

# Making Business Development Work:

## Lessons from the Enterprise Development Center in Rafaela, Argentina

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# Foreword

In order to become more productive and competitive in a market economy, small and medium enterprises (SMEs) require high quality business development services (BDS). During the past five years, the Inter-American Development Bank has expanded its support to create and develop business development services for SMEs through loan and Multilateral Investment Fund financed technical assistance programs. The main objective of the Bank's BDS projects is to establish and develop appropriate markets for business development services as instruments to improve the efficiency and competitiveness of SMEs. The main function of enterprise development centers (EDCs) is to assist SMEs to obtain appropriate business advisory services as well as technical and managerial training. The assumption behind this model is that SMEs require support to identify their specific needs and to find providers that respond appropriately.

This report evaluates the performance of the Enterprise Development Center in Rafaela, Argentina, which was established under a program of the Union Industrial Argentina, financed by the MIF. During the evaluation, special attention was given to the EDC's financial self-sufficiency, internal operating efficiency, coverage and effectiveness. The evaluation concludes that the EDC Rafaela performs excellently in terms of efficiency and effectiveness. The issues discussed here were also the topic of an EDC seminar held in April 1997 and a BDS conference held in March 1999 under the auspices of the IDB.

This article includes studies of the effect of the services provided by the EDC Rafaela on two client companies, which give an indication of the types of improvements in SME performance that can be expected from programs such as this one. The lessons that derive from the experience conveyed in this analysis are sure to become a useful guide for designing, implementing and monitoring BDS programs financed by the Bank Group.

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# Introduction

Over the past few years, the Inter-American Development Bank has provided financial support to various private, not-for-profit business development organizations in Argentina, Colombia, Costa Rica and El Salvador to help meet the diverse needs of small- and medium-sized enterprises (SMEs).<sup>1</sup> While differences among these organizations exist, all are intended to improve the performance of participating companies as well as develop a thriving market for business consulting services.

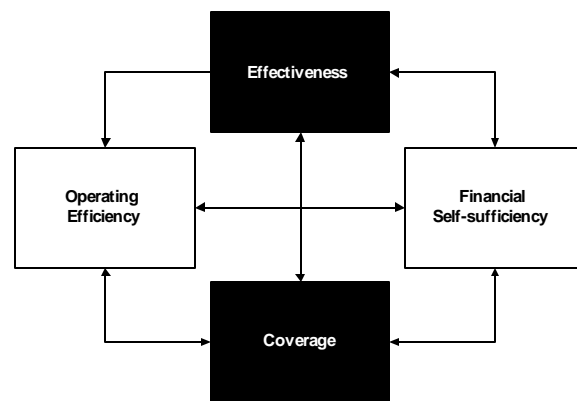
The IDB is interested in learning more about the performance of these programs. This concern stems from both pressure to ensure that monies are well spent and a desire to strengthen programs to better meet the needs of SMEs in the future. It is also fueled by current debates within the donor community on the objectives of business development services and appropriate methods for evaluating their performance. The IDB recognizes that BDS programs have multiple objectives; however, it also acknowledges that their principal purpose is to enhance the competitiveness of SMEs and boost economic growth. In this light, the IDB has begun to voice concerns that members of the donor community may be placing too much attention on financial self-sufficiency. While managers of BDS programs and other stakeholders need to make sure that organizations are on sound financial footing, they cannot ignore more fundamental goals.

To help provide a solid foundation for further discussions on business development programs, the IDB asked Nexus Associates Inc. to conduct an evaluation of the Enterprise Development Center (*Centro de Desarrollo Empresarial*) in Rafaela,

Argentina.<sup>2</sup> The evaluation focuses on four critical dimensions of performance: financial self-sufficiency, internal operating efficiency, coverage and effectiveness as illustrated in Figure 1.

Each element of the framework is discussed below:

**Figure 1. Dimensions of Performance**



**Operating Efficiency.** EDCs need to ensure that internal processes are efficient, minimizing waste and taking the maximum advantage of available resources, particularly staff time. EDCs should examine whether internal processes are yielding the highest level of output for a given level of input, or alternatively, using the least resources to achieve a given level of output. EDCs should use the results of the analysis to identify the changes in policies and practices required to achieve operating efficiency.

**Financial Self-sufficiency.** EDCs need to be concerned with their financial health, taking steps to make sure that revenues are sufficient to cover

<sup>1</sup> There are currently ten enterprise development centers in operation with IDB support. These include one in Costa Rica, one in El Salvador, five in Colombia (Santa Fe de Bogota, Medellin, Cali, Barranquilla and Bucaramanga) and three in Argentina (Rafaela, San Rafael and Mar del Plata).

<sup>2</sup> The evaluation was intended to build on previous studies of enterprise development centers. See, for example, Antonio Garcia Tabuenca, "Centro de Desarrollo Empresarial en America Latina, Informe Final," prepared for the Inter-American Development Bank, November 30, 1998.

total variable and fixed costs. EDCs should assess their financial performance, detailing the sources and uses of funds as well as the need for continued subsidies. EDCs should use the results of the analysis to identify the specific steps that are needed to make sure that revenues are sufficient to cover total variable and fixed costs.

**Coverage.** EDCs should determine the extent to which companies in target populations—the groups of firms to which EDCs are directed—are actually receiving services. This analysis should examine coverage rates within different segments of the population, highlighting those that are under-served or over-served relative to the target population. EDCs should use the results of the analysis to identify steps to increase coverage within their regions.

**Effectiveness.** Most importantly, EDCs need to determine whether programs work in terms of producing desired *outcomes*. EDCs should address the extent to which programs have helped

SMEs improve business processes and achieve greater profitability and growth. In addition, the purpose of some EDCs extends beyond impacts on individual businesses. In particular, EDCs aim to build a thriving market for consulting services in their regions. Evaluations should be designed to examine the degree to which the centers have contributed to growth in the demand for consulting services and the supply of these services in the market.

This article summarizes the principal findings from the evaluation of the EDC Rafaela-Esperanza, examining the performance of the organization on each of these four dimensions.<sup>3</sup> It then discusses general implications for Enterprise Development Centers in Argentina and other countries throughout Latin America and the Caribbean.<sup>4</sup> The discussion focuses on the trade-off inherent in the design of these types of programs and the steps that EDCs may need to take to reconcile conflicting objectives.

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<sup>3</sup> The analysis is based on extensive discussions with the staff of EDC Rafaela-Esperanza and other stakeholders, a detailed analysis of operating and financial records, in-depth case studies of two exemplary companies, and two mail surveys. The first survey was sent to 395 companies that participated in one or more projects between January 1, 1998 and September 15, 1999. Of these, 203 returned completed surveys for an effective response rate of 51 percent. The second survey was sent to 71 consultants that participated in projects in the same time period – 47 returned completed surveys for an effective response rate of 66 percent.

<sup>4</sup> In fact, many of the issues discussed in the article are applicable to a broad range of business development programs around the world.

# The EDC Rafaela-Esperanza in Argentina

*EDC Rafaela Esperanza helps SMEs obtain services from private consultants.*

The EDC Rafaela-Esperanza began operations in May 1997, covering an area consisting of the Departments of Castellanos and Las Colonias in Santa Fe Province and the Department of San Justo in Cordoba Province.<sup>5</sup> Since its establishment, the EDC Rafaela-Esperanza has been guided by a set of core principles:

- ✓ Focus primarily on small businesses that would not be able to obtain services on their own.
- ✓ Foster partnerships with key organizations in the region.
- ✓ Charge for services as a path to greater market discipline and financial self-sufficiency.
- ✓ Rely on outside consultants for needed expertise.

The last two points merit further discussion. The principle of financial self-sufficiency was highlighted in the original project memorandum prepared by the IDB. The document states that “cen

ters will collect a fee for the services they perform. In setting the rates, plans call for using a system of promotion and gradual increases until the operation is self-sustaining, coinciding with the end of the project as per the targets set in the project budget.” Specifically, it was envisioned that operating revenues would be sufficient to cover the total operating costs (fixed and variable) by the fifth year of operation. This would entail annual reductions in the subsidies extended to SMEs until they were able to cover the full cost of services.

