Worker Incentives in the Banking Industry

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ABSTRACT

This study shows that monetary incentives together with performance disclosures lead to significant increases in effort and productivity in the multi-branch banking industry. Our results are based on an incentivized credit card campaign run by a commercial bank in which employees were paid a piece-rate if they sold a credit card to a customer. Later in the campaign, the head office started to provide daily performance reports for all branches of the bank. The campaign ultimately resulted in a significant 12.5% increase in the average daily productivity of branch staff and productivity changes found were heterogeneous across different branches.

MANUSCRIPT

1. Introduction

Employees get their motivation from monetary and non-monetary incentives. Therefore, firms design compensation contracts that motivate and change the behavior of employees for their benefit (Lazear 1986; Gibbons 1998). However, a range of experimental and field evidence has shown that the relation between monetary (extrinsic) incentives and effort is not straightforward. Although some empirical studies support the existence of a simple positive relationship between monetary incentives and performance (field: Fernie and Metcalf 1999; Lazear 2000; Paarsch and Shearer 2000; Shearer 2004; lab: Dellavigna and Pope 2018; psychology: Jenkins, Gupta, Mitra, and Shaw 1998), some studies point out that performance varies nonmonotonically with the incentives (Gneezy and Rustichini 2000; Pokorny 2008; Ariely 2009; Gneezy and Rey-Biel 2014). This indicates that monetary incentives should be substantial enough to induce effort otherwise performance is lower. In environments where extrinsic motivators are weak or non-existent, firms need other devices to induce employees in order to mitigate moral hazard problems (Kuhnen and Tymula 2012).

Theory posits that non-monetary (intrinsic) preferences affect the behavior of individuals through the social recognition from the awarding institution or from peers that creates a positive self-image (Benabou and Tivole 2006; Koszegi 2006) or through concerns about social status (Frank 1984; Moldavanu, Sela, and Shi 2007; Besley and Ghatak 2008). Experimental and empirical evidence from the education and retail industries show that feedback on an individual's relative performance can, but does not always, have significant effects on effort (Bandiera, Barankay, and Rasul 2009; Azmat and Iriberri 2010; Blanes-I-Vidal and Nossol

2011; Barankay 2012; Charness, Masclet, and Villaval 2014; Azmat and Iriberri 2016; Hannan, Krishnan, and Newman 2008; Eriksson, Poulsen, and Villeval 2009).

This study presents evidence on the effect of both intrinsic and extrinsic incentives that a leading commercial bank in Turkey used during a campaign to stimulate credit card sales across its branches with the purpose of increasing its share in the credit card market. The credit card market in Turkey provides a good example of how banks actively try to improve their market share via a variety of mechanisms in a growing and competitive setting. This study is, to the best of our knowledge, the first to explore the effects of individual and team incentives that focus on *banking professionals* and *bank branches*. Understanding how workers respond to specific incentives is important for both management and regulators. The research on motivation shows that the effect of intrinsic and extrinsic incentives depends crucially on the context. Thus, in this study we aim to address the following questions: Do incentives designed by banks for their employees increase effort? Are there potentially negative incentives that reduce effort in other banking activities or lead to over/mis-selling of specific financial products? What factors affect the impact of any incentive?

The specific context and technology associated with selling financial products may mean that incentives in the banking sector could have different effects than other sectors, such as the retail industry where most of the field research has been undertaken (Delfgaauw, Dur, Sol and Verbeke 2013; Delfgaauw, Dur, Non, and Verbeke 2014; Delfgaauw, Dur, and Souverijn 2017; Friebel, Heinz, Krueger, and Zubanov, 2017). First, compared to the customers and staff of retail chains, bank customers and branch staff may have longer term relationships with repeated and more sophisticated interactions. These factors may support the incentives that the

staff has while meeting customer's needs and in turn may affect how staff responds to new incentives. Second, bank branches are multi-tasking environments, so an incentive to sell a specific form of financial product may affect the effort in other banking activities. In a simplistic economic framework, incentivizing credit card sales could lead to a reduction in effort and thus sales of other financial products. However, in cases where there are *economies of scope*, increased effort in credit card sales may reduce the marginal costs of selling other products that results in increased sales of the other products. For managerial policy, understanding the side effects of incentivizing a particular financial product on other banking activities is of importance as such campaigns should not undermine overall productivity and profitability elsewhere in the firm.

Even within a specific setting and incentive scheme, there will be heterogeneity in the response to any incentive. In field settings, one major source of heterogeneity is differences in the local demand across different shops or branches of the firms (Friebel, Heinz, Krueger, and Zubanov, 2017). For example, the research on retail chains has found that the average treatment effects of team incentives on sales performance range from a 0% to 5% increase across shops (Delfgaauw, Dur, Sol and Verbeke 2013; Delfgaauw, Dur, Non, and Verbeke 2014; and Delfgaauw, Dur, and Souverijin 2017). Understanding these effects helps to identify the factors that affect success but also the benefits to management in terms of helping to predict the likely effectiveness of any incentive as well as providing additional internal validation. Similar heterogeneity effects can occur in a field setting in banking across its branches due to the range of differences in local demand factors, for example, demand structure, local competition, and supply side factors, for example specialization of bank branch services, effectiveness of local branch management, and branch cohesion.

In the case explored in this study, the head office of the bank designed a 3-month campaign to stimulate its credit card sales. They announced that the employees who were paid flat salaries would earn piece-rates for every credit card they sold during the campaign. However, the head office noticed that the piece-rate did not work as expected, so they started to publicly disclose information on the cumulative number of credit cards sold by each branch since the launch of the campaign in rank-order. The release of this information created a competitive atmosphere between the branches that resulted in the bank selling more than 228,000 credit cards during the 3-month campaign.

The available data cover weekly credit card sales by branch for a large number of branches and employees (1,125 branches and more than 17,000 employees). The data make possible a comparison of their productivity before, during, and after the 3-month campaign. A unique feature of this study arises from the nature of the campaign and the availability of the data at the branch level. A branch is a fairly autonomous institutional unit that is directed by a professional manager and can be naturally considered a team. Hence, we can investigate whether the piece-rate given to individual employees with the disclosure of team performance increased productivity.

The effects of local demand and supply mean the probability of a credit card sale and the cost of effort are likely to vary across branches, and so we predict differences in branch performance. We explore heterogeneity across all branches by size, type, location, and prior performance to provide further insights and to help validate the incentive effects that we find. We then consider the evidence of potential negative effects in terms of multi-tasking, for example, whether the increase in credit card sales was at the expense of a decrease in the sales of other financial products due to the multi-tasking environment at the branch. We also

explore whether there was any effect on the quality of sales by considering the aggregate effect on credit card defaults during the period and also whether the increased productivity and high amount of credit card sales resulted in a significant cancellation rate after the campaign.

In summary we find that with the introduction of the incentives (piece-rate and performance disclosure), the average sale of daily credit cards by each branch's staff increased by 12.5%, with only two out of 1,125 branches significantly decreasing their productivity during the campaign. As expected, this productivity increase is heterogeneous across different branches: Larger branches increased their productivity more relative to smaller branches. Likewise, branches in competitive locations increased their productivity significantly more than those branches that were in isolated, mostly rural, locations. We also find that top performers in the pre-disclosure phase increased their productivity the most. With respect to the effects of multi-tasking, we find no evidence that the increase in productivity in credit card sales was due to a decrease in any other dimension of consumer lending. Rather sales of these financial products also increased during the campaign. In terms of the quality of sales, no evidence exists that increased credit card sales resulted in an increase in credit card defaults, although there was some very weak evidence of an increase in credit card cancellations following the end of the campaign.

The rest of this study is organized as follows: Section 2 provides a review of the relevant literature linked to this study. Section 3 presents the institutional setting and the design of the campaign. Section 4 presents the structure of the empirical model. In Section 5, we report the overall productivity effects associated with the introduction of incentives and the effect of heterogeneity on the results. In Section 6, we report the results exploring the potential negative effects of the campaign in

terms of decreases in other financial products, defaults, and in credit card cancellations. Section 7 contains a discussion and the conclusion.

2. Background

In addition to the standard theory of incentives, this study links to several strands of literature on non-monetary incentives. The standard theory posits that non-monetary (intrinsic) preferences affect the behavior of individuals through social recognition, need for a positive self-image, or concerns about social status. However, there is evidence that people are motivated simply by outperforming others when there is a symbolic reward (Kosfeld and Neckermann 2011).

The evidence on the effect of relative performance feedback is important and shows that context matters, hence supporting the claim that effects in a banking setting could be different. In experimental evidence, Charness, Masclet, and Villeval (2014) show that the subjects who receive feedback under fixed-rate incentives show higher performance, while Azmat and Iriberri (2016) find the performance of subjects increased under piece-rates but remained stable under fixed pay. Hannan, Krishnan, and Newman (2008) find that performance improves under piece-rates but worsens in tournament environments. Eriksson, Poulsen and Villeval (2009), using a real-effort task in an experimental setting, find that disclosing the relative performance does not affect the efforts of subjects significantly when the subjects are compensated via piece-rates. In field settings, Azmat and Iriberri (2010) show that the performance of school students improved after learning their relative performance among other students. However, for Azmat and Iriberri (2016), the introduction of feedback decreased the performance of the students temporarily. In a workplace context, Blanes-I-Vidal and Nossol (2011) show that in a contest for relative position, even tournaments without prizes can have large incentive effects.

There, with the introduction of performance disclosure the productivity of the employees increased by 7% and this effect lasted until the end of the study. In contrast, Barankay (2012) use data from a furniture retailer and find that the performance of the employees—whose pay was not related to relative performance—increased when the retailer removed the feedback. The importance of the frequency and timing of feedback are also discussed in the literature (Steffen and Bieberstein 2018). In our study, the frequency of feedback is daily and is given to the agents with a one-day delay. In other studies, feedback has typically taken much longer. For example, Delfgaauw, Dur, and Souverijin (2017) use a delay of a week, while Blanes-I-Vidal and Nossol (2011) use one month.

In addition to the distinct banking setting, another source of significant difference from other studies is how firms disclose performance. The literature on disclosure typically presents evidence on information disclosed in a "purely private manner" (e.g., Blanes-I-Vidal and Nossol 2011). However in our study, the public and absolute performance and relative ranking of all branches are common knowledge across agents. This knowledge may influence the behavior of agents not only through peer monitoring or concerns about tangible benefits but also through social status, reputation, and satisfaction gained by impressing the social network (Kandel and Lazear 1992, Falk and Ichino 2006, Mas and Moretti 2009). According to Mas and Moretti (2009) in environments where group production is important, the productivity of an employee varies as a function of the productivity of their co-employees, that is, peer effects. Theoretically they show that the existence of a productive employee in an observable location may lead to positive spillovers across co-employees due to social pressure. The employee decides to apply extra effort only when they can observe and can be observed by their more productive peers, and when frequent future interactions across employees can occur. Their

results demonstrate that social considerations can motivate employees, even when better performance brings limited monetary payoffs. Thus, peer effects may modify a branch's behavior as its performance is observable and known publicly. Kuhnen and Tymula (2012) theoretically and experimentally show that providing feedback about the relative standing of the agents, compared to no feedback cases, creates a ratcheting effect in productivity, mainly due to the fight for dominance at the top of the hierarchy, especially when the feedback is public.

Local demand and supply side factors that may lead to differences in the returns to and costs of effort across branches are likely to affect their productivity. Large branches are usually situated in more populated and economically vibrant areas, and therefore they may perform better due to demand side effects. On the other hand, smaller branches may have stronger team spirit that can affect productivity. Other supply side effects, such as the manager's abilities to set marketing strategies or strong career concerns, may be influential. In addition to differences in the returns to and costs of effort across branches, the content of the feedback in the form of the public disclosure of relative and absolute performances across branches may also have an effect on the subsequent effort of the branches. Early studies in psychology, for example, Deci (1972) and Anderson, Manoogian, and Reznick (1976), show that positive feedback enhances intrinsic motivation. The more recent empirical evidence is mixed. For example, Casas-Arce and Martinez-Jerez (2009) use contest data from a retailer and find that effort depends on the interim ranking of the contestant in which effort is the lowest for the frontrunners and laggards but highest for those in between. Kuhnen and Tymula (2012) find an output increase as a result of the competition among best performing individuals for the top ranks, although the bottom performers compete much less. The finding is also consistent with Gjedrem and Kvaloy (2018) in which the teams form exogenously with the

treatment effect driven by high performers. A similar finding from Blanes-I-Vidal and Nossol (2011) supports the idea that the best performers increase their effort to a greater extent relative to the worst. On the other hand, Bandiera, Barankay, and Rasul (2013), in a setting in which teams are formed endogenously, find that ranking incentives among teams reduce overall performance due to the decrease in the performance of lower ranked teams. Similarly, Delfgaauw, Dur, Non, and Verbeke (2014), in their field experiment on a sales tournament among retail stores, find that on average tournament incentives do not lead to higher performance. They show that stores lagging behind do not respond to feedback, but the performance of the frontrunners increases with the feedback. Finally, Barankay (2012) highlights a less obvious component of a competition that is the "non-monetary incentives" or so-called "rank incentives" to outperform others—basically providing utility to the top performers and disutility to the laggards. This evidence can also be interpreted through games that allow for other-regarding preferences in which individuals compare themselves with the other *n-1* players (Fehr and Schmidt 2006) or simply the average player in the game (Bolton and Ockenfels 2000). Clearly, how individuals and teams frame their understanding of their relative position and the nature of any competition engendered within an organization is important to understand.

The standard model of labor economics assumes that employees perform in a manner that is rational by allocating their effort, time, and energy to tasks that maximize their personal benefits. In this sense, implementation of explicit performance incentives may lead to dysfunctional behavioral responses as the employees may neglect their non-rewarded responsibilities while concentrating

solely on the rewarded aspects of tasks (Asch 1990).[1] Especially in multi-tasking environments, this neglect may be more common and detrimental (Holmstrom and Milgrom 1991; Baker 1992; Brickley and Zimmerman 2001; Hecht, Tafkov and Towry 2008).

Bank branches are obviously multi-task environments, so the piece-rate may induce employees to neglect other important tasks such as extending additional forms of consumer credit. In other words, if the bank motivates employees to increase credit card sales, they may pay less attention (or exert less effort) to other activities or suggest to customers to get a credit card instead of using a consumer loan. Thus, the bank might achieve the increase in credit card sales due to a decrease in other forms of credit. On the other hand, there is also the possibility of the existence of economies of scope between the financial products so that credit cards may in fact serve as a cross-sale product and complement other forms of credit.

Lazear (1986) also discusses that designing incentives to increase quantity can lead to distortions in quality because introducing incentives to induce employees may result in adverse selection and moral hazard problems. These problems arise from selling to bad risk customers without collecting complete information about their risk type. As discussed, the repeated nature of the relationships between staff and customers might potentially limit this behavior. This risk is less likely to happen when there are central checks on the creditworthiness of customers regarding repayment behavior, repayment performance, or ability to pay that follow transparent and well-specified criteria. Moreover, in our case, transactions of the

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[1] Academic literature also presents other forms of incentive problems in banking industry, one being the incentive problem in which the bank directors with negligible ownership in the bank collude with the insider borrowers to the harm of both the regulator and the shareholders, although the information costs are lower in insider loans (Kummer, Arshadi and Lawrence, 1989). One other problem relevant in banking industry is mentioned in Gomez and Ponzi (2019) noting that the impact of introducing different regulatory tools on managers' incentives basically creates moral hazard problems in the form of traditional effort problems and risk shifting (taking excessive risk).

branches are constantly inspected and monitored by the internal controllers and occasional visits of the main inspectors of the head office.

3. Institutional Setting

The institutional setting is a leading commercial bank in Turkey. Occasionally, the head office of the bank designs campaigns to stimulate its credit card sales and to raise its income from them. The bank intended for the campaign detailed in this study, namely *Credit Card Activation Campaign*, to increase its credit card sales by increasing the motivation of its employees. It took place between April 1, 2008, and June 30, 2008 (13 weeks in total) and affected 17,140 branch employees.

There were three phases to the campaign that might have resulted in a change in the behavior of the employees: *Phase0*, *Phase1*, and *Phase2*. Figure 1 illustrates the timeline. *Phase0* is the baseline period in which the campaign did not exist. *Phase0* can be divided into two subperiods: *Phase0_1* when there was no campaign at all and *Phase0_2* when there was another small campaign that may have indirectly affected credit card sales. *Phase1* is the 3-month campaign period and can also be divided into two subperiods: *Phase1_1* and *Phase1_2*. *Phase2* is the post-campaign period.

