'. The steps schedule purportedly incentivizes dealers to work harder in order to achieve a higher discount. The discount system does feature a bogey, while there is no cap on how much bonus a car dealer can earn. The specific bonus scheme of the franchisor features different steps where each step leads, conditional on target achievement of the dealer, to higher bonus percentages (i.e. higher discounts). The firm defines bonus areas based on percentage of sales realized relative to the target. For the "at target" area sales are at least equal to the target (target achievement ≥ 100%). In general, the dealer gets no additional cash payment or discount for sales levels much below the sales target. Bonus increases from the *Below Target* level till the *Above Target* level. The top bonuses are granted if the dealer's sales number is far beyond the target level.

Sample composition

We collect daily sales information of each individual dealer over the period from 2004 to 2012. We also gather quarterly sales targets and annual sales targets for each dealer. However, 21 dealer-year observations and 44 dealer-quarter observations are excluded due to the missing information about quarterly targets, resulting in 538 dealer-year observations and 2090 dealer-quarter observations with both sales and target data. Some dealer-year observations are incomplete as the dealers are not actively selling the franchisors brand during the full year. This occurs when new entrants enter into a contract with the franchisor or when the franchisee decides to discontinue his contract with the franchisor during the year. For our analyses, however, we only use the data of dealers for which we have the complete information over the four quarters of each year. This reduces the sample size to 497 dealer-year observations and 1988 dealer-quarter observations.

Variable measurement

*Measure of target update*

Target setting is considered to be an important control instrument for the franchisor to motivate sales from their dealers. Sales targets are based on the dealers' past sales performance and on local as well as nationwide market conditions. The interpretation of these latter conditions is subject to the franchisor's discretion. Hence factors may be interpreted differently for different dealers. We conjecture in hypothesis 1 that these interpretations result in tighter targets for the nonexclusive dealers compared to exclusive dealers. The resulting target update is captured in the variable $TARGET\_UPDATE_{i,t}$ which represents the difference between last year's target and the current target, i.e., it comprises of both the objective and subjective factors. Given that the target updating requires the performance over the previous period, our sample includes only firms with more than one year data. This requirement further reduces our sample to 410 firm-year observations and 1640 firm-quarter observations when we examine the target setting hypothesis.

*Target achievement*

Effort choice of the dealers is reflected in their sales target achievement. We capture target achievement in three variables, namely $DEV\_TARGET_{i,t}$ , $TARGET\_ACHIEVED_{i,t}$ and $MAX\_ACHIEVED_{i,t}$. $DEV\_TARGET_{i,t}$ represents the sales performance of dealer $i$ compared to the sales target in a particular period $t$. $TARGET\_ACHIEVED_{i,t}$ and $MAX\_ACHIEVED_{i,t}$ are dummy variables, which respectively indicate whether the dealer meets/exceeds the sales target in period $t$ and whether the dealer exceeds the sales target that gives him access to the maximum discount percentage in period $t$.

*Exclusive or nonexclusive dealer*

In order to capture the differences between two types of dealers in how targets are set and how much effort dealers exert, we create a dummy variable $EXCLUSIVE_{i,t}$ to indicate whether the dealer is an exclusive dealer (1) or a nonexclusive dealer (0).[2] We expect that exclusive dealers are motivated to put in higher levels of effort in order to achieve their target. Hence, according to our coding we expect a positive relation between the dummy and target achievement.

*Difficulty*

To examine whether nonexclusive dealers provide lower effort levels, we need to control for target difficulty. We create the dummy variable $DIFFICULT_{i,t}$ to indicate whether the target is easy or difficult for the dealer according to their sales ability. The variable $DIFFICULT_{i,t}$ equals one if $TARGET\_UPDATE_{i,t} > DEV\_TARGET_{i,t-1}$, and zero otherwise. As the firm applies target steps with each step giving the dealer a larger discount on the cars, we have to decide what target to take as a reference to calculate $> DEV\_TARGET_{i,t-1}$. We selected the target that the firm uses as their point of reference in terms of what they believe will be the expected outcome. In table 1, we refer to the level as 'at target' and so does the franchisor.

We assume that a dealer is facing a difficult target when the target update is larger than last year's target deviation. This variable is used to split the full sample into the group of dealers with difficult targets and the group of dealers with easy targets. In our robustness analysis we also conduct our analysis using alternative classifications for target difficulty.

*Control variables*

[2] Exclusive dealers sell only brands that belong to the family of brands offered by the franchisor. Non-exclusive dealers sell next to the franchisors brands also brands from other manufacturers.

We also consider other variables that may affect the franchisor's decision and the dealers' action choice. Some dealers represent the collective dealers in a dealer committee. This would allow them to directly communicate with the franchisor more often than other dealers can. This may affect their sales targets. To take this potential effect into account we create the dummy variable $COMM\_MEM_{i,t}$ indicating whether the dealer is a delegate in the dealers committee. In addition, some dealers have an individual agreement with the franchisor. This agreement may result in benefits or privileges that can further affect dealer's effort. We therefore created the dummy variable $IND\_AGREE_{i,t}$, which equals one if an individual agreement applies and zero otherwise. Sales growth of the brand in the domestic market can also affect the sales ability of each dealer. Therefore $SALESGROWTH_t$ is used to represent the year-to-year changes in the market sales of the brand. Past performance is also included in our main tests.

Descriptive statistics

Panel A of Table 2 summarizes the yearly data we use for our main analysis. 39.6% (60.4%) of the dealers are exclusive (nonexclusive). The actual sales at the dealer level are on average lower that the sales target. The mean (median) of sales-target deviation is about -1.34% (-4.27%), i.e. dealers show an adverse deviation from the annual sales target. Less than half (43.1%) of the dealers achieve a sales level that exceeds the sales target. The mean (median) target update of the sales target is 7.898% (6.217%), and sales targets are adjusted downward in 166 out of 410 cases (not tabulated).

Panel B of Table 2 offers a comparison between exclusive dealers and nonexclusive dealers, on some of the key-variables we use in our analyses. Target levels of exclusive dealers are lower in terms of volume than the target levels of nonexclusive dealers. On average, targets are adjusted

upward to a smaller extent for exclusive dealers (3.6%) compared to the non-exclusive dealers (10.9%), indicating that non-exclusive dealers seem to be treated differently. The table also shows that more than half of the exclusive dealers (54.8%) achieve their sales targets, while only 35.3% of the nonexclusive dealers are able to do so.

## IV. Empirical Results

Test of Hypothesis 1: difficult targets for nonexclusive dealers

Hypothesis 1 predicts that a franchisor will set more challenging targets for nonexclusive dealers than for exclusive dealers. To empirically test this hypothesis, we use the following regression model:

$$TARGET\_UPDATE_{i,t} = \beta_0 + \beta_1 EXCLUSIVE_{i,t} + \beta_2 DEV\_TARGET_{i,t-1} + control\ variables + \varepsilon_{i,t} \quad (1)$$

where, $TARGET\_UPDATE_{i,t}$ denotes the difference between the new target and the current target, which is decided by the franchisor for dealer $i$ in year $t$ based on a mixture of objective and subjective factors; $EXCLUSIVE_{i,t}$ is a dummy variable equal to one if the dealer signs the exclusive contract with the franchisor, and equal to zero otherwise; $DEV\_TARGET_{i,t-1}$ indicates the sales performance of dealer $i$ in period $t$ compared to the sales target. The variable of interest in this model is $EXCLUSIVE_{i,t}$. When this variable loads on $TARGET\_UPDATE_{i,t}$ franchisors differentiate between types of dealers when updating their dealers' targets. Hence the coefficient $\beta_1$ represents the extent to which the franchisor treats these two types of franchisees different. According to our first hypothesis we expect the coefficient $\beta_1$ to be negative, if the franchisor

would set easier annual targets for the exclusive dealers. Since the firm sets yearly targets we use the annual data for this estimation.[3]

Our estimates are based on our regression equation using OLS over the sample period of 2004 to 2012. The t-statistics are based on clustered standard errors adjusted for heteroskedasticity and autocorrelation.