The reliance on private consultants is also central to the basic model adopted by the center. EDC Rafaela-Esperanza serves as an intermediary between private consultants and SMEs, brokering services needed by companies. Each year, the center designs and offers a series of programs to companies in the region on a group basis.<sup>6</sup> In addition, it works with individual companies, tailoring projects to meet their particular needs. The actual services provided to companies are delivered by outside consultants selected through a competitive bidding process and retained by EDC Rafaela-Esperanza on behalf of its customers. The use of outside consultants is seen as a way to expand the supply of business services in the region,

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<sup>5</sup> In March 1995, the IDB announced approval of \$8,475,000 in nonreimbursable financing to support the creation of a network of enterprise development centers in Argentina to strengthen the competitiveness of small enterprises. The total cost of the four-year program was projected to be roughly \$11.4 million, with local counterpart funding totaling approximately \$2.9 million. The proposed budget was divided among three regional centers based in the cities of Rafaela (Santa Fe province), Mar del Plata (Buenos Aires province) and San Rafael (Mendoza province). As noted above, this evaluation focuses solely on the center in Rafaela.

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<sup>6</sup> The annual plan is based on inputs from the business community and Advisory Council. The programs offered in the first year of operation resulted from a needs assessment carried out by the Ministry of Production of Santa Fe Province. Some of these programs, such as those dealing with ISO 9000, were based on existing services provided by participating chambers of commerce. In developing the plan for year two, the EDC Rafaela-Esperanza conducted a series of workshops with its customers to identify their needs and assess potential demand for new services. In addition, representatives from the chambers of commerce were asked for their opinions.

avoiding both the potential for duplication of effort and the need to build a large staff.<sup>7</sup>

In this way, the EDC Rafaela-Esperanza is designed to stimulate greater *demand* for business development services through the following:

- ✓ helping companies define their needs,
- ✓ reducing transaction costs, and
- ✓ lowering the effective price for consultant services.

The EDC Rafaela-Esperanza is also designed to spur the *supply* of business development services in the regional market. Greater demand induces more consultants to enter into the market and/or expand their services to companies in the target population.

*Since its inception the EDC Rafaela-Esperanza has worked with more than 600 companies, accounting for 20 to 25 percent of the target population.*

According to data provided by the EDC Rafaela-Esperanza, 616 companies have participated in projects between May 1997 and September 1999. In keeping with its mission, the center has worked primarily with SMEs—more than 90 percent of its customers have 100 or fewer employees. These companies span a wide range of industries, with some concentration in metalworking, food proc-

essing and furniture. At the other end of the spectrum, some customers are quite large—five companies have 1000 or more employees.

*The vast majority of customers have little or no experience working with consultants.*

Approximately 70 percent of the companies that responded to the customer survey reported that they had not employed consultants in the past three years outside of those retained through the center. As such, they have had little or no direct experience in developing terms of reference, identifying and selecting qualified consultants, negotiating agreements and managing contracts.

Those companies that had retained consultants on their own tended to be larger.<sup>8</sup> This finding supports the original rationale for the program. It demonstrates that smaller firms are less likely to use consultants in the absence of services provided by the EDC Rafaela-Esperanza. As a corollary, it also suggests that the EDC Rafaela-Esperanza has been successful in promoting the use of consultants among companies that had no prior experience.

*Services vary considerably with respect to intended outcomes, subject matter, scale and mode of service delivery.*

To date, the EDC's customers have participated in 192 projects in a broad range of programs. The pattern of demand reflects the interests of companies in the region as well as the availability, timing, pricing and promotion of certain types of projects. Roughly 61 percent of respondents to the customer survey indicated that they could not have obtained the services provided through the EDC Rafaela-Esperanza from other organizations.

The projects are quite diverse. Table 1 shows the relationship between selected programs, the targeted business processes and intended outcomes.

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<sup>7</sup> There are two classes of consultants employed by the center. Senior consultants with substantial expertise in required fields are retained to provide training and/or technical assistance to one or more companies. These senior consultants have primary responsibility for specific projects. In addition, the EDC Rafaela-Esperanza hires junior consultants known as “coordinators” to assist on projects. Working out of the EDC’s offices in Rafaela and Esperanza, coordinators are responsible for maintaining contact with companies that are participating in projects, monitoring their progress and providing ongoing assistance. The strategy of using coordinators has two objectives. First, it is seen as a means to increase the supply of qualified consultants in the region over time by providing on-the-job training to individuals who may choose consulting as a career. Second, since coordinators are hired on a project basis, it enables the EDC Rafaela-Esperanza to minimize fixed costs by paring down the number of full-time, permanent employees on the organization’s payroll.

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<sup>8</sup> The average employment within firms that retained consultants on their own totaled 182 workers (median = 30). These companies averaged two engagements over the three-year period with an average total expenditure of approximately \$12,600. In contrast, those companies that had not used consultants had an average of 31 people on their payroll (median = 15).



For example, the “Five S’s” program provides training and technical assistance related to safety, orderliness and cleanliness of the workplace.<sup>9</sup> The program consists of seven, two-hour meetings over a five-month period. The program is intended to increase labor productivity by focusing on the order fulfillment process. In contrast, programs such as international trade fairs focus on marketing and sales, helping companies identify new market opportunities and develop plans to increase sales inside and outside Argentina. Moreover, some programs are directed toward changes in attitudes or behavior within firms, rather than specific business outcomes such as increased sales and/or profitability. For example, the EDC Rafaela-Esperanza offers a variety of human resources management programs such as “team leadership.” While they may eventually have an impact on sales and productivity, these programs are not aimed directly at these objectives.

Roughly three-quarters of all projects have been conducted on a group basis, typically with five to seven participating companies paying on the order of \$720 each to participate in the project. However, some projects have considerably more participants, roughly 10 percent involve more than 30 companies.

The size of the typical project (as measured by total project expenses, including fees paid to outside consultants and coordinators plus any direct project expenses) is approximately \$6,600. However, as shown in Figure 2, there is significant variation in project size, ranging from less than \$500 to more than \$40,000. In a similar vein, some projects are completed within one week; others last more than nine months.

*Regardless of the nature of services received most customers are satisfied.*

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<sup>9</sup> The name of the program is *Multiplicar*. It is based on a Japanese technique, the “Five-S” s” include *seiri*—organization; sorting and weeding out unnecessary items, and classifying and organizing everything else; *seiton*—orderliness: storing all items where they belong so they can be found quickly; *seiso*—cleanliness: keeping tools and equipment clean and in good working order; *seiketsu*—standardized cleanup: maintaining a clean work environment as a standard practice; and *shitsuke*—discipline: adhering to standard procedures and employing good work habits.

Approximately 95 percent of the companies that responded to the survey reported that they were “very satisfied” or “satisfied” with the EDC services.<sup>10</sup> Client satisfaction is also reflected in the extent to which companies return to the EDC Rafaela-Esperanza for additional services. Roughly 41 percent of customers have participated in more than one project since the inception of the program. In fact, a significant percentage of customers have called on the center for a variety of services. With each project, companies gain more experience working with private consultants. Six percent of customers have participated in more than five projects and two percent have participated in more than six projects. Larger firms are more likely to undertake additional projects than smaller companies.<sup>11</sup>

Not surprisingly, the number of projects undertaken by particular companies is also a function of the time elapsed since their first project with the EDC Rafaela-Esperanza. Put another way, it takes somewhere on the order of 200 days for companies to return to the EDC Rafaela-Esperanza for additional projects. This had implications for the rate of growth of the organization, particularly in the early stages of development. As noted above, a significant percentage of projects take three or more months to complete. During the first six to nine months of operation, the EDC needed to rely almost entirely on new customers. Thereafter, it

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<sup>10</sup> Caution should be exercised in extrapolating survey results to the total population of firms served by the EDC Rafaela-Esperanza. For example, it is conceivable that non-respondents are more likely to be dissatisfied with services than companies that took the time to complete the questionnaire. The opposite case may also be possible. However, there is no reliable way to discern how non-respondents would have answered the question. While the vast majority of companies that responded to the survey were satisfied with the services that they received, some offered suggestions on how these services might be improved in the future. These suggestions tended to fall into two categories. Some called for lower prices, perhaps based on a sliding scale depending on company size. Others indicated that greater emphasis needs to be placed on implementation, geared to the particular conditions within different companies.

<sup>11</sup> The finding is based on a simple ordinary least squares (OLS) regression with the number of projects undertaken by companies as the dependent variable. The explanatory variables included the number of employees and the number of days since the start date of the first project undertaken by companies.