Figure 1 Timeline of the Campaign

Phase1_1 (Piece-Rate Phase): One day prior to the campaign, on March 31, the head office of the bank sent a circular letter throughout the network announcing the start of the campaign. The incentive offered to the staff was a 5 TL (Turkish Lira) per credit card sold in addition to their monthly flat rate salaries.[2] The salary of the staff working at the branches had two main components: a flat (fixed-based) salary

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[2] At the start of the campaign, April 1, 2008, the TL/USD exchange rate was 1.31. Thus a 5 TL piece-rate incentives corresponds to 3.82 USD.

and a performance component that was not specific to the individual performance of the staff but dependent on overall branch performance. The structure of the compensation scheme remained unchanged during the campaign period. The average net monthly salaries of the employees ranged between 1,500 TL – 4,500 TL depending on factors such as tenure, title, and position. In other words, for an employee earning 1,500 TL a month, if an individual branch staff sold 0.3 credit cards per day in a month with 22 working days, that employee would be able to generate an extra of 0.3*22*5 = 33 TL corresponding to 2.2% of their overall pay. This incentive would be lower (as low as 0.73%) for the highest salaried staff and 1.1% for an average staff member with 3,000 TL monthly salary.

The circular letter (see Appendix Note 1)[3] provided detailed information regarding under what conditions the staff could earn this piece-rate; however, during the campaign, the bank released no information on how much each individual staff member had earned.[4] This phase ran without any public performance disclosure. The branches could only monitor the total number of cards sold by themselves by checking the system, if they wished to do so. They could not see the number of cards sold by the other branches or their relative performance with the network.

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[3] Among the conditions, the bank required that the staff had to hold its type A credit card. The type A credit card refers to a specific, recently introduced type of card that provides a longer term interest-free instalment plan and bonus points. The card was introduced in 2007—one year before the campaign—and the head office wanted to activate the use of this competitive product and started the *Credit Card Activation Campaign*. The ultimate aim was to increase the use of this card among the customers, but it also wanted extensive use of this card among its employees. So the employees who wanted to join the campaign were encouraged to apply for the credit card (normally five working days were required to obtain the card) or to access the application using the card number of a peer. The latter could have created a peer incentive although the evidence from the first part of the campaign does not indicate this effect was strong. The campaign was valid for both type A and type B cards. Besides the type A cards, the bank also had various types of standard (type B) cards. Standard cards do not provide benefits in the form of interest free instalments or bonus points, so they have a lower annual fee. The annual fees for the banking sector's lowest fee credit cards charged between 3 TL to 35 TL in 2008. While the annual fee of the bank's standard card was at minimum level of 3 TL, the type A card entered the market with an annual fee of 15 TL. Additionally, while the interest rate for a cash withdrawal for the bank's standard card was 2.90%, it was 4% for type A card. The bank also aimed at borrowers who were more sensitive to annual fees or higher interest rates, so the campaign was also valid for standard cards. The bank staff were exempt from paying annual fees for any type of card of the bank. In addition, it should be noted that obtaining a type A card was not related to having better scores or higher income as these only determined the credit limit of the card. Nor did this mean that "bad risks" could obtain the card. Rather, customers who were able to pass the specified controls (regarding repayment behavior, repayment performance, or ability to pay) could obtain the credit card.

[4] When the final date for using the card (September 29, 2008) passed, a separate report was sent to the branches clarifying total entries and total cards that fulfilled the conditions for the piece-rate on staff basis. Exploring this issue is beyond the scope of this research.

Phase1_2 (Piece-Rate + Disclosure Phase): Starting on May 5, 2008, the head office started to publicly disclose the cumulative number of credit cards the branches had sold that was retroactive to the first day of the campaign up to one day prior to the report day. It provided this information through daily reports that it sent via email to the banking network every morning.[5] Following the release of this information, all the branches learned the sale levels (amounts) of the other branches and their own relative standing in the overall network.

The dataset used in this research contains the weekly credit card sales of 1,125 branches that were supervised by and affiliated with 24 regional headquarters. Each regional headquarters is completely responsible for the results achieved within its own territory. The branches are scaled as A1, A2, B, C1, C2, and C3, where A1 is the largest and C3 is the smallest.[6] Some branches incorporate affiliated units, such as bureaus or private operation centers, or both; however, the majority of the branches operated alone (i.e., regular branches). Table 1 briefly summarizes the types of regional headquarters and branches and the average number of staff by different branch size and type.

Table 1 Regional Headquarters, Branch Types and Average Number of Staff

One type of affiliated unit, known as a private operation center[7], do not only execute pension payments but are also designed to provide other banking services, especially to retired customers. In addition, some branches have bureaus that

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[5] The email contained an excel file with three spreadsheets that displayed the absolute and relative performances of regional headquarters, branches, private operation centres, and bureaus as of one day prior to the reporting date (see Appendix, Note 2). The daily reports sent by the head office do not contain any information regarding the piece-rates earned by the branch staff.

[6] The scales of the branches are determined by the head office based on solid and objective criteria such as deposits, credits, securities, profits, and net interest-free revenues / operational expenditure. Once determined, the scales were updated every year. New branches were not scaled for the first six months till their indicators became known.

[7] The bank makes more than 40 million pension payments to retired people every year that corresponds to about an average of 3.5 million payments every month. Thus, on payment days, pension transactions may impede the other banking transactions. In order to reduce the workload of branches, especially in busy locations, private operation centers are formed.

operate with a contractual agreement and serve the employees of certain corporations or state entities (some examples include bureaus operating within armed forces, Treasury, and ministries). On the other hand, although their focus is on commercial customers, commercial branches serve both retail customers and small and medium-sized enterprises. Lastly, 449 branches out of the 1,125 were the only bank branch (single branches) in their location, thus operating in non-competitive environments.

4. Empirical Analysis of the Productivity Effects

The announcement on March 31 created a monetary incentive for employees to increase effort to identify appropriate customers and to develop strategies to sell them credit cards. At least we could expect that branch employees who normally perform ordinary banking transactions would begin to ask their customers whether they had an interest in applying for a credit card from the bank. Subsequently, with the disclosure of performance on May 5, we could expect further behavioral responses that relative concerns could spark "team play." This section, both graphically and numerically, addresses the core question of whether the joint incentives were successful or not throughout these two sub-phases.

Our measure of productivity is the average number of credit cards sold per day by the staff of each branch. Thus, given that $TCCS_{it}$ is the total credit card sales by branch i up to time t, the difference in the credit card sales between t and t-1 is found using $\partial TCCS_{it} = TCCS_{it} - TCCS_{i,t-1}$. Then, the measure of productivity is the average daily credit card sale per staff of branch i, that equals $ADCCS_{it} = \partial TCCS_{it} / (n_i * w_t)$ where n_i is the number of staff in branch i and w_t is the number of working days in a week.

Further, although in the disclosure phase the credit card sales of private operation centers and bureaus are disclosed separately, these credit card sales are merged with the card sales of the main branch to which they are affiliated. Dummies are then assigned to track whether the branch has a private operation center or bureau or both.

4.1. Descriptive Analysis

Figure 2 shows the evolution of the average of the total number of credit cards sold in the portfolio of branches as of the corresponding week from three months before the campaign until three months after (the fuller trend for October 2007 to January 2010 are shown in Figures A1 and A2 of the appendix, which refer to Figure 2 and Figure 3 respectively). The dashed vertical lines indicate the start and end of the campaign and the dotted thin line in between shows the date that the incentives were amended from the piece-rate only phase to the piece-rate plus disclosure phase. In the first few weeks of *Phase1_1*, the curve is concave (but the extent of the curvature is small) that indicates the number of credit cards sold increased at a decreasing rate. In the second half of *Phase1_1*, the curve becomes convex that marks the point at which the incentive effect of the piece-rate starts appearing. With the disclosure in *Phase1_2*, the number of credit cards sold become purely convex and steeper in shape. Before the introduction of the incentives, the average cumulative credit card sale at the branches was 1,152 cards. With the introduction of the piece-rate, the number increased to 1,176 cards that equals a 2.08% increase in about one month. With the introduction of the performance disclosure in addition to the piece-rate, the average cumulative credit card sale increased to 1,306 that equals an 11.05% increase in two months.

Prior to the credit card campaign, other campaigns had been going on which might have affected credit card sales. During mid-November to December 1, 2007, and

in March 2008, there were campaigns that were designed to promote consumer loans to employees in the teaching and medical sectors. These loans offered these employees a lower interest rate. In both campaigns, the credit card was a cross-sale product; if the teachers or doctors wanted to benefit from these low-interest loans, it was compulsory for them to get the bank's credit card.

Figure 2 Evolution of Credit Card Sales during the Campaign (cumulative)

Figure 3 Evolution of Credit Card Sales (per day, per individual staff)

Figure 3 shows the evolution of the mean of ADCCS for the corresponding week during the campaign. It reflects that prior to the campaign, the average daily card sale of the branches ranged from 0.0260 to 0.1117 cards per individual staff member with a mean of 0.069. With the introduction of the piece-rate, the average daily card sales at the branches ranged from 0.0471 to 0.0642 cards per individual staff member with a mean of 0.054. Thus, in terms of a daily and per staff basis, the average card sales decreased by 22.3%. With the start of the disclosure period, the mean of the average card sales increased substantially to 0.206 (ranging from 0.0902 to 0.3962) that corresponded to a 284.3% increase.[8]

4.2. Estimation Framework and Strategy

The empirical specifications are nested within the following linear equation:

$$Y_{it} = \beta_c C_t + X_{it}'\delta + \mu_i + \varepsilon_{it} \tag{1}$$

where Y_{it} is an outcome variable, $C_t=1$ during the campaign, and the parameter of interest is β_c that shows the productivity effect of the introductions of incentives. The model also contains a vector of covariates X_{it}' that are assumed to affect productivity. Next, regional-specific time-invariant unobserved effects are included

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[8] The underlying descriptive statistics are provided in Tables A1 to A5 of the appendix.

(μ_i) with ε_{it} capturing branch-specific idiosyncratic shocks. The main outcome variable $ADCCS_{it}$ is the productivity of the branch that is measured by the average number of credit cards sold per day per the staff of each branch i during week t. The lack of an explicit control and treated groups means identification of the effect of the credit card incentive is more difficult, as in principle the observed effects could be driven by changes in the demand for credit cards rather than changes in staff effort. We use the available data in a number of ways to address this concern. First, through the inclusion of X_{it} with a range of factors, we control for local and aggregate demand effects. The structure and amount of other loans made by each branch are included to reflect the extent and nature of local demand, but they may also reflect any effects from economies of scope. The effects of local demand and competition are captured by the inclusion of the structure of the loans made by other banks in the area, branch size, local population size, local unemployment rate, and the number of other bank branches (the bank's own and other banks') within the town, and cumulative credit cards sold by other banks for each month by city. Aggregate demand trends are controlled for by the inclusion of the CPI and GDP per capita.[9] Second, we consider how the estimated incentive effect β_c differs for three different subsamples by comparing the performance during the campaign with a) the prior January and February[10], b) the two months prior and three months after the campaign, and c) the three months after the campaign. Using the different subsamples in this way means that the demand effects that were not otherwise controlled for should only adversely affect the β_c estimate if they exactly coincide

[9] The campaign was run during the global financial crises of 2007-2008 where there was a general global tendency to reduce credit supply which might have resulted in contraction in borrowing, reduction in labour productivity and failure of the firms (as mentioned in a recent study of Franklin, Rostom and Thwaites (2020) which studies the relationship of contractions of credit supply and reductions of labour productivity during global crisis of 2007-2008) resulting in unemployment and need for funding of retail customers. In order to account for the confounding effects of the global financial crisis and other economic conditions that might have affected the sales of credit cards, we controlled nation-wide credit card sales as well as other forms of credits and indicators such as unemployment, GDP per capita, CPI etc.
[10] March was excluded as there was a campaign running designed to promote consumer loans that may have affected the sale of credit cards.

with the three months of the campaign. Third, the expected heterogeneity in the results across the different branches is used to further validate the results. As discussed in Section 2, local demand and supply factors are likely to vary across locations. In locations where these are correlated with observed factors, then the relative strength of the campaign effect should differ by branch type. For example, branch size is likely to reflect local market size and so the effect of the campaign should vary systematically with branch size. Larger branches have a larger pool of clients, so they can sell more credit cards as they have more people coming into their branches. By adapting specification (1) so that the estimated β_c can vary by specific branch characteristics, we can explore whether the characteristics included in X_{it} effectively control for local demand differences. Performance prior to the campaign is also a useful indicator as it captures encouragement/discouragement effects that are associated with relative performance disclosure. These effects are also likely to be correlated with a range of unobserved factors that increase the probability of credit card sales or reduce the cost of effort.

5. Estimation Results

5.1. Baseline Results

Table 2 presents the estimation results for equation (1) (alternative specifications showing the robustness of the results is reported in Table A9 of the appendix). Overall, the results indicate that the aim of the campaign to increase credit card sales was successful.

Table 2 Baseline Results

Column (1) shows that with no other covariates, productivity is 14.2% higher during the campaign relative to the baseline period. Column (2) presents the results after controlling for factors, such as other types of loans and local and aggregate

demand. In this case the productivity increase falls to 12.5%. The incorporation of these variables increased the fit of the model to 26.6%. Branch information on pensions is only available for the campaign and pre-campaign period, so the standard set of variables that control for other factors throughout the study does not have this variable. However, the results show that excluding this variable has little or no effect on the estimated campaign effect (see Column 6 in Table A9 of the appendix,). The coefficients for the control variables are also interesting in their own right. The results in Column (2) show that the increase in the bank's credit to its customers has a positive and highly significant effect on the sales of credit cards, while the increase in other banks' loans reduces credit card sales. Similarly, if there are other branches of the bank itself in the same town, this decreases productivity. The change in total credit card sales in other banks does not appear to have a significant effect.

Column (3) shows the estimated effect of the campaign when it is compared to both the pre- and post-campaign periods with the same explanatory variables as those in Column (2). The estimated campaign effect falls somewhat in these comparisons (10.5%) but is still statistically significant at the 1% level. Columns (4) and (5) show comparable results when only the post-campaign period is used as the baseline. The results for the post-campaign period, when the full set of variables is used in Column (4), show a jump in the effect of the campaign to over 30%. Our comparisons indicate that a high negative correlation between the CPI and the campaign dummy might be causing this result. Further, the result in Column (5) indicates that when the CPI is excluded from the list of covariates, the estimated campaign effect falls back to 8.8%. Although the evidence here is somewhat difficult to interpret, the smaller campaign effect observed when the combined sample is used indicates that employees learn to some degree how to sell credit

cards more effectively during the campaign. Columns (2) and (3) exclude the CPI and indicate that a learning effect exists (see Columns 5a and 10a in Table A9 of the appendix)

Finally, Columns (6)-(9) give the results of the differential effect of the two phases of the campaign with and without covariates. Without covariates, there is a positive effect associated with the effect of the initial phase. However, the results in Columns (7) and (9) show that after controlling for covariates, the initial phase of the campaign has no (or even a slightly negative) effect on sales. The results in Column (9) reinforce this effect. Once covariates are included, there is a strong positive and significant effect on credit card sales observed only in *Phase 1_2*.

5.2. Heterogeneous Effects

The regression results in Table 2 show that the average effect of the introductions of the incentives associated with the campaign is positive and statistically significant. However, as the descriptive analysis (Tables A1 to A5 in the appendix) indicates the effects may differ across branches. In order to understand the extent of heterogeneity, we run 1,125 regressions and then estimate the incentive coefficient, β_c, for each branch during the campaign and the three months prior to the campaign.

Figure 4 shows the scatter plot of the coefficients based on the specification in Column (1) of Table 2. In 1,096 of these regressions, the coefficients are positive, and 874 of those coefficients are statistically significantly different from zero. In the remaining 29 regressions, the coefficients are negative but only two are statistically different from zero (see the two points in Figure 4 where $\beta<0$ and $p<0.1$). In this sense, aside from these two branches there is no evidence that the productivity of the branches decreased significantly during the campaign. Quite the

opposite, the figures support the assertion that almost all the branches increased their productivity. Figures A3 to A5 in the appendix provide the average coefficients, standard errors, t-statistics, and p-values across 1,125 branches.

Figure 4 Scatter Plot of Overall Effects- Coefficient from Individual-Branch Regressions

Next, to investigate the source of heterogeneity, we define dummy variables for the branches by types and characteristics as follows: (i) size and scope of activities, (ii) competitive aspects (i.e., being the only bank in its location), (iii) having affiliated units or not, (iv, v) being commercial or not, and (vi) three performance groups based on their state on the first day of the disclosure phase. We interact these dummy variables with campaign variable C_t and estimate specifications that follow equation (1) with the dummies, interaction terms, and other control variables.