Table 3 reports our empirical results.[4] The coefficients $\beta_1$ are negative and significant for the first two models either excluding or including all controls ($coefficient = -10.111,\ p < 0.01$ in column (1), and $coefficient = -10.875,\ p < 0.01$ in column (2)). These results provide support for hypothesis 1. The franchisor assigns more demanding targets to nonexclusive dealers, than to their exclusive dealers. On average, the franchisor adjusts the targets by 10.111 (10.875) percentage points higher or nonexclusive dealers. We propose that this difference in the target setting process reflects how much franchisor is willing to invest in building up a relation with their franchisees conditional on them being an exclusive or a nonexclusive dealer. In the third column, we follow the target setting process as it was described to us by the firm. The franchisor said that they include also dealer's performance in t-2 and t-3.[5] Again consistent with H1, the results in column (3) show that target ratcheting occurs to a lesser extent for exclusive dealers vis-à-vis nonexclusive dealers. Despite that the franchisor asserts that they take sales performance of t-2 and t-3 into account next to t-1 sales data for updating the target, we primarily find evidence for t-1 data affecting the target for the next period. The coefficient of $\beta_2$ is positive

[3] Quarterly targets are decided after the yearly targets are made. Since we do not have detailed information about how the yearly targets are divided into four quarters, we do not test our hypothesis 1 by using the quarterly data.
[4] We also run similar tests but exclude the outliers of the sample (not tabulated), and these results still hold.
[5] As indicated by the example in the Appendix, we are told that the franchisor considers previous three years' performances to set the new target. However, we find that only the last year performance plays a significant role. We actually also consider the target update as the difference between the new target and the average of previous three years' sales, where we still find that the targets are updated to a lesser extent to the exclusive dealers.

and significant for all three models in Table 3. This suggests that to the extent that sales achievements of t-2 and t-3 affect the target, this data is impounded only to the extent it is related to t-1 sales. These results are consistent with the previous literature indicating that the franchisor upgrades the sales targets based on the previous performance (e.g., Bouwens and Kroos, 2011).[6] In sum, we can conclude that the data supports hypothesis 1, i.e., nonexclusive dealers get more difficult targets than exclusive dealers.

Dealer performance: preliminary tests

In the previous section our analyses focused on how the franchisor sets targets for each type of dealer. The next section examines how the dealers respond to these targets and the discounts that are attached to achieving these targets. In order to achieve their targets we assume that dealers must exert some level of effort. While dealers may be treated differently by the franchisor, this may reflect that these dealers truly differ in their ability to achieve their target. The observation that nonexclusive dealers get more difficult targets compared to exclusive dealers may therefore reflect that nonexclusive dealers are simply more likely to achieve their targets than exclusive dealers. We therefore first establish whether nonexclusive dealers are more likely to achieve their target at all. We do so by testing whether the likelihood of meeting/exceeding the target is different across exclusive and non-exclusive dealers. We run the following Logit regression:

$$DEALER\_PERFORMANCE_{i,t} = \beta_0 + \beta_1 EXCLUSIVE_{i,t} + \beta_2 DEV\_TARGET_{i,t-1} + control\ variables + \varepsilon_{i,t} \quad (2)$$

[6] We also test whether targets are updated asymmetrically, i.e., where positive target deviations lead to a higher targets while adverse deviations are ignored or only come through in the target to a very limited extent. However, we do not find evidence for an asymmetric target updating process, nor evidence that the asymmetry would depend on dealership type. A possible explanation for symmetric updating may lie in the fact that we study franchisee-franchisor relations, rather than employee-supervisor relations. However, this finding is also consistent with the findings Indjejikian et al. (2014b) document.

where $DEALER\_PERFORMANCE_{i,t}$ features $TARGET\_ACHIEVED_{i,t}$,and $MAX\_ACHIEVED_{i,t}$, i.e. the dummy variables indicating whether dealer $i$ exceeds the sales target, or reaches the maximum bonus percentages in a given year $t$ (quarter $t$). Table 4 reports the results. The coefficient of $\beta_1$ ($EXCLUSIVE_{i,t}$) is again our focus, which proxies for differences between exclusive and nonexclusive dealers. Panel A of Table 4 presents the results for the annual data. The coefficients of $EXCLUSIVE_{i,t}$ for the two models in Table 4 are positive and significant at 0.10 level or less. Panel B of Table 4 uses quarterly data. Similar to the results presented in Panel A, the coefficients of $EXCLUSIVE_{i,t}$ are all positive and significant ($p < 0.01$ for all models). The results suggest that exclusive dealers are more likely to meet their sales targets and also they are more likely to go beyond hitting the maximum bonus levels. In conclusion: we find no evidence that would lead to the conclusion that nonexclusive dealers have a greater ability to achieve their target than their exclusive counterparts. The fact that nonexclusive dealers face more difficult targets is not reflective of non-exclusive dealers having greater ability.

Test of hypothesis 2: willingness to meet and beat targets (controlling for target difficulty)

We now turn to our tests of whether dealers are equally willing to achieve their targets. Hypothesis 2 predicts that nonexclusive dealers put in less effort than exclusive dealers. To test this hypothesis, we focus on comparing target achievements of nonexclusive and exclusive dealers facing similarly difficult targets. In order to do so we spilt the sample into two subsamples: dealers facing more difficult targets (difficult group) and dealers facing easier targets (easy group). More specifically, a target is defined as difficult (easy) if $TARGET\_UPDATE_{i,t} > DEV\_TARGET_{i,t-1}$ ( $TARGET\_UPDATE_{i,t} \leq DEV\_TARGET_{i,t-1}$ ). [7]

[7] This target difficulty classification applies to most of our empirical tests (from Table 5 to Table 9) except the robustness test in Table 10.

Within each group, we compare target achievements for exclusive and nonexclusive dealers facing equally difficult targets. The creation of this level playing field for target difficulty between exclusive and nonexclusive dealers allows us to establish whether nonexclusive dealers provide less effort to sell the franchisor's brand and thus presumably redirect their effort to other brands.

Hypothesis 2a predicts that nonexclusive agents are less likely to achieve an equally difficult target than exclusive agents. We estimate the same Logit regression model as the one to establish ability. The difference is in the fact that we now created a level playing field for target difficulty. In column 1 we do so by controlling for target difficulty. In column 2 and 3 our estimates are based on the spilt sample. H2a would be supported if the coefficient of $EXCLUSIVE_{i,t}$ is positive. Panel A of Table 5 shows the results for the annual data. The coefficients of $EXCLUSIVE_{i,t}$, are positive and significant for the full sample ($coefficient = 1.069, p < 0.01$) and the difficult group ($coefficient = 1.339, p < 0.01$). The dealership type is not significant for the easy group. Consistent with H2a non-exclusive dealers seem to mute effort, in particular when targets are difficult. Panel B of Table 5 shows the results for running our regressions using quarterly data. The coefficients of $EXCLUSIVE_{i,t}$ are positive and significant for all three equations. The coefficients of $EXCLUSIVE_{i,t}$ for the difficult and easy groups are 0.728 ($p < 0.01$) and 0.604 ($p < 0.01$). In terms of the magnitude, the coefficient of $EXCLUSIVE_{i,t}$ is slightly larger in the difficult group, but this difference of $EXCLUSIVE_{i,t}$ between the difficult and easy group is not statistically significant. From these results we conclude that exclusivity does affect the dealers' effort choice. That is, nonexclusive dealers are more likely to mute their effort. The underlying reason is presumably that nonexclusive agents can divert effort to other sources of income (from

other brands) since their alternative choices become more attractive. This phenomenon is relatively more prominent when the targets are difficult.

In hypothesis 2b we conjecture that exclusive dealers exceed their target to a larger extent than nonexclusive dealers (i.e. continue to deliver performance). To test Hypothesis 2b we estimate whether type of dealership is associated with the likelihood of achieving the target that gives access to the maximum bonus and whether type of dealership is associated with the extent to which the target is exceeded. Results are shown in Table 6 (hit the maximum) and Table 7 (exceed the expected target level), respectively[8].

We first test whether the dealer is likely to meet/exceeds the target that gives him access to the maximum discount. Table 6 shows that the coefficients of $EXCLUSIVE_{i,t}$ are positive and significant for all three equations, suggesting that exclusive dealers are more likely to hit maximum bonus levels qualifying them to reap the maximum discount on the purchase price of cars. To achieve the maximum discount level, the nonexclusive dealers may need to allocate more resources to the brand offered by the franchisor, which decreases the potential bonuses they can receive from other brands. So the nonexclusive dealers have incentives to trade-off these different rewards that accrue from their decision of where they direct their effort. On the other hand, exclusive dealers can only direct their attention to the brand of the franchisor leaving with only one opportunity to achieve the targets: work hard enough to achieve the target set by the franchisor. Our results in Table 6 are consistent with this idea.