**Table 2. Performance Indicators in Third Quarter 1999**

<b>Indicator</b>	<b>EDC Rafaela-Esperanza</b>	<b>Median value for NIST MEP</b>
<b>Percentage of total expenses covered by customer revenues</b>	66.0%	23.3%
<b>Percentage of staff available hours charged to projects</b>	64.8%	13.9%
<b>Average hours spent developing a new prospect</b>	8.7	8.7
<b>New prospects per field staff</b>	13.6	3.9
<b>New customers per field staff</b>	3.1	1.2
<b>Conversion rate: prospect to customer</b>	44.0%	28.8%
<b>Average hours spent developing a new project</b>	38.2	10.6
<b>New projects per field staff</b>	2.9	3.1
<b>Active projects per field staff</b>	4.9	7.5
<b>Average hours spent per active project</b>	113.0	13.8

was possible to secure follow-on work with existing customers as they completed projects and were ready to move on to new areas. This experience has been part of the learning curve for the organization.

*The EDC Rafaela-Esperanza has used resources efficiently, while also taking steps to boost revenue.*

All organizations need to be concerned about the efficiency of operations, attempting to maximize the level of output for a given level of resources. In this regard, it is important to examine the efficiency of specific processes, including activities related to developing market awareness, developing and executing projects and building company relationships.

Table 2 shows the performance of EDC Rafaela-Esperanza in the third quarter of 1999 in terms of selected indicators,<sup>12</sup> most of which relate process outputs to inputs (particularly staff resources) to gauge the efficiency of internal processes and are normalized to facilitate comparison. In this regard, for comparative purposes, the table also provides the median value for the same indicators for roughly 40 other similar centers that are part of

the NIST Manufacturing Extension Partnership (MEP) in the United States.

Significantly, the EDC Rafaela-Esperanza is more financially self-sufficient than typical NIST MEP centers. Customer revenues cover 66 percent and 23 percent of total expenses for the EDC Rafaela-Esperanza and NIST MEP centers, respectively.

In addition, almost 65 percent of the available EDC staff time is devoted to projects as opposed to the roughly 14 percent (median) among NIST MEP centers.<sup>13</sup> This is due, in part, to the decision to retain coordinators on a project basis, ensuring that a significant percentage of their time is devoted to project work. Furthermore, staff at the EDC Rafaela-Esperanza tends to work longer hours than staff of similar centers in the United States.

In general, the data present a picture of an organization that is using resources efficiently. The center has taken steps to minimize the amount of time required for many processes. For example, it has adopted measures to streamline the project development process through standard formats, boilerplate contract terms and conditions, and

<sup>12</sup> The full evaluation report for EDC Rafaela-Esperanza contains 22 performance indicators related to outreach, efficiency and financial self-sufficiency.

<sup>13</sup> Available staff time is defined in terms of a standard 40-hour workweek less time for holidays, vacations and leaves of absence. Therefore, staff can actually devote more than 100 percent of available time to projects if they commit more than 40 hours per week to project work.

clear procedures for obtaining internal approvals. However, the analysis suggests that there may be room for improvement. The amount of time required to develop a new project (38 hours) appears high. Some of this time, however, may be related to the requirement to solicit competitive bids from more than one consultant as well as the additional sales efforts associated with group projects

In keeping with its mission, the center devotes considerable resources to developing relationships with companies prior to their becoming actual customers. While the amount of time required to develop each new prospect (8.7 hours) is on a par with similar centers in the United States, the total amount of time spent on this activity is significantly higher in EDC Rafaela-Esperanza. Moreover, despite the higher conversion rate, the absolute number of prospects that have not yet become customers is also higher. This may suggest the need for better targeting of marketing and sales effort, focusing attention on “qualified” companies that are more likely to purchase services.

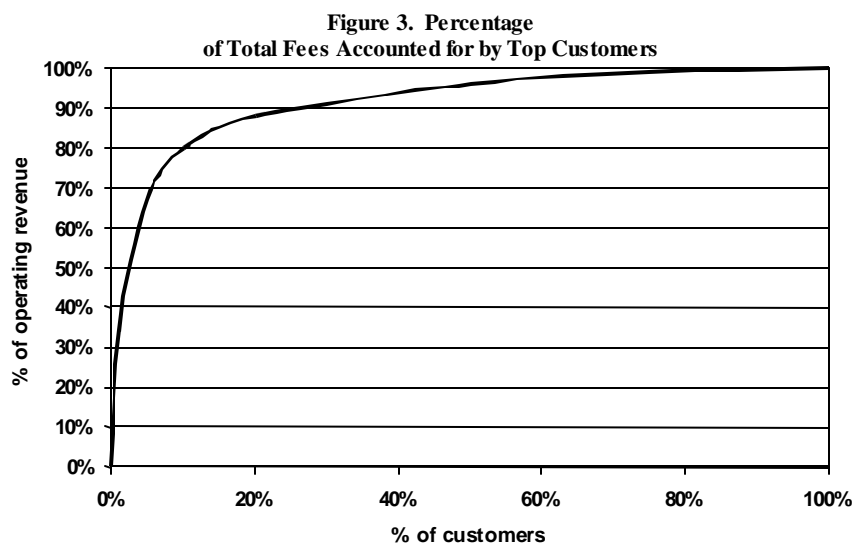
Another area that warrants attention is the amount of time that coordinators spend on individual projects. While the average project load is relatively light, field staff at EDC Rafaela-Esperanza commit a great deal of time to active projects compared to other similar centers in the United States even though the size of the typical project in terms of the dollar value is equivalent. Again,

this may be associated with a greater reliance on group projects, requiring coordinators to devote time to each participating company. It may also reflect the desire of the organization to provide coordinators with significant on-the-job training in order to increase the supply of qualified service providers in the region.

*Driven by a handful of companies, client revenues have grown significantly.*

The EDC Rafaela-Esperanza relies on three primary sources of revenue: the IDB, local counterparts and customer fees. Growth in the latter is of central importance to the ability of the organization to become financially self-sufficient. In fact, customer revenues have grown from a monthly average of \$31,620 in 1997 to \$33,341 in 1999. The upward trend appears to be continuing. In the three months between July and September 1999, the EDC Rafaela-Esperanza took in \$148,062 from customer fees, representing an average of \$49,354 per month.

These revenues have been heavily dependent on a relatively small number of firms. As shown in Figure 3, the top one percent of all customers (roughly six firms) as measured by revenue, account for 34 percent of the total customer fees generated to date. The top ten percent account for 80 percent of all revenues. These top customers tend to be larger companies that have undertaken one-on-one projects. In particular, five large dairies have provided a substantial share of the total fees paid by companies to the EDC Rafaela-Esperanza since its establishment. Companies that have more than 100 employees are invoiced for at least 100 percent of the variable costs associated with specific projects. In practice, this has allowed the organization to cross-subsidize projects for smaller firms. However, the dependence on a relatively small number of customers raises concern over the organization.



*Customer revenues fully cover the variable costs of projects, but are not sufficient to cover the total operating costs of the organization.*

Table 3 summarizes the financial performance of the EDC Rafaela-Esperanza in the third quarter of 1999. As noted above, customer revenues totaled \$148,062, accounting for 66 percent of the center's total costs of \$224,428 during the same period. While the center was able to cover its variable costs in the third quarter, customer revenues were not sufficient to cover both variable *and* fixed costs.<sup>14</sup> The operating deficit in the third quarter of 1999 was \$76,366. This amount is equivalent to the required subsidy from the IDB and local counterparts and, as such, reflects the cost of the program from the perspective of the organization. Therefore, the *net* benefits to customers of EDC Rafaela-Esperanza should be considered in light of the subsidized cost of the program.

*If the aim of EDC Rafaela-Esperanza is to become financially self-sufficient, it will need to increase the margins on projects.*

Figure 4 presents a break-even analysis for the center given its performance in the third quarter of 1999. The center's fixed costs are shown as the horizontal, solid black line. The diagonal, solid black line shows the total costs of the program (including variable and fixed costs) based on the

number of active projects in the quarter. The slope is based on the average variable cost of \$2,670 for the 54 active projects in the third quarter of 1999. Finally, the dotted gray line shows total customer revenues. The slope is based on average customer revenues of \$2,741 per active project in the same period.

The graph shows that given the current contribution margin of \$71 per project, the EDC Rafaela-Esperanza would be unable to cover its total costs even if the number of active projects in the quarter increased eightfold to more than 400. (The diagonal solid black and dotted gray lines do not intersect within this range.<sup>15</sup>) Therefore, the path to self-sufficiency is not an issue of expanding the number of projects. To become self-sufficient, the EDC Rafaela-Esperanza must reduce fixed costs, reduce variable costs and/or increase the average customer revenue per project. Given the current structure of the organization, only the third option offers much potential for success.

