The Impact of Consulting Services on Small and Medium Enterprises: Evidence from a Randomized Trial in Mexico [1]

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Abstract

Using a randomized evaluation with 432 Mexican small and medium enterprises, we show that access to management consulting had positive effects on total factor productivity and return-on-assets (about 0.2 standard deviations, relative to the control group). Owners also had significant increase in "entrepreneurial spirit" (an index that measures entrepreneurial confidence and goal setting). Using Mexican social security data, we find a persistent large increase (about 50%) in the number of employees and total wage bill even five years after the program. We document large heterogeneity in the specific managerial practices that improved as a result of the consulting, but the three most prominent areas are marketing, financial accounting, and long-term business planning.

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1. Introduction

A large literature in development economics and entrepreneurship aims to understand the impediments to firm growth, especially for small and medium-sized enterprises. Most of the focus thus far has been on financial constraints as a central obstacle to firm growth. For example, empirical studies have examined these constraints at the micro level (with lending experiments, see the review article Banerjee, Karlan, and Zinman 2015; with cash grant experiments, see de Mel, McKenzie, and Woodruff 2008; Karlan, Knight, and Udry 2015; McKenzie 2015) as well as at the macro level (King and Levine 1993; Rajan and Zingales 1998). However, capital alone cannot explain the entirety of firm growth; "managerial capital" is needed to know how to employ the capital best. We argue that managerial capital can directly affect the firm by improving strategic and operational decisions, but can also affect the firm by increasing the productivity of other factors, such as physical capital and labor, by helping the firm use them more efficiently.[2] The multi-dimensional impact of managerial capital and its interaction with other factors often makes its effect difficult to measure empirically.

Recent work has shown enormous heterogeneity in management practices and CEO styles across firms, see for example Bertrand and Schoar (2003), Bloom and Van Reenen (2007 and 2010), and Bennedsen et al. (2007). At the same time, there is also large heterogeneity in the measured productivity of firms, see for example Syverson (2011). But a central question remains: is this observed heterogeneity a reflection of an optimal match between the underlying fundamentals of different firms and the type of management that is needed given the firm's state of development? Or is lack of managerial capital a first order impediment to firm growth and profitability, since managers might be constrained in the acquisition of these skills? See for example Gompers et al (2005) or Caselli and Gennaoili (2013).

[2] Bruhn et al. (2010) discusses at more length the role of "managerial capital" as a key component for enterprise development, distinct from human capital.

We test if alleviating the constraints on managerial capital has a first order effect on the performance and growth of small enterprises in emerging markets, and if so, which dimensions of managerial capital are particularly important for firm performance. For that purpose, we set up a randomized controlled trial in Puebla, Mexico, where 432 micro, small, and medium-sized enterprises applied to receive subsidized consulting services, and 150 out of the 432 were randomly chosen to receive the treatment. The remaining 282 enterprises served as a control group that did not receive any subsidized consulting services. We focus on micro, small, and medium-sized enterprises since they are often seen as highly affected by limitations in managerial capital and have strong potential for scale up if bottlenecks to their growth can be removed.[3] The intervention aims to expand the managerial skills of the owner-managers by giving them access to subsidized consulting and mentoring services. Treated enterprises were matched with one of nine local consulting firms based on the specialized services they needed. Enterprises met with their consultants for four hours per week over a one year period. The enterprise owner and consulting firm decided jointly on the focus and scope of the consulting services based on a daylong diagnostic consultation between the enterprise and the consulting firm.

We measure impacts on the firms and the owner-managers in two different ways: (1) we administer surveys at baseline and a one-year follow-up, and (2) we obtain confidential administrative data on employment levels and total wages for the firms in our treatment and control groups using seven years of annual data (two years prior to five years after the intervention) from the Mexican Social Security Institute (IMSS). The administrative data on firm outcomes removes the self-reporting biases that can be present in survey data.

We have three primary sets of results: First, we show that the consulting intervention has a positive short-run impact on the productivity, return on assets (ROA), and profits of the enterprises in the treatment group in the one-year follow-up. Productivity and ROA increase by one fifth of a standard

[3] In addition, for small businesses run by the owner-manager, it is simple to determine the appropriate target for a managerial capital intervention.

deviation and profits increase by about one tenth of a standard deviation compared to the control group. However, the effects on profits and ROA are not statistically significant in all specifications. At the same time, the coefficients on individual input factors like change in sales, assets, and the number of workers employed are not statistically significantly different than zero. This result is consistent with the idea that both the mistakes that firms were making and the impact of the consulting intervention are heterogeneous: for some, the improved managerial knowledge might have led to the realization that they need to invest more while for others, it led to the realization that they need to shed unproductive assets; and similarly for labor and other input factors.

Second, in the longer run, administrative data collected from the Mexican Social Security Institute (IMSS) reveal important impacts on employment: the number of employees increases 57% and the total wage bill increases 72%. While we do not find an immediate increase in employment within the first year of treatment (which is in line with the results reported from the follow-up survey), we see that starting in the second year there is a positive and statistically significant treatment effect that grows every year until year five after the intervention (i.e., the last data we have). These results suggest a persistent impact of the consulting on managerial capital. The point estimates of the positive treatment effects are quite large, but plausible, particularly given the confidence interval includes more modest impacts and excludes zero. Furthermore, large treatment effects are plausible; since the majority of the enterprises in our sample were relatively small and the majority of owner-managers had not received any formal management training prior to our intervention, any improvements that led to the hiring of even a single worker would have been a noticeable increase in employment. The long term results from the administrative data also suggest that the one-year survey results were not merely a by-product of a positive reporting bias.

Third, and finally, we analyze the specific channels (the management practices) by which small businesses improve in response to the interventions, such as finance, marketing, operations

management etc. We find that there is a lot of heterogeneity in the business practices that SMEs seek to improve. Out of 11 management practices that we asked about in the surveys, we find only two that are consistently mentioned and show statistically significant changes in likelihood after the intervention: (1) engaging in marketing efforts, and (2) keeping formal accounts about their firms. The other management dimensions are mentioned with almost equal frequency across the enterprise owners, again highlighting that there is significant heterogeneity in management needs of different small and medium-sized enterprises (SMEs). From case study evidence, we also identify long-term planning and business mission definition as a key activity with the consultants (see Table 1).

We show that as a whole, these changes led to a statistically significant improvement in the overall confidence and control that MSME owners have in their business based on an index of "entrepreneurial spirit." The "entrepreneurial spirit" index was constructed using a number of questions we asked owners/managers about their confidence in their management skills and their ability to grow their firm and handle difficulties.[4] In particular, the dimension of the index that shows the most consistent and significant increase is firms stating that they have professional goals for their business. To better understand the nature of these answers we also conducted in-depth interviews with two of the consulting firms after the intervention was concluded. In line with our case study evidence, the consultants highlighted that the enterprises they worked with during the program lacked a clear vision and definition of goals for the future and that they focused only on their day-to-day operations prior to the treatment. During the program, the consultant helped the owners/managers to define a growth strategy or business plan. This suggests that the large long-run impact of the treatment seems to have been in part due to firms defining clear goals and laying out a strategy for how to get there.

Our intervention documents the complexity and multi-dimensional nature of managerial decisions. While gaps in marketing and accounting knowledge as well as lack of long term planning were

[4] These questions were inspired by the "locus of control" literature in psychology (see for example Furnham and Steele 1993).

most prominent across the sample, there seems to be a lot of heterogeneity in the specific bundle of knowledge gaps that enterprises face. This heterogeneity poses particular challenges for assessing interventions which aim to improve managerial capital and business outcomes (for more discussion of this, see Fischer and Karlan 2015). To help us put more texture around the specific types of problems that were addressed in the consultations, in the Appendix, we provide eight detailed narratives of the consulting advice provided to firms and the perceptions of the owners and consultants of their impact. These narratives tell a consistent story of complexity: lack of managerial capital is a first order constraint for small and mid-sized enterprises. However, there seems to be no silver bullet, i.e., no single mechanism that when taught unleashes growth for these enterprises.

As one caveat, it is important to note that this intervention, like all skill building experiments which have been conducted thus far, is a joint test of two closely related hypotheses: on the one hand we aim to establish if managerial capital is a limiting factor in the growth of enterprises. But at the same time, we can only find a positive answer if this knowledge can be conveyed via a consulting intervention in the first place. It could be that managerial capital is indeed a hindrance to growth, but it might not be possible to transfer this knowledge by simply providing consulting services. Therefore, failure to find a result here would not prove that managerial capital does not matter, but may simply mean that this program was not effective in the transmission of managerial skills (or that managerial skills are innate skills and simply not teachable). However, this exercise provides a lower bound on the potential impact of improvements in managerial capital, given the limitation of the efficacy of this particular intervention to actually improve managerial capital.

Research and practice have recently seen a flurry of programs focused on developing managerial capital for microenterprises. The interventions vary widely in the scope of the management skills that are transmitted and the type of enterprises that are targeted. The training is typically provided as in-class training and often linked with a microcredit program. For example, Karlan and Valdivia (2011)

and Cole, Sampson, and Zia (2011) evaluate what is best described as in-class programs. These papers show that traditional microenterprise training seems to affect the command of accounting practices for microenterprises but has limited to no effects on actual firm outcomes and performance. More recently, Bruhn and Zia (2011) and Giné and Mansuri (2011) also find that in-class training for micro entrepreneurs leads to improvements in business practices but has only limited effects on business performance and sales. Drexler, Fischer, and Schoar (2014) shows that training programs for SMEs increase in impact if they are targeted to the owner's level of sophistication: a simple rule-of-thumb training has large impacts on real outcomes for micro entrepreneurs who have low educational attainment and poor business practices prior to the intervention but not on more advanced businesses. Although for micro-sized firms, Karlan, Knight and Udry (2015) provides the closest analog in terms of the intervention design, as it is one-on-one consulting services and not group-based training; however, the results are starkly different, as Karlan et al. (2015) finds short-run negative treatment effects from consulting, and long-run null effects.

Bloom et al. (2011) is more closely related to our study in that they evaluate the impact of intensive consulting services from an international management consulting firm on the business practices of large Indian textile firms. The average firm in their sample has about 270 employees, whereas the average number of employees in our study is 14. Bloom et al. (2011) find that even these larger firms were unaware of many modern management practices, and treated plants improved their management practices during the intervention. The approaches of Bloom et al. (2011) and this study are complementary in nature: Bloom et al. (2011) focus on a small set of large firms in one industry--textile manufacturing--with a tightly defined intervention employing a major international consulting firm. Such focus provides clear estimates of a specific management intervention, including mechanisms in terms of business practice changes, but it does not allow the authors to test if lack of managerial capital is a widespread problem. Our current study includes a larger set of firms and industries (close to 400 firms

compared to 20 experimental plants in Bloom et al. 2011), and employs a heterogeneous set of local consulting firms. Therefore, we are able to establish that managerial capital constraints are important for a wider set of small businesses and affect business practices on many dimensions. We can provide proof of concept that general increases in managerial capital for small businesses have a statistically significant effect on firm performance and growth. But the tradeoff is that we cannot estimate the returns to one specific management intervention, or specific changes in particular business practices.

The remainder of this paper is structured as follows: In Section 2, we describe the subsidized consulting program. Section 3 discusses the experimental setup, data collection, and characteristics of our sample. Section 4 gives the results, examining both business outcomes and business process variables. Section 5 asks why more enterprises do not use consulting services, i.e., given these results, what are the possible market failures in the consulting services industry, and Section 6 concludes.

2. Consulting Program

The randomized controlled trial was conducted with the Puebla Institute for Competitive Productivity (known as IPPC, after its Spanish acronym), a training institute set up by the Ministry of Labor of the Mexican State of Puebla. IPPC implemented a business development program to provide participating enterprises with subsidized consulting services from one of a number of local consulting firms. The program, which started in March 2008 and ended in February 2009, aimed to include 100 micro, 40 small, and 10 medium-sized enterprises[5] but eventually included 108 micro enterprises, 34 small enterprises and 8 medium-sized enterprises. The primary goal was to help enterprises reach the next size category by the end of the program and thus contribute to job creation and economic growth of the region.

[5] As defined by the Mexican Ministry of the Economy, micro enterprises have up to 10 full-time employees. Small enterprises have between 11 and 50 full-time employees in the manufacturing and services sectors and between 11 and 30 full-time employees in the commerce sector. Medium-sized enterprises have up to 100 full-time employees in the service and commerce sectors and up to 250 full-time employees in the manufacturing sector.

Consultants were asked to (1) diagnose the problems that prevented the enterprises from growing, (2) suggest solutions that would help to solve these problems and (3) assist enterprises in implementing the solutions. The consultants dedicated four hours per week to each enterprise. The program was originally intended to last two years but ended prematurely after one year due to government funding issues (no results from the study had been released when the funding decision was made; thus, the decision was not related to perceived performance of the program).

The consulting services were highly subsidized by the State of Puebla. Micro enterprises paid only 10% of the market cost of the consulting services, small enterprises 20%, and medium-sized enterprises about 30%. The unsubsidized cost of the consulting services varied by firm size but was equivalent to about US$57[6] per hour on average, amounting to US$11,856 per firm for one year (4 hours for 52 weeks).

Consulting firms were selected through a competitive bidding process. In response to a call for proposals put out by IPPC, eleven consulting firms submitted proposals to participate in the program. Two firms were eliminated based on inadequate references from former clients. The majority of the participating firms were private local consulting firms that usually work with micro, small, and medium-sized enterprises. All consulting firms signed a contract with IPPC that required them to spend four hours per week with each enterprise. IPPC monitored consultants by requiring consultants and enterprises to periodically submit documentation related to the program. Enterprise owners also came to IPPC's offices in person every quarter to pay their share of the program costs, which provided an opportunity to voice complaints. In addition, a local project supervisor from Innovations for Poverty Action (IPA), who was living in Puebla to manage the project evaluation, conducted monitoring visits to program enterprises.

[6] 700 Mexican Pesos (MXP)

At the beginning of the program, principal decision makers from all program enterprises, as well as most employees, completed a computerized test that determined their individual strengths and talents. This test was based on Gallup's StrengthFinder method and IPPC was licensed to conduct this test in Puebla. IPPC encouraged enterprises to use the results of this test to help assign employees to responsibilities based on their strengths as identified by the StrengthFinder method. The consultants were trained to help the enterprises interpret and apply the results to their labor decisions. For example, one talent was "communication" whereas another was "operations." Employees with the communication talent were particularly suited to interacting with clients, while employees with the operations talent would do well at record keeping and accounting.

Apart from the employee talent diagnostic, the content of the consulting varied across enterprises depending on their needs. In order to gain an understanding of the issues that enterprises worked on with their mentors, we conducted in-depth, qualitative case studies of eight treatment enterprises. Table 1 lists the areas that these eight enterprises covered with their consultants, along with the number of enterprises that worked on each topic. Almost all enterprises started by establishing mission and vision statements with their consultants, setting specific goals for what they wanted to achieve in the future and throughout the program. Most enterprises also worked on improving accounting and record keeping (through training and/or use of new software), clearly assigning staff responsibilities, and sales strategy and advertising. Apart from these common topics, the remaining topics covered are diverse, including optimizing the number and location of points of sale, quality control, access to credit or alternative financing solutions, pricing strategy, teamwork and leadership training. This diversity reflects the fact that the consultants tailored their advice to each enterprise's individual challenges, leading them to work on different areas with each enterprise.

Each of the eight case studies is presented in Appendix 1: Case Studies.

3. Experimental Setup and Data

IPPC advertised the program throughout the State of Puebla via business associations, at trade fairs, and at various media outlets in order to attract an initial sample of interested micro, small, and medium-sized enterprises.[7] The program was open to enterprises that were formally registered with the government and were paying taxes. In response to the advertising, 432 enterprises expressed interest in the program and signed a letter of interest.

Data come from two sources: first, a baseline and follow-up survey of these interested enterprises were conducted between October and December 2007 (baseline) and between March 2009 and June 2009 (follow-up).[8] These surveys collected information on enterprise characteristics and performance, as well as on business practices and characteristics of the enterprise's principal decision maker (typically the owner or manager). Second, from the Mexican Social Security Institute (IMSS), we secured wage and employment data for two pre-intervention years (2005 and 2006) and five post-intervention years (2010, 2011, 2012, 2013, and 2014).

Using data from the baseline survey, 150 enterprises were randomly selected to participate in the program.[9] The randomization was stratified by sector (manufacturing, services, and commerce) and enterprise size (micro, small, and medium-sized)[10] and was conducted through a Stata program that was

[7] We do not have data on the channel through which enterprises learned of the program, and thus cannot test any theories of heterogeneity with respect to this.

[8] The baseline survey was conducted by a local professional survey firm under the supervision of the Mexico country office of IPA. For the follow-up survey, IPA hired surveyors (graduate students and recent graduates) directly. IPA trained the surveyors and our local project staff managed and supervised the implementation of the follow-up survey.

[9] We originally had 434 observations in the randomization and assigned 150 of them to treatment, but we later discovered that two firms had expressed interest in the program twice under separate names. For this reason, we had to drop two observations, giving us 432 unique firms. In one of the cases, both separate names were in the control group, and we dropped one of these. In the other case, one name was assigned to the treatment group and the other to the control group. Here, we had to keep the firm in the treatment group since they had already been notified that they had been randomly selected to participate in the program.

[10] Within strata, the Stata code automatically re-randomized as follows. We first allocated firms to the treatment and control group based on a randomly generated number. Using this allocation, we then calculated the maximum and the average t-statistics on the differences in averages across the treatment and control groups for the following variables: Within Puebla City dummy, business age, total asset value, profit margin, measured risk

run on the premises of IPPC in the presence of government officials and a public notary, who certified that the assignment to the treatment group was random, i.e., not re-run depending on any particular assignment.

Out of the 150 enterprises in the treatment group, 80 then took up the consulting services.[11] The remaining 70 treatment group enterprises declined to participate in the program although they had initially signed a letter of interest saying that they would participate if offered a spot. The take-up rate was higher among enterprises in the services and manufacturing sectors (56.6% and 53.5%, respectively), compared to enterprises in the commerce sector (48.7%). Most enterprises that chose not to participate said their financial situation had changed since they signed the letter of interest and they no longer had sufficient funds to pay the fee (albeit subsidized) for the consulting services. IPPC paired the 80 treatment group enterprises that took up the program with consulting firms according to the consultants' sector and enterprise-size expertise, as well as geographic restrictions. Figure 1 includes a comprehensive project timeline, illustrating how the dates for data collection, randomization, and program implementation line up.

Table 2 provides summary statistics of baseline characteristics for enterprises and their principal decision makers in the treatment and control groups. About 30% of enterprises in each group operated in the manufacturing sector, 25% in the commerce sector, and 45% in the services sector. On average, the enterprises in the study had about 14 full-time paid employees and were slightly over 10 years old.

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aversion, entrepreneurial spirit index, currently has a loan from a financial institution dummy, principal decision maker's hours worked, principal decision maker's age, principal decision maker's gender, principal decision maker's years of schooling, principal decision maker is of indigenous background dummy, as well as two dummies indicating whether the firm has participated in other IPPC programs. If the maximum t-statistic for these variables was higher than 1.25 or the average t-statistic was higher than 0.35, we drew a new random number and allocated firms to the treatment and control group based on this new number. We repeated this process until the maximum t-statistic was 1.25 or lower and the average t-statistic was 0.35 or lower. Research by Bruhn and McKenzie (2009) that was conducted after our randomization finds that this way of re-randomizing is no longer the preferred method. In our data analysis, we make the necessary adjustments for the randomization method suggested by Bruhn and McKenzie, i.e., in our regressions we control for all variables used in the re-randomization.

[11] Due to an administrative error, there was also one control group firm that was invited to participate, and did, in the program. For analysis purposes, we adhere to the random assignment and this enterprise is included in the control group.

The enterprises' principal decision makers were on average 43 years old, 72% of them were men, and on average completed 16 years of schooling.

Panel C of Table 2 displays our main measures of business performance, starting with sales (Appendix 2: Surveys and Data Definitions provides details of the survey questions and definitions). Our baseline measure of sales is the average of monthly sales in July, August, and September 2007.[12] This variable varies widely in our sample. At baseline, average sales in the treatment group were US$79,163 with a standard deviation of 288,679, and US$55,258 in the control group, with a standard deviation of 140,493. To reduce the noise in this variable, we winsorize the top and bottom 1% of outliers.[13] The averages of winsorized sales are more similar across the treatment and control groups (US$67,434 and US$54,450, respectively) than for the un-winsorized variables, although no differences are statistically significant for either the winsorized or un-winsorized data.

Our baseline measure of profits is calculated as September 2007 sales minus September 2007 costs (unlike sales, we only collected costs for one month in the surveys).[14]

We calculate two separate measures of enterprise productivity. The first is the residual from a regression of log sales on log employees and log business assets. The second is return on assets (ROA), defined as profits (calculated as sales minus costs) divided by business assets.

[12] About 2.5% of enterprises report zero sales for all three months (this percentage is not statistically different across the treatment and control group). Since these enterprises report having employees, as well as assets, and report non-zero hours worked and costs, we assume that they did not want to report their sales and thus replaced their sales with missing (it is unlikely that they had zero sales in all three months and are still in business). We apply the same procedure to the follow-up data, where about 3.5% of both treatment and control enterprises report zero sales for all three months (December 2008, January 2009, and February 2009 in the follow-up survey). Our measure of sales is thus greater than zero for all enterprises.

[13] Since our sample includes micro, small, and medium-sized firms and to avoid simply winsorizing the largest firms, instead of true outliers, we use the following procedure when winsorizing sales. We regress sales on a set of firm size dummies (micro, small, and medium) and for firms with residuals from this regression that are below the bottom 1% or above the top 1%, we replace sales with the predicted value plus the residual at the top and bottom 1% or top 1%. We use an analogous procedure for all other winsorized and trimmed variables.

[14] de Mel et al. (2009) suggests asking business owners what their profits are in one simple question as an alternative to calculating profits based on responses to specific components. We tried this approach but had a very high non-response rate to this question.

Similarly to sales, the variances of profits, productivity, and ROA are large.[15] For this reason, we include the averages of the 1% winsorized variables in Table 2, where we winsorized the top and bottom 1% of outliers as described in footnote 13. After winsorizing, average baseline profits are the same in the treatment and control group (about US$10,000). Overall, we find no statistically significant differences in business performance variables at baseline.

Columns 4, 5, and 6 of Table 2 examine whether there is a statistically significant difference between the treatment group enterprises that took up the program at baseline and treatment group enterprises that did not take up the program. We find that enterprises that took up the program are more likely to be in manufacturing, have a larger number of full-time paid employees, have male decision makers, and are older. In addition, Panel C of Table 2 shows that enterprises that took up the program were more productive at baseline than enterprises that did not take up the program.

We conducted the follow-up survey between March and June 2009 (i.e., one to four months after the intervention ended, which is 12-16 months after the intervention began), re-interviewing 378 enterprises or 88% of the 432 enterprises interviewed at baseline, to measure the impact of the consulting services on business outcomes. Out of the 54 enterprises that could not be re-interviewed, 11 enterprises were confirmed closed[16], 31 declined to participate in the interview[17] and seven enterprises could not be tracked down despite repeated contact attempts. The remaining five enterprises had merged with another enterprise—one of them with an enterprise outside our sample and two with two other enterprises in the sample. For these five enterprises, we were not able to obtain separate data for the unit corresponding to the original enterprise, and thus they are not included in the analysis. We

[15] Also note that not all enterprises who answered the baseline survey reported the business performance variables, as shown in Column 7 of Table 2. The response rate is lowest for business assets, which only 313 out of 432 enterprises (72%) reported.