[8] For Table 6, we can only use quarterly data for our estimation due to the power issue. Regarding the annual data, only few dealers can reach the maximum bonus level, especially for the difficult group. Therefore we only report the results by using the quarterly data in Table 6, which provides more powerful results because of the larger sample size it has.

We now test whether dealer types differ in the extent to which they exceed the target that the franchisor expected the dealer to achieve (in Table 1, Panel B, this is the 'at target' bracket). Specifically we test whether exclusive dealers vis-à-vis nonexclusive dealers are more likely to exceed their target to a higher extent (Table 7). In Table 7 we show that the coefficients of $EXCLUSIVE_{i,t}$ are positive and significant for both of the groups facing difficult and easy targets (both for the annual and quarterly data). From these results we infer that exclusive dealers surpass their target to a greater extent than nonexclusive dealers do.

Moreover, to further examine our hypothesis 2b, we also consider a similar test as the one reproduced in Table 7, but now we focus on whether dealers differ in continuing putting effort in sales after they reached the point where they qualify for the maximum price discount. That is, we measure whether nonexclusive dealers differ from exclusive dealers in the extent to which they exceed the maximum target when both types of dealers reach the highest bonus. Due to the number of dealer residing in this bucket we face a power issue if we examine Year data. We therefore run this test using quarterly data of dealers meeting/exceeding the maximum target.

Hence the analysis we reproduce in Table 8 involves the same test as reproduced in Table 7, except that we now examine the deviation *from maximum target*, rather than *from target*. We now find that significant differences exist in sales deviations from the maximum target thresholds between exclusive and nonexclusive dealers when the targets are considered difficult, but not when they are set to be easy.

This finding suggests that the differences between exclusive and nonexclusive dealers are more prominent when the targets are difficult. This evidence supports our conjecture that nonexclusive dealers make a trade-off between profit they accrue from increasing sales in the franchisor's

brand or profits they can derive from other brands in their portfolio. That is, when targets are more difficult it is less likely for them do their best to achieve their target.

*Additional analyses of diverting effort*

In this subsection we perform an additional test that aims at extending our evidence of effort choice differences among the two different types of dealers. Specifically, we investigate whether exclusive dealers meet their quarterly targets within one year more often than nonexclusive dealers. In our previous analysis we show that exclusive dealers are more likely to achieve the yearly and quarterly targets (Table 5). The firm has a system in place where dealers who are able to meet their target in each quarter of the year qualify for an additional bonus. Therefore, we expect that dealers may try to meet the quarterly targets more often in a year. This incentive is expected to be more attractive to exclusive dealers as they do not have other brands to which they can resort. That is, nonexclusive dealers may divert to other brands without reaching each quarterly target within each year if other choices are more attractive. We anticipate that exclusive dealers hit quarterly targets within a year more often than nonexclusive dealers. Table 9 illustrates the results of our estimation. We apply a Poisson model to both our 'difficult group' as well as to our 'easy group' because the dependent variable is the number of times dealers that meet their quarterly targets within one year. Corresponding to our previous predictions, we find that nonexclusive dealers less often meet their quarterly targets than exclusive dealers within one year, in particular when facing difficult targets. The results in Table 9 support our intuition.

We also consider other ways to classify easy and difficult targets. Previously, a target is regarded as difficult as long as the target update is larger than the sales target deviation. We now refine this classification rule. The new rule requires that the target is deemed hard if the target updating

percentage exceeds the sales target deviation of the last year by a certain amount. Specifically, only if $TARGET\_UPDATE_{i,t}$ is greater than $DEV\_TARGET_{i,t-1}$ by a particular percentage, the target is classified as being difficult. We increase the difference between $TARGET\_UPDATE_{i,t}$ and $DEV\_TARGET_{i,t-1}$ to either 10% (model 1) or 20% (model 2), and then investigate our hypotheses using similar methods as before but conditional on the newly defined 'difficult' and 'easy' groups. In general our main hypotheses are supported by the results. Table 10 only shows the estimations based on the difficult group by using the quarterly data. However, similar results are also found for the easy group.[9] In Panel A of Table 10, we test our hypothesis 2a that exclusive dealers are more likely to reach the target. The coefficients of $EXCLUSIVE_{i,t}$ are both positive and significant, which support our hypothesis 2a. In Panel B, we test if the chance of hitting the maximum target is higher for exclusive dealers (hypothesis 2b). The results still support our conjectures, as the coefficients of $EXCLUSIVE_{i,t}$ are both positive and significant. Hence our results are robust to more stringent definitions of target difficulty.

## V. Conclusion, discussion and limitations

To investigate whether the franchisor uses different strategies conditional on the dealership type, we consider the target-updating procedure. Our theory predicts that franchisors are less willing to invest in their relationship with nonexclusive dealers vis-à-vis exclusive dealers. We expect that this willingness is reflected in the target updating process. That is, we expect that nonexclusive dealers must achieve more difficult targets than exclusive dealers to arrive at the same bonus

[9] We also did similar analyses to the easy groups based on two different difficulty levels, but the results are not tabulated. We still find that exclusive dealers are more likely to reach/exceed the target when the targets are easy. However, in terms of reaching the maximum target, there are no great differences between exclusive and nonexclusive dealers. The potential reason is that when the targets are easy for both exclusive and nonexclusive dealers, nonexclusive dealers may also try to hit the maximum target without sacrificing too much. Therefore, the differences between exclusive dealers and nonexclusive dealers are more prominent when the targets are difficult.

levels. Our evidence supports this idea. Given that dealers earn a bonus if they achieve their targets we consider this evidence consistent with the relational-contracts theory (Gibbons and Henderson, 2012a). Our evidence shows that the franchisor adjudges a lower amount of the total available discounts to nonexclusive dealers than to exclusive dealers, indicating that the franchisor invests less in nonexclusive dealers than in exclusive dealers.

Similar as the franchisor, relational contracting theory would further expect that nonexclusive dealers invest less in the relation with the franchisor than exclusive dealers. We test this conjecture, by examining whether dealers facing the same target difficulty are equally likely to achieve their targets. As predicted we find that nonexclusive dealers are less likely to achieve their targets and considerably spend less effort on hitting maximum bonus levels. As the social pressure exerted by the franchisor on the franchisee to achieve the target is high, these differing choices on the two types of dealers are considered evidence for the theory we propose.

This study tries to enhance our knowledge of what motivates principals to set difficult (easier) targets as well as what drives agents to do their best to achieve these targets. However, we are only at the start of learning what target setting procedures principals use to signal their commitment to their agents and how agents respond to this commitment by keep on performing at desirable performance levels. Previous studies have identified that agents in some firms actually manage (real) earnings in attempt to decrease the extent to which their target is ratcheted (Leone and Rock, 2002 and Bouwens and Kroos, 2011). On the other hand Indjejikian et al. (2014b) find that principals first consider whose targets they are setting to impound that information in the target. Future research could study the conditions that need to be met for principals to decide whether or not to ratchet a target for employees or whether they are willing

to reduce target ratcheting over time. Is this indeed to assure that the relation with the agents is well maintained?

From our evidence we conclude that both dealers as well as the franchisor invest less in their relations than the franchisor and its exclusive dealers do. This is consistent with relational-contract contracting theory which predicts that expected proceeds will affect how much each party will invest in the relation (Gibbons and Henderson, 2012a).

We believe that in order to advance our knowledge into the notion of how relational-contracts work more work is required. Our work only looks at target setting. Nevertheless, it would be very important to learn how relation building between principals and employees comes about. For instance, Bénabou and Tirole (2003) identify conditions where it is inefficient to subject inexperienced employees to a performance-based contract. Our understanding would be enhanced if we were to study this idea in the context of relational contracts. That is, do we observe that over time the understanding between the principal and the employee evolves in a direction that allows for performance-based contracts?

We also believe our findings advance the understanding of how the franchisor and franchisees interact with each other. For a franchisor, it may not be beneficial to conduct one identical incentive system for different types of dealers, since exclusive and nonexclusive dealers may react in different ways. To plan an efficient incentive scheme for the nonexclusive dealers still remains a difficult problem, which can be a research question for future studies. Sohoni et al. (2011) finds that stair-step incentives can help firms to increase sales and decrease sales volatility if the thresholds are set optimally, especially for the nonexclusive dealers, in which case stair-step incentive outperforms the lump-sum bonus scheme. Our results hint at the fact

that inappropriate stair-step incentives can backfire, because non-exclusive dealers divert their efforts to other brands if targets are set too difficult.