For the EDC Rafaela-Esperanza to break-even at the current number of projects, it would need to increase the average number of companies that participate in given projects and/or raise prices by approximately 52 percent, while holding costs constant. To a great extent, the cost of undertaking a particular group project is independent of the number of participating companies. Therefore, increasing the number of companies involved in a project would increase the contribution margin. Raising prices is, perhaps, more straightforward. However, raising prices by this amount may severely limit participation among the very companies that the EDC Rafaela-Esperanza is striving to serve.

Alternatively, the center could try to shift its project mix to focus on those types of projects that have higher margins. It appears that certain types of projects (specifically, continuous improvement projects and projects undertaken with individual companies) have significantly higher margins than others. On average, customer-paid fees for con-

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<sup>14</sup> Variable costs increase or decrease directly in proportion to the level of sales. In the case of the EDC Rafaela-Esperanza, variable costs are those that vary according to the number of projects undertaken with customers. This includes the cost of outside consultants and coordinators as well as direct project costs. Fixed costs are those that remain constant regardless of the level of sales. These costs include staff salaries, rent, telephone, etc. However, fixed costs are only "fixed" within a certain range of activities or over a certain period of time. For example, the EDC Rafaela-Esperanza might need to add additional full-time personnel once a certain number of projects is exceeded and the capacity of existing staff is exhausted. In addition, some costs are a combination of fixed and variable costs: a certain minimum level is incurred regardless of the level of sales, but costs rise as volumes increase. For example, the telephone bill includes fixed components such as monthly access or line charges. It also includes components that may vary with the volume of business. Strictly speaking, these costs should be separated into their fixed and variable components; however, for many organizations they are small.

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<sup>15</sup> In fact, the number of projects would need to reach 1,134 in a quarter to break-even. However, this is based on the unrealistic assumption that labor and other costs remain unchanged.

tinuous improvement projects cover more than 100 percent of the variable costs of these projects, contributing roughly \$900 to fixed costs. Similarly, customer-paid fees for individual projects tend to exceed variable costs by almost 50 percent, contributing more than \$1,500 to fixed costs, on average.

Finally, there may be another way to become self-sufficient *if* the organization is willing to alter its basic business model significantly, that is, to provide services directly using internal staff rather than outside consultants. This may enable the organization to retain revenues that otherwise would be paid to third parties. For example, assuming that consultants include a 10 percent profit margin in their fees, EDC Rafaela-Esperanza would have been able to save roughly \$8,600 in the third quarter by performing the work themselves *if* the underlying cost of service delivery were comparable.

This discussion points to a number of trade-offs inherent in the design of these types of programs. Raising the fees charged for services may price some companies in the target population out of the market. Shifting the focus to certain types of projects may limit participation and fail to address important SME needs. Providing services directly to customers may reduce the impact of the program with respect to market development. However, the alternative is to continue to follow the current strategy, recognizing that operating deficits will need to be covered by funding agencies (such as the IDB). The justification for continued subsidies hinges on a determination of whether the effective demand for services at prices allowing for full cost recovery is below the level considered optimal from a societal perspective. As discussed in more detail later, companies may underinvest in services due to imperfect information, externalities and/or equity considerations. However, all of this presupposes that the program is actually effective in terms of boosting the performance of SMEs.

*Customers have undertaken needed changes and improved their performance as a result of the services provided through EDC Rafaela-Esperanza.*

In order to increase their profitability and rate of growth, companies need to change their behavior and/or take specific actions with respect to critical business processes. In this regard, it is important to note that 81 percent of the respondents to the customer survey indicated that they changed their operations as a direct result of the services provided through the EDC Rafaela-Esperanza.<sup>16</sup> Further analysis demonstrates that the probability that a company will report changes is a function of the nature of the services received. Specifically, companies that participated in one-on-one projects were more likely to report changes than companies that participated in group projects, *all other things being equal*. The duration of projects and the elapsed time since the first project also increase the probability that companies would report changes.<sup>17</sup>

The changes that companies made as a result of the services received through the EDC Rafaela-Esperanza were manifest in different processes within the firms. Given the types of programs offered by the EDC Rafaela-Esperanza, it is not surprising that most of the changes reported by companies relate to modifications in the production process.<sup>18</sup> For example, more than half of companies that responded to the survey indicated that they altered processes related to the safety and health of workers. Similarly, 49 percent and 44 percent of respondents reported that they reorganized production and/or changed their quality systems, respectively, as a result of the service that they received.

In general, companies that responded to the customer survey indicated that the changes made in processes led to improved quality, reduced costs

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<sup>16</sup> Annex I and II contain two case studies that describe the services that the companies received through EDC Rafaela-Esperanza, the specific actions that they took as a result and subsequent benefits.

<sup>17</sup> The magnitude of services was also found to be positively related to an increased likelihood of change; however, this result was not statistically significant.

<sup>18</sup> Following an assessment of needs, the EDC R-E decided to focus on order fulfillment, including quality control and production processes. In addition, the relatively high number of companies participating in projects that address issues related to order fulfillment is an expression of the relative demand for services that focus specifically on this process.

**Table 4. Intermediate Outcomes – Improved Performance**

Process	% Observing Change
Reduction of defects, rework and customer rejects	39%
Reduction in costs	32%
Reduction in manufacturing lead time or delivery time	29%
Increase in productivity	28%
Increased compliance with standards and regulations	28%
Expansion in the number of customers	27%
Reduction in absenteeism or accidents	11%
One or more intermediate outcomes listed above	78%

and a faster turnaround time, as shown in Table 4. More than three-quarters of the respondents reported that their performance improved on one or more dimensions.

Sixty-eight percent of the 203 companies that completed the survey indicated that they improved their competitiveness as a direct result of services provided by the EDC Rafaela-Esperanza.<sup>19</sup> Companies were also asked to indicate how improved competitiveness was reflected in their overall business performance. As summarized in Table 5, of the 203 companies that completed the survey, roughly 46 percent indicated that their sales and/or profitability increased as a direct result of the services provided by Rafaela-Esperanza. Slightly more than 10 percent of respondents indicated that services resulted both in higher sales *and* profitability. Roughly 54 percent responded that neither their sales nor profitability increased due to the services received.<sup>20</sup> These results need to be considered within the context of the economic crisis facing companies in Argentina during this time frame.

In an effort to estimate the *magnitude* of the EDC Rafaela-Esperanza's impact on overall business

performance, companies were asked to provide data on sales, exports, cost of purchased inputs, payroll and employment in 1998 and 1999. They were then asked to indicate what these values would have been in 1999 in the absence of the EDC Rafaela-Esperanza services. Unfortunately, very few companies were willing to provide this data. Only 21 companies provided all of the required sales data; fewer still provided data on the other requested items.<sup>21</sup>

Together, the 21 companies that reported sales data indicated that the services provided by the EDC Rafaela-Esperanza increased their sales by a total of \$1.14 million with a mean of approximately \$54,000 and a median of \$27,000. Overall, this represented an eight percent gain from the level expected if the companies had *not* received services. The additional sales generated by these companies translate into increased profits of \$57,000, assuming a net profit margin of five percent. The additional profit earned in 1999 represented a 28 percent return on the \$42,000 that these companies invested in services obtained through EDC Rafaela-Esperanza.

Two companies provided data needed to calculate the change in profits in 1999 due to their involvement with the EDC Rafaela-Esperanza.<sup>22</sup> In one case, profits were roughly \$61,100 or 73 per-

<sup>19</sup> The sentiment that the EDC Rafaela-Esperanza helps companies improve their competitiveness was shared by 98 percent of the consultants that responded to a survey.

<sup>20</sup> These figures compare favorably to similar centers in the United States. For example, in a survey of 12,000 companies (effective response rate of 75 percent) that received services from centers affiliated with the NIST Manufacturing Extension Partnership (NIST/MEP) between July 1996 and June 1998, approximately 17 percent of respondents reported that their sales increased as result of these services.

<sup>21</sup> As a result, it is impossible to estimate the return on investment in the overall program from the perspective of EDC Rafaela-Esperanza.

<sup>22</sup> Profits are defined as sales less salaries, wages and the cost of purchased inputs. This is roughly equivalent to profits before taxes, interest and depreciation.