Table 3 Decomposition of Performance According to Branch Type and Characteristics

Table 3 gives the estimates on these dummy variables and the interactions with the campaign dummy. In each case we have two specifications. In the first rows of each panel the regression only includes the dummies, campaign effects, and the interactions. These capture how the raw effect of the campaign varies by each characteristic. Hence, as expected, we observe that the effect of the campaign is greatest (16.9%) for large branches and is 8.9% lower for medium size branches and 9.8% lower for small branches with these differences statistically significant. The second row of each panel has the estimates of these effects once the other controls for differences in demand are added. The differences between the effects of the campaign by branch size become very small, such as -0.2% for medium relative to large branches, and are no longer statistically significant. This indicates that these additional variables effectively control for the differences in demand associated with branch size.

The raw differences reported in Table 3 generally follow the predicted patterns. We find that the productivity of isolated (single) branches is less, as are commercial branches, although with affiliated units the difference is not statistically significant. For single and commercial branches, once the extra control variables are added, the evidence that these differences are statistically different disappears. For branches with affiliated units, and commercial branches without affiliated units generally there is evidence of some statistical difference after controlling for demand factors, although as seen in Table 1 in both cases the number of branches involved is small.

Performance prior to the disclosure of a branch's relative position in the campaign is also important with second-to-last panel of Table 3 showing that the top third of branches in the pre-disclosure phase increased their productivity by significantly more relative to the middle (13.5%) and bottom third (14.4%). These differences do remain statistically significant after controlling for other variables, although the differences fall substantially to 2.9% and 3.7% respectively. This is consistent with the claim that these raw differences capture differences in demand but also include the encouragement/discouragement effects associated with the relative performance disclosure. The final results in Table 3 show that these relative performance effects also hold for specific subsamples, such as small branches. These effects are consistent with the idea that the individuals and branches may be framing their understanding of their position relative to comparable units within the organization.

5.3. Other Robustness Checks

The increase in productivity may be due to seasonal effects rather than the incentives. In order to check this issue, we do a further estimation of Column (1) in

Table 2 but substitute the subsample from January-June 2008 with the subsample from 2009 over the same time interval.

The results show that the productivity increase is 7.32% in January-June 2008 while the increase is 2.70% in January-June 2009 even though there were four other campaigns that potentially affected credit card sales indirectly. Thus, although there is still an increase in productivity in 2009, this increase is far below that in 2008 (See Tables A6 and A6b in the appendix for full results).

We also checked whether the results change significantly if the regressions are calculated over a longer time period. Thus, we use a 27-month sample that ranges from October 2007 to January 2010 and a 12-month sample for all of 2008. The results show that the estimated coefficients are still statistically significant. When we use the 27-month horizon, the productivity increases by 6.50%, and when we use the 12-month horizon, the productivity increases by 7.98% (See Tables A7 and A7b in the appendix for full results).

We also consider how productivity evolved over time prior to the campaign and during the campaign. For this sample, we define dummies for each week and run a range of regressions based on the specifications in Columns (2) and (3) in Table 2 (See Table A8 in the appendix for the full estimation results).

Figure 5 illustrates the results. It graphs the estimated coefficients for the weekly dummies from two selected regressions. In addition to the weekly dummies, we use the limited and full sets of covariates in Columns (2) and (3) of Table 2 respectively. The graph shows how the average per day per staff productivity evolved over the 24 weeks. Weeks 13 to 17 cover *Phase 1_1* when only the piece-rate was active, while weeks 18 to 24 cover *Phase 1_2* when both the piece-rate and disclosure incentives were active. We see that performance started increasing especially with

the start of week 18, accelerated with week 22, and reached its maximum in the last week (week 24), when average sales reached 0.39, 0.322 (limited set of covariates), and 0.328 (full set of covariates) credit cards per staff. Figure 6 shows how the performance of the branches evolved with their pre-disclosure ranking. From this figure, we see that all branches with different pre-disclosure ranks show a gradual increase in their performance starting with week 18 and the gap across different ranks reached its maximum in the last week. In the last week, the average sales by top-ranked branches reached 0.467, followed by bottom-ranked and middle ranked with average sales of 0.335 and 0.331 respectively.

Figure 5 Performance Over Time (Week1 – Week 24)

Figure 6 Performance Over Time By Pre-Disclosure Rank

6. Indirect Costs of the Campaign: Multi-Tasking Environment and Quality of Task

As discussed, bank branches are multi-tasking environments, so the campaign incentives may induce employees to neglect other important tasks such as extending additional forms of consumer credit. In order to explore these costs, we examine the effect of the campaign on consumer, housing, and vehicle loans by comparing the effect to the pre-campaign period. Following the structure of equation (1), we use two specifications with the same set of covariates to control for other factors. In the first we only include the campaign dummy (Columns (1)-(3)). In the second we include a specification with the credit card productivity variable. The results are in Table 4. In the first specification (Columns (1)-(3)), we see a positive and statistically significant effect on all three types of loans. When credit card productivity is added, the effect on housing loans is no longer statistically significant, although the effect remains positive for the other two types of loans. It is also notable that the strongest effect is on consumer loans. This is also

consistent with the suggestion that there are economies of scope across the different products. As credit card sales take place in-branch, the flow of customers to the branches may have triggered the increase in the card sales with customers who visited the branch for credit purposes (or existing loan customers) being offered a credit card.

Table 4 Multi-Tasking Aspects of the Campaign

Incentives to increase quantity can lead to distortions in quality, that is, inducing employees to sell to customers who are bad risks, or who are not suited to the product. Unfortunately, our data do not include information about the credit scores or the default rates of the customers. However, with a secondary data set we are able to undertake an aggregate analysis on credit defaults by using data on the new credit cards extended to customers in each quarter, the date and the number of defaults, and the survival of these customers. That is, we are able to track the credit cards given to the customers for the relevant quarters (i.e., 2008Q1, 2008Q2, 2008Q3, and 2008Q4) to see whether these customers had defaulted and if so when. These investigations show that as of end of 2009, the default rate of the customers (for the entire banking sector in Turkey) who were given credit cards during 2008 was 1.80%, while the rate was 0.01% for the bank running the campaign. For credit cards sold during the campaign (i.e., 2008Q2), the default rate of the banking sector was 1.85%, while it was 0.012% for the bank running the campaign. These results indicate that the default rate was marginally higher during the campaign but was still substantially lower than the sector's average.

Table 5 Quality of the Sales: Cancelled Credit Cards

In terms of exploring whether there is a match between the product and the customer's requirements, while there is no specific data on customer complaints[11], we do have the number of credit cards cancelled in the period after the campaign. If the credit cards were sold without the consent of the customers, we might expect to see the number of card cancellations increase in the post-campaign period. In Table 5, we report the results of a set of exploratory regressions in which our dependent variable is the total number of cancelled cards from August – December 2008, with various sets of explanatory variables. In order to capture whether the branch's effort in credit card sales led to increases in cancellations later, we include the increase in credit card productivity for each branch during the campaign. While the branch productivity effect is positive and significant if included on its own, once other control variables are incorporated to capture the branch characteristics (Columns 2 and 3), this effect is no longer significant.

7. Discussions and Conclusion

This study presents novel results for the banking industry that show that monetary (intrinsic) incentives together with performance disclosure (extrinsic incentive) can lead to significant increases in effort and productivity. The setting is a Turkish commercial bank in which the head office offers employees of its branches a piece-rate if they sell a credit card during a campaign. Later during the campaign, the head office started disclosing the performance of each branch. By using daily data,

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[11] Customer complaints on credit card issuance were typically seen before 2006 when the private banks with very aggressive strategies for credit card sales issued credit cards without the consent of the customers. However, such situations were much less likely to occur during this campaign (especially for a public bank) since the law had been changed (Article 8 of Bank Cards and Credit Cards Law (Act. No. 5464) on February 23, 2006). This change meant banks were no longer able to issue a card to a person who did not file a request or sign a credit card agreement. Article 35 of the same law imposes administrative fines of 2,000 TL up to 10,000 TL in cases of breaches of the Article 8 provision. Also, since 2003, in order to deal with the consumer complaints and to settle the disputes arising from the Consumer Protection Law (Act. No. 4077, 4822 and 6502), a dual dispute settlement mechanism (both Consumer Arbitration Boards and Consumer Courts) was introduced in Turkey. According to the Screening Report on Turkey by the European Union in 2006, about 79% of the 68,855 complaints handled by the arbitration boards were in favor of the consumers.

we show that the campaign resulted in a 12.5% increase in the average daily productivity of each branch's staff.

To the best of our knowledge, this is the first study on the effects of individual and team incentives in a multi-branch setting. The research on motivation shows that the effect of intrinsic and extrinsic incentives depends crucially on the context. Therefore, a demonstration of the type of response that can occur in the banking sector is important. Further, for the management within the banking industry our results indicate that small monetary incentives can work to change effort levels if combined with incentives that act at the branch (team) level.

The analysis at the branch level showed these effects to be robust with 1,096 out of 1,125 bank branches increasing their productivity and 874 of these having a statistically significant effect. In addition, the heterogeneous productivity changes across different types of branches that we find support our predictions. For example, larger branches increased their productivity more relative to smaller ones, and branches in competitive locations increased their productivity significantly more than isolated branches. When we added aggregate and local demand effects as controls, these effects disappeared.

We also find that top performers in the pre-disclosure phase increased their productivity the most and that this effect remained after adding controls for demand factors. These are then consistent with the idea that relative performance disclosure may have an encouragement/ discouragement effect at the team level. Also, we see similar results across the sample of small branches that indicate these team effects may depend on which relative peer group each unit considers itself a part of. Understanding these effects helps to identify the factors that affect success, and is

useful for managerial policy in terms of predicting the likely effectiveness of any incentive as well as providing additional internal validation.

The relative performance disclosure that induce competition across bank branches did not have any immediate career consequences. Its introduction was triggered for exogenous reasons (the purpose was to increase credit card sales) and was not part of any wider managerial policy. There were many other individual performance indicators used in the bank, and this one was seen as simply another. Hence, the risk of being fired or the chances of getting a promotion or having a performance related pay increase because of the campaign results were practically zero. Therefore, the assumption that career-related concerns were unlikely to have affected the motivation levels of the staff in the branches is plausible. However, the fact that the completion date for this campaign was just a few weeks before the quarterly general performance meetings could be seen as significant. This date might also have created a stronger incentive among the managers and directors of regional headquarters to motivate their staff. Consistent with this conjecture, informal evidence suggests that some branches behaved strategically by postponing the logging credit card issuance requests into system until the end of the campaign to hide their performance and maximize their relative standing at the end of the credit card campaign. Hence the results also indicate that the theory of "rat races", although often considered in the context of individual employees, may also be valid in multi-branch settings (Akerlof, 1976). One area for future research is to explore whether there are any longer run effects on individuals that are associated with relative performance over these types of campaigns. For example, do the dynamics of the number of employees or turnover rates relate to individual performance across campaigns, or do successful branch managers draw on these to be promoted or relocated to more prestigious branches or positions?

Because bank branches are multi-tasking environments, one risk of incentivizing an effort for a specific product is that it may lead a reduction in the staff's productivity in selling other financial products. We explore whether the increase in credit card sales was at the expense of a decrease in the sales of other financial products. We find no evidence that the increase in productivity in selling credit cards was due to a decrease in the other forms of consumer lending. Rather, sales for at least two out of the three other financial products also increased during the campaign. We interpret this as an indication of economies of scope in which the increased effort in selling credit cards reduced the marginal costs of selling other products that thus, resulted in increased sales of the other products. For managerial policy, understanding the side effects of incentivizing a particular financial product on other banking activities is of importance as such campaigns aim to improve sales of the product while not undermining overall productivity and profitability, or not reducing productivity elsewhere.

We also explore whether there was any effect on the quality of sales. Therefore, we consider the aggregate effect on credit card defaults during the period. We also question whether the increased productivity and high amount of credit card sales resulted in significant cancellation rates after the campaign. In this analysis, we find no evidence that increased credit card sales resulted in an increase in credit card defaults, nor do we find any evidence of an increase in credit card cancellations following the end of the campaign.

A number of unanswered questions remain. First, the management of the bank had to reinforce the intrinsic motivation by publicly disclosing branch performance as an alternative incentive. Thus, although there are arguably two incentives at work, the bank management found the effect of the piece-rate to be relatively insubstantial in the beginning and thus the 12.5% increase in productivity represents the joint

effect of these two incentives. One puzzle remains as to why the piece-rate was initially ineffective. The sales were mostly done in-branch; however, the evidence shows that employees did not appear to offer credit cards during this period to existing bank customers who were in the branch for other reasons. It appeared therefore that the incentive offered did not register with employees that is consistent with the idea that the monetary incentive needs to be "substantial enough" to capture the interest of the employees (Gneezy and Rustichini 2000; Gneezy and Rey-Biel 2014). In this context understanding how employees respond to specific incentives is important for both management and regulators. Engendering individual effort and competition across teams within institutions is clearly relevant to improving the productivity of firms, particularly for marketing and sales. Importantly, the results emphasize that individual incentives do not necessarily have to be large if competition between teams can be induced via the disclosure of their relative performances.

References

Akerlof, George A. (1976). "The Economics of Caste of the Rat Race and Other Woeful Tales." The Quarterly Journal of Economics 90(4): 599-617.

Anderson, R., S. T. Manoogian and J. S. Reznick (1976). "The Undermining and Enhancing of Intrinsic Motivation in Preschool Children." Journal of Personality and Social Psychology 34(5):915-992.

Ariely, Dan, Uri Gneezy, George Loewenstein, and Nina Mezear (2009). "Large Stakes and Big Mistakes." Review of Economic Studies 76:451-469.

Asch, Beth J. (1990). "Do Incentives Matter? The Case of Navy Recruiters." Industrial and Labour Relations Review 43(3):89-106.

Azmat, Ghazala, and Nagore Iriberri (2010). "The Importance of Relative Performance Feedback Information: Evidence from a Natural Experiment Using High School Students." Journal of Public Economics 94(7-8):435-452.

Azmat, Ghazala, and Nagore Iriberri (2016). "The Provision of Relative Performance Feedback: An Analysis of Performance and Satisfaction." Journal of Economics and Management Strategy 25(1):77-110.

Baker, George (1992). "Incentive Contracts and Performance Measurement." Journal of Political Economy 100(3): 598-614.

Bandiera, Oriana, Iwan Barankay, and Imran Rasul (2009). "Social Connections and Incentives in the Workplace: Evidence from Personnel Data." Econometrica 77:1047-1094.

Bandiera, O., V. Larcinese and I. Rasul (2015). "Blissful Ignorance? Evidence from Natural Experiment on the Effect of Individual Feedback on Performance." Labour Economics 34:13-25.

Bandiera, Oriana, Iwan Barankay, and Imran Rasul (2013). "Team Incentives: Evidence from a Firm Level Experiment." Journal of European Economic Association 11(5): 1079-1114.

Barankay, Iwan (2012). "Rank Incentives: Evidence from a Randomized Workplace Experiment." Working Paper. Wharton School, University of Pennysylvania. Retrieved from https://repository.upenn.edu/bepp_papers/75

Benabou, Ronald, and Jean Tirole (2006). "Incentives and Prosocial Behavior." American Economic Review 96(5):1652-1678.

Besley, Timothy, and Maitreesh Ghatak (2008). "Status Incentives." American Economic Review 98(2): 206-211.

Blanes-I-Vidal, Jordi, and Mareike Nossol (2011). "Tournaments without Prizes: Evidence from Personnel Records." Management Science 57(10): 1721-1736.

Bolton, Gary E., and Axel Ockenfels (2000). "A Theory of Equity, Reciprocity, and Competition." The American Economic Review 90 (1): 166-193.

Brickley, James A. and Jerold L. Zimmerman (2001). "Changing Incentives in a Multitask Environment: Evidence from a Top-Tier Business School." Journal of Corporate Finance 7(4): 367-396.

Casas-Arce, Pablo, and F. Asis Martinez-Jerez (2009). "Relative Performance Compensation, Contests and Dynamic Incentives." Management Science 55(8):1306-1320

Charness, Gary, David Masclet, and Marie Claire Villeval (2014). "The Dark Side of Competition for Status." Management Science 60(1) 38-55.

Deci, Edward L. (1972). "Effects of Contingent and Noncontingent Rewards and Controls on Intrinsic Motivation." Organizational Behavior and Human Performance 8(2):217-229.

Delfgaauw, Josse, Robert Dur, Joeri Sol, and Willem Verbeke (2013). "Tournament Incentives in the Field: Gender Differences in the Workplace." Journal of Labour Economics 32(2): 305-326.