As with all studies our research has caveats. We focus on one franchise organization that operates in one business; the car branch. It has one specific incentive system for its franchisees. These specific features of the setting may limit the external validity of our results. However, the system we describe is fairly common in the (European) automobile sales branch. In this region franchisors usually conclude both exclusive and nonexclusive contracts dealers, and these contracts typically subject dealers bonuses that are conditional on achieving targets set by the franchisors. Therefore, while the targets setting process and the incentive system may diverge at other car franchisors, we still feel our findings are relevant to all franchise organizations which have different network contracts in their portfolio.

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## Appendix 1 A simulated example of target-setting process

At the end of each accounting year, the franchisor assigns a new target to each dealer for the next budget year. In general, these new targets are based on dealers' past performances, expected future sales growth of the brand and the franchisor's strategies. The objective input for the new target is the dealers' past performances. This is further subjectively adjusted by the franchisor. In Table A1 we reproduce an example of the target-setting process for one dealer. In total, two steps are included to determine the target.

In step A the firms calculates the relative sales performance of each individual dealer within the nationwide dealer network. In this example the dealer sold 1,000 – 1,250 cars per year. The outcome of Step A is 1.29%, which is the average weight of the past three years. Applying this percentage to the estimated sales forecast of 990,00 gets the franchisor to the expected sales number for the dealer in the coming year (n=1,277 cars). Step B entails that the franchisor (i.e., the national dealer organization) adjusts the estimated targets based on the firm's strategies and the market conditions, resulting in final year target. For the example case, the final target is adjusted downward compared to the original value, resulting in a lower target (n=941 cars) compared to his past performances. However, the subjective adjustments can be either upward or downward in our sample. Thus, to identify each dealer's sales targets, the sample firm uses a method that incorporates a mixture of parameters.

**Table A1 Simulation target calculation for a single dealer**

| | **2009** | **2010** | **2011** | **2012** | |
|---|---|---|---|---|---|
| **Step A** | | | | | |
| Actual sales | 1,000 | 1,125 | 1,250 | | |
| Nationwide sales | 75,000 | 87,500 | 100,000 | | |
| Relative performance of the dealer | 1.33% | 1.29% | 1.25% | **1.29%** | **1,277** |
| **Step B** | | | | | |
| Subjective adjustments made by the NDOdependent on the aspects, such as the franchisor's strategy and market conditions. | | | | | |
| **Dealer target** | | | | **0.95%** | **941** |
| | | | Corr.* | | |
| Nationwide sales forecast | | 110,000 | 10% | 990,00 | |
| **The firm's forecast is corrected for self-registrations (dealer/firm) and rentals.*<br>**Sales numbers and Target numbers are multiplied by an unrevealed parameter in order to disguise the identity of the firm we investigate in this paper, but we use the original numbers for the rest analyses.* | | | | | |

## Table 1 Dealer Composition and incentive structure

*Panel A: Annual composition of exclusive and nonexclusive dealers*

| Year | Number of dealers | Exclusive dealer (E) | Nonexclusive dealer (NE) | New dealers | | Dropout dealers | |
|---|---|---|---|---|---|---|---|
| | | | | E | NE | E | NE |
| 2004 | 55 | 25 | 30 | | | 2 (0.080) | 1 (0.033) |
| 2005 | 57 | 26 | 31 | 3 (0.115) | 2 (0.065) | 2 (0.077) | 3 (0.097) |
| 2006 | 57 | 26 | 31 | 2 (0.076) | 3 (0.097) | 2 (0.077) | 1 (0.032) |
| 2007 | 62 | 25 | 37 | 1 (0.040) | 7 (0.189) | 1 (0.040) | 2 (0.054) |
| 2008 | 67 | 24 | 43 | 0 (0.000) | 8 (0.186) | 3 (0.125) | 8 (0.186) |
| 2009 | 59 | 21 | 38 | 0 0.000 | 3 (0.079) | 1 (0.048) | 2 (0.053) |
| 2010 | 62 | 20 | 42 | 0 (0.000) | 6 (0.143) | 1 (0.050) | 3 (0.071) |
| 2011 | 59 | 19 | 40 | 0 (0.000) | 1 (0.025) | 0 (0.000) | 2 (0.050) |
| 2012 | 60 | 19 | 41 | 0 (0.000) | 3 (0.073) | | |

*Panel B: Incentive Structure*

| | **Far Below Target Area** | **Below Target** | **Bit Below Target** | **At Target Area** | **Bit Above Target** | **Above Target** | **Any Number Far Above target** |
|---|---|---|---|---|---|---|---|
| **2004** | NA | 0.60% | 0.90% | 1.50% | 1.75% | NA | NA |
| **2005** | NA | 0.60% | 0.90% | 1.50% | 1.75% | NA | NA |
| **2006** | NA | NA | 0.90% | 1.50% | NA | 2.10% | NA |
| **2007** | NA | NA | 0.90% | 1.50% | NA | 2.10% | NA |
| **2008** | NA | NA | 0.90% | 1.50% | NA | 2.10% | NA |
| **2009** | NA | NA | 0.90% | 1.50% | NA | 2.10% | NA |
| **2010** | NA | NA | 1.35% | 1.95% | NA | 2.55% | NA |
| **2011** | NA | NA | 1.35% | 1.95% | NA | 2.55% | 3.15% |
| **2012a** | NA | 0.90% | 1.20% | 1.80% | NA | 2.40% | 3.00% |
| **2012b** | 0.90% | 1.80% | NA | 3.00% | NA | NA | NA |

Note: The discount percentages in Panel B are all multiplied by an unrevealed parameter in order to disguise the identity of the firm we investigate in this paper, but we use the original numbers for the rest analyses. At the "at target" area, sales are at least equal to the target (target achievement ≥ 100%).

## Table 2 Descriptive statistics and Comparisons

*Panel A: Descriptive statistics*

| Measure | Mean | Median | Std. dev. | Min. | Max. |
|---|---|---|---|---|---|
| $SALES_{i,t}$ | 1712.72 | 1140 | 1604.81 | 145 | 11975 |
| $TARGET_{i,t}$ | 1846.59 | 1170 | 1860.22 | 170 | 13360 |
| $DEV\_TARGET_{i,t}$(%) | -1.337 | -4.274 | 28.126 | -69.309 | 152.239 |
| $TARGET\_UPDATE_{i,t}$ (%) | 7.898 | 6.217 | 30.333 | -61.916 | 197.952 |
| $EXCLUSIVE_{i,t}$ | 0.396 | 0 | 0.490 | 0 | 1 |
| $TARGET\_ACHIEVED_{i,t}$ | 0.431 | 0 | 0.496 | 0 | 1 |
| $MAX\_ACHIEVED_{i,t}$ | 0.256 | 0 | 0.437 | 0 | 1 |
| $SALESGROWTH_t$(%) | 2.890 | 5.677 | 25.612 | -36.611 | 49.165 |
| $NUMQT\_ACHIEVED_{i,t}$ | 1.998 | 2 | 1.308 | 0 | 4 |
| $IND\_AGREE_{i,t}$ | 0.119 | 0 | 0.324 | 0 | 1 |
| $COMM\_MEM_{i,t}$ | 0.056 | 0 | 0.231 | 0 | 1 |
| $DIFFICULT_{i,t}$ | 0.639 | 1 | 0.481 | 0 | 1 |

*Panel B: Comparisons across dealership types*

| | $SALES_{i,t}$ | $TARGET_{i,t}$ | $DEV\_TARGET_{i,t}$ | $TARGET\_UPDATE_{i,t}$ | $TARGET\_ACHIEVED_{i,t}$ |
|---|---|---|---|---|---|
| Exclusive dealer | 1031.40 | 1027.39 | 4.174 | 3.601 | 0.548 |
| Nonexclusive dealer | 2160.12 | 2384.53 | -4.956 | 10.851 | 0.353 |

Note: Sales numbers and Target numbers are multiplied by an unrevealed parameter in order to disguise the identity of the firm we investigate in this paper, but we use the original numbers for the rest analyses.