[16] We verified with the former principal decision maker and/or neighbors that these enterprises had indeed closed. The percentage of closed enterprises was lower in the treatment group (1.4%) than in the control group (3.3%). However, the difference is not statistically significant.

[17] The percentage of enterprises that refused the interview was slightly higher in the control group (8.7%) than in the treatment group (5.6%), but the difference is not statistically significant.

provide an analysis of attrition rates and correlates with baseline information in Appendix Table 1. This analysis shows that there are no differential attrition rates in the follow-up survey across treatment and control groups; neither do we see compositional shifts (Column 3).[18]

Next, since all enterprises were formally registered with the tax authority, we secured administrative employment data (number of employees and total wage bill) from the Mexican Social Security Institute (IMSS), the equivalent of the US Social Security Administration. We collected each firm's taxpayer number (RFC) during our baseline and follow-up surveys. Using these RFC numbers, we were able to obtain the mean and standard deviation in the treatment and control groups (but not individual firm level data) for two years prior to the intervention and five years following.

In Mexico, all enterprises are required to register their paid employees with IMSS, but in practice, not all enterprises register their workers, even if the enterprise itself is registered with the tax authority. Some enterprises also register only a fraction of their paid workers with IMSS. Close to 57% of the enterprises in our sample were matched with IMSS records. In addition to under-registration, two other potential reasons why enterprises are not found in the IMSS data are that (1) some firms in our sample do not have paid employees and (2) some RFC numbers may contain typos, although we tried to clean them up as much as possible. The percentage of matched enterprises is not statistically significantly different in the treatment and the control group (58.7% and 56.7%, respectively).

We obtained IMSS data for two pre-intervention time periods (June 30, 2005 and June 30, 2006), as well as five post-intervention time periods (June 30, 2010, June 30, 2011, June 30, 2012, June 30, 2013, and June 30, 2014), on (1) number of full-time employees, and (2) total daily wage bill paid to these employees. For confidentiality reasons, IMSS staff could not share enterprise level data. Instead, they provided averages and standard deviations for the treatment and control groups. IMSS also

[18] Not all enterprises that answered the follow-up survey responded to each question. For this reason, our business outcome variables are missing for part of the sample. We tested whether the likelihood of having missing business outcomes variables due to either attrition or non-response differed statistically significantly across the treatment and control group and do not find this to be the case.

provided a list of the firms that had successfully been matched with their database. Appendix Table 2 reports attrition analysis for IMSS data; we find neither differential attrition for treatment on average (Columns 1 and 2) nor compositional changes (Column 3, aggregate p-value of 0.122 for the F-test of joint significance all interaction terms). The analysis does suggest though that firms with a higher number of baseline employees are somewhat more likely to be found in the IMSS data in the control group compared to the treatment group. For this reason, average employment in the IMSS data before the intervention, i.e., both in 2005 and 2006, is higher in the control group (about 8 full-time employees) than in the treatment group (6.2 full-time employees).

4. Results and Discussion

4.1 Short Run Business Performance

Table 3 reports the main specification, using OLS to compare treatment to control in the cross-section. All regressions include controls for the variables used for stratification (both the strata dummies as well as the re-randomization variables[19]) as suggested in Bruhn and McKenzie (2009), and a control for the timing of the survey.[20] In Column 1, we estimate the average intent-to-treat effect without controlling for the baseline value of the outcome variable, and in Column 2 we report the average intent-to-treat effect with controlling for the baseline value of the outcome variable. For observations where the baseline value of the outcome is missing, we replace this value with zero and include a dummy variable indicating that the value is missing, in order to keep the observation in the sample.

[19] Due to baseline data entry typos that were discovered and corrected after the randomization took place, a few values of the variables included in the randomization procedure do not correspond to the true baseline values. The strata dummies and re-randomization controls included in the regressions contain the values originally used in the randomization procedure. All other baseline data used in the summary statistics and regressions contains the correct baseline values.

[20] Appendix Table 3 shows that 70.4% of treatment group enterprises and 62.6% of control group enterprises were interviewed in March (p=0.12). Almost all of remaining enterprises were interviewed in April 2009 or May 2009, with only four enterprises being interviewed in June 2009. Treatment and control enterprises are equally likely to have been interviewed either in March or April (percentage point difference of 1.3 and p-value of 0.66).

Table 3 Columns 1 and 2 show statistically significant short-term treatment effects of consulting on enterprise productivity as measured by the residual from a productivity regression (0.21 standard deviations increase, s.e. = 0.11 standard deviations) and by return on assets (0.22 standard deviations, s.e. = 0.13 standard deviations). We find positive but not statistically significant point estimates on the short-term treatment effects for paid employees, log sales, and profits, and we find negative but also not statistically significant point estimates on sales, log total employees, and log of firm assets. The confidence interval for the null results (seen by dividing the standard error from Column 1 and 2 by the control group standard deviation in Column 7) is typically about 0.1 to 0.2 standard deviations. To deal with noise in survey responses we also perform three main robustness checks of the results. First, we winsorize the outcome variables at the 1% level to check whether the results are driven by outliers (Table 3 Columns 3 and 4).[21] Second, we trim the outcome variables at the 1% level (Table 3 Columns 5 and 6). The results do not change qualitatively, but in the trimmed sample the treatment effect on profits becomes statistically significant at the 10% level. Third, we restrict the sample to the 221 enterprises that report all outcomes variables at follow-up and run all of the same regressions (Appendix Table 4).

In Appendix Table 5 we also estimate a difference-in-difference specification for the same set of dependent variables as in Table 3, rather than a cross-sectional specification. These results are not as efficient as the ANCOVA in Table 3 when outcomes have low autocorrelation, as in our data (see McKenzie 2012). The estimates for ROA remain similar in terms of statistical significance, but the standard errors for the productivity residual increase. For Appendix Table 5, we again use the full sample, a 1% winsorized and a 1% trimmed sample.[22]

[21] We also replicated the analysis using a 5% winsorized sample and the results are virtually unchanged.

[22] As an additional check, Appendix Table 6 displays average business outcomes from the follow-up survey in the treatment and control group, as well as in the group of treatment enterprises that took up the program. A simple comparison of follow-up survey means in the treatment and control group shows a positive effect of the consulting services on productivity. Comparing only enterprises that took up the program to control group enterprises shows

Since the program had a significant degree of non-take-up (80 of the 150 firms took up the consulting service) and there are systematic differences between those who took up versus those that declined treatment, we also repeat our analysis using a matched control group. We match on the variables that are statistically significantly different across the two groups, as per Table 2: an indicator for the manufacturing sector, an indicator for male principle decision maker, number of employees, firm age, and productivity. All of these variables are consistently reported for all firms at baseline, except for productivity, which is missing for a subset of firms at baseline. In these cases we replace productivity with zero if it is missing and include an indicator variable equal to one if missing. We use caliper matching on the logit of the propensity score, with caliper of 0.2 standard deviations of the logit. This process is based on Austin (2011) and Austin (2014).

The summary statistics for comparing firms that took up the program to their matches from the control group are in Appendix Table 7. The estimated effects from this exercise are in Appendix Table 8. We see that the point estimate for productivity is statistically significant, and larger than in the ITT estimation on the full sample. Results for log sales, profits, and ROA are also positive and the estimated coefficients on average are larger than in the equivalent ITT estimation but none is statistically significant.

In Appendix Tables 9 and 10, we show results on heterogeneity by enterprise size and sector, respectively. We find essentially no pattern of impact; but, noting the limited power for these tests given the sample size, we do not draw any conclusion from this analysis.

One final concern with the outcome data from the follow-up survey is that since the information is self-reported, treatment enterprises could have reported more positive outcomes to please the surveyors (for transparency reasons, enterprises were informed that the survey was linked to the

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even larger differences in both productivity and return on assets (this comparison is not causal, and in particular note that at baseline the enterprises that took up the program already had higher productivity and return on assets than enterprises that did not take up the program, as shown in Table 2).

consulting program). To address this concern, we test whether (1) treated enterprises were more likely to provide alternative contact persons on the survey[23], and (2) treatment enterprises were more likely to report sales on the follow-up survey, which should be the case if they wanted to please the interviewer. Appendix Table 11 displays the results for these tests. We find no statistically significant differences in either measure across the treatment and control groups, although we recognize that this is not definitive proof against all self-reporting bias.

4.2 Long Run Business Performance

Therefore, we also use administrative data from the Mexican Social Services (IMSS) to avoid reporting biases stemming from survey data. In addition, the IMSS data allow us to follow enterprises for a longer time period. Table 4 reports the long run impact on employment. As discussed above, we do not have individual firm data for privacy reasons, but rather have the average number of employees and the average wage bill for two years before the treatment and five years after (2009 to 2014), separated by treatment and control groups. We consider having administrative records rather than self-reported firm data to be a major advantage and reconfirmation of our results. We use a difference-in-difference specification, with the treatment effect being identified by the interaction of treatment and post and the unit of observation being the treatment group X year (i.e., 14 data points, where each data point is the average of all the firms in that treatment assignment X year). We find an increase of 5.7 employees (s.e. = 1.3), which corresponds to 57% (the average number of employees in the control group across the five post years is 10.1), and an increase of US$125 in the daily wage bill (s.e. = $38), which is 72% (the average daily wage bill in the control group across the five post years is $172).

[23] We asked for alternative contact persons in case we needed to get in touch with the enterprises at a later stage for clarifications or additional questions and could not reach the enterprise through our contact information on record.

Figures 2 and 3 illustrate these results graphically. They show that both the average number of employees and the daily wage bill were similar across the treatment and control groups before the consulting program was implemented (in 2005 and 2006), and were about 50% higher four and five years after the program (in 2013 and 2014).

A caveat here is that when we compare number of full-time employees from the IMSS data to our follow-up survey data, the IMSS numbers are lower, suggesting that the enterprises in our sample did not register all their employees with IMSS (the follow-up survey suggests that our enterprises had about 15 full-time paid employees on average in 2009, and 2010 IMSS data shows about 10 employees on average). The increase in number of employees in the IMSS data could thus reflect more employees being registered instead of more employees being hired (though this still is a desirable outcome from a societal perspective). However, we believe that had the impact on employees been merely through an increase in honest reporting, we would have seen the impact in the short run. Instead, we observe the effect in the longer run only, which we believe is an indication that the change is a byproduct of firm efficiency, which takes time to develop, and is not merely a reporting bias.

Not all of the firms in our sample were found in IMSS records, so the results in Table 4 are based on about 57% of our sample. To assess whether there are important compositional changes that influence our key results, Appendix Table 2 reports attrition analysis for IMSS data; we find neither differential attrition for treatment on average (Columns 1 and 2) nor compositional changes (Column 3, aggregate p-value of 0.122 for the F-test of joint significance all interaction terms). In addition, in Appendix Table 12 we report the main specifications for impact as measured by the follow-up survey, but restrict to the sample of firms for which we have IMSS data. The results are similar.

4.3 Process Variables

In order to investigate the channels that drive the observed treatment effects, we now study how the consulting program changed processes within the enterprise. We measure these processes as follows: first, the surveys asked enterprise owners whether or not they implemented certain changes during the past year, such as developing new products, attracting new investors, and launching a new marketing campaign. Note that if treatment enterprises believed they should please the program by reporting process changes that did not actually occur, these estimates will be upwardly biased.

Table 5 displays the treatment effects on business process variables. We start with an all-encompassing standardized index, calculated as per Kling et al. (2007), and are not able to reject the null hypothesis of no change (0.072 standard deviation, s.e. = 0.104). We only find statistically significant improvements in two processes: made a new marketing effort (13 percentage point increase, s.e. = 5.5 percentage points) and the percentage of enterprises that keep formal accounts (8 percentage point increase, s.e. = 3 percentage points, where "formal" is defined as using either an accountant or a computerized system as opposed to keeping handwritten records or no notes at all). The finding that the program increased marketing efforts and the use of formal accounting practices is consistent with the case study evidence mentioned above, which suggests that many enterprises worked with their mentors on accounting and record keeping, as well as sales strategy and advertising.

Other processes examined, such as registering a patent, developing new products, or attracting new investors, do not appear to have changed a statistically significant amount. These could be more difficult to detect because they are more heterogeneous across enterprises or because they require a longer time to change than is observable in the treatment period. To measure human resource management practices, we create an index using Principle Component Analysis (PCA) based on the six questions listed in Appendix 2.[24] We are not able to reject the null hypothesis of no effect on this index

[24] All PCA indices were created in Stata using the "pca" command. This command computes the leading eigenvectors from the eigen decomposition of the covariance matrix of the variables used to create the index. We choose the first eigenvector as our PCA index. In other words, the PCA index is a weighted linear combination of

(-0.062, s.e. = 0.152). In summary, since the content of the consulting was tailored to each firm's needs, it is perhaps not surprising that we do not see on average improvements in either the collective index or most individual processes

To confirm the existence of a pathway between consulting and performance, we regress business outcomes on the business process index, as well as each of the individual components of the index, and report the results in the last three columns of Table 5. As before, our different outcome variables are average sales, profits, and the productivity residual. Since some firms have missing data at baseline and follow-up, we use data from the follow-up survey only, i.e. outcomes in levels, and use the 1% winsorized sample. We find a positive relationship between business outcomes and the business process index for all outcomes variables. The results are only statistically significant at conventional levels for the regressions with sales and productivity as the dependent variables. It is also reassuring that the two process variables where we find a positive and statistically significant treatment effect in the ITT regressions (making marketing efforts and keeping financial accounts), are the ones that show a statistically significant and positive correlation with business performance in the current analysis. These results suggest a correlation between improved performance and some of the most relevant business processes. Of course, this analysis does not provide causal evidence, but it suggests a pathway by which consulting affects firm outcomes.

4.4 Entrepreneurial Spirit

We construct two entrepreneurial spirit indices, developed in collaboration with IPPC. These indices are based on the answers to the eight questions listed in Appendix 2, which intend to capture entrepreneurial attitudes of the principal decision maker. One index is generated using PCA, and the other is a standardized index using the Kling et al. (2007) method. Thus the indices are a combined

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the underlying variables, where the weights are optimal in the sense that they give the index the largest possible variance.

measure of answers to a set of questions on the enterprise owner's beliefs about their ability to control the success of their business (or whether they are merely subject to external forces outside of their control) and on the owner's drive for success.

Table 6 reports the results. We find a positive and statistically significant impact using the PCA method (0.237, s.e. = 0.140) and positive but not statistically significant impact using the Kling et al. method (0.130 standard deviation increase, s.e. = 0.103). The increase in this index might reflect the fact that enterprise owners set new goals as part of the program and that consultants helped to provide motivation and strategy for how to achieve these goals. In addition, enterprise owners' increased confidence in their ability to control the success of their business could be driven by having better command of management tools such as marketing and bookkeeping.

We cannot distinguish whether the training had a direct effect on entrepreneurial spirit (e.g., enterprise owners set new goals as part of the program and consultants helped to provide motivation and strategies for how to achieve these goals), or whether the improvements in the business that led to higher productivity then improved the spirit of the entrepreneurs. We believe two of the questions used to construct the index are particularly subject to this second interpretation (questions d and e in Appendix 2). As a robustness check, we construct the indices without these two questions, and the results do not change.

4.5 Response to Economic Shocks

The program could have also improved enterprise performance by helping enterprises to better cope with the 2008 economic crisis. In the follow-up survey, about 89% of enterprises—both in the treatment and control group—reported that they had been affected by the crisis. We asked these enterprises what changes they made in response to the crisis. Table 7 reports the answers to these questions and examines whether the responses differ across the treatment and control groups. The

results show that treatment enterprises are eight percentage points (s.e. = 4 percentage points) less likely than control enterprises to report that they had to cut production in response to the crisis. The ability to weather shocks more effectively could be a result of being able to more proactively engage in marketing activities and better control finances, as shown in the previous section. Enterprises that are less well trained in these skills might experience economic shocks more passively and do not have tools to counteract a shortfall in demand.

Other changes in response to the crisis are not statistically significant across the treatment and control groups, but one of magnitude (but not statistical significance) to note is a positive impact on seeking government assistance (a 5.6 percentage point increase, s.e. = 4.4 percentage points, relative to an average of 12.8% in the control group). For enterprises that reported seeking government assistance, we asked which program or agency they contacted. Most answers indicated state or federal programs that provide funding or subsidies to micro, small, and medium-sized enterprises.

5. Cost-Effectiveness: Why Don't More Enterprises Use Consulting Services?

Given the large increases in productivity, and eventual growth in employees, we ask why more firms do not use consulting services. In particular, a cost-effectiveness calculation suggests that the returns to hiring a consultant may be well worth the cost. The measured effect of the program on the daily wage bill of U$125 implies an increase in the annual wage bill of US$125 x 365 = US$45,625.[25] The annual cost of the consulting services was US$11,856. Since the program was highly subsidized, participating enterprises only had to pay between 10% and 30% of this cost (depending on firm size). Among the enterprises in the treatment group, only 53% chose to participate in the subsidized consulting program once offered a spot. Although we do not attempt to translate the job growth to firm

[25] A potential caveat with this calculation is that the measured increase in the wage bill may be influenced by outliers. Since we do not have firm level data on the wage bill and our estimates are based on the simple average in the treatment and control group, we cannot examine how the effect size would vary when winsorizing or trimming outliers.

profits, given the relative magnitude, we note that the annual return on labor to the firm need not be very high in order to justify the one-time consulting expenditure.

Several issues may hinder the market for consulting services. First, there may be no failure at all: those who opt-in may be the ones who can benefit, and those who do not opt-in would not benefit. Naturally, we do not observe what the impact would have been on those who did not opt-in, but given the large increase in productivity and long term employment on the intent-to-treat, there seems to remain a failure for those who did opt-in, in that they had not taken up the services before, even at the unsubsidized rate. It is important to emphasize that all enterprises in our study had initially expressed interest in the subsidized consulting program, and thus their views are not representative of enterprises that do not have a pre-existing interest in consulting services. It could be that firms expressed an interest, learned more about the service, and then decided that this was unlikely to yield profitable results for them, and thus failure to take up remains a rational and correct decision.

Second, there may be a credit market failure. In fact, most of the enterprises in the treatment group that declined participation in the program once offered a spot gave liquidity constraints as the reason. However, this does not fully satisfy the question: why do we not observe consulting firms accepting delayed payment or working with financial services firms to provide credit to cover their services? Either way, it suggests a credit market failure is the source of the problem for some enterprises. This may be particularly relevant given the timing of the impacts, i.e., in the short run we do not observe higher profits but rather increased productivity. It is not until the long run that we see evidence of likely increased firm size that could be useful for generating liquidity to pay for consulting services.

Third, entrepreneurs may be risk- or ambiguity-averse with respect to the potential returns from hiring a consultant. This aversion could be perpetuated by lack of information in the market on the returns to consulting advice (of which consulting firms have difficulty credibly signaling).

To examine this issue, in the follow-up survey we included some qualitative questions for the control group on whether they were using any consulting or mentoring services, and if not, why not. About 21% of control group enterprises said that they were indeed using some services and provided the name of the consulting firm they were using. Examining these names reveals that only about half of these firms offer management consulting services similar to the consulting firms that worked with the treatment group enterprises. The other firms mentioned by the control group provide specialized services, such as accounting or technical assistance. Overall, the incidence of using management consulting services in the control group appears to be around 10%. Table 8 lists the self-reported reasons why control group enterprises do not use consulting services. By far, the most frequently mentioned reason is lack of funds (46.3% of enterprises mention this reason), followed by uncertainty about the benefits of consulting services (22.2%), and simply not having considered hiring a consultant (18.5%). The response could be genuine disinterest in consulting services or ambiguity about a service whose quality is not assured.

Our findings indicate that management consulting services can have high returns for micro, small, and medium-sized enterprises, and we consider funding constraints and uncertainty about the benefits to be the most likely explanations for the lack of market transactions in consulting services.

6. Discussion and Conclusion

Our results suggest that lack of managerial skills constitutes a significant constraint to firm growth and the ability to withstand economic shocks. The documented effects on productivity and return on assets in the short run, and employment in the long run, are large. However, the short run impact on productivity and return on assets, albeit statistically significant at standard 10% levels, is similar to smaller point estimates from other studies. Thus, while we believe the magnitude of the impact is not unreasonable given that many enterprises in the sample had not received any formal

management training prior to our intervention, we note that the confidence intervals exclude zero but do include fairly small but positive treatment effects.

Comparing our results to Bloom et al (2011) provides some potentially useful insights. While our point estimates are considerably larger, the confidence intervals encompass each other's results. However, there is good reason to believe there may be decreasing returns to consulting with firm size, between the small and medium to large size firms across those two studies. First, the management advice delivered here is much simpler and thus easier to transmit and implement, as compared to Bloom et al (2011). Second, the firms are smaller, with fewer levels of administration, and thus can more easily implement organizational changes. On the other end of the spectrum for firm size, a consulting intervention for microentrepreneurs in Ghana (tailors) actually led to negative treatment effects, as tailors shifted towards advice given that did not yield higher profits and then switched back to earlier practices (Karlan, Knight, and Udry 2015). A possible explanation is that these micro-entrepreneurs had aspirations to grow (and false optimism), but did not have the capacity to adopt the more advanced business practices.

The organizational changes implemented as a result of the consulting services seem to be most focused around improvements in marketing and financial controls. Consultants also appear to have helped enterprises set clear goals and define a strategy for how to achieve these goals. We see that the overall "entrepreneurial spirit" of confidence in owners increases a statistically significant amount as a result of the intervention. However, the evidence on any one specific mechanism is weak, with most individual dimensions of management practices not showing any statistically significant impact. Although desirable to identify specific mechanisms, we conjecture that such a one size fits all solution is not realistic.[26]

[26] A study that separately taught or tackled one type of problem at a time is likely an unrealistic method for conducting randomized trials, as it would require massive sample sizes to tease out each mechanism separately.

Naturally, if consulting generates high returns, an obvious question to pose is whether the consulting arrangements persisted after the subsidy ended. In 2014, we completed interviews with two of the consulting firms (the other firms either did not respond or the key parties were no longer at the firm). The interviews focused on understanding whether relationships with any of the participating enterprises continued after the subsidy period, and furthermore to learn how these consulting firms typically market their services. For one of the consulting firms, 13 out of 19 of the participating enterprises continued the consulting after the subsidy ended, whereas for the other consulting firm zero enterprises continued the consulting (the second firm has shifted away from consulting and now focuses on government contracts for evaluation and planning). This could be due to differential quality of the consulting, but also could be due to enterprise size, as the first consulting firm's participating clients were considerably larger than the second's, and smaller firms were reported less likely to act strategically in planning for the future and expanding. In discussing marketing of the consulting services, both firms reported that mass marketing would likely lead to a poor selection of clients, clients who are not fully committed to engaging with the consultants and adopting recommended changes, and they thus rely instead on word-of-mouth to generate new business.

Overall, our results confirm that managerial inputs have a large and important impact on firm performance and even hiring decisions in the intermediate run. However, there is still much to learn about the way this information affects firm performance as a whole, and more specifically, how it interacts with the marginal productivity of inputs such as labor and capital. In addition, while there may be a lot of heterogeneity in effects, our sample is not large enough to allow us to look at all the firm level interactions that might be of interest, such as competitive nature of the industry, age and gender of the owner, owner's ambition level, risk taking ability, or general skill levels. We believe this is a critical area for further research.

Even then, the external validity of any one discovered magic mechanism would be at risk of being context specific (e.g., to that particular regulatory, industry, macroeconomic, political, or natural resource environment).