Delfgaauw, Josse, Robert Dur, Arjan Non and Willem Verbeke (2014). "Dynamic Incentive Effects of Relative Performance Pay: A Field Experiment." Labour Economics 28(2014): 1-13.

Delfgaauw, Josse, Robert Dur, and Michiel Souverijn (2017). "Team Incentives, Task Assignment, and Performance: A Field Experiment." Tinbergen Institute Discussion Paper TI2017-090/VII.

Dellavigna, Stefano, and Devin Pope (2018). "What Motivates Effort? Evidence and Expert Forecasts." Review of Economic Studies 2018(85):1029-1069.

Eriksson, Tor, Anders Poulsen and Marie Claire Villeval (2009). "Feedback and Incentives: Experimental Evidence." Labour Economics 16(2009):679-688.

Falk, Armin and Andrea Ichino (2006). "Clean Evidence on Peer Pressure." Journal of Labour Economics 24(1): 39-57.

Fehr, E. and K.M. Schmidt (2006). "Chapter 8 The Economics of Fairness, Reciprocity of Altruism- Experimental Evidence and New Theories." Handbook of the Economics of Giving, Altruism and Reciprocity 1(2006):615-691.

Fernie, Sue, and David Metcalf (1999). "It's Not What You Pay, It's the Way That You Pay It and That's What Gets Results: Jockeys' Pay and Performance." Labour 13(2): 385-411.

Friebel, Guido, Matthias Heinz, Miriam Krueger, and Nikolay Zubanov (2017). "Team Incentives and Performance: Evidence from Retail Chain." American Economic Review 107(8):2168-2203.

Frank, Robert H. (1984). "Are Workers Paid Their Marginal Products?" American Economic Review 74(4): 549-571.

Franklin, Jeremy, May Rostom, and Gregory Thwaites (2020). "The Banks that Said No: The Impact of Credit Supply on Productivity and Wages" Journal of Financial Services Research 57, 149–179

Gibbons, Robert (1998). "Incentives in Organisations." Journal of Economic Perspectives 12(4): 115-132.

Gjedrem, William G. (2015). "Relative Performance Feedback: Effective or Dismaying?" Journal of Behavioral and Experimental Economics 74(2018):1-16.

Gjedrem, Gilje, and Ola Kvaloy (2018). "Relative Performance Feedback to Teams." CESifo Working Paper No. 6871, January 2018.

Gneezy, Uri, and Aldo Rustichini (2000). "Pay Enough or Don't Pay at All." Quarterly Journal of Economics, 115(3):791-810

Gneezy, Uri, and Pedro Rey-Biel (2014). "On the Relative Efficiency of Performance Pay and Noncontingent Incentives." Journal of European Economic Association 12(1):62-72.

Gomez, Fabiana, and Jorge Ponce (2019). "Regulation and Bankers' Incentives" Journal of Financial Services Research 56, 209–227

Hannan, R. Lynn, Ranjani Krishnan, and Andrew H. Newman (2008). "The Effects of Disseminating Relative Performance Feedback in Tournament and Individual Performance Compensation Plans." The Accounting Review 83(4):893-913.

Hecht, Gary, Ivo Tafkov, and Kristy L. Towry (2008). "Incentives in a Multi-task Environment: Timing is Everything." Unpublished Manuscript.

Holmström, Bengt, and Paul Milgrom (1991). "Multitask Principle-Agent Analyses: Incentive Contracts, Asset Ownership and Job Design." Journal of Law, Economics and Organization 7:24-52.

Jenkins, Douglas G. Jr., Mina Gupta, Atul Mitra, Jason D. Shaw (1998). "Are Financial Incentives Related to Performance? A Meta-Analytic Review of Empirical Research." Journal of Applied Psychology 83(5):777-787.

Kandel, Eugene, and Edward P. Lazear (1992). "Peer Pressure and Partnerships." Journal of Political Economy 100(4): 801-817.

Kosfeld, Michael and Susanne Neckermann (2011). "Getting More Work For Nothing? Symbolic Awards and Worker Performance." American Economic Journal: Microeconomics 3(3):86-99.

Koszegi, Botond (2006). "Ego Utility, Overconfidence, and Task Choice." Journal of European Economic Association 4(4):673-707.

Kuhnen, Camelia M. and Agnieszka Tymula (2012). "Feedback, Self-Esteem, and Performance in Organizations." Management Science 58(1):94-113.

Kummer, Donald R., Nasser Arshadi, and Edward C. Lawrence (1989). "Incentive Problems in Bank Insider Borrowing." Journal of Financial Services Research 3, 17–31.

Lazear, Edward P. (1986). "Salaries and Piece Rates." The Journal of Business 59(3): 405-431.

Lazear, Edward P. (2000). "Performance Pay and Productivity." The American Economic Review 90(5): 1346-1361.

Mas, Alexandre, and Enrico Moretti (2009). "Peers at Work." American Economic Review, 99(1): 112-145.

Moldovanu, Benny, Aner Sela and Xianwen Shi (2007). "Contest for Status." Journal of Political Economy 115(2):338-363.

Paarsch, Harry, and Bruce Shearer (2000). "Piece Rates, Fixed Wages and Incentive Effects: Statistical Evidence from Payroll Records." International Economic Review 41(1): 59-92.

Pokorny Kathrin (2008). "Pay But Do Not Pay Too Much: An Experimental Study on the Impact of Incentives." Journal of Economic Behavior and Organization 68(2): 731-747ç

Shearer, Bruce (2004). "Piece Rates, Fixed Wages and Incentives: Evidence from a Field Experiment." Review of Economic Studies 71(2): 513-534.

Steffen, Angela and Frauke von Bieberstein (2018). "Go Beyond (your) Average: A Field Experiment on Real-Time Performance Feedback and Sales Productivity." Working Paper.

Figures

Figure 1 Timeline of the Campaign

| Phase0_1 | Phase0_2 | Phase1_1 | Phase1_2 | Phase2 |
| No Campaign | Another Campaign | Piece-Rate | Piece-Rate + Performance Disclosure | Post-Campaign |

Jan 1, 2008 — Mar 1, 2008 — Mar 31, 2008 — May 5, 2008 — Jun 30, 2008

Phase0
BASELINE PERIOD
(Jan 1 – Mar 31, 2008)

Phase1
CAMPAIGN
(Apr 1 – Jun 30, 2008)

Phase2
POST_CAMPAIGN
(Jun 30 – Oct 3, 2008)
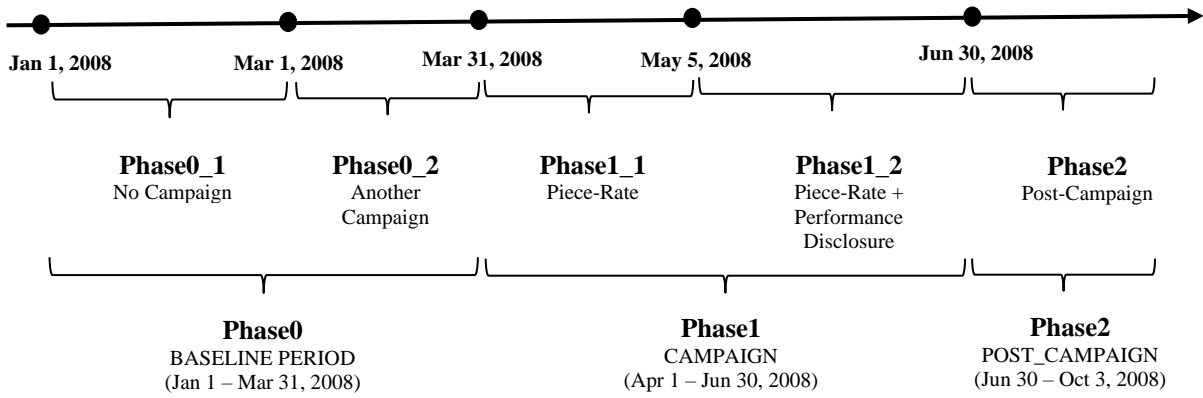
Figure 2 Evolution of Credit Card Sales during the Campaign Period (cumulative)

Figure 2 : Evolution of Credit Card Sales During Campaign Period (Cumulative)
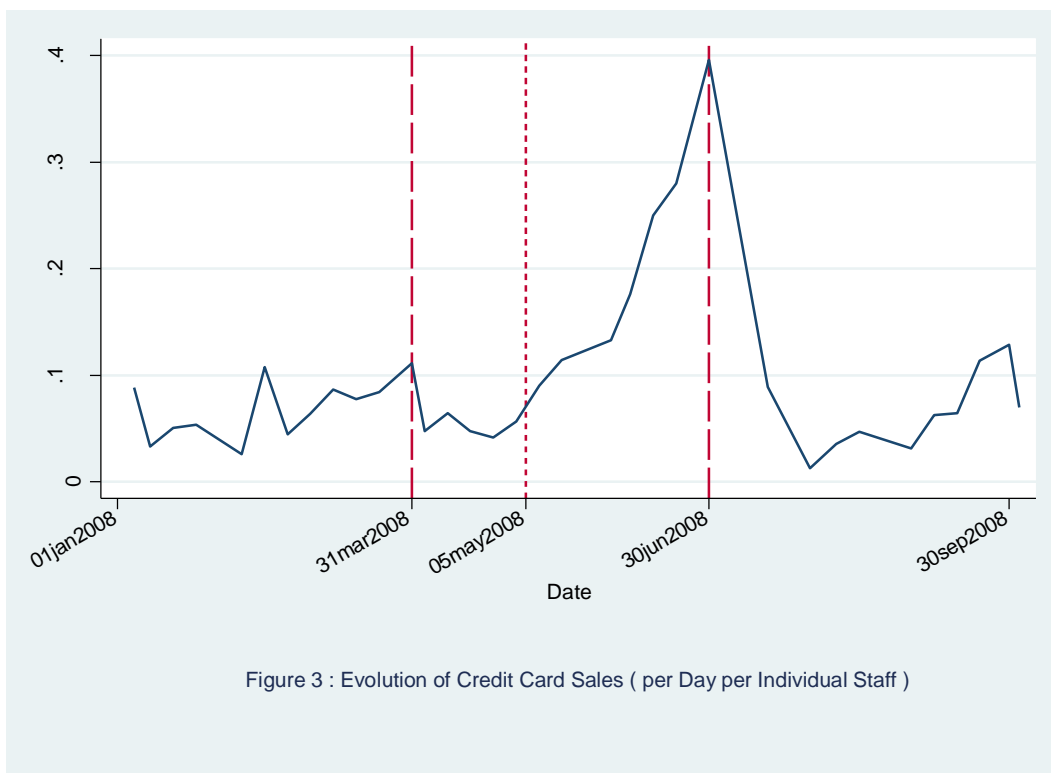
1

Figure 3 Evolution of Credit Card Sales (per day, per individual staff)

Figure 3 : Evolution of Credit Card Sales (per Day per Individual Staff)

Figure 4 Scatter Plot of Overall Effects - Coefficient from Individual-Branch Regressions

Figure 4 : Scatter Plot of Overall Effects - Coefficients from Individual Branch Regressions
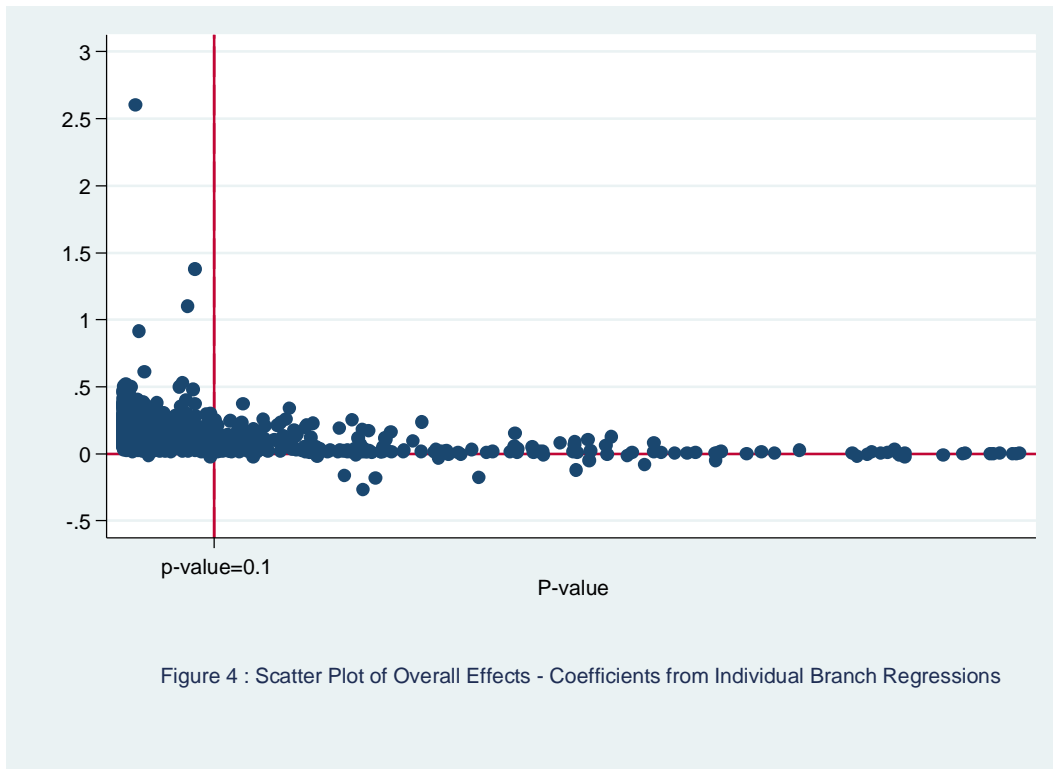
Figure 5 Performance over Time By Pre-Disclosure Rank (Limited and Full Set of Covariates)

Figure 5: Performance Over Time (with Limited and Full Set of Covariates)

Figure 6 Performance over Time By Pre-Disclosure Rank
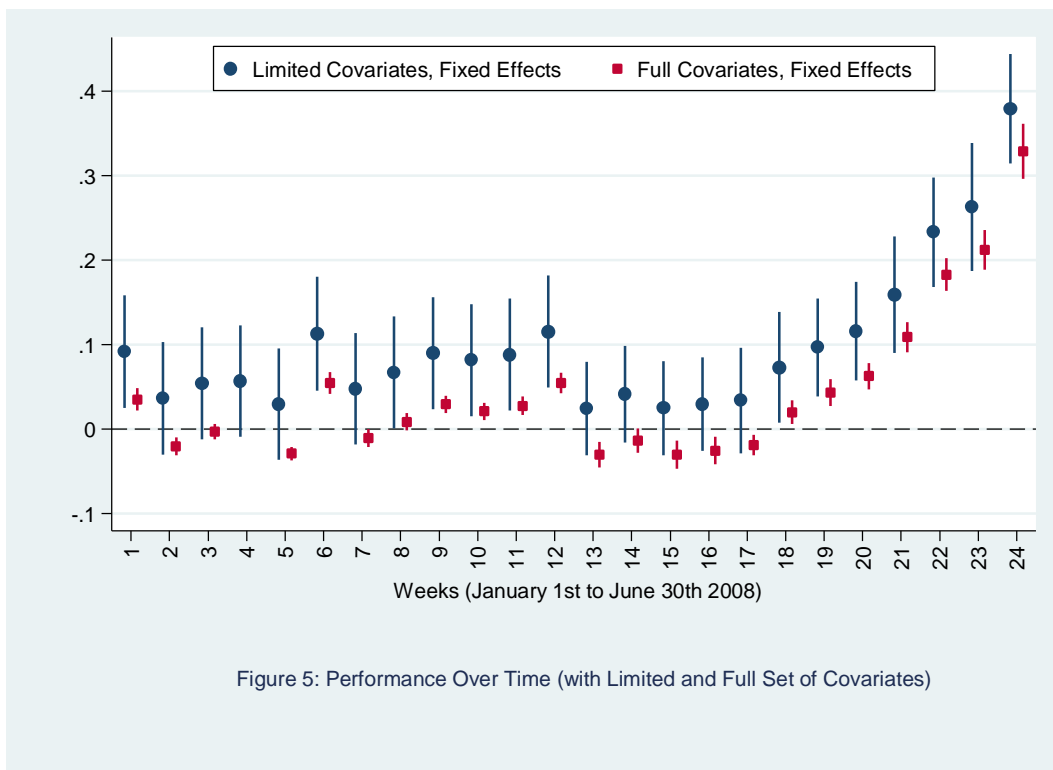
Figure 6: Performance Over Time By Pre-Disclosure Rank
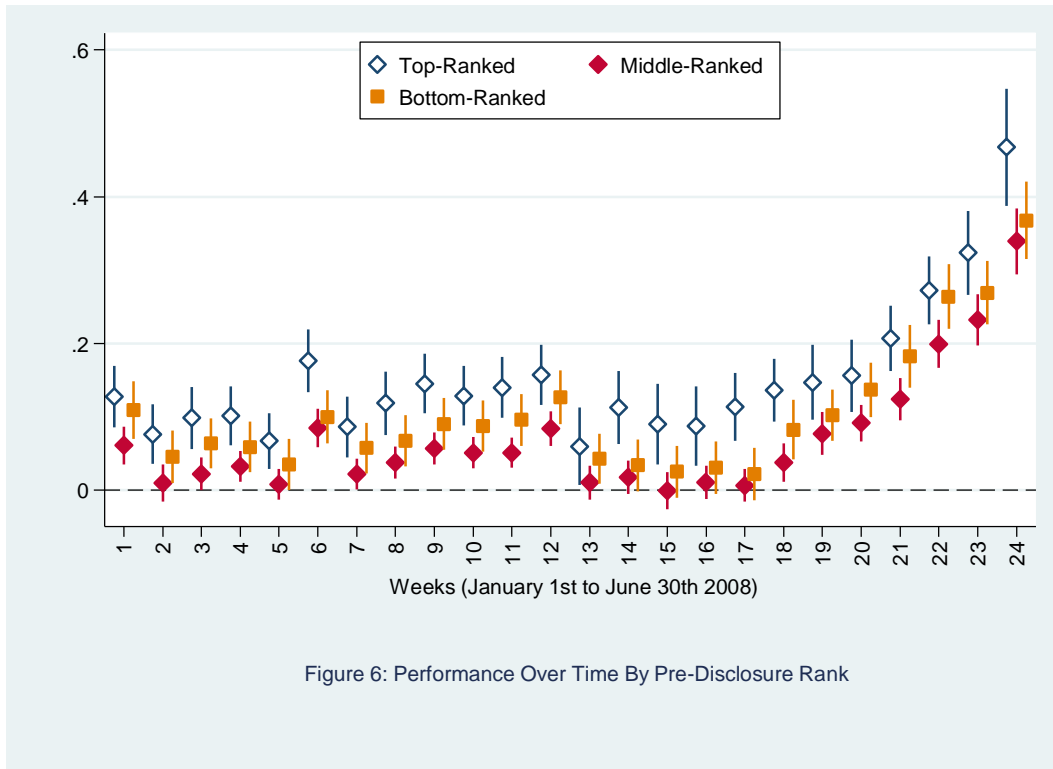
Appendix (To be made available online)