**Table 5. Final Benefits – Overall Business Performance**

Increased Profitability?	Increased Sales?		
	Yes	No	
	Yes	No	
	10.3%	16.3%	26.6%
	19.2%	54.2%	73.4%
	29.5%	70.5%	100.0%

cent higher that they otherwise would have been; in the other case, profits were \$59,000 or 20 percent higher. These two cases illustrate an important concept in evaluating the impact of the EDC Rafaela-Esperanza and other similar organizations. As shown in Figure 5, one of the companies actually experienced a significant decline in profits between 1998 and 1999; however, the decline would have been worse in the absence of services provided by the EDC Rafaela-Esperanza. The other company saw a dramatic increase in profits during the same period, some due to EDC Rafaela-Esperanza. Therefore, it is critical that evaluations try to determine the counterfactual—*what-would-have-been*—rather than rely on simple before-after studies.

Another two companies provided sufficient data to calculate a widely used measure of productivity—value added per employee. Value added is equal to sales less the cost of purchased inputs or, equivalently, employee compensation plus profits and other returns to capital. In one case, the EDC Rafaela-Esperanza was responsible for boosting labor productivity by \$2,444 per employee, 32 percent above the level expected if the company had *not* received services. In the other case, value added per employee was \$4,646 or 51 percent higher that it would have been in the absence of services provided by Rafaela-Esperanza.

*The EDC Rafaela-Esperanza has helped increase both the demand for consulting services and the supply of service providers in the region.*

As noted above, most of the companies that have participated in the program had not used consultants in the past. In addition to providing direct financial assistance and negotiating more favorable terms, EDC Rafaela-Esperanza plays a direct

role in generating demand for consulting services by helping customers define their needs, prepare the terms of reference for training and technical assistance projects, find and retain qualified consultants and implement recommendations.<sup>23</sup>

Moreover, approximately 87 percent of the consultants that responded to the survey believe that the EDC Rafaela-Esperanza has contributed to an expansion in the market for consulting services in the region. From the perspective of supply, the center draws on a broad network of independent consultants to deliver services to companies. Since its inception, the EDC Rafaela-Esperanza has retained the services of 55 consultants and 41 coordinators, and continues to add consultants to its roster at a steady rate consistent with its stated procedures and objectives. More than two-thirds of those that responded to the survey began providing services to SMEs in the region subsequent to the establishment of the EDC Rafaela-Esperanza. On average, these individuals have almost five years of consulting experience.

Consultants were asked to indicate whether they had experienced specific benefits from working with the EDC Rafaela-Esperanza. As Table 6 shows, there is great deal of variation in how consultants see the benefits of the program. Roughly 94 percent reported one or more of the benefits listed in the table. Respondents most frequently cited the EDC Rafaela-Esperanza as a valuable source of leads and a contributor to the expansion

<sup>23</sup> Consultants that responded to the survey suggested that the principal constraint to the development of the SME business consulting market was primarily economic. Approximately 87 percent of respondents stated that SMEs lack of capacity to pay for services at standard market rates was a “very important” or “important” barrier to working with these types of companies.

in the market for their services. Approximately 53 percent reported that the EDC Rafaela-Esperanza has led to an increase in their total volume of sales.

*Some question the sustainability of the market in the absence of the EDC Rafaela-Esperanza.*

Approximately 73 percent of the SMEs that completed the survey responded that their experience with the EDC Rafaela-Esperanza made them more likely to hire consultants in the future. Moreover, more than 90 percent of the consultants that responded to the survey indicated that they plan on continuing to offer service to SMEs in the region in the future.

However, the vast majority of consultants that responded to the survey believe that the EDC

Rafaela-Esperanza needs to play a continuing role in the development of the market for consulting services. Two-thirds of respondents suggested that demand for services by SMEs would decline in the future if the organization did not continue to exist. While the survey did not ask consultants to explain this conjecture, it may be due to their assessment that certain barriers to the use of private consultant will persist. SMEs may continue to find it difficult to define their needs, find qualified consultants and pay the full price for services in the absence of the EDC Rafaela-Esperanza. This is likely to be particularly true for companies that have yet to participate in programs offered by the organization. Moreover, since new companies are being established continually in the region, there will always be a pool of SMEs that lack direct experience in working with consultants.



## Implications for EDCs in the Region

The fundamental goal of EDCs is to improve the performance of SMEs. Since SMEs account for a significant percentage of value added and employment in all countries, improved performance in this sector of the economy is critical to future economic stability and growth. Program managers, donors and other stakeholders believe that SMEs need to change the ways in which they do business to be competitive, but lack knowledge of how to effect needed improvements. Furthermore, SMEs are unwilling to hire outside consultants or other service providers to learn new business practices and techniques at prevailing market prices due to imperfect information. Moreover, even in a world characterized by perfect information and individually maximizing behavior, the level of investment in consulting services by SMEs at prevailing market prices may still be deficient from a social perspective due to externalities and equity considerations.<sup>24</sup> Each of these rationales for establishing EDCs are discussed below.

### Imperfect Information

SMEs may decide to forego services due to inadequate information. Efficient markets depend on people making *informed* decisions. However, people cannot make wise choices if information is lacking, incomplete, overly complex or misleading. Particular problems arise if there are either significant transaction costs in obtaining the necessary information about the quality of a good, or

if quality can only be judged after purchase and/or consumption as in the case of “experience” goods. In this case, SMEs may be reticent to seek outside assistance because they cannot adequately judge the quality of services before receiving them.<sup>25</sup>

While these companies may be interested in maximizing profit, the lack of information constrains their purchases. The EDC Rafaela-Esperanza and other similar organizations attempt to address this type of market imperfection by providing better information on consultants, reducing transaction costs and/or lowering SME exposure to risk through direct subsidies. It is important to draw attention to the fact that a significant percentage of SMEs studied for this report had little or no prior experience working with consultants. However, they gain experience with each new project undertaken through the EDC. In this case, the experience relates primarily to the role that the EDC plays as an intermediary. The EDC is seen as a place to go for reliable service with assured quality—the equivalent of a stamp of approval. As a result, while imperfect information may be used to justify the use of subsidies in order to reach more companies in the target population, it does not necessarily support the provision of continued subsidies to the *same* company.

### Externalities

Externalities arise when the production (or consumption) of the good or service affects parties other than those directly involved in the transaction *and* these spillover effects are not fully reflected in market prices. The issue of externalities is particularly important given ambiguous property rights and/or high transaction costs. In this case, the argument can be made that the prevailing market price for consulting services does not reflect the additional value that other companies or

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<sup>24</sup> Some people have also defined business development services as public goods. Public goods have two unique properties: First, consumption of a public good by one consumer does not affect the ability of other consumers to benefit from it (*non-rivalry*). Another way of describing this characteristic is that the good can be provided to additional consumers at no additional costs. Second, it is impossible to stop people from benefiting from the good even if they are unwilling to pay for it (*non-excludability*). In this case, it is hard to see how the service itself constitutes a public good. It would seem to fail both conditions.

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<sup>25</sup> In this way, consulting services are different from financial services. SMEs that borrow money know the value of what they are receiving before the loan is made.

individuals derive as a result of the provision of services to a particular SME. For example, the knowledge gained by individuals that participate in programs offered by EDCs might spillover to other companies as employees leave and take jobs with other firms. More generally, intellectual property generated through the service that is not fully protected through enforceable laws may leak out to other firms. In addition, the actions by companies that receive services may have a secondary impact on other firms. For example, as customers of EDCs grow they may need to purchase additional inputs from other firms, giving rise to multiplier effects in the regional economy. Finally, externalities may also arise if more SMEs purchase services, provided that there are either economies of scale in the provision of these services or network effects. With regard to the latter, in some sense, the users of consulting services constitute a network. Norms governing the provision of services by consultants and their use by SMEs (such as professional ethics and contract terms) are likely to emerge as the network grows, providing benefits to all SMEs that purchase services. Similarly, consulting firms may be able to develop and offer standard products at lower costs as the network expands. In all of these cases, the actions taken by EDCs to stimulate demand for services, including the provision of subsidies, may result not only in benefits that individual customers can appropriate, but also additional benefits that flow to other firms and society at large.

### **Equity Concerns**

It is important to note that both imperfect information and externalities deal with allocative efficiency. However, EDCs may also be concerned with equity. To a great extent, the existing distribution of income and wealth is determined by initial endowments of land, capital and labor skills in the country. Those who possess resources benefit more from the operations of the market. EDC participation in the market can help ensure greater fairness by committing resources to traditionally underserved constituencies.