Variable definition: $SALES_{i,t}$ represents annual sales for dealer $i$ in year $t$; $TARGET_{i,t}$ representsthe annual target for dealer $i$ in year $t$; $DEV\_TARGET_{i,t}$ denotes the deviation from target sales for dealer $i$ in year $t$, which is measured as $\frac{SALES_{i,t}-TARGET_{i,t}}{TARGET_{i,t}} * 100$; $TARGET\_UPDATE_{i,t}$ denotes the annual target adjustments in year $t$ considered by the manufacturer, which is calculated as $\frac{TARGET_{i,t}-TARGET_{i,t-1}}{TARGET_{i,t-1}} * 100$; $EXCLUSIVE_{i,t}$ is an indicator variable equal to 1 if the dealer $i$ is an exclusive dealer, and is 0 otherwise; $TARGET\_ACHIEVED_{i,t}$ is an indicator variable equal to 1 if the dealer achieved the annual sales target in year $t$, and is 0 otherwise; $MAX\_ACHIEVED_{i,t}$ is an indicator variable equal to 1 if the dealer achieved the maximum bonus in year $t$, and is 0 otherwise; $SALESGROWTH_t$ indicates year-to-year sales changes of the car brand in the particular European country where both the franchisor and the franchisees locate; $NUMQT\_ACHIEVED_{i,t}$ indicates the number of quarters that the dealer $i$ reaches the quarterly sales target in year $t$; $IND\_AGREE_{i,t}$ is an indicator variable equal to 1 if the dealer signs additional contract with the manufacturer, and is 0 otherwise; $COMM\_MEM_{i,t}$ is an indicator variable equal to 1 if the dealer is the committee member, and is 0 otherwise; and $\mathrm{DIFFICULT_{i,t}}$ is an indicator variable equal to 1(0) if the target update for dealer i in year t is larger (smaller) than dealer's last year target deviation, meaning $\mathrm{TARGET\_UPDATE_{i,t}} > (\leq) \mathrm{DEV\_TARGET_{i,t-1}}$ , where $\mathrm{TARGET\_UPDATE_{i,t}}$ is calculated as $\frac{\mathrm{TARGET_{i,t}-TARGET_{i,t-1}}}{\mathrm{TARGET_{i,t-1}}} * 100$ and $DEV\_TARGET_{i,t}$ is calculated $\frac{SALES_{i,t}-TARGET_{i,t}}{TARGET_{i,t}} * 100$.

## Table 3 Target updates and type of dealership

| *Panel A: Target updating of the whole sample* | | | | |
|---|---|---|---|---|
| *Dependent variable:* | | OLS regression | | |
| $TARGET\_UPDATE_{i,t}$ | | (1) | (2) | (3) |
| Intercept | Prediction | -3.813 | 26.555** | 11.136*** |
| | | (-1.43) | (2.03) | (3.68) |
| $EXCLUSIVE_{i,t}$ | - | -10.111*** | -10.875*** | -4.963** |
| | | (-4.19) | (-4.04) | (-2.01) |
| $DEV\_TARGET_{i,t-1}$ | | 0.343*** | 0.360*** | 0.295*** |
| | | (4.57) | (4.44) | (3.71) |
| $SALESGROWTH_t$ | | | 1.125** | 0.936*** |
| | | | (2.43) | (12.52) |
| $IND\_AGREE_{i,t}$ | | | -2.760 | 2.838 |
| | | | (-0.70) | (0.62) |
| $COMM\_MEM_{i,t}$ | | | -6.502 | -9.889*** |
| | | | (-1.20) | (-2.92) |
| $DEV\_TARGET_{i,t-2}$ | | | | 0.050 |
| | | | | (0.81) |
| $DEV\_TARGET_{i,t-3}$ | | | | -0.074 |
| | | | | (-1.44) |
| Year effect | | Yes | Yes | Yes |
| Error Control | | Cluster | Cluster | Cluster |
| No. of observations | | 410 | 410 | 253 |
| $R^2$ | | 0.462 | 0.466 | 0.655 |
| $p > F - statistics$ | | 0.000 | 0.000 | 0.000 |

*, ** and *** indicates significance at the 10%, 5% and 1% level (two-tailed). T-values (or Z-values) are presented in the brackets.

Variable definition: $\text{TARGET\_UPDATE}_{i,t}$ denotes the annual target adjustments in year t considered by the manufacturer, which is calculated as $\frac{\text{TARGET}_{i,t}-\text{TARGET}_{i,t-1}}{\text{TARGET}_{i,t-1}} * 100$ with $\text{TARGET}_{i,t}$ representing the annual target for dealer i in year t; $\text{EXCLUSIVE}_{i,t}$ is an indicator variable equal to 1 if the dealer i is an exclusive dealer, and is 0 otherwise; $\text{DEV\_TARGET}_{i,t-1}$ is an indicator variable equal to 1 if the dealer achieved the annual sales target in year t, and is 0 otherwise; $\text{SALESGROWTH}_t$ indicates year-to-year sales changes of the brand in the particular European country where both the franchisor and the franchisees locate; $\text{IND\_AGREE}_{i,t}$ is an indicator variable equal to 1 if the dealer signs additional contract with the manufacturer, and is 0 otherwise; and $\text{COMM_MEM}_{i,t}$is an indicator variable equal to 1 if the dealer is the committee member, and is 0 otherwise.

## Table 4 Dealer performance and type of dealership

*Panel A: Yearly data*

| | | Logit Regression | |
|---|---|---|---|
| | | (1) | (2) |
| *Dependent variable:* | | $TARGET\_ACHIEVED_{i,t}$ | $MAX\_ACHIEVED_{i,t}$ |
| Intercept | Prediction | -3.972** | -2.538*** |
| | | (-2.42) | (-6.57) |
| $EXCLUSIVE_{i,t}$ | + | 1.080*** | 0.593* |
| | | (3.67) | (1.70) |
| $DEV\_TARGET_{i,t-1}$ | | 0.046*** | 0.035*** |
| | | (4.00) | (2.84) |
| $TARGET\_ACHIEVED_{i,t-1}$ | | 0.401 | |
| | | (0.99) | |
| $MAX\_ACHIEVED_{i,t-1}$ | | | 0.670 |
| | | | (1.13) |
| $SALESGROWTH_t$ | | -0.040 | 0.043*** |
| | | (-0.83) | (4.14) |
| $IND\_AGREE_{i,t}$ | | 0.250 | 0.350 |
| | | (0.63) | (1.01) |
| $COMM\_MEM_{i,t}$ | | 1.803** | 1.719*** |
| | | (2.17) | (3.84) |
| Year effect | | Yes | Yes |
| Error Control | | Cluster | Cluster |
| No. of observations | | 410 | 410 |
| $R^2$ | | 0.316 | 0.309 |
| $p > Chi2$ | | 0.000 | 0.000 |

*Panel B: Quarterly data*

| | | Logit Regression | |
|---|---|---|---|
| | | (1) | (3) |
| *Dependent variable* | | $TARGET\_ACHIEVED_{i,t}$ | $MAX\_ACHIEVED_{i,t}$ |
| Intercept | Prediction | 0.245 | 1.141 |
| | | (0.34) | (1.39) |
| $EXCLUSIVE_{i,t}$ | + | 0.695*** | 0.518*** |
| | | (3.94) | (2.60) |
| $DEV\_TARGET_{i,t-4}$ | | 0.007** | 0.007** |
| | | (2.29) | (2.30) |
| $TARGET\_ACHIEVED_{i,t-4}$ | | 0.512** | |
| | | (2.51) | |
| $MAX\_ACHIEVED_{i,t-4}$ | | | 0.642*** |
| | | | (3.35) |
| $SALESGROWTH_t$ | | 0.032 | 0.079*** |
| | | (1.37) | (3.06) |
| $IND\_AGREE_{i,t}$ | | 0.009 | 0.126 |
| | | (0.04) | (0.44) |
| $COMM\_MEM_{i,t}$ | | 1.312*** | 1.450*** |
| | | (2.68) | (3.18) |
| Year effect | | Yes | Yes |
| Quarter effect | | Yes | Yes |
| Error Control | | Cluster | Cluster |
| No. of observations | | 1640 | 1640 |
| $R^2$ | | 0.138 | 0.139 |
| $p > Chi2$ | | 0.000 | 0.000 |

*, ** and *** indicates significance at the 10%, 5% and 1% level (two-tailed). T-values (or Z-values) are presented in the brackets.