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Figure 1: Timeline

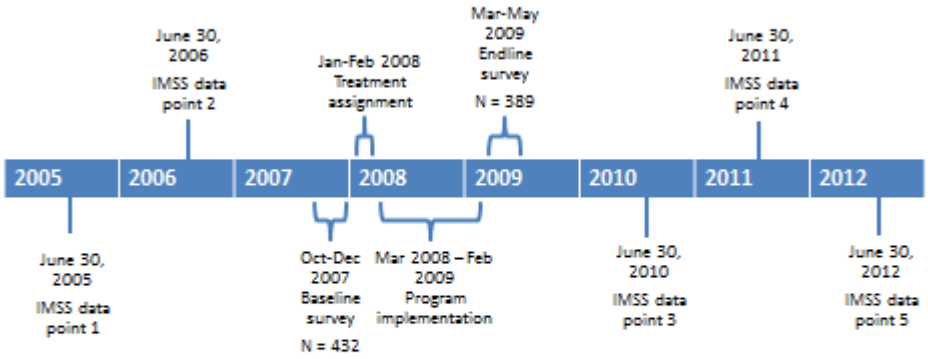
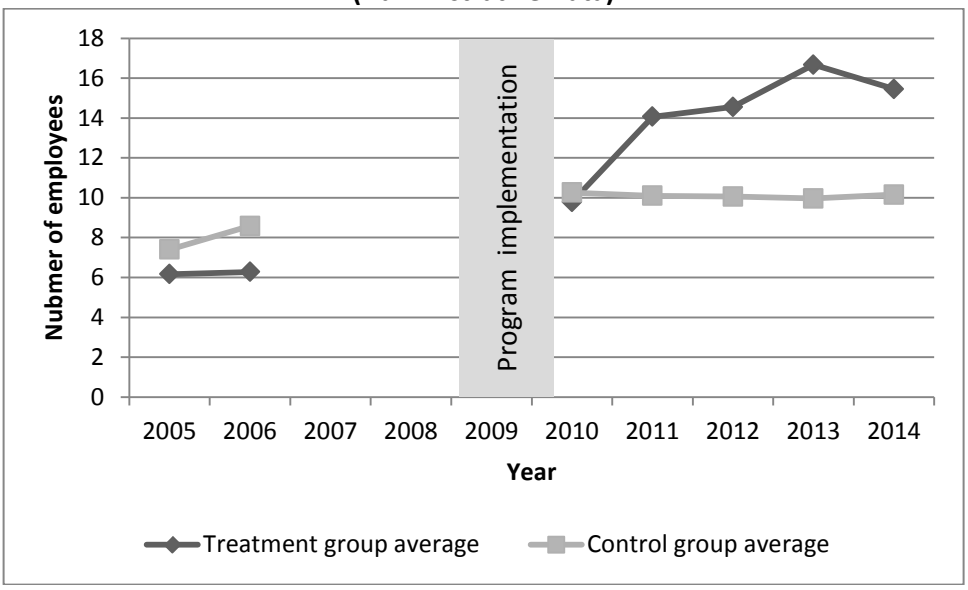
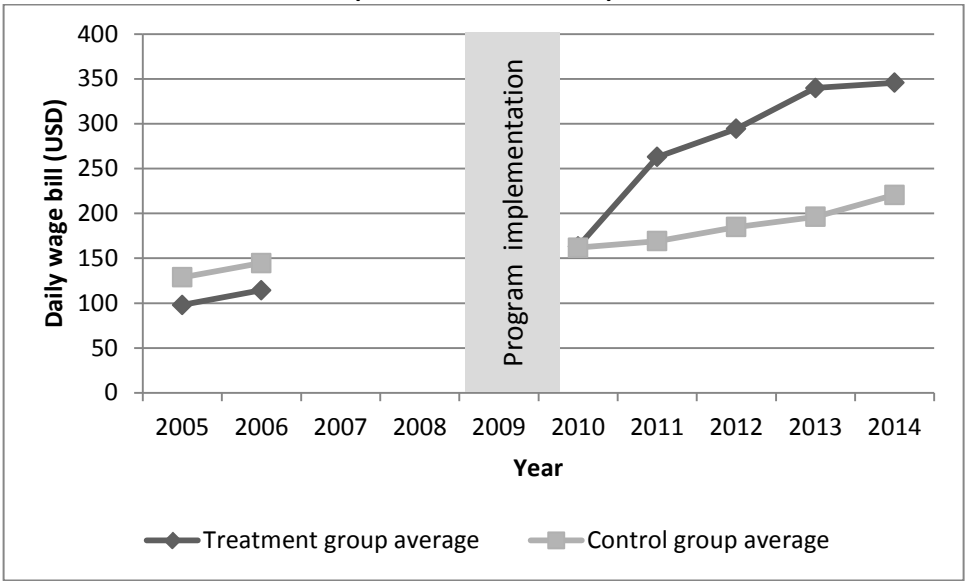


Figure 2: Average Number of Employees in the Treatment and Control Group over Time (Administrative Data)



Source: Administrative data on from the Mexican Social Security Institute (IMSS). Includes only the 253 firms in our sample that were found in IMSS records (89 treatment group firms and 164 control group firms).

Figure 3: Average Daily Wage Bill (USD) in the Treatment and Control Group over Time (Administrative Data)



Source: Administrative data on from the Mexican Social Security Institute (IMSS). Includes only the 253 firms in our sample that were found in IMSS records (89 treatment group firms and 164 control group firms).

Table 1: Topics that Firms Worked on with Their Consultant
Based on Eight Qualitative Case Studies of Treated Firms

Topic	# of firms that covered this topic
Define mission and vision statements	6
Accounting and record keeping (training and/or new software)	5
Clarify organizational structure, clearly assign responsibilities	5
Sales strategy and advertising (marketing)	4
Strategically select location and number of sales points	2
Quality control	2
Access to credit or alternative financing solutions	2
Human resources management and hiring practices	2
Mediate family problems in family firms	1
Pricing strategy	1
Reduce costs (negotiate with suppliers, find alternative suppliers)	1
Figure out which products are most profitable and focus on these	1
Team work and communications training for employees	1
Leadership training for firm owners	1

Table 2: Baseline Summary Statistics and Take-Up Analysis
Mean and Standard Deviations

	Treatment	Control	Orthogonality Verification (1)-(2) Difference (p-value)	Took-up	Did Not Take-up	(4)-(5) Difference (p-value)
Panel A: Stratification variables	(1)	(2)	(3)	(4)	(5)	(6)
Manufacturing sector dummy	0.300	0.323	-0.023	0.363	0.229	0.134*
	(0.460)	(0.468)	(0.628)	(0.484)	(0.423)	(0.072)
Commerce sector dummy	0.253	0.230	0.023	0.225	0.286	-0.061
	(0.436)	(0.422)	(0.600)	(0.420)	(0.455)	(0.400)
Services sector dummy	0.447	0.447	0.000	0.413	0.486	-0.073
	(0.499)	(0.498)	(0.998)	(0.495)	(0.503)	(0.372)
Full-time paid employees	14.400	13.684	0.716	18.825	9.343	9.482*
	(30.887)	(31.479)	(0.820)	(36.288)	(22.444)	(0.053)
Panel B: Re-randomization variables						
Principal decision maker's age (years)	42.561	42.876	-0.315	42.443	42.696	-0.253
	(10.212)	(9.878)	(0.759)	(9.540)	(10.999)	(0.882)
Male principal decision maker dummy	0.727	0.720	0.007	0.800	0.643	0.157**
	(0.447)	(0.450)	(0.881)	(0.403)	(0.483)	(0.033)
Principal decision maker's yrs of schooling	15.630	15.932	-0.302	16.138	15.050	1.088
	(4.919)	(5.196)	(0.552)	(4.472)	(5.358)	(0.182)
Business age (years)	11.053	13.652	-2.599	12.825	9.029	3.796**
	(10.330)	(28.120)	(0.168)	(11.501)	(8.437)	(0.022)
N	150	282	432	80	70	150

Columns 1, 2, 4 and 5 present means and standard deviations (in parentheses). Column 3 shows the difference in means across the treatment and control group with the corresponding p-value in parentheses. Column 6 shows the difference in means across treatment enterprises that did and did not take-up the program with the corresponding p-value in parentheses. Significance levels: *10 percent, **5 percent, ***1 percent.

Table 2: Baseline Summary Statistics and Take-Up Analysis (continued)
Mean and Standard Deviations

Panel C: Other variables - business outcomes	Treatment (1)	Control (2)	Orthogonality Verification (1)-(2) Difference (p-value) (3)	Took up Treatment (4)	Did Not Take up Treatment (5)	(4)-(5) Difference (p-value) (6)	N (Treatment + Control) (7)
Avg. sales Jul, Aug, and Sep 2007 (1000s USD)	79.163	55.258	23.905	105.916	48.260	57.656	368
	(288.679)	(140.493)	(0.382)	(349.912)	(194.184)	(0.249)	
Avg. sales Jul, Aug, and Sep 2007 (1000s USD),	67.434	54.450	12.984	85.530	46.531	38.999	368
1% winsorized	(196.519)	(131.771)	(0.506)	(207.938)	(181.989)	(0.266)	
Sep 2007 costs (1000s USD)	44.565	56.216	-11.651	58.736	26.974	31.762	377
	(120.341)	(263.955)	(0.557)	(145.907)	(75.425)	(0.112)	
Sep 2007 costs (1000s USD), 1% winsorized	44.471	40.611	3.860	58.566	26.974	31.592	377
	(117.222)	(99.258)	(0.749)	(141.235)	(75.425)	(0.105)	
Profits (Sep 2007 sales minus costs, 1000s USD)	13.281	-3.797	0.064	8.375	19.365	-10.991	377
	(112.277)	(204.743)	(0.324)	(87.198)	(137.923)	(0.625)	
Profits (Sep 2007 sales minus costs, 1000s USD),	10.540	10.499	0.041	11.722	9.075	2.648	377
1% winsorized	(73.332)	(76.507)	(0.996)	(69.715)	(78.279)	(0.852)	
Business assets (1000s USD)	296.964	945.842	-648.879	341.570	246.574	94.996	313
	(767.969)	(7822.005)	(0.248)	(779.399)	(758.949)	(0.510)	
Business assets (1000s USD), 1% winsorized	288.056	395.699	-107.643	324.777	246.574	78.203	313
	(710.962)	(1267.199)	(0.337)	(669.823)	(758.949)	(0.561)	
Productivity residual (Residual from regression	0.028	-0.016	0.045	0.439	-0.437	0.876***	265
of log Sep 2007 sales on log employees and log assets)	(1.349)	(1.253)	(0.791)	(1.477)	(1.017)	(0.001)	
Productivity residual, 1% winsorized	0.024	-0.015	0.040	0.431	-0.437	0.868***	265
	(1.320)	(1.251)	(0.811)	(1.429)	(1.017)	(0.001)	
Return on assets (ROA - Sep 2007 sales minus costs	-0.026	0.152	-0.178	0.160	-0.254	0.414*	252
divided by assets)	(0.956)	(0.817)	(0.137)	(0.366)	(1.342)	(0.061)	
Return on assets (ROA), 1% winsorized	0.033	0.120	-0.087	0.160	-0.121	0.281**	252
	(0.596)	(0.647)	(0.286)	(0.366)	(0.770)	(0.037)	
F-test p-value: joint significance of all non-winsorized business outcomes			0.000			0.000	
F-test p-value: joint significance of all 1% winsorized business outcomes			0.281			0.000	

Columns 1, 2, 4 and 5 present means and standard deviations (in parentheses). Column 3 shows the difference in means across the treatment and control group with the corresponding p-value in parentheses. Column 6 shows the difference in means across treatment enterprises that did and did not take up the program with the corresponding p-value in parentheses. The 1% winsorized variables are winsorized at the top and bottom 1%. Significance levels: *10 percent, **5 percent, ***1 percent.

Table 3: ITT Treatment Effect Estimates, Short-Run Business Outcomes
OLS

Outcome variable	ITT treatment effect estimates		1% winsorized		1% trimmed		Control group mean (std. dev.)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Full-time paid employees	1.475	0.516	1.271	0.516	-0.562	-0.485	12.428
	(1.421)	(1.260)	(1.332)	(1.152)	(0.953)	(0.911)	(22.281)
	378	378	378	378	370	370	243
Log (Total employees)	-0.117	-0.074	-0.113	-0.070	-0.126	-0.087	2.319
	(0.092)	(0.071)	(0.091)	(0.070)	(0.088)	(0.064)	(1.106)
	375	375	375	375	367	367	241
Avg. sales Dec 2008, Jan and Feb 2009 (1000s USD)	-5.108	-11.886	-5.423	-10.226	-2.146	-2.664	63.384
	(15.452)	(10.876)	(10.930)	(8.283)	(8.616)	(7.497)	(163.643)
	307	307	307	307	299	299	200
Log (Avg. sales Dec 2008, Jan and Feb 2009 in 1000s USD)	0.006	0.050	0.005	0.048	0.049	0.092	2.391
	(0.175)	(0.144)	(0.174)	(0.143)	(0.177)	(0.147)	(2.023)
	307	307	307	307	299	299	200
Feb 2009 costs (1000s USD)	5.525	5.657	-0.290	-0.525	-8.117	-8.328	43.157
	(14.694)	(14.551)	(8.750)	(8.465)	(5.661)	(5.734)	(113.758)
	304	304	304	304	296	296	204
Profits (Feb 2009 sales minus costs, 1000s USD)	5.802	5.330	6.108	6.156	8.219*	8.384*	11.460
	(5.831)	(5.705)	(5.016)	(4.936)	(4.606)	(4.536)	(97.044)
	265	265	265	265	259	259	176
Log (business assets)	-0.055	-0.106	-0.060	-0.111	-0.170	-0.158	4.307
	(0.176)	(0.157)	(0.175)	(0.156)	(0.173)	(0.157)	(1.699)
	319	319	319	319	311	311	203
Productivity residual	0.270*	0.250*	0.261*	0.242*	0.204*	0.195*	-0.095
Residual from regression of log Feb 2009 sales	(0.141)	(0.130)	(0.137)	(0.127)	(0.123)	(0.117)	(1.272)
on log employees and log business assets	250	250	250	250	244	244	158
Return on assets (ROA)	0.105*	0.098	0.085*	0.080	0.070*	0.064	0.012
Feb 2009 sales minus costs divided by assets	(0.060)	(0.064)	(0.050)	(0.054)	(0.041)	(0.046)	(0.471)
	236	236	236	236	230	230	154
Controls for baseline value of outcome	No	Yes	No	Yes	No	Yes	-

Each row in Columns 1 and 2 contains the treatment effect point estimate, robust standard error, and number of observations, for a separate OLS estimation. For the regressions that control for the outcome variable measured at baseline (Columns 2, 4, and 6), when the baseline outcome variable is missing, the missing value is filled-in with zero and a dummy variable indicating that the baseline observation is missing is added to the model. All regressions include controls for strata dummies and re-randomization variables, as well as a dummy for having been surveyed in March 2009 (vs. April, May or June) at follow-up. In Columns 3 and 4, outcome variables are winsorized at the top and bottom 1%. In Columns 5 and 6, outcome variables are trimmed at the top and bottom 1%. Column 7 contains non-winsorized, untrimmed means and standard deviations for the control group at follow-up. Statistical significance levels: *10 percent, **5 percent, ***1 percent.

Table 4: ITT Treatment Effect Estimates, Long-Run Business Outcomes
Difference-in-Difference OLS

Panel A: ITT Regression results	Outcome Variable					
	Number of employees			Daily wage bill (USD)		
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment*Post			5.765***			125.210***
			(1.332)			(38.064)
Treatment (=1 if mean is for treatment group)			-1.766***			-30.602**
			(0.495)			(9.512)
Post (=1 for years 2010 through 2014)			2.116***			49.802***
			(0.495)			(12.885)
Constant			7.991***			136.76***
			(0.492)			(6.646)
Number of observations			14			14
Panel B: Raw data	Treatment Mean (Std Dev)	Control Mean (Std Dev)	Difference (P-value)	Treatment Mean (Std Dev)	Control Mean (Std Dev)	Difference (P-value)
2005	6.169	7.402	-1.234	98.02	128.81	-30.79
	(13.226)	(16.490)	(0.544)	(154.126)	(248.604)	(0.289)
2006	6.281	8.579	-2.298	114.29	144.70	-30.41
	(11.865)	(18.853)	(0.298)	(159.164)	(293.049)	(0.365)
2010	9.787	10.262	-0.476	162.98	161.89	1.09
	(35.958)	(21.181)	(0.895)	(353.039)	(311.735)	(0.980)
2011	14.067	10.098	3.970	263.02	169.10	93.92
	(66.707)	(19.916)	(0.480)	(717.155)	(321.992)	(0.153)
2012	14.551	10.055	4.496	294.252	184.856	109.40
	(67.984)	(20.668)	(0.434)	(798.781)	(343.924)	(0.131)
2013	16.674	9.963	6.711	339.82	196.25	143.57
	(90.136)	(19.734)	(0.181)	(967.228)	(375.661)	(0.047)
2014	15.449	10.152	5.297	345.77	220.70	125.07
	(79.492)	(22.129)	(0.212)	(903.255)	(450.607)	(0.143)
Number of enterprises	89	164	253	89	164	253

Administrative data from Mexico's Social Security Institute (IMSS) for years 2005, 2006, 2010, 2011, 2012, 2013, and 2014. All enterprises are required by law to register their workers with IMSS (although compliance is not universal). 57% of the enterprises in our sample were found in IMSS records. Both number of employees and daily wage bill refer to permanent employees with pay. Column 3 in Panel A displays the results from a regression of mean number of employees on a dummy for the mean being for the treatment group, a dummy for the post-consulting intervention period, and the interaction of these two dummies. Column 6 in Panel A shows results for the corresponding regression with the mean daily wage bill as the outcome variable. Panel B displays the raw data, where the means in Columns 1, 2, 4, and 5 are the observations used in the regressions in Panel A. Statistical significance levels: *10 percent, **5 percent, ***1 percent.

Table 5: ITT Treatment Effect Estimates, Business Processes

OLS

	ITT Treatment Effect Estimates		Observations	Control group mean (std. dev.)	Correlations with Short-Run Business Outcomes		
					Avg. sales Dec 2008, Jan and Feb 2009 (1000s USD)	Profits (Feb 2009 sales minus costs, 1000s USD)	Productivity residual
Outcome variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Index of all process measures listed below	0.072	0.035	378	-0.036	25.963***	6.268	0.180**
	(0.104)	(0.098)		(0.975)	(7.626)	(4.612)	(0.070)
Index components							
Developed new products during last year	-0.048	-0.046	378	0.531	-10.604	-4.134	0.099
dummy	(0.055)	(0.053)		(0.500)	(13.936)	(5.901)	(0.145)
Attracted new clients during last year	-0.020	-0.033	376	0.789	38.116***	12.687***	0.502***
dummy	(0.046)	(0.045)		(0.409)	(10.357)	(4.267)	(0.170)
Implemented new process during last year	-0.062	-0.070	378	0.617	13.583	-0.132	0.142
dummy	(0.053)	(0.052)		(0.487)	(13.872)	(5.836)	(0.148)
Attracted new investors during last year	0.027	0.024	378	0.074	35.637	-4.747	0.549**
dummy	(0.032)	(0.031)		(0.262)	(30.885)	(11.664)	(0.244)
Began process to register a patent during	0.045		376	0.079	23.044	29.295*	-0.006
last year dummy	(0.034)			(0.270)	(33.608)	(17.155)	(0.223)
Began certification process for an	-0.024		378	0.156	78.912***	15.033	-0.165
international standard (e.g. ISO)	(0.035)			(0.364)	(24.591)	(15.080)	(0.210)
Made new marketing effort during last year	0.129**		378	0.440	40.005***	15.026**	0.250*
dummy	(0.055)			(0.497)	(14.196)	(6.070)	(0.143)
Expanded installations during last year	-0.030		377	0.240	46.718**	-0.473	0.423**
dummy	(0.045)			(0.428)	(19.880)	(9.120)	(0.176)
Remodeled installations during last year	0.022		377	0.459	29.010**	5.910	0.189
dummy	(0.054)			(0.499)	(13.859)	(5.935)	(0.144)
Human resources management index	-0.062	-0.061	363	0.022	1.873	1.610	-0.049
	(0.152)	(0.146)		(1.450)	(4.980)	(2.143)	(0.051)
Keeps formal accounts dummy	0.076**	0.069**	378	0.852	45.609***	5.459	0.525**
	(0.030)	(0.029)		(0.356)	(11.947)	(5.033)	(0.245)
Controls for baseline value of outcome	No	Yes	-	-	-	-	-

The index follows the methodology in Kling, Liebman, and Katz (2007) and is the normalized average of z-scores for all non-missing process measures, using mean and standard deviation in the control group to calculate the z-scores. Each cell in Columns 1 and 2 contains the treatment effect point estimates and robust standard errors for separate OLS estimations. All regressions in Columns 1 and 2 include controls for strata dummies and re-randomization variables, as well as a dummy for having been surveyed in March 2009 (vs. April, May or June) at follow-up. Some variables are not available at baseline, which is why the corresponding cells in Column 2 are empty. Column 4 contains means and standard deviations for the control group at follow-up. Each cell in Columns 5, 6, and 7 shows the coefficients and robust standard error for separate OLS regression of business outcomes on one process variable at the time, where all variables are from the 2009 follow-up survey. The productivity residual is the residual from regression of log Feb 2009 sales on log employees and log business assets. Business outcome variables are winsorized at the top and bottom 1%. Statistical significance levels: *10 percent, **5 percent, ***1 percent.

Table 6: ITT Treatment Effect Estimates, Entrepreneurial Spirit

OLS

Outcome variable	ITT Treatment Effect Estimates		Observations	Control group mean (std. dev.)
	(1)	(2)	(3)	(4)
PCA entrepreneurial spirit index	0.237*	0.223	373	-0.094
	(0.140)	(0.139)		(1.371)
PCA entrepreneurial spirit index w/o components d and e	0.240*	0.208	373	-0.095
	(0.140)	(0.138)		(1.343)
KLK entrepreneurial spirit index	0.130	0.128	378	-0.055
	(0.103)	(0.102)		(0.964)
KLK entrepreneurial spirit index w/o components d and e	0.153	0.140	378	-0.064
	(0.107)	(0.105)		(0.961)
Index components				
a. I have professional goals.	0.114*	0.112*	378	4.531
	(0.060)	(0.060)		(0.651)
b. I revise my goals periodically.	0.128	0.115	378	4.029
	(0.085)	(0.082)		(0.840)
c. If I don't reach a goal in the way I wanted to I try again.	-0.033	-0.035	378	4.374
	(0.077)	(0.077)		(0.683)
d. I can't motivate my business partners.^	0.064	0.055	376	2.277
	(0.121)	(0.121)		(1.086)
e. Everything I need for success lies in myself.	0.074	0.090	378	3.938
	(0.112)	(0.108)		(1.025)
f. I prefer to do routine tasks instead of doing something new in my work.^	-0.013	-0.017	376	2.000
	(0.104)	(0.103)		(0.964)
g. I think the government should give me opportunities.^	-0.061	-0.075	377	3.545
	(0.139)	(0.132)		(1.215)
h. I have to reach some goals every day to feel satisfied.	0.126	0.114	378	3.897
	(0.109)	(0.107)		(1.076)
Controls for baseline value of outcome	No	Yes		-

Components marked with ^ are reverse coded in the indices. The PCA index is generated using Principal Components Analysis. The KLK index follows the methodology in Kling, Liebman, and Katz (2007) and is the normalized average of z-scores for all non-missing process measures, using mean and standard deviation in the control group to calculate the z-scores. Each row in Columns 1 and 2 contains the treatment effect point estimates and robust standard errors for separate OLS estimations. All regressions include controls for strata dummies and re-randomization variables, as well as a dummy for having been surveyed in March 2009 (vs. April, May or June) at follow-up. Column 4 contains means and standard deviations for the control group at follow-up. Significance levels: *10 percent, **5 percent, ***1 percent.