The decision of donor organizations to fund organizations like EDC Rafaela-Esperanza has been driven, in part, by the recognition that these types

of market failures exist in many countries. By lowering transaction costs and subsidizing business services, EDCs spur demand and induce greater supply.

### **Balancing Conflicting Objectives**

As noted above, EDCs are faced with the challenge of meeting different objectives. They need to reach hundreds of SMEs in their regions, substantially boost their productivity and growth and spur the development of the overall market for business services. In many cases, organizations also need to achieve financial self-sufficiency given the limited duration of donor support.

However, these objectives may conflict. For example, constraining centers to a broker role may make it more difficult to achieve financial self-sufficiency. At the same time, efforts to become entirely financially self-sufficient may subvert the basic mission of the organization in light of the discussion above. Moreover, given limited resources, efforts to reach numerous companies may run counter to the desire to generate substantial impacts. Unfortunately, it is all too easy to fritter away scarce resources providing marginal assistance to many companies.

Centers need to make decisions on how best to achieve the objectives that they define for themselves. This involves hard choices concerning the target market, service mix and operations. As shown in Figure 6, EDCs can elect to pursue alternative strategies. Furthermore, the position that centers choose to occupy with respect to different elements of their strategy has implications for their ability to achieve specific objectives.

### **Target Market**

In general, EDCs tend to define their target market as *all* SMEs in the region, regardless of their industry orientation, size, propensity to purchase services and likelihood of future success. However, centers could choose to focus their efforts on particular segments of the market. For example, like the EDC Rafaela-Esperanza, other centers could target specific industries, building requisite capabilities and tailoring services to meet the specific needs of companies in those industries. It is

likely that customers would benefit more from greater specialization; however, by definition this would reduce the overall size of the market served by the centers.

Large companies are likely to be a better source of revenues than smaller firms. In the case of EDC Rafaela-Esperanza, the organization has been dependent on a relatively small number of large companies for the bulk of its customer revenues. In an effort to achieve financial self-sufficiency, centers could develop relationships with large companies that have the potential to become stable and significant customers. Because of the relatively small number of large companies in any geographic area, centers may need to expand their service territory to ensure an adequate pool of potential customers. While this may enable centers to cross-subsidize the provision of services to smaller firms, overemphasis on large companies could draw centers away from their principal constituency.

All EDCs should continually consider ways to achieve greater impacts: higher income in the region through rising productivity and expanded sales. This entails allocating resources to efforts that yield the greatest returns. Not all SMEs have the potential for significant productivity gains or growth, nor do all have an interest in change. To a great extent, efforts to convince these struggling, disengaged companies to participate in programs offered by centers are likely to fall on deaf ears. Centers could emphasize working with relatively fewer, preferred customers (progressive companies) which are more likely to succeed over time. This strategy would result in a higher return on the centers' investment, while also contributing to financial self-sufficiency.

### **Service Mix**

All EDCs make decisions on which services to provide to customers. The EDC Rafaela-Esperanza has based this decision on inputs from the business community obtained through planning workshops with customers and ongoing interactions with firms. These mechanisms are used to assess the needs of companies and gauge their potential demand for specific services. Some centers such as the EDC Rafaela-Esperanza may

elect to offer a broad range of services, from training in mechanical equipment maintenance to assistance in strategic planning. By offering a broad range of services, a center could have the potential to address the interest of more companies in the region.

Centers could also choose to emphasize small short-term projects or larger long-term projects. While smaller projects may be more affordable for more companies, the evidence suggests that large projects extending over a substantial period of time are likely to lead to greater impacts as well as contribute to financial self-sufficiency. Similarly, projects tailored to the needs of a specific company are also likely to generate greater benefits. Moreover, they tend to have larger margins than group projects, which require considerable time to organize and implement.

The importance of being able to make products better, faster and cheaper will intensify. This will generate an even greater need for the types of services that the EDC Rafaela-Esperanza is already offering, particularly those related to order fulfillment. However, based on analysis of important global trends, sustained profitability will increasingly be a function of the degree to which companies are distinctive, providing the right products in the right markets. To this end, the EDC Rafaela-Esperanza should expand and/or develop new services related to strategic planning, market research and product development.

If one of the goals is financial self-sufficiency, programs will need to establish prices at appropriate levels. Revenues need to be sufficient to cover total fixed and variable costs. This involves striking a balance—the program may not reach revenue targets if prices are set too low, but numerous SMEs may be priced out of the market if prices are too high. Moreover, the willingness to pay for services represents a lower bound on the extent of need within the target population. It is fairly safe to assume that companies that are willing to pay for services are likely to be at-need. However, many companies may be at-need, but as discussed above, for a variety of reasons may be unwilling or unable to pay for services, giving rise to the need for subsidies. That said, the provision of subsidies might be linked to individual companies,

rather than to the stage of development of the center. As SMEs gain experience working with consultants, the amount of the subsidy might be reduced. Finally, an assessment of the extent to which companies in the target population are willing to pay a particular price (relative to the full cost) for services needs to be built into the planning process. Centers should test prices as early as possible and adjust them in light of actual experience.

If customer-paid fees are insufficient to cover total costs, centers will need to take steps to secure long-term funding to help defray their structural operating deficits, particularly as IDB funding is phased out. To this end, they will need to develop a strategy to secure funding from business groups, philanthropic foundations, multilateral organizations or government agencies as an intrinsic element of their business plan.<sup>26</sup>

## **Operations**

The use of outside consultants has strengths and weaknesses. Intensive use of outside consultants

greatly expands the range of expertise available to SMEs in the region and is central to one aspect of the organization's mission. However, the use of outside consultants comes with a price. Centers need to pay for these services (which include profits), reducing their net earned revenues. This is a serious issue in the face of declining donor support. In addition, the use of outside consultants makes it more difficult to absorb the lessons of projects and build long-term customer relationships. Centers could offer certain services directly to SMEs using their own internal staff. In this case, they would need to decide which services should be offered directly and build internal capabilities accordingly. This decision should be informed by knowledge of what other, mainly private consultants, bring to the market. Wherever possible, EDCs should not duplicate services already offered by the private sector at an acceptable level of quality.

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<sup>26</sup> In this regard, it is useful to note that the United State Congress repealed a provision in the original legislation establishing the Manufacturing Extension Partnership that mandated that funding for centers be terminated after six years. The federally funded Manufacturing Extension Partnerships envisions that it will continue to provide needed funding to centers around the country.

## Conclusion

Companies throughout Latin America and the Caribbean are under constant pressure to reduce costs, increase quality and deliver products more rapidly. However, many of these companies, particularly smaller firms, have difficulty obtaining the assistance needed to improve their performance.

The evaluation of the EDC Rafaela-Esperanza demonstrates that EDCs can have a beneficial impact on individual SMEs as well as the broader market for business consulting services. In a relatively short period of time, it is possible to establish programs that can deliver services to hundreds of companies in a region. Moreover, by charging SMEs for services rendered, these organizations can reduce their reliance on donor organizations for financial support. The pressure to generate revenues, to some extent, actually reinforces the mission of EDCs by ensuring that they stay focused on meeting the demands of manufacturers in their regions. However, past a certain point, efforts to achieve financial self-sufficiency are likely to subvert the basic mission of these organizations. They may force centers to raise prices beyond the levels that some companies are willing and able to afford, move away from serving smaller firms or particular segments of the market, and focus on services that companies may want, but do not necessarily need.

Providing services to as many companies as possible also runs counter to another central element of the mission of EDCs. A significant percentage of companies that participate in programs do not benefit appreciably from the services provided to them. EDCs waste considerable resources marketing services to companies that are not interested in changing and providing minimal services that are unlikely to result in significant performance improvements within SMEs. Change requires effort. Therefore, larger projects with preferred customers are likely to yield greater impacts.

EDCs need to strike an appropriate balance between generating revenues, achieving significant market penetration and producing positive impacts on small manufacturers in their region. The strategy and operations of all centers need to be designed so as to reconcile these interests in a manner acceptable to all stakeholders. Within this context, centers need to make critical decisions with respect to target market, service mix and the use of outside consultants. The particular strategies that each center chooses to adopt should depend on the goals and values of stakeholders, underlying market conditions and the particular financial situation that each center faces.