Variable definition: $\text{TARGET\_ACHIEVED}_{i,t}$ is an indicator variable equal to 1 if the dealer achieved the annual sales target in year (quarter) t, and is 0 otherwise; $\text{MAX\_ACHIEVED}_{i,t}$ is an indicator variable equal to 1 if the dealer i sells cars equal to or more than the maximum target required in year (quarter) t to achieve the highest possible discount, and is 0 otherwise; $\text{DEV_TARGET}_{i,t}$denotes the deviation from target sales of dealer i in year (quarter) t, which is measured as $\frac{\text{SALES}_{i,t}-\text{TARGET}_{i,t}}{\text{TARGET}_{i,t}} * 100$ with $\text{TARGET}_{i,t}$ representing the target of dealer i in year (quarter) t and $\text{SALES}_{i,t}$ representing actual sales of dealer i in year (quarter) t; $\text{SALESGROWTH}_t$ indicates year-to-year sales changes of the car brand in the particular European country where both the franchisor and the franchisees locate; $\text{IND\_AGREE}_{i,t}$ is an indicator variable equal to 1 if the dealer signs additional contract with the manufacturer, and is 0 otherwise; and $\text{COMM\_MEM}_{i,t}$ is an indicator variable equal to 1 if the dealer is the committee member, and is 0 otherwise.

**Table 5 Target achievement and type of dealership controlling for target difficulty**

| *Pane A: Annual Data* | | | | |
|---|---|---|---|---|
| *Dependent variable* | | Logit Regression | | |
| $TARGET\_ACHIEVED_{i,t}$ | | (1) | (2) | (3) |
| | | Full Sample | Difficult Group | Easy Group |
| Intercept | Prediction | -3.427** | -3.799*** | 4.689*** |
| | | (-2.28) | (-11.03) | (8.02) |
| $EXCLUSIVE_{i,t}$ | + | 1.069*** | 1.339*** | 0.621 |
| | | (3.69) | (3.25) | (1.32) |
| $DEV\_TARGET_{i,t-1}$ | | 0.045*** | 0.037*** | 0.069*** |
| | | (5.23) | (3.20) | (4.71) |
| $SALESGROWTH_t$ | | -0.037 | 0.328*** | 0.181*** |
| | | (-0.82) | (19.87) | (13.68) |
| $IND\_AGREE_{i,t}$ | | 0.284 | 0.636 | -1.207* |
| | | (0.68) | (1.28) | (-1.74) |
| $COMM\_MEM_{i,t}$ | | 1.624* | 0.635 | 2.987*** |
| | | (1.92) | (0.40) | (5.21) |
| $DIFFICULT_{i,t}$ | | -1.138*** | | |
| | | (-2.77) | | |
| Year effect | | Yes | Yes | Yes |
| Error control | | Cluster | Cluster | Cluster |
| No. of observations | | 410 | 240 | 170 |
| $R^2$ | | 0.330 | 0.238 | 0.500 |
| $p > Chi2$ | | 0.000 | 0.000 | 0.000 |

| *Pane B:Quarterly Data* | | | | |
|---|---|---|---|---|
| *Dependent variable* | | Logit Regression | | |
| $TARGET\_ACHIEVED_{i,t}$ | | (1) | (2) | (3) |
| | | Full Sample | Difficult Group | Easy Group |
| Intercept | Prediction | 0.905 | 1.082 | 0.794 |
| | | (1.27) | (0.39) | (1.10) |
| $EXCLUSIVE_{i,t}$ | + | 0.653*** | 0.728*** | 0.604*** |
| | | (3.97) | (3.39) | (3.07) |
| $DEV\_TARGET_{i,t-4}$ | | 0.010*** | 0.007*** | 0.013*** |
| | | (4.24) | (2.60) | (3.19) |
| $SALESGROWTH_t$ | | 0.035 | 0.084 | 0.030 |
| | | (1.55) | (0.90) | (1.33) |
| $IND\_AGREE_{i,t}$ | | -0.017*** | 0.394* | -0.706** |
| | | (-0.005) | (1.75) | (-2.38) |
| $COMM\_MEM_{i,t}$ | | 1.081** | 0.232 | 1.770*** |
| | | (2.26) | (0.26) | (4.53) |
| $DIFFICULT_{i,t}$ | | -0.937*** | | |
| | | (-4.83) | | |
| Year effect | | Yes | Yes | Yes |
| Quarter effect | | Yes | Yes | Yes |
| Error control | | Cluster | Cluster | Robust |
| No. of observations | | 1640 | 960 | 680 |
| $R^2$ | | 0.150 | 0.124 | 0.204 |
| $p > Chi2$ | | 0.000 | 0.000 | 0.000 |

*, ** and *** indicates significance at the 10%, 5% and 1% level (two-tailed). T-values (or Z-values) are presented in the brackets.

Variable definition: $\text{TARGET\_ACHIEVED}_{i,t}$ is an indicator variable equal to 1 if the dealer achieved the annual (quarter) sales target in year (quarter) t, and is 0 otherwise; $\text{EXCLUSIVE}_{i,t}$ is an indicator variable equal to 1 if the dealer i is an exclusive dealer, and is 0 otherwise; $\text{DEV\_TARGET}_{i,t}$ denotes the deviation from target sales in year (quarter) t, which is measured as $\frac{\text{SALES}_{i,t}-\text{TARGET}_{i,t}}{\text{TARGET}_{i,t}} * 100$ with $\text{TARGET}_{i,t}$ representing the target of dealer i in year (quarter) t and $\text{SALES}_{i,t}$ representing actual sales of dealer i in year (quarter) t; $\text{SALESGROWTH}_t$ indicates year-to-year sales changes of the car brand in the particular European country where both the franchisor and the franchisees locate; $\text{IND\_AGREE}_{i,t}$ is an indicator variable equal to 1 if the dealer signs additional contract with the manufacturer, and is 0 otherwise; $\text{COMM\_MEM}_{i,t}$ is an indicator variable equal to 1 if the dealer is the committee member, and is 0 otherwise; and $\text{DIFFICULT}_{i,t}$ is an indicator variable equal to 1(0) if the target update for dealer i in year t is larger (smaller) than dealer's last year target deviation, meaning $\text{TARGET\_UPDATE}_{i,t} > (\leq) \text{DEV\_TARGET}_{i,t-1}$ ,where $\text{TARGET\_UPDATE}_{i,t}$ is calculated as $\frac{\text{TARGET}_{i,t}-\text{TARGET}_{i,t-1}}{\text{TARGET}_{i,t-1}} * 100$ and $DEV\_TARGET_{i,t}$ is calculated $\frac{SALES_{i,t}-TARGET_{i,t}}{TARGET_{i,t}} * 100$.

## Table 6 Achievement of maximum level and the type of dealership

| Dependent variable | | Logit regression | | |
|---|---|---|---|---|
| $MAX\_ACHIEVED_{i,t}$ | | (1) | (2) | (3) |
| | | Full Sample | Difficult Group | Easy Group |
| Intercept | Prediction | 2.036*** | 0.256 | 2.407*** |
| | | (2.61) | (0.07) | (2.93) |
| $EXCLUSIVE_{i,t}$ | + | 0.489** | 0.614*** | 0.422** |
| | | (2.48) | (2.80) | (2.16) |
| $DEV\_TARGET_{i,t-4}$ | | 0.011*** | 0.007** | 0.013*** |
| | | (4.18) | (2.39) | (3.45) |
| $SALESGROWTH_t$ | | 0.090*** | 0.076 | 0.096*** |
| | | (3.51) | (0.64) | (3.75) |
| $IND\_AGREE_{i,t}$ | | 0.103 | 0.615** | -0.566* |
| | | (0.36) | (2.16) | (-1.80) |
| $COMM\_MEM_{i,t}$ | | 1.246*** | 0.296 | 1.999*** |
| | | (2.82) | (0.35) | (5.82) |
| $DIFFICULT_{i,t}$ | | -1.152*** | | |
| | | (-6.03) | | |
| Year effect | | Yes | Yes | Yes |
| Quarter effect | | Yes | Yes | Yes |
| Error control | | Cluster | Cluster | Robust |
| No. of observations | | 1640 | 960 | 680 |
| $R^2$ | | 0.157 | 0.118 | 0.217 |
| $p > Chi2$ | | 0.000 | 0.000 | 0.000 |

*, ** and *** indicates significance at the 10%, 5% and 1% level (two-tailed). T-values (or Z-values) are presented in the brackets.