Table 7: ITT Treatment Effect Estimates, Changes in Response to Crisis

OLS

Outcome variable	ITT Treatment Effect Estimates	Observations	Control group mean (std. dev.)
	(1)	(2)	(3)
Laid off staff or cut down on hiring	0.047	340	0.257
	(0.051)		(0.438)
Lowered employee salaries	-0.026	340	0.092
	(0.032)		(0.289)
Cut production	-0.080**	340	0.206
	(0.040)		(0.406)
Diversified business activities	-0.015	340	0.431
	(0.057)		(0.496)
Sought government assistance	0.056	340	0.128
	(0.044)		(0.335)
None	-0.006	340	0.115
	(0.037)		(0.319)
Other	0.043	340	0.216
	(0.050)		(0.412)
Number of changes made	0.025	340	1.330
	(0.092)		(0.810)

Column 1 contains the treatment effect point estimates and robust standard errors for separate OLS estimations. All outcome variables, except for "number of changes made", are binary variables for the responses to the question "Which changes has your firm made in response to the current economic situation?" (multiple answers were allowed). This question was asked at follow-up in reference to the recent economic crisis. "Number of changes made" is a count of the number of changes reported in response to the question above. These questions were not asked at baseline, which is why we do not control for the baseline outcome variable in this table. All regressions include controls for strata dummies and re-randomization variables, as well as a dummy for having been surveyed in March 2009 (vs. April, May or June) at follow-up. Column 3 contains means and standard deviations for the control group at follow-up. Significance levels: *10 percent, **5 percent, ***1 percent.

Table 8: Self-Reported Reasons for Not Using Consulting Services in Control Group Firms

Reasons for not using consulting services	% of enterprises mentioning this reason (multiple mention)
Would be a good investment, but don't have funds	46.3
Don't know what the benefits would be	22.2
Simply hadn't considered it	18.5
Didn't need the services	13.9
Other	11.1
Didn't know these services existed	7.4
Not worth the cost	5.6
N	108

This table includes all control group firms that, at the time of the follow-up survey, reported never having used consulting services.

Appendix Table 1: Analysis of Attrition in Follow-Up Survey

OLS

	Dependent variable:		
	Binary=1 if enterprise was not interviewed or not confirmed closed at follow-up		
	(1)	(2)	(3)
Treatment	-0.020	-0.017	0.141
	(0.029)	(0.030)	(0.157)
Commerce sector dummy		0.021	0.047
		(0.039)	(0.049)
Services sector dummy		0.041	0.072*
		(0.033)	(0.042)
Full-time paid employees		0.001	0.001
		(0.001)	(0.001)
Age of principal decision maker (years)		0.001	0.001
		(0.001)	(0.002)
Male principal decision maker dummy		-0.043	-0.020
		(0.036)	(0.045)
Business age (years)		0.000	0.000
		(0.000)	(0.000)
Log (Avg. sales Jul, Aug and Sep 2007 in 1000s USD)		0.002	0.000
		(0.008)	(0.011)
Profits (Sep 2007 sales minus costs, 1000s USD)		-0.000	-0.000
		(0.000)	(0.000)
Return on assets (ROA)		0.002	-0.021
		(0.025)	(0.038)
Commerce sector dummy*Treatment			-0.071
			(0.080)
Services sector dummy*Treatment			-0.094
			(0.073)
Full-time paid employees*Treatment			0.000
			(0.002)
Age of principal decision maker (years)*Treatment			-0.001
			(0.003)
Male principal decision maker dummy*Treatment			-0.078
			(0.074)
Business age (years)*Treatment			-0.000
			(0.003)
Log (Avg. sales)*Treatment			0.006
			(0.017)
Profits*Treatment			-0.000
			(0.000)
Return on assets (ROA)*Treatment			0.057
			(0.045)
Constant	0.106***	0.056	0.003
	(0.018)	(0.076)	(0.102)
R-squared	0.001	0.039	0.053
N	432	432	432
F-test p-value: joint significance of interaction terms			0.850
Mean of dependent variable	0.100	0.100	0.100

All explanatory variables are measured at baseline. Binary control variables included for when covariate is missing, and then missing covariate coded as zero. Variables with *Treatment at the end are interacted with a treatment group dummy. Robust standard errors in parentheses. Significance levels: *10 percent, **5 percent, ***1 percent.

Appendix Table 2: Analysis of Matching with IMSS Data

OLS

	Dependent variable:		
	Binary=1 if enterprise was matched with IMSS data		
	(1)	(2)	(3)
Treatment	0.019	0.014	-0.011
	(0.050)	(0.049)	(0.257)
Commerce sector dummy		-0.017	0.016
		(0.061)	(0.075)
Services sector dummy		0.042	0.088
		(0.054)	(0.069)
Full-time paid employees		0.000	0.002***
		(0.001)	(0.001)
Age of principal decision maker (years)		-0.001	-0.002
		(0.002)	(0.003)
Male principal decision maker dummy		0.102*	0.036
		(0.053)	(0.064)
Business age (years)		-0.000	-0.001
		(0.001)	(0.001)
Log (Avg. sales Jul, Aug and Sep 2007 in 1000s USD)		0.082***	0.084***
		(0.014)	(0.017)
Profits (Sep 2007 sales minus costs, 1000s USD)		0.000	0.000*
		(0.000)	(0.000)
Return on assets (ROA)		-0.004	-0.020
		(0.030)	(0.043)
Commerce sector dummy*Treatment			-0.072
			(0.132)
Services sector dummy*Treatment			-0.077
			(0.120)
Full-time paid employees*Treatment			-0.006**
			(0.002)
Age of principal decision maker (years)*Treatment			0.001
			(0.005)
Male principal decision maker dummy*Treatment			0.146
			(0.110)
Business age (years)*Treatment			0.005
			(0.004)
Log (Avg. sales)*Treatment			0.008
			(0.035)
Profits*Treatment			-0.000
			(0.000)
Return on assets (ROA)*Treatment			0.010
			(0.057)
Constant	0.567***	0.327***	0.331**
	(0.030)	(0.120)	(0.147)
R-squared	0.000	0.121	0.152
N	432	432	432
F-test p-value: joint significance of interaction terms			0.122
Average of dependent variable	0.574	0.574	0.574

All explanatory variables are measured at baseline. Binary control variables included for when covariate is missing, and then missing covariate coded as zero. Variables with *Treatment at the end are interacted with a treatment group dummy. Robust standard errors in parentheses. Significance levels: *10 percent, **5 percent, ***1 percent.

Appendix Table 3: Number of Enterprises Surveyed Each Month (Follow-Up Survey)

Survey month	# treatment	% treatment	# control	% control
Mar-09	95	70.37	152	62.55
Apr-09	29	21.48	68	27.98
May-09	10	7.41	20	8.23
Jun-09	1	0.74	3	1.23

Appendix Table 4: ITT Treatment Effect Estimates, Short-Run Business Outcomes, Restricted Sample

OLS

Outcome variable	ITT treatment effect estimates		Control group mean (std. dev.)
	(1)	(2)	(3)
Full-time paid employees	-1.771	-1.341	13.182
	(1.389)	(1.103)	(19.925)
	221	221	143
Log (Total employees)	-0.158	-0.069	2.352
	(0.124)	(0.092)	(1.064)
	221	221	143
Avg. sales Dec 2008, Jan and Feb 2009 (1000s USD)	-14.720	-11.426	69.450
	(14.976)	(12.218)	(181.105)
	221	221	143
Log (Avg. sales Dec 2008, Jan and Feb 2009 in 1000s USD)	-0.016	-0.019	2.520
	(0.211)	(0.176)	(1.985)
	221	221	143
Feb 2009 costs (1000s USD)	-12.367	-13.203	46.598
	(11.412)	(10.956)	(111.674)
	221	221	143
Profits (Feb 2009 sales minus costs, 1000s USD)	3.793	3.788	13.161
	(6.628)	(6.332)	(102.459)
	221	221	143
Log (business assets)	-0.078	-0.118	4.432
	(0.192)	(0.169)	(1.738)
	221	221	143
Productivity residual	0.261*	0.249*	-0.073
Residual from regression of log Feb 2009 sales	(0.158)	(0.146)	(1.302)
on log employees and log business assets	221	221	143
Return on assets (ROA)	0.118*	0.112	0.018
Feb 2009 sales minus costs divided by assets	(0.065)	(0.068)	(0.487)
	221	221	143
Controls for baseline value of outcome	No	Yes	-

This tables included only enterprises that report all outcome variables. Each cell in Columns 1 and 2 contains the treatment effect point estimate, robust standard error, and number of observations, for a separate OLS estimation. For the regressions that control for the outcome variable measured at baseline (Column 2), when the baseline outcome variable is missing, the missing value is filled-in with zero and a dummy variable indicating that the baseline observation is missing is added to the model. All regressions include controls for strata dummies and re-randomization variables, as well as a dummy for having been surveyed in March 2009 (vs. April, May or June) at follow-up. Column 3 contains means and standard deviations for the control group at follow-up. Significance levels: *10 percent, **5 percent, ***1 percent.

Appendix Table 5: ITT Treatment Effect Estimates, Short-Run Business Outcomes, Difference-in-Difference OLS

Outcome variable	ITT treatment effect estimates	1% winsorized	1% trimmed	Control group mean (std. dev.)
	(1)	(2)	(3)	(4)
Full-time paid employees	0.578	-0.447	-1.301	12.428
	(2.351)	(2.004)	(1.307)	(22.281)
	810	810	792	243
Log (Total employees)	-0.046	-0.046	-0.039	2.319
	(0.111)	(0.111)	(0.107)	(1.106)
	805	805	787	241
Avg. sales Dec 2008, Jan and Feb 2009 (1000s USD)	-14.464	-8.096	-2.791	63.384
	(23.358)	(16.725)	(11.838)	(163.643)
	675	675	659	200
Log (Avg. sales Dec 2008, Jan and Feb 2009 in 1000s USD)	0.017	0.025	0.062	2.391
	(0.237)	(0.236)	(0.238)	(2.023)
	675	675	659	200
Feb 2009 costs (1000s USD)	27.333	1.697	-3.942	43.157
	(25.419)	(12.144)	(8.900)	(113.758)
	681	681	665	204
Profits (Feb 2009 sales minus costs, 1000s USD)	-15.357	8.052	10.149	11.460
	(20.485)	(9.859)	(7.911)	(97.044)
	602	602	588	176
Log (business assets)	-0.098	-0.104	-0.207	4.307
	(0.227)	(0.224)	(0.220)	(1.699)
	627	627	611	203
Productivity residual	0.306	0.302	0.251	-0.095
Residual from regression of log Feb 2009 sales	(0.217)	(0.212)	(0.190)	(1.272)
on log employees and log business assets	515	515	503	158
Return on assets (ROA)	0.272**	0.160*	0.062	0.012
Feb 2009 sales minus costs divided by assets	(0.133)	(0.094)	(0.065)	(0.471)
	488	488	476	154

Each cell in Columns 1, 2 and 3 contains the treatment effect point estimate, robust standard error, and number of observations, for a separate OLS difference-in-difference estimation. Each regressions uses the full sample of enterprises at baseline and follow-up and includes a dummy for being in the treatment group, a dummy for the follow-up period, an interaction term between the treatment and follow-up dummies, as well as controls for strata dummies, re-randomization variables, and a dummy for having been surveyed in March 2009 (vs. April, May or June) at follow-up. The point estimates displayed in Columns 1, 2, and 3 are coefficients on the interaction term between treatment and follow-up. In Column 2, outcome variables are winsorized at the top and bottom 1%. In Column 3, outcome variables are trimmed at the top and bottom 1%. Column 4 contains non-winsorized, untrimmed means and standard deviations for the control group at follow-up. Significance levels: *10 percent, **5 percent, ***1 percent.

Appendix Table 6: Follow-Up Summary Statistics - Short-Run Business Outcomes
Mean and Standard Deviations

	Treatment	Control	(1)-(2) Difference (p-value)	Treatment & Took-up	(4)-(2) Difference (p-value)
	(1)	(2)	(3)	(4)	(5)
Avg. sales Dec 2008, Jan and Feb 2009 (1000s USD)	53.889	63.384	-9.495	61.075	-2.309
	(160.545)	(163.643)	(0.624)	(103.216)	(0.897)
Avg. sales Dec 2008, Jan and Feb 2009 (1000s USD),	48.298	57.721	-9.422	61.075	3.354
1% winsorized	(114.908)	(124.174)	(0.506)	(103.216)	(0.835)
Feb 2009 costs (1000s USD)	42.353	43.157	-0.804	42.882	-0.275
	(167.711)	(113.758)	(0.965)	(85.825)	(0.985)
Feb 2009 costs (1000s USD), 1% winsorized	33.788	39.310	-5.522	43.519	4.210
	(92.327)	(83.425)	(0.613)	(85.991)	(0.752)
Profits (Feb 2009 sales minus costs, 1000s USD)	10.964	11.460	-0.496	15.804	4.344
	(45.858)	(97.044)	(0.955)	(57.117)	(0.693)
Profits (Feb 2009 sales minus costs, 1000s USD),	10.964	6.758	4.206	15.804	9.046
1% winsorized	(45.858)	(48.976)	(0.491)	(57.117)	(0.315)
Business assets (1000s USD)	258.923	331.416	-72.493	313.187	-18.229
	(508.865)	(1236.195)	(0.464)	(560.688)	(0.872)
Business assets (1000s USD), 1% winsorized	259.310	267.828	-8.519	314.068	46.239
	(508.444)	(607.125)	(0.893)	(560.489)	(0.581)
Productivity residual (Residual from regression	0.163	-0.095	0.257*	0.429	0.524***
of log Feb 2009 sales on log employees and log assets)	(0.967)	(1.272)	(0.073)	(0.854)	(0.001)
Productivity residual, 1% winsorized	0.157	-0.089	0.247*	0.419	0.508***
	(0.951)	(1.229)	(0.078)	(0.820)	(0.001)
Return on assets (ROA - Feb 2009 sales minus costs	0.091	0.012	0.080	0.174	0.162**
divided by assets)	(0.402)	(0.471)	(0.174)	(0.429)	(0.032)
Return on assets (ROA), 1% winsorized	0.089	0.031	0.058	0.174	0.143**
	(0.393)	(0.290)	(0.236)	(0.429)	(0.039)

Columns 1, 2, and 4 present means and standard deviations (in parentheses). Column 3 shows the difference in means across the treatment and control group with the corresponding p-value in parentheses. Column 5 shows the non-experimental difference between those who took-up in treatment minus those in control, and the corresponding p-value in parentheses. The 1% winsorized variables are winsorized at the top and bottom 1%. Significance levels: *10 percent, **5 percent, ***1 percent.

Appendix Table 7: Baseline Summary Statistics for Matched Sample
Mean and Standard Deviations

	Took-up treatment	Matched control	Orthogonality Verification (1)-(2) Difference (p-value)
Panel A: Stratification variables	(1)	(2)	(3)
Manufacturing sector dummy	0.351	0.377	-0.026
	(0.480)	(0.488)	(0.740)
Commerce sector dummy	0.234	0.221	0.013
	(0.426)	(0.417)	(0.849)
Services sector dummy	0.416	0.403	0.013
	(0.496)	(0.494)	(0.871)
Full-time paid employees	18.623	15.675	2.948
	(36.772)	(27.900)	(0.576)
Panel B: Re-randomization variables			
Principal decision maker's age (years)	42.195	41.701	0.494
	(10.584)	(10.395)	(0.771)
Male principal decision maker dummy	0.792	0.831	-0.039
	(0.408)	(0.377)	(0.539)
Principal decision maker's yrs of schooling	16.060	16.744	-0.683
	(4.540)	(4.655)	(0.358)
Business age (years)	12.779	11.649	1.130
	(11.668)	(12.552)	(0.564)
N	77	77	154

Columns 1 and 2 present means and standard deviations (in parentheses). Column 3 shows the difference in means across the treatment enterprises that took-up the program and the matched control group with the corresponding p-value in parentheses. Significance levels: *10 percent, **5 percent, ***1 percent.

Appendix Table 7: Baseline Summary Statistics for Matched Sample (continued)
Mean and Standard Deviations

	Took-up treatment	Matched control	Orthogonality Verification (1)-(2) Difference (p-value)
Panel C: Other variables - business outcomes	(1)	(2)	(3)
Avg. sales Jul, Aug, and Sep 2007 (1000s USD)	106.420	73.254	33.166
	(357.791)	(166.201)	(0.501)
Avg. sales Jul, Aug, and Sep 2007 (1000s USD),	85.079	69.063	16.016
1% winsorized	(212.235)	(137.431)	(0.612)
Sep 2007 costs (1000s USD)	49.518	68.860	-19.341
	(131.473)	(223.200)	(0.540)
Sep 2007 costs (1000s USD), 1% winsorized	49.343	52.008	-2.665
	(126.101)	(101.520)	(0.892)
Profits (Sep 2007 sales minus costs, 1000s USD)	16.514	2.916	13.598
	(58.843)	(215.671)	(0.636)
Profits (Sep 2007 sales minus costs, 1000s USD),	16.514	21.598	-5.084
1% winsorized	(58.843)	(81.898)	(0.695)
Business assets (1000s USD)	326.745	282.504	44.242
	(779.147)	(359.395)	(0.695)
Business assets (1000s USD), 1% winsorized	309.084	283.555	25.528
	(662.846)	(358.922)	(0.797)
Productivity residual (Residual from regression	0.516	0.455	0.061
of log Sep 2007 sales on log employees and log assets)	(1.339)	(1.269)	(0.817)
Productivity residual, 1% winsorized	0.501	0.455	0.046
	(1.307)	(1.269)	(0.859)
Return on assets (ROA - Sep 2007 sales minus costs	0.170	0.268	-0.098
divided by assets)	(0.368)	(1.088)	(0.559)
Return on assets (ROA), 1% winsorized	0.170	0.204	-0.034
	(0.368)	(0.811)	(0.791)
N	77	77	154

Columns 1and 2 present means and standard deviations (in parentheses). Column 3 shows the difference in means across the treatment enterprises that took-up the program and the matched control group with the corresponding p-value in parentheses. The 1% winsorized variables are winsorized at the top and bottom 1%. Significance levels: *10 percent, **5 percent, ***1 percent.

Appendix Table 8: Treatment Effect Estimates for Matched Sample, Short-Run Business Outcomes
OLS

Outcome variable	Treatment effect estimates		1% winsorized		1% trimmed		Matched control group mean (std. dev.)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Full-time paid employees	-0.322	-0.741	0.119	-0.233	-2.291	-0.009	16.382
	(5.253)	(1.599)	(4.633)	(1.707)	(2.996)	(1.456)	(32.887)
	137	137	137	137	132	132	68
Log (Total employees)	-0.175	-0.025	-0.163	-0.013	-0.078	0.035	2.494861
	(0.182)	(0.102)	(0.180)	(0.097)	(0.173)	(0.088)	(1.089)
	135	135	135	135	131	131	67
Avg. sales Dec 2008, Jan and Feb 2009 (1000s USD)	-13.789	-14.691	-13.789	-14.691	-13.789	-14.691	68.98226
	(19.707)	(15.611)	(19.707)	(15.611)	(19.707)	(15.611)	(108.124)
	116	116	116	116	116	116	61
Log (Avg. sales Dec 2008, Jan and Feb 2009 in 1000s USD)	0.120	0.182	0.120	0.182	0.120	0.182	2.870
	(0.329)	(0.223)	(0.329)	(0.223)	(0.329)	(0.223)	(1.969)
	116	116	116	116	116	116	61
Feb 2009 costs (1000s USD)	-6.911	-4.337	-6.745	-4.169	-16.466	-14.288	48.635
	(16.070)	(15.193)	(16.096)	(15.194)	(13.398)	(13.024)	(81.714)
	109	109	109	109	106	106	59
Profits (Feb 2009 sales minus costs, 1000s USD)	8.521	8.711	8.521	8.711	7.740	8.016	8.078
	(-10.740)	(-10.860)	(10.740)	(10.860)	(10.813)	(10.993)	(55.538)
	101	101	101	101	100	100	54
Log (business assets)	-0.151	-0.025	-0.147	-0.021	-0.227	-0.055	4.674
	(0.295)	(0.238)	(0.295)	(0.238)	(0.296)	(0.243)	(1.572)
	119	119	119	119	116	116	61
Productivity residual	0.572**	0.445**	0.558**	0.432**	0.403**	0.300*	-0.066
Residual from regression of log Feb 2009 sales	(0.241)	(0.201)	(0.237)	(0.198)	(0.198)	(0.165)	(1.391)
on log employees and log business assets	98	98	98	98	94	94	52
Return on assets (ROA)	0.080	0.084	0.093	0.096	0.113	0.119	0.087
Feb 2009 sales minus costs divided by assets	(0.095)	(0.092)	(0.086)	(0.083)	(0.077)	(0.075)	(0.446)
	91	91	91	91	89	89	49
Controls for baseline value of outcome	No	Yes	No	Yes	No	Yes	-

Each row in Columns 1 and 2 contains the treatment effect point estimate, robust standard error, and number of observations, for a separate OLS estimation. For the regressions that control for the outcome variable measured at baseline (Columns 2, 4, and 6), when the baseline outcome variable is missing, the missing value is filled-in with zero and a dummy variable indicating that the baseline observation is missing is added to the model. All regressions include a dummy for having been surveyed in March 2009 (vs. April, May or June) at follow-up. In Columns 3 and 4, outcome variables are winsorized at the top and bottom 1% (in the full, non-matched sample). In Columns 5 and 6, outcome variables are trimmed at the top and bottom 1% (in the full, non-matched sample). Column 7 contains non-winsorized, untrimmed means and standard deviations for the matched control group at follow-up. Statistical significance levels: *10 percent, **5 percent, ***1 percent.

Appendix Table 9: Heterogeneous Treatment Effect Estimates, Short-Run Business Outcomes, by Enterprise Size
OLS

Outcome variable	Coefficient on treatment dummy	Coefficient on treatment interacted with small or medium enterprise dummy	F-test p-value: sum of coefficients in columns (1) + (2)
	(1)	(2)	(3)
Full-time paid employees	-0.000	1.918	0.641
	(0.739)	(4.127)	
	378	378	
Log (Total employees)	-0.066	-0.029	0.427
	(0.086)	(0.148)	
	375	375	
Avg. sales Dec 2008, Jan and Feb 2009 (1000s USD)	-6.058	-21.293	0.410
	(9.575)	(35.412)	
	307	307	
Log (Avg. sales Dec 2008, Jan and Feb 2009 in 1000s USD)	0.021	0.104	0.583
	(0.184)	(0.302)	
	307	307	
Feb 2009 costs (1000s USD)	-6.285	47.314	0.428
	(7.169)	(51.588)	
	304	304	
Profits (Feb 2009 sales minus costs, 1000s USD)	5.781	-1.743	0.835
	(5.740)	(21.492)	
	265	265	
Log (business assets)	-0.179	0.298	0.730
	(0.172)	(0.378)	
	319	319	
Productivity residual	0.337**	-0.321	0.939
Residual from regression of log Feb 2009 sales	(0.158)	(0.268)	
on log employees and log business assets	250	250	
Return on assets (ROA)	0.059	0.154	0.171
Feb 2009 sales minus costs divided by assets	(0.069)	(0.172)	
	236	236	

Each row contains the treatment effect point estimates, robust standard errors, and number of observations for a separate OLS estimation. All regressions control for the outcome variable measured at baseline, when the baseline outcome variable is missing, the missing value is filled-in with zero and a dummy variable indicating that the baseline observation is missing is added to the model. All regressions also include controls for strata dummies and re-randomization variables, as well as a dummy for having been surveyed in March 2009 (vs. April, May or June) at follow-up. Significance levels: *10 percent, **5 percent, ***1 percent.