Note 1- Terms and conditions of the Campaign (Circular Letter)

- The staff can earn piece-rate 5 TL conditional on the customer who is sold a credit card has used the card at least once by September 29, 2008. The staff cannot earn the piece-rate if the customer does not use the card by that date.

- In order to participate in the campaign, the staff have to hold the bank's type A credit card and the piece-rates are transferred to the staff's type A credit card beginning in May 2008 after the customer has used the card. The staff who do not hold the bank's type A credit card can sell credit cards but cannot earn piece-rates.

- The campaign is valid only for selling the bank's type A and type B credit cards. Thus, if the staff sell any other type of card, they will not receive the piece-rate.

-There is no upper limit for sales for any type of branch. Branches can sell as many as they can.

- Also, there is no requirement that the staff who entered the details in the system has to the same as those who sold the card. As long as the staff agree with each other, they can use a single username and share the total amount in the end.

- The staff wins the piece-rate for each of the main cards sold but can win only one piece-rate for the supplementary cards attached to the main card. For example, if the staff sells one main card (to the customer i) and three supplementary cards (to customer i's wife and two children), the staff can only earn the piece-rate for the sale of the main card and one sale of a supplementary card. For the remaining two supplementary cards, the staff will not earn a piece-rate.

- Moreover, the staff cannot earn the piece-rate from the cards sold to the staff, spouses, and children of the staff; the cards sold to the customers who already have a credit card; cards sold to those who cancel the cards during the campaign; cards sold to corporate entities; cards that has more than one supplementary card; cards that were sold during the campaign but not used until September 29, 2008. Thus, if the customers who were sold credit cards do not use it until September 29, 2008, the staff will not earn the piece-rate.

Note 2 - Details of the reports sent to the branches

Report 1: Regional Branches – This report shows the absolute performance (the total cards sold from the first day of the campaign until one day prior to the report date) of the regional branches in a rank-ordered way. The figures on card sales are sorted from the highest to the lowest. Thus, in this report, the regional branches can directly see their own rank among the other 23 remaining branches. Moreover, they can see the total number of cards sold by the branches under their supervision starting from the launch of the campaign.

Report 2: Branches/POCs/Bureaus – This report shows the absolute performance of the branches (the total cards sold from the first day of the campaign until one day prior to the report date). This report is sorted alphabetically according to the name of the branches. In this sense, the branches cannot see their relative positions directly. In

order to see their position relative to other branches, they need to sort the excel file according to card sales. Moreover, in this report, the credit card sales of the branches, POCs, and bureaus are displayed separately.

Report 3: POCs – This report shows the absolute performance (the total cards sold from the first day of the campaign until one day prior to the report date) of the POCs in a rank-ordered way. The figures on card sales are sorted from the highest to the lowest. Thus, in this report, the POCs can directly see their position.

Figure A1 Evolution of Credit Card Sales during 2007-2009 (cumulative)

Note: Solid line displays the local linear regressions

Figure A1: Evolution of Credit Card Sales During 2007-2009
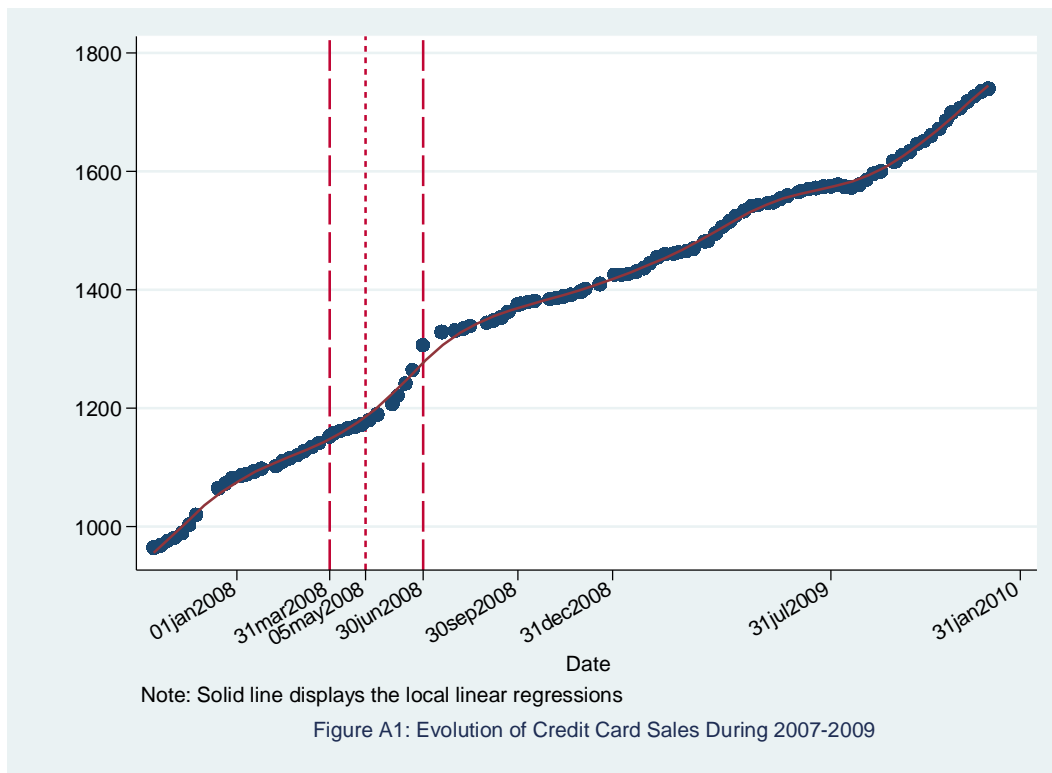
Figure A2 Evolution of Credit Card Sales Over Time (per day per individual staff)
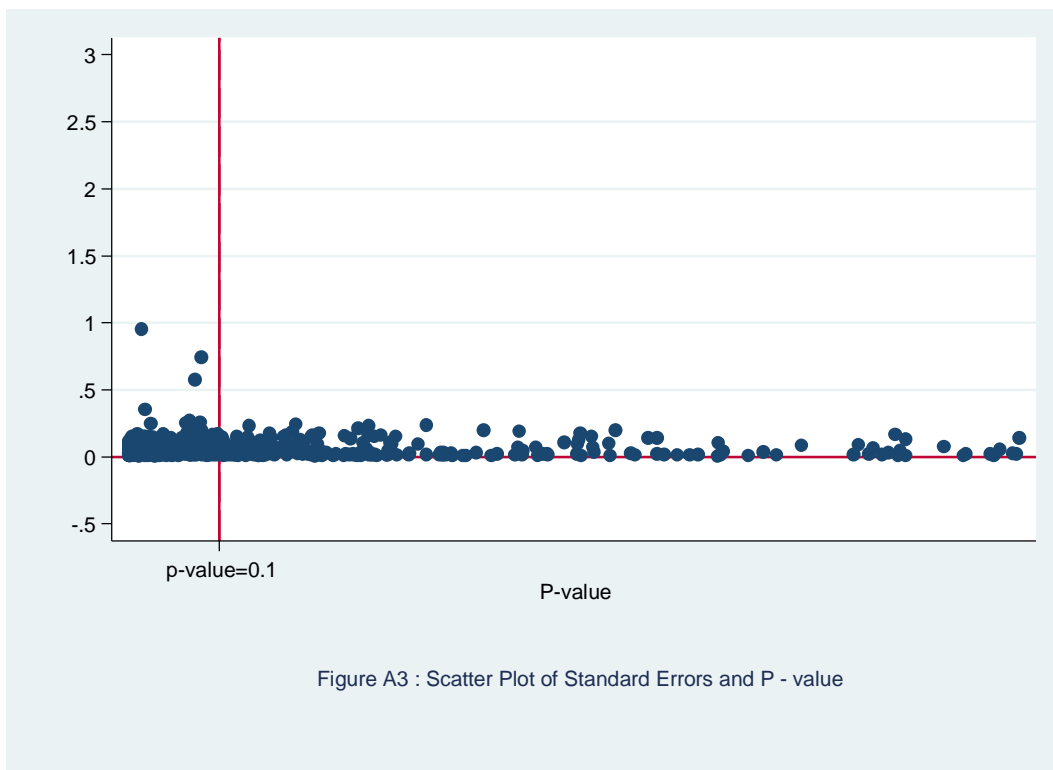
Note: Solid line displays the local linear regressions.

Figure A2: Evolution of Credit Card Sales During 2007-2009

Figure A3 – Scatter Plot of Standard Errors and P-value

Figure A3 : Scatter Plot of Standard Errors and P - value

Figure A4 – Scatter Plot of Coefficients and t-value

Figure A4 : Scatter Plot of Coefficients and t - value

Figure A5 -– Scatter Plot of Standart Errors and t-value
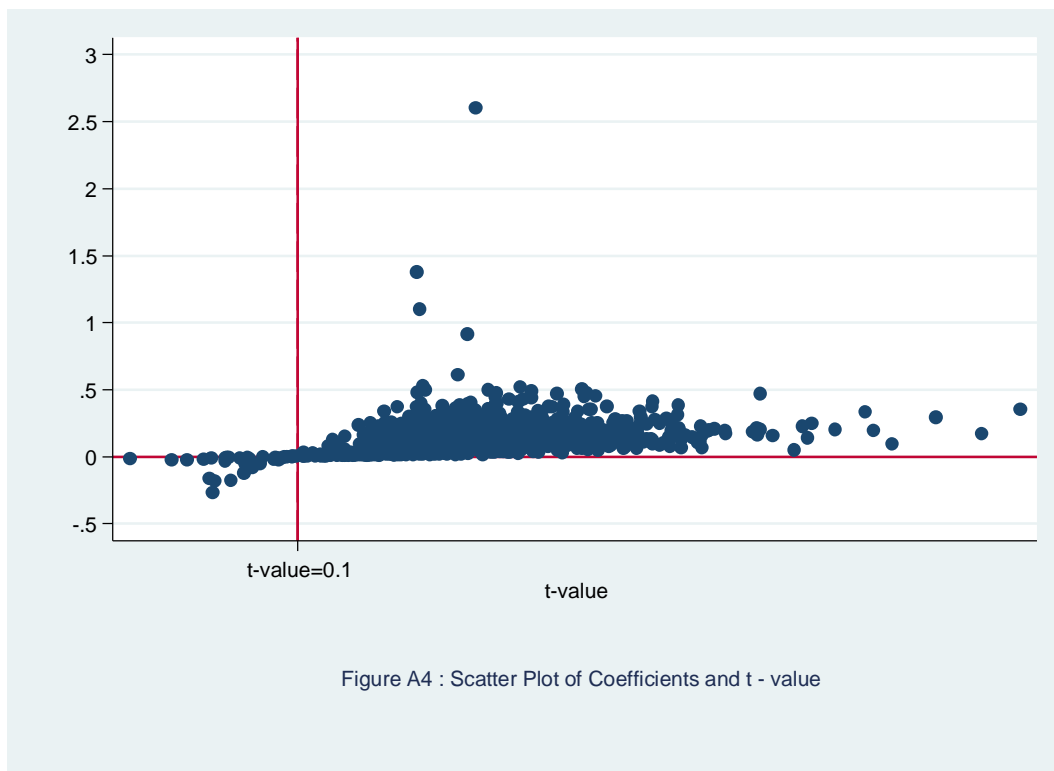
Figure A5 : Scatter Plot of Standart Errors and t - value
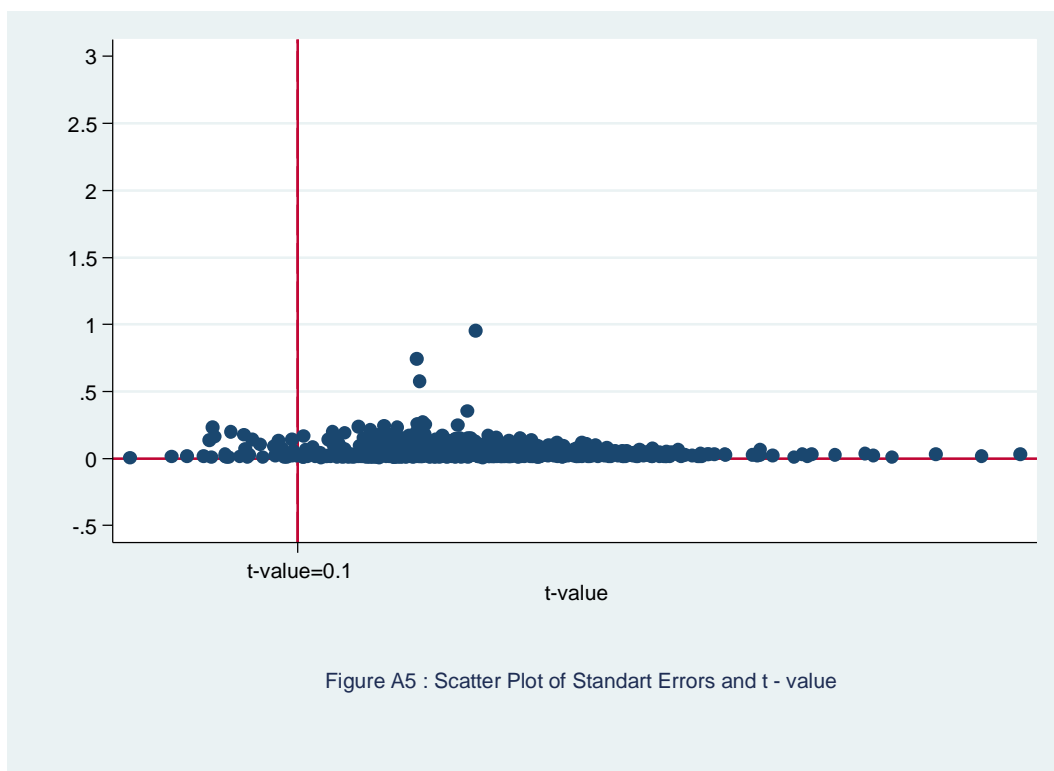
Table 1 Regional Headquarters, Branch Types and Average Number of Staff in Branches

Regional Headquarters (RQ)	N	Branches Size	N	Av Staff	Special Types of Branches	N	Av Staff
Large (I)	7	Upper Large (A1	20	66.4	Commercial	26	52.1
Medium (II)	12	Lower Large (A2)	130	33.68	With Private Operation Centers (POC)	70	45.8
Small (III)	5	Medium (B)	200	19.37	With Bureaus	23	47
Total Number of RQ	24	Upper Small (C1)	250	13.41	With both POC and Bureaus	13	64.4
		Middle Small (C2)	250	9.06	Single in Location	449	6.9
		Lower Small (C3)	275	5.64			
		Total Number of Branches	1125				

Table 2 Baseline Regression Results. Dependent variable is the average card sale per day per staff at branch level. Data in Columns 1-2 comprise 01Jan2008-30June2008 (March excluded), data in Column 3 include 01Jan2008-30September2008 (March excluded), data in Columns 4-5 include 01April2008-30September2008, data in Columns 6-7 include 1 January 2008- 2 May 2008, and data in Columns 8-9 include 01January-30June 2008. Sample includes all scaled branches that were operating during this interval. Consumer credits are also in per day per staff basis and in 1000 TL amounts.