Variable definition: $MAX\_ACHIEVED_{i,t}$ is an indicator variable equal to 1 if the dealer $i$ sells cars equal to or more than the maximum target required in quarter$t$ , and is 0 otherwise; $EXCLUSIVE_{i,t}$ is an indicator variable equal to 1 if the dealer $i$ is an exclusive dealer, and is 0 otherwise; $DEV\_TARGET_{i,t}$ denotes the deviation from target sales in quarter $t$, which is measured as $\frac{SALES_{i,t}-TARGET_{i,t}}{TARGET_{i,t}} * 100$ with $TARGET_{i,t}$ representing the target of dealer $i$ in quarter $t$ and $SALES_{i,t}$ representing actual sales of dealer $i$ in quarter $t$; $SALESGROWTH_t$ indicates year-to-year sales changes of the car brand in the particular European country where both the franchisor and the franchisees locate; $IND\_AGREE_{i,t}$ is an indicator variable equal to 1 if the dealer signs additional contract with the manufacturer, and is 0 otherwise; $COMM\_MEM_{i,t}$ is an indicator variable equal to 1 if the dealer is the committee member, and is 0 otherwise; and $\mathrm{DIFFICULT_{i,t}}$ is an indicator variable equal to 1(0) if the target update for dealer i in year t is larger (smaller) than dealer's last year target deviation, meaning $\mathrm{TARGET\_UPDATE_{i,t}} > (\leq)\mathrm{DEV\_TARGET_{i,t-1}}$ , where $\mathrm{TARGET\_UPDATE_{i,t}}$ is calculated as $\frac{\mathrm{TARGET_{i,t}}-\mathrm{TARGET_{i,t-1}}}{\mathrm{TARGET_{i,t-1}}} * 100$ and $DEV\_TARGET_{i,t}$ is calculated $\frac{SALES_{i,t}-TARGET_{i,t}}{TARGET_{i,t}} * 100$.

**Table 7 Dealer performance and the dealership deviation from low-level target**

| *Pane A: Annual Data* | | | | |
|---|---|---|---|---|
| *Dependent variable:* | | OLS regression | | |
| $DEV\_TARGET_{i,t}$ | | (1) | (2) | (3) |
| | | Full Sample | Difficult Group | Easy Group |
| Intercept | Prediction | -10.989 | -5.330 | -16.691 |
| | | (-0.99) | (-0.20) | (-1.50) |
| $EXCLUSIVE_{i,t}$ | + | 7.396*** | 7.352*** | 8.643** |
| | | (3.33) | (2.94) | (2.13) |
| $DEV\_TARGET_{i,t-1}$ | | 0.466*** | 0.305*** | 0.536*** |
| | | (0.079) | (4.57) | (4.02) |
| $SALESGROWTH_t$ | | 0.164 | 0.846 | -0.032 |
| | | (0.45) | (1.02) | (-0.07) |
| $IND\_AGREE_{i,t}$ | | 5.833 | 12.643** | -4.010 |
| | | (1.28) | (2.34) | (-0.72) |
| $COMM\_MEM_{i,t}$ | | 9.545** | -0.047 | 15.128*** |
| | | (2.01) | (-0.00) | (2.48) |
| $DIFFICULT_{i,t}$ | | -12.867*** | | |
| | | (-3.62) | | |
| Year effect | | Yes | Yes | Yes |
| Error control | | Cluster | Cluster | Cluster |
| No. of observations | | 410 | 240 | 170 |
| $R^2$ | | 0.486 | 0.398 | 0.526 |
| $p > Chi2$ | | 0.000 | 0.000 | 0.000 |

| *Pane B:Quarterly Data* | | | | |
|---|---|---|---|---|
| Dependent variable | | OLS regression | | |
| $DEV\_TARGET_{i,t}$ | | (1) | (2) | (3) |
| | | Full Sample | Difficult Group | Easy Group |
| Intercept | Prediction | -4.671 | 6.464 | -12.413 |
| | | (-0.51) | (0.37) | (-1.09) |
| $EXCLUSIVE_{i,t}$ | + | 6.752*** | 6.213*** | 8.359*** |
| | | (2.92) | (2.71) | (2.74) |
| $DEV\_TARGET_{i,t-1}$ | | 0.332*** | 0.276*** | 0.343*** |
| | | (6.92) | (6.45) | (6.17) |
| $SALESGROWTH_t$ | | -0.164 | 0.755 | -0.428 |
| | | (-0.54) | (1.41) | (-1.16) |
| $IND\_AGREE_{i,t}$ | | 4.348 | 9.723** | -3.406 |
| | | (1.01) | (2.39) | (-0.78) |
| $COMM\_MEM_{i,t}$ | | 12.233** | 1.071 | 18.669*** |
| | | (2.40) | (0.12) | (3.60) |
| $DIFFICULT_{i,t}$ | | -16.806*** | | |
| | | (-6.92) | | |
| Year effect | | Yes | Yes | Yes |
| Quarter effect | | Yes | Yes | Yes |
| Error control | | Cluster | Cluster | Cluster |
| No. of observations | | 1640 | 960 | 680 |
| $R^2$ | | 0.315 | 0.281 | 0.344 |
| $p > Chi2$ | | 0.000 | 0.000 | 0.000 |

*, ** and *** indicates significance at the 10%, 5% and 1% level (two-tailed). T-values (or Z-values) are presented in the brackets.

Variable definition: $DEV\_TARGET_{i,t}$ denotes the deviation from target sales in year $t$, which is measured as $\frac{SALES_{i,t}-TARGET_{i,t}}{TARGET_{i,t}} * 100$ with $TARGET_{i,t}$ representing the target of dealer $i$ in year (quarter) $t$ and $SALES_{i,t}$ representing actual sales of dealer $i$ in year (quarter) $t$; $EXCLUSIVE_{i,t}$ is an indicator variable equal to 1 if the dealer $i$ is an exclusive dealer, and is 0 otherwise; $SALESGROWTH_t$ indicates year-to-year sales changes of the car brand in the particular European country where both the franchisor and the franchisees locate; $IND\_AGREE_{i,t}$ is an indicator variable equal to 1 if the dealer signs additional contract with the manufacturer, and is 0 otherwise; $COMM\_MEM_{i,t}$ is an indicator variable equal to 1 if the dealer is the committee member, and is 0 otherwise; and $DIFFICULT_{i,t}$ is an indicator variable equal to 1(0) if the target update for dealer i in year t is larger (smaller) than the dealer's last year target deviation, meaning $TARGET\_UPDATE_{i,t} > (\leq) DEV\_TARGET_{i,t-1}$ ,where $TARGET\_UPDATE_{i,t}$ is calculated as $\frac{TARGET_{i,t}-TARGET_{i,t-1}}{TARGET_{i,t-1}} * 100$ and $DEV\_TARGET_{i,t}$ is calculated $\frac{SALES_{i,t}-TARGET_{i,t}}{TARGET_{i,t}} * 100$.

**Table 8 Dealer performance and type of dealership for dealers reaching maximum target**

| *Pane A: Annual Data* | | | |
|---|---|---|---|
| *Dependent variable:* | | OLS regression | |
| $DEV\_MAXTARGET_{i,t}$ | | (2) | (3) |
| | | Difficult Group | Easy Group |
| Intercept | Prediction | -38.852 | -40.513* |
| | | (-1.49) | (-1.81) |
| $EXCLUSIVE_{i,t}$ | + | 6.803*** | 3.263 |
| | | (2.68) | (1.59) |
| $DEV\_TARGET_{i,t-1}$ | | 0.056 | 0.129** |
| | | (1.44) | (2.46) |
| $SALESGROWTH_t$ | | -1.421* | -1.517* |
| | | (-1.89) | (-1.92) |
| $IND\_AGREE_{i,t}$ | | 20.684*** | 7.540 |
| | | (2.88) | (1.21) |
| $COMM\_MEM_{i,t}$ | | -6.482 | -3.369 |
| | | (-1.10) | (-0.79) |
| Year effect | | Yes | Yes |
| Quarter effect | | Yes | Yes |
| Error control | | Robust | Robust |
| No. of observations | | 260 | 287 |
| $R^2$ | | 0.281 | 0.241 |
| $p > Chi2$ | | 0.000 | 0.000 |

*, ** and *** indicates significance at the 10%, 5% and 1% level (two-tailed). T-values (or Z-values) are presented in the brackets.