Appendix Table 10: Heterogeneous Treatment Effect Estimates, Short-Run Business Outcomes, by Sector

OLS

Outcome variable	Coefficient on treatment dummy	Coefficient on treatment interacted with manufacturing sector dummy	F-test p-value: sum of coefficients in columns (1) + (2)	Coefficient on treatment interacted with commerce sector dummy	F-test p-value: sum of coefficients in columns (1) + (4)
	(1)	(2)	(3)	(4)	(5)
Full-time paid employees	1.841	-1.403	0.837	-3.473	0.504
	(1.379)	(2.199)		(2.727)	
	378	378		378	
Log (Total employees)	-0.113	0.085	0.225	0.049	0.290
	(0.105)	(0.182)		(0.164)	
	378	378		378	
Avg. sales Dec 2008, Jan and Feb 2009 (1000s USD)	5.114	-34.754	0.156	-22.597	0.537
	(11.072)	(23.254)		(28.990)	
	307	307		307	
Log (Avg. sales Dec 2008, Jan and Feb 2009 in 1000s USD)	-0.053	0.047	0.984	0.344	0.342
	(0.213)	(0.366)		(0.380)	
	307	307		307	
Feb 2009 costs (1000s USD)	32.367	-26.989	0.793	-68.615**	0.089
	(23.793)	(29.645)		(29.346)	
	304	304		304	
Profits (Feb 2009 sales minus costs, 1000s USD)	0.216	-7.842	0.582	26.730*	0.007
	(8.512)	(17.342)		(13.905)	
	265	265		265	
Log (business assets)	-0.237	0.412	0.482	-0.011	0.461
	(0.245)	(0.348)		(0.419)	
	319	319		319	
Productivity residual	0.309*	-0.151	0.552	-0.034	0.283
Residual from regression of log Feb 2009 sales	(0.187)	(0.336)		(0.316)	
on log employees and log business assets	250	250		250	
Return on assets (ROA)	0.037	-0.058	0.807	0.287	0.047
Feb 2009 sales minus costs divided by assets	(0.085)	(0.124)		(0.180)	
	236	236		236	

Each row contains the treatment effect point estimates, robust standard errors, and number of observations for a separate OLS estimation. All regressions control for the outcome variable measured at baseline, when the baseline outcome variable is missing, the missing value is filled-in with zero and a dummy variable indicating that the baseline observation is missing is added to the model. All regressions also include controls for strata dummies and re-randomization variables, as well as a dummy for having been surveyed in March 2009 (vs. April, May or June) at follow-up. Significance levels: *10 percent, **5 percent, ***1 percent.

Appendix Table 11: Non-Response on Follow-up Survey

	Treatment	Control	(1)-(2) Difference (p-value)
	(1)	(2)	(3)
% That Did not provide alternative contact person	16.296	18.519	-2.222
			(0.589)
% That Did not report Dec 2008, Jan and Feb 2009 sales	20.741	17.695	3.045
			(0.469)
N	135	243	378

Columns 1 and 2 show the percentage of enterprises in the treatment and control group, respectively, that did not provide an alternative contact person or sales on the follow-up survey, conditional on participating in the survey. Column 3 shows the difference in percentages between the treatment and control group with the corresponding p-value in parentheses. Significance levels: *10 percent, **5 percent, ***1 percent.

Appendix Table 12: ITT Treatment Effect Estimates, Short-Run Business Outcomes, IMSS Sample

OLS

Outcome variable	ITT treatment effect estimates		Control group mean (std. dev.)
	(1)	(2)	(3)
Full-time paid employees	0.764	0.380	15.932
	(1.841)	(1.405)	(25.703)
	229	229	148
Log (Total employees)	-0.161	-0.157*	2.588
	(0.111)	(0.084)	(1.084)
	229	229	148
Avg. sales Dec 2008, Jan and Feb 2009 (1000s USD)	-17.701	-16.381	77.325
	(23.164)	(14.531)	(161.353)
	187	187	125
Log (Avg. sales Dec 2008, Jan and Feb 2009 in 1000s USD)	-0.182	-0.104	3.045
	(0.204)	(0.168)	(1.713)
	187	187	125
Feb 2009 costs (1000s USD)	-1.529	-3.804	63.156
	(23.042)	(19.729)	(141.134)
	176	176	120
Profits (Feb 2009 sales minus costs, 1000s USD)	5.566	5.904	2.321
	(8.197)	(8.102)	(43.806)
	160	160	109
Log (business assets)	-0.012	-0.008	4.655
	(0.208)	(0.202)	(1.624)
	187	187	121
Productivity residual	0.080	0.088	0.116
Residual from regression of log Feb 2009 sales	(0.181)	(0.170)	(1.154)
on log employees and log business assets	152	152	99
Return on assets (ROA)	0.173*	0.197*	-0.001
Feb 2009 sales minus costs divided by assets	(0.098)	(0.113)	(0.574)
	140	140	95
Controls for baseline value of outcome	No	Yes	-

This tables included only enterprises that were successfully matched with IMSS data. Each cell in Columns 1 and 2 contains the treatment effect point estimate, robust standard error, and number of observations, for a separate OLS estimation. For the regressions that control for the outcome variable measured at baseline (Column 2), when the baseline outcome variable is missing, the missing value is filled in with zero and a dummy variable indicating that the baseline observation is missing is added to the model. All regressions include controls for strata dummies and re-randomization variables, as well as a dummy for having been surveyed in March 2009 (vs. April, May or June) at follow-up. Column 3 contains means and standard deviations for the control group at follow-up. Significance levels: *10 percent, **5 percent, ***1 percent.

Appendix 1: Case Studies[27]

Case Study #1: Cartoonamax

Owners: Founder, Executive Producer, and Director General

Demographic Information:

The Director General is a minority shareowner of Cartoonamax, an animation studio that makes films based on traditional Mexican folktales. Although he studied Information Design in college, his passion since a young age has been animation and so, naturally, he is thrilled to be part of a firm like Cartoonamax. He stills prefers to watch animation films and cartoon rather than live action films and series. For him, another motivation to work for Cartoonamax is his great intellectual respect for the Founder, the main creative force of the firm. He began as an intern and he has stayed with the firm because it is his dream job.

The Director General's parents were tradesmen and he credits them as the main sources of his entrepreneurial spirit. Before working at Cartoonamax, the Director General had little experience in animation but has learned a great deal about the industry since then. He began working at Cartoonamax while he was in college, and decided to take fewer classes so he could spend more time learning at the firm. For that reason, he took longer than normal to finish his degree.

Firm history:

Cartoonamax is among the three largest animation studios in Mexico. The firm was founded in 2000 with funds provided by the founder's aunt to buy their first computers. The founder started Cartoonamax because he wanted to blend his passion for animation with Mexican culture. This creative interest is shared by each one of the owners.

When it was founded, the firm had only six employees, but quickly grew as they hired more employees two years later to work on production (anything that requires animation) in Mexico City and preproduction (backgrounds, story, etc.) in Puebla. Among the new employees were Executive Producer and the Director General, who soon became minority share owners. In 2005, with 24 employees, the owners decided that it was time to formally register Cartoonamax. Later, in 2008, they decided to relocate all the firm's operations to Puebla to increase its personnel integration. Currently, the firm has 49 permanent employees, but for the production of his latest film, "La Leyenda de la Nahuala", they had 120 people working for them including voices, animation, among others. It is worth mentioning that prior to each film, the studio must purchase new equipment, because after two years of use, the old equipment becomes obsolete. Cartoonamax's current equipment is the most modern in Latin America.

[27] All names changed throughout all case studies.

Although the firm specializes in feature films, Cartoonamax has also produced several short films. They produced a one minute long animation capsule for television about a dog called “Roncho, el perro Malapata”. Unfortunately, these short films weren’t as profitable as expected as their relative success in Europe was offset by a lack of distribution in Mexico. Their last film “La Leyenda de la Nahuala” was a huge success viewed in theaters by more than 1.2 million people. The film tells the story of a timid child, Leo San Juan, who has to save his brother, Nando, from an evil witch when one of the scary stories that Nando has told Leo, La Leyenda de la Nahuala, becomes reality.

When they developed “La Leyenda de la Nahuala”, they created a new firm called Nahuala in order to deal with creative differences and get access to new funds and fiscal benefits. Now these two firms, Cartoonamax and Nahuala, produce films together so they can apply for more funds and cover the films’ budgets. In the future, they plan to produce their films independently.

Program recommendation:

The Director General stated that he was very satisfied with the consulting program because while the firm has a lot of expertise in animation and creativity, there is an acute lack of management experience. He also said that the program has allowed them to properly establish the fundamentals of the firm (organizational chart, procedures manual, mission, vision, and structure), which has subsequently allowed them to move from a project-based management system to a more structured, long-term, focused firm.

When asked which type of firm would benefit the most from the consulting program, the Director General said that, although he believed that any firm would benefit, young firms would get the most out of the program because the consultants advice could help young firms establish a solid a base and avoid long and costly restructuring processes once bigger.

Finally, with regards to improving the program, the Director General stated that he would have wanted to receive a consultancy more tailored to the firm’s culture. For example, he stated that, since they are visually oriented, it would have been much easier to follow the consultant if the consultant had used more visual tools instead of numbers. Nevertheless, the Director General thinks that the number of hours dedicated to the mentorship has been ideal, given that any greater commitment would have adversely affected their regular work schedule.

Program valuation:

During the interview, the Director General acknowledged that the consultant’s value is greater than what the firm pays for it or could pay for it. However, the firm has a tight budget and is not currently in a position to make large investments in the face of the current economic crisis. As an example, the Director General told us that the budget for an animation film of Pixar and Dreamworks is around 80 million dollars. In comparison, the budget of Cartoonamax current film is 20 million pesos, assuming an exchange rate of 13 pesos per dollar is approximately 1.5 million dollars.

The Director General also stated that his firm had never received this service before as production-related concerns have always taken precedent over the business side of the firm's operations. Even though they would like to continue with the mentorship, their lack of resources makes this decision somewhat complex. With that in mind, they are currently weighing whether they can pay for less frequent consultancies with the same consultant so he can keep working with them to carry out the positive developments they have begun.

Main challenge:

According to the Director General, when the consultancy began, the main challenge facing the firm was a lack of accessible and structured information about the firm's vision, mission, and financial situation, to name a few. Although the firm had this information in some form (the Director General said that, "it was in its collective minds"), it was not well organized. The firm did not have a well-defined mission, vision, or hierarchy. They also did not have official financial records. The Director General remarked that, even though he had a slight idea about the problem, Mr. Álvarez, the mentor assigned to Cartoonamax through the IPPC program, had been the person to precisely pinpoint it.

In order to solve the problem, Mr. Álvarez proposed organizing the firm as a more professional entity; in other words, to change from the project-based structure to a more solid firm with predetermined formats, position, and procedures. It was also necessary to define a vision, mission, and a better organizational structure. The Director General said that, in this way, they will have a much more stable firm and with this in mind, the entrepreneur and the mentor worked together to create a guide that will help Cartoonamax achieve those objectives.

The Director General also commented that the firm was not able to use all the formats and ideas proposed by Mr. Álvarez because some were not applicable to a firm like Cartoonamax (for example, they didn't need a monthly sales report because in their best case scenario they only produce one film per year). He also believed that by focusing on the structure and organization-related issues, they have been solving more medium and long-term problems than short-term problems.

When asked about his access to credit, the Director General said that, despite the current difficult economic situation, they have access to some film-specific funds as well other funds that are used towards specific goals. For example, he stated that he had received a loan from Prosoft to buy new computers. According to him, Mr. Álvarez has not assisted them in obtaining credit because they are already well versed in the credit process since his last film was funded this way, even though a recent legal change has made it more difficult to access some funds (which is discussed later in greater detail). Finally, the Director General qualified the overall relationship with the mentor as very good.

Main advantage of the program:

According to the Director General, the main advantage of the program the added procedures to professionalize and diversify into short-films to help with liquidity and smooth income. He also liked its subsidy-based structure. Essentially, the Director General felt that the benefits they received greatly outweighed the direct costs incurred by the firm.

Main disadvantage of the program:

Along similar lines, the main disadvantage of the program, according to the Director General, is that, since the subsidy expired at the end of May 2009, the cost-benefit ratio of the mentorship is no longer as attractive. For that reason, his firm's participation in the program isn't as financially advantageous as before.

Mentor comments:

Mentor: Luis Gerardo Álvarez

Mentorship Firm: UPAEP

According to Mr. Álvarez the biggest challenge of the firm is a lack of professionalism. Since most of the employees are friends with the owners and upper management, every aspect of firm management is conducted informally. For example, the mentor said that the employees had a twenty-minute break for a "late breakfast" and a two-hour break for lunch. In this environment, it is difficult to make decisions, especially ones related to the turnover of personnel.

Another issue that Mr. Álvarez identified as crucial for Cartoonamax is liquidity. Since Cartoonamax produces animated films at one or two-year intervals, they don't get any cash inflows until they sell a film. Therefore, they have had to rely on loans and tax-deductible donations. However, a recent change in the law limited the amount of rebate that could be received by the donating organizations, so Cartoonamax now has to rely more heavily on loans. For this reason, according to Mr. Álvarez, even if their next film is a success, Cartoonamax will still face large liquidity constraints due to their debt load.

In order to solve the first problem, Mr. Álvarez has proposed hiring an Operations Director with no prior relationship to anyone in the firm so that difficult decisions can be made without the considerations of friendships and personal history. However, the founder has not yet decided whether to make this move because it would likely infringe on the job responsibilities of one of the minority-owners.

To solve the second problem, Mr. Álvarez proposed diversifying the activities of the company to include animation for short films, such as advertising, music videos, etc. However, one of the owners of the firm is reluctant to do this because he considers this company to be exclusively a full-length film company and he wants to maintain the firm's creative independence.

Besides the premature termination of the program, there are other reasons that the mentorship could be considered incomplete. First, Mr. Álvarez stated that they used much of their time at the beginning of the mentorship running three workshops about leadership, the current crisis, and strategic planning. Second, most of the meetings with the mentor began with the entrepreneur complaining about day-to-day problems. According to Mr. Álvarez, this took around 30% of the time of each session.

According to Mr. Álvarez, the firm seems satisfied with the consulting services he has provided and plans to continue with the services if the financial situation permits. He also stated that the relationship between the mentor and the firm was healthy, productive, and based on mutual trust.

Case Study #2: GHA

Demographic Information:

The owner of GHA is a 35-year-old engineer. He is a very confident person and would like his firm to be the Mexican firm that receives an international certification (such as ISO 9001 and ISO 14001) in the shortest amount of time. He studied chemical engineering and despite the fact that he could have easily found a job (in the worst case scenario as a janitor), he decided to open his own firm because he wanted to be his own boss. Even though his parents were tradesmen, he doesn't think that this influenced him.

Before founding GHA, the owner had some prior knowledge of fumigation since he worked at a fumigation company for a couple of months eighteen years ago. During these months, his job was to fumigate. As the owner of GHA, he has worked in every position of the firm: from fumigating to directing the firm and being in charge of corporate sales.

Firm's history:

GHA was founded as an informal firm on February 21st, 2003 with the double purpose of allowing the owner to be his own boss and taking advantage of an economic opportunity because he could enter the fumigation market and offer a great service at a reasonable price. When the firm was founded, it had only two employees including the owner; now it has six employees (including the owner and two interns). The firm was formally registered on the day of its first anniversary, February 21st, 2004, under the fiscal regimen of "persona moral". The owner said that it took one year to get all the permits and documentation needed to register.

Since the firm was founded, its main economic activity hasn't changed. However, its structure and assets have changed. With respect to the structure, the owner started out doing the fumigation himself, but now he is in charge of corporate sales. He hired and trained two new employees to fumigate. Regarding the firm's assets, GHA started out with one vehicle and two motorized pumps, but now the firm has two vehicles and seven pumps. Each pump was bought at 40000 pesos and each vehicle at 60000 pesos.[28]

Program Recommendation:

The owner said that he is satisfied with the program and stated that, "the only bad thing is that they [the government] are going to cut it". According to him, the program should be targeted to small firms because these firms often lack the basic knowledge required to make a firm grow. The owner also stated that small firms tend to focus on the technical part of the business while they neglect the administrative side, and that this program could help address this problem. On the other hand, he doesn't recommend this program to big firms because they have access to much better tailored mentorship.

When he was asked how the program could be improved, the owner suggested several things. First, the program should comply with the original timeline, that is, keep the program in place until the end

[28] Assuming an exchange rate of 13 pesos per dollar, each vehicle is worth around US$ 4600; each pump is around US$3000.

instead of cutting it short. Second, the owner stated that he would like to receive six hours of consultancy per week instead of two hours, but these should be scheduled in a way that doesn't affect his daily work. (The owner proposed to have consultancy meetings on Saturdays or during weeknights). Third, the program would be better if it is tailored to the requirements and goals of each firm. In his particular case, the owner stated that one of his main goals was to get an international certification, since that is important for his business; however, the owner does not know how to do this. He also would have liked the mentorship to focus more on fumigation-related topics (like better service and safety) in addition to focusing on general topics, such as sales and formalizing operations. The owner stated that while he knows how a fumigation firm works, he would have liked to receive "the fumigation firms' bible".

Program Valuation:

The owner remarked that he doesn't know what the full cost of the program is, but he would definitively participate in it again, although he would like it to be more focused on fumigations. A possible reason why he didn't know the full cost of the program is that he hadn't taken any mentorship before or even inquired about the costs or benefits of these programs.

When he was asked if he was going to continue with this mentorship, the owner stated that he is still evaluating this idea because he wants to find out if the mentor can offer him a mentorship that will help him get ISO 9001 and ISO 14001 at a reasonable cost. For him, both certifications are important because they will help him attract customers with special environmental and quality requirement (such as Volkswagen).

Main challenge:

According to the owner, the two main problems of his firm when the mentorship began were the lack of stability, because they didn't have a constant inflow of cash, and the high personnel turnover, which generated too much uncertainty. These problems were identified with the help of the mentor, who commented that if they didn't have, "something basic, something formal", it wasn't possible to reduce the personnel turnover.

The lack of cash flow was solved when the firm got an important customer – a bus company- which required its fumigation services frequently. The firm got this customer with the help of the mentor by guaranteeing better results than other suppliers and by offering the first month of service for free so that the client could see if they liked the service. When the bus company obtained good results, they hired GHA for the whole fleet. This assured GHA a constant flow of income, which allowed them to focus on improving the firm rather than focusing solely on survival. Also, the success of this strategy has given them a lot of confidence to repeat this strategy with other customers. The owner remarked that he now approaches restaurants or other potential clients by saying, "if I don't solve your problem, you don't pay me; but if I solve it, you pay me the true value of the service".

To solve the high personnel turnover problem, the mentor suggested that the firm improve its human resources management (more details on this are below in the section on mentor comments). However,

some employees simply didn't like fumigating so they decided to leave the firm. The fact that they had to work with poison and wear an uncomfortable suit that makes them sweat a lot may have been too uncomfortable for these employees. The consultant also suggested that the entrepreneur create a couple-day probation period during which new employees can explore whether they like the job or not. This probation period could also allow the owner to determine whether he thinks the employees are a good match for his firm. According to the owner, the two characteristics that he looks for in employees are willingness to work hard and having a good attitude.

When asked whether he had thought about any these solutions himself, the owner stated that despite the fact that he had thought about them, he hadn't implemented them because he didn't know how to do it.

In addition to implementing the abovementioned solutions, the mentorship helped the owner to tailor his vision, mission, and goals to the firm's current needs. That is, the mentor encouraged the owner to focus on short-term problems first in order to secure the firm's survival. Despite the international crisis, the firm's sales have increased, which now allows the owner to turn his attention to the pending long-term issues, such as certifications and brand management.

With respect to credit, the owner mentioned that he would probably not be able to get a bank loan since he had some bad years in the past that affected his credit score. He has not applied for a loan during the past few years because he thought that the procedures were too bureaucratic, even though there were a couple of times where he may have needed it. The mentor didn't work on this subject because it wasn't one of his priorities.

Finally, the owner said that he had an excellent relationship with the mentor and that he is satisfied with his work and feels that his firm has improved. However, even though the owner plans to get a mentorship in order to obtain a certification, he hasn't talked with the mentor about continuing the current mentorship.

Main advantage of the program:

According to the owner, the biggest advantage of this program is that it helped to consolidate the firm, reducing the uncertainty in cash flows, thereby also improving morale and confidence in the operations.

Main disadvantage of the program:

According to the owner, the biggest problem of the mentorship is that, because of the cancellation of the program, the proposed timeline wasn't respected and therefore the firm didn't reach the all of the stated objectives.

Mentor comments:

Mentor: Jaime Roque

Mentorship Firm: Infovisionary

According to Mr. Roque, the biggest challenges that this firm faced were to improve sales, improve human resources management, and train their personnel. Regarding the first point, the mentor identified that they didn't have enough loyal customers and had difficulty attracting new customers.

The second problem was that the firm didn't have any human resources management. There wasn't an organization chart, a career path within the firm, or even a clear organization of tasks. This situation led to inefficiency in human resources, as employees weren't comfortable working in that situation and would often leave the firm soon after being hired. The third problem was a consequence of the second one: since there was high employee turnover, they spent too much money and time training employees that did not stay with the firm. During the mentorship, four people that were trained by the firm quit.

The mentor also stated that the entrepreneur had a general idea that something wasn't right, but couldn't pinpoint the exact problems. He believed that there was a problem with sales and human resources, but he didn't know how to solve it.

In order to solve the first problem, the mentor suggested improving their sales and marketing practices by making an effort to increase customer loyalty and to identify and target potential customers. Since the owner was very good as a salesman, the mentor recommended that he should be in charge of these efforts, specifically for corporate clients. The firm was also accepted as part of "Vive Puebla" (Puebla Lives), a coalition of firms in the state of Puebla, which enables them to find new customers. Finally, they improved their customer administration system in which they generated a database of customers to contact them with advertisement of new services.

To solve the human resources problem, they first created a talent matrix of the firm to identify their strengths. A talent matrix is the set of talents of each of the employees. These talents are determined by a test provided by the IPPC (Instituto Poblano para la Productividad Competitiva, or Institute for the Productivity and Competitiveness of Puebla). Then, they formalized this area by improving internal communication, developing vision, mission, and defining each employee's responsibilities, among other actions. Finally, the mentor taught the entrepreneur some techniques to improve the hiring process.

Unfortunately, these techniques didn't work to reduce employee turnover. At the beginning, the firm had three employees and all of them left the firm (one of them was the entrepreneur's brother). Then another three new employees were hired and trained, but again, two of them left. They hired one more employee and the entrepreneur's brother returned to the firm, so they currently have three employees and two interns.