VARIABLES	Prior to Campaign		Prior and Post Campaign	Post Campaign		Campaign Period Plain Piece-Rate Effect		Campaign Period Seperate Effects of Incentives	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CAMPAIGN (Phase 1_1 + Phase 1_2)	0.142***	0.125***	0.105***	0.317***	0.0889***	0.0536***	-0.0433***		
	(0.00400)	(0.00554)	(0.00422)	(0.0134)	(0.00695)	(0.00233)	(0.00390)		
CAMPAIGN (Phase 1_1)								0.0536***	-0.00205
								(0.00233)	(0.00505)
CAMPAIGN (Phase 1_2)								0.206***	0.111***
								(0.00609)	(0.00505)
CONSUMER LOANS		0.0493***	0.0117	0.0401***	0.0370***		0.0176***		0.0419***
		(0.0143)	(0.00767)	(0.0120)	(0.0120)		(0.00490)		(0.0120)
HOUSING LOANS		0.00478**	0.00479**	0.00113	0.000153		0.00329*		0.00633**
		(0.00242)	(0.00203)	(0.00171)	(0.00175)		(0.00184)		(0.00257)
VEHICLE LOANS		0.0799**	0.129***	0.122***	0.134***		0.0667**		0.0676*
		(0.0385)	(0.0356)	(0.0425)	(0.0442)		(0.0279)		(0.0355)
LN(TOTAL CREDIT CARDS)		-0.00584	-0.00260	-0.00328	-0.00209		0.000127		-0.00418
		(0.00446)	(0.00330)	(0.00407)	(0.00407)		(0.00168)		(0.00383)
OTHER BANKS' CONSUMER LOANS		-2.43e-05**	-1.44e-05***	-1.03e-06	-7.36e-06		-2.83e-05***		-2.66e-05***
		(9.95e-06)	(4.86e-06)	(1.01e-05)	(1.05e-05)		(6.79e-06)		(9.62e-06)
OTHER BANKS' HOUSING LOANS		1.71e-05**	3.54e-06	-8.16e-06	-9.45e-06*		9.14e-06*		1.86e-05***
		(6.69e-06)	(4.18e-06)	(5.20e-06)	(5.57e-06)		(5.15e-06)		(6.03e-06)
OTHER BANKS' VEHICLE LOANS		-8.93e-05*	3.26e-05	3.94e-05	7.30e-05		-5.52e-05		-8.20e-05*
		(4.67e-05)	(2.88e-05)	(5.55e-05)	(5.99e-05)		(3.96e-05)		(4.41e-05)
BANK'S OWN BRANCHES		-0.00143**	-0.000520	-0.000647	-0.000263		-0.000988**		-0.00165***
		(0.000610)	(0.000438)	(0.000745)	(0.000772)		(0.000435)		(0.000557)
LOG_POPULATION		0.0153***	0.0136***	0.0130***	0.0134***		0.00775***		0.0144***
		(0.00280)	(0.00219)	(0.00246)	(0.00249)		(0.00197)		(0.00256)
BRANCH SCALE_MEDIUM		0.0129**	0.0108**	0.0139**	0.0141**		0.00807		0.0134**
		(0.00649)	(0.00546)	(0.00625)	(0.00626)		(0.00522)		(0.00600)
BRANCH SCALE_LARGE		0.0157**	0.0145**	0.0200***	0.0202***		0.0134**		0.0173**
		(0.00772)	(0.00648)	(0.00707)	(0.00712)		(0.00642)		(0.00707)
UNEMPLOYMENT RATE		0.00354	0.00275	0.00342	0.00335		0.00105		0.00303
		(0.00317)	(0.00249)	(0.00322)	(0.00323)		(0.00110)		(0.00271)
CPI		0.698***	0.0478***	0.224***			-0.139***		0.212***
		(0.0299)	(0.00483)	(0.00826)			(0.0155)		(0.0182)
GDP PER CAPITA (USD)		-0.00178	-0.00122	-0.00161	-0.00153		-0.000245		-0.00151
		(0.00120)	(0.000948)	(0.00113)	(0.00113)		(0.000678)		(0.00107)
Observations	22,500	22,500	32,625	23,625	23,625	19,125	19,125	27,000	27,000
R-squared	0.157	0.266	0.201	0.237	0.210	0.031	0.190	0.187	0.252

Standard errors are clustered at the branch level. Robust standard errors in parantheses; significance at 1, 5 and 10% denoted by ***, ** and * respectively.

Table 3 Decomposition of Performance According to Branch Type and Characteristics. First row results in each panel are regressions that use branch and campaign dummies and their interactions only (omitted as stated). Second row regressions in each panel include all control and regional dummy variables that are consistent with the specification presented in Column 3 of Table 2. Regressions for the samples are N=27,000, except for prior performance (small branches) where N=18,600.

Branch Size	Campaign Effect (Omitted Category)	Medium Branches	Small Branches	Campaign X Medium	Campaign X Small	R-squared
(Omitted: Large)	0.169***	0.0870***	0.0595***	-0.0894***	-0.0980***	0.176
	(0.00877)	(0.00464)	(0.00233)	(0.0122)	(0.0101)	
	0.0777***	-0.00290	-0.0153*	-0.00203	-0.00432	0.240
	(0.0115)	(0.00811)	(0.00825)	(0.0123)	(0.0114)	
Single Branches	Campaign	Single Branches	Campaign X Single			
(Omitted: Branches in Competitive Locations)	0.155***	0.0538***	-0.0861***			0.157
	(0.00550)	(0.00283)	(0.00757)			
	0.0749***	-0.00547	-0.00155			0.240
	(0.00617)	(0.00845)	(0.00780)			
Branches with Affiliated Unit (AU)	Campaign	Branches With AU	Campaign X With AU			
(Omitted: No AU)	0.137***	0.0932***	-0.0149			0.154
	(0.00349)	(0.00745)	(0.0326)			
	0.0716***	0.00202	0.0591*			0.241
	(0.00513)	(0.00834)	(0.0333)			
Commercial Branches	Campaign	Commercial Branches	Campaign X Commercial			
(Omitted: Not Commercial)	0.142***	0.0900***	-0.0980***			0.148
	(0.00408)	(0.0142)	(0.0188)			
	0.0747***	-0.00662	-0.0206			0.240
	(0.00448)	(0.0133)	(0.0194)			
Commercial Branches without AU	Campaign	Commercial - No AU	Campaign X Commercial NoAU			
(Omitted: Commercial Branches without AU)	0.143***	0.0888***	-0.134***			0.147
	(0.00404)	(0.0299)	(0.0212)			
	0.0747***	0.00122	-0.0569**			0.240
	(0.00446)	(0.0255)	(0.0257)			
Prior Performance	Campaign	Middle Ranked	Bottom Ranked	Campaign X Middle	Campiang X Bottom	
(Omitted: Top Ranked Branches)	0.200***	0.0673***	0.0368***	-0.135***	-0.144***	0.175
	(0.00920)	(0.00284)	(0.00255)	(0.0107)	(0.0101)	
	0.101***	-0.0361***	-0.0659***	-0.0296***	-0.0372***	0.251
	(0.00563)	(0.00516)	(0.00575)	(0.00686)	(0.00710)	
Prior Performance (Small Branches)	Campaign	Middle Ranked	Bottom Ranked	Campaign X Middle	Campaign X Bottom	
(Omitted: Top Ranked Small Branches)	0.182***	0.0540***	0.0365***	-0.118***	-0.126***	0.152
	(0.0125)	(0.00343)	(0.00304)	(0.0137)	(0.0136)	
	0.0909***	-0.0248***	-0.0397***	-0.0266*	-0.0307**	0.223
	(0.00912)	(0.00650)	(0.00655)	(0.0136)	(0.0124)	

Standard errors are clustered at the branch level. Robust standard errors in parantheses; significance at 1, 5 and 10% denoted by ***, ** and * respectively.

Table 4 Multi-Tasking Aspects of the Campaign. Sample is Pre Campaign + Campaign. Columns(1) to (3) include the campaign dummy, Columns (4) to (6) include a specification with the average daily credit card productivity variable, ADCCS.

VARIABLES	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5	(6) Model 6
Dependent Variable	Consumer Loans	Housing Loans	Vehicle Loans	Consumer Loans	Housing Loans	Vehicle Loans
CAMPAIGN (Phase 1_1 + Phase 1_2)	0.324***	0.0826**	0.00644**	0.404***	0.00991	0.00730***
	(0.0232)	(0.0334)	(0.00258)	(0.0164)	(0.0328)	(0.00249)
ADCCS				0.152***	0.0795**	0.00410*
				(0.0259)	(0.0310)	(0.00223)
CONSUMER LOANS		-0.192***	0.0174***		-0.196***	0.0149***
		(0.0478)	(0.00265)		(0.0538)	(0.00297)
HOUSING LOANS	-0.0413**		0.00682***	-0.0364**		0.00679***
	(0.0161)		(0.00161)	(0.0150)		(0.00160)
VEHICLE LOANS	1.207***	2.207***		0.900***	2.203***	
	(0.189)	(0.426)		(0.186)	(0.428)	
OTHER BANKS' CONSUMER LOANS	0.000306***	0.000143	4.94e-06	0.000153***	0.000141	2.89e-06
	(3.90e-05)	(0.000102)	(5.10e-06)	(3.76e-05)	(0.000100)	(5.05e-06)
OTHER BANKS' HOUSING LOANS	-0.000179***	-0.000200	1.41e-06	-0.000121***	-0.000199	2.02e-06
	(3.57e-05)	(0.000182)	(4.10e-06)	(3.36e-05)	(0.000181)	(4.11e-06)
OTHER BANKS' VEHICLE LOANS	0.000338	-2.56e-05	1.84e-06	0.000323	-2.49e-05	2.38e-06
	(0.000253)	(0.00113)	(2.64e-05)	(0.000230)	(0.00113)	(2.63e-05)
TOTAL CREDIT CARDS	0.0378***	0.0302	0.000402	0.0285***	0.0301	0.000324
	(0.00892)	(0.0221)	(0.000941)	(0.00917)	(0.0219)	(0.000941)
BANK'S OWN BRANCHES	0.00462*	0.0101	0.000165	0.00345	0.0101	0.000155
	(0.00271)	(0.0149)	(0.000384)	(0.00266)	(0.0149)	(0.000385)
LOG_POPULATION	0.0193*	0.240***	0.000197	0.0301***	0.240***	0.000438
	(0.0104)	(0.0215)	(0.00126)	(0.0105)	(0.0215)	(0.00127)
BRANCH SCALE_MEDIUM	-0.0377	0.158**	-0.00408	-0.0386	0.158**	-0.00417
	(0.0270)	(0.0724)	(0.00327)	(0.0272)	(0.0724)	(0.00328)
BRANCH SCALE_LARGE	-0.0536*	-0.000591	-0.00810**	-0.0531*	-0.000755	-0.00820**
	(0.0304)	(0.118)	(0.00349)	(0.0307)	(0.118)	(0.00350)
UNEMPLOYMENT RATE	0.00372	0.00578	0.000398	0.00554	0.00584	0.000439
	(0.00489)	(0.0106)	(0.000532)	(0.00510)	(0.0106)	(0.000534)
CPI	-1.141***	-0.568***	0.00576	-0.437***	-0.555***	0.0157**
	(0.0457)	(0.109)	(0.00678)	(0.0409)	(0.124)	(0.00726)
GDP PER CAPITA (USD)	0.00162	-0.00996*	0.000204	0.000466	-0.00998*	0.000187
	(0.00355)	(0.00516)	(0.000398)	(0.00361)	(0.00515)	(0.000398)
Observations	22,500	22,500	22,500	22,500	22,500	22,500
R-squared	0.407	0.401	0.082	0.486	0.401	0.084

Standard errors are clustered at the branch level. Robust standard errors in parentheses; significance at 1, 5 and 10% denoted by ***, ** and * respectively.

Table 5 Quality of the Sales: Cancelled Credit Cards. Dependent Variable: Total Number of Cancelled Credit Cards during August - December 2008.

VARIABLES	(1)	(2)	(3)	(4)
PRODUCTIVITY INCREASE	109.6***	1.079	4.056	4.259
	(22.13)	(5.314)	(5.049)	(5.587)
BRANCH_SIZE		2.104***	2.191***	
		(0.0832)	(0.130)	
CONSUMER LOANS				4.215**
				(1.912)
HOUSING LOANS				3.449**
				(1.567)
VEHICLE LOANS				4.014
				(13.73)
OTHER BANKS' CONSUMER LOANS				-0.0124
				(0.0122)
OTHER BANKS' HOUSING LOANS				-0.00370
				(0.00296)
OTHER BANKS' VEHICLE LOANS				0.0153
				(0.0405)
LN(TOTAL CREDIT CARDS)				-2.097***
				(0.517)
BANK'S OWN BRANCHES				-0.202
				(0.416)
BRANCH SCALE_MEDIUM				17.03***
				(2.642)
BRANCH SCALE_LARGE				57.93***
				(4.938)
LOG_POPULATION			-0.210	8.260***
			(0.152)	(0.845)
UNEMPLOYMENT RATE				-0.400**
				(0.165)
CPI				-6.181***
				(1.086)
GDP PER CAPITA (USD)				0.612**
				(0.239)
Observations	1,125	1,125	1,125	1,125
R-squared	0.136	0.718	0.719	0.664

Standard errors are clustered at the branch level. Robust standard errors in parentheses; significance at 1, 5 and 10% denoted by ***, ** and * respectively.