Variable definition: $\text{DEV\_MAXTARGET}_{i,t}$ denotes the deviation from target sales in year t, which is measured as $\frac{\text{SALES}_{i,t}-\text{MAXTARGET}_{i,t}}{\text{MAXTARGET}_{i,t}} * 100$ with $\text{MAXTARGET}_{i,t}$ representing the target of dealer i to reach the maximum bonus percentage in quartert and $\text{SALES}_{i,t}$ representing actual sales of dealer i in quartert; $\text{EXCLUSIVE}_{i,t}$ is an indicator variable equal to 1 if the dealer i is an exclusive dealer, and is 0 otherwise; $DEV\_TARGET_{i,t}$ denotes the deviation from target sales in year $t$, which is measured as $\frac{SALES_{i,t}-TARGET_{i,t}}{TARGET_{i,t}} * 100$ with $TARGET_{i,t}$ representing the target of dealer $i$ in year (quarter) $t$ and $SALES_{i,t}$ representing actual sales of dealer $i$ in year (quarter) $t$; $\text{SALESGROWTH}_t$ indicates year-to-year sales changes of the car brand in the particular European country where both the franchisor and the franchisees locate; $\text{IND\_AGREE}_{i,t}$ is an indicator variable equal to 1 if the dealer signs additional contract with the manufacturer, and is 0 otherwise; $\text{COMM\_MEM}_{i,t}$ is an indicator variable equal to 1 if the dealer is the committee member, and is 0 otherwise.

## Table 9 Number of target-achieved quarters and type of dealership

| *Dependent variable:* | | Poisson regression | | |
|---|---|---|---|---|
| $NUMQT\_ACHIEVED_{i,t}$ | | (1) | (2) | (3) |
| | | Full Sample | Difficult Group | Easy Group |
| Intercept | Prediction | 0.476 | 1.763 | 0.352 |
| | | (1.28) | (0.79) | (0.66) |
| $EXCLUSIVE_{i,t}$ | + | 0.254*** | 0.294*** | 0.235** |
| | | (4.06) | (3.13) | (2.08) |
| $NUMQT\_ACHIEVED_{i,t-1}$ | | 0.165*** | 0.147*** | 0.184*** |
| | | (5.97) | (4.30) | (3.38) |
| $SALESGROWTH_t$ | | 0.018 | 0.087 | 0.014 |
| | | (1.47) | (1.14) | (0.85) |
| $IND\_AGREE_{i,t}$ | | 0.075 | 0.187* | -0.083 |
| | | (0.86) | (1.88) | (-0.46) |
| $COMM\_MEM_{i,t}$ | | 0.242*** | 0.041 | 0.336** |
| | | (2.67) | (0.18) | (2.19) |
| $DIFFICULT_{i,t}$ | | -0.295*** | | |
| | | (-3.54) | | |
| Year effect | | Yes | Yes | Yes |
| Error Control | | Cluster | Cluster | No |
| No. of observations | | 410 | 240 | 170 |
| $R^2$ | | 0.098 | 0.081 | 0.109 |
| $p > Chi2$ | | 0.000 | 0.000 | 0.000 |

*, ** and *** indicates significance at the 10%, 5% and 1% level (two-tailed). T-values (or Z-values) are presented in the brackets.

Variable definition: $\text{NUMQT\_ACHIEVED}_{i,t}$ indicates the number of quarters that the dealer i reaches the quarterly sales target in year t; $\text{EXCLUSIVE}_{i,t}$ is an indicator variable equal to 1 if the dealer i is an exclusive dealer, and is 0 otherwise; $\text{SALESGROWTH}_t$ indicates year-to-year sales changes of the car brand in the particular European country where both the franchisor and the franchisees locate; $\text{IND\_AGREE}_{i,t}$ is an indicator variable equal to 1 if the dealer signs additional contracts with the manufacturer, and is 0 otherwise; $\text{COMM\_MEM}_{i,t}$ is an indicator variable equal to 1 if the dealer is the committee member, and is 0 otherwise; and $\text{DIFFICULT}_{i,t}$ is an indicator variable equal to 1(0) if the target update for dealer i in year t is larger (smaller) than the dealer's last year target deviation, meaning $\text{TARGET\_UPDATE}_{i,t} > (\leq) \text{DEV\_TARGET}_{i,t-1}$ ,where $\text{TARGET\_UPDATE}_{i,t}$ is calculated as $\frac{\text{TARGET}_{i,t}-\text{TARGET}_{i,t-1}}{\text{TARGET}_{i,t-1}} * 100$ and $DEV\_TARGET_{i,t}$ is calculated $\frac{SALES_{i,t}-TARGET_{i,t}}{TARGET_{i,t}} * 100$.

## Table 10 Sensitivity test for target difficulty

| *Panel A: Target achieved ratio and the dealership (difficult group only)* | | | |
|---|---|---|---|
| *Dependent variable* | | Logit Regression | |
| $TARGET\_ACHIEVED_{i,t}$ | | (1) | (2) |
| | | 10% | 20% |
| Intercept | Prediction | -5.079 | -4.157 |
| | | (-1.18) | (-0.95) |
| $EXCLUSIVE_{i,t}$ | + | 0.566** | 0.664** |
| | | (2.34) | (2.30) |
| $DEV\_TARGET_{i,t-4}$ | | 0.007** | 0.006* |
| | | (2.18) | (1.67) |
| $SALESGROWTH_t$ | | -0.090 | -0.047 |
| | | (-0.70) | (-0.36) |
| $IND\_AGREE_{i,t}$ | | 0.137 | 0.942*** |
| | | (0.47) | (4.22) |
| $COMM\_MEM_{i,t}$ | | -0.417 | -0.881 |
| | | (-0.41) | (-0.87) |
| Year effect | | Yes | Yes |
| Quarter effect | | Yes | Yes |
| Error control | | Cluster | Cluster |
| No. of observations | | 740 | 504 |
| $R^2$ | | 0.106 | 0.142 |
| $p > Chi2$ | | 0.000 | 0.000 |
| *Panel B: Maximum target achieved ratio and the dealership (difficult group only)* | | | |
| *Dependent variable* | | Logit Regression | |
| $MAX\_ACHIEVED_{i,t}$ | | (1) | (2) |
| | | 10% | 20% |
| Intercept | Prediction | -1.617*** | -2.274*** |
| | | (-4.62) | (-3.93) |
| $EXCLUSIVE_{i,t}$ | + | 0.441* | 0.536* |
| | | (1.73) | (1.61) |
| $DEV\_TARGET_{i,t-4}$ | | 0.010*** | 0.007* |
| | | (2.80) | (1.68) |
| $SALESGROWTH_t$ | | 0.018 | 0.031*** |
| | | (0.68) | (3.04) |
| $IND\_AGREE_{i,t}$ | | 0.559 | 1.106*** |

| | | |
|---|---|---|
| | (1.45) | (2.90) |
| $COMM\_MEM_{i,t}$ | -0.506 | -0.722 |
| | (-0.35) | (-0.54) |
| Year effect | Yes | Yes |
| Quarter effect | Yes | Yes |
| Error control | Cluster | Cluster |
| No. of observations | 740 | 504 |
| $R^2$ | 0.096 | 0.104 |
| $p > Chi2$ | 0.000 | 0.000 |

*, ** and *** indicates significance at the 10%, 5% and 1% level (two-tailed). T-values (or Z-values) are presented in the brackets.

Variable definition: $\mathrm{TARGET\_ACHIEVED_{i,t}}$ is an indicator variable equal to 1 if the dealer achieved the quarter sales target in quartert, and is 0 otherwise; $\mathrm{MAX\_ACHIEVED_{i,t}}$ is an indicator variable equal to 1 if the dealer i sells cars equal to or more than the maximum target required in quartert , and is 0 otherwise; $\mathrm{EXCLUSIVE_{i,t}}$ is an indicator variable equal to 1 if the dealer i is an exclusive dealer, and is 0 otherwise; $\mathrm{DEV\_TARGET_{i,t}}$ denotes the deviation from target sales in quarter t, which is measured as $\frac{\mathrm{SALES_{i,t}}-\mathrm{TARGET_{i,t}}}{\mathrm{TARGET_{i,t}}} * 100$ with $\mathrm{TARGET_{i,t}}$ representing the target of dealer i in quartert and $\mathrm{SALES_{i,t}}$ representing actual sales of dealer i in quarter t;$\mathrm{SALESGROWTH_t}$ indicates year-to-year sales changes of the car brand in the particular European country where both the franchisor and the franchisees locate; $\mathrm{IND\_AGREE_{i,t}}$ is an indicator variable equal to 1 if the dealer signs additional contract with the manufacturer, and is 0 otherwise; $\mathrm{COMM_MEM_{i,t}}$is an indicator variable equal to 1 if the dealer is the committee member, and is 0 otherwise.