# Annex I

## Case Study: Natufarma SRL

### Summary

Natufarma produces medical products based on natural ingredients. The company was well managed with a network of distributors in different regions of Argentina covering the national market. It seemed that Natufarma had everything it needed to become a leader in the Argentinean market for natural healthcare products. There were, however, indications of a problem. While the overall market was expanding rapidly in Argentina, Natufarma's sales were relatively stagnant and new imported products were gaining market position. The company considered making changes to his distribution network but instead undertook a market research project with co-financing provided by the EDC Rafaela-Esperanza.

### Background

Founded 12 years ago by Hernán Fermín, Natufarma is located in Esperanza, province of Santa Fe, Argentina. Natufarma is a pharmaceutical company focusing on the production and commercialization of medicinal products of natural origin. The owner and founder started out producing healthcare products based on natural herbs and ingredients such as garlic, valerian, guaraná, fish oil, etc. Travelers began to recognize the quality of these products and regularly returned to stock up on supplies. In response, the company expanded its operations by establishing agreements with official distributors in different regions of Argentina, particularly Buenos Aires. The company also serves pharmacies through direct sales.

Approximately 95 percent of sales are in Argentina; the remaining five percent in Uruguay. The major consumers of these products are individuals with high disposable incomes—a market that has attracted other competitors such as NaturalLife

(United States), Garden House (Chile) and Top Life (Argentina). NaturalLife is currently the leader in the Argentinean market.

Natufarma currently employs 40 people in its modern factory and laboratory. The production process (extraction, concentration, grinding, drying, compression, filling and packaging) is conducted under the most rigorous standards of quality, following generally accepted good manufacturing practices (GMP) for pharmaceutical firms.

### Problem

Sales reached roughly \$2 million in 1997. However, the rate of growth of the company's sales lagged the rapid expansion in the overall market for natural healthcare products in Argentina. According to Fermín, the phenomenon that triggered the expansion of the market “was the acceptance of alternative medicine as a means for treating patients.” However, Natufarma was not prepared to exploit this new opportunity. Fermín explained, “We were aware that the market was growing and new competition was entering Argentina and taking advantage of our weak position. We realized that big changes had to be made in our organization.”

Fermín continued, “At first we thought that the problem was with our distribution channels and we were ready to change them. But then the opportunity to receive professional services through the EDC was there, so we decide to seek professional advice.”

Fermín contacted Mauricio Caussi, responsible for the EDC office in Esperanza, and explained their problem. Caussi suggested that they work with Natufarma to examine the market more closely and develop an appropriate strategy. Caussi recalled, “Hernán Fermín, did not like the idea of hiring consultants.” Nevertheless, the company

decided to undertake a project with the EDC in March 1997. The success of the first project, prompted the company to return to the EDC Rafaela-Esperanza for further assistance.

## **Services**

Natufarma received the following assistance from the EDC Rafaela-Esperanza:

**Market Research.** The objective of this project was to quantify the market and analyze Natufarma's position in terms of consumer perception and market penetration. The EDC Rafaela-Esperanza identified three consulting firms that could provide the services required by Natufarma—PERFIL, KPMG and Ordoñez. Following a series of interviews with representatives of the three companies, Natufarma selected PERFIL to carry out the work.

PERFIL conducted an analysis of Natufarma's strengths, weaknesses, opportunities and threats (SWOT analysis). This analysis highlighted the fact that large firms were interested in the market, foreign companies were already making efforts to gain market share and traditional pharmaceutical firms were planning new investments. Moreover, the study found that consumers did not recognize the brand name "Natufarma" and that the company had no identifiable image in the market. PERFIL offered three initial recommendations: change the focus of the company, reorient products to satisfy the demand and invest more in marketing. Focus groups were used in the second task to refine the recommendations. The focus groups investigated consumer perception, patterns of product uses, brands and image, and packaging. This work was carried out in Buenos Aires in August 1997.

As discussed in more detail below, the project led to a series of major changes within the firm.

## **Business Clinic—Human Resources**

Natufarma contacted the EDC in the summer of 1998 to seek additional assistance in human resource management and to prepare an action plan to improve operations. The consultant evaluated the situation and developed an action plan. Un-

fortunately, the project did not meet the company's expectations and no significant changes were made to the original plan that Natufarma had already established based on its own assessment. For example, Natufarma had already decided to incorporate a new person to directly manage the human resource department with the responsibilities of managing salaries, evaluating personnel and their needs, organizing new benefits schemes for employees, etc. The recommendations offered by the consultants did not seem to go far enough.

Despite the problems with the second project, the company has sought additional assistance from the EDC Rafaela-Esperanza and holds the organization in high regard.

## **Outcomes**

Natufarma has undertaken a series of changes based on the recommendations made by PERFIL. This includes a change in the company's image, new packaging, reorganized distribution channels, improved coverage of the Buenos Aires market and shrinkage in the number of products offered from 35 to 17.

The outcomes of the company's interaction with the EDC can be summarized as follows:

### **Changes in Capabilities and Practices:**

- ✓ Adopted new approach to formulate company strategy in relation to product lines, market and distribution channels.
- ✓ Introduced the concept of market research based on focus groups.
- ✓ Developed new approaches to publicity and promotion, including new brochures and an aggressive campaign to present its new image.
- ✓ Reduced its product line from 35 products to 17.
- ✓ Reorganized distribution channels, focusing on expanding the company's position in the Buenos Aires market.

- ✓ Introduced new after-sales customer services, including a new newsletter with information regarding natural products and answers to specific customer questions.

#### **Immediate Impacts:**

- ✓ Reduced inventories (raw materials and finished goods) as a result of reduction in product line with subsequent cost savings.
- ✓ Improved communication with customers and greater brand recognition.

#### **Changed Business Performance:**

- ✓ It is expected that the changes the company has made will lead to increased sales in 2000.

#### **Conclusions**

*EDC services can lead to substantial changes within companies.* Natufarma transformed its

business in response to the services that they received through the EDC Rafaela-Esperanza. In this case, the principal service entailed an in-depth assessment of the company's market position that resulted in a set of recommendations specific to the firm. Significantly, the project was conducted on a one-to-one basis.

*An important role of the EDC is to evaluate and select qualified consultants.* Companies such as Natufarma are hesitant to hire consultants due to their lack of experience and the generally poor reputation of many consulting firms. Said Fermín "companies such as ours are not ready to hire consultants. We need help to deal with them. Once we have the experience, we could continue our way alone." In fact, Natufarma subsequently hired PERFIL without the intervention of the EDC in order to continue their efforts to become more competitive. Natufarma has spent \$60,000 over the last three years on consultant services.

#### **Chronology**

Date	Event
February 1997	Natufarma contacts Mauricio Caussi of the EDC-Esperanza to seek help with its commercialization strategy.
March 1997	Terms of Reference (TOR) for the project is developed and approved.
April 1997	Evaluation and selection of consultants – company selects PERFIL S.A.
July 1997	Market Research – RA017 begins with PERFIL SA.
August 1997	Natufarma receives the report from PERFIL SA. Based on the recommendations Natufarma defines new product lines, makes changes in logo and company image, reorganizes distribution channels, and reengineers certain processes. These changes were completed by April 1999.
September 1998	Natufarma begins Business Clinic – Human Resources (RA-80) to evaluate their human resource management.
June 1999	An ISO 9000 quality audit is performed by Miguel Angel Segura, responsible for ISO programs at the EDC.
July 1999	Natufarma signs a new contract with the EDC (Human Resources RA-212) to develop its human resource area and train personnel. This program will end in January 2000.



## Annex II

### Case Study: DBT S.A

#### Summary

DBT S.A. had been a successful manufacturer of electrical motors for electricity generators. However, the company was interested in finding a local source of technical assistance. Explained Daniel Druetta, plant manager, “professional technical assistance can constitute a significant competitive advantage.”

Through the EDC Rafaela-Esperanza, DBT received assistance in implementing a quality system in compliance with ISO 9000, improving the workplace, reorganizing the production system and adopting a new marketing strategy targeted to new markets outside Argentina.

#### Background

DBT S.A., was founded in 1995, assuming control of the manufacturing plant of CRAMACO S.A. in the city of Sastre, Santa Fe, Argentina. CRAMACO S.A. had been manufacturing rotating electric machines of increasing complexity since 1947. Using the CRAMACO trademark, DBT currently offers a wide range of generators and electric motors for different industrial uses. Sales are divided into the following products and services: 10 percent DC motors, 70 percent AC motors for OEM of electricity generators and 20 percent repair services. DBT currently employs 60 people. Annual sales for 1999 are projected at \$4.6 million, a 14 percent drop from 1998. In 1998, exports to Brazil, Uruguay, Colombia, Taiwan and the United States accounted for 50 percent of sales. The Brazilian crisis was responsible for the significant reduction in exports.