Table A1 Descriptive Statistics for Credit Card Sales: According to Phases (Whole Bank)

Branch Type	Obs	Mean	Std. Dev.	Min	Max
Whole Sample	37125	0.0946	0.2201	-2.5529	10.5
Before Campaign	13500	0.0691	0.1552	-2.5529	3.2222
No campaign	9000	0.0585	0.16	-2.5529	3.2222
Another Campaign	4500	0.0902	0.1429	-1.6481	1.8857
During Campaign	13500	0.1423	0.2987	-2.4273	10.5
Piece-rate	5625	0.0536	0.1404	-2.04	4.25
Piece-rate + Disclosure	7875	0.2057	0.3594	-2.4273	10.5
After Campaign	10125	0.0651	0.1476	-1.7708	4.0802

Table A2 Descriptive Statistics for Credit Card Sales: According to Branch Size and Phases
(Branches According to Size)

	Obs	Mean	Std. Dev.	Min	Max
A1 Branches					
Whole Sample	660	0.1135	0.2464	-0.7093	3.2116
Before Campaign	240	0.0673	0.1056	-0.5597	0.7063
No campaign	160	0.0516	0.1097	-0.5597	0.7063
Another Campaign	80	0.0988	0.0897	-0.0667	0.4329
During Campaign	240	0.1851	0.3646	-0.7093	3.2116
Piece-rate	100	0.0413	0.1267	-0.7093	0.3034
Piece-rate + Disclosure	140	0.2878	0.4378	-0.214	3.2116
After Campaign	180	0.0796	0.1422	-0.0764	1.2029
A2 Branches					
Whole Sample	4290	0.1215	0.2307	-2.5529	2.9806
Before Campaign	1560	0.0992	0.1904	-2.5529	2.9806
No campaign	1040	0.0814	0.2017	-2.5529	2.9806
Another Campaign	520	0.135	0.1597	-0.7357	1.1354
During Campaign	1560	0.1668	0.2852	-2.3048	2.1847
Piece-rate	650	0.0726	0.1846	-1.6476	2
Piece-rate + Disclosure	910	0.2341	0.3229	-2.3048	2.1847
After Campaign	1170	0.0908	0.1846	-0.6667	2.873
B Branches					
Whole Sample	6600	0.1146	0.221	-2.4273	6.913
Before Campaign	2400	0.087	0.1446	-0.9429	1.6842
No campaign	1600	0.0733	0.1464	-0.9429	1.6842
Another Campaign	800	0.1142	0.137	-0.2615	0.9091
During Campaign	2400	0.1668	0.3076	-2.4273	6.913
Piece-rate	1000	0.0675	0.1334	-1.4028	0.8167
Piece-rate + Disclosure	1400	0.2378	0.3708	-2.4273	6.913
After Campaign	1800	0.0819	0.1392	-0.9064	1.3727
C1 Branches					
Whole Sample	8250	0.0947	0.2018	-2.2571	3.2222
Before Campaign	3000	0.0708	0.1776	-2.2571	3.2222
No campaign	2000	0.0601	0.1907	-2.2571	3.2222
Another Campaign	1000	0.0922	0.1455	-0.2625	1.8143
During Campaign	3000	0.1429	0.2482	-1.5077	2.7529
Piece-rate	1250	0.054	0.1193	-1.1467	1.5867
Piece-rate + Disclosure	1750	0.2064	0.2929	-1.5077	2.7529
After Campaign	2250	0.0623	0.1425	-1.7708	1.6
C2 Branches					
Whole Sample	8250	0.0827	0.2407	-1.6481	10.5
Before Campaign	3000	0.0573	0.1411	-1.6481	2.1667
No campaign	2000	0.0524	0.1456	-0.6667	2.1667
Another Campaign	1000	0.0671	0.1312	-1.6481	1.4889
During Campaign	3000	0.126	0.3395	-1.1875	10.5
Piece-rate	1250	0.0455	0.1596	-1.1875	4.25
Piece-rate + Disclosure	1750	0.1835	0.4141	-1.0833	10.5
After Campaign	2250	0.059	0.1682	-1.101	4.0802
C3 Branches					
Whole Sample	9075	0.0768	0.2056	-2.04	9.2083
Before Campaign	3300	0.0512	0.1326	-0.85	1.8857
No campaign	2200	0.0416	0.1266	-0.85	1.45
Another Campaign	1100	0.0703	0.1421	-0.36	1.8857
During Campaign	3300	0.124	0.293	-2.04	9.2083
Piece-rate	1375	0.0422	0.1179	-2.04	1
Piece-rate + Disclosure	1925	0.1824	0.3593	-0.3	9.2083
After Campaign	2475	0.0479	0.1116	-0.3556	1.3

Table A3 Descriptive Statistics for Credit Card Sales: According to Branch Types and Phases (Types of Branches)

	Obs	Mean	Std. Dev.	Min	Max
Branches with PPOs					
Whole Sample	2310	0.1298	0.2181	-0.7674	3.2116
Before Campaign	840	0.0958	0.1361	-0.6074	1
No campaign	560	0.0791	0.1341	-0.6074	0.8857
Another Campaign	280	0.1292	0.1342	-0.1167	1
During Campaign	840	0.1926	0.2811	-0.7674	3.2116
Piece-rate	350	0.0799	0.1355	-0.7674	0.75
Piece-rate + Disclosure	490	0.2731	0.3271	-0.3674	3.2116
After Campaign	630	0.0916	0.1901	-0.3422	2.873
Branches with Bureaus					
Whole Sample	759	0.1454	0.5461	-1.696	10.5
Before Campaign	276	0.0821	0.1161	-0.1774	0.5373
No campaign	184	0.0633	0.1039	-0.1774	0.4267
Another Campaign	92	0.1198	0.1298	-0.0353	0.5373
During Campaign	276	0.2548	0.8764	-1.696	10.5
Piece-rate	115	0.1084	0.4284	-0.7093	4.25
Piece-rate + Disclosure	161	0.3593	1.0784	-1.696	10.5
After Campaign	207	0.0841	0.1701	-0.1133	1.7708
Commercial Branches					
Whole Sample	858	0.1	0.1923	-0.9064	2.0843
Before Campaign	312	0.09	0.1572	-0.3867	1.6842
No campaign	208	0.0835	0.1749	-0.3867	1.6842
Another Campaign	104	0.1029	0.1134	-0.0667	0.6583
During Campaign	312	0.1345	0.2527	-0.87	2.0843
Piece-rate	130	0.0439	0.1577	-0.87	0.56
Piece-rate + Disclosure	182	0.1991	0.2862	-0.4783	2.0843
After Campaign	234	0.0677	0.1226	-0.9064	0.5265

Table A4 Descriptive Statistics for Credit Card Sales: According to Branch Location

	Obs	Mean	Std. Dev.	Min	Max
Single Branches					
Whole Sample	14817	0.0779	0.1962	-2.04	9.2083
Before Campaign	5388	0.0538	0.1294	-0.85	1.8857
No campaign	3592	0.0461	0.1278	-0.85	1.6786
Another Campaign	1796	0.0693	0.1313	-0.36	1.8857
During Campaign	5388	0.1229	0.2732	-2.04	9.2083
Piece-rate	2.245	0.0408	0.1136	-2.04	1
Piece-rate + Disclosure	3.143	0.1815	0.3324	-0.8316	9.2083
After Campaign	4041	0.0502	0.1227	-1.101	1.6889

Table A5 Summary Statistics of Weekly Credit Cards Sold (January-September 2008)

Phase	Week	Obs	Sum	Mean	Standard Deviation	Min	Max
Phase 0_1	6 January	1125	5,826	5.18	15.52	-150	215
Phase 0_1	11 January	1125	2,674	2.38	16.94	-434	84
Phase 0_1	18 January	1125	4,604	4.09	12.82	-85	181
Phase 0_1	25 January	1125	4,635	4.12	11.42	-82	96
Phase 0_1	8 February	1125	5,177	4.6	19.63	-183	223
Phase 0_1	15 February	1125	10,418	9.26	20.74	-89	252
Phase 0_1	22 February	1125	4,602	4.09	16.92	-52	462
Phase 0_1	29 February	1125	6,064	5.39	13.76	-77	164
Phase 0_2	7 March	1125	7,936	7.05	13.54	-103	158
Phase 0_2	14 March	1125	7,462	6.63	12.81	-7	137
Phase 0_2	21 March	1125	8,045	7.15	13.37	-22	120
Phase 0_2	31 March	1125	12,959	11.52	22.06	-89	300
Phase1_1	4 April	1125	4,424	3.93	8.84	-27	135
Phase1_1	11 April	1125	5,628	5	13.55	-165	133
Phase1_1	18 April	1125	4,178	3.71	20.28	-305	131
Phase1_1	25 April	1125	4,173	3.71	10.74	-101	153
Phase1_1	2 May	1125	5,176	4.6	15.15	-173	220
Phase1_2	9 May	1125	7,090	6.3	18.43	-242	182
Phase1_2	16 May	1125	10,103	8.98	20.58	-267	250
Phase1_2	31 May	1125	20,895	18.57	33.61	-233	307
Phase1_2	6 June	1125	15,444	13.73	27.86	-136	274
Phase1_2	13 June	1125	22,917	20.37	31.91	-8	316
Phase1_2	20 June	1125	24,898	22.13	38.4	-7	420
Phase1_2	30 June	1125	47,071	41.84	87.39	-8	1214
Phase2	18 July	1125	26,067	23.18	76.67	-253	1448
Phase2	31 July	1125	2,133	1.9	18.38	-255	180
Phase2	8 August	1125	3,839	3.41	8.96	-18	93
Phase2	15 August	1125	4,608	4.1	8.46	-9	88
Phase2	31 August	1125	5,833	5.18	13.61	-98	132
Phase2	7 September	1125	5,654	5.02	11.05	-21	149
Phase2	14 September	1125	5,650	5.02	11.03	-39	118
Phase2	21 September	1125	10,125	9	19.46	-21	291
Phase2	30 September	1125	14,416	12.81	30.76	-35	661

Table A6 Robustness Checks: Seasonality. Dependent variable is the average card sale per day per staff at branch level. Regression (1) is done using January-June 2008 data and regression (2) is done using January-June 2009 data to capture the seasonality.

	(1)	(2)
CAMPAIGN (PHASE1_1 + PHASE1_2)	0.0732***	0.0270***
	(0.0040)	(0.0023)
REGIONAL HEADQUARTERS FIXED EFFECTS	Yes	Yes
R-Square	0.1946	0.1538
Number of Observations	27000	29250

Robust standard errors in parantheses; significance at 1, 5 and 10% denited by ***, ** and * respectively.

Table A6b Robustness Checks: Seasonality . Dependent variable is the average card sales per day per staff at branch level. Regression (1) is done using January-June 2008 data and regression (2) is done using Januarry 2009 data to capture the seasonality.

	(1)	(2)
CAMPAIGN - PHASE1 (PR)	-0.0155***	0.0680***
	(0.0025)	(0.0036)
CAMPAIGN - PHASE1_2 (PR+Disclosure)	0.1521***	-0.0667***
	(0.0057)	(0.0037)
REGIONAL HEADQUARTERS FIXED EFFECTS	Yes	Yes
R-Square	0.2353	0.1667
Number of Observations	27000	29250

Robust standard errors in parantheses; significance at 1, 5 and 10% denoted by ***, ** and * respectively.

Table A7 Robustness Checks: Longer Time Horizon. Dependent variable is the average card sale per day per staff at branch level. Regression (1) is done using October 2008-December 2010 data and regression (2) is done to using January-December 2008 data. Regression (3) is for January-June 2008 and put for comparison.

	(1)	(2)	(3)
CAMPAIGN (PHASE1_1 + PHASE1_2)	0.0650***	0.0798***	0.0732***
	(0.0039)	(0.0038)	(0.0040)
REGIONAL HEADQUARTERS FIXED EFFECTS	Yes	Yes	Yes
R-Square	0.1449	0.1781	0.1946
Number of Observations	119250	49500	27000

Robust standard errors in parantheses; significance at 1, 5 and 10% denited by ***, ** and * respectively.

Table A7b Robustness Checks: Longer Time Horizon. Dependent variable is the average card sales per day per staff at branch level. Regression (1) is done using October 2008-December 2010 data and regression (2) is done to using January-December 2008 data.

	(1)	(2)
CAMPAIGN - PHASE1 (PR)	-0.0238***	-0.0089***
	(0.0023)	(0.0022)
CAMPAIGN - PHASE1_2 (PR+Disclosure)	0.1521***	0.1521***
	(0.0057)	(0.0057)
REGIONAL HEADQUARTERS FIXED EFFECTS	Yes	Yes
R-Square	0.1565	0.2087
Number of Observations	119250	49500

Robust standard errors in parantheses; significance at 1, 5 and 10% denoted by ***, ** and * respectively.

Table A8 Performance over Time (daily card sales per individual staff by weeks). Dependent variable is the daily credit card sales per staff of branches. Data comprise 01Jan2008-30June2008. Sample includes all scaled branches that are operating during this interval. Limited covariates cover the covariates in Column (2) of Table 2. Week 4 is dropped because of multicollinearty.

	VARIABLES	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5
Phase0	Week 1	0.0883***	0.0350***	0.0824***	0.0350***	0.0350***
		(0.00608)	(0.00675)	(0.00637)	(0.00675)	(0.00676)
	Week 2	0.0329***	-0.0205***	0.0270***	-0.0205***	-0.0205***
		(0.00466)	(0.00550)	(0.00492)	(0.00550)	(0.00550)
	Week 3	0.0505***	-0.00284	0.0446***	-0.00284	-0.00284
		(0.00438)	(0.00449)	(0.00470)	(0.00449)	(0.00449)
	Week 4 (omitted)					
	Week 5	0.0259***	-0.0274***	0.0201***	-0.0274***	-0.0284***
		(0.00307)	(0.00398)	(0.00349)	(0.00398)	(0.00400)
	Week 6	0.109***	0.0560***	0.103***	0.0560***	0.0550***
		(0.00622)	(0.00664)	(0.00642)	(0.00664)	(0.00660)
	Week 7	0.0444***	-0.00895*	0.0385***	-0.00895*	-0.00993*
		(0.00438)	(0.00543)	(0.00473)	(0.00543)	(0.00541)
	Week 8	0.0635***	0.0101*	0.0576***	0.0101*	0.00916*
		(0.00431)	(0.00529)	(0.00470)	(0.00529)	(0.00530)
	Week 9	0.0865***	0.0332***	0.0806***	0.0332***	0.0306***
		(0.00410)	(0.00515)	(0.00442)	(0.00515)	(0.00526)
	Week 10	0.0781***	0.0247***	0.0722***	0.0247***	0.0222***
		(0.00374)	(0.00508)	(0.00412)	(0.00508)	(0.00519)
	Week 11	0.0846***	0.0313***	0.0787***	0.0313***	0.0287***
		(0.00411)	(0.00544)	(0.00447)	(0.00544)	(0.00560)
	Week 12	0.112***	0.0584***	0.106***	0.0584***	0.0559***
		(0.00495)	(0.00601)	(0.00516)	(0.00601)	(0.00610)
Phase1_1	Week 13	0.0471***	-0.00619	0.0168**	-0.0324***	-0.0292***
		(0.00253)	(0.00413)	(0.00744)	(0.00788)	(0.00704)
	Week 14	0.0642***	0.0109**	0.0338***	-0.0154**	-0.0121*
		(0.00388)	(0.00492)	(0.00690)	(0.00740)	(0.00680)
	Week 15	0.0475***	-0.00582	0.0172**	-0.0321***	-0.0288***
		(0.00465)	(0.00550)	(0.00837)	(0.00867)	(0.00788)
	Week 16	0.0523***	-0.00105	0.0219***	-0.0273***	-0.0240***
		(0.00363)	(0.00489)	(0.00789)	(0.00834)	(0.00749)
	Week 17	0.0566***	0.00331	0.0263***	-0.0229***	-0.0178***
		(0.00559)	(0.00652)	(0.00595)	(0.00651)	(0.00606)
Phase1_2	Week 18	0.0903***	0.0370***	0.0652***	0.0163**	0.0208***
		(0.00739)	(0.00798)	(0.00689)	(0.00732)	(0.00720)
	Week 19	0.114***	0.0605***	0.0888***	0.0399***	0.0443***
		(0.00582)	(0.00648)	(0.00820)	(0.00851)	(0.00787)
	Week 20	0.133***	0.0798***	0.108***	0.0591***	0.0636***
		(0.00529)	(0.00623)	(0.00762)	(0.00813)	(0.00749)
	Week 21	0.176***	0.123***	0.151***	0.102***	0.109***
		(0.00952)	(0.0102)	(0.00848)	(0.00897)	(0.00916)
	Week 22	0.250***	0.197***	0.225***	0.176***	0.183***
		(0.00929)	(0.00993)	(0.00932)	(0.00977)	(0.00975)
	Week 23	0.280***	0.226***	0.255***	0.206***	0.213***
		(0.0137)	(0.0141)	(0.0110)	(0.0114)	(0.0120)
	Week 24	0.396***	0.343***	0.371***	0.322***	0.329***
		(0.0161)	(0.0165)	(0.0166)	(0.0168)	(0.0165)
	OTHER COVARIATES	No	No	Yes (Limited)	Yes (Limited)	Yes (Full)
	REGIONAL H/Q FE	No	Yes	No	Yes	Yes
	R-Square	0.268	0.284	0.275	0.290	0.297
	Number of Observations	27,000	27,000	27,000	27,000	27,000

Robust standard errors in parantheses; significance at 1, 5 and 10% denoted by ***, ** and * respectively.

Table A9 - Full Baseline Results - Various Specifications. Dependent variable is the average card sales per day per staff at branch level. Data in Columns (1) to (6) comprise 01Jan2008-30Jun2008 (March excluded), Data in Columns (7) to (10a) include 01Jan2008-30Sep2008 (March excluded), Data in Columns (15) to (18) include 01Jan2008-02 May2008, Data in Columns (19) to (24) include 01 Jan2008- 30 Jun 2008, Data in Columns (25) to (30) comprise 01Jan-31Mar 2008, 02 May 2008-30Jun2008. Sample includes all scaled branches that were operating during this interval. Consumer credits are also per day per staff basis and in 1000 TL amounts.