Besides these activities, the mentor also organized some courses and some team-building activities. The main courses were about fumigation, infestations, and first aid, which reportedly gave the employees more confidence in their work. Sporting events and dinner outings were organized to help generate a sense of belonging to the firm.

The results from these practices were mixed. On one hand, sales and profits increased, particularly because they began working with a regular corporate customer (an important bus company in the

state). The presence of this regular customer assured a regular monthly cash flow, which allowed the entrepreneur to focus on improvements to the firm and not only on firm survival.

On the other hand, as previously stated, there wasn't any evidence that the ideas aimed at reducing employee turnover worked, since during the mentorship the turnover rate didn't decrease. However, the mentor thinks that the current workforce will be more stable. Another continuing problem is that the non-corporate customer sales didn't increase, even with their new efforts.

According to the mentor, this firm isn't yet prepared for rapid growth. While the quality of their service and knowledge about their work are their main competitive advantages, the lack of capital and the weak organizational structure are problems that they will have to solve in order to grow.

Finally, according to the mentor, there was a very good relationship between the mentor and the entrepreneur. They worked as a team and he believes that the entrepreneur is very pleased with his work. However, they haven't talked about continuing the mentorship after the end of the subsidy, because they are still finishing the previous work plans.

Case Study #3: TAKK

Demographic Information:

The owner is an architect, who also serves as CEO of TAKK, a construction firm. Since he worked 21 years in the public sector before working full time at TAKK, he has several great contacts and extensive "know how" about governmental purchases and projects. For this reason, 80% of his firm's projects are with the public sector.

The owner's daughter entered the firm in 2002. She studied architecture in Puebla and got a master's degree in Italy. When she entered the firm, she took the position that her mother had held which is the drawing and design of projects. The owner's son studied civil engineering in Puebla and also got a master's degree while he worked in his father's firm. For that reason, he didn't have any previous working experience. He currently directs the construction division of the firm. Both his daughter and his son decided to work with their father with the purpose of improving the firm and increasing its value.

Firm history:

TAKK was founded on December 15th, 1989 by four partners who worked in the public sector. Since entrepreneurship is risky, they decided to create the firm without quitting their jobs in the public sector. Two partners have meanwhile retired, so only the owner and his wife remain in the firm.

When the firm opened, the four partners (since they didn't have any other employees) designed public water projects because one of the partners had experience doing this. Initially, they only designed projects and did not build them because they didn't have the necessary machinery and there is a law that bans public servants from building projects.

Later, they began building urbanization and water sanitation projects but not for the state government. Instead, they worked with private contractors and local governments. By 1999, the owner and his wife controlled the firm after one of the partners retired and they bought out the other one. In February of the same year, both, the owner and his wife quit their government jobs and began working on church and house restoration after an earthquake hit Puebla.

In 2002, the owner's children began entering the firm to replace his wife who had left the firm. Since 2000, the owner wasn't legally banned anymore from building public projects, so they began to diversify and built hospitals, schools, and roads for the government. They grew slowly until they reached their current situation in which they have diversified to every type of construction project. In 2007, they created another firm, HOPA, to diversify their operations and hire more employees.

The firm also began developing a more formal structure because they needed to comply with many government requirements to be able to participate in public projects. Currently, the firm has 40 employees, of which 6 are in management, 12 in project supervision, and 30 in labor. The firm is divided into three areas: construction, projects, and sales. The owner's daughter is in charge of the projects, while his brother leads the construction division. Together, they manage the sales area. The owner is

also the general director of the firm. The fact that the owner's children are in important positions is to ensure that they are ready to assume the leadership of TAKK when needed.

An important advantage of this firm is that it is very flexible regarding labor because they have few permanent employees. In this way, when they don't have projects, they only have around 10 employees, but when they have a project, they can hire specialists and increase their total personnel up to 40. They also have the required connections to make this strategy work.

A future project that has been postponed because of the crisis is the development of a residential area in Puebla where they would have been involved in every aspect of development: from designing and building the houses to sales and maintenance. They have already acquired the land and the blueprints, but they have decided to wait until after the crisis to execute the project. With this type of project, they hope that they can increase the share of private projects in the portfolio from 20% to 50% in a few years.

Several years ago, TAKK began diversifying their operations beyond construction. In 2005, they began selling different products to the government with different objectives. This division helps them to secure a cash flow and reduce the construction business volatility. Recently, TAKK has opened a machinery rental division. This generates money from assets that are not currently in use. They had this idea when they had to rent machinery for an especially big project.

Program recommendation:

The owner stated that he was satisfied with the program because, in spite of the crisis, the firm has grown a lot. Several of his friends in the construction business are having a hard time, but his firm is growing.

According to the owner, this program would benefit every firm because it provides structure, meaning that the firm avoids improvising, and because it is good to update a firm's strategy, vision, and mission. However, the impact of this program may be bigger for micro and small firms because it is more difficult for them to organize and formalize.

The owner is satisfied with the number of mentorship hours received because if they were increased, he would have to stop working. In order to improve the program, he thinks that it should be more concrete, with more action and a little less reflection. The owner's daughter proposed that a mentorship handbook should be made so the entrepreneurs would focus on long term objectives. Another advantage of the program is that it helped to plan future projects, identify the best time to implement them, and how to execute them more efficiently. The owner said that he would have liked to cover economic and financial subjects because they are vital for a firm's management and most of the architects and engineers lack that particular knowledge.

Program valuation:

The owner was interested in participating in this program because he felt that it would allow the firm to improve its internal management, modernize and plan better for the future, and also prepare his children to direct the firm in the future. For this reason, independently of the results, he greatly valued this experience because it allowed him to get closer to these objectives.

The owner knows that the program is worth much more than what he paid for it. If it hadn't been subsidized, micro and small businesses wouldn't have been able to participate and they are the biggest winners from this program. This is why he thinks the subsidy was very important.

When asked how much would he be willing to pay for the program knowing its benefits, the owner said that while he would like to pay whatever he wants for the mentorship, financially, he can only afford 20% more of what they paid (which was 2100 pesos per semester).

The owner hadn't used mentorship services before because he didn't need them, as he knew the administrative basics of the business: goals, policies, etc. However, when his children entered the firm with new administrative ideas they had learned in university (strategic planning, mission, and vision), the owner realized that it was better to update his ideas than to force his children to follow them. For this reason, he realized that he needed a mentorship. His daughter also said that the mentorship helped to deal with the risks of being a small firm.

The owner said that they haven't thought about continuing the mentorship yet. His daughter said that it was unfair to cancel the program when they have complied with every regulation. However, the owner's son confirmed that they were going to continue the program with a subsidy of Puebla's Construction Chamber.

Main challenge:

When the mentorship started, the firm's main interests were in putting things in order and planning in a more modern way, with the long term objective of getting a certification. The owner's daughter also stated that she thought that the program could give them more opportunities to grow, such as preferences for state purchases.

When the mentor arrived, he diagnosed the firm's problem and discovered that they could improve the relationship between personnel and management as well as the administrative control system. The entrepreneurs didn't suspect that these were problems because they had always worked in that way. To solve the personnel relationship problems, the mentor worked with the talents diagnostics provided by IPPC, proposed integration activities (such as dinners), and developed an internal rulebook.

In order to improve and modernize the administrative control system, the mentor began designing an administrative procedures handbook (it also includes the procedures needed to work with the government). Besides that, the mentor worked on developing a strategic plan for the firm, specifically, its mission and vision.

The results have been very positive. The owner's son thinks that personnel's satisfaction is much higher now because they have a better relationship with management based on trust and communication. The only problem is that some employees, who know the system, want to open their own firms. Regarding the administrative control system, while the procedures handbook is still at 60% of completion, the documentation has vastly improved because everything that is done in the firm is now registered. Despite the crisis, these improvements have increased the sales, revenues, and profits.

The owner believes that the program he received was standardized and targeted to the medium term. The mentor offered courses to them, but he didn't directly teach anyone.

This firm hasn't asked for a loan, so they don't know how good their access to credit will be. However, the owner believes they could easily get a loan because they have enough liquidity and assets. Currently they are still considering getting a loan for working capital because their customers owe them around 6 million pesos and they need money to develop new projects. However, the owner isn't convinced.

The owner feels that they are missing a few important concrete improvements, such as the handbook of procedures, which will contribute to formalizing and professionalizing the firm, preparing them for future growth. When they are ready to grow, they believe that credit will help them grow faster.

The owner is very satisfied with the mentor because he has known him since college and they have a good relationship. The owner's children also got along very well with the mentor and they were very happy with his seriousness and punctuality.

Main advantage of the program:

The main advantage of the program is that it has put the firm in order, which is a feature they consider to be a key element for the future growth of the firm.

Main disadvantage of the program:

The biggest disadvantage of the program is the time that needs to be allotted to it because they always have something else to do, such as going to a construction site or participating in a meeting. However, they realize that this is the opportunity cost of the mentorship.

Mentor comments:

Mentor: Carlos Luis Roldán

Mentorship Firm: CMIC

According to Mr. Carlos Luis Roldán, TAKK's mentor, this firm is one of the best that he has mentored because while in 2007 it had less than ten million pesos in sales, in 2008 they sold fifteen million pesos and in the first semester of 2009 they had achieved the same number. One reason for this increase is that they had begun bidding for bigger (and more profitable) projects in association with other member firms of Puebla's Construction Chamber. While the crisis has affected them, its main impact has been in the form of a longer grace period for customers and not in the form of reduced demand.

Since the owner has excellent connections with the public sector, approximately 80% of their projects are government related. Among these projects, the main ones are the building and maintenance of schools and roads. Their private sector projects (which represent 20% of their portfolio), include restoring colonial houses and churches. However, they have also worked on commercial and industrial projects.

When the mentorship began, the firm's biggest problem was that the internal procedures had to be improved; many processes were undocumented, such as the mission, vision, and strategy. Through the consultancy, the entrepreneurs realized how important it was to improve these internal procedures, particularly to develop a management system and a procedures manual. The challenge was to make the family and the rest of the employees realize how important this was while they were adapting to a more important role for the owner's children.

Mr. Luis identified this problem by examining the organizational climate and the training needs of the firm. This indicated that the firm needed to be professionalized and formalized. For this reason, they began to create a procedures handbook in which the roles and the people for each role were defined according to the talents matrix made by IPPC.

The results were very promising. The owner's children are now much more integrated into the firm and even the children that currently don't work at the firm (a lawyer and a student) are thinking about how to make improvements. The procedures handbook is 60% complete and is expected to be ready by the end of the year. Also, they developed a quality system that will allow them to refine their management systems so they can have a higher degree of flexibility and maybe get a certification in the future. Another subject was the development of new forms and registers to formalize the firm. Since the IPPC interrupted the program, Puebla's Construction Chamber offered to subsidize the rest of the program so that it wouldn't be incomplete.

At the beginning of the program, a tool was used to measure the firm's growth potential, which classified the firm as having a medium potential. However, a year later, the test was repeated and now the firm has high growth potential. This firm's main competitive advantages are quality and contacts with the public sector. Regarding its quality, its work is recognized as very good, resulting in customer trust. Regarding its relationship with the public sector, the owner was infrastructure director for the state of Puebla so he has a lot of contacts in the state administration. Also, he is part of the board of Puebla's Architecture Society.

The relationship between the owner and the mentor was great because they knew each other since college. Also, the relationship with the owner's children and the rest of the employees was great because they were committed to the mentorship ideas.

Case Study #4: Mascotas Nacional

Demographic Information:

The 33-year-old owner of Mascotas Nacional, a firm that currently sells pets and toys, has liked animals ever since he was a child, especially exotic species, and for that reason he studied to be a veterinarian. Following his father's example, he opened his own business because he didn't want to work for anybody else. Also, he believed that in this way, he could generate money and create employment for his family.

The owner's father also had experience as an entrepreneur. Before getting married, he used to work as a driver and earned a good wage (1100 pesos per week when the average was around 200 pesos). But then his wife convinced him to become an entrepreneur and get into commerce. He bought clothes and toys with his savings and then sold the merchandise at the end of the year. It was a profitable business, which allowed him to pay for the education of his children and buy a house. However, during the 1994 crisis, many of his clients couldn't pay their debts, and he went bankrupt.

The firm Mascotas Nacional was founded by the owner Jiménez in 1994 as a pet store. At the beginning, the store only sold animals. In 2004, the owner's father began working in the firm. Since the father had previously worked as a toy salesman and had many contacts with toy suppliers, they got a very good trade credit offer from one of the father's former suppliers. Originally, they were planning to buy around 30,000 pesos in merchandise from the supplier, but in the end, they got much more and with better conditions than they had expected. This is how they entered the toy business.

Firm History:

Mascotas Nacional is a firm that currently sells pets and toys. This firm was originally opened as a pet store in 1994 with only one employee, and it was registered with the authorities in 1996. In 2000, after the owner received his degree as a veterinarian, they increased their stock of exotic animals because they were better able to take proper care of them. Currently, they have several exotic animals such as boas, scorpions, and lepisosteus (a fish that looks like a reptile). In 2001, with the help of a family member, they opened a second store in a nearby town, and in 2004, with the help of the rest of his family, they opened a third store in Acatzingo, where the original store was also located. Later, they rented a new place and, since it was bigger, they merged both Acatzingo's stores.

In the store located in Acatzingo, they began selling toys in order to diversify their portfolio of products. Later they tried to grow with help of a loan, but its cost was very high and made them fall back on their payments until they got another credit just to pay off the unpaid interests of the first loan. They felt that their situation was unbearable because they didn't have the money to buy new merchandise or pay their eight employees (of which five were relatives of the owner). They had to use basically all their revenues towards paying off their debt and were running out of merchandize. The owner said that their firm was in "free fall" and they were almost sure that they were going to have to close it. This was the situation when the mentor, Mr. Sandoval, began working with them.

Currently, Mascotas Nacional is the largest toy and pet store in Acatzingo. While there are other firms that are beginning to compete with them, Mascotas Nacional is still the best. The owner told us that they don't want to allow the competition to steal their market share, so they are trying to innovate and improve.

Program Recommendation:

According to the owner, they are very satisfied with the mentorship because it saved them from bankruptcy. His father was even clearer: "We were fried". Mr. Sandoval helped them to solve a range of problems from accounting to family issues. They are convinced that without Mr. Sandoval they wouldn't have been able to resolve these problems. The owner's father mentioned that he would not hesitate to say the "program isn't good" if he thought that it wasn't, but the mentorship was extremely useful for the firm. For example, the owner said that he didn't think they were going to make it past December. Despite the crisis, the firm's May 2009 sales were only 3000 pesos lower than May 2008 sales. They expected a 25% drop of sales, but they only fell by 3%.

When asked to which type of firm he would recommend this program, the owner answered that it would be useful for everyone, but particularly for new firms since it would help them lay strong foundations for future grow. The owner's father commented that if they had received this program when they opened the firm, the firm would have had much less trouble because he would have known what was and was not important.

The owner couldn't pinpoint what would be necessary to improve this program because for them it was perfect. However, he is worried about facing future challenges alone that they may not be able to master. The owner believes that the number of hours they spent with the mentor each week was adequate since it gave them enough time to address several problems and to interact with Mr. Sandoval. He also stated that Mr. Sandoval was very attentive, even between meetings, so they felt supported. The owner's father added that Mr. Sandoval told them that the results of the program would be 10% due of the mentor's ideas and 90% due to the commitment and execution from the side of the firm's owners. This motivated them to put all their efforts into achieving good results.

To illustrate the usefulness of the program, the owner told us an anecdote. After they had already bought merchandise for the holiday season, Mattel and Hasbro (the two largest toy suppliers in Mexico) decided to lower their prices in order to liquidate their stock because of the global crisis. This caused the owner to worry that Mascotas Nacional wouldn't be able to compete with department store prices and therefore, they wouldn't sell enough toys. At first, he wanted to lower the price of every product by 10%. However, through Mr. Sandoval's help and his contacts at toy wholesalers, they discovered that the department stores were only planning to liquidate excess inventories and were lowering prices for a short time only. Based on this, the owner decided to only slightly reduce his prices and to wait. In the end, this turned out to be the best option because their sales were very good during the holiday season. Even better, they were later able to sell some products that had remained in their inventory at better prices. For example, while electronic cars were being sold in Mexico City at 6000 pesos, they offered them at 5000 pesos.

Program valuation:

The owner felt that is difficult to identify the true value of the mentorship because they haven't received similar programs before. Although at the beginning he thought it was expensive, after he saw the benefits from the program, he felt it was worth what he paid for it. He would gladly pay more for the program, but he can't as a result of their current financial situation. If next year they try to replicate the program but with a higher price tag, they would be willing to pay more but only if the firm prospers. The owner's father said that it would be interesting to consider different prices scheme for different firms depending on the firm's sales.

When the owner was asked why he hadn't used mentorship services before, his father answered that those services weren't well known in the area since there isn't any consulting firm in town and government programs are still scarce. Also, Mr. Sandoval told us that his consulting firm usually has medium and large firms as customers because they have more resources to pay for their mentorships. As a matter of fact, the owner's father stated that they found out about the program by sheer luck after his daughter-in-law discovered it online.

The owner and his father didn't know that the program was going to end, so they were very surprised when we asked if they were going to continue with the program. Nevertheless, they answered that they would love to continue but they probably won't because of financial constraints. If a new subsidized program would open, they would definitely enroll because they know the benefits.

Main challenge:

According to the owner, the biggest problem of the firm was its lack of capital: while they needed money to re-launch the firm in order to regain profitability they also had a substantial debt. They knew they had a problem and Mr. Sandoval helped them identify it. In a very risky move, the owner's father mortgaged his house so they could get enough money to cover their debts and buy new products that would attract new customers. The owner also stated that since the firm was in a critical state, "they didn't need a painkiller, they needed major surgery".

An additional problem was the behavior of toys sales, which were very high in December and January. (during the last Christmas and Epiphany season, they sold one million and a half pesos[29], approximately 65% of their year sales) and very low the rest of the year. To face this problem, Mr. Sandoval proposed using sales and discounts and targeting other holidays. For example, one promotion was to give away little fish for each purchase in the store. In this way, the customer had to also buy an aquarium and food for the fish, thus benefitting the firm. During the mentorship, the firm made special promotions for Children's Day and school vacations, among others. The level of sales achieved during those days (specifically, the previous days) was above the low month average, but still less than for holiday season. They also thought about targeting Valentine's Day, but they didn't because it required them to buy special products for that one day that would be very difficult to sell for another holiday.

[29] Assuming an exchange rate of 13 pesos per dollar, last holiday season sales were around US$120000.

Another relevant problem is that they previously worked with high volumes and low margins. However, Mr. Sandoval showed them that this strategy wasn't very profitable, so they stopped doing this, except for a few friends of the firm but at higher prices. Currently, they have a similar level of revenue, but with lower volumes and higher margins. If they had continued with their previous strategy, currently they would have been bankrupt because of the crisis.

Mr. Sandoval also helped them to develop a sales and inventory daily control system for each and every one of their stores. With this purpose, Mr. Sandoval organized some workshops (the owner said that this course was very good) and gave them some accounting software so they can calculate with more precision the financial situation of the firm. For example, Mr. Sandoval told them the case of an industrial firm that offered more than two hundred products, but after its mentorship they discovered that only thirty were responsible for the profit of the firm.

In the same way, Mr. Sandoval helped them with their prices, specifically, when department stores sold under the supplier prices. Also, in order to avoid unnecessary expenditures, Mr. Sandoval helped them with profit margin for each product, so they can focus on the profitable products. The Coleote family had identified which products were sold faster, but they didn't know which products were more profitable.

Mr. Sandoval also recommended selling the store in Puebla; that store wasn't profitable since the revenue generated was similar to the cost incurred. This information was acquired through the better control system that was previously implemented. Even though they hadn't noticed this problem before, when Mr. Sandoval showed them the numbers, they decided to sell the store. In this way, the overall profitability increased.

Mr. Sandoval also helped them identify the profile of each of their employees, so the firm can work in a more efficient manner. For example, during the Christmas season, the owner supervised the store while his father worked at the checkout. In this way, each of them had their own responsibilities and were useful to the firm. Both were very happy with this situation and even the owner's mother said that, "not everyone is useful for the same, but everyone is useful for something".

Regarding the access to credit, the owner said that it was very hard for them to obtain a loan because of the volatility of their revenues and the low cash balances they have with their banks. Before Mr. Sandoval arrived, they were already in debt at a very high interest, so with Mr. Sandoval's help, they tried to renegotiate their debt. The previous bad management of the firm's debt made them lose an important amount of money and left them in a very complicated financial situation, so it was vital to renegotiate their debts. With this purpose, the owner's father mortgaged his house for a million pesos with a private lender so they could have enough capital to re-launch the firm; during the mentorship they didn't have access to bank loans. Currently, they are paying interests, and in January (after the holiday season), they will repay the loan's principal.

According to the owner's father, he tried several times to ask for a loan but didn't get it because of the great quantity of papers and bureaucracy required. According to him, the bank's financial requirements

are very high because, “in order to ask for a one million pesos loan you have to have three million pesos in the bank, so it is better to use your own money”.

Main advantage of the program:

According to the owner, the main advantage of the mentorship was that it saved the firm from bankruptcy. The owner commented, “Without this mentorship, it wasn’t the case that we didn’t get to the next year; we didn’t get to December!” Despite not being able to hire more employees, the fact that the firm still exists, secures employment for their current employees and opens the door for the hiring of more employees in the future.

Main disadvantage of the program:

According to the owner, the program has been perfect for his firm because it helped solve the firm’s problems without contributing to its lack of capitalization. If the expenditure would have been higher, maybe it would have been pernicious for its shaky financial situation.

Mentor comments:

Mentor: Mr. Jesús Sandoval

Mentorship Firm: De Negocios

According to the mentor, the biggest challenge for this firm was to solve the family problems that had a strong impact on every part of the firm. The father and the son were arguing too much, which created a stressful environment for the firm (and the family), caused a drop in sales, and resulted in physical and emotional damage to the firm. While they knew that this was a problem, they didn’t realize its impact on firm performance.

Even worse, liquidity constraints aggravated the problem because they didn’t know how to manage those constraints and therefore it was another source of conflict. Also, they used some of their resources on expenditures not related to the firm, such as a car service and health insurance. For this reason, they owed approximately 1.5 million pesos[30] while they only sold 100,000 pesos per month. Since they didn’t have an accounting system, it was very difficult for the firm to determine its financial situation, so they had to make decisions without the correct information.

Another problem was the high seasonal variation, or seasonality, of toys sales. Since the business began, December and January have been the highest-selling months of the year due to the winter holidays[31]; sales drop in mid-January and are low through June. Later, from July to November, sales slowly increase.

At first, Mr. Sandoval thought that this firm couldn’t be helped by mentorship and it was best to let it fail; with the family problems and the large debt, the problems seemed insurmountable and it wasn’t ethical to “prop the firm up” for another few months with mentorship. However, with his last attempt,

[30] Assuming 13 pesos per dollar as an exchange rate, the debt was around US$ 115000.
[31] In Mexico, children receive presents on Christmas (December 25th) and Epiphany (January 6th).

he managed to get some results. In order to solve the family problems, he talked individually to the father and the son and convinced them that their relationship was more important than any firm. He also emphasized that they should respect each other and work together for the good of the family. In a certain way, he worked as a mediator between the two of them, helping to heal the rift in the family.