The firm has the capacity to produce up to 2,500 motors per year. However, it is currently operating below capacity. It manufactured 1,552 units in 1998 and expects to produce 1500 units in 1999.

All parts for the motors are produced in the company, except for foundry parts that are ordered from a supplier. Manufacturing processes include drilling, milling, turning, punching and painting.

#### Problem

DBT was looking for local consulting services in several areas, particularly in quality assurance systems. In March 1997, the EDC invited representatives of the industrial community to participate in the opening ceremony for the new organization. Approximately 200 people attended, including representatives from DBT. At that time, the EDC announced that it would be offering different programs, among them, Quality Assurance ISO 9000.

#### Services

DBT has received a variety of services from the EDC, including technical assistance and staff training, as well as participating in trade missions to other countries. The following discussion focuses on technical assistance.

**Pre-certification ISO 9000 Group II.** The objective of the program is to pre-certify companies for ISO 9000. It is undertaken in three or four stages. At every stage, companies have the opportunity to decide whether or not to continue based on their evaluation of the performance of the consultant and coordinator assigned to the project. Miguel Segura—coordinator of quality services at the EDC Rafael-Esperanza—pointed out that “companies might decide to bring in new consultants or coordinators if they are not happy with their performance.” He also stated, “it takes companies several months to develop a quality system. It is really important to give companies the chance to build their quality system at their own pace.” Seven companies signed on to partici-

pate in the ISO 9000 Group II. These included Glutal, SICA, Clorindo Appo, Fimaco, RG Frenos, FACCA, and DBT. The following stages were carried out by this group:

**Program ISO 9000—Planning: (May to July 1997).** The activities undertaken during this initial phase include the selection of the consultant, diagnostics and the development of an action plan. Following a competitive bid process, Abel Antonio Gramajo (Qualitech) was selected to provide consulting services. Other consultants that bid on the project included Ubatec, Cané y Arroyo Asociados and Folgar Lusic y Asociados (KPMG). The diagnostic is used to establish the status of the company quality system. This is an important stage of the program, necessary to establish the action plan. Based on the results of the diagnostic, an action plan was prepared for the group as a whole; however, as Segura explained, “each individual company carries out the plan at its own pace.”

**Project ISO 9000—Stage I of Implementation (October 1997 to January 1998).** Two training courses are carried out during this stage: a 30-hour course to prepare the person responsible for implementation in the company, and an 8-hour course for the company’s quality committee. Following training, the company designs and documents its own quality system according to the action plan. The consultant visits the company twice each month for two to four hours, offering recommendations on how best to proceed. According to Segura, “the consultant adjusts the plan for each company according to its progress.” The coordinator visited each company every week to monitor progress and review documents.

**Project ISO 9000—Group II - Stage II of Implementation (February to August 1998).** During this stage, the company continues to develop quality manuals and document general procedures, specific procedures and registers.

**Project ISO 9000 – Group II - Stage III of implementation (September to December 1998).** At this stage, 90 percent of the necessary documentation was completed.

**Project ISO 9000 – Group II - Stage IV of implementation (January to April 1999).** This is the final stage at which final adjustment are made to the quality system, internal audits take place, corrective actions are taken, and registers are updated. DBT did not complete the program because of financial problems and decided not to seek certification at this time.

**Multiplicar II—**The Multiplicar II program focuses on helping companies implement the Japanese technique known as the 5S's to improve workplace organization. It includes seven, two-hour meetings over a five-month period. Typically, five people from the company participate in the program. The program helped DBT to improve attitudes and people's behavior toward the workplace.

**Business Clinic—Organization and Management of Production.** This project helped the companies to improve production processes through the application of the Theory of Constraints (TOC). The project began with a 2.5-day training session covering the basic concepts of TOC. Companies were asked to complete a questionnaire addressing production problems, financial situation and performance indicators (time to delivery, percentage of customer rejections, percentage of internal rejections). Based on this data, the consultant used a simulation tool to identify critical resource constraints and offered recommendations to improve the performance of the plant. Druetta explained “we already had started to make changes in our production process before starting this program. Therefore, the program helped us to assure that the work we did before was in the right direction. Also it helped to leverage knowledge among personnel, create a positive environment in our company and gave us a formal methodology to tackle problems.” María Verónica Cardoso, the EDC coordinator, remembered “it was very easy to work with DBT as they seemed to advance quickly in the implementation of recommendations. They were committed to the program.”

**Business Clinic—Marketing.** The objective of this project was to support marketing efforts by providing training in analyzing information, understanding businesses better and designing ap-

propriate strategies. As part of this effort, DBT learned about concepts such as marketing management (Kotler), competitive advantage (Porter) and the profit zone and value migration (Slywot-sky). In addition, technical assistance was provided to help companies apply these concepts within their own firms. DBT applied different techniques to formulate a new sales strategy.

### **Outcomes**

DBT has found the assistance of the EDC of great help. Druetta stated, “The center has been a real partner for the company.” Although the Brazilian crisis has hurt the company it would have been worse off without EDC assistance.

The outcomes of the company’s interaction with the EDC can be summarized as follows:

#### **Changes capabilities and practices:**

- ✓ Introduced a quality system based on ISO 9000 and adopted the 5S technique.
- ✓ Identified critical resource constraints based on TOC and reorganized production to leverage its capacity and avoid bottlenecks.
- ✓ Adopted a new approach to formulate the company strategy.
- ✓ Changed its product lines.
- ✓ Changed its distribution channels and established a new strategic relationship with its main distributor.
- ✓ Reorganized its marketing function to conduct better research on user requirements. Based on this research, DBT is currently developing a new product.
- ✓ Developed a new human resource management process and improved administration systems.

### **Immediate Impacts:**

- ✓ Reduced inventories by 40 percent.
- ✓ Reduction in scrap, rework and costs (albeit not measured).

### **Changed Business Performance:**

- ✓ Although it was not easy to directly relate the services provided by the EDC with an improvement in sales or profits for DBT, it helped to clarify the different alternatives available. The changes made allowed the company to grow even in the face of the Brazilian crisis and changed the way the company was thinking about its strategy.

### **Conclusions**

*Successful projects lead companies to undertake new projects.* DBT has undertaken eight projects with the EDC Rafaela-Esperanza over the past few years. Some of these projects, such as the ISO 9000 series, were undertaken as a logical sequence in the process of implementation. Others grew out of the experience and relationship with the organization over time.

*Success also requires a willingness and ability of the company to change.* Representatives of the company and the EDC both remarked on the commitment of the company to the process of transformation. The company was interested in improving its performance and was willing to make necessary changes in its operations. At the same time, companies have to be able to make needed investments. In this case, the company was unable to go ahead with ISO 9000 certification due to financial constraints at that time.

*In the absence of clear measures, companies find it difficult to assess the impact of the EDC on their overall performance.* DBT “felt” that improvements had occurred, but found it difficult to quantify impacts. It is important that the EDC find a way to measure benefits generated by different types of projects.

### Chronology

Date	Event
April 1997	DBT contacts the EDC to learn more about available programs. The EDC recommends Multiplicar II, but DBT decides to begin with ISO 9000.
August 1997	Program ISO 9000—Group 2—(RA-008). Initial diagnostic and preparation of action plan.
September 1997	Company begins its participation in Multiplicar II—(RA-022) which ends in February 1998.
October 1997	Program ISO 9000- Group 2—(RA-028). Second stage of pre-certification program.
May 1998	Quality Assurance ISO 9000—Group 2—(RA-060). Third stage of pre-certification program.
June 1998	Business Clinic—Organization and Management of Production (RA-073).
September 1998	Business Clinic—Marketing (RA-078).
September 1998	Quality Assurance ISO 9000 – Group 2 (RA-121) Fourth stage of pre-certification program.
January 1999	Quality Assurance ISO 9000—Group 2—(RA151). Final stage of pre-certification program begins. Brazilian crisis does not allow DBT to continue with the program.
May 1999	DBT participates in the commercial mission to Chile organized by the EDC.
September 1999	DBT asks the EDC to carry out an internal audit of its quality system. Consultant Ramon Arroyo carries out the work and declares that DBT is ready for pre-certification ISO 9000.