VARIABLES	Prior to Campaign (Jan-Jun, March excluded)							Prior and Post Campaign (Jan-Sep, March excluded)				
	(1)	(2)	(3)	(4)	(5)	5a	(6)	(7)	(8)	(9)	(10)	10a
	Model 1a-1	Model 1a-2	Model 1a-3	Model 1a-4	Model 1a-5	CPI dropped	Model 1a-6	Model 1b-1	Model 1b-2	Model 1b-3	Model 1b-4	CPI dropped
CAMPAIGN (Phase 1_1 + Phase 1_2)	0.142***	0.114***	0.0927***	0.125***	0.125***	0.0688***	0.125***	0.142***	0.105***	0.105***	0.105***	0.0769***
	(0.00400)	(0.00639)	(0.00551)	(0.00559)	(0.00554)	(0.00522)	(0.00555)	(0.00400)	(0.00404)	(0.00421)	(0.00422)	(0.00369)
CAMPAIGN (Phase 1_1)												
CAMPAIGN (Phase 1_2)												
CONSUMER LOANS		0.0341**	0.0278*	0.0486***	0.0493***	0.0359**	0.0477***		0.0562***	0.0116	0.0117	0.0248***
		(0.0145)	(0.0149)	(0.0140)	(0.0143)	(0.0142)	(0.0145)		(0.00492)	(0.00756)	(0.00767)	(0.00673)
HOUSING LOANS		0.0153***	0.00770***	0.00464*	0.00478**	0.00102	0.00464**		0.0129***	0.00475**	0.00479**	0.00259
		(0.00396)	(0.00297)	(0.00241)	(0.00242)	(0.00226)	(0.00232)		(0.00335)	(0.00202)	(0.00203)	(0.00176)
VEHICLE LOANS		0.107***	0.119***	0.0795**	0.0799**	0.125***	0.0804**		0.0847**	0.128***	0.129***	0.123***
		(0.0415)	(0.0408)	(0.0385)	(0.0385)	(0.0411)	(0.0383)		(0.0373)	(0.0357)	(0.0356)	(0.0359)
PENSION PAYMENTS			0.00468***				0.00143**					
			(0.000555)				(0.000663)					
LN(TOTAL CREDIT CARDS)					-0.00584	-0.00366	-0.00615				-0.00260	-0.00167
					(0.00446)	(0.00444)	(0.00443)				(0.00330)	(0.00330)
OTHER BANKS' CONSUMER LOANS				-2.58e-05**	-2.43e-05**	-2.61e-05**	-2.45e-05**			-1.50e-05***	-1.44e-05***	-8.09e-06
				(1.03e-05)	(9.95e-06)	(1.08e-05)	(9.88e-06)			(5.08e-06)	(4.86e-06)	(4.96e-06)
OTHER BANKS' HOUSING LOANS				1.55e-05**	1.71e-05**	9.14e-06	1.64e-05**			3.03e-06	3.54e-06	1.32e-10
				(6.20e-06)	(6.69e-06)	(7.37e-06)	(6.73e-06)			(4.07e-06)	(4.18e-06)	(4.35e-06)
OTHER BANKS' VEHICLE LOANS				-8.69e-05*	-8.93e-05*	-4.88e-05	-8.57e-05*			3.36e-05	3.26e-05	3.14e-05
				(4.63e-05)	(4.67e-05)	(5.28e-05)	(4.65e-05)			(2.89e-05)	(2.88e-05)	(2.98e-05)
BANK'S OWN BRANCHES				-0.00131**	-0.00143**	-0.000954	-0.00142**			-0.000483	-0.000520	-0.000503
				(0.000585)	(0.000610)	(0.000646)	(0.000611)			(0.000434)	(0.000438)	(0.000437)
LOG_POPULATION				0.0136***	0.0153***	0.0162***	0.0140***			0.0128***	0.0136***	0.0126***
				(0.00251)	(0.00280)	(0.00283)	(0.00291)			(0.00201)	(0.00219)	(0.00216)
BRANCH SCALE_MEDIUM				0.0130**	0.0129**	0.0131**	0.0120*			0.0109**	0.0108**	0.0114**
				(0.00650)	(0.00649)	(0.00653)	(0.00648)			(0.00546)	(0.00546)	(0.00538)
BRANCH SCALE_LARGE				0.0171**	0.0157**	0.0160**	0.0194**			0.0151**	0.0145**	0.0158**
				(0.00758)	(0.00772)	(0.00783)	(0.00816)			(0.00638)	(0.00648)	(0.00638)
UNEMPLOYMENT RATE				0.00317	0.00354	0.00347	0.00368			0.00258	0.00275	0.00261
				(0.00297)	(0.00317)	(0.00320)	(0.00316)			(0.00234)	(0.00249)	(0.00247)
CPI				0.697***	0.698***		0.698***			0.0474***	0.0478***	
				(0.0293)	(0.0299)		(0.0299)			(0.00509)	(0.00483)	
GDP PER CAPITA (USD)				-0.00125	-0.00178	-0.00166	-0.00189			-0.000987	-0.00122	-0.00111
				(0.000956)	(0.00120)	(0.00121)	(0.00119)			(0.000782)	(0.000948)	(0.000938)
Observations	22,500	22,500	22,500	22,500	22,500	22,500	22,500	32,625	32,625	32,625	32,625	32,625
R-squared	0.157	0.165	0.173	0.266	0.266	0.202	0.267	0.137	0.162	0.201	0.201	0.197

Standard errors are clustered at the branch level. Robust standard errors in parantheses; significance at 1, 5 and 10% denoted by ***, ** and * respectively.

Table A9 - Full Baseline Results - Various Specifications (..continued). Dependent variable is the average card sales per day per staff at branch level. Data in Columns (1) to (6) comprise 01Jan2008-30Jun2008 (March excluded), Data in Columns (7) to (10a) include 01Jan2008-30Sep2008 (March excluded), Data in Columns (15) to (18) include 01Jan2008-02 May2008, Data in Columns (19) to (24) include 01 Jan2008- 30 Jun 2008, Data in Columns (25) to (30) comprise 01Jan-31Mar 2008, 02 May 2008-30Jun2008. Sample includes all scaled branches that were operating during this interval. Consumer credits are also per day per staff basis and in 1000 TL amounts.

VARIABLES	Post Campaign (Apr-Sep)						Plain Piece-Rate Effect (Jan-Apr)			
	(11)	(12)	(13)	(14)	13a	14a	(15)	(16)	(17)	(18)
	Model 1c-1	Model 1c-2	Model 1c-3	Model 1c-4	CPI dropped	CPI dropped	Model 1d1-1	Model 1d1-2	Model 1d1-3	Model 1d1-4
CAMPAIGN (Phase 1_1 + Phase 1_2)	0.142***	0.109***	0.317***	0.317***	0.0891***	0.0889***	0.0536***	0.0234***	-0.0433***	-0.0433***
	(0.00400)	(0.00359)	(0.0135)	(0.0134)	(0.00730)	(0.00695)	(0.00233)	(0.00599)	(0.00390)	(0.00390)
CAMPAIGN (Phase 1_1)										
CAMPAIGN (Phase 1_2)										
CONSUMER LOANS		0.0628***	0.0401***	0.0401***	0.0370***	0.0370***		0.0188***	0.0176***	0.0176***
		(0.00542)	(0.0120)	(0.0120)	(0.0120)	(0.0120)		(0.00654)	(0.00483)	(0.00490)
HOUSING LOANS		0.000836	0.00107	0.00113	0.000116	0.000153		0.0271***	0.00329*	0.00329*
		(0.00203)	(0.00172)	(0.00171)	(0.00176)	(0.00175)		(0.00596)	(0.00184)	(0.00184)
VEHICLE LOANS		0.134***	0.120***	0.122***	0.133***	0.134***		-0.00227	0.0666**	0.0667**
		(0.0451)	(0.0427)	(0.0425)	(0.0444)	(0.0442)		(0.0366)	(0.0278)	(0.0279)
PENSION PAYMENTS										
LN(TOTAL CREDIT CARDS)				-0.00328		-0.00209				0.000127
				(0.00407)		(0.00407)				(0.00168)
OTHER BANKS' CONSUMER LOANS			-2.15e-06	-1.03e-06	-8.07e-06	-7.36e-06			-2.82e-05***	-2.83e-05***
			(1.03e-05)	(1.01e-05)	(1.06e-05)	(1.05e-05)			(6.86e-06)	(6.79e-06)
OTHER BANKS' HOUSING LOANS			-8.74e-06*	-8.16e-06	-9.82e-06*	-9.45e-06*			9.18e-06*	9.14e-06*
			(5.17e-06)	(5.20e-06)	(5.54e-06)	(5.57e-06)			(5.07e-06)	(5.15e-06)
OTHER BANKS' VEHICLE LOANS			4.27e-05	3.94e-05	7.51e-05	7.30e-05			-5.52e-05	-5.52e-05
			(5.60e-05)	(5.55e-05)	(6.04e-05)	(5.99e-05)			(3.96e-05)	(3.96e-05)
BANK'S OWN BRANCHES			-0.000579	-0.000647	-0.000219	-0.000263			-0.000991**	-0.000988**
			(0.000749)	(0.000745)	(0.000776)	(0.000772)			(0.000430)	(0.000435)
LOG_POPULATION			0.0120***	0.0130***	0.0128***	0.0134***			0.00779***	0.00775***
			(0.00242)	(0.00246)	(0.00244)	(0.00249)			(0.00188)	(0.00197)
BRANCH SCALE_MEDIUM			0.0139**	0.0139**	0.0141**	0.0141**			0.00807	0.00807
			(0.00625)	(0.00625)	(0.00626)	(0.00626)			(0.00522)	(0.00522)
BRANCH SCALE_LARGE			0.0209***	0.0200***	0.0208***	0.0202***			0.0134**	0.0134**
			(0.00698)	(0.00707)	(0.00703)	(0.00712)			(0.00641)	(0.00642)
UNEMPLOYMENT RATE			0.00322	0.00342	0.00322	0.00335			0.00106	0.00105
			(0.00303)	(0.00322)	(0.00304)	(0.00323)			(0.00107)	(0.00110)
CPI			0.224***	0.224***					-0.139***	-0.139***
			(0.00807)	(0.00826)					(0.0155)	(0.0155)
GDP PER CAPITA (USD)			-0.00132	-0.00161	-0.00135	-0.00153			-0.000256	-0.000245
			(0.000908)	(0.00113)	(0.000912)	(0.00113)			(0.000663)	(0.000678)
Observations	23,625	23,625	23,625	23,625	23,625	23,625	19,125	19,125	19,125	19,125
R-squared	0.157	0.188	0.237	0.237	0.210	0.210	0.031	0.068	0.190	0.190

Standard errors are clustered at the branch level. Robust standard errors in parantheses; significance at 1, 5 and 10% denoted by ***, ** and * respectively.

Table A9 - Full Baseline Results - Various Specifications (..continued). Dependent variable is the average card sales per day per staff at branch level. Data in Columns (1) to (6) comprise 01Jan2008-30Jun2008 (March excluded), Data in Columns (7) to (10a) include 01Jan2008-30Sep2008 (March excluded), Data in Columns (15) to (18) include 01Jan2008-02 May2008, Data in Columns (19) to (24) include 01 Jan2008- 30 Jun 2008, Data in Columns (25) to (30) comprise 01Jan-31Mar 2008, 02 May 2008-30Jun2008. Sample includes all scaled branches that were operating during this interval. Consumer credits are also per day per staff basis and in 1000 TL amounts.

VARIABLES	Seperate Effects of Incentives (Jan-Mar, Apr-Jun)						Plain Piece-Rate + Revelation Effect (Jan-Mar, May-Jun)					
	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
	Model 1d2-1	Model 1d2-2	Model 1d2-3	Model 1d2-4	Model 1d2-5	Model 1d2-6	Model 1d2-1	Model 1d2-2	Model 1d2-3	Model 1d2-4	Model 1d2-5	Model 1d2-6
CAMPAIGN (Phase 1_1 + Phase 1_2)							0.0566***	0.000158	-0.0190***	-0.0264***	-0.0265***	-0.0267***
							(0.00559)	(0.00842)	(0.00669)	(0.00597)	(0.00599)	(0.00596)
CAMPAIGN (Phase 1_1)	0.0536***	0.0125*	-0.0112*	-0.00194	-0.00205	-0.00227	0.206***	0.160***	0.138***	0.106***	0.106***	0.106***
	(0.00233)	(0.00712)	(0.00570)	(0.00501)	(0.00505)	(0.00504)	(0.00609)	(0.00738)	(0.00624)	(0.00553)	(0.00549)	(0.00549)
CAMPAIGN (Phase 1_2)	0.206***	0.172***	0.146***	0.111***	0.111***	0.110***						
	(0.00609)	(0.00662)	(0.00590)	(0.00508)	(0.00505)	(0.00506)						
CONSUMER LOANS		0.0400***	0.0320**	0.0413***	0.0419***	0.0404***		0.0513***	0.0403***	0.0480***	0.0489***	0.0473***
		(0.0122)	(0.0124)	(0.0116)	(0.0120)	(0.0121)		(0.0145)	(0.0149)	(0.0142)	(0.0148)	(0.0149)
HOUSING LOANS		0.0254***	0.0141***	0.00623**	0.00633**	0.00611**		0.0383***	0.0224***	0.0115***	0.0117***	0.0113***
		(0.00485)	(0.00341)	(0.00255)	(0.00257)	(0.00245)		(0.00595)	(0.00487)	(0.00404)	(0.00407)	(0.00391)
VEHICLE LOANS		0.0335	0.0557	0.0680*	0.0676*	0.0680*		0.0140	0.0509	0.0584	0.0572	0.0582
		(0.0370)	(0.0352)	(0.0353)	(0.0355)	(0.0354)		(0.0448)	(0.0435)	(0.0444)	(0.0449)	(0.0448)
PENSION PAYMENTS			0.00572***			0.00144**			0.00577***			0.00159**
			(0.000505)			(0.000620)			(0.000610)			(0.000726)
LN(TOTAL CREDIT CARDS)					-0.00418	-0.00449					-0.00514	-0.00547
					(0.00383)	(0.00380)					(0.00452)	(0.00449)
OTHER BANKS' CONSUMER LOANS				-2.77e-05***	-2.66e-05***	-2.69e-05***				-2.58e-05*	-2.41e-05*	-2.53e-05*
				(9.96e-06)	(9.62e-06)	(9.56e-06)				(1.36e-05)	(1.32e-05)	(1.31e-05)
OTHER BANKS' HOUSING LOANS				1.75e-05***	1.86e-05***	1.80e-05***				1.97e-05***	2.10e-05***	2.04e-05***
				(5.59e-06)	(6.03e-06)	(6.05e-06)				(5.98e-06)	(6.46e-06)	(6.46e-06)
OTHER BANKS' VEHICLE LOANS				-8.04e-05*	-8.20e-05*	-7.92e-05*				-8.83e-05	-8.84e-05	-8.94e-05
				(4.38e-05)	(4.41e-05)	(4.39e-05)				(6.27e-05)	(6.27e-05)	(6.24e-05)
BANK'S OWN BRANCHES				-0.00156***	-0.00165***	-0.00164***				-0.00176***	-0.00187***	-0.00185***
				(0.000534)	(0.000557)	(0.000559)				(0.000631)	(0.000659)	(0.000662)
LOG_POPULATION				0.0132***	0.0144***	0.0131***				0.0145***	0.0161***	0.0147***
				(0.00229)	(0.00256)	(0.00265)				(0.00261)	(0.00298)	(0.00310)
BRANCH SCALE_MEDIUM				0.0135**	0.0134**	0.0125**				0.0149**	0.0148**	0.0139**
				(0.00601)	(0.00600)	(0.00598)				(0.00679)	(0.00678)	(0.00675)
BRANCH SCALE_LARGE				0.0184***	0.0173**	0.0211***				0.0194**	0.0181**	0.0223**
				(0.00695)	(0.00707)	(0.00750)				(0.00798)	(0.00812)	(0.00869)
UNEMPLOYMENT RATE				0.00276	0.00303	0.00316				0.00311	0.00344	0.00358
				(0.00254)	(0.00271)	(0.00270)				(0.00295)	(0.00315)	(0.00314)
CPI				0.212***	0.212***	0.212***				0.233***	0.233***	0.233***
				(0.0182)	(0.0182)	(0.0182)				(0.0190)	(0.0189)	(0.0189)
GDP PER CAPITA (USD)				-0.00113	-0.00151	-0.00162				-0.00120	-0.00167	-0.00178
				(0.000865)	(0.00107)	(0.00106)				(0.000982)	(0.00123)	(0.00122)
Observations	27,000	27,000	27,000	27,000	27,000	27,000	22,500	22,500	22,500	22,500	22,500	22,500
R-squared	0.187	0.202	0.216	0.252	0.252	0.253	0.189	0.210	0.222	0.259	0.259	0.260

Standard errors are clustered at the branch level. Robust standard errors in parantheses; significance at 1, 5 and 10% denoted by ***, ** and * respectively.