Once the family problems were solved, they had to deal with their debt. Since their loan applications were refused from commercial banks, the father, with the approval of Mr. Sandoval, made the decision to mortgage his house to pay their debts and invest in the business. It was a risky business proposition, but it has been successful. With this money, they made several changes to the firm. First, they cleaned and reorganized their stores, adding more color and improving lighting to attract more customers. Second, they negotiated with their largest suppliers of toys, Hasbro and Mattel, to receive better prices by paying in advance and in cash. In this way, the firm could offer better prices and compete with department stores.

In the meantime, Mr. Sandoval had been working with the firm's accounting, teaching them how to improve their record-keeping and giving them software to facilitate this. It is through the use of this software that they discovered that the Puebla location (one of their three stores) wasn't profitable, so they decided to sell it. Later, they opened another location in a small town near Acatzingo, their main location and where the family lives. This location has been profitable.

In order to deal with the seasonality of sales, they began to offer discounts and special offers during the year to increase sales in their weaker months. They also targeted several holidays and special occasions (school vacations and Children's Day, among others) to reduce the seasonality.

The results of these solutions couldn't be better. Even though the family and the mentor didn't think that the firm would survive in mid-2008, the firm is much more profitable than before, as demonstrated by the fact that they had a 35% increase in sales and 50% in profit. This revenue is allowing them to pay their mortgage, improve the firm, and live better.

According to Mr. Sandoval, the main constraint for the firm's growth is that they are still too dependent on the mentor. In order to be ready to do everything by themselves, they need at least one extra year of mentorship in which they will focus on strengthening the firm so that they can make decisions and identify potential problems for themselves.

Again, according to the mentor, the main competitive advantages of this firm are that they have a diverse product line and a strong responsiveness to client demand. Regarding this last point, the mentor commented that they have great customer service and they are not afraid to take chances and to think outside of the box; however, they aren't ready to grow because they still need some guidance from outside to professionalize its management. The firm needs to further develop this ability so it can take full advantage of its growth potential.

Finally, the mentor stated that even though the familial problems were difficult, his relationship with everyone in the firm was excellent and based on trust and honesty. He doesn't believe that he is going

to continue mentoring this firm once the subsidy ends; he cannot afford to continue providing services at a lower rate and the firm is far from Puebla.

Case Study #5: Piparama

Demographic Information:

Piparama is a firm that specializes in water transportation in the city of Puebla.[32] The 41-year-old owner stated in the interview that he comes from a humble family and that he was influenced by his father, mother, and brother who were all entrepreneurs. Based on his background, he decided that he wanted to be an entrepreneur as well because he has always enjoyed being his own boss.

Regarding his education, he has a bachelor's degree in business administration. However, his main advantage in this business is his experience; he began working in water transportation around 20 years ago. When he was in college, he and his cousin rented the water delivery truck of a friend that wasn't using it. During those three months of renting the truck, he learned the basics of the business.

According to the owner, he was interested in the water transportation business because he believes that water is a strategic resource for which there will always be strong demand. Although a large number of houses in Puebla have piped-in water service, the owner stated that he also sells water to compensate for pipe failures and extra needs, such as filling a pool, among other situations.

Firm History:

The owner founded Piparama in 1992 and since the first day, the firm has been formally registered. The main reason he opened the firm was to generate money. He needed a way to support his family because he was unemployed at the time. Also, he wanted to be his own boss. When the firm started, the owner was the only employee and he only had one truck. Now he has 10 trucks and 7 employees including himself. The owner bought his last truck about one and a half years ago and he doesn't have a capital restoration program because he claims that he only buys new equipment when he has the money.

Piparama is a "persona física" firm, which is the legal regime that roughly translates to "person with entrepreneurial activity". The owner owns 100% of the equity of the firm. However, according to him, even though he is the owner, he still does whatever is necessary at his business, from answering phones to sweeping the patio, driving a truck to negotiating with customers. In other words, even though he is the owner of the firm, who is supposed to be in charge of the strategic planning and leadership, he still does daily chores.

Would you recommend this program?

According to the owner, the decision to recommend this program depends on the characteristics of the entrepreneur to whom he would be recommending it. He wouldn't recommend this program to entrepreneurs with a minimal level of infrastructure or experience because he believes that the program might distract them from the hard work needed to get the firm going. He also said that without a certain level of infrastructure or experience, the mentorship program's impact might be smaller.

[32] Piparama is a firm that transports water from wells and other extraction points to consumers' water tanks.

The owner also indicated that he would recommend the program for people without a college education, but he wasn't sure about recommending it for people that have recently received a college degree in business administration. His reasons were that while the program might help organize and standardize the knowledge of the entrepreneurs who do not have formal education, it might be redundant for the recently graduated college-educated entrepreneurs, as the program would repeat some of the same knowledge that they received in college.

According to the owner, in order to get the most out of the mentorship, firms should have a minimal level of infrastructure and experience, an organizational structure that won't collapse because of the changes[33], a business culture that encourages learning, and realistic expectations of the mentor program.

When asked how he would improve the mentor program, the owner said that he would like to increase the practical training aspect and tailor the program more to the firm's necessities. According to him, the mentorship shouldn't come with a predetermined program to force onto the firm, but instead try to deal with the firm's real problems. However, when asked if the mentorship did a diagnostic at the beginning of the program, he admitted that it was done; however, he said that every proposed solution was too difficult to carry out because they didn't give him any resources. Finally, he also said that he would have liked to dedicate more hours to accounting and logistics training even if it had meant reducing the time allotted to other subjects, such as strategic planning and human resources. While the owner didn't explicitly say that he preferred "hard skills" (accounting, logistics, etc.) to "soft skills" (human resources, mission, vision, etc.), he gave that impression in a number of his answers.

Program Valuation:

In order to identify how much the owner values the program, he was asked about his willingness to pay for the mentorship, his willingness to sell his spot in the mentorship program,[34] and whether he had used private consultants before.

Regarding his willingness to pay, the owner said that he will be willing to pay 70% of what he already paid. This is a surprising result because the cost of mentorship was highly subsidized and the amounts paid by the firms were small in comparison to the true cost. Since the owner's firm is a micro firm, he only had to pay 700 pesos monthly for the program. Therefore, from this information, we can deduce that the owner doesn't value the consulting services received by his company at the market rate, or even the subsidized rate, of these services. However, he may not have had any idea about the unsubsidized price of consulting and simply gave a percentage related to his level of satisfaction with program.

Regarding the owner's willingness to sell, he indicated that, even with the program's perceived weaknesses, he wouldn't sell his place in the mentorship program. He stated that he prefers to have

[33] When asked to clarify this point, he claimed that too many changes could break a firm by forcing people to change when they don't want to.

[34] Selling a firm's place in the mentorship program was not a real possibility. Instead, it was a hypothetical suggested to discern value of the program to the firm.

access to this knowledge and then decide if it is useful for him rather than selling his place. He said that "knowledge does not have a price."

Finally, regarding whether he had used a private consultant before, the owner answered that he had not because he didn't have the money, he was too busy working, and he felt that he didn't have enough infrastructure to make the most of a consultant. He also stated that after experiencing this mentorship, he doesn't think that he is going to use a mentorship again because it was not very useful for him.

When asked why the mentorship hasn't been useful for him, he said that in order to consider the mentorship a success, he would have to get access to a loan. He claims that he told the mentors that credit was his priority, but they told him that the program wasn't designed for that. However, the mentors said they would help him with getting credit later. Because the program was suspended, they never got to that phase, and when the owner applied for a loan he was rejected.

Main Challenge for the Firm:

Regarding the main challenge for his firm, the owner said that it was relationships with people, both inside and outside of the firm. He is worried that his employees show little commitment to the firm, are not passionate about the work, and don't have enough training. Even worse, every time he gets a good employee, after a couple of months, this person leaves Piparama to create their own competing firm. Regarding relationships with people outside of the firm, the owner was worried that his clients are only interested in the price of their water and not other factors, such as quality and professionalism. For example, he keeps his modern fleet of trucks in good repair and pays benefits to his employees, both of which raise his production costs. Therefore, the informal firms that use old trucks and are not registered for operation with the government have an advantage over his firm because they can sell their water at a lower price.[35]

According to him, he is the one who realized this was a problem, but the mentors focused on accounting issues. He didn't consider accounting as a problem for his firm and saw the mentor's efforts as more of an update. When he told the mentors about this problem, which he considered his biggest challenge, they proposed that he hire an external firm so they can evaluate any job applicants. However, he didn't hire the firm because it would generate an extra cost. He didn't believe it would be useful and said that he prefers to participate in the hiring process. Currently, these relationship problems are still unresolved even though he has tried several options, such as loyalty campaigns, prizes for his customers, and social integration (baseball teams and firm parties) for his employees.

The owner also complained that to have the mentorship as a "little school", that is, teaching the basics and general ideas about running a business, wasn't enough because the mentors were only giving him general tools that might not help him grow in the short term. The owner said that he has changed his mission and vision, but he was sure that in the future they would change again due to new administrative ideas. However, he said he didn't know how this was going to help make his firm grow.

[35] The owner didn't mention if the mentors had helped him to determine that these relationships are his biggest problem. As a matter of fact, it seems that he didn't speak directly about this problem to his mentors.

According to the owner, the mentors taught courses on management, logistics, and accounting. For him, the management course wasn't very helpful because it didn't directly impact his business. He found logistics very interesting, but also very difficult to apply, so he considers it a long term project. Finally, accounting was the only instruction he found marginally useful in the short term, because it updated his classes from college. He thought that these courses were aimed at the long term, because in the short term, there isn't any money to execute their recommendations.

He would have liked to have a course that could be better applied and that dealt with daily problems. He also expected that the mentorship was going to produce more opportunities for his firm, such as networking with larger firms and help with receiving credit. Since access to credit was his priority, he was disappointed with the mentors regarding this point. His access to credit was very difficult because he didn't have any collateral and he has been denied a couple of times. However, he believes that his business could grow exponentially if he gets a loan tailored to his necessities. For that reason, he asked the mentors for help in order to prepare a better loan application. Nevertheless, the mentors told him that they were going to cover that topic later, but since the mentorship ended before schedule, there wasn't time to help him with the loan application. While he thinks that with the help of mentors he could possibly get a loan, he doesn't want to hire a mentor again.

Finally, the owner told us that he has a new project for the future. He received permission from the state to extract water from underground sources, but the well represents a large investment (around one million pesos), so he is planning to mortgage his property in order to get the required capital. Actually, the day before the interview, he began the process of mortgaging his property for the well investment. However, he later informed us that the loan had been denied. When asked if the mentors have helped him, he said that he received little help from them in the development of the plan and in identifying his financial options.

Main Advantages of the Mentorship:

According to the owner, the three main advantages of the mentorship were:

- Good mentors: the owner said that the mentors were helpful and interested in improving the firm. He qualified his relationship with the mentors as very good. While the interview was being conducted, a mentor was working with two employees on accounting topics and the owner stopped to thank the mentor for his time. He later stated that he was especially satisfied with the updates he received in accounting.

- Encouraged him as an entrepreneur and increased his confidence in his performance: the owner indicated that this program has increased his identity as an entrepreneur because he feels more confident with this extra knowledge.

- Helped him improve his business: the owner said that the mentors gave him good recommendations such as installing software that will simplify the accounting and logistics of the firm.

Main Disadvantages of the Mentorship:

According to the owner, the main disadvantages of the mentorship were:

- The mentorship didn't tackle real micro firm level problems: the owner was worried that the mentorship wasn't helping to solve the real, daily problems of his firm because according to him, the mentorship is too theoretical and they are too bound to a predetermined program. For example, he mentioned that some cases used by the mentors were based on multinational companies such as Ford and General Motors, and he didn't think that he can relate because the challenges faced by those firms are different from the challenges faced by his micro firm. He actually argued with the mentoring company's director about this problem.

- Complaints of employees: the owner stated that employees have begun to ask for more benefits and higher wages in response to the mentorship. Supposedly, their reasoning is that since there is money for mentoring, there is money for extra benefits and higher wages.

- Lack of opportunities to expand his business: the owner expected to have several opportunities to make his firm grow from this program. He specifically said that he thought that he would increase his networking opportunities with big firms from Puebla and he would get easier access to credit.[36]

- It may be bad for new firms: the owner stated that he believed that the mentorship could be negative for new firms because it may distract the owner from the work needed to sustain and grow a firm.

Mentor comments:

Mentor: Fernando Orué

Mentoring firm: BFO

When asked what the biggest problems of Piparama were when the mentorship began, Mr. Fernando Orué, the mentor of the firm, said that they had several problems, such as the lack of strategic planning and structure. Nevertheless, the mentor stated that if he had to choose only one, according to him, the biggest problem was the lack of financial and administrative control because the firm didn't know how much money entered the firm (as cash inflows such as payments) and how much money left the firm (cash outflows such as wages, payments, and taxes).

To solve this problem, they worked on three areas. First, they worked on strategic planning to design a better strategy to attract more new customers and to differentiate themselves from their competition. Second, they also worked on internal financial control by creating and using different forms so they have a tangible register of their cash inflows and outflows. Finally, they also suggested the use of special

[36] Several firms have stated that they expected to have better access to credit as a result of the program. While there is a possibility that this is an irrational expectation of the program, it is also possible that there was a miscommunication between the firms and the IPPC.

software that will help to capture the financial situation of the firm more precisely. Before that, the firm relied on Excel spreadsheets and post-it notes. For example, when Mr. Orué asked for Piparama records for the first time, in order to identify which service offered by the firm was most profitable, the entrepreneur brought him one notebook, several post-it notes, and a couple of Excel files. With the help of another firm mentored by BFO, SIEMSA, they developed affordable new software specially tailored to solve Piparama problems. Piparama was very satisfied with this software.

Regarding the administrative problems, during the mentorship, a new problem emerged. One of their main customers, the university hospital, consumed 4 water loads per month, assuring them an important cash inflow. However, suddenly, they stopped paying on time and Piparama had to begin putting pressure on them to repay. Since this hospital was one of their main customers and they didn't want to lose them, Piparama couldn't sue them or use any other legal measures. With the help of BFO, who recommended selling less to the hospital until they pay their debts, they reduced the debt from 600000 pesos to 400000 pesos.[37]

The mentor also recommended organizing a better inventory of the spare parts of the trucks. First, the mentor recommended selling those spare parts that were too old and/or too specific to junkyards. Second, he recommended moving the storage place from a dark room that interrupted the hallway to a bright and illuminated room more suited to serve as storage. Third, he recommended classifying the spare parts according to the year and model of the vehicle. Fourth, the mentor gave the owner an electronic kardex, which is an inventory control mechanism that helped them identify what they have in stock. In this way, Piparama improved its inventory control by identifying the spare parts that were or were not important.

Regarding their differentiation strategy, Mr. Orué recommended that Piparama should highlight the fact that, while other water transportation firms use old trucks (around 25 years old), they use modern trucks (only 7 years old on average) that are in a great condition. In this way, Piparama could position themselves as the most reliable and modern water transportation firm in the market.

Regarding the human resources management, Mr. Orué recommended the owner hire a person specialized in this area because the owner's niece, who worked as an intern, was the only person in the firm that worked on HR. The mentor organized the area and how it worked, but the owner didn't hire anyone, so the human resources management wasn't improved.

Another problem they discovered was that its organizational chart was too high, which means there were too many levels of hierarchy. The mentor recommended merging the operations director and supervisor because both were doing their job inefficiently. Mr. Orué recommended utilizing an external company to hire the truck drivers because they had problems with previous drivers. However, both ideas were turned down by the owner because he trusted his operations director (he was an old friend) and he believed that outsourced drivers wouldn't look after his trucks as well as drivers hired directly by Piparama. However, the owner also complained about the drivers that he had directly hired. According

[37] Assuming an exchange rate of 13 pesos per dollar, they reduced the debt from approximately US$ 45000 to approximately US$ 30000.

to the mentor, this problem might be a consequence of offering low wages that only attract low qualified and uncommitted employees.

According to Mr. Orué, the main obstacle to solving the problems of this firm was the lack of commitment of the owner to the program. Mr. Orué remembers that during the fourth session, the owner asked when he was going to get his credit and the mentor told him that this program didn't have a subsidized credit. The owner, who said that he was told by the IPPC that every firm in the program was going to get financial support from a government fund, was clearly displeased by this statement and from that moment on, he complained about everything and didn't accept any advice from the mentor. The mentor told him about other government funds and other financial options. The owner wanted the mentor to work on the applications for these funds, but the mentor was reluctant to do this since it didn't fit with his recommendations as explained below.

For example, Mr. Orué told us that after analyzing Piparama's fleet, they recommended that he not invest in another truck because it didn't make financial sense. Instead, Mr. Orué recommended investing in another well because his current well only covered 30% of its water use. The owner told them that he was going to think about it. However, the next time Mr. Orué visited Piparama, the owner had already bought a new truck and they were already painting it. Later, the owner complained that he didn't have enough money to invest in another well. Mr. Orué recommended selling a truck and, in that way, getting money to invest in the well. However, the owner didn't like the idea and he dismissed it. While Mr. Orué accepted that the owner is the entrepreneur and has the final decision, he would also have liked the entrepreneur to at least consider his recommendations and to be open to talking about new ideas.

Additionally, the mentor mentioned that most of the time, the owner's wife ran the business because he was busy "running a junior baseball team" in which he invested part of the profits from Piparama. Therefore, he only participated in the big decisions of the firm. While the mentor had a great relationship with the owner's wife and she followed their recommendations, the relationship with the owner was bad because he wasn't getting the loan that he expected from the mentorship. For that reason, from the fifth session on, he stopped attending the mentorship meetings and he blocked every recommendation made by the mentors.

Mr. Orué tried to convince the owner to give the mentorship a chance by pointing out how much the areas in which they had been working with the wife had improved. They also tried to convince him that there were other funds that would be easier to get if his firm were more solid. They even tried to take the owner out of his comfort zone (out of his firm) so that he would be more approachable. However, according to Mr. Orué, nothing worked because the owner was obsessed with getting a loan from IPPC and was so disappointed with the outcome that he didn't want to take advantage of the program. Another reason why he didn't accept any advice from the mentor was that "he already knows that" because he had read several management books that, according to Mr. Orué, gave the owner a false sense of being an expert. He even negatively affected the participation of his wife because she was much more timid and less enthusiastic about the mentorship when the owner was around. According to Mr. Orué, if the owner's wife had been the main entrepreneur, the mentorship would have had a much larger impact.

For that reason, Mr. Orué pointed out that his firm wasn't satisfied with the results obtained in this mentorship. In a way, the improvements that were obtained by working with the owner's wife were diminished by the lack of advance with the owner. According to Mr. Orué, of the sixteen firms that they were mentoring, this firm was among the three with the smallest improvements after the mentorship program. He also said that since a mentorship is based on trust, the human component is important and unfortunately, in this case, it was really problematic.

Case Study #6: Hotel Enchufado

Owners: The Director and the Manager

Demographic Information:

This firm is owned by two sisters-in-law. The director is 40 years old and studied computer systems in college, though she did not graduate with a degree. She began working in the firm after her father-in-law bought the property and it was decided that she and the manager would manage the hotel. The director did not have any previous experience in hotel management or the service sector.

The manager is in her late 30s and holds a bachelor's degree in tourism administration. As with the director, she began working in the firm because she married into the family that owns the property, though she also wanted to be an entrepreneur. Prior to her marriage and involvement with the hotel, she had six months of experience working as an intern in another hotel.

Firm History:

The firm Hotel Enchufado was founded by the director and the manager's father-in-law when he bought the property and remodeled it into a hotel in 1985. Shortly thereafter, he delegated the management of the hotel to his sons' wives, who have been the principal decision-makers ever since.

While the firm was founded in 1985, it was not formally registered as a business until 1987 (it had previously been registered as a person with entrepreneurial activities). At the hotel's inception, there were only three employees and seven rooms. However, over the years, the family has undertaken significant expansion and remodeling projects within the hotel. Currently, there are 36 rooms and 12 employees. Most of the staff has significant experience in the hotel industry but little formal training.

During its 24 years of existence, a lot of things have changed. During this time, they have formalized the firm, evolving from a family firm into a professional hotel. Now they have an organizational chart, a mission and vision statement, and a process manual, among other management tools that enhance the firm's professionalism.

Program Recommendation

Both entrepreneurs said they would recommend the program because it has helped them to better understand the financial aspects necessary to manage a firm. For that reason, while they recommend this program to any type of firm, they especially recommend this program for new firms, so that those firms will be properly managed from the beginning. They also believed that it may be less useful for larger firms.

When asked how they would improve the mentorship, both agreed that they would have liked to receive more practical courses specialized in their business activity. The sisters-in-law said that it would have been especially useful if the hotel staff could have received courses on housekeeping, cooking and cleaning, and other daily chores.

Program Valuation

Interestingly, when they were asked how much they were willing to pay for the mentorship, they answered that they didn't know because most of the courses that they receive are free. In the same way, when asked how willing they would be to sell their participation in the mentorship program, they said that they wouldn't sell it because they want to obtain new knowledge that they can use to improve their firm. By combining these two answers, we can deduce that while they don't know the program's true value, they know that it is positive and there is a probability that it may be very valuable for them. Therefore, they are not willing to sell their participation in the program.

The director and the manager indicated that they have used a consultancy service before: "Distintivo M". This is a certification from the Mexican Secretary of Tourism aimed at improving the quality of services in hotels and restaurants by improving the human resources, operations and information, and management systems of the firm. They received this course for three months and paid 3,800 pesos (30% of the total cost). They were very satisfied with this other course. It was different from the current mentorship because, while the former was more focused on diagnosis, the latter is more focused on how to solve problems. For this reason, they are considering continuing the mentorship program even without the subsidy.

Main Challenge

According to the director and the manager, before the mentorship program began, through the "Distintivo M" program, they had already identified some problems, such as the minimal amount of guests on weeknights and the lack of formally trained personnel. However, the mentor assigned to Hotel Enchufado through the IPPC program, Mr. Couto, indicated other problems, mainly the lack of financial management and accounting.

To solve the finance and accounting problems, Mr. Couto has taught basic finance and accounting to the owners and the administrative employees through seminars, workshops, and one-on-one instruction. He has provided software (created by another of the companies he is mentoring) that will help keep records for the hotel. This, in turn, will hopefully solve most of the accounting and finance issues the hotel managers are currently facing. The director and the manager stated that they hadn't thought about this problem before beginning the mentorship.

To increase the number of guests during weeknights, Mr. Couto suggested they target retirees. Given that retirees don't have work or school commitments during the week, they would be ideal customers for weeknight hotel stays. The director and the manager are preparing a promotional CD to publicize Hotel Enchufado and are designing some special offers to attract retirees. While the director and the manager had been thinking about solutions for this problem, it was Mr. Couto who proposed the targeting of retirees and the preparation of the CD.

Finally, regarding the lack of formally trained personnel, Mr. Couto, not being an expert in hotel management, could not give the courses the entrepreneurs desired. However, he is looking for an expert to recommend to the director and the manager so they formally train their personnel.

Mr. Couto also helped them in other areas. He taught courses to the staff to improve their sales strategy and create a database of clients. He also improved their access to credit. In this, Mr. Couto was particularly valuable because he assisted them with the paperwork and sent the application materials to the government office offering the loan. They should have received an answer by the end of June.

Regarding the relationship between Mr. Couto and the entrepreneurs, both parties qualified it as excellent. According to the director and the manager, the mentor was effective, cooperative, and strived to tailor his counsel to the needs of the firm. While at the beginning of the mentorship, he focused more on short-term problems, he later focused on the firm's more important, long-term issues previously discussed.

Main advantages of the program

According to the director and the manager, the main advantage of the program is that it efficiently identified new problems and solved existing ones. In the case of the Hotel Enchufado, it has also helped to improve service and avoid becoming too comfortable with the status quo.

Main disadvantages of the program

The main disadvantage of the program for Hotel Enchufado is the lack of courses tailored specifically to the hotel industry. While they appreciate the accounting and finance courses, they believe that these hotel-specific courses would have had a positive impact on the firm's development. They said it would have been great to have the know-how of bigger hotels. As an example, the manager stated that she would like to know how other hotels maintain the whiteness of their sheets.

Mentor comments

Mentor: Ángel Couto

Mentorship Firm: Liderazgo

According to Mr. Couto, the main problem of this firm was financial, specifically, lack of knowledge and organization regarding the firm's accounting practices. The accountant they used only paid taxes and did not keep records that would indicate the financial situation of the firm. Another important problem was the low number of guests on weeknights; the hotel was only using 34% of its capacity.

According to Mr. Couto, the main solutions he proposed were courses and new software to deal with the financial literacy problem, and focusing on the value of accurate financial information so they can make better decisions. For this reason, Mr. Couto taught them to plan and classify their expenditures in advance, and to identify their target customer.

Among the pending matters were ways to improve the sales and marketing of the hotel and to execute the plan to attract more retirees. He stressed that they should take advantage of the fact that Hotel Enchufado is the highest-quality hotel in town and that some soap operas have been filmed there. He

hopes that the mentorship will continue without the subsidy, so that he can help the hotel complete the plans they made together.

Finally, when asked about the relationship between him and the director and the manager, he said that it was productive, friendly, and honest. He felt that the entrepreneurs were very satisfied with his work and he would like to continue working with them.[38]

[38] Mr. Couto also said that if the mentorship continues, one of the projects he would like to work on would be trying to change the water heating system to alternative energy. However, he needed to be convinced of its cost effectiveness before recommending it to the hotel.

Case Study #7: Tres Tubos

Demographic Information:

The owner of Tres Tubos is a 37 year old who studied architecture but didn't finish his degree because he began working in the family business.

When asked why he chose to become an entrepreneur, the owner said that he wanted to be his own boss and follow his father's example, who owns Tres Tubos in Mexico City. The owner began working in his father's firm in 1988, which provided him with the relevant experience for opening Tres Tubos in Puebla.

Firm's history:

Tres Tubos is a hardware store that sells tools, bathroom supplies, and PVC and copper supplies. This firm was founded as a formally registered firm in 2004. The owner's father owns a firm with the same name in Mexico City, which inspired the owner to open his firm in Puebla. While nominally, both firms are independent, in practice, they are linked through capital and the managing partners.

When the firm was founded, it only had two employees, but now they have five employees. The firm's assets have also grown since it was opened, mostly through investments in a vehicle (2005) and computers (2007).

Program recommendation:

When the owner was asked about his satisfaction level with the program, he answered that he is very satisfied with the program because he has received very interesting suggestions. However, several of these suggestions haven't been implemented because of the lack of resources (mostly money).

According to the owner, he would recommend this program to every firm, independent of the size and sector of the firm. However, the factor that the owner considers to be vital for the success of the program is commitment on the part of the firms' owners. Only with this commitment can the mentorship lead to concrete actions that benefit the firm.

When asked how the program could be improved, the owner said that he would have liked to receive more hours of mentorship per week (between 4 and 6 hours per week) and for the mentorship to cover other topics more relevant to his firm. Also, since he was planning on opening another store, he would have liked to receive more information about expanding.

Program valuation:

When asked about the value of the program, the owner said that the program is worth much more than what he paid for it, because it is subsidized by IPPC. While he would like to continue, the final decision will depend on the final cost of the program.

The owner had not used consulting services previously because it was too expensive for him. Even now that he knows the true benefits of the mentorship, he wouldn't pay the true cost of a mentorship because he believes that its benefits are lower than its costs.

Main challenge:

When the mentorship began, the biggest problem for the entrepreneur was to decide whether or not he should open a new store. He was reluctant to open this new store because he thought it was too risky. However, the mentors convinced him that it was a good idea. The mentors presented him with several scenarios and made suggestions for how to expand in the best possible way.

With the purpose of strengthening the firm and preparing it for opening a new store, the mentors tried to change the image of Tres Tubos to create more trust and loyalty among its customers. In order to achieve this, the mentors designed a new logo and a new corporate image. All these ideas were new for the owner.

Besides these actions related to opening a new store, the mentors also organized workshops to improve the functioning of the firm. The owner stated that the program wasn't standardized, but instead, it was tailored to the needs of his firm.

Regarding his access to credit, the owner commented that his firm is in a strong financial situation, so he didn't have any trouble getting a loan. Before beginning the mentorship, he had already applied for a loan which had been given to him. For this reason, he didn't work on this subject with the mentor.

Main advantage of the program:

According to the owner, the biggest advantage of the program is that it helps the entrepreneur to look at his firm from another perspective so he can perceive details and ideas that will help the firm to be more productive.

Main disadvantage of the program:

According to the owner, the biggest disadvantage of the program is its disorganization, since sometimes the mentors disappeared for a couple of weeks and that affected how much the program had advanced.

Mentor comments:

Mentor: Óscar López

Mentorship Firm: CEO

According to Mr. López, when the mentorship began, the biggest problem of the firm was its lack of structure related to administrative problems; this limited the firm's growth potential. This lack of structure produced a centralization of work on the entrepreneur who didn't delegate any chores, particularly the ones related to money. If the entrepreneur couldn't do a task, he would delegate it to his wife but not to anyone else. However, after the mentorship, he has become more open to delegating because he is considering growing through new stores in Cancún and in Puebla.

To solve this problem, several ideas were developed. First, the entrepreneur was trained in leadership through conferences and workshop such as "Taller de Formación de Liderazgo-Coach", whose objective was to increase the entrepreneur's initiative.

Second, the firm was prepared for expansion. For this reason, the mentor analyzed the use of their computer and discovered that it wasn't being put to efficient use, so new software was developed. Mr. López also worked on creating a procedures manual, which would process design and the standardization of procedures, making it easier to open new stores. An example of this standardization is that every salesman should know how to install the products they offer so they can provide customers with advice on how to solve their problems.

Regarding the expansion, the mentor helped draw up a strategic plan in which they contemplated doing a joint venture in Cancún and opening another store in Puebla. In Cancún, the partner would be a friend of the owner with lots of contacts with construction companies and knowledge about Cancún's market. This partner realized there was an opportunity in the market because while there were two hardware stores in that market, none offered a selection of products and quality of service like Tres Tubos.

In the case of the new store in Puebla, the owner decided to send one of his most trusted employees as a director. While delegating is still difficult for the owner, the accounting software and the mentorship have made it easier. Currently, the main problem is to identify the optimal location of the new store. To solve this problem, Mr. López developed a location study so the entrepreneur will know where to best locate his firm.

The results have been very good. According to Mr. López, when he met the owner, he perceived him as shy, but now he is more confident and secure about his firm. As an example of this newfound confidence, Mr. López told us that the owner of Tres Tubos in Mexico City proposed that his family go to China to directly import; in this way, they could get better prices and new products, like the PVC pipes. While these pipes are cheap, long lasting, and high quality, in Mexico, the perception is that they are lower quality than copper, so the owner is trying to change this perception.

Regarding employee training, the mentor did several studies such as skills evaluations of the personnel and the training needed to improve its performance. However, even though the owner is very

interested, the training for the personnel wasn't executed because the firm didn't have enough resources (mostly money).

According to Mr. López, this firm's potential is huge because it could become an important chain of hardware stores for the bottom of the pyramid. Therefore, it is very important to expand; the owner will need partners very committed to the project, perhaps current employees who already know the business. Another competitive advantage of this firm is its quality of service; they don't just sell products, they solve customer problems considering several options and the whole installation process. Also, since they sell a large amount of products, they get very good prices, which they use to be a nexus between the producers and the small hardware stores in the distant provinces of the state of Puebla.

Unfortunately, not everything is good for Tres Tubos. Since the crisis has dramatically affected the Mexican construction sector, they expect a low growth rate in the short term. However, Mr. López doesn't think this will stop this firm's expansion.

According to Mr. López, the entrepreneur is very satisfied with the mentorship. Depending on the cost, he may even continue without the IPPC subsidy. There have been several important changes, especially regarding the entrepreneur's confidence and the firm expansion plan. However, none of these changes could have been achieved without the owner's commitment and willingness to change. For example, Mr. López commented that another firm he was mentoring only accepted advice on marketing. Since he rejected every advice and suggestion about anything else, the positive results for that firm were minimal.

Case Study #8: Data por Todos

Demographic Information:

The general manager of Data por Todos is a 41 year old computer engineer. He founded Data por Todos in 1993 together with the CEO. After finishing his Ph.D. from the University of Texas, Austin in 1990, the CEO returned to Mexico where he worked as a self-employed IT consultant. The general manager joined this IT consulting venture in 1991. After having worked together for two years, the general manager and the CEO decided to open Data por Todos as a firm that develops custom made software since they realized that their clients had a need for this software.

The general manager was initially attracted to IT consulting and to Data por Todos's work because he likes the challenge of applying and further developing his IT knowledge learned in college. After finishing college, he originally planned to take a sabbatical, but the opportunity of working with the CEO was too good to pass up.

The general manager also remarked that the example of his parents, who were entrepreneurs, probably played a role in his decision to open Data por Todos. His parents also instilled in him solid business values and ethics.

Firm history:

The general manager and the CEO opened Data por Todos in Puebla in 1993 as a formally registered firm. Initially, Data por Todos developed custom made software that preformed digitalization, character recognition, and information valuation for corporate clients from Mexico, Central America, South America, and the United States. In 1997, Data por Todos began offering other services, such as data entry and data cleaning. Later, their customers began asking them to also offer database update services. For this reason, they opened a call center in 2005 that offers phone research and phone contact services, but no telemarketing.

In 2007, they opened an office in Mexico City for the purpose of data back-up, that is, to have a secure place to keep duplicate information in case of an emergency. The office in Mexico City has the advantage that it is far enough from Puebla that the risks of an emergency are not correlated, but it is close enough to get there easily. Mr. Hernandez mentioned that it's very important for Data por Todos to have high security standards since they work with information that is crucial for their clients. Note that Data por Todos does not have any commercial operations in Mexico City.

In 2009, trying to take advantage of the crisis, Data por Todos opened an office in a University of Texas, Austin incubator with the support of FUMEC (Fondo Unido México Estados Unidos para la Ciencia) and TECBA (Technology Business Accelerator). The CEO is currently there trying to enter the market. However, this has not been easy and they do not have any employees in Texas yet.

Currently, Data por Todos focuses only on working with databases, performing data entry, update, security, and data mining, which can be useful for CRM (Customer Relationship Management). Even though they don't develop software commercially anymore, the team that used to do this still works in

the firm. This team now develops new programs in house, which allows them to modify their software on the fly. This flexibility is one of Data por Todos's biggest competitive advantages.

Since Data por Todos was founded, the firm has experienced exponential growth in several areas. Due to the fact that Data por Todos's core business is technology, its main investments have been in computers, accessories, and updates, such as replacing the servers where data is stored. Data por Todos's staff has also grown strongly, from two people in 1993 to 160 currently.

While the impact of the crisis is undeniable, Data por Todos has luckily not been forced to scale back their personnel thanks to the support and collaboration of their employees. However, demand for their services has dropped drastically because the financial sector (one of its main customers) was hit hard by the crisis.

Program recommendation:

The general manager said that his satisfaction level with the program is between 70% and 75%. The main disappointment was that they first had to switch their consulting firm and then they had to switch mentors within the second firm. The original consulting firm (INCUBE) was too slow and the first mentor (Mr. Alejandro Flores) of the new firm (Global Group) had an internal problem. The new mentor, Mr. Antonio Díaz, worked much faster and was able to make up for some of the mentoring time that Data por Todos lost due to the switches. Mr. Hernandez also feels that the deliverables that they had to hand in to IPPC periodically to document what they had been working on took too much time to complete and that they were not helpful for the firm.

Due to these several factors that wasted time as well as the premature termination of the program, they were not able to achieve some of the goals they had established at the beginning of the mentorship. Moreover, due to the premature termination of the mentorship, Data por Todos doesn't know how to apply what they have learned and on which issues they should focus for the future. For this reason, the general manager said that he would have liked IPPC to respect the original timeline and to communicate better with the firms in the program to allow them to prepare for unexpected events.

Another problem of the program was that it generated excessively high expectations because IPPC expected Data por Todos to grow from a medium size firm to a large firm. This meant that Data por Todos and the mentor had to work on a large number of issues. However, due to the lack of time, several of these topics ended up not being covered. While the general manager feels that Data por Todos has emerged from the program as a much more solid, medium size firm, it isn't a big firm yet.

The general manager doesn't know to which type of firm he would recommend the program because it was tailored to Data por Todos's needs. He thinks that the program could be useful for any type of firm, as long as it is tailored to the firm's needs. Despite this, he believes that the program would have a greater for a small or medium size firm because it can help these firms grow in a more organized way. Micro-entrepreneurs should probably receive other types of support and tools first so that they can take more advantage of programs like this later.

Program valuation:

The general manager knows that the program costs more than what they paid for it because it is subsidized by the IPPC. However, he can't say exactly how much it is worth. While there have been some handicaps (mentor changes, incomplete mentorship, etc.) that reduced the value of the mentorship, it is still higher than its cost.

Data por Todos hadn't used mentorship services before because they weren't sure whether they needed them. They had asked for quotes from consulting firms in the past, but these quotes were too expensive and Data por Todos couldn't afford them.

Now that the program has ended, Data por Todos would like to continue working with a consultant to help them address a few specific needs. For example, they would like to have somebody add a formal structure to their quality control system. Data por Todos developed this quality control system internally and they think that it works, but they would like to add more structure. They are currently looking for a consulting firm to work with them on this issue. If possible, they would like to continue working with Mr. Díaz, but they are also open to other firms/consultants.

Main challenge:

According to the general manager, at the start of the program, Data por Todos's two biggest problems were its high personnel turnover and internal communications. The high personnel turnover was among the employees that worked on data entry. They reduced turnover by giving better tools to team leaders, which enabled the team leaders to solve problems and to improve the work environment. This reduced personnel turnover by 70%.

With regards to internal communications, the firm didn't have a good way of communicating important information to their employees. For example, they had not formally published the firm's mission and vision. However, according to an internal survey, 70% of the personnel knew what the firm's mission and vision were. Through the strengthening of the team leaders, formal and informal communication within the firm was improved. Also, the general manager proposed to have a broader flow of information based on open communication.

They followed an "emergency" standardized plan that was tailored to the firm's problems with Mr. Díaz due to the lack of time. This plan focused on human resources, particularly on the development of handbooks, procedures, and capsules on readiness for change, life planning, communications, teamwork, and leadership. These capsules were targeted to team leaders and employees in some other key positions with the idea that these individuals would transmit its impact to the rest of the firm.

The remaining challenge for Data por Todos is to apply everything they learned and to work on training and documentation. Historically, the general manager and the CEO had focused on the technical part of the company, somewhat neglecting human resources and administration. The mentorship taught them that they also need to focus on defining responsibilities clearly as well as carefully documenting procedures and rules.

Regarding access to credit, Data por Todos had never incurred any problem because they are financially sound. They have grown with their own resources.

Main advantage of the program:

The general manager feels that the best part of the program was its analytical stage in which the main strengths and weaknesses of the firm were identified. This is useful in finding ways of improving the firm and solving problems. However, this analysis should have been accompanied by action, which wasn't the case with INCUBE.

Main disadvantage of the program:

The general manager thinks that the main disadvantage of the program was bad management by IPPC because it wasn't a good leader and abused the use of form and requirements. Also, communication between the firms and the IPPC was bad because the IPPC should have told the firms in advance that the program was going to end prematurely.

Mentor comments:

Mentor: Antonio Díaz

Mentorship Firm: Global Group

Mr. Antonio Díaz said that Data por Todos's main challenge was that they needed to overhaul their organizational structure to make sure all tasks were clearly assigned before the firm makes the jump from medium size to large firm. Moreover, there was a concern that the employees were not ready or not completely on board with growing the firm. Finally, Data por Todos needed to work on its social responsibility to make it more professional.

To deal with these problems, Mr. Díaz proposed several solutions that were implemented in a complementary manner. First, he created "píldoras" (pills), that is, monthly mini workshops targeted towards the leaders of every team in the firm as well as employees in key positions, with the idea that these people would transfer the knowledge learned in the workshops to the rest of the firm. These mini workshops were about sensibility to change, life plan, communication, teamwork, and leadership.

At the same time that these pills were developed, several organizational systems aligned to social responsibility were created. These systems identified the responsibilities that the firm has towards their shareholders, employees, and stakeholders. With the help of Mr. Díaz, the social responsibility strategy was aligned to the philosophy, vision, mission, and values of the firm. However, since they are still developing those systems, they haven't done any concrete activity yet.

Another solution that was implemented was the development of firm fundamentals that includes mission, vision, values, and a definition of firm structure, emphasizing the definition of the organizational chart and the responsibilities in every position of the firm. In this way, forty positions were identified with position description and career path. As a result of this process, a management

textbook based on competences was developed, so the personnel could be used in a more efficient way and contribute to the professionalization of the firm.

Human resources management was another aspect that was improved. This is a firm with young employees (80% of the employees are 30 years old or younger), which creates a very particular dynamic with an innovation and a change embracing culture. This particular profile of employees was the reason why the mentor decided to improve the processes of evaluation, hiring, and management of human resources. The mentor also developed a code of conduct for the firm.

When asked about the firm's potential, Mr. Díaz stated that it was huge, so high that the Mexican Secretary of Economics declared Data por Todos as a gazelle firm, that is, with a high potential for growth. Also, they are in the middle of its international expansion, with their new office in Texas. However, Mr. Díaz considers that the firm still requires a mentorship to jump from a medium to large firm.

Mr. Díaz qualified his relationship with the firm as excellent, so much that the entrepreneurs thank him very much at the end of the consulting process. In the same way, Mr. Díaz commented that working with a firm that readily embraces change made his job easier. However, the most important factor to get good results was the total commitment of the firm's management.

Appendix 2: Surveys and Data Definitions

Questions for Entrepreneurial Spirit and Human Resources Management Indices

Survey Questions for Entrepreneurial Spirit Index

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
a.	**I have professional goals.**	1	2	3	4	5
b.	**I revise my goals periodically.**	1	2	3	4	5
c.	**If I don't reach a goal in the way I wanted to I try again.**	1	2	3	4	5
d.	**I can't motivate my business partners.***	1	2	3	4	5
e.	**Everything I need for success lies in myself.**	1	2	3	4	5
f.	**I prefer to do routine tasks instead of doing something new in my work.***	1	2	3	4	5
g.	**I think the government should give me opportunities.***	1	2	3	4	5
h.	**I have to reach some goals every day to feel satisfied.**	1	2	3	4	5

*Reverse coded

Survey Questions for Human Resources Management Index

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
a.	**The employees identify with the objectives of the company.**	1	2	3	4	5
b.	**The firm lets its employees know if they have done something wrong.**	1	2	3	4	5
c.	**All responsibilities are clearly assigned for each of the members of the firm.**	1	2	3	4	5
d.	**All decisions are made by the same person.**	1	2	3	4	5
e.	**The firm gives positive recognition to its employees.**	1	2	3	4	5
f.	**There is low turnover of employees in the firm.**	1	2	3	4	5

Definitions of Financial Variables

Variable	**Definition**
Sales	Average of non-missing observation for December 2008, January 2009, and February 2009 sales (from survey question 29)
Costs	February 2009 costs (from survey question 22)
Profits	February 2009 sales minus February 2009 costs (from survey questions 22 and 29c)
Productivity residual	Residual from a regression of log(February 2009 sales) on log(total employees) and log(assets), where "February 2009 sales" comes from survey question 29c, "total employees" comes from question 17, and "assets" is the sum of questions 21.a.2 through 21.f.2
ROA – return on assets	February 2009 sales minus February 2009 costs (from survey questions 22 and 29c) divided assets (sum of questions 21.a.2 through 21.f.2)

Note: Definitions are the same for the baseline survey, with the reference months being July 2007, August 2007, and September 2007 instead of December 2008, January 2009, and February 2009.

Survey Questions Used to Calculate Financial Variables

Employees

17. ¿Cuántos empleados tiene la empresa en total (incluyéndolo a usted y personal en todos los establecimientos)? Incluye todos los tipos de empleados. *Escriba el número en el espacio dado.*
How many employees does the business have (including yourself and staff in all establishments)? Include all types of employees. ***Write the number in the space below.***

____ ____ ____ empleados **employees**

Assets

21. Lea la pregunta (a) para cada fila. Verifique que se trata solamente de bienes del negocio y no del hogar. Si el empresario no tiene estos activos, puede pasar a la siguiente fila sin preguntar (b). ***Read question (a) for every row. Verify that we are talking about assets of the business only and not the home. If the business person does not have these assets, you can go on to the next row without asking (b).***

		1. ¿En este momento, tiene esta empresa…? **At the moment, does the business have…?** 1 = Sí → *Pase a (2)* **1= Yes → *Go to (2)*** 2 = No → *Pase a (b)-(f)*	2. Si tuviera que reponer todo su…, ¿cuánto le costaría, aproximadamente, comprarlo en condiciones similares? **If you had to replace all of your …, how much would it cost to buy it in a similar condition?**

		2= No → *Go to (b)-(f)*			
a.	Maquinaria **Machinery**		□ 997 No sabe **Don't know**		□ 997 No sabe **Don't know** □ 998 No quiere contestar **Refuse to answer**
b.	Herramientas o utensilios de trabajo **Tools**		□ 997 No sabe **Don't know**		□ 997 No sabe **Don't know** □ 998 No quiere contestar **Refuse to answer**
c.	Mobiliario y equipo (ejemplo: computadoras) **Furniture and equipment (example: computers)**		□ 997 No sabe **Don't know**		□ 997 No sabe **Don't know** □ 998 No quiere contestar **Refuse to answer**
d.	Vehículos del negocio **Business vehicles**		□ 997 No sabe **Don't know**		□ 997 No sabe **Don't know** □ 998 No quiere contestar **Refuse to answer**
e.	Local propio (edificio y terreno) **Property (buildings and land)**		□ 997 No sabe **Don't know**		□ 997 No sabe **Don't know** □ 998 No quiere contestar **Refuse to answer**
f.	Otros activos no inventarios (*especifique*): **Other non-inventory goods (*specify*):**		□ 997 No sabe **Don't know**		□ 997 No sabe **Don't know** □ 998 No quiere contestar **Refuse to answer**

Costs

22. ¿Cuánto fueron los costos/gastos aproximados totales del negocio en febrero 2009? *Escriba el número.* **What were the total approximate costs of your business in February 2009? *Write the number.***

_____pesos □ 997 No sabe **Don't know** □ 998 No quiere contester **Refuse to answer**

Sales

29. ¿Cuáles fueron las ventas/ingresos totales aproximadas de su negocio en diciembre 2008, enero 2009, y febrero 2009, por mes? *Escriba los números en el espacio dado.*

Approximately how much were your firm's total monthly sales/income in December, January and February? *Write the numbers in the space below.*

a) Diciembre 2008		□ 997 No sabe	□ 998 No quiere contestar

December	pesos	**Don´t know**	**Refuse to answer**
b) Enero 2009 **January**	pesos	□ 997 No sabe **Don´t know**	□ 998 No quiere contestar **Refuse to answer**
c) Febrero 2009 **February**	pesos	□ 997 No sabe **Don´t know**	□ 998 No quiere contestar **Refuse to